PROFI PLUS by BOHRCRAFT

PREMIUM INDUSTRIE-QUALITÄT

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PROFI PLUS by BOHRCRAFT
PREMIUM INDUSTRIE-QUALITÄT

Qualità premium per lavorazioni meccaniche di alta precisione
Il nostro marchio di utensili da taglio al massimo livello qualitativo

Premium quality for high precision machining
Our brand for cutting tools with highest quality-level

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Qualità industriale per lavorazioni di precisione
Utensili da taglio per elevate esigenze operative e lunga durata

Industrial quality for precise machining
Cutting tools for high operational demands and long tool life

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BOC BOHRCRAFT

Qualità robusta per l'industria e l'artigianato
Qualità affidabile per le normali esigenze operative

Robust quality for industry and craft
The reliable quality for normal operational demands

24 ÷ 103 
PROFI PLUS · PROFI BASIC · BOC
Punte elicoidali / Twist drills



104 ÷ 111 
PROFI PLUS
Punte elicoidali in metallo duro / TC Twist drills



112 ÷ 133 
PROFI PLUS
Frese a candela HSS-E · HSS-E PM / End mills HSS-E · HSS-E PM




134 ÷ 149 
PROFI PLUS
Frese in metallo duro integrale / Solid carbide end mills

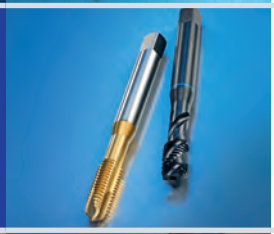



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PROFI PLUS
Frese a carotare · Frese a tazza / Core drills · TCT-Hole saws




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PROFI BASIC
Alesatori / Reamers

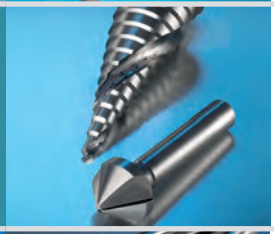


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PROFI PLUS · BOC
Utensili da taglio a filettare / Thread cutting tools




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PROFI PLUS
Filetti per riparazioni / Thread repair




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PROFI PLUS · PROFI BASIC · BOC
Svasatori · Punte a gradino / Countersinks · Step drills




284 ÷ 289 
BOC
Frese rotative HSS / Rotary burrs HSS

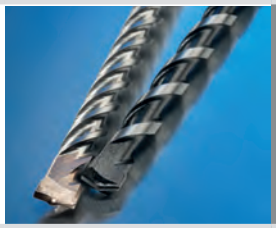



Frese rotative TC / Rotary burrs TC



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Punte da muro / Masonry · Concrete drill bits



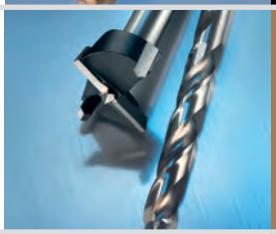
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Utensili diamantati / Diamond tools



334 ÷ 339

Punte per legno / Wood drill bits



340 ÷ 353

Seghe a tazza / Hole saws



354 ÷ 363

Lame per seghetti / Saw blades



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Punzonatori / Screw-hole punch



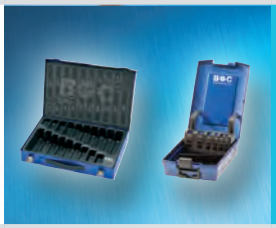
380 ÷ 383

Inserti & accessori / Screwdriver-bits & accessories



384 ÷ 403

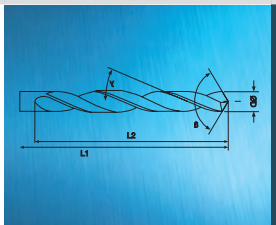
Cassette ed espositori da banco vuoti / Empty boxes · Drill cabinets



404 ÷ 409

Informazioni tecniche / Technical information

Raccomandazioni applicative, tabelle di conversione, tabella di confronto delle durezze
Application recommendation, conversion tables, hardness comparison table



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	DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Punte elicoidali / Twist drills						
	338	HSS-R	N	Punte elicoidali **laminate** cilindriche + codolo ridotto Twist drills **roll forged**, straight + reduced	1100 1109	34 ÷ 38
	338	HSS-G	N	Punte elicoidali **rettificate** cilindriche + codolo ridotto Twist drills **fully ground**, straight + reduced	1120 1110	39 ÷ 43
	338	HSS-TiN	N	Punte elicoidali con **rivestimento TiN**, split point Twist drills **TiN-coated**, split point	1130	44
	338	HSS-G	N	Punte elicoidali **rettificate** cilindriche + codolo ridotto Twist drills **fully ground**, straight + reduced	1121 1121-red.	45 ÷ 47
	338	HSS-G	N	Punte elicoidali **rettificate**, finitura "black oxide" Twist drills **fully ground**, black oxide finish	1119	45 – 46
	338	HSS-G	N	Punte elicoidali **rettificate** cilindriche + codolo ridotto Twist drills **fully ground**, straight + reduced	1122 1122-red.	48 ÷ 50
	338	HSS-TiN	N	Punte elicoidali con **rivestimento TiN**, split point Twist drills **TiN-coated**, split point	1123	48 – 49
	338	HSS-TiN	N-TP	Punte elicoidali **TiN-Point**, split point Twist drills **TiN-Point**, split point	1124	51 – 52
	338	HSS-G	LN	Punte elicoidali **rettificate** cilindriche **SINISTRE**, split point Twist drills **LEFT fully ground**, split point	1129	53
	338	HSS-G	TURBO	Punte elicoidali **rettificate** cilindriche, con punta di centraggio Twist drills **fully ground**, with centering-tip	1201	54 – 55
	338	HSS-G	TURBO STEP	Punte elicoidali **rettificate** cilindriche, con geometria a gradino Twist drills **fully ground**, with step geometry	1202	56 – 57
	1897	HSS-G	TURBO STEP	Punte elicoidali **rettificate** cilindriche, con geometria a gradino, codolo ridotto Twist drills **fully ground**, with step geometry, reduced shank	1204	58
	338	HSS-G	W	Punte elicoidali **rettificate** cilindriche per **ALLUMINIO** Twist drills **fully ground** for **ALUMINIUM**	1127	60
	338	HSS-G	H	Punte elicoidali **rettificate** cilindriche per **OTTONE** Twist drills **fully ground** for **BRASS**	1128	61
	338	HSS-G	HK	Punte elicoidali **rettificate** cilindriche per **MATERIALE SINTETICO** Twist drills **fully ground** for **SYNTHETIC MATERIALS**	1131	62
	338	HSS-E Co5	N	Punte elicoidali in **lega di cobalto**, cilindriche + codolo ridotto Twist drills **cobalt alloyed**, straight + reduced	1140 1140-red.	63 ÷ 66
	338	HSS-E Co5	TURBO STEP INOX	Punte elicoidali in **lega di cobalto**, con geometria a gradino Twist drills **cobalt alloyed**, with step geometry	1203	67
	338	HSS-E Co5	VA/Ti	Punte elicoidali in **lega di cobalto**, split point Twist drills **cobalt alloyed**, split point	1141	68 – 69

	DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Punte elicoidali / Twist drills						
	338	HSS-E Co5	VA/Ti	Punte elicoidali in **lega di cobalto rivestimento-TiALN**, split point Twist drills **cobalt alloyed, TiALN-coated**, split point	1143	**68 – 69**
	338	HSS-E Co5	U-TL	Punte multigrado in **lega di cobalto**, split point Multigrade drills **cobalt alloyed**, split point	1142	**70 – 71**
	338	HSS-E Co5	U-TL	Punte multigrado in **lega di cobalto**, **rivestimento-TiALN**, split point Multigrade drills **cobalt alloyed, TiALN-coated**, split point	1144	**70 – 71**
	338	HSS-E Co5	N-Z3	Punte elicoidali in **lega di cobalto**, con 3 taglienti Twist drills **cobalt alloyed**, with 3 cutting edges	1149	**72 – 73**
	338	HSS-E Co8	N-HD	Punte elicoidali in **lega di cobalto**, split point Twist drills **cobalt alloyed**, split point	1147	**74 – 75**
	338	HSS-E Co8	N-HD	Punte elicoidali in **lega di cobalto**, **rivestimento-TiALN**, split point Twist drills **cobalt alloyed, TiALN-coated**, split point	1148	**74 – 75**
	338	HSS-E Co8	HDX	Punte elicoidali in **lega di cobalto**, per **HARDOX** Twist drills **cobalt alloyed**, for **HARDOX**	1508	**76 – 77**
	338	VHM SC	N	Punte elicoidali in **metallo duro**, **rivestimento TiALN** **Solid carbide** twist drills **TiALN-coated**	1502	**106 – 107**
Punte elicoidali lunghe / Twist drills long						
	340	HSS-R	N	Punte elicoidali **laminate**, lunghe Twist drills **roll forged**, long	1340	**78**
	340	HSS-G	N	Punte elicoidali **rettificate**, lunghe, split point Twist drills **fully ground**, long, split point	1350	**79**
	340	HSS-G	N	Punte elicoidali **rettificate**, lunghe, split point Twist drills **fully ground**, long, split point	1353	**80**
	340	HSS-E Co5	N	Punte elicoidali in **lega di cobalto**, lunghe, split point Twist drills **cobalt alloyed**, long, split point	1360	**81**
	340	HSS-E Co5	N	Punte elicoidali in **lega di cobalto**, lunghe, **rivestimento TiN**, split point Twist drills **cobalt alloyed**, long, **TiN-coated**, split point	1361	**81**
	340	HSS-E Co5	U-TL	Punte multigrado in **lega di cobalto**, lunghe, split point Multigrade drills **cobalt alloyed**, long, split point	1362	**82**
Punte elicoidali extra lunghe / Twist drills extra long						
	1869	HSS-G	N	Punte elicoidali **rettificate**, extra lunghe, split point Twist drills **fully ground**, extra long, split point	1400	**83**

	DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Punte elicoidali extra lunghe / Twist drills extra long						
	1869	HSS-G	U-TL	Punte multigrado **rettificate**, extra lunghe, split point Multigrade drills **fully ground**, extra long, split point	1410	84
	1869	HSS-E Co5	U-TL	Punte multigrado in **lega di cobalto**, extra lunghe, split point Multigrade drills **cobalt alloyed**, extra long, split point	1420	85
	BC Norm	HSS-G	N	Punte elicoidali per profili cavi, **rettificate**, split point Twist drills for hollow profiles, **fully ground**, split point	1440	86
Punte elicoidali extra corte / Twist drills extra short						
		HSS-G		Punte elicoidali **rettificate**, codolo esagonale ¼" Twist drill bits **fully ground**, ¼" hex-shank	1104	87
	BC Norm	HSS-G	N	Punte serie extra corta **rettificate**, split point Rivet Drills **fully ground**, extra short, split point	1200	88
	1897	HSS-G	N	Punte elicoidali **rettificate**, extra corte, split point Twist drills **fully ground**, extra short, split point	1250	89
	1897	HSS-G	N	Punte elicoidali **rettificate**, extra corte, split point Twist drills **fully ground**, extra short, split point	1255	90
	1897	HSS-E Co5	N	Punte elicoidali in **lega di cobalto**, extra corte, split point Twist drills **cobalt alloyed**, extra short, split point	1260	91
	1897	HSS-E Co5	N	Punte elicoidali in **lega di cobalto**, extra corte, split point Twist drills **cobalt alloyed**, extra short, split point	1265	92
	1897	HSS-E Co5	N	Punte elicoidali in **lega di cobalto**, extra corte, **rivestimento TiN**, split point Twist drills **cobalt alloyed**, extra short, **TiN-coated**, split point	1266	92
	8037	HSS HM TCT	N	Punte elicoidali, con punta in **metallo duro** Twist Drills, **carbide tipped**	1500	110
	6539	VHM SC	N	Punte elicoidali in **metallo duro** extra corte, **rivestimento TiALN** **Solid carbide** twist drills, extra short, **TiALN-coated**	1504	108 – 109
Punte a centrare / Centre drills						
	333 A	HSS-G	60°	Punte a centrare forma A Centre drills type A	1600	93

		DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Punte a doppio tagliente / Double ended drills							
BOC		BC Norm	HSS-G	N	Punte a doppio tagliente **rettificate**, split point Double ended drills **fully ground,** split point	1300	**94**
PROFIL PLUS		BC Norm	HSS-G	N	Punte a doppio tagliente **rettificate**, split point Double ended drills **fully ground,** split point	1301	**95**
PROFIL PLUS		BC Norm	HSS-E Co5	N	Punte a doppio tagliente in **lega di cobalto**, split point Double ended drills **cobalt alloyed,** split point	1310	**95**
Punte elicoidali codolo conico / Taper shank twist drills							
BOC		345	HSS	N	Punte elicoidali codolo conico Taper shank drills	1450	**96 – 97**
PROFIL PLUS		345	HSS-G	N	Punte elicoidali codolo conico **fresate** Taper shank drills **milled**	1451	**98 – 99**
PROFIL PLUS		345	HSS-E Co5	N	Punte elicoidali codolo conico in **lega di cobalto** Taper shank drills **cobalt alloyed**	1470	**100**
PROFIL PLUS		341	HSS-G	N	Punte elicoidali codolo conico **fresate**, lunghe Taper shank drills **milled,** long	1455	**101**
Punte per saldatura a punti e frese / Spot weld drills and milling cutters							
PROFIL PLUS		DIN 1897	HSS-E Co5	N	Punte per saldatura a punti Spot weld drills	1801	**102**
PROFIL PLUS		DIN 1897	HSS-E Co5	N	Punte saldatura a punti, **rivestimento TiN** Spot weld drills, **TiN-coated**	1802	**102**
PROFIL PLUS		DIN 1897	HSS-E Co5	N	Punte per saldatura a punti, **rivestimento TiALN** Spot weld drills, **TiALN-coated**	1803	**102**
PROFIL PLUS		BC Norm	VHM SC		Punte per saldatura a punti in metallo duro integrale con 3 taglienti, **rivestimento TiALN** **Solid carbide** spot weld drill with 3 cutting edges, **TiALN-coated**	1807	**103 - 111**
PROFIL PLUS		BC Norm	HSS-E Co5		Punte per saldatura a punti per Spotle T575 e Vario WS90 Spot weld drills for Spotle T575 and Vario WS90	1810	**102**
PROFIL PLUS		BC Norm	HSS-E Co5		Punte per saldatura a punti **rivestimento TiN**, per Spotle T575 e Vario WS90 Spot weld drills **TiN-coated** for Spotle T575 and Vario WS90	1811	**102**
PROFIL PLUS		BC Norm	HSS-E Co5		Punte per saldatura a punti **rivestimento TiALN**, per Spotle T575 e Vario WS90 Spot weld drills **TiALN-coated** for Spotle T575 and Vario WS90	1812	**102**
PROFIL PLUS		BC Norm	VHM SC		Punte per saldatura a punti in **metallo duro** integrale con 3 taglienti, per Vario WS 90, **rivestimento TiALN** **Solid carbide** spot weld drill with 3 cutting edges for Vario WS 90, **TiALN-coated**	1806	**103 - 111**
PROFIL PLUS		BC Norm	HSS		Frese per saldatura a punti e parti di ricambio Spot-Weld milling cutters and spare parts	1805	**102**

		DIN	Qualità Quality	Tipo Type	Versione Version	Scanalature Flutes	Attacco Shank	Descrizione Description	Code	Pagina Page
Frese HSS-E / End mills HSS-E										
		-	HSS-E Co5	W	corto short	1	DIN 1835 A	Frese a singola elica Single fluted end mills	5345	118
		-	HSS-E Co5	W	lungo long	1	DIN 1835 A	Frese a singola elica Single fluted end mills	5350	119
		844	HSS-E Co8	W	corto short	2	DIN 1835 B	Frese per scanalature Slot end mills	5355	120
		844	HSS-E Co8	W	corto short	3	DIN 1835 B	Frese per scanalature Slot end mills	5365	121
		327	HSS-E Co8	N	corto short	2	DIN 1835 B	Frese per scanalature Slot end mills	5300	122 – 123
		327	HSS-E Co8	N	corto short	2	DIN 1835 B	Frese per scanalature, **TiALN** Slot end mills, **TiALN**	5301	122 – 123
		-	HSS-E Co8	N	lungo long	2	DIN 1835 B	Frese per scanalature Slot end mills	5305	124
		-	HSS-E Co8	N	lungo long	2	DIN 1835 B	Frese per scanalature, **TiALN** Slot end mills, **TiALN**	5306	124
		327	HSS-E Co8	N	corto short	3	DIN 1835 B	Frese per scanalature Slot end mills	5310	125
		327	HSS-E Co8	N	corto short	3	DIN 1835 B	Frese per scanalature, **TiALN** Slot end mills, **TiALN**	5311	125
		844	HSS-E Co8	NR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura Roughing end mills	5325	126
		844	HSS-E Co8	NR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura, **TiALN** Roughing end mills, **TiALN**	5326	126
		844	HSS-E Co8	NR	lungo long	4 – 6	DIN 1835 B	Frese per sgrossatura Roughing end mills	5330	127
		844	HSS-E Co8	NR	lungo long	4 – 6	DIN 1835 B	Frese per sgrossatura, **TiALN** Roughing end mills, **TiALN**	5331	127
		844	HSS-E Co8	HR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura Roughing end mills	5335	128
		844	HSS-E Co8	HR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura, **TiALN** Roughing end mills, **TiALN**	5336	128
		844	HSS-E Co8	N	corto short	4 – 6	DIN 1835 B	Frese per finitura Finishing end mills	5315	129
		844	HSS-E Co8	N	corto short	4 – 6	DIN 1835 B	Frese per finitura, **TiALN** Finishing end mills, **TiALN**	5316	129
		844	HSS-E Co8	N	lungo long	4 – 6	DIN 1835 B	Frese per finitura Finishing end mills	5320	130
		844	HSS-E Co8	N	lungo long	4 – 6	DIN 1835 B	Frese per finitura, **TiALN** Finishing end mills, **TiALN**	5321	130

		DIN	Qualità Quality	Tipop Type	Versione Version	Scanalature Flutes	Attacco Shank	Descrizione Description	Code	Pagina Page
Frese HSS-E PM / End mills HSS-E PM										
		844	HSS-E PM	HR	corto short	4 – 5	DIN 1835 B	Frese per sgrossatura, **AlTiN** Roughing end mills, **AlTiN**	5435	131
		844	HSS-E PM	N	corto short	4 – 5	DIN 1835 B	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5415	132
		844	HSS-E PM	N	lungo long	4 – 5	DIN 1835 B	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5420	133
Frese a candela in metallo duro integrale / Solid carbide end mills										
		-	VHM SC	W	corto short	1	DIN 6535 HA	Frese a singola elica Single fluted end mills	5500	138
		-	VHM SC	W	corto short	2	DIN 6535 HA/HB	Frese per scanalature Slot end mills	5505 5506	139
		~ 6527 L	VHM SC	W	lungo long	3	DIN 6535 HA/HB	Frese per scanalature Slot end mills	5510 5511	140
		~ 6527 L	VHM SC	N	corto short	2	DIN 6535 HA/HB	Frese per scanalature, **AlTiN** Slot end mills, **AlTiN**	5515 5516	141
		~ 6527 L	VHM SC	N	lungo long	3	DIN 6535 HA/HB	Frese per scanalature, **AlTiN** Slot end mills, **AlTiN**	5520 5521	142
		~ 6527 L	VHM SC	N	lungo long	4	DIN 6535 HA/HB	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5525 5526	143
		~ 6527 L	VHM SC	N	extra lungo / long	4	DIN 6535 HA/HB	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5530 5531	144
		6527 L	VHM SC	HPC	lungo long	4	DIN 6535 HA/HB	Frese HPC, **AlTiN** HPC end mills, **AlTiN**	5535 5536	145
		~ 6527 L	VHM SC	NH	lungo long	6	DIN 6535 HA/HB	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5540 5541	146
		~ 6527 L	VHM SC	HRf	lungo long	3 – 5	DIN 6535 HA/HB	Frese per sgrossatura, **AlTiN** Roughing end mills, **AlTiN**	5545 5546	147
		~ 6527 L	VHM SC	N	lungo long	2	DIN 6535 HA	Frese a testa raggiata, **AlTiN** Ball nose end mills, **AlTiN**	5550	148
		-	VHM SC	N	lungo long	4	DIN 6535 HA	Frese sbavatrici, **TiALN** Deburring end mills, **TiALN**	5555	149

		Qualità Quality	Descrizione Description	Code	Pagina Page
Frese a carotare + accessori / Core drills + accessories					
		HSS	Frese a carotare con attacco Weldon di profondità da 30 e 55 mm Core drills with weldon shank 30 and 55 mm cutting depth	1950	153
		HSS-E Co	Frese a carotare con attacco Weldon di profondità da 30 e 55 mm Core drills with weldon shank 30 and 55 mm cutting depth	1951	154
		HM TCT	Frese a carotare TCT con attacco Weldon di profondità da 35 e 55 mm Core drills TCT with weldon shank 35 and 55 mm cutting depth	1952	155

		Qualità Quality	Descrizione Description	Code	Pagina Page
Frese + accessori / Core drills + accessories					
		-	Accessori per frese Accessories for core drills	1955 1956 1957	**156**
Frese a carotare TCT / TCT-Hole saws					
		HM TCT	Frese a carotare multigrado TCT + accessori Multigrade hole saws TCT + accessories	1920 1925	**157**

		DIN	Qualità Quality	Forma Form	Descrizione Description	Code	Pagina Page
Alesatori / Reamers							
		206	HSS	B	Alesatori a mano Hand reamers	1670	**161**
		9	HSS	B	Alesatori a mano conici Taper hand reamers	1671	**162**
		311	HSS		Alesatori conici per carpenteria Taper shank bridge reamers	1672	**163**
		212	HSS-E Co5	B/D	Alesatori a macchina Machine reamers	1673	**164**
		212	HSS-E Co5	C	Alesatori a macchina NC NC Machine reamers	1674	**165**
		208	HSS-E Co5	B	Alesatori conici a macchina Taper shank machine reamers	1675	**166**

		Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
Maschi a mano / Hand taps							
		M	-	HSS-G	352	4100	**178 – 179**
		M	-	HSS-E VAP	352	4110	**180**
		M (LH) sinistro / left	-	HSS-G	352	4109	**181**
		MF	-	HSS-G	2181	4101	**214 – 215**
		G (BSP)	-	HSS-G	5157	4102	**222**
		BSW	-	HSS-G	~ 352	4103	**228**
		UNC	-	HSS-G	~ 352	4104	**231**
		UNF	-	HSS-G	~ 2181	4105	**235**

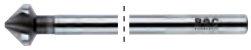
		Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
Filiere tonde / Circular dies							
B&C		M	B	HSS-G	EN 22568	4200 4201 (25x9)	**182 – 183**
PROFILO PLUS		M	B	HSS-E VAP	EN 22568	4210	**184**
B&C		M (LH) sinistro / left	B	HSS-G	EN 22568	4209	**185**
B&C		MF	B	HSS-G	EN 22568	4202	**216 – 217**
B&C		G (BSP)	B	HSS-G	EN 24231	4203	**223**
B&C		BSW	B	HSS-G	EN 22568	4205	**229**
B&C		UNC	B	HSS-G	EN 22568	4206	**232**
B&C		UNF	B	HSS-G	EN 22568	4207	**236**
Dadi maschianti / Hexagon die nuts							
B&C		M	-	HSS-G	382	4204	**186**
B&C		G (BSP)	-	HSS-G	382	4208	**224**
Maschi a macchina / Machine taps							
B&C		M	B	HSS-G	371/376	4140, 4141	**192 – 193**
B&C		M	C RSP 35° C SFT 35°	HSS-G	371/376	4150, 4151	**192 – 193**
B&C		M	B	HSS-E	371/376	4142, 4143	**194 – 195**
B&C		M	C RSP 35° C SFT 35°	HSS-E	371/376	4152, 4153	**196 – 197**
B&C		M	B	HSS-E TiN	371/376	4147, 4148	**194 – 195**
B&C		M	C RSP 35° C SFT 35°	HSS-E TiN	371/376	4157, 4158	**196 – 197**
B&C		M (XL)	B	HSS-E	371/376	4161	**207**
B&C		M (XL)	C RSP 35° C SFT 35°	HSS-E	371/376	4162	**207**
B&C		M (LH) sinistro / left	C	HSS-E	371/376	4159	**208**
B&C		MF	B	HSS-E	374	4165	**219**
B&C		MF	C RSP 35° C SFT 35°	HSS-E	374	4166	**219**
B&C		G (BSP)	B	HSS-E	5156	4175	**226**
B&C		G (BSP)	C RSP 35° C SFT 35°	HSS-E	5156	4176	**226**
B&C		UNC	B	HSS-E	~ 371/376	4196	**234**
B&C		UNC	C RSP 35° C SFT 35°	HSS-E	~ 371/376	4197	**234**
B&C		UNF	B	HSS-E	~ 371/376	4198	**238**

		Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
Maschi a macchina / Machine taps							
BOC		UNF	C RSP 35° C SFT 35°	HSS-E	~ 371/376	4199	238
BOC		M	-	HSS-E	-	4172	209
PROFIL PLUS	 ○	M	B	HSS-E PM	371/376	4169, 4170	200
PROFIL PLUS	 ○	M	C RSP 40° C SFT 40°	HSS-E PM	371/376	4179, 4180	200
PROFIL PLUS	 ○	M	B	HSS-E	371/376	4163, 4164	198
PROFIL PLUS	 ○	M	C RSP 40° C SFT 40°	HSS-E	371/376	4167, 4168	199
PROFIL PLUS		M	B	HSS-E TiN	371/376	4183, 4184	198
PROFIL PLUS		M	C RSP 40° C SFT 40°	HSS-E TiN	371/376	4187, 4188	199
PROFIL PLUS		M	B	HSS-E TiALN	371/376	4181, 4182	198
PROFIL PLUS		M	C RSP 40° C SFT 40°	HSS-E TiALN	371/376	4185, 4186	199
PROFIL PLUS	 ○	MF	C	HSS-E	374	4139	220
PROFIL PLUS	 ○	G	C	HSS-E	5156	4247	227
PROFIL PLUS	 ○	M	B	HSS-E	371/376	4173, 4174	202
PROFIL PLUS	 ○	M	C RSP 40° C SFT 40°	HSS-E	371/376	4177, 4178	203
PROFIL PLUS		M	B	HSS-E TiALN	371/376	4189, 4190	202
PROFIL PLUS		M	C RSP 40° C SFT 40°	HSS-E TiALN	371/376	4191, 4192	203
PROFIL PLUS	 ○	M	B	HSS-E VAP	371/376	4144, 4145	201
PROFIL PLUS	 ○	M	C RSP 40° C SFT 40°	HSS-E VAP	371/376	4154, 4155	201
PROFIL PLUS	 ○	MF	B	HSS-E VAP	374	4146	221
PROFIL PLUS	 ○	MF	C RSP 40° C SFT 40°	HSS-E VAP	374	4156	221
PROFIL PLUS	 ◎	M	C	HSS-E TiCN	371/376	4193	206
PROFIL PLUS	 ○	M	C RSP 45° C SFT 45°	HSS-E	371/376	4149	204
PROFIL PLUS		M	B-AZ	HSS-E	371/376	4240, 4241	205
Maschi a rullare / Forming/Fluteless taps							
PROFIL PLUS		M	D	HSS-E TiN	371/376	4243	212
PROFIL PLUS		M	C	HSS-E TiN	371/376	4245	213
Maschi a macchina corti / Short machine taps							
BOC		M	B	HSS-G	352	4120	187
BOC		M	B	HSS-E	352	4125	188
BOC		M	C	HSS-G	352	4121	189
PROFIL PLUS		M	C	HSS-E VAP	352	4111	190
BOC		M (LH) sinistro / left	C	HSS-G	352	4129	191
BOC		MF	C	HSS-G	2181	4131	218
BOC		G (BSP)	C	HSS-G	5157	4132	225
BOC		BSW	C	HSS-G	~ 352	4133	230

	Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
Maschi a macchina corti / Short machine taps						
	UNC	C	HSS-G	~ 352	4134	**233**
	UNF	C	HSS-G	~ 2181	4135	**237**
	NPT	C	HSS-G	BC Norm	4136	**239**
	PG	C	HSS-G	40432	4130	**240**
	M	C	HSS-G	-	4171	**210**
Maschi a macchina per dadi / Machine nut taps						
	M	-	HSS-G	357	4160	**211**
Giramaschi regolabili / Adjustable tap wrenches						
				1814	4300	**242**
Porta filiere tonde / Die stocks						
				225	4400	**242**
Giramaschi a cricchetto / Tap wrenches with ratchet						
				BC Norm	4302	**243**
Bussole di estensione / Extension sleeves						
				377	4500	**243**
Lime per ripristino filettature / Thread restoring files						
				-	4501	**241**
Estrattori di viti / Screw extractors						
			CV	-	9700	**244**

	Filetto Thread	Descrizione Description	Code	Pagina Page
Filetti riportati per riparazioni / Thread repair				
	M	Inserti filettati Thread inserts	4600 ÷ 4604	**248**
	MF	Inserti filettati Thread inserts	4610 ÷ 4614	**248**
	MF (CANDELE / SPARK PLUG)	Inserti filettati per candele Thread inserts for spark plug thread	4615	**249**
	M, MF	Kit Filetti riportati per riparazioni Thread repair sets	4601 4611 4615	**250 ÷ 253**
	M, MF, UNC, UNF, BSW	Utensili di montaggio Fitting-tools	4700	**254**
	M, MF, UNC, UNF, BSW	Pin estrattore Pin-breaker	4701	**255**

		Filetto Thread	Descrizione Description	Code	Pagina Page
Filetti riportati per riparazioni / Thread repair					
PROFILINE PLUS		M, MF	Maschi a macchina corti STI STI short machine taps	4800 4801	256
PROFILINE PLUS		MF (CANDELE / SPARK PLUG)	Maschio a mano combinato STI STI combined-thread tap	4802	257
Punte elicoidali / Twist drills					
PROFILINE BASIC			Punte elicoidali **rettificate**, cilindriche + codolo ridotto Twist drills **fully ground**, straight + reduced	1121 1121-red.	257

		DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Svasatori / Countersinks							
PROFILINE PLUS		335 C	HSS AlCro	90°	Svasatori, con PASSO DISUGUALE Countersinks, UNEQUAL PITCH	1730 1731	264
PROFILINE PLUS		335 C	HSS-E blue+	90°	Svasatori, con PASSO DISUGUALE Countersinks, UNEQUAL PITCH	1732 1733	265
PROFILINE PLUS		335 C	VHM/SC blue+	90°	Svasatori, con PASSO DISUGUALE Countersinks, UNEQUAL PITCH	1715 1719	266
PROFILINE BASIC		335 C	HSS-E PM	90°	Svasatori ricavati da **polveri sinterizzate** Countersinks **powder metal**	1714	267
PROFILINE BASIC		335 C	HSS TiN TiALN	90°	Svasatori Countersinks	1700 1701 1702	268
PROFILINE BASIC		335 C	HSS-E Co5	90°	Svasatori in **lega di cobalto** Countersinks **cobalt alloyed**	1710	269
PROFILINE BASIC		335 C	HSS	90°	Svasatori, lunghi / extra lunghi Countersinks, long / extra long version	1703-L 1703-EL	270
BC		BC Norm	HSS	90°	Svasatori con codolo esagonale ¼" Countersinks, ¼" hex-shank	1705	271
BC			HSS	90°	Sbavatori a mano Hand deburring tools	1820	271
PROFILINE BASIC		335 D	HSS	90°	Svasatori con codolo conico Countersinks with taper shank	1704	272
PROFILINE BASIC		334 C	HSS	60°	Svasatori Countersinks	1700-60	272
PROFILINE BASIC		BC Norm	HSS	75°	Svasatori Countersinks	1700-75	273
PROFILINE BASIC		BC Norm	HSS	120°	Svasatori Countersinks	1700-120	273
BC		BC Norm	HSS TiN	90°	Svasatori a foro trasversale Countersinks with cross hole	1720 1721	274
BC		373	HSS TiN	180°	Svasatori per sedi viti Flat countersinks	1706 ÷ 1718	275
Punte a passo multiplo / Subland drills							
BC		8374 8376	HSS-G	90° 180°	Punte a passo multiplo Subland drills	1625 1626	276

	DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Punte a gradino / Step drills						
	BC Norm	HSS TiN blue+		Punte a gradino **con scanalature elicoidali** Step drills **with spiral flute**	1763 1764 1767	**278**
	BC Norm	HSS-E Co5 blue+		Punte a gradino in **lega di cobalto, con scanalature elicoidali** Step drills **cobalt alloyed, with spiral flute**	1765 1766	**279**
	BC Norm	HSS TiN TiALN		Punte a gradino Step drills	1760 1761 1762	**280**
	BC Norm	HSS		Punte a gradino **con scanalature elicoidali, codolo esagonale** ¼" Step drills **with spiral flute, ¼" hex-shank**	1760-1/4"	**281**
Svasatori per lamiera / Sheet metal drills						
	BC Norm	HSS TiN TiALN		Svasatori per lamiera Sheet metal drills	1740 1741 1742	**282**
	BC Norm	HSS-E Co5		Svasatori per lamiera in **lega di colbalto** Sheet metal drills **cobalt alloyed**	1743	**283**
	BC Norm	HSS TiN		Svasatori per lamiera con fermo di profondità Sheet metal drills with backstop	1740-A 1741-A	**283**

		DIN	Qualità Quality	Forma Shape	Descrizione Description	Code	Pagina Page
Frese rotative HSS / HSS Rotary burrs							
BOC		BC Norm	HSS	B ZYAS	Frese rotative cilindriche con taglio frontale Rotary burrs cylinder with endcut	5205	286
BOC		BC Norm	HSS	C WRC	Frese rotative cilindriche sferiche Rotary burrs ball nosed cylinder	5210	286
BOC		BC Norm	HSS	D KUD	Frese rotative con testa a sfera Rotary burrs ball	5215	287
BOC		BC Norm	HSS	G SPG	Frese rotative a ogiva Rotary burrs pointed tree	5230	287
BOC		BC Norm	HSS	L KEL	Frese rotative con punta arrotondata Rotary burrs ball nosed cone	5250	288
BOC		BC Norm	HSS	M SKM	Frese rotative a cono Rotary burrs cone	5255	288
BOC					Serie Sets	5902	289
Frese rotative TC / TC Rotary burrs							
BOC		8033*	HM TC	A ZYA	Frese rotative cilindriche Rotary burrs cylinder	5100, 5102 5103, 5104	294
BOC		8033*	HM TC	B ZYAS	Frese rotative cilindriche con taglio frontale Rotary burrs cylinder with endcut	5105, 5107 5108, 5109	295
BOC		8033*	HM TC	C WRC	Frese rotative cilindriche sferiche Rotary burrs ball nosed cylinder	5110, 5112 5113, 5114	296
BOC		8033*	HM TC	D KUD	Frese rotative con testa a sfera Rotary burrs ball	5115, 5117 5118, 5119	297
BOC		8033*	HM TC	E TRE	Frese rotative ovali Rotary burrs oval	5120 5121 **TiALN** 5124	298
BOC		8033*	HM TC	F RBF	Frese rotative ad albero Rotary burrs ball nosed tree	5125, 5127 5128, 5129	299
BOC		8033*	HM TC	G SPG	Frese rotative a ogiva Rotary burrs pointed tree	5130, 5133 5134	300
BOC		8033*	HM TC	H FLH	Frese rotative a fiamma Rotary burrs flame	5135 5136 **TiALN**	301
BOC		8033*	HM TC	J KSJ	Frese rotative a svasare 60° Rotary burrs countersink 60°	5140 5141 **TiALN**	301

		DIN	Qualità Quality	Forma Shape	Descrizione Description	Code	Pagina Page
Frese Rotative TC / TC Rotary burrs							
B&C		8033*	HM TC	K KSK	Frese rotative a svasare 90° Rotary burrs countersink 90°	5145 5146 **TiALN**	**302**
B&C		8033*	HM TC	L KEL	Frese rotative con punta arrotondata Rotary burrs ball nosed cone	5150, 5153 5154	**303**
B&C		8033*	HM TC	M SKM	Frese rotative a cono Rotary burrs cone	5155 5156 **TiALN** 5159	**302**
B&C		8033*	HM TC	N WKN	Frese rotative a cono rovesciato Rotary burrs inverted cone	5160 5161 **TiALN**	**304**
B&C		BC Norm	HM TC	RX	Frese rotative a raggio Rotary burr radius	5170	**304**
B&C		8033*	HM TC		Mini frese rotative, attacco 3 mm Miniature carbide rotary burrs, shank 3 mm	5100 ÷ 5160	**305**
B&C		8033*	HM TC		Frese rotative, attacco 8 mm Rotary burrs, shank 8 mm	5100 ÷ 5151	**306**
B&C		8033*	HM TC		Frese rotative, **extra lunghe**, attacco 6 mm Rotary burrs, **extra long**, shank 6 mm	5100 ÷ 5151	**307**
B&C					Serie + display Sets + display	5900 ÷ 5905	**308**
B&C					Serie + display Sets + display	5105 ÷ 5151	**309**

* Frese rotative simili a DIN 8033 / * Rotary burrs similar to DIN 8033

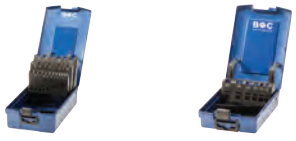
	Tipo Type	Descrizione Description	Code	Pagina Page
Punte per foratura a percussione e rotative / Percussion and rotary drill bits				
		Punte da muro con inserti in MD Masonry drill bits, standard version	2100 2150	312
		Punte da muro con inserti in MD Percussion drill bits, TCT	2260 2261	313
	LASER	Punte per cemento con inserti in MD Premium concrete drill bits, TCT	2250 2251 2252	314
	GRANIT	Punte per granito con inserti in MD Granite drill bits, TCT	2280	315
	MULTI-LASER	Punte universali con inserti in MD Multi-Purpose / Ceramic drills, TCT	2270	316
		Punte per vetro e ceramica in MD Glass and ceramic drill bits, TCT	2700	317
	T4	Punte per vetro e ceramica con 4 taglienti con inserti in MD Glass / Ceramic drill bits, 4 carbide cutting edges	2710	317
Punte per martelli / Hammer drill bits				
	QX-*4*	Punte per martelli SDS-Plus QX-4 con 4 taglienti MD, certificate PGM Hammer drill bits SDS-plus, 4 cutting edges, full carbide head, PGM certification-mark	2612	320 ÷ 322
	4-*X*	Punte per martelli SDS-Plus, 4-X con 4 taglienti MD Hammer drill bits SDS-plus, 4 carbide cutting edges	2615	323 – 324
	X-TREME	Punte per martelli SDS-Plus con 2 eliche, X-TREME, certificate PGM Hammer drill bits SDS-plus, 2 carbide cutting edges, PGM certification-mark	2610	325 ÷ 327

	Tipo Type	Descrizione Description	Code	Pagina Page
Punte per martelli / Hammer drill bits				
		Punte per martelli SDS-Plus, con 2 eliche Hammer drill bits SDS-plus, 2 carbide cutting edges	2590	328 – 329
	SDS max	Punte per martelli SDS-max, certificate PGM Hammer drill bits SDS-max, PGM certification-mark	2620	330 – 331
Scalpelli / Chisels				
	SDS plus SDS max	Scalpelli SDS-Plus / Scalpelli SDS-max Chisels SDS-plus / Chisels SDS-max	2650 2660	332 – 333
Punte diamantate / Diamond drill bits				
	DIAMANT M14	Punte diamantate M14 per smerigliatrici angolari Diamond tile drill bits M14 for angle grinders	2702	336
	DIAMANT	Punte diamantate con attatto esagonale Diamond tile drill bits with hex-shank	2701	337
	BASIC	Punte diamantate con codolo a 3 facce Diamond tile drill bits with triangle-shank	2703	338
Frese a carotare diamantate / Diamond core drills				
	PROFI	Frese a carotare diamantate Diamond core drills	2720	339
		Accessori per frese a carotare diamantate Accessories for diamond core drills	2301 2301 SDS-plus 2302	339

	Tipo Type	Descrizione Description	Code	Pagina Page
Punte per il legno e svasatori / Wood drill bits and countersinks				
		Punte per il legno in acciaio CV Brad point wood drill bits	3100	342
		Punte per il legno in acciaio CV, versione lunga Brad point wood drill bits, long version	3101	342
	**INDUSTRIE**	Punte per il legno HSS-G rettificate, versione industriale HSS-G premium wood drill bits industrial type	3110	343
		Svasatori 90° per punte da trapano Shell drill countersinks	3450	344
		Svasatori DIN 6446 B Countersinks DIN 6446 B	3700	344
Frese Forstner + Mecchie / Forstner bits + miscellaneous bits				
		Frese per legno Forstner Forstner bits	3250	345
		Frese con inserti in MD Cylinder boring bits, TCT	3261	346
		Frese a tenoni per tasselli e perni di legno DIN 7489 Tenon dowel / Plug cutters DIN 7489	3650	347
Punte per telai + Mecchie / Frame work drills + flat bits				
		Punte per telai, codolo cilindrico Frame work drills with cylindrical shank	3120	348
	SDS	Punte per telai, codolo SDS-Plus Frame work drills with SDS-plus shank	3130	349
		Mecchie Machine flat bits	3410 3411	353
Punte per legno Lewis / Auger bits				
	**LEWIS**	Punte per legno Lewis, codolo esagonale Auger bits with hexagon shank	3200	350 – 351
	**LEWIS SDS**	Punte per legno Lewis, codolo SDS-Plus Auger bits with SDS-plus shank	3210	352
Seghe a tazza / Hole saws				
		Seghe a tazza bimetalliche HSS Bi-Metal hole saws HSS	1900	358 – 359
	**VA-CUT8**	Seghe a tazza bimetalliche HSS-E (Co8) in **lega di cobalto** Premium Bi-Metal hole saws HSS-E (Co8) **cobalt alloyed**	1901	360 – 361
		Accessori per seghe a tazza Accessories for hole saws	1910 1911 1913	357
	**MULTI-CUT**	Seghe a tazza universali con inserti in MD Multi-Purpose hole saws TCT	1930	362
		Accessori per seghe a tazza universali Accessories for Multi-Purpose hole saws TCT	1935 1936 HM 1936 HSS	363

	Tipo Type	Descrizione Description	Code	Pagina Page
Lame per seghetti alternativi / Jigsaw blades				
	Legno e plastica Wood and plastics	Lame per seghetti alternativi con attacco a T Jigsaw blades with T-Shank	1960 ÷ 1963	370 ÷ 372
	Metallo Metal	Lame per seghetti alternativi con attacco a T Jigsaw blades with T-Shank	1964 1965	373 – 374
	Applicazioni speciali Special applications	Lame per seghetti alternativi con attacco a T Jigsaw blades with T-Shank	1966	375
		Assortimento Sets	1990 1991	375
Lame per seghe a gattuccio / Reciprocating saw blades				
	Legno e plastica Wood and plastics	Lame per seghe a gattuccio con attacco universale Reciprocating (Sabre) saw blades with universal shank	1970	376
	Legno e plastica Wood and green wood	Lame per seghe a gattuccio con attacco universale Reciprocating (Sabre) saw blades with universal shank	1970-SPEED	376
	Metallo Metal	Lame per seghe a gattuccio con attacco universale Reciprocating (Sabre) saw blades with universal shank	1971	377
	Legno e metallo Wood and metal	Lame per seghe a gattuccio con attacco universale Reciprocating (Sabre) saw blades with universal shank	1971 1972 1974	378
Lame per seghe a gattuccio / Reciprocating saw blades				
	Applicazioni speciali Special applications	Lame per seghe a gattuccio con attacco universale Reciprocating (Sabre) saw blades with universal shank	1973	379
	Materiali isolanti Insulation materials	Lame per seghe a gattuccio con attacco universale Reciprocating (Sabre) saw blades with universal shank	1974	379
Lame per seghetti pneumatici / Compressed air saw blades				
		Lame per seghetti pneumatici ed elettrici Compressed air saw blades for pneumatic and electric car-body saws	1975	379
Lame per seghetti a mano / Hack saw blade				
		Lame per seghetti a mano Hack saw blade	1980	375

	Descrizione Description	Code	Pagina Page
Punzoni a vite e accessori / Screw-hole punches and accessories			
	Punzoni a vite con 3 punte di taglio Screw-hole punches with 3-point cutting tip	1915	382
	Viti di ricambio per punzoni a vite Replacement screws for screw-hole punches	1916	383
Inserti e portainserti attacco¼" / Screwdriver-bits and holders ¼" drive			
	Inserti ¼" Screwdriver-bits ¼"	6100 ÷ 6230	387 ÷ 394
	Inserti¼", **rivestimento TiN** Screwdriver-bits ¼" **TiN-coated**	6121 ÷ 6141	387 ÷ 390
	Inserti ¼"ad **anello colorato** **Colour Ring** screwdriver-bits ¼"	6123 ÷ 6143	388 ÷ 391

	Descrizione Description	Code	Pagina Page
Inserti e portainserti attacco¼" / Screwdriver-bits and holders ¼" drive			
 	Serie Sets	6900	394
 	Portainserti per inserti ¼" Bitholders for screwdriver-bits ¼"	6300 ÷ 6330	395
Portainserti attacco ¼" / Holders ¼" drive			
	Portainserti a L 1/4" per inserti e punte L-shaped drivers for ¼" bits and for drills	6350 6351	396
Bussole + Adattatori attacco ¼" / Sockets + adaptors ¼" drive			
	Bussole¼", lughezza 45 mm Sockets ¼", 45 mm length	6500	397
	Bussole¼", lunghezza 65 mm Sockets ¼", 65 mm length	6500-65	397
	Bussole ¼", non magnetiche Sockets ¼", non-magnetic	6501	398
	Bussole con anello di tenuta per viti in acciaio inox Sockets with spring for stainless screws	6502	398
 	Accessorio per viti a doppia filettatura Fixing-tool for setting hanger bolts	6505	398
 	Adattatori Adaptors	6400 6645-1/4"	399
Inserti + Accessori attacco 5/16" / Screwdriver-bits + accessories 5/16" drive			
	Inserti con attacco esagonale 5/16" Screwdriver-bits 5⁄16" hexagon	6710 ÷ 6720	400 – 401
Inserti e portainserti con attacco 10 mm / Screwdriver-bits and holders 10 mm drive			
	Inserti con attacco esagonale 10 mm Screwdriver-bits 10 mm hexagon	6614 ÷ 6624	402 – 403
	Adattatori con sfera per inserti attacco esagonale Adaptors with ball for 10 mm hexagon	6645	403
Cassette vuote / Empty boxes			
	Cassette in ABS ABS-Boxes	0081	405
	Cassette in metallo per punte elicoidali DIN 338 Metal-Boxes for twist drills DIN 338	0080	406
Espositori da banco / Drill cabinets			
	Espositori da banco per punte elicoidali DIN 338 Drill cabinets for twist drills DIN 338	0130	407



QuadroPack con foro rotondo
QuadroPack with round hole



QuadroPack
QuadroPack



TwistPack con foro rotondo
TwistPack with round hole



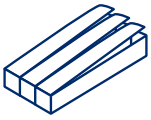
TwistPack
TwistPack



Tubo con Euroforo
Tube with euroslot



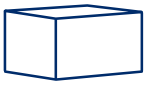
Busta con Euroforo
Wallet with euroslot



SplitPack
SplitPack



Cassetta in plastica con Euroforo
Plasticbox with euroslot



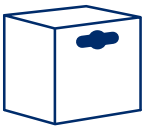
Cassetta in plastica
Plasticbox



Clip con Euroforo
Clip with euroslot



Clip filettata con Euroforo
Threadclip with euroslot



Scatola di cartone con Euroforo
Cartonbox with euroslot



Cartone teso con Euroforo
Cartoncard with euroslot



Imballaggio sfuso
Bulk packaging

PUNTE ELICOIDALI
TWIST DRILLS

PROFI PLUS by BOHRCRAFT

PROFI BASIC by BOHRCRAFT



	Materiale da taglio Cutting material	Tipo Type	PROFI PLUS	PROFI BASIC	BOC	
	HSS-G	-	1301 Pagina / Page 95		1300 Pagina / Page 94	
	HSS-E Co5	-	1310 Pagina / Page 95			
DIN 333	HSS-G	A			1600 Pagina / Page 93	
DIN 338	HSS-R	N			1100 Pagina / Page 34 ÷ 38	
	HSS-G	N	1122 Pagina / Page 48 ÷ 50	1121 Pagina / Page 45 ÷ 47	1120 Pagina / Page 39 ÷ 43	
	HSS-G OX	N		1119 Pagina / Page 45 – 46		
	HSS-G TiN	N	1123 / 1124 Pagina / Page 48 ÷ 52		1130 Pagina / Page 44	
	HSS-G	T-Step	1202 Pagina / Page 56 – 57			
	HSS-G	W	1127 Pagina / Page 60			
	HSS-G	H	1128 Pagina / Page 61			
	HSS-G	HK	1131 Pagina / Page 62			
	HSS-E Co5	VA/Ti N	1141 Pagina / Page 68 – 69		1140 Pagina / Page 63 ÷ 66	
	HSS-E Co5 TiALN	VA/Ti	1143 Pagina / Page 68 – 69			
	HSS-E Co5	U-TL	1142 Pagina / Page 70 – 71			
	HSS-E Co5 TiALN	U-TL	1144 Pagina / Page 70 – 71			
	HSS-E Co5	N-Z3	1149 Pagina / Page 72 – 73			
	HSS-E Co5	T-Step	1203 Pagina / Page 67			
	HSS-E Co8	N-HD	1147 Pagina / Page 74 – 75			
	HSS-E Co8	N-HD	1148 Pagina / Page 74 – 75			
	HSS-E Co8	HDX	1508 Pagina / Page 76 – 77			
	VHM / SC TiALN	N	1502 Pagina / Page 106 – 107			
DIN 340	HSS-R	N			1340 Pagina / Page 78	
	HSS-G	N	1353 Pagina / Page 80		1350 Pagina / Page 79	
	HSS-E Co5	N	1360 Pagina / Page 81			
	HSS-E Co5 TiN	N	1361 Pagina / Page 81			
	HSS-E Co5	U-TL	1362 Pagina / Page 82			
DIN 341	HSS	N	1455 Pagina / Page 101			
DIN 345	HSS	N	1451 Pagina / Page 98 – 99		1450 Pagina / Page 96 – 97	
	HSS-E Co5	N	1470 Pagina / Page 100			
DIN 1869	HSS-G	U-TL N	1410 Pagina / Page 84		1400 Pagina / Page 83	
	HSS-E Co5	U-TL	1420 Pagina / Page 85			
DIN 1897	HSS-G	N	1255 Pagina / Page 90		1250 Pagina / Page 89	
	HSS-G	T-Step	1204 Pagina / Page 58			
	HSS-E Co5	N	1265 Pagina / Page 92		1260 Pagina / Page 91	
	HSS-E Co5 TiN	N	1266 Pagina / Page 92			
DIN 6539	VHM / SC TiALN	N	1504 Pagina / Page 108 – 109			
DIN 8037	HSS-HM / TCT	N	1500 Pagina / Page 110			



Typ N | HSS G



Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Twist drill for materials with normal tensile strength, e.g. general structural steels, non ferrous materials and cast iron.

Typ N | VA INOX



Punta elicoidale con maggiore resistenza al calore, per la foratura di acciai inossidabili e acciai resistenti al calore.

Twist drill with higher heat resistance, for drilling stainless steels and heat resistant steels.

Typ VA/Ti | VA INOX



Punta elicoidale speciale con elevata sicurezza contro la rottura grazie allo spessore rinforzato dell'anima. Adatta per materiali con resistenza alla trazione fino a 1.200 N/mm² (38 HRC).

Special twist drill with high security against fracture due to reinforced web thickness. Suitable for materials with tensile strength up to 1.200 N/mm² (38 HRC).



Typ N-HD | VA INOX



Punta elicoidale stabile ad alte prestazioni con lega all'8% di cobalto, che garantisce elevata durezza a caldo. Adatta per materiali con resistenza alla trazione fino a 1.400 N/mm² (44 HRC).
Versione Heavy-Duty!

Stable high performance twist drill with 8 % cobalt alloy, thereby high warm hardness durability. Suitable for materials with tensile strength up to 1.400 N/mm² (44 HRC).
Heavy-Duty Version!

Typ U-TL | TIEFLOCH DEEPHOLE Version



Punta elicoidale multigrado con scanalatura parabolica per una migliore evacuazione dei trucioli. Adatta per materiali con resistenza alla trazione fino a 1.200 N/mm² (38 HRC). **Compatibile con i tipi N, H e W, per un'ampia gamma di applicazioni.**

Multigrade twist drill with parabolic flute for improved chip removal. Suitable for materials with tensile strength up to 1.200 N/mm² (38 HRC).
Covers types N, H and W for a wide range of application.

Z3 | Typ N



Punta elicoidale per uso industriale con 3 taglienti per una velocità di avanzamento fino al 60% superiore rispetto alle punte elicoidali a 2 taglienti. Utilizzata su macchine CNC, consente qualità di foratura fino a IT 9. Impiego universale su acciaio strutturale, acciaio non legato e legato < 1.000 N/mm² (32,2 HRC), nonché alluminio (leghe per lavorazione plastica e fusione).

Twist drill for industrial use with 3 cutting edges for up to 60% higher feed rate compared to twist drills with 2 cutting edges. Used in CNC machines drilling qualities up to IT 9 are possible. Universal use in structural steel, unalloyed and alloyed steel < 1,000 N/mm² (32,2 HRC), as well as aluminum (wrought and cast alloys).

Typ LN | LINKS LEFT HAND LH



Punta elicoidale a taglio sinistrorso per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Left-hand cutting twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Typ W ALU



Punta elicoidale per trucioli lunghi e materiali come alluminio, rame o plastica morbida.

Twist drill for long chipping and tough materials such as aluminium, copper or soft plastic.

Typ H MESSING BRASS



Punta elicoidale per trucioli duri e corti e materiali come acciaio, plastica dura, vetro acrilico o laminato.

Twist drill for hard, short chipping, brittle and tough materials such as steel, hard plastics, acrylic glass or laminate.

Typ HK Plastics PVC



Punta elicoidale per materiali sintetici (Termoindurente).

Twist drill for synthetic materials (Thermoset).

TURBO STEP Ø>2,5mm



Punta elicoidale con geometria innovativa per i migliori risultati di foratura alla massima velocità di taglio. Adatta per acciai con resistenza alla trazione fino a 1.000 N/mm² (32,2 HRC), materiali fusi, alluminio, materie plastiche, legno duro e tenero.

Twist drill with innovative geometry for the best drilling results at maximum cutting speed. Suitable for steels up to 1.000 N/mm² (32,2 HRC) tensile strength, cast materials, aluminium, plastics, hard- and softwood.

TURBO STEP INOX Ø>2,5mm



Punta elicoidale con geometria innovativa per i migliori risultati di foratura alla massima velocità di taglio. Adatta per acciai e acciai inossidabili fino a 1.200 N/mm² (~38 HRC) di resistenza alla trazione, materiali fusi, alluminio, materie plastiche, legno duro e tenero.

Twist drill with innovative geometry for the best drilling results at maximum cutting speed. Suitable for steels and stainless steels up to 1.200 N/mm² (~38 HRC) tensile strength, cast materials, aluminium, plastics, hard- and softwood.

Typ HDX HARDOX 500



Punta elicoidale speciale con elevatissima resistenza al calore. Molto stabile grazie alla spirale extra corta e al nucleo rinforzato.

Special twist drill with extremely high heat resistance. Very stable due to extra short spiral and reinforced core.

VHM SC DIN 6539



VHM SC DIN 338



Punta elicoidale in metallo duro per la foratura di acciai resistenti al calore, getti di acciaio ad alto tenore di carbonio, ghisa grigia, acciai fusi, acciai al manganese, bronzo, alluminio con elevata percentuale di silicio e per la lavorazione di materiali abrasivi.

Stable solid carbide twist drill for drilling heat resistant steels, high carbon steel castings, grey cast iron, cast steels, manganese steels, bronze, aluminium with high percentage of silicium and for machining abrasive materials.

VHM SC Z3



Punta per saldatura in metallo duro a 3 taglienti. Per la foratura di punti di saldatura in lamiere ad alta resistenza con una resistenza alla trazione fino a 1.800 N/mm² (~52 HRC). Significativamente più veloce e durevole rispetto a prodotti comparabili con 2 taglienti.

Spot weld drill made of solid carbide with 3 cutting edges. For drilling out welding points in high-strength sheets up to 1.800 N/mm² (~ 52 HRC) tensile strength. Significantly faster and more durable than comparable products with 2 cutting edges.



Raccomandazioni applicative per punte elicoidali
Application recommendation for twist drills



DIN		338	338	338	338	338	338	338	338	338
Tipo Type		N	N	N	N	N	N	N	N	N - LH
Materiale da taglio Cutting material		HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS
Profondità di taglio Cutting depth		5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD
Rivestimento Coating		OX	-	TiN	-	OX	-	TiN	TiN-Tip	-
Angolo della punta Point angle		118°	118°	118°	118°	118°	118°	118°	118°	118°
Codolo Shank		cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.
Intervallo Range		0,3 –20,0 mm	0,5 – 25,0 mm	1,0 – 13,0 mm	0,4 – 25,0 mm	1,0 – 16,0 mm	0,5 – 25,0 mm	1,0 – 13,0 mm	1,0 – 13,0 mm	1,0 – 13,0 mm
Qualità Quality		★★★	★★★	★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Code		1100 1109	1120 1110	1130	1121	1119	1122	1123	1124	1129
Pagina Page		34 ÷ 38	39 ÷ 43	44	45 ÷ 47	45 – 46	48 ÷ 50	48 – 49	51 – 52	53
P	1.1 – 2.1	●	●	●	●	●	●	●	●	●
	3.1 – 4.1			●	◐	◐	◐	●	●	◐
	5.1									
M	1.1 – 2.1									
	3.1 – 4.1									
K	1.1 – 4.2		◐	◐	◐	◐	◐	●	●	◐
N	1.1 – 1.6	◐	◐		◐	◐	◐			◐
	2.1	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.3	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.4	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.5	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.6	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.7									
	2.8									
	3.1									
	3.2									
	4.1									
	4.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
S	1.1 – 1.3									
	2.1 – 2.6									
H	1.1									
	1.2									
	1.3									
	1.4									
	1.5									

● adatto / suitable ◐ consigliato / limited suitable

Raccomandazioni applicative per punte elicoidali
Application recommendation for twist drills

										
338	338	338	338	338	338	338	338	338	338	338
Turbo	Turbo-Step	W	H	HK	N	VA/Ti	VA/Ti	U-TL	U-TL	N-Z3
HSS	HSS	HSS	HSS	HSS	HSS-E Co5	HSS-E Co5	HSS-E Co5	HSS-E Co5	HSS-E Co5	HSS-E Co5
5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD
-	-	-	-	-	-	-	TiALN	-	TiALN	-
118°	118°	130°	118°	80°	135°	130°	130°	130°	130°	130°
3-piani 3-flat	3-piani 3-flat	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.
1,0 – 13,0 mm	1,0 – 13,0 mm	2,0 – 13,0 mm	2,0 – 13,0 mm	2,0 – 10,0 mm	1,0 – 20,0 mm	0,6 – 16,0 mm	2,0 – 16,0 mm	2,0 – 13,0 mm	2,0 – 13,0 mm	2,0 – 13,0 mm
★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★
1201	1202	1127	1128	1131	1140	1141	1143	1142	1144	1149
54 – 55	56 – 57	60	61	62	63 ÷ 66	68 – 69	68 – 69	70 – 71	70 – 71	72 – 73
●	●				●	●	●	●	●	●
◐	◐				●	●	●	●	●	●
						◐	●	◐	●	◐
◐	◐				●	●	●	●	●	●
						●	●			●
	◐				◐	◐	●	◐	●	◐
●	●	●				◐		◐		◐
●	●	●	●		◐	◐	◐	◐	◐	◐
●	●		●		◐	◐	◐	◐	◐	◐
●	●		●		◐	◐	◐	◐	◐	◐
●	●		●		◐	◐	◐	◐	◐	◐
●	●		●		◐	◐	◐	◐	◐	◐
●	●		●		◐	◐	◐	◐	◐	◐
			◐							
			◐							
	◐			●						
◐	◐	◐	◐	●	◐			◐		
						●	◐			
						●	●			

● adatto / suitable ◐ consigliato / limited suitable

Raccomandazioni applicative per punte elicoidali
Application recommendation for twist drills

										
DIN		338	338	338	338	340	340	340	340	340
Tipo Type		Turbo-Step	N-HD	N-HD	HDX	N	N	N	N	N
Materiale da taglio Cutting material		HSS-E Co5	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS	HSS	HSS	HSS-E Co5	HSS-E Co5
Profondità di taglio Cutting depth		5xD	5xD	5xD	3xD	10xD	10xD	10xD	10xD	10xD
Rivestimento Coating		-	-	TiALN	ZRN+	OX	-	-	-	TiN
Angolo della punta Point angle		118°	130°	130°	130°	118°	118°	118°	130°	130°
Codolo Shank		3-piani 3-flat	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.
Intervallo Range		1,0 – 13,0 mm	1,0 – 13,0 mm	2,0 – 13,0 mm	1,0 – 13,0 mm	2,0 –13,0 mm	1,0 –16,0 mm	0,7 –13,0 mm	2,0 –13,0 mm	2,0 –13,0 mm
Qualità Quality		★★★★★	★★★★★	★★★★★	★★★★★	★★★	★★★	★★★★★	★★★★★	★★★★★
Code		1203	1147	1148	1508	1340	1350	1353	1360	1361
Pagina Page		67	74 – 75	74 – 75	76 – 77	78	79	80	81	81
P	1.1 – 2.1	●	●	●	●	●	●	●	●	●
	3.1 – 4.1	●	●	●	●			◐	●	●
	5.1	◐	●	●	●				◐	●
M	1.1 – 2.1	●	●	●	◐				●	●
	3.1 – 4.1		●	●	●					
K	1.1 – 4.2	◐	◐	●	●		◐	◐	◐	●
N	1.1 – 1.6	◐	◐	◐	◐	◐	◐	◐	◐	
	2.1	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.3	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.4	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.5	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.6	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.7									
	2.8									
	3.1									
	3.2									
	4.1	◐								
	4.2	◐			◐	◐	◐	◐		
S	1.1 – 1.3		◐	●	●					◐
	2.1 – 2.6									
H	1.1		◐	◐	●					
	1.2		◐	◐	◐					
	1.3									
	1.4									
	1.5									

● adatto / suitable ◐ consigliato / limited suitable

Raccomandazioni applicative per punte elicoidali
Application recommendation for twist drills

										
340	1869	1869	1869	-	-	-	1897	1897	1897	1897
U-TL	N	U-TL	U-TL	N	N	N	N	N	Turbo-Step	N
HSS-E Co5	HSS	HSS	HSS-E Co5	HSS	HSS	HSS	HSS	HSS	HSS	HSS-E Co5
10xD	15 – 25xD	15 – 25xD	15 – 25xD	-	-	-	3xD	3xD	3xD	3xD
-	-	-	-	-	-	-	-	-	-	-
130°	118°	130°	130°	118°	118°	118°	118°	118°	118°	135°
cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	1/4" esagonale 1/4" hex	cil. cyl.	cil. cyl.	cil. cyl.	3-piani 3-flat	zyl. cyl.
2,0 –13,0 mm	2,0 – 13,0 mm	2,0 – 13,0 mm	2,0 – 13,0 mm	2,5 – 6,8 mm	1,0 – 10,2 mm	3,0 – 6,0 mm	2,0 – 13,0 mm	2,0 – 13,0 mm	13,5 – 16,0 mm	2,0 – 13,0 mm
★★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★	★★★	★★★	★★★★★	★★★★★	★★★
1362	1400	1410	1420	1440	1104	1200	1250	1255	1204	1260
82	83	84	85	86	87	88	89	90	58	91
●	●	●	●	●	●	●	●	●	●	●
●	◐	◐	●					◐	◐	●
◐			◐							
●			●						◐	●
◐	◐	◐	◐		◐	◐	◐	◐	◐	◐
◐		●	●	◐	◐	◐	◐	◐	●	◐
◐	◐	●	●		◐	◐	◐	◐	●	◐
◐	◐	●	●		◐	◐	◐	◐	●	◐
◐	◐	●	●		◐	◐	◐	◐	●	◐
◐	◐	●	●		◐	◐	◐	◐	●	◐
◐	◐	●	●		◐	◐	◐	◐	●	◐
◐	◐	●	●		◐	◐	◐	◐	●	◐
									◐	
◐	◐	●	●	◐	◐	◐	◐	◐	◐	◐

● adatto / suitable ◐ consigliato / limited suitable

Raccomandazioni applicative per punte elicoidali
Application recommendation for twist drills



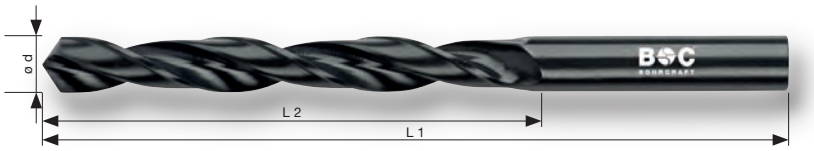
										
DIN		1897	1897	-	-	-	333	345	345	345
Tipo Type		N	N	N	N	N	Form A	N	N	N
Materiale da taglio Cutting material		HSS-E Co5	HSS-E Co5	HSS	HSS	HSS-E Co5	HSS	HSS	HSS	HSS-E Co5
Profondità di taglio Cutting depth		3xD	3xD	-	-	-	-	5xD	5xD	5xD
Rivestimento Coating		-	TiN	-	-	-	-	-	-	-
Angolo della punta Point angle		130°	130°	118°	118°	130°	118°	118°	118°	130°
Codolo Shank		cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	cil. cyl.	MK MT	MK MT	MK MT
Intervallo Range		2,0 – 13,0 mm	2,0 – 13,0 mm	2,0 – 6,0 mm	2,0 – 8,0 mm	3,2 – 5,2 mm	0,8 – 10,0 mm	10,0 – 60,0 mm	6,0 – 100,0 mm	10,0 – 50,0 mm
Qualità Quality		★★★★★	★★★★★	★★★	★★★★★	★★★★★	★★★	★★★	★★★★★	★★★★★
Code		1265	1266	1300	1301	1310	1600	1450	1451	1470
Pagina Page		92	92	94	95	95	93	96 – 97	98 – 99	100
P	1.1 – 2.1	●	●	●	●	●	●	●	●	●
	3.1 – 4.1	●	●		●	●			◐	●
	5.1	◐	●			◐				◐
M	1.1 – 2.1	●	●			●				●
	3.1 – 4.1	●	●							
K	1.1 – 4.2	◐	●	◐	◐	◐	◐	◐	◐	◐
N	1.1 – 1.6	◐		◐	◐	◐	◐	◐	◐	◐
	2.1	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.3	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.4	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.5	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.6	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.7									
	2.8									
	3.1									
	3.2									
	4.1									
	4.2	◐		◐	◐	◐	◐	◐	◐	◐
S	1.1 – 1.3		◐			◐				
	2.1 – 2.6									
H	1.1									
	1.2									
	1.3									
	1.4									
	1.5									

● adatto / suitable ◐ consigliato / limited suitable

			
341	338	6539	8037
N	N	N	H
HSS	VHM SC	VHM SC	HSS-HM HSS-TCT
10xD	5xD	3xD	4xD
-	TiALN	TiALN	-
118°	118°	118°	118°
MK MT	cil. cyl.	cil. cyl.	cil. cyl.
10,0 – 50,0 mm	3,0 – 13,0 mm	1,0 – 13,0 mm	2,5 – 13,0 mm
★★★★★	★★★★★	★★★★★	★★★★★
1455	1502	1504	1500
101	106 – 107	108 – 109	110
●	●	●	●
◐	●	●	●
	●	●	●
	●	●	◐
	●	●	
◐	●	●	●
◐	◐	◐	◐
◐	◐	◐	◐
◐	●	●	◐
◐	●	●	◐
◐	◐	◐	◐
◐	◐	◐	◐
◐	◐	◐	◐
	◐	◐	
	◐	◐	
◐	◐	◐	◐
	●	●	◐
	◐	◐	
	◐	◐	
	◐	◐	
	◐	◐	
	◐	◐	
	◐	◐	

● adatto / suitable ◐ consigliato / limited suitable

Punte elicoidali **laminate** DIN 338 HSS
Twist drills DIN 338 HSS **roll forged**



Code **1100**

DIN 338 | HSS R | OX | Typ N | 118° | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1100	●					●	●	●	

Punta elicoidale realizzata tramite un processo di laminazione dei metalli, che ne aumenta l'elasticità e la resistenza alla rottura. Adatta per lavori di foratura gravosi su materiali normali e metalli non ferrosi.

Twist drill made in a metal forging process, thereby increasing of elasticity and breakage resistance. Suitable for robust drilling work in normal materials and non-ferrous metals.

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
0,30	19	3	10	1100 01 00030	-	-
0,40	20	5	10	1100 01 00040	-	-
0,50	22	6	10	1100 01 00050	-	-
0,60	24	7	10	1100 01 00060	-	-
0,70	28	9	10	1100 01 00070	-	-
0,80	30	10	10	1100 01 00080	-	-
0,90	32	11	10	1100 01 00090	-	-
1,00	34	12	10	1100 01 00100	3	1100 07 30100
1,10	36	14	10	1100 01 00110	-	-
1,20	38	16	10	1100 01 00120	-	-
1,25	38	16	10	1100 01 00125	-	-
1,30	38	16	10	1100 01 00130	-	-
1,40	40	18	10	1100 01 00140	-	-
1,50	40	18	10	1100 01 00150	3	1100 07 30150
1,60	43	20	10	1100 01 00160	-	-
1,70	43	20	10	1100 01 00170	-	-
1,75	46	23	10	1100 01 00175	-	-
1,80	46	23	10	1100 01 00180	-	-
1,90	46	23	10	1100 01 00190	-	-
2,00	49	24	10	1100 01 00200	3	1100 07 30200
2,10	49	24	10	1100 01 00210	-	-
2,20	53	27	10	1100 01 00220	-	-
2,25	53	27	10	1100 01 00225	-	-
2,30	53	27	10	1100 01 00230	-	-
2,40	57	30	10	1100 01 00240	-	-
2,50	57	30	10	1100 01 00250	3	1100 07 30250
2,60	57	30	10	1100 01 00260	-	-
2,70	61	33	10	1100 01 00270	-	-
2,75	61	33	10	1100 01 00275	-	-
2,80	61	33	10	1100 01 00280	-	-
2,90	61	33	10	1100 01 00290	-	-
3,00	61	33	10	1100 01 00300	3	1100 07 30300
3,10	65	36	10	1100 01 00310	3	1100 07 30310
3,20	65	36	10	1100 01 00320	3	1100 07 30320
3,25	65	36	10	1100 01 00325	-	-
3,30	65	36	10	1100 01 00330	3	1100 07 30330
3,40	70	39	10	1100 01 00340	-	-
3,50	70	39	10	1100 01 00350	2	1100 07 20350
3,60	70	39	10	1100 01 00360	-	-
3,70	70	39	10	1100 01 00370	-	-
3,75	70	39	10	1100 01 00375	-	-
3,80	75	43	10	1100 01 00380	-	-
3,90	75	43	10	1100 01 00390	-	-
4,00	75	43	10	1100 01 00400	2	1100 07 20400
4,10	75	43	10	1100 01 00410	2	1100 07 20410
4,20	75	43	10	1100 01 00420	2	1100 07 20420
4,25	75	43	10	1100 01 00425	-	-
4,30	80	47	10	1100 01 00430	-	-
4,40	80	47	10	1100 01 00440	-	-
4,50	80	47	10	1100 01 00450	2	1100 07 20450
4,60	80	47	10	1100 01 00460	-	-
4,70	80	47	10	1100 01 00470	-	-
4,75	80	47	10	1100 01 00475	-	-

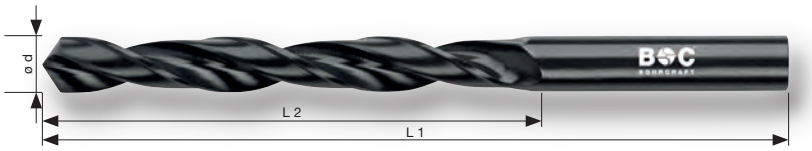


Code **1100**

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
4,80	86	52	10	1100 01 00480	2	1100 07 20480
4,90	86	52	10	1100 01 00490	-	-
5,00	86	52	10	1100 01 00500	2	1100 07 20500
5,10	86	52	10	1100 01 00510	1	1100 07 00510
5,20	86	52	10	1100 01 00520	1	1100 07 00520
5,25	86	52	10	1100 01 00525	-	-
5,30	86	52	10	1100 01 00530	-	-
5,40	93	57	10	1100 01 00540	-	-
5,50	93	57	10	1100 01 00550	1	1100 07 00550
5,60	93	57	10	1100 01 00560	-	-
5,70	93	57	10	1100 01 00570	-	-
5,75	93	57	10	1100 01 00575	-	-
5,80	93	57	10	1100 01 00580	-	-
5,90	93	57	10	1100 01 00590	-	-
6,00	93	57	10	1100 01 00600	1	1100 07 00600
6,10	101	63	10	1100 01 00610	-	-
6,20	101	63	10	1100 01 00620	-	-
6,25	101	63	10	1100 01 00625	-	-
6,30	101	63	10	1100 01 00630	-	-
6,40	101	63	10	1100 01 00640	-	-
6,50	101	63	10	1100 01 00650	1	1100 07 00650
6,60	101	63	10	1100 01 00660	-	-
6,70	101	63	10	1100 01 00670	-	-
6,75	109	69	10	1100 01 00675	-	-
6,80	109	69	10	1100 01 00680	1	1100 07 00680
6,90	109	69	10	1100 01 00690	-	-
7,00	109	69	10	1100 01 00700	1	1100 07 00700
7,10	109	69	10	1100 01 00710	-	-
7,20	109	69	10	1100 01 00720	-	-
7,25	109	69	10	1100 01 00725	-	-
7,30	109	69	10	1100 01 00730	-	-
7,40	109	69	10	1100 01 00740	-	-
7,50	109	69	10	1100 01 00750	1	1100 07 00750
7,60	117	75	10	1100 01 00760	-	-
7,70	117	75	10	1100 01 00770	-	-
7,75	117	75	10	1100 01 00775	-	-
7,80	117	75	10	1100 01 00780	-	-
7,90	117	75	10	1100 01 00790	-	-
8,00	117	75	10	1100 01 00800	1	1100 07 00800
8,10	117	75	10	1100 01 00810	-	-
8,20	117	75	10	1100 01 00820	-	-
8,25	117	75	10	1100 01 00825	-	-
8,30	117	75	10	1100 01 00830	-	-
8,40	117	75	10	1100 01 00840	-	-
8,50	117	75	10	1100 01 00850	1	1100 07 00850
8,60	125	81	10	1100 01 00860	-	-
8,70	125	81	10	1100 01 00870	-	-
8,75	125	81	10	1100 01 00875	-	-
8,80	125	81	10	1100 01 00880	-	-
8,90	125	81	10	1100 01 00890	-	-
9,00	125	81	10	1100 01 00900	1	1100 07 00900
9,10	125	81	10	1100 01 00910	-	-
9,20	125	81	10	1100 01 00920	-	-
9,25	125	81	10	1100 01 00925	-	-
9,30	125	81	10	1100 01 00930	-	-
9,40	125	81	10	1100 01 00940	-	-
9,50	125	81	10	1100 01 00950	1	1100 07 00950
9,60	133	87	10	1100 01 00960	-	-
9,70	133	87	10	1100 01 00970	-	-
9,75	133	87	10	1100 01 00975	-	-
9,80	133	87	10	1100 01 00980	-	-
9,90	133	87	10	1100 01 00990	-	-
10,00	133	87	10	1100 01 01000	1	1100 07 01000
10,10	133	87	5	1100 01 01010	-	-
10,20	133	87	5	1100 01 01020	1	1100 07 01020
10,25	133	87	5	1100 01 01025	-	-



Punte elicoidali **laminate** DIN 338 HSS
Twist drills DIN 338 HSS **roll forged**



Code **1100**

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
10,30	133	87	5	1100 01 01030	-	-
10,40	133	87	5	1100 01 01040	-	-
10,50	133	87	5	1100 01 01050	1	1100 07 01050
10,60	142	94	5	1100 01 01060	-	-
10,70	142	94	5	1100 01 01070	-	-
10,75	142	94	5	1100 01 01075	-	-
10,80	142	94	5	1100 01 01080	-	-
10,90	142	94	5	1100 01 01090	-	-
11,00	142	94	5	1100 01 01100	1	1100 07 01100
11,10	142	94	5	1100 01 01110	-	-
11,20	142	94	5	1100 01 01120	-	-
11,25	142	94	5	1100 01 01125	-	-
11,30	142	94	5	1100 01 01130	-	-
11,40	142	94	5	1100 01 01140	-	-
11,50	142	94	5	1100 01 01150	1	1100 07 01150
11,60	151	101	5	1100 01 01160	-	-
11,70	151	101	5	1100 01 01170	-	-
11,75	151	101	5	1100 01 01175	-	-
11,80	151	101	5	1100 01 01180	-	-
11,90	151	101	5	1100 01 01190	-	-
12,00	151	101	5	1100 01 01200	1	1100 07 01200
12,10	151	101	5	1100 01 01210	-	-
12,20	151	101	5	1100 01 01220	-	-
12,25	151	101	5	1100 01 01225	-	-
12,30	151	101	5	1100 01 01230	-	-
12,40	151	101	5	1100 01 01240	-	-
12,50	151	101	5	1100 01 01250	1	1100 07 01250
12,60	151	101	5	1100 01 01260	-	-
12,70	151	101	5	1100 01 01270	-	-
12,75	151	101	5	1100 01 01275	-	-
12,80	151	101	5	1100 01 01280	-	-
12,90	151	101	5	1100 01 01290	-	-
13,00	151	101	5	1100 01 01300	1	1100 07 01300
13,50	160	108	5	1100 01 01350	-	-
14,00	160	108	5	1100 01 01400	1	1100 07 01400
14,50	169	114	5	1100 01 01450	-	-
15,00	169	114	5	1100 01 01500	-	-
15,50	178	120	5	1100 01 01550	-	-
16,00	178	120	5	1100 01 01600	1	1100 07 01600
16,50	184	125	1	1100 01 01650	-	-
17,00	184	125	1	1100 01 01700	-	-
17,50	191	130	1	1100 01 01750	-	-
18,00	191	130	1	1100 01 01800	-	-
18,50	198	135	1	1100 01 01850	-	-
19,00	198	135	1	1100 01 01900	-	-
19,50	205	140	1	1100 01 01950	-	-
20,00	205	140	1	1100 01 02000	-	-



Code **1100**

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KR 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1100 13 30019
KR 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1100 13 30025



BC Grip-Box / BC Grip-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
V 10	19	Ø 1,0 - 10,0 mm x 0,5 mm	1100 14 10119



Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
M 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1100 13 10019
M 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1100 13 10025
M 24	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1100 14 10024
M 591	50	Ø 1,0 – 5,9 mm x 0,1 mm	1100 14 10050
M 601	41	Ø 6,0 – 10,0 mm x 0,1 mm	1100 14 10041
M 170	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 10,0 mm = 5 pz. / pcs.	1100 14 10170
M 220	220	Ø 1,0 – 13,0 mm x 0,5 mm + 3,3 / 4,2 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 13,0 mm = 5 pz. / pcs.	1100 14 20220





Confezioni in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
P 6	6	Ø 2 · 3 · 4 · 5 · 6 · 8 mm	18	1100 14 30006
P 65	13	Ø 1,5 – 6,5 mm x 0,5 mm + Ø 3,2 · 4,8 mm	16	1100 14 30013



Bussolotto / Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
RB 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1100 14 40019





Punte elicoidali **laminate** DIN 338 HSS, codolo ridotto
Twist drills DIN 338 HSS **roll forged,** reduced shank



Code **1109**

DIN 338 | HSS R | OX | Typ N | 118° | 5xD

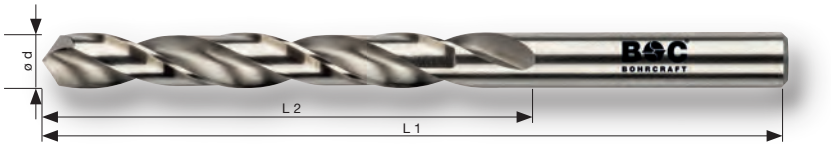
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1109	●					○	○	○	

Punta elicoidale realizzata tramite un processo di laminazione dei metalli, che ne aumenta l'elasticità e la resistenza alla rottura. Adatta per lavori di foratura gravosi su materiali normali e metalli non ferrosi.

Twist drill made in a metal forging process, thereby increasing of elasticity and breakage resistance. Suitable for robust drilling work in normal materials and non-ferrous metals.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
10,5	133	87	10	30	5	1109 01 01050	1	1109 07 01050
11,0	142	94	10	30	5	1109 01 01100	1	1109 07 01100
11,5	142	94	10	30	5	1109 01 01150	1	1109 07 01150
12,0	151	101	10	30	5	1109 01 01200	1	1109 07 01200
12,5	151	101	10	30	5	1109 01 01250	1	1109 07 01250
13,0	151	101	10	30	5	1109 01 01300	1	1109 07 01300
13,5	160	108	10	30	5	1109 01 01350	1	1109 07 01350
14,0	160	108	10	30	5	1109 01 01400	1	1109 07 01400
14,5	169	114	10	30	5	1109 01 01450	1	1109 07 01450
15,0	169	114	10	30	5	1109 01 01500	1	1109 07 01500
15,5	178	120	10	30	5	1109 01 01550	1	1109 07 01550
16,0	178	120	10	30	5	1109 01 01600	1	1109 07 01600
16,5	184	125	13	35	1	1109 01 01650	1	1109 07 01650
17,0	184	125	13	35	1	1109 01 01700	1	1109 07 01700
17,5	191	130	13	35	1	1109 01 01750	1	1109 07 01750
18,0	191	130	13	35	1	1109 01 01800	1	1109 07 01800
18,5	198	135	13	35	1	1109 01 01850	1	1109 07 01850
19,0	198	135	13	35	1	1109 01 01900	1	1109 07 01900
19,5	205	140	13	35	1	1109 01 01950	1	1109 07 01950
20,0	205	140	13	35	1	1109 01 02000	1	1109 07 02000

Punte elicoidali DIN 338 HSS **rettificate**, split point
Twist drills DIN 338 HSS-G **fully ground,** split point



Code **1120**

DIN 338 | HSS G | Typ N | 118° | SPLIT POINT | 5xD

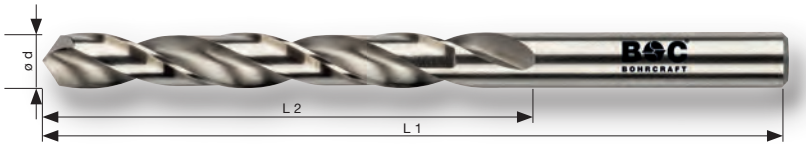
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1120	●				●	●	●	●	

Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali gennerici, materiali non ferrosi e ghisa.

Twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
0,50	22	6	10	1120 01 00050	-	-
0,60	24	7	10	1120 01 00060	-	-
0,70	28	9	10	1120 01 00070	-	-
0,80	30	10	10	1120 01 00080	-	-
0,90	32	11	10	1120 01 00090	-	-
1,00	34	12	10	1120 01 00100	3	1120 07 30100
1,10	36	14	10	1120 01 00110	-	-
1,20	38	16	10	1120 01 00120	-	-
1,25	38	16	10	1120 01 00125	-	-
1,30	38	16	10	1120 01 00130	-	-
1,40	40	18	10	1120 01 00140	-	-
1,50	40	18	10	1120 01 00150	3	1120 07 30150
1,60	43	20	10	1120 01 00160	-	-
1,70	43	20	10	1120 01 00170	-	-
1,75	46	23	10	1120 01 00175	-	-
1,80	46	23	10	1120 01 00180	-	-
1,90	46	23	10	1120 01 00190	-	-
2,00	49	24	10	1120 01 00200	3	1120 07 30200
2,10	49	24	10	1120 01 00210	-	-
2,20	53	27	10	1120 01 00220	-	-
2,25	53	27	10	1120 01 00225	-	-
2,30	53	27	10	1120 01 00230	-	-
2,40	57	30	10	1120 01 00240	-	-
2,50	57	30	10	1120 01 00250	3	1120 07 30250
2,60	57	30	10	1120 01 00260	-	-
2,70	61	33	10	1120 01 00270	-	-
2,75	61	33	10	1120 01 00275	-	-
2,80	61	33	10	1120 01 00280	-	-
2,90	61	33	10	1120 01 00290	-	-
3,00	61	33	10	1120 01 00300	3	1120 07 30300
3,10	65	36	10	1120 01 00310	3	1120 07 30310
3,20	65	36	10	1120 01 00320	3	1120 07 30320
3,25	65	36	10	1120 01 00325	-	-
3,30	65	36	10	1120 01 00330	3	1120 07 30330
3,40	70	39	10	1120 01 00340	-	-
3,50	70	39	10	1120 01 00350	2	1120 07 20350
3,60	70	39	10	1120 01 00360	-	-
3,70	70	39	10	1120 01 00370	-	-
3,75	70	39	10	1120 01 00375	-	-
3,80	75	43	10	1120 01 00380	-	-
3,90	75	43	10	1120 01 00390	-	-
4,00	75	43	10	1120 01 00400	2	1120 07 20400
4,10	75	43	10	1120 01 00410	2	1120 07 20410
4,20	75	43	10	1120 01 00420	2	1120 07 20420
4,25	75	43	10	1120 01 00425	-	-
4,30	80	47	10	1120 01 00430	-	-
4,40	80	47	10	1120 01 00440	-	-
4,50	80	47	10	1120 01 00450	2	1120 07 20450
4,60	80	47	10	1120 01 00460	-	-
4,70	80	47	10	1120 01 00470	-	-
4,75	80	47	10	1120 01 00475	-	-
4,80	86	52	10	1120 01 00480	2	1120 07 20480
4,90	86	52	10	1120 01 00490	-	-
5,00	86	52	10	1120 01 00500	2	1120 07 20500

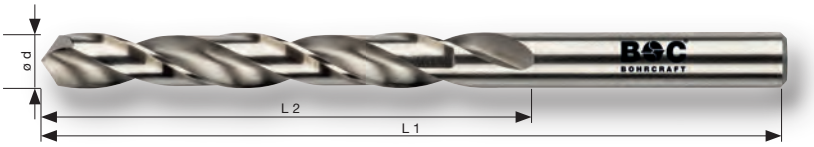
Punte elicoidali DIN 338 HSS-G **rettificate**, split point
Twist drills DIN 338 HSS-G **fully ground,** split point



Code **1120**

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
5,10	86	52	10	1120 01 00510	1	1120 07 00510
5,20	86	52	10	1120 01 00520	-	-
5,25	86	52	10	1120 01 00525	-	-
5,30	86	52	10	1120 01 00530	-	-
5,40	93	57	10	1120 01 00540	-	-
5,50	93	57	10	1120 01 00550	1	1120 07 00550
5,60	93	57	10	1120 01 00560	-	-
5,70	93	57	10	1120 01 00570	-	-
5,75	93	57	10	1120 01 00575	-	-
5,80	93	57	10	1120 01 00580	-	-
5,90	93	57	10	1120 01 00590	-	-
6,00	93	57	10	1120 01 00600	1	1120 07 00600
6,10	101	63	10	1120 01 00610	-	-
6,20	101	63	10	1120 01 00620	-	-
6,25	101	63	10	1120 01 00625	-	-
6,30	101	63	10	1120 01 00630	-	-
6,40	101	63	10	1120 01 00640	-	-
6,50	101	63	10	1120 01 00650	1	1120 07 00650
6,60	101	63	10	1120 01 00660	-	-
6,70	101	63	10	1120 01 00670	-	-
6,75	109	69	10	1120 01 00675	-	-
6,80	109	69	10	1120 01 00680	1	1120 07 00680
6,90	109	69	10	1120 01 00690	-	-
7,00	109	69	10	1120 01 00700	1	1120 07 00700
7,10	109	69	10	1120 01 00710	-	-
7,20	109	69	10	1120 01 00720	-	-
7,25	109	69	10	1120 01 00725	-	-
7,30	109	69	10	1120 01 00730	-	-
7,40	109	69	10	1120 01 00740	-	-
7,50	109	69	10	1120 01 00750	1	1120 07 00750
7,60	117	75	10	1120 01 00760	-	-
7,70	117	75	10	1120 01 00770	-	-
7,75	117	75	10	1120 01 00775	-	-
7,80	117	75	10	1120 01 00780	-	-
7,90	117	75	10	1120 01 00790	-	-
8,00	117	75	10	1120 01 00800	1	1120 07 00800
8,10	117	75	10	1120 01 00810	-	-
8,20	117	75	10	1120 01 00820	-	-
8,25	117	75	10	1120 01 00825	-	-
8,30	117	75	10	1120 01 00830	-	-
8,40	117	75	10	1120 01 00840	-	-
8,50	117	75	10	1120 01 00850	1	1120 07 00850
8,60	125	81	10	1120 01 00860	-	-
8,70	125	81	10	1120 01 00870	-	-
8,75	125	81	10	1120 01 00875	-	-
8,80	125	81	10	1120 01 00880	-	-
8,90	125	81	10	1120 01 00890	-	-
9,00	125	81	10	1120 01 00900	1	1120 07 00900
9,10	125	81	10	1120 01 00910	-	-
9,20	125	81	10	1120 01 00920	-	-
9,25	125	81	10	1120 01 00925	-	-
9,30	125	81	10	1120 01 00930	-	-
9,40	125	81	10	1120 01 00940	-	-
9,50	125	81	10	1120 01 00950	1	1120 07 00950
9,60	133	87	10	1120 01 00960	-	-
9,70	133	87	10	1120 01 00970	-	-
9,75	133	87	10	1120 01 00975	-	-
9,80	133	87	10	1120 01 00980	-	-
9,90	133	87	10	1120 01 00990	-	-
10,00	133	87	10	1120 01 01000	1	1120 07 01000
10,10	133	87	5	1120 01 01010	-	-
10,20	133	87	5	1120 01 01020	1	1120 07 01020
10,25	133	87	5	1120 01 01025	-	-
10,30	133	87	5	1120 01 01030	-	-
10,40	133	87	5	1120 01 01040	-	-
10,50	133	87	5	1120 01 01050	1	1120 07 01050





Code **1120**

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
10,60	142	94	5	1120 01 01060	-	-
10,70	142	94	5	1120 01 01070	-	-
10,75	142	94	5	1120 01 01075	-	-
10,80	142	94	5	1120 01 01080	-	-
10,90	142	94	5	1120 01 01090	-	-
11,00	142	94	5	1120 01 01100	1	1120 07 01100
11,10	142	94	5	1120 01 01110	-	-
11,20	142	94	5	1120 01 01120	-	-
11,25	142	94	5	1120 01 01125	-	-
11,30	142	94	5	1120 01 01130	-	-
11,50	142	94	5	1120 01 01150	1	1120 07 01150
11,75	142	94	5	1120 01 01175	-	-
11,80	142	94	5	1120 01 01180	-	-
11,90	142	94	5	1120 01 01190	-	-
12,00	151	101	5	1120 01 01200	1	1120 07 01200
12,20	151	101	5	1120 01 01220	-	-
12,25	151	101	5	1120 01 01225	-	-
12,50	151	101	5	1120 01 01250	1	1120 07 01250
12,70	151	101	5	1120 01 01270	-	-
12,75	151	101	5	1120 01 01275	-	-
12,80	151	101	5	1120 01 01280	-	-
13,00	151	101	5	1120 01 01300	1	1120 07 01300
13,50	160	108	5	1120 01 01350	-	-
14,00	160	108	5	1120 01 01400	-	-
14,50	169	114	5	1120 01 01450	-	-
15,00	169	114	5	1120 01 01500	-	-
15,50	178	120	5	1120 01 01550	-	-
16,00	178	120	5	1120 01 01600	-	-

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KG 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1120 13 30019
KG 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1120 13 30025
KG 24	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 / 4,2 / 6,8 / 10,2 mm	1120 13 30024
KG 591	51	Ø 1,0 – 6,0 mm x 0,1 mm	1120 13 30050
KG 601	41	Ø 6,0 – 10,0 mm x 0,1 mm	1120 13 30041
KG 170	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 10,0 mm = 5 pz. / pcs.	1120 13 30170



BC Grip-Box / BC Grip-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
VG 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1120 14 10119

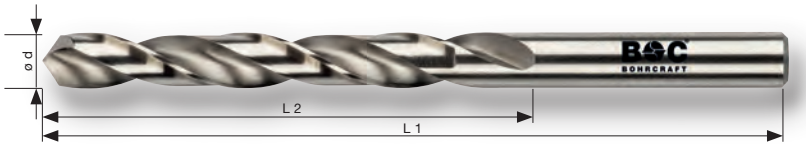


Confezione in plastica / Plastic-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
PG 6	6	Ø 2 · 3 · 4 · 5 · 6 · 8 mm	18	1120 14 30006



Punte elicoidali DIN 338 HSS-G **rettificate**, split point
Twist drills DIN 338 HSS-G **fully ground,** split point



Code **1120**

Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1120 13 10019
MG 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1120 13 10025
MG 24	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 / 4,2 / 6,8 / 10,2 mm	1120 14 10024
MG 591	50	Ø 1,0 – 5,9 mm x 0,1 mm	1120 14 10050
MG 601	41	Ø 6,0 – 10,0 mm x 0,1 mm	1120 14 10041
MG 210	81	Ø 2,0 – 10,0 mm x 0,1 mm	1120 14 20081
MG 130	130	Ø 1,0 – 6,0 mm x 0,5 mm + Ø 3,3 / 4,2 mm Ø 1,0 – 6,0 mm = 10 pz. / pcs.	1120 13 10130
MG 170	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 10,0 mm = 5 pz. / pcs.	1120 14 10170
MG 220	220	Ø 1,0 – 13,0 mm x 0,5 mm + 3,3 / 4,2 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 13,0 mm = 5 pz. / pcs.	1120 14 20220



MG 10



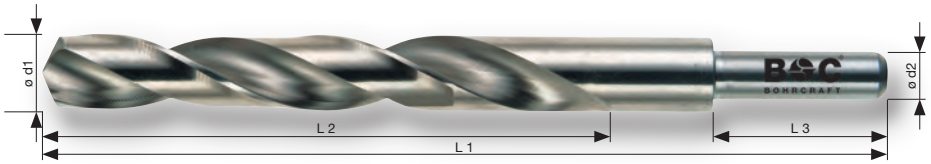
MG 591



MG 210


MG 170

Punte elicoidali DIN 338 HSS-G, con codolo ridotto, split point
Twist drills DIN 338 HSS-G, reduced shank, split point



Code **1110**

DIN 338 | HSS G | Typ N | 118° | 1418 D SPLIT POINT | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1110	●				●	●	●	●	

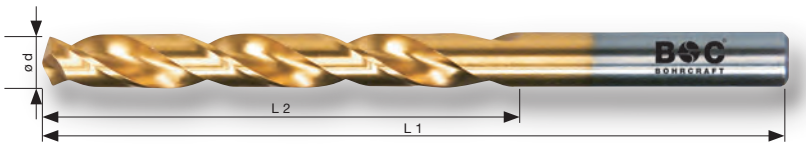
Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
10,5	133	87	10	30	5	1110 01 01050	1	1110 07 01050
11,0	142	94	10	30	5	1110 01 01100	1	1110 07 01100
11,5	142	94	10	30	5	1110 01 01150	1	1110 07 01150
12,0	151	101	10	30	5	1110 01 01200	1	1110 07 01200
12,5	151	101	10	30	5	1110 01 01250	1	1110 07 01250
13,0	151	101	10	30	5	1110 01 01300	1	1110 07 01300
13,5	160	108	10	30	5	1110 01 01350	1	1110 07 01350
14,0	160	108	10	30	5	1110 01 01400	1	1110 07 01400
14,5	169	114	10	30	5	1110 01 01450	1	1110 07 01450
15,0	169	114	10	30	5	1110 01 01500	1	1110 07 01500
15,5	178	120	10	30	5	1110 01 01550	1	1110 07 01550
16,0	178	120	10	30	5	1110 01 01600	1	1110 07 01600
16,5	184	125	13	35	1	1110 01 01650	1	1110 07 01650
17,0	184	125	13	35	1	1110 01 01700	1	1110 07 01700
17,5	191	130	13	35	1	1110 01 01750	1	1110 07 01750
18,0	191	130	13	35	1	1110 01 01800	1	1110 07 01800
18,5	198	135	13	35	1	1110 01 01850	1	1110 07 01850
19,0	198	135	13	35	1	1110 01 01900	1	1110 07 01900
19,5	205	140	13	35	1	1110 01 01950	1	1110 07 01950
20,0	205	140	13	35	1	1110 01 02000	1	1110 07 02000
20,5	212	145	13	40	1	1110 01 02050	-	-
21,0	212	145	13	40	1	1110 01 02100	-	-
21,5	219	150	13	40	1	1110 01 02150	-	-
22,0	219	150	13	40	1	1110 01 02200	-	-
22,5	226	155	13	40	1	1110 01 02250	-	-
23,0	226	155	13	40	1	1110 01 02300	-	-
23,5	233	155	13	40	1	1110 01 02350	-	-
24,0	233	160	13	40	1	1110 01 02400	-	-
24,5	233	160	13	40	1	1110 01 02450	-	-
25,0	233	160	13	40	1	1110 01 02500	-	-



Punte elicoidali DIN 338 HSS-TiN **rivestimento in titanio**, split point
Twist drills DIN 338 HSS-TiN **titanium coated,** split point



Code **1130**

DIN 338 | HSS G | Typ N | 118° | 1412 C SPLIT POINT | 5xD | TiN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1130	●	●			●		●	●	

Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
1,0	34	12	10	1130 01 30100	1	1130 07 00100
1,5	40	18	10	1130 01 30150	1	1130 07 00150
2,0	49	24	10	1130 01 30200	1	1130 07 00200
2,5	57	30	10	1130 01 30250	1	1130 07 00250
3,0	61	33	10	1130 01 30300	1	1130 07 00300
3,2	65	36	10	1130 01 30320	1	1130 07 00320
3,3	65	36	10	1130 01 30330	1	1130 07 00330
3,5	70	39	10	1130 01 20350	1	1130 07 00350
4,0	75	43	10	1130 01 20400	1	1130 07 00400
4,1	75	43	10	1130 01 20410	1	1130 07 00410
4,2	75	43	10	1130 01 20420	1	1130 07 00420
4,5	80	47	10	1130 01 20450	1	1130 07 00450
4,8	86	52	10	1130 01 20480	1	1130 07 00480
5,0	86	52	10	1130 01 20500	1	1130 07 00500
5,2	86	52	10	1130 01 00520	1	1130 07 00520
5,5	93	57	10	1130 01 00550	1	1130 07 00550
6,0	93	57	10	1130 01 00600	1	1130 07 00600
6,5	101	63	10	1130 01 00650	1	1130 07 00650
6,8	109	69	10	1130 01 00680	1	1130 07 00680
7,0	109	69	10	1130 01 00700	1	1130 07 00700
7,5	109	69	10	1130 01 00750	1	1130 07 00750
8,0	117	75	10	1130 01 00800	1	1130 07 00800
8,5	117	75	10	1130 01 00850	1	1130 07 00850
9,0	125	81	10	1130 01 00900	1	1130 07 00900
9,5	125	81	10	1130 01 00950	1	1130 07 00950
10,0	133	87	10	1130 01 01000	1	1130 07 01000
10,2	133	87	5	1130 01 01020	-	-
10,5	133	87	5	1130 01 01050	1	1130 07 01050
11,0	142	94	5	1130 01 01100	1	1130 07 01100
11,5	142	94	5	1130 01 01150	1	1130 07 01150
12,0	151	101	5	1130 01 01200	1	1130 07 01200
12,5	151	101	5	1130 01 01250	1	1130 07 01250
13,0	151	101	5	1130 01 01300	1	1130 07 01300

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KT 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1130 13 30019
KT 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1130 13 30025

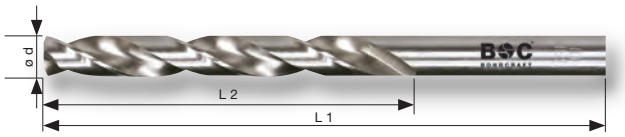


Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MT 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1130 13 10019
MT 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1130 13 10025
MT 130	130	Ø 1,0 – 6,0 mm x 0,5 mm + 3,3 / 4,2 mm Ø 1,0 – 6,0 mm = 10 pz. / pcs.	1130 13 10130
MT 170	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 10,0 mm = 5 pz. / pcs.	1130 14 10170



Punte elicoidali DIN 338 HSS-G Tipo N **rettificate**, split point
Twist drills DIN 338 HSS-G type N **fully ground,** split point



Code **1121**



Code **1119 Finitura in ossido nero / Black oxide finish**

DIN 338 | HSS G | Typ N | 118° | SPLIT POINT | 5xD | OX

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1121	●	○			○	○	○	○	
1119	●	○			○	○	○	○	

Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

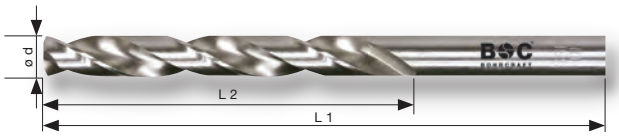
Twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	OX Art.-Nr. Part-No.
0,40	20	5	10	-	1119 01 00040
0,50	22	6	10	-	1119 01 00050
0,60	24	7	10	-	1119 01 00060
0,70	28	9	10	-	1119 01 00070
0,80	30	10	10	-	1119 01 00080
0,90	32	11	10	-	1119 01 00090
1,00	34	12	10	1121 01 00100	1119 01 00100
1,10	36	14	10	1121 01 00110	1119 01 00110
1,20	38	16	10	1121 01 00120	1119 01 00120
1,25	38	16	10	-	1119 01 00125
1,30	38	16	10	1121 01 00130	1119 01 00130
1,40	40	18	10	1121 01 00140	1119 01 00140
1,50	40	18	10	1121 01 00150	1119 01 00150
1,60	43	20	10	1121 01 00160	1119 01 00160
1,70	43	20	10	1121 01 00170	1119 01 00170
1,75	46	23	10	-	1119 01 00175
1,80	46	23	10	1121 01 00180	1119 01 00180
1,90	46	23	10	1121 01 00190	1119 01 00190
2,00	49	24	10	1121 01 00200	1119 01 00200
2,10	49	24	10	1121 01 00210	1119 01 00210
2,20	53	27	10	1121 01 00220	1119 01 00220
2,25	53	27	10	-	1119 01 00225
2,30	53	27	10	1121 01 00230	1119 01 00230
2,40	57	30	10	1121 01 00240	1119 01 00240
2,50	57	30	10	1121 01 00250	1119 01 00250
2,60	57	30	10	1121 01 00260	1119 01 00260
2,70	61	33	10	1121 01 00270	1119 01 00270
2,75	61	33	10	-	1119 01 00275
2,80	61	33	10	1121 01 00280	1119 01 00280
2,90	61	33	10	1121 01 00290	1119 01 00290
3,00	61	33	10	1121 01 00300	1119 01 00300
3,10	65	36	10	1121 01 00310	1119 01 00310
3,20	65	36	10	1121 01 00320	1119 01 00320
3,25	65	36	10	-	1119 01 00325
3,30	65	36	10	1121 01 00330	1119 01 00330
3,40	70	39	10	1121 01 00340	1119 01 00340
3,50	70	39	10	1121 01 00350	1119 01 00350
3,60	70	39	10	1121 01 00360	1119 01 00360
3,70	70	39	10	1121 01 00370	1119 01 00370
3,75	70	39	10	-	1119 01 00375
3,80	75	43	10	1121 01 00380	1119 01 00380
3,90	75	43	10	1121 01 00390	1119 01 00390
4,00	75	43	10	1121 01 00400	1119 01 00400
4,10	75	43	10	1121 01 00410	1119 01 00410
4,20	75	43	10	1121 01 00420	1119 01 00420
4,25	75	43	10	-	1119 01 00425
4,30	80	47	10	1121 01 00430	1119 01 00430
4,40	80	47	10	1121 01 00440	1119 01 00440
4,50	80	47	10	1121 01 00450	1119 01 00450
4,60	80	47	10	1121 01 00460	1119 01 00460
4,70	80	47	10	1121 01 00470	1119 01 00470
4,75	80	47	10	-	1119 01 00475
4,80	86	52	10	1121 01 00480	1119 01 00480
4,90	86	52	10	1121 01 00490	1119 01 00490

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	OX Art.-Nr. Part-No.
5,00	86	52	10	1121 01 00500	1119 01 00500
5,10	86	52	10	1121 01 00510	1119 01 00510
5,20	86	52	10	1121 01 00520	1119 01 00520
5,25	86	52	10	-	1119 01 00525
5,30	86	52	10	1121 01 00530	1119 01 00530
5,40	93	57	10	1121 01 00540	1119 01 00540
5,50	93	57	10	1121 01 00550	1119 01 00550
5,60	93	57	10	1121 01 00560	1119 01 00560
5,70	93	57	10	1121 01 00570	1119 01 00570
5,75	93	57	10	-	1119 01 00575
5,80	93	57	10	1121 01 00580	1119 01 00580
5,90	93	57	10	1121 01 00590	1119 01 00590
6,00	93	57	10	1121 01 00600	1119 01 00600
6,10	101	63	10	1121 01 00610	1119 01 00610
6,20	101	63	10	1121 01 00620	1119 01 00620
6,25	101	63	10	-	1119 01 00625
6,30	101	63	10	1121 01 00630	1119 01 00630
6,40	101	63	10	1121 01 00640	1119 01 00640
6,50	101	63	10	1121 01 00650	1119 01 00650
6,60	101	63	10	1121 01 00660	1119 01 00660
6,70	101	63	10	1121 01 00670	1119 01 00670
6,75	109	69	10	-	1119 01 00675
6,80	109	69	10	1121 01 00680	1119 01 00680
6,90	109	69	10	1121 01 00690	1119 01 00690
7,00	109	69	10	1121 01 00700	1119 01 00700
7,10	109	69	10	1121 01 00710	1119 01 00710
7,20	109	69	10	1121 01 00720	1119 01 00720
7,25	109	69	10	-	1119 01 00725
7,30	109	69	10	1121 01 00730	1119 01 00730
7,40	109	69	10	1121 01 00740	1119 01 00740
7,50	109	69	10	1121 01 00750	1119 01 00750
7,60	117	75	10	1121 01 00760	1119 01 00760
7,70	117	75	10	1121 01 00770	1119 01 00770
7,75	117	75	10	-	1119 01 00775
7,80	117	75	10	1121 01 00780	1119 01 00780
7,90	117	75	10	1121 01 00790	1119 01 00790
8,00	117	75	10	1121 01 00800	1119 01 00800
8,10	117	75	10	1121 01 00810	1119 01 00810
8,20	117	75	10	1121 01 00820	1119 01 00820
8,25	117	75	10	-	1119 01 00825
8,30	117	75	10	1121 01 00830	1119 01 00830
8,40	117	75	10	1121 01 00840	1119 01 00840
8,50	117	75	10	1121 01 00850	1119 01 00850
8,60	125	81	10	1121 01 00860	1119 01 00860
8,70	125	81	10	1121 01 00870	1119 01 00870
8,75	125	81	10	-	1119 01 00875
8,80	125	81	10	1121 01 00880	1119 01 00880
8,90	125	81	10	1121 01 00890	1119 01 00890
9,00	125	81	10	1121 01 00900	1119 01 00900
9,10	125	81	10	1121 01 00910	1119 01 00910
9,20	125	81	10	1121 01 00920	1119 01 00920
9,25	125	81	10	-	1119 01 00925
9,30	125	81	10	1121 01 00930	1119 01 00930
9,40	125	81	10	1121 01 00940	1119 01 00940



Punte elicoidali DIN 338 HSS-G Tipo N **rettificate**, split point
Twist drills DIN 338 HSS-G type N **fully ground,** split point



Code **1121**



Code **1119 Finitura in ossido nero / Black oxide finish**

Ø d mm	L 1 mm	L 2 mm			OX
				Art.-Nr. Part-No.	Art.-Nr. Part-No.
9,50	125	81	10	1121 01 00950	1119 01 00950
9,60	133	87	10	1121 01 00960	1119 01 00960
9,70	133	87	10	1121 01 00970	1119 01 00970
9,75	133	87	10	-	1119 01 00975
9,80	133	87	10	1121 01 00980	1119 01 00980
9,90	133	87	10	1121 01 00990	1119 01 00990
10,00	133	87	10	1121 01 01000	1119 01 01000
10,10	133	87	5	-	1119 01 01010
10,20	133	87	5	1121 01 01020	1119 01 01020
10,25	133	87	5	-	1119 01 01025
10,30	133	87	5	1121 01 01030	-
10,40	133	87	5	1121 01 01040	-
10,50	133	87	5	1121 01 01050	1119 01 01050
10,75	142	94	5	-	1119 01 01075
11,00	142	94	5	1121 01 01100	1119 01 01100
11,25	142	94	5	-	1119 01 01125
11,50	142	94	5	1121 01 01150	1119 01 01150
11,75	142	94	5	-	1119 01 01175
12,00	151	101	5	1121 01 01200	1119 01 01200

Ø d mm	L 1 mm	L 2 mm			OX
				Art.-Nr. Part-No.	Art.-Nr. Part-No.
12,25	151	101	5	-	1119 01 01225
12,30	151	101	5	1121 01 01230	-
12,40	151	101	5	1121 01 01240	-
12,50	151	101	5	1121 01 01250	1119 01 01250
12,75	151	101	5	-	1119 01 01275
13,00	151	101	5	1121 01 01300	1119 01 01300
13,25	160	108	5	-	1119 01 01325
13,50	160	108	5	1121 01 01350	1119 01 01350
13,75	160	108	5	-	1119 01 01375
14,00	160	108	5	1121 01 01400	1119 01 01400
14,25	169	114	5	-	1119 01 01425
14,50	169	114	5	1121 01 01450	1119 01 01450
14,75	169	114	5	-	1119 01 01475
15,00	169	114	5	1121 01 01500	1119 01 01500
15,25	178	120	5	-	1119 01 01525
15,50	178	120	5	1121 01 01550	1119 01 01550
15,75	178	120	5	-	1119 01 01575
16,00	178	120	5	1121 01 01600	1119 01 01600

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KG 10 OX	19	Ø 1,0 – 10,0 mm x 0,5 mm	1119 13 30019
KG 13 OX	25	Ø 1,0 – 13,0 mm x 0,5 mm	1119 13 30025
KG 10 PB	19	Ø 1,0 – 10,0 mm x 0,5 mm	1121 13 30019
KG 13 PB	25	Ø 1,0 – 13,0 mm x 0,5 mm	1121 13 30025

Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 10 PB	19	Ø 1,0 – 10,0 mm x 0,5 mm	1121 13 10019
MG 13 PB	25	Ø 1,0 – 13,0 mm x 0,5 mm	1121 13 10025
MG 170 PB	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 10,0 mm = 5 pz. / pcs.	1121 13 10170

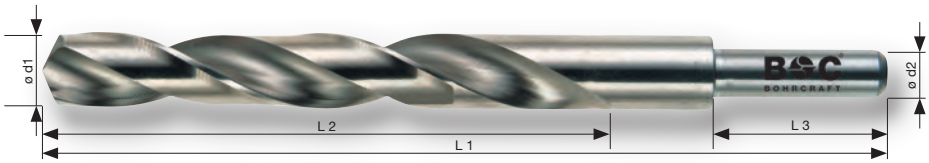

KG 10 OX


KG 10 PB


MG 10 PB


MG 170 PB

Punte elicoidali DIN 338 HSS-G Tipo N **rettificate**, codolo ridotto, split point
Twist drills DIN 338 HSS-G type N **fully ground,** reduced shank, split point



Code **1121-red.**

DIN 338 | HSS G | Typ N | 118° | SPLIT POINT | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1121	●	●			●	●	●	●	

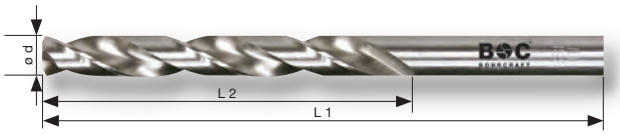
Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm		Art.-Nr. Part-No.
13,50	160	108	13	30	1	1121 01 11350
14,00	160	108	13	30	1	1121 01 11400
14,30	169	114	13	30	1	1121 01 11430
14,40	169	114	13	30	1	1121 01 11440
14,50	169	114	13	30	1	1121 01 11450
15,00	169	114	13	30	1	1121 01 11500
15,50	178	120	13	30	1	1121 01 11550
16,00	178	120	13	30	1	1121 01 11600
16,40	184	125	13	35	1	1121 01 11640
16,50	184	125	13	35	1	1121 01 11650
17,00	184	125	13	35	1	1121 01 11700
17,50	191	130	13	35	1	1121 01 11750
18,00	191	130	13	35	1	1121 01 11800
18,50	198	135	13	35	1	1121 01 11850
18,60	198	135	13	35	1	1121 01 11860
19,00	198	135	13	35	1	1121 01 11900
19,50	205	140	13	35	1	1121 01 11950
20,00	205	140	13	35	1	1121 01 12000
20,50	225	145	13	40	1	1121 01 12050
20,60	225	145	13	40	1	1121 01 12060
21,00	225	145	13	40	1	1121 01 12100
21,50	230	150	13	40	1	1121 01 12150
22,00	230	150	13	40	1	1121 01 12200
22,50	230	155	13	40	1	1121 01 12250
22,60	230	155	13	40	1	1121 01 12260
23,00	230	155	13	40	1	1121 01 12300
23,50	230	155	13	40	1	1121 01 12350
24,00	250	160	13	40	1	1121 01 12400
24,50	250	160	13	40	1	1121 01 12450
24,75	250	160	13	40	1	1121 01 12475
25,00	250	160	13	40	1	1121 01 12500



Punte elicoidali DIN 338 HSS-G Tipo N **rettificate**, split point
Twist drills DIN 338 HSS-G type N **fully ground,** split point



Code **1122**



Code **1123 TiN**

DIN 338 | HSS G | Typ N | 118° | 1412 C SPLIT POINT | 5xD

TiN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1122	●	●			●	●	●	●	
1123	●	●			●		●	●	

Punta elicoidale di alta qualità per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Premium twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

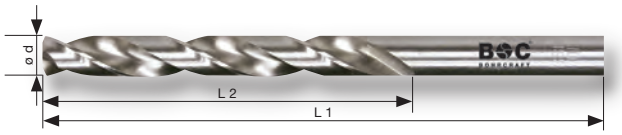


Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
0,60	24	7	10	1122 03 00060	-
0,70	28	9	10	1122 03 00070	-
0,80	30	10	10	1122 03 00080	-
0,90	32	11	10	1122 03 00090	-
1,00	34	12	10	1122 03 00100	1123 03 00100
1,10	36	14	10	1122 03 00110	1123 03 00110
1,20	38	16	10	1122 03 00120	1123 03 00120
1,30	38	16	10	1122 03 00130	1123 03 00130
1,40	40	18	10	1122 03 00140	1123 03 00140
1,50	40	18	10	1122 03 00150	1123 03 00150
1,60	43	20	10	1122 03 00160	1123 03 00160
1,70	43	20	10	1122 03 00170	1123 03 00170
1,80	46	23	10	1122 03 00180	1123 03 00180
1,90	46	23	10	1122 03 00190	1123 03 00190
2,00	49	24	10	1122 03 00200	1123 03 00200
2,10	49	24	10	1122 03 00210	1123 03 00210
2,20	53	27	10	1122 03 00220	1123 03 00220
2,30	53	27	10	1122 03 00230	1123 03 00230
2,40	57	30	10	1122 03 00240	1123 03 00240
2,50	57	30	10	1122 03 00250	1123 03 00250
2,60	57	30	10	1122 03 00260	1123 03 00260
2,70	61	33	10	1122 03 00270	1123 03 00270
2,80	61	33	10	1122 03 00280	1123 03 00280
2,90	61	33	10	1122 03 00290	1123 03 00290
3,00	61	33	10	1122 03 00300	1123 03 00300
3,10	65	36	10	1122 03 00310	1123 03 00310
3,20	65	36	10	1122 03 00320	1123 03 00320
3,25*	65	36	10	1122 03 00325	1123 03 00325
3,30	65	36	10	1122 03 00330	1123 03 00330
3,40	70	39	10	1122 03 00340	1123 03 00340
3,50	70	39	10	1122 03 00350	1123 03 00350
3,60	70	39	10	1122 03 00360	1123 03 00360
3,70	70	39	10	1122 03 00370	1123 03 00370
3,80	70	43	10	1122 03 00380	1123 03 00380
3,90	75	43	10	1122 03 00390	1123 03 00390
4,00	75	43	10	1122 03 00400	1123 03 00400
4,10	75	43	10	1122 03 00410	1123 03 00410
4,20	75	43	10	1122 03 00420	1123 03 00420
4,30	80	47	10	1122 03 00430	1123 03 00430
4,40	80	47	10	1122 03 00440	1123 03 00440
4,50	80	47	10	1122 03 00450	1123 03 00450
4,60	80	47	10	1122 03 00460	1123 03 00460
4,70	80	47	10	1122 03 00470	1123 03 00470
4,80	86	52	10	1122 03 00480	1123 03 00480
4,90	86	52	10	1122 03 00490	1123 03 00490
5,00	86	52	10	1122 03 00500	1123 03 00500
5,10	86	52	10	1122 03 00510	1123 03 00510
5,20	86	52	10	1122 03 00520	1123 03 00520
5,30	86	52	10	1122 03 00530	1123 03 00530
5,40	93	57	10	1122 03 00540	1123 03 00540
5,50	93	57	10	1122 03 00550	1123 03 00550
5,60	93	57	10	1122 03 00560	1123 03 00560

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
5,70	93	57	10	1122 03 00570	1123 03 00570
5,80	93	57	10	1122 03 00580	1123 03 00580
5,90	93	57	10	1122 03 00590	1123 03 00590
6,00	93	57	10	1122 03 00600	1123 03 00600
6,10	101	63	10	1122 03 00610	1123 03 00610
6,20	101	63	10	1122 03 00620	1123 03 00620
6,30	101	63	10	1122 03 00630	1123 03 00630
6,40	101	63	10	1122 03 00640	1123 03 00640
6,50	101	63	10	1122 03 00650	1123 03 00650
6,60	101	63	10	1122 03 00660	1123 03 00660
6,70	101	63	10	1122 03 00670	1123 03 00670
6,80	109	69	10	1122 03 00680	1123 03 00680
6,90	109	69	10	1122 03 00690	1123 03 00690
7,00	109	69	10	1122 03 00700	1123 03 00700
7,10	109	69	5	1122 03 00710	1123 03 00710
7,20	109	69	5	1122 03 00720	1123 03 00720
7,30	109	69	5	1122 03 00730	1123 03 00730
7,40	109	69	5	1122 03 00740	1123 03 00740
7,50	109	69	5	1122 03 00750	1123 03 00750
7,60	117	75	5	1122 03 00760	1123 03 00760
7,70	117	75	5	1122 03 00770	1123 03 00770
7,80	117	75	5	1122 03 00780	1123 03 00780
7,90	117	75	5	1122 03 00790	1123 03 00790
8,00	117	75	5	1122 03 00800	1123 03 00800
8,10	117	75	5	1122 03 00810	1123 03 00810
8,20	117	75	5	1122 03 00820	1123 03 00820
8,30	117	75	5	1122 03 00830	1123 03 00830
8,40	117	75	5	1122 03 00840	1123 03 00840
8,50	117	75	5	1122 03 00850	1123 03 00850
8,60	125	81	5	1122 03 00860	1123 03 00860
8,70	125	81	5	1122 03 00870	1123 03 00870
8,80	125	81	5	1122 03 00880	1123 03 00880
8,90	125	81	5	1122 03 00890	1123 03 00890
9,00	125	81	5	1122 03 00900	1123 03 00900
9,10	125	81	5	1122 03 00910	1123 03 00910
9,20	125	81	5	1122 03 00920	1123 03 00920
9,30	125	81	5	1122 03 00930	1123 03 00930
9,40	125	81	5	1122 03 00940	1123 03 00940
9,50	125	81	5	1122 03 00950	1123 03 00950
9,60	133	87	5	1122 03 00960	1123 03 00960
9,70	133	87	5	1122 03 00970	1123 03 00970
9,80	133	87	5	1122 03 00980	1123 03 00980
9,90	133	87	5	1122 03 00990	1123 03 00990
10,00	133	87	5	1122 03 01000	1123 03 01000
10,10	133	87	5	1122 03 01010	1123 03 01010
10,20	133	87	5	1122 03 01020	1123 03 01020
10,30	133	87	5	1122 03 01030	1123 03 01030
10,40	133	87	5	1122 03 01040	1123 03 01040
10,50	133	87	5	1122 03 01050	1123 03 01050
10,60	142	94	5	1122 03 01060	1123 03 01060
10,70	142	94	5	1122 03 01070	1123 03 01070
10,80	142	94	5	1122 03 01080	1123 03 01080

* Solo fino ad esaurimento scorte / * Only as long as stock lasts

Punte elicoidali DIN 338 HSS-G Tipo N **rettificate**, split point
Twist drills DIN 338 HSS-G type N **fully ground,** split point



Code **1122**



Code **1123 TiN**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
10,90	142	94	5	1122 03 01090	1123 03 01090
11,00	142	94	5	1122 03 01100	1123 03 01100
11,10	142	94	5	1122 03 01110	1123 03 01110
11,20	142	94	5	1122 03 01120	1123 03 01120
11,30	142	94	5	1122 03 01130	1123 03 01130
11,40	142	94	5	1122 03 01140	1123 03 01140
11,50	142	94	5	1122 03 01150	1123 03 01150
11,60	151	101	5	1122 03 01160	1123 03 01160
11,70	151	101	5	1122 03 01170	1123 03 01170
11,80	151	101	5	1122 03 01180	1123 03 01180
11,90	151	101	5	1122 03 01190	1123 03 01190
12,00	151	101	5	1122 03 01200	1123 03 01200
12,10	151	101	5	1122 03 01210	1123 03 01210
12,20	151	101	5	1122 03 01220	1123 03 01220

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
12,30	151	101	5	1122 03 01230	1123 03 01230
12,40	151	101	5	1122 03 01240	1123 03 01240
12,50	151	101	5	1122 03 01250	1123 03 01250
12,60	151	101	5	1122 03 01260	1123 03 01260
12,70	151	101	5	1122 03 01270	1123 03 01270
12,80	151	101	5	1122 03 01280	1123 03 01280
12,90	151	101	5	1122 03 01290	1123 03 01290
13,00	151	101	5	1122 03 01300	1123 03 01300
13,50	160	108	1	1122 03 01350	-
14,00	160	108	1	1122 03 01400	-
14,50	169	114	1	1122 03 01450	-
15,00	169	114	1	1122 03 01500	-
15,50	178	120	1	1122 03 01550	-
16,00	178	120	1	1122 03 01600	-

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KG 10 P-Plus	19	Ø 1,0 – 10,0 mm x 0,5 mm	1122 14 30019
KG 13 P-Plus	25	Ø 1,0 – 13,0 mm x 0,5 mm	1122 14 30025
KG 591 P-Plus	51	Ø 1,0 – 6,0 mm x 0,1 mm	1122 14 30050
KG 601 P-Plus	41	Ø 6,0 – 10,0 mm x 0,1 mm	1122 14 30041

Cassette in metallo BC Proti-Plus / BC Profi-Plus Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 10 P-Plus	19	Ø 1,0 – 10,0 mm x 0,5 mm	1122 14 10019
MG 13 P-Plus	25	Ø 1,0 – 13,0 mm x 0,5 mm	1122 14 10025
MG 70 P-Plus	70	Ø 1,0 – 5,0 mm x 0,5 mm = 5 pz. / pcs. Ø 5,5 – 7,5 mm x 0,5 mm = 3 pz. / pcs. Ø 8,0 – 10,0 mm x 0,5 mm = 2 pz. / pcs.	1122 14 10070



KG 10 P-PLUS



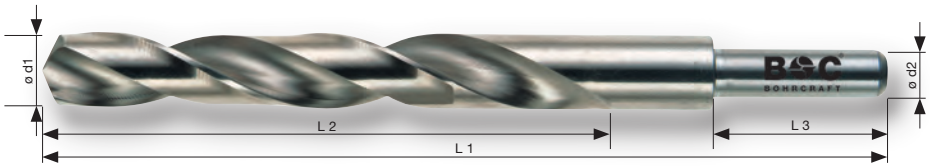
MG 10 P-PLUS



MG 170 P-PLUS



Punte elicoidali DIN 338 HSS-G, codolo ridotto, split point
Twist drills DIN 338 HSS-G, reduced shank, split point



Code **1122-red.**

DIN 338 | HSS G | Typ N | 118° | SPLIT POINT | 5xD

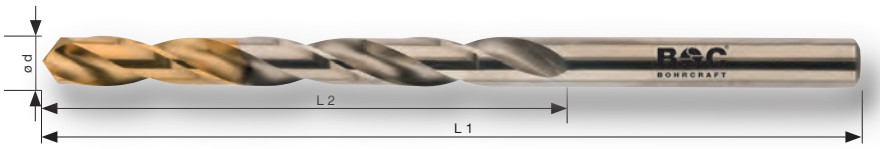
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1122	●	●			●	●	●	●	

Punta elicoidale di alta qualità per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Premium twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm		Art.-Nr. Part-No.
10,5	133	87	10	30	1	1122 03 11050
11,0	142	94	10	30	1	1122 03 11100
11,5	142	94	10	30	1	1122 03 11150
12,0	151	101	10	30	1	1122 03 11200
12,5	151	101	10	30	1	1122 03 11250
13,0	151	101	10	30	1	1122 03 11300
13,5	160	108	10	30	1	1122 03 11350
14,0	160	108	10	30	1	1122 03 11400
14,5	169	114	10	30	1	1122 03 11450
15,0	169	114	10	30	1	1122 03 11500
15,5	178	120	10	30	1	1122 03 11550
16,0	178	120	10	30	1	1122 03 11600
17,0	184	125	13	35	1	1122 03 11700
18,0	191	130	13	35	1	1122 03 11800
19,0	198	135	13	35	1	1122 03 11900
20,0	205	140	13	35	1	1122 03 12000

Punte elicoidali TiN-Point DIN 338 HSS-G **rivestimento al titanio** tipo N-TP, split point
Twist drills **TiN-point** DIN 338 HSS-G **titanium coated** type N-TP, split point



Code **1124**

DIN 338 | HSS G | Typ N-TP | 118° | SPLIT POINT | 5xD | TiN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1124	●	●			●		●	●	

Punta elicoidale di alta qualità per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Rivestimento in TiN nella parte operativa per una maggiore durata.

Premium twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

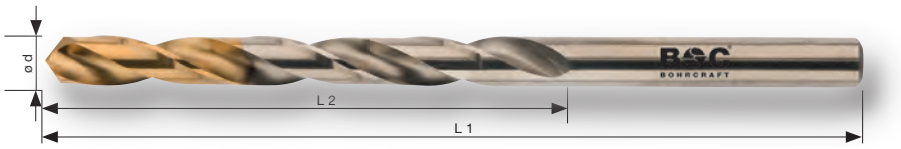
TiN-coating on working part for longer tool life.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
1,0	34	12	10	1124 03 00100
1,5	40	18	10	1124 03 00150
1,6	43	20	10	1124 03 00160
1,7	43	20	10	1124 03 00170
1,8	46	23	10	1124 03 00180
1,9	46	23	10	1124 03 00190
2,0	49	24	10	1124 03 00200
2,1	49	24	10	1124 03 00210
2,2	53	27	10	1124 03 00220
2,3	53	27	10	1124 03 00230
2,4	57	30	10	1124 03 00240
2,5	57	30	10	1124 03 00250
2,6	57	30	10	1124 03 00260
2,7	61	33	10	1124 03 00270
2,8	61	33	10	1124 03 00280
2,9	61	33	10	1124 03 00290
3,0	61	33	10	1124 03 00300
3,1	65	36	10	1124 03 00310
3,2	65	36	10	1124 03 00320
3,3	65	36	10	1124 03 00330
3,4	70	39	10	1124 03 00340
3,5	70	39	10	1124 03 00350
3,6	70	39	10	1124 03 00360
3,7	70	39	10	1124 03 00370
3,8	70	43	10	1124 03 00380
3,9	75	43	10	1124 03 00390
4,0	75	43	10	1124 03 00400
4,1	75	43	10	1124 03 00410
4,2	75	43	10	1124 03 00420
4,3	80	47	10	1124 03 00430
4,4	80	47	10	1124 03 00440
4,5	80	47	10	1124 03 00450
4,6	80	47	10	1124 03 00460
4,7	80	47	10	1124 03 00470
4,8	86	52	10	1124 03 00480
4,9	86	52	10	1124 03 00490
5,0	86	52	10	1124 03 00500
5,1	86	52	10	1124 03 00510
5,2	86	52	10	1124 03 00520
5,3	86	52	10	1124 03 00530
5,4	93	57	10	1124 03 00540
5,5	93	57	10	1124 03 00550
5,6	93	57	10	1124 03 00560
5,7	93	57	10	1124 03 00570
5,8	93	57	10	1124 03 00580
5,9	93	57	10	1124 03 00590
6,0	93	57	10	1124 03 00600
6,1	101	63	10	1124 03 00610
6,2	101	63	10	1124 03 00620
6,3	101	63	10	1124 03 00630
6,4	101	63	10	1124 03 00640
6,5	101	63	10	1124 03 00650

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
6,6	101	63	10	1124 03 00660
6,7	101	63	10	1124 03 00670
6,8	109	69	10	1124 03 00680
6,9	109	69	10	1124 03 00690
7,0	109	69	10	1124 03 00700
7,1	109	69	5	1124 03 00710
7,2	109	69	5	1124 03 00720
7,3	109	69	5	1124 03 00730
7,4	109	69	5	1124 03 00740
7,5	109	69	5	1124 03 00750
7,6	117	75	5	1124 03 00760
7,7	117	75	5	1124 03 00770
7,8	117	75	5	1124 03 00780
7,9	117	75	5	1124 03 00790
8,0	117	75	5	1124 03 00800
8,1	117	75	5	1124 03 00810
8,2	117	75	5	1124 03 00820
8,3	117	75	5	1124 03 00830
8,4	117	75	5	1124 03 00840
8,5	117	75	5	1124 03 00850
8,6	125	81	5	1124 03 00860
8,7	125	81	5	1124 03 00870
8,8	125	81	5	1124 03 00880
8,9	125	81	5	1124 03 00890
9,0	125	81	5	1124 03 00900
9,1	125	81	5	1124 03 00910
9,2	125	81	5	1124 03 00920
9,3	125	81	5	1124 03 00930
9,4	125	81	5	1124 03 00940
9,5	125	81	5	1124 03 00950
9,6	133	87	5	1124 03 00960
9,7	133	87	5	1124 03 00970
9,8	133	87	5	1124 03 00980
9,9	133	87	5	1124 03 00990
10,0	133	87	5	1124 03 01000
10,1	133	87	5	1124 03 01010
10,2	133	87	5	1124 03 01020
10,3	133	87	5	1124 03 01030
10,4	133	87	5	1124 03 01040
10,5	133	87	5	1124 03 01050
10,6	142	94	5	1124 03 01060
10,7	142	94	5	1124 03 01070
10,8	142	94	5	1124 03 01080
10,9	142	94	5	1124 03 01090
11,0	142	94	5	1124 03 01100
11,1	142	94	5	1124 03 01110
11,2	142	94	5	1124 03 01120
11,3	142	94	5	1124 03 01130
11,4	142	94	5	1124 03 01140
11,5	142	94	5	1124 03 01150
11,6	151	101	5	1124 03 01160
11,7	151	101	5	1124 03 01170



Punte elicoidali Tin-Point DIN 338 HSS-G **rivestimento al titanio** tipo N-TP, split point
Twist drills **TiN-point** DIN 338 HSS-G **titanium coated** Type N-TP, split point



Code **1124**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
11,8	151	101	5	1124 03 01180
11,9	151	101	5	1124 03 01190
12,0	151	101	5	1124 03 01200
12,1	151	101	5	1124 03 01210
12,2	151	101	5	1124 03 01220
12,3	151	101	5	1124 03 01230
12,4	151	101	5	1124 03 01240

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
12,5	151	101	5	1124 03 01250
12,6	151	101	5	1124 03 01260
12,7	151	101	5	1124 03 01270
12,8	151	101	5	1124 03 01280
12,9	151	101	5	1124 03 01290
13,0	151	101	5	1124 03 01300

Cassette in metallo BC Proti-Plus / BC Profi-Plus Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 10 TiN-Point	19	Ø 1,0 – 10,0 mm x 0,5 mm	1124 13 10019
MG 13 TiN-Point	25	Ø 1,0 – 13,0 mm x 0,5 mm	1124 13 10025

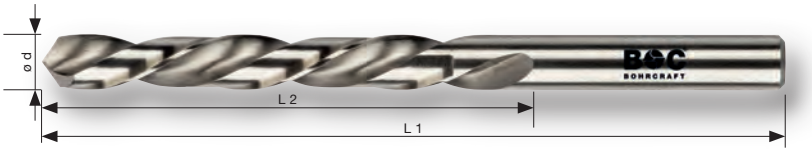


MG 10 TiN-Point



- **Rivestimento in TiN sulla parte tagliente**
- **Lunga durata dell'utensile grazie alla superficie dura della parte rivestita**
- **TiN-coating on cutting part**
- **Long tool life due to hard surface on coated part**

Punte elicoidali **SINISTRE** DIN 338 HSS-G tipo LN **rettificate,** split point
Twist drills **LEFT HAND** DIN 338 HSS-G type LN **fully ground,** split point



Code **1129**

DIN 338 | HSS G | Typ LN | LINKS LEFT HAND LH | 118° | SPLIT POINT | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1129	●	●			●	●	●	●	

Punta elicoidale a taglio sinistrorso per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Left-hand cutting twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
1,0	34	12	10	1129 03 00100
1,5	40	18	10	1129 03 00150
2,0	49	24	10	1129 03 00200
2,4	57	30	10	1129 03 00240
2,5	57	30	10	1129 03 00250
2,6	57	30	10	1129 03 00260
3,0	61	33	10	1129 03 00300
3,2	65	36	10	1129 03 00320
3,3	65	36	10	1129 03 00330
3,4	70	39	10	1129 03 00340
3,5	70	39	10	1129 03 00350
4,0	75	43	10	1129 03 00400
4,2	75	43	10	1129 03 00420
4,5	80	47	10	1129 03 00450
4,8	86	52	10	1129 03 00480
5,0	86	52	10	1129 03 00500
5,2	86	52	10	1129 03 00520
5,5	93	57	10	1129 03 00550

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
6,0	93	57	10	1129 03 00600
6,5	101	63	10	1129 03 00650
6,8	109	69	10	1129 03 00680
6,9	109	69	10	1129 03 00690
7,0	109	69	10	1129 03 00700
7,5	109	69	5	1129 03 00750
8,0	117	75	5	1129 03 00800
8,5	117	75	5	1129 03 00850
9,0	125	81	5	1129 03 00900
9,5	125	81	5	1129 03 00950
10,0	133	87	5	1129 03 01000
10,2	133	87	5	1129 03 01020
10,5	133	87	5	1129 03 01050
11,0	142	94	5	1129 03 01100
11,5	142	94	5	1129 03 01150
12,0	151	101	5	1129 03 01200
12,5	151	101	5	1129 03 01250
13,0	151	101	5	1129 03 01300

Cassette in metallo BC Proti-Plus / BC Profi-Plus Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 10-LH	19	Ø 1,0 – 10,0 mm x 0,5 mm	1129 13 10019
MG 13-LH	25	Ø 1,0 – 13,0 mm x 0,5 mm	1129 13 10025

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 5-LH	5	Ø 4 · 5 · 6 · 8 · 10 mm	1129 13 30005



MG 10-LH

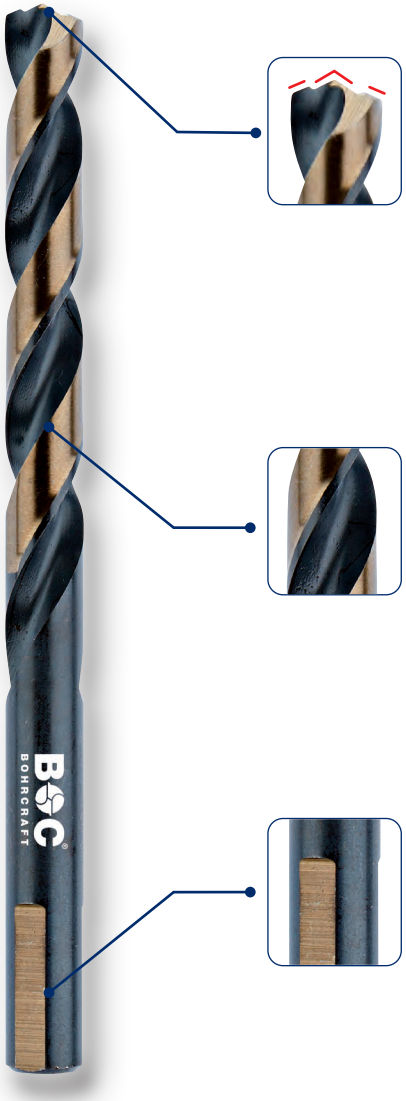


MG 5-LH

TURBO Punte elicoidali DIN 338 HSS-G, con punta di centraggio
TURBO Twist drills DIN 338 HSS-G, with centering-tip



TURBO *...con punta di centraggio*
...with centering-tip



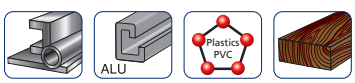
- **Tagliente a gradino a partire da Ø 3,0 mm**
- **Foratura precisa senza sbavature**
- **Centraggio preciso grazie alla punta autocentrante**
- **Alta velocità di foratura garantita**

- **New-Multi-Facet-Point-angle starting from Ø 3,0 mm**
- **Clean round holes without burr**
- **Precise centering due to self-centering tip**
- **Special centering-tip guarantees faster drilling rate**

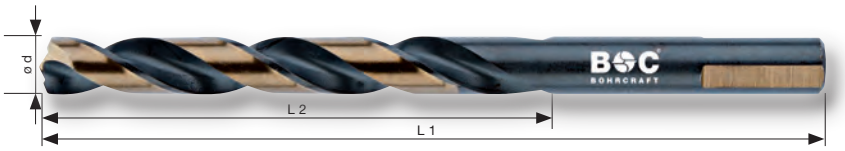
- **Nucleo rinforzato per maggiore stabilità**
- **Reinforced web for high stability**

- **Codolo a tre lati che garantisce una migliore trasmissione della potenza (a partire dal Ø 5,0 mm)**
- **Triangle-shank for sizes above Ø 5,0 mm for optimum power transmission**

Adatto per / suitable for:



TURBO Punte elicoidali DIN 338 HSS-G, con rompi truciolo
TURBO Twist drills DIN 338 HSS-G, with centering-tip



Code **1201**

DIN 338 | HSS G | Typ N | 3 | TURBO | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1201	●	●		●		●	●	●	

Per forature senza sbavature in acciaio, ferro, metalli non ferrosi, alluminio, plastica e legno. ***Particolarmente adatto per elettroutensili a batteria.***

For clean round holes in steel, iron, non ferrous metals, aluminium, plastics and wood. ***Especially suitable for working with cordless machines.***

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
1,0	34	12	10	1201 03 00100
1,5	40	18	10	1201 03 00150
2,0	49	24	10	1201 03 00200
2,5	57	30	10	1201 03 00250
3,0	61	33	10	1201 03 00300
3,1	65	36	10	1201 03 00310
3,2	65	36	10	1201 03 00320
3,3	65	36	10	1201 03 00330
3,5	70	39	10	1201 03 00350
4,0	75	43	10	1201 03 00400
4,1	75	43	10	1201 03 00410
4,2	75	43	10	1201 03 00420
4,5	80	47	10	1201 03 00450
4,8	86	52	10	1201 03 00480
5,0	86	52	10	1201 03 00500
5,1	86	52	10	1201 03 00510
5,2	86	52	10	1201 03 00520

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
5,5	93	57	10	1201 03 00550
6,0	93	57	10	1201 03 00600
6,5	101	63	10	1201 03 00650
6,8	109	69	10	1201 03 00680
7,0	109	69	10	1201 03 00700
7,5	109	69	10	1201 03 00750
8,0	117	75	10	1201 03 00800
8,5	117	75	10	1201 03 00850
9,0	125	81	10	1201 03 00900
9,5	125	81	10	1201 03 00950
10,0	133	87	10	1201 03 01000
10,5	133	87	5	1201 03 01050
11,0	142	94	5	1201 03 01100
11,5	142	94	5	1201 03 01150
12,0	151	101	5	1201 03 01200
12,5	151	101	5	1201 03 01250
13,0	151	101	5	1201 03 01300

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KG 10-TCR	19	Ø 1,0 – 10,0 mm x 0,5 mm	1201 13 30019
KG 13-TCR	25	Ø 1,0 – 13,0 mm x 0,5 mm	1201 13 30025

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 5-TCR	5	Ø 4 · 5 · 6 · 8 · 10 mm	1201 13 30005



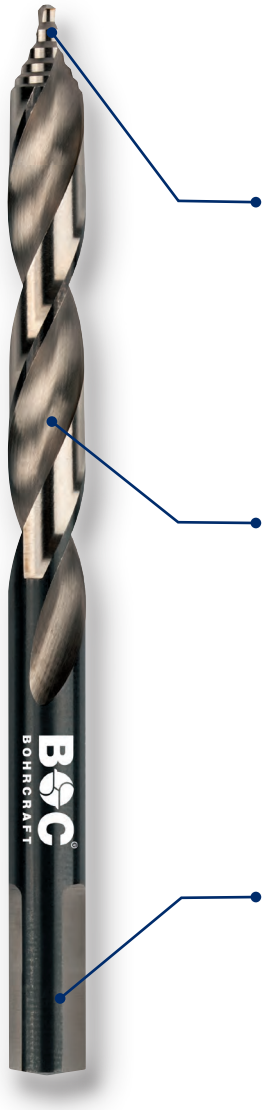
KG 10-TCR



MG 5-TCR

TURBO STEP Punte elicoidali DIN 338 HSS-G, con geometria a gradini
TURBO STEP Twist drills DIN 338 HSS-G, with step geometry

TURBO STEP ...con geometria a gradini ...with step geometry





- Geometria a gradini innovativa a partire da Ø 2,5 mm
- Foratura precisa e pulita senza sbavature
- Avvio di foratura più preciso grazie a una punta di centraggio
- Avanzamento della foratura molto rapido

- Innovative step geometry from Ø 2,5 mm
- Precise and clean round holes without burr
- Clean drilling start due to self-centering tip
- Very fast drilling progress



- Il trattamento a vapore aumenta la resistenza all'usura

- Steam tempered land increases the wear resistance

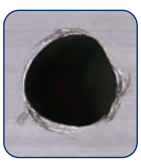


- Codolo a tre lati che garantisce una migliore trasmissione della potenza (a partire dal Ø 4,0 mm)

- Triangle-shank for sizes above Ø 4,0 mm for optimum power transmission







TURBO STEP

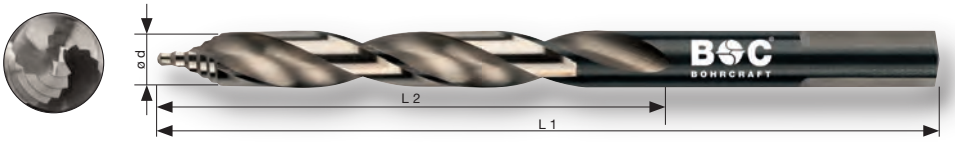
- Punte elicoidali Standard HSS

- Standard HSS twist drill

Adatto per / suitable for:



TURBO STEP Punte elicoidali DIN 338 HSS-G, con geometria a gradini
TURBO STEP Twist drills DIN 338 HSS-G, with step geometry



Code **1202**

DIN 338 | HSS G | TURBO STEP | Ø>2,5mm | SPLIT POINT | 3 | 5xD | AKKU

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1202	●	●		●	●	●	●	●	

· Perfetto per elettroutensili a batteria / a filo
· Notevolmente più veloce delle normali punte elicoidali
· Foratura semplificata di fori esistenti
· Ideale per forare bulloni o rivetti
Particolarmente adatto per acciaio < 1.000 N/mm² (31 HRC) materiali fusi, alluminio, materie plastiche, legno duro e tenero.

· Perfect for use with cordless / corded machines
· Significantly faster than normal twist drills
· Simplified drilling of existing dril holes
· Ideal for drilling out bolts or rivets
Especially suitable for steel < 1.000 N/mm² (31 HRC), cast materials, aluminium, plastics, hard- and softwood.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
1,0	34	12	10	1202 03 00100	1	1202 07 00100
1,5	40	18	10	1202 03 00150	1	1202 07 00150
2,0	49	24	10	1202 03 00200	1	1202 07 00200
2,5	57	30	10	1202 03 00250	1	1202 07 00250
3,0	61	33	10	1202 03 00300	1	1202 07 00300
3,2	65	36	10	1202 03 00320	1	1202 07 00320
3,3	65	36	10	1202 03 00330	1	1202 07 00330
3,5	70	39	10	1202 03 00350	1	1202 07 00350
4,0	75	43	10	1202 03 00400	1	1202 07 00400
4,2	75	43	10	1202 03 00420	1	1202 07 00420
4,5	80	47	10	1202 03 00450	1	1202 07 00450
4,9	86	52	10	1202 03 00490	1	1202 07 00490
5,0	86	52	10	1202 03 00500	1	1202 07 00500
5,2	86	52	10	1202 03 00520	1	1202 07 00520
5,5	93	57	10	1202 03 00550	1	1202 07 00550
6,0	93	57	10	1202 03 00600	1	1202 07 00600
6,5	101	63	10	1202 03 00650	1	1202 07 00650
6,8	109	69	10	1202 03 00680	1	1202 07 00680
7,0	109	69	10	1202 03 00700	1	1202 07 00700
7,5	109	69	10	1202 03 00750	1	1202 07 00750
8,0	117	75	10	1202 03 00800	1	1202 07 00800
8,5	117	75	10	1202 03 00850	1	1202 07 00850
9,0	125	81	10	1202 03 00900	1	1202 07 00900
9,5	125	81	10	1202 03 00950	1	1202 07 00950
10,0	133	87	10	1202 03 01000	1	1202 07 01000
10,2	133	87	5	1202 03 01020	1	1202 07 01020
10,5	133	87	5	1202 03 01050	1	1202 07 01050
11,0	142	94	5	1202 03 01100	1	1202 07 01100
11,5	142	94	5	1202 03 01150	1	1202 07 01150
12,0	151	101	5	1202 03 01200	1	1202 07 01200
12,5	151	101	5	1202 03 01250	1	1202 07 01250
13,0	151	101	5	1202 03 01300	1	1202 07 01300

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KG 10 T-STEP	19	Ø 1,0 – 10,0 mm x 0,5 mm	1202 13 30019
KG 24 T-STEP	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1202 13 30024
KG 13 T-STEP	25	Ø 1,0 – 13,0 mm x 0,5 mm	1202 13 30025



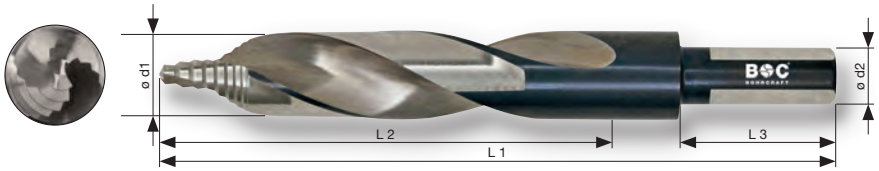
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 5 T-STEP	5	Ø 4 · 5 · 6 · 8 · 10 mm	1202 13 30005





TURBO STEP DIN 1897 HSS-G, con geometria a gradini e codolo ridotto
TURBO STEP DIN 1897 HSS-G, with step geometry and reduced shank



Code **1204**

DIN 1897 | HSS G | TURBO STEP | SPLIT POINT | 3 | 3xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1204	●	●		●	●	●	●	●	

· Perfetto per elettroutensili a batteria / a filo
· Notevolmente più veloce delle normali punte elicoidali
· Foratura semplificata di fori esistenti

Particolarmente adatto per acciaio < 1.000 N/mm² (31 HRC) materiali fusi, alluminio, materie plastiche, legno duro e tenero.

· Perfect for use with cordless / corded machines
· Significantly faster than normal twist drills
· Simplified drilling of existing boreholes

Especially suitable for steel < 1.000 N/mm² (31 HRC), cast materials, aluminium, plastics, hard- and softwood.

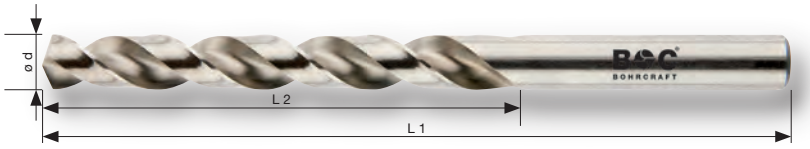
Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm		Art.-Nr. Part-No.
13,5	107	61	12,7	29	1	1204 03 01350
14,0	107	61	12,7	29	1	1204 03 01400
14,5	111	65	12,7	29	1	1204 03 01450
15,0	111	65	12,7	29	1	1204 03 01500
15,5	115	69	12,7	29	1	1204 03 01550
16,0	115	69	12,7	29	1	1204 03 01600

TURBO STEP INOX



Code 1203
Pagina / Page 67

Punte elicoidali per **ALU** DIN 338 HSS-G Tipo W **rettificate,** split point
Twist drills for **ALU** DIN 338 HSS-G type W **fully ground,** split point



Code **1127**

DIN 338 | HSS G | Typ W | ALU | 130° | 1418 C SPLIT POINT | 5xD

Code	P			M	K	N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1	2.2 – 2.6	4.2	1.1 – 2.6
1127						●	●		●	

Punte elicoidali per trucioli grandi e materiali resistenti come alluminio, rame o plastica morbida.

Twist drill for long chipping and tough materials such as aluminium, copper or soft plastic.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,0	49	24	1	1127 03 00200
2,5	57	30	1	1127 03 00250
3,0	61	33	1	1127 03 00300
3,5	70	39	1	1127 03 00350
4,0	75	43	1	1127 03 00400
4,2	75	43	1	1127 03 00420
4,5	80	47	1	1127 03 00450
5,0	86	52	1	1127 03 00500
5,5	93	57	1	1127 03 00550
6,0	93	57	1	1127 03 00600
6,5	101	63	1	1127 03 00650
7,0	109	69	1	1127 03 00700
7,5	109	69	1	1127 03 00750
8,0	117	75	1	1127 03 00800
8,5	117	75	1	1127 03 00850
9,0	125	81	1	1127 03 00900
9,5	125	81	1	1127 03 00950
10,0	133	87	1	1127 03 01000
10,5	133	87	1	1127 03 01050
11,0	142	94	1	1127 03 01100
11,5	142	94	1	1127 03 01150
12,0	151	101	1	1127 03 01200
12,5	151	101	1	1127 03 01250
13,0	151	101	1	1127 03 01300

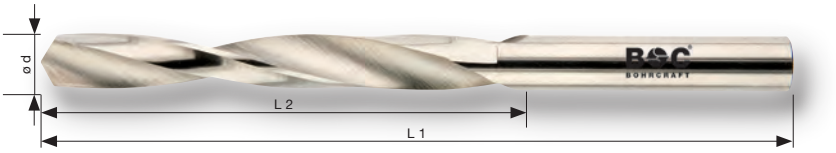
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 5-ALU	5	Ø 4 · 5 · 6 · 8 · 10 mm	1127 13 30005



MG 5-ALU

Punte elicoidali per **OTTONE** DIN 338 HSS-G Tipo H **rettificate**
Twist drills for **BRASS** DIN 338 HSS-G type H **fully ground**



Code **1128**

DIN 338 | HSS G | Typ H | MESSING BRASS | 118° | 5xD

Code	P			M	K	N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.2 – 2.6	3.1 – 3.2	4.2	1.1 – 2.6
1128							●	●	●	

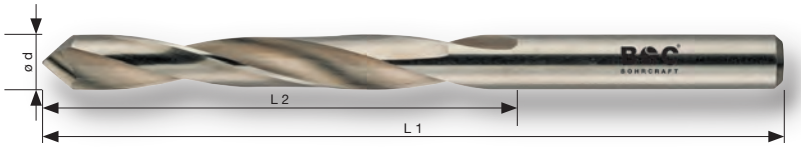
Punta elicoidale per materiali duri, a trucioli corti, come acciaio, plastica dura, vetro acrilico o laminato.

Twist drill for hard, short chipping, brittle and tough materials such as steel, hard plastics, acrylic glass or laminate.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,0	49	24	1	1128 03 00200
2,5	57	30	1	1128 03 00250
3,0	61	33	1	1128 03 00300
3,2	65	36	1	1128 03 00320
3,5	70	39	1	1128 03 00350
4,0	75	43	1	1128 03 00400
4,5	80	47	1	1128 03 00450
4,8	86	52	1	1128 03 00480
5,0	86	52	1	1128 03 00500
5,2	86	52	1	1128 03 00520
5,5	93	57	1	1128 03 00550
6,0	93	57	1	1128 03 00600
6,5	101	63	1	1128 03 00650
7,0	109	69	1	1128 03 00700
7,5	109	69	1	1128 03 00750
8,0	117	75	1	1128 03 00800
8,5	117	75	1	1128 03 00850
9,0	125	81	1	1128 03 00900
9,5	125	81	1	1128 03 00950
10,0	133	87	1	1128 03 01000
10,5	133	87	1	1128 03 01050
11,0	142	94	1	1128 03 01100
11,5	142	94	1	1128 03 01150
12,0	151	101	1	1128 03 01200
12,5	151	101	1	1128 03 01250
13,0	151	101	1	1128 03 01300



Punte elicoidali per **MATERIALE SINTETICO** DIN 338 HSS-G Tipo HK **rettificate**
Twist drills for **SYNTHETIC MATERIALS** DIN 338 HSS-G type HK **fully ground**



Code **1131**

DIN 338 | HSS G | Typ HK | Plastics PVC | 80° | 5xD

Code	P			M	K	N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.1	4.2	1.1 – 2.6
1131								●	●	

Punta speciale per bachelite, HPL, plexiglass, gomma dura, eternit, pertinax, materiali termoindurenti.
Particolarmente adatto alla foratura senza schegge di pannelli HPL.

Special drill for bakelite, HPL, acrylic glass, hard rubber, eternit, pertinax, thermoset materials.
Especially suitable for splinter free drilling of HPL panels.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,0	49	24	1	1131 03 00200
2,5	57	30	1	1131 03 00250
3,0	61	33	1	1131 03 00300
3,5	70	39	1	1131 03 00350
4,0	75	43	1	1131 03 00400
4,5	80	47	1	1131 03 00450
5,0	86	52	1	1131 03 00500
5,5	93	57	1	1131 03 00550
6,0	93	57	1	1131 03 00600
6,5	101	63	1	1131 03 00650
7,0	109	69	1	1131 03 00700
7,5	109	69	1	1131 03 00750
8,0	117	75	1	1131 03 00800
8,5	117	75	1	1131 03 00850
9,0	125	81	1	1131 03 00900
9,5	125	81	1	1131 03 00950
10,0	133	87	1	1131 03 01000

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HK 5	5	Ø 4 · 5 · 6 · 8 · 10 mm	1131 13 30005

Cassette in ABS BC / BC ABS Box

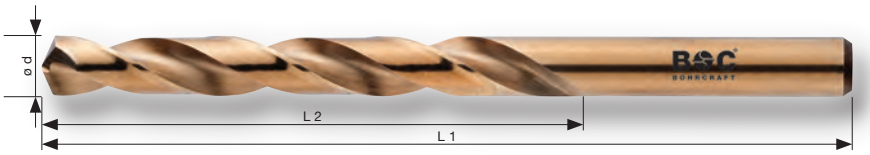
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KG 10 HK	17	Ø 2,0 – 10,0 mm x 0,5 mm	1131 13 30017



KG 10 HK


HK 5

Punte elicoidali DIN 338 HSS-E (Co5) **lega di cobalto,** split point
Twist drills DIN 338 HSS-E (Co5) **cobalt alloyed,** split point



Code **1140**

DIN 338 | HSS-E Co5 | Typ N | VA INOX | 135° | 1412 D SPLIT POINT | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1140	●	●		●	●	●	●	●	

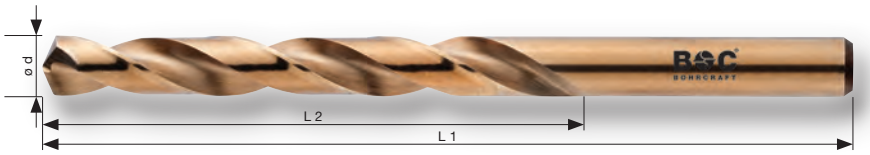
Punta elicoidale con maggiore resistenza al calore, per la foratura di acciai inossidabili e acciai resistenti al calore.

Twist drill with higher heat resistance, for drilling stainless steels and heat resistant steels.

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
1,0	34	12	10	1140 01 00100	1	1140 07 00100
1,1	36	14	10	1140 01 00110	-	-
1,2	38	16	10	1140 01 00120	-	-
1,3	38	16	10	1140 01 00130	-	-
1,4	38	16	10	1140 01 00140	-	-
1,5	40	18	10	1140 01 00150	1	1140 07 00150
1,6	43	20	10	1140 01 00160	-	-
1,7	43	20	10	1140 01 00170	-	-
1,8	46	23	10	1140 01 00180	-	-
1,9	46	23	10	1140 01 00190	-	-
2,0	49	24	10	1140 01 00200	1	1140 07 00200
2,1	49	24	10	1140 01 00210	-	-
2,2	53	27	10	1140 01 00220	-	-
2,3	53	27	10	1140 01 00230	-	-
2,4	57	30	10	1140 01 00240	-	-
2,5	57	30	10	1140 01 00250	1	1140 07 00250
2,6	57	30	10	1140 01 00260	-	-
2,7	61	33	10	1140 01 00270	-	-
2,8	61	33	10	1140 01 00280	-	-
2,9	61	33	10	1140 01 00290	-	-
3,0	61	33	10	1140 01 00300	1	1140 07 00300
3,1	65	36	10	1140 01 00310	1	1140 07 00310
3,2	65	36	10	1140 01 00320	1	1140 07 00320
3,3	65	36	10	1140 01 00330	1	1140 07 00330
3,4	70	39	10	1140 01 00340	-	-
3,5	70	39	10	1140 01 00350	1	1140 07 00350
3,6	70	39	10	1140 01 00360	-	-
3,7	70	39	10	1140 01 00370	-	-
3,8	75	43	10	1140 01 00380	-	-
3,9	75	43	10	1140 01 00390	-	-
4,0	75	43	10	1140 01 00400	1	1140 07 00400
4,1	75	43	10	1140 01 00410	1	1140 07 00410
4,2	75	43	10	1140 01 00420	1	1140 07 00420
4,3	80	47	10	1140 01 00430	-	-
4,4	80	47	10	1140 01 00440	-	-
4,5	80	47	10	1140 01 00450	1	1140 07 00450
4,6	80	47	10	1140 01 00460	-	-
4,7	80	47	10	1140 01 00470	-	-
4,8	86	52	10	1140 01 00480	1	1140 07 00480
4,9	86	52	10	1140 01 00490	-	-
5,0	86	52	10	1140 01 00500	1	1140 07 00500
5,1	86	52	10	1140 01 00510	1	1140 07 00510
5,2	86	52	10	1140 01 00520	1	1140 07 00520
5,3	86	52	10	1140 01 00530	-	-
5,4	93	57	10	1140 01 00540	-	-
5,5	93	57	10	1140 01 00550	1	1140 07 00550
5,6	93	57	10	1140 01 00560	-	-
5,7	93	57	10	1140 01 00570	-	-
5,8	93	57	10	1140 01 00580	-	-
5,9	93	57	10	1140 01 00590	-	-
6,0	93	57	10	1140 01 00600	1	1140 07 00600
6,1	101	63	10	1140 01 00610	-	-
6,2	101	63	10	1140 01 00620	-	-
6,3	101	63	10	1140 01 00630	-	-



Punte elicoidali DIN 338 HSS-E (Co5) **lega di cobalto,** split point
Twist drills DIN 338 HSS-E (Co5) **cobalt alloyed,** split point

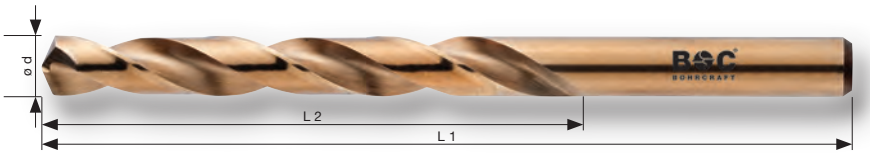


Code **1140**

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
6,4	101	63	10	1140 01 00640	-	-
6,5	101	63	10	1140 01 00650	1	1140 07 00650
6,6	101	63	10	1140 01 00660	-	-
6,7	101	63	10	1140 01 00670	-	-
6,8	109	69	10	1140 01 00680	1	1140 07 00680
6,9	109	69	10	1140 01 00690		
7,0	109	69	10	1140 01 00700	1	1140 07 00700
7,1	109	69	10	1140 01 00710	-	-
7,2	109	69	10	1140 01 00720	-	-
7,3	109	69	10	1140 01 00730	-	-
7,4	109	69	10	1140 01 00740	-	-
7,5	109	69	10	1140 01 00750	1	1140 07 00750
7,6	117	75	10	1140 01 00760	-	-
7,7	117	75	10	1140 01 00770	-	-
7,8	117	75	10	1140 01 00780	-	-
7,9	117	75	10	1140 01 00790	-	-
8,0	117	75	10	1140 01 00800	1	1140 07 00800
8,1	117	75	10	1140 01 00810	-	-
8,2	117	75	10	1140 01 00820	-	-
8,3	117	75	10	1140 01 00830	-	-
8,4	117	75	10	1140 01 00840	-	-
8,5	117	75	10	1140 01 00850	1	1140 07 00850
8,6	125	81	10	1140 01 00860	-	-
8,7	125	81	10	1140 01 00870	-	-
8,8	125	81	10	1140 01 00880	-	-
8,9	125	81	10	1140 01 00890	-	-
9,0	125	81	10	1140 01 00900	1	1140 07 00900
9,1	125	81	10	1140 01 00910	-	-
9,2	125	81	10	1140 01 00920	-	-
9,3	125	81	10	1140 01 00930	-	-
9,4	125	81	10	1140 01 00940	-	-
9,5	125	81	10	1140 01 00950	1	1140 07 00950
9,6	133	87	10	1140 01 00960	-	-
9,7	133	87	10	1140 01 00970	-	-
9,8	133	87	10	1140 01 00980	-	-
9,9	133	87	10	1140 01 00990	-	-
10,0	133	87	10	1140 01 01000	1	1140 07 01000
10,2	133	87	5	1140 01 01020	1	1140 07 01020
10,5	133	87	5	1140 01 01050	1	1140 07 01050
11,0	142	94	5	1140 01 01100	1	1140 07 01100
11,2	142	94	5	1140 01 01120	-	-
11,5	142	94	5	1140 01 01150	1	1140 07 01150
12,0	151	101	5	1140 01 01200	1	1140 07 01200
12,5	151	101	5	1140 01 01250	1	1140 07 01250
13,0	151	101	5	1140 01 01300	1	1140 07 01300
13,5	160	108	5	1140 01 01350	-	-
14,0	160	108	5	1140 01 01400	-	-
14,5	169	114	5	1140 01 01450	-	-
15,0	169	114	5	1140 01 01500	-	-
15,5	178	120	5	1140 01 01550	-	-
16,0	178	120	5	1140 01 01600	-	-



Punte elicoidali DIN 338 HSS-E (Co5) **lega di cobalto,** split point
Twist drills DIN 338 HSS-E (Co5) **cobalt alloyed,** split point



Code **1140**

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KE 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1140 13 30019
KE 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1140 13 30025
KE 24	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1140 13 30024
KE 591	51	Ø 1,0 – 6,0 mm x 0,1 mm	1140 13 30050
KE 601	41	Ø 6,0 – 10,0 mm x 0,1 mm	1140 13 30041



BC Grip-Box / BC Grip-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
VE 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1140 14 10119



Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
ME 10	19	Ø 1,0 – 10,0 mm x 0,5 mm	1140 13 10019
ME 13	25	Ø 1,0 – 13,0 mm x 0,5 mm	1140 13 10025
ME 24	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1140 14 10024
ME 591	50	Ø 1,0 – 5,9 mm x 0,1 mm	1140 14 10050
ME 601	41	Ø 6,0 – 10,0 mm x 0,1 mm	1140 14 10041
ME 65	65	Ø 1,0 – 6,0 mm x 0,5 mm = 5 pz. / pcs. + Ø 3,3 · 4,2 mm = 5 pz. / pcs.	1140 13 10065
ME 70	70	Ø 1,0 – 5,0 mm x 0,5 mm = 5 pz. / pcs. Ø 5,5 – 7,5 mm x 0,5 mm = 3 pz. / pcs. Ø 8,0 – 10,0 mm x 0,5 mm = 2 pz. / pcs.	1140 14 10070
ME 170	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 10,0 mm = 5 pz. / pcs.	1140 14 10170
ME 220	220	Ø 1,0 – 13,0 mm x 0,5 mm + 3,3 / 4,2 mm Ø 1,0 – 8,0 mm = 10 pz. / pcs. Ø 8,5 – 13,0 mm = 5 pz. / pcs.	1140 14 20220



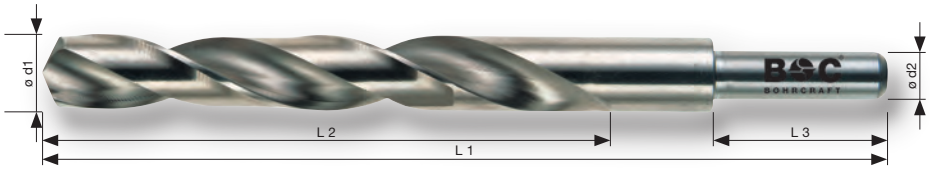


Cassetta in plastica BC / BC Plastic-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
PE 6	6	Ø 2 · 3 · 4 · 5 · 6 · 8 mm	18	1140 14 30006



Punte elicoidali DIN 338 HSS-E (Co5) **lega di cobalto,** codolo ridotto
Twist drills DIN 338 HSS-E (Co5) **cobalt alloyed,** with reduced shank



Code **1140-red.**

DIN 338 | HSS-E Co5 | Typ N | VA INOX | 135° | 1418 C SPLIT POINT | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1140	●	●		●	●	●	●	●	

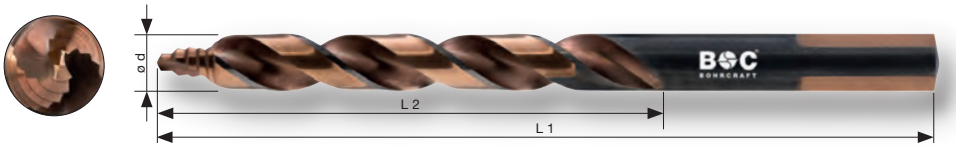
Punta elicoidale con maggiore resistenza al calore, per la foratura di acciai inossidabili e acciai resistenti al calore.

Twist drill with higher heat resistance, for drilling stainless steels and heat resistant steels.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm		Art.-Nr. Part-No.
11,0	142	94	10	30	1	1140 03 11100
12,0	151	101	10	30	1	1140 03 11200
13,0	151	101	10	30	1	1140 03 11300
13,5	160	108	10	30	1	1140 03 11350
14,0	160	108	10	30	1	1140 03 11400
14,5	169	114	10	30	1	1140 03 11450
15,0	169	114	10	30	1	1140 03 11500
15,5	178	120	10	30	1	1140 03 11550
16,0	178	120	10	30	1	1140 03 11600
16,5	184	125	13	35	1	1140 03 11650
17,0	184	125	13	35	1	1140 03 11700
17,5	191	130	13	35	1	1140 03 11750
18,0	191	130	13	35	1	1140 03 11800
18,5	198	135	13	35	1	1140 03 11850
19,0	198	135	13	35	1	1140 03 11900
19,5	205	140	13	35	1	1140 03 11950
20,0	205	140	13	35	1	1140 03 12000



TURBO STEP INOX Punte elicoidali DIN 338 HSS-E, con geometria a gradini
TURBO STEP INOX twist drills DIN 338 HSS-E, with step geometry



Code **1203**

DIN 338 | HSS-E Co5 | TURBO STEP INOX | VA INOX | Ø>2,5mm | SPLIT POINT | 3 | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1203	●	●	●	●	●	●	●	●	

· Perfetto per elettroutensili a batteria / a filo
· Notevolmente più veloce delle normali punte elicoidali
· Foratura semplificata di fori esistenti
· Ideale per forare bulloni o rivetti

Particolarmente adatto per acciaio e acciaio inossidabile fino a 1.200 N/mm² (38 HRC), materiali fusi, alluminio, materie plastiche (ad es. vetro acrilico), legno duro e tenero.

· Perfect for use with cordless / corded machines
· Significantly faster than normal twist drills
· Simplified drilling of existing drill holes
· Ideal for drilling out bolts or rivets

Especially suitable for steel and stainless steel up to 1.200 N/mm² (38 HRC), cast materials, aluminium, plastics (e.g. acrylic glass), hard- and softwood.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
1,0	34	12	10	1203 03 00100	1	1203 07 00100
1,5	40	18	10	1203 03 00150	1	1203 07 00150
2,0	49	24	10	1203 03 00200	1	1203 07 00200
2,5	57	30	10	1203 03 00250	1	1203 07 00250
3,0	61	33	10	1203 03 00300	1	1203 07 00300
3,2	65	36	10	1203 03 00320	1	1203 07 00320
3,3	65	36	10	1203 03 00330	1	1203 07 00330
3,5	70	39	10	1203 03 00350	1	1203 07 00350
4,0	75	43	10	1203 03 00400	1	1203 07 00400
4,2	75	43	10	1203 03 00420	1	1203 07 00420
4,5	80	47	10	1203 03 00450	1	1203 07 00450
4,9	86	52	10	1203 03 00490	1	1203 07 00490
5,0	86	52	10	1203 03 00500	1	1203 07 00500
5,2	86	52	10	1203 03 00520	1	1203 07 00520
5,5	93	57	10	1203 03 00550	1	1203 07 00550
6,0	93	57	10	1203 03 00600	1	1203 07 00600
6,5	101	63	10	1203 03 00650	1	1203 07 00650
6,8	109	69	10	1203 03 00680	1	1203 07 00680
7,0	109	69	10	1203 03 00700	1	1203 07 00700
7,5	109	69	10	1203 03 00750	1	1203 07 00750
8,0	117	75	10	1203 03 00800	1	1203 07 00800
8,5	117	75	10	1203 03 00850	1	1203 07 00850
9,0	125	81	10	1203 03 00900	1	1203 07 00900
9,5	125	81	10	1203 03 00950	1	1203 07 00950
10,0	133	87	10	1203 03 01000	1	1203 07 01000
10,2	133	87	5	1203 03 01020	1	1203 07 01020
10,5	133	87	5	1203 03 01050	1	1203 07 01050
11,0	142	94	5	1203 03 01100	1	1203 07 01100
11,5	142	94	5	1203 03 01150	1	1203 07 01150
12,0	151	101	5	1203 03 01200	1	1203 07 01200
12,5	151	101	5	1203 03 01250	1	1203 07 01250
13,0	151	101	5	1203 03 01300	1	1203 07 01300

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KE 10 T-STEP INOX	19	Ø 1,0 – 10,0 mm x 0,5 mm	1203 13 30019
KE 24 T-STEP INOX	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1203 13 30024
KE 13 T-STEP INOX	25	Ø 1,0 – 13,0 mm x 0,5 mm	1203 13 30025



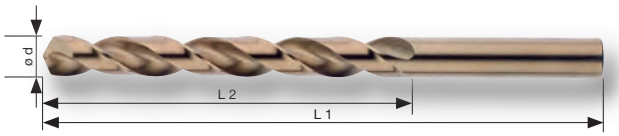
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
ME 5 T-STEP INOX	5	Ø 4 · 5 · 6 · 8 · 10 mm	1203 13 30005





Punte elicoidali DIN 338 HSS-E (Co5) Tipo VA/Ti **lega di cobalto,** split point
Twist drills DIN 338 HSS-E (Co5) type VA/Ti **cobalt alloyed,** split point



Code **1141**



Code **1143 TiALN**

DIN 338 | HSS-E Co5 | Typ VA/Ti | VA INOX | 130° | 1418 G SPLIT POINT | 5xD

TiALN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1141	●	●	●	●	●	●	●		●
1143	●	●	●	●	●		●		●

Punta speciale con elevata sicurezza contro le fratture grazie allo spessore rinforzato dell'anima. Adatta per materiali con resistenza alla trazione fino a 1.200 N/mm² (38 HRC).

Spessore dell'anima maggiore del normale.

Special drill with high security against fracture due to reinforced web thickness. Suitable for materials with tensile strength up to 1.200 N/mm² (38 HRC).

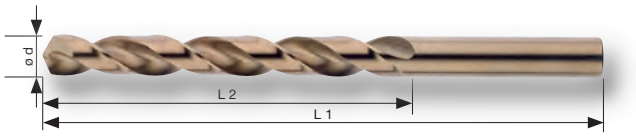
Web thickness bigger than normal.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
0,6	24	7	10	1141 03 00060	-
0,7	28	9	10	1141 03 00070	-
0,8	30	10	10	1141 03 00080	-
0,9	32	11	10	1141 03 00090	-
1,0	34	12	10	1141 03 00100	-
1,1	36	14	10	1141 03 00110	-
1,2	38	16	10	1141 03 00120	-
1,3	38	16	10	1141 03 00130	-
1,4	40	18	10	1141 03 00140	-
1,5	40	18	10	1141 03 00150	-
1,6	43	20	10	1141 03 00160	-
1,7	43	20	10	1141 03 00170	-
1,8	46	23	10	1141 03 00180	-
1,9	46	23	10	1141 03 00190	-
2,0	49	24	10	1141 03 00200	1143 03 00200
2,1	49	24	10	1141 03 00210	1143 03 00210
2,2	53	27	10	1141 03 00220	1143 03 00220
2,3	53	27	10	1141 03 00230	1143 03 00230
2,4	57	30	10	1141 03 00240	1143 03 00240
2,5	57	30	10	1141 03 00250	1143 03 00250
2,6	57	30	10	1141 03 00260	1143 03 00260
2,7	61	33	10	1141 03 00270	1143 03 00270
2,8	61	33	10	1141 03 00280	1143 03 00280
2,9	61	33	10	1141 03 00290	1143 03 00290
3,0	61	33	10	1141 03 00300	1143 03 00300
3,1	65	36	10	1141 03 00310	1143 03 00310
3,2	65	36	10	1141 03 00320	1143 03 00320
3,3	65	36	10	1141 03 00330	1143 03 00330
3,4	70	39	10	1141 03 00340	1143 03 00340
3,5	70	39	10	1141 03 00350	1143 03 00350
3,6	70	39	10	1141 03 00360	1143 03 00360
3,7	70	39	10	1141 03 00370	1143 03 00370
3,8	70	43	10	1141 03 00380	1143 03 00380
3,9	75	43	10	1141 03 00390	1143 03 00390
4,0	75	43	10	1141 03 00400	1143 03 00400
4,1	75	43	10	1141 03 00410	1143 03 00410
4,2	75	43	10	1141 03 00420	1143 03 00420
4,3	80	47	10	1141 03 00430	1143 03 00430
4,4	80	47	10	1141 03 00440	1143 03 00440
4,5	80	47	10	1141 03 00450	1143 03 00450
4,6	80	47	10	1141 03 00460	1143 03 00460
4,7	80	47	10	1141 03 00470	1143 03 00470
4,8	86	52	10	1141 03 00480	1143 03 00480
4,9	86	52	10	1141 03 00490	1143 03 00490
5,0	86	52	10	1141 03 00500	1143 03 00500
5,1	86	52	10	1141 03 00510	1143 03 00510
5,2	86	52	10	1141 03 00520	1143 03 00520
5,3	86	52	10	1141 03 00530	1143 03 00530
5,4	93	57	10	1141 03 00540	1143 03 00540
5,5	93	57	10	1141 03 00550	1143 03 00550

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
5,6	93	57	10	1141 03 00560	1143 03 00560
5,7	93	57	10	1141 03 00570	1143 03 00570
5,8	93	57	10	1141 03 00580	1143 03 00580
5,9	93	57	10	1141 03 00590	1143 03 00590
6,0	93	57	10	1141 03 00600	1143 03 00600
6,1	101	63	10	1141 03 00610	1143 03 00610
6,2	101	63	10	1141 03 00620	1143 03 00620
6,3	101	63	10	1141 03 00630	1143 03 00630
6,4	101	63	10	1141 03 00640	1143 03 00640
6,5	101	63	10	1141 03 00650	1143 03 00650
6,6	101	63	10	1141 03 00660	1143 03 00660
6,7	101	63	10	1141 03 00670	1143 03 00670
6,8	109	69	10	1141 03 00680	1143 03 00680
6,9	109	69	10	1141 03 00690	1143 03 00690
7,0	109	69	10	1141 03 00700	1143 03 00700
7,1	109	69	5	1141 03 00710	1143 03 00710
7,2	109	69	5	1141 03 00720	1143 03 00720
7,3	109	69	5	1141 03 00730	1143 03 00730
7,4	109	69	5	1141 03 00740	1143 03 00740
7,5	109	69	5	1141 03 00750	1143 03 00750
7,6	117	75	5	1141 03 00760	1143 03 00760
7,7	117	75	5	1141 03 00770	1143 03 00770
7,8	117	75	5	1141 03 00780	1143 03 00780
7,9	117	75	5	1141 03 00790	1143 03 00790
8,0	117	75	5	1141 03 00800	1143 03 00800
8,1	117	75	5	1141 03 00810	1143 03 00810
8,2	117	75	5	1141 03 00820	1143 03 00820
8,3	117	75	5	1141 03 00830	1143 03 00830
8,4	117	75	5	1141 03 00840	1143 03 00840
8,5	117	75	5	1141 03 00850	1143 03 00850
8,6	125	81	5	1141 03 00860	1143 03 00860
8,7	125	81	5	1141 03 00870	1143 03 00870
8,8	125	81	5	1141 03 00880	1143 03 00880
8,9	125	81	5	1141 03 00890	1143 03 00890
9,0	125	81	5	1141 03 00900	1143 03 00900
9,1	125	81	5	1141 03 00910	1143 03 00910
9,2	125	81	5	1141 03 00920	1143 03 00920
9,3	125	81	5	1141 03 00930	1143 03 00930
9,4	125	81	5	1141 03 00940	1143 03 00940
9,5	125	81	5	1141 03 00950	1143 03 00950
9,6	133	87	5	1141 03 00960	1143 03 00960
9,7	133	87	5	1141 03 00970	1143 03 00970
9,8	133	87	5	1141 03 00980	1143 03 00980
9,9	133	87	5	1141 03 00990	1143 03 00990
10,0	133	87	5	1141 03 01000	1143 03 01000
10,1	133	87	5	1141 03 01010	1143 03 01010
10,2	133	87	5	1141 03 01020	1143 03 01020
10,3	133	87	5	1141 03 01030	1143 03 01030
10,4	133	87	5	1141 03 01040	1143 03 01040
10,5	133	87	5	1141 03 01050	1143 03 01050

Punte elicoidali DIN 338 HSS-E (Co5) Tipo VA/Ti **lega di cobalto,** split point
Twist drills DIN 338 HSS-E (Co5) type VA/Ti **cobalt alloyed,** split point



Code **1141**



Code **1143 TiALN**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
10,6	142	94	5	1141 03 01060	1143 03 01060
10,7	142	94	5	1141 03 01070	1143 03 01070
10,8	142	94	5	1141 03 01080	1143 03 01080
10,9	142	94	5	1141 03 01090	1143 03 01090
11,0	142	94	5	1141 03 01100	1143 03 01100
11,1	142	94	5	1141 03 01110	1143 03 01110
11,2	142	94	5	1141 03 01120	1143 03 01120
11,3	142	94	5	1141 03 01130	1143 03 01130
11,4	142	94	5	1141 03 01140	1143 03 01140
11,5	142	94	5	1141 03 01150	1143 03 01150
11,6	151	101	5	1141 03 01160	1143 03 01160
11,7	151	101	5	1141 03 01170	1143 03 01170
11,8	151	101	5	1141 03 01180	1143 03 01180
11,9	151	101	5	1141 03 01190	1143 03 01190
12,0	151	101	5	1141 03 01200	1143 03 01200
12,1	151	101	5	1141 03 01210	1143 03 01210

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
12,2	151	101	5	1141 03 01220	1143 03 01220
12,3	151	101	5	1141 03 01230	1143 03 01230
12,4	151	101	5	1141 03 01240	1143 03 01240
12,5	151	101	5	1141 03 01250	1143 03 01250
12,6	151	101	5	1141 03 01260	1143 03 01260
12,7	151	101	5	1141 03 01270	1143 03 01270
12,8	151	101	5	1141 03 01280	1143 03 01280
12,9	151	101	5	1141 03 01290	1143 03 01290
13,0	151	101	5	1141 03 01300	1143 03 01300
13,5	160	108	1	1141 03 01350	1143 03 01350
14,0	160	108	1	1141 03 01400	1143 03 01400
14,5	169	114	1	1141 03 01450	1143 03 01450
15,0	169	114	1	1141 03 01500	1143 03 01500
15,5	178	120	1	1141 03 01550	1143 03 01550
16,0	178	120	1	1141 03 01600	1143 03 01600

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KE 10 Ti	19	Ø 1,0 – 10,0 mm x 0,5 mm	1141 14 30019
KE 13 Ti	25	Ø 1,0 – 13,0 mm x 0,5 mm	1141 14 30025



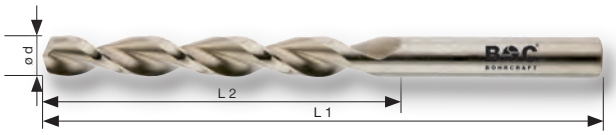
KE 10 Ti



KE 13 Ti



Punte multigrado DIN 338 HSS-E (Co5) Tipo U-TL **lega di cobalto,** split point
Multigrade drills DIN 338 HSS-E (Co5) type U-TL **cobalt alloyed,** split point



Code **1142**



Code **1144 TiALN**

DIN 338 | HSS-E Co5 | Typ U-TL | VA INOX | TIEFLOCH DEEPHOLE Version | 130° | 1412 C SPLIT POINT | 5xD | TiALN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1142	●	●	●	●	●	●	●	●	
1144	●	●	●	●	●		●		

Punta multigrado con scanalatura parabolica per una migliore evacuazione del truciolo. Adatta per materiali con resistenza alla trazione fino a 1.200 N/mm² (38 HRC).

Particolarmente adatta per materiali a truciolo medio, lungo e lavorabili con materiali duri. Copre i settori di foratura che devono essere forati con punte di tipo N, H e W.

Multigrade drill with parabolic flute for improved chip removal. Suitable for materials with tensile strength up to 1.200 N/mm² (38 HRC).

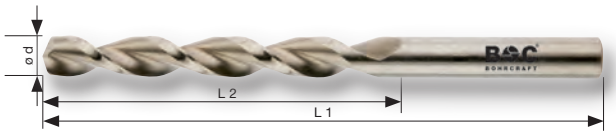
Especially suitable for medium, long chipping and hard machinable materials. Covers drill-sectors which should be drilled with Type N, H and W drills.



PUNTE ELICOIDALI
TWIST DRILLS

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
2,0	49	24	10	1142 03 00200	1144 03 00200
2,1	49	24	10	1142 03 00210	1144 03 00210
2,2	53	27	10	1142 03 00220	1144 03 00220
2,3	53	27	10	1142 03 00230	1144 03 00230
2,4	57	30	10	1142 03 00240	1144 03 00240
2,5	57	30	10	1142 03 00250	1144 03 00250
2,6	57	30	10	1142 03 00260	1144 03 00260
2,7	61	33	10	1142 03 00270	1144 03 00270
2,8	61	33	10	1142 03 00280	1144 03 00280
2,9	61	33	10	1142 03 00290	1144 03 00290
3,0	61	33	10	1142 03 00300	1144 03 00300
3,1	65	36	10	1142 03 00310	1144 03 00310
3,2	65	36	10	1142 03 00320	1144 03 00320
3,3	65	36	10	1142 03 00330	1144 03 00330
3,4	70	39	10	1142 03 00340	1144 03 00340
3,5	70	39	10	1142 03 00350	1144 03 00350
3,6	70	39	10	1142 03 00360	1144 03 00360
3,7	70	39	10	1142 03 00370	1144 03 00370
3,8	70	43	10	1142 03 00380	1144 03 00380
3,9	75	43	10	1142 03 00390	1144 03 00390
4,0	75	43	10	1142 03 00400	1144 03 00400
4,1	75	43	10	1142 03 00410	1144 03 00410
4,2	75	43	10	1142 03 00420	1144 03 00420
4,3	80	47	10	1142 03 00430	1144 03 00430
4,4	80	47	10	1142 03 00440	1144 03 00440
4,5	80	47	10	1142 03 00450	1144 03 00450
4,6	80	47	10	1142 03 00460	1144 03 00460
4,7	80	47	10	1142 03 00470	1144 03 00470
4,8	86	52	10	1142 03 00480	1144 03 00480
4,9	86	52	10	1142 03 00490	1144 03 00490
5,0	86	52	10	1142 03 00500	1144 03 00500
5,1	86	52	10	1142 03 00510	1144 03 00510
5,2	86	52	10	1142 03 00520	1144 03 00520
5,3	86	52	10	1142 03 00530	1144 03 00530
5,4	93	57	10	1142 03 00540	1144 03 00540
5,5	93	57	10	1142 03 00550	1144 03 00550
5,6	93	57	10	1142 03 00560	1144 03 00560
5,7	93	57	10	1142 03 00570	1144 03 00570
5,8	93	57	10	1142 03 00580	1144 03 00580
5,9	93	57	10	1142 03 00590	1144 03 00590
6,0	93	57	10	1142 03 00600	1144 03 00600
6,1	101	63	10	1142 03 00610	1144 03 00610
6,2	101	63	10	1142 03 00620	1144 03 00620
6,3	101	63	10	1142 03 00630	1144 03 00630
6,4	101	63	10	1142 03 00640	1144 03 00640
6,5	101	63	10	1142 03 00650	1144 03 00650
6,6	101	63	10	1142 03 00660	1144 03 00660
6,7	101	63	10	1142 03 00670	1144 03 00670

Punte multigrado DIN 338 HSS-E (Co5) Tipo U-TL **lega di cobalto,** split point
Multigrade drills DIN 338 HSS-E (Co5) type U-TL **cobalt alloyed,** split point



Code **1142**



Code **1144 TiALN**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
6,8	109	69	10	1142 03 00680	1144 03 00680
6,9	109	69	10	1142 03 00690	1144 03 00690
7,0	109	69	10	1142 03 00700	1144 03 00700
7,1*	109	69	5	1142 03 00710	1144 03 00710
7,2	109	69	5	1142 03 00720	1144 03 00720
7,3	109	69	5	1142 03 00730	1144 03 00730
7,4*	109	69	5	1142 03 00740	1144 03 00740
7,5	109	69	5	1142 03 00750	1144 03 00750
7,6	117	75	5	1142 03 00760	1144 03 00760
7,7	117	75	5	1142 03 00770	1144 03 00770
7,8	117	75	5	1142 03 00780	1144 03 00780
7,9	117	75	5	1142 03 00790	1144 03 00790
8,0	117	75	5	1142 03 00800	1144 03 00800
8,1	117	75	5	1142 03 00810	1144 03 00810
8,2	117	75	5	1142 03 00820	1144 03 00820
8,3	117	75	5	1142 03 00830	1144 03 00830
8,4	117	75	5	1142 03 00840	1144 03 00840
8,5	117	75	5	1142 03 00850	1144 03 00850
8,6	125	81	5	1142 03 00860	1144 03 00860
8,7	125	81	5	1142 03 00870	1144 03 00870
8,8	125	81	5	1142 03 00880	1144 03 00880
8,9	125	81	5	1142 03 00890	1144 03 00890
9,0	125	81	5	1142 03 00900	1144 03 00900
9,1	125	81	5	1142 03 00910	1144 03 00910
9,2	125	81	5	1142 03 00920	1144 03 00920
9,3	125	81	5	1142 03 00930	1144 03 00930
9,4	125	81	5	1142 03 00940	1144 03 00940
9,5	125	81	5	1142 03 00950	1144 03 00950
9,6	133	87	5	1142 03 00960	1144 03 00960
9,7	133	87	5	1142 03 00970	1144 03 00970
9,8	133	87	5	1142 03 00980	1144 03 00980
9,9	133	87	5	1142 03 00990	1144 03 00990
10,0	133	87	5	1142 03 01000	1144 03 01000
10,2	133	87	5	1142 03 01020	1144 03 01020
10,5	133	87	5	1142 03 01050	1144 03 01050
11,0	142	94	5	1142 03 01100	1144 03 01100
11,5	142	94	5	1142 03 01150	1144 03 01150
12,0	151	101	5	1142 03 01200	1144 03 01200
12,5	151	101	5	1142 03 01250	1144 03 01250
13,0	151	101	5	1142 03 01300	1144 03 01300

* Solo fino ad esaurimento scorte / * Only as long as stock lasts

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KE 10 U-TL	19	Ø 1,0 – 10,0 mm x 0,5 mm	1142 14 30019
KE 13 U-TL	25	Ø 1,0 – 13,0 mm x 0,5 mm	1142 14 30025



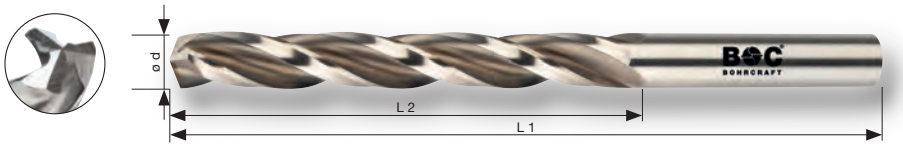
KE 10 U-TL



KE 13 U-TL



Punte elicoidali DIN 338 HSS-E (Co5) con **3 taglienti**
Twist drills DIN 338 HSS-E (Co5) with **3 cutting edges**



Code **1149**

DIN 338 | HSS-E Co5 | Z3 | 130° | Typ N | 5xD

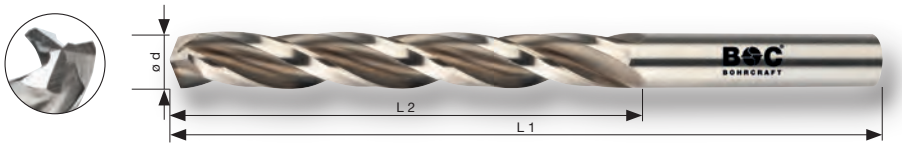
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1149	●	●	●	●	●	●	●		

Punta elicoidale per uso professionale con 3 taglienti per una velocità di avanzamento fino al 60% superiore rispetto alle punte elicoidali a 2 taglienti. Utilizzata su macchine CNC, consente qualità di foratura fino a IT 9. Impiego universale su acciaio strutturale, acciaio non legato e legato < 1.000 N/mm² (32,2 HRC), nonché alluminio (leghe per lavorazione plastica e fusione).

Twist drill for industrial use with 3 cutting edges for up to 60% higher feed rate compared to twist drills with 2 cutting edges. Used in CNC machines drilling qualities up to IT 9 are possible. Universal use in structural steel, unalloyed and alloyed steel < 1,000 N/mm² (32,2 HRC), as well as aluminum (wrought and cast alloys).

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	
2,0	49	24	1	1149 03 00200	●
2,1	49	24	1	1149 03 00210	○
2,2	53	27	1	1149 03 00220	○
2,3	53	27	1	1149 03 00230	○
2,4	57	30	1	1149 03 00240	○
2,5	57	30	1	1149 03 00250	●
2,6	57	30	1	1149 03 00260	○
2,7	61	33	1	1149 03 00270	○
2,8	61	33	1	1149 03 00280	○
2,9	61	33	1	1149 03 00290	○
3,0	61	33	1	1149 03 00300	●
3,1	65	36	1	1149 03 00310	○
3,2	65	36	1	1149 03 00320	●
3,3	65	36	1	1149 03 00330	●
3,4	70	39	1	1149 03 00340	○
3,5	70	39	1	1149 03 00350	●
3,6	70	39	1	1149 03 00360	○
3,7	70	39	1	1149 03 00370	○
3,8	70	43	1	1149 03 00380	○
3,9	75	43	1	1149 03 00390	○
4,0	75	43	1	1149 03 00400	●
4,1	75	43	1	1149 03 00410	○
4,2	75	43	1	1149 03 00420	●
4,3	80	47	1	1149 03 00430	○
4,4	80	47	1	1149 03 00440	○
4,5	80	47	1	1149 03 00450	●
4,6	80	47	1	1149 03 00460	○
4,7	80	47	1	1149 03 00470	○
4,8	86	52	1	1149 03 00480	○
4,9	86	52	1	1149 03 00490	●
5,0	86	52	1	1149 03 00500	●
5,1	86	52	1	1149 03 00510	○
5,2	86	52	1	1149 03 00520	○
5,3	86	52	1	1149 03 00530	○
5,4	93	57	1	1149 03 00540	○
5,5	93	57	1	1149 03 00550	●
5,6	93	57	1	1149 03 00560	○
5,7	93	57	1	1149 03 00570	○
5,8	93	57	1	1149 03 00580	○
5,9	93	57	1	1149 03 00590	○
6,0	93	57	1	1149 03 00600	●
6,1	101	63	1	1149 03 00610	○
6,2	101	63	1	1149 03 00620	○
6,3	101	63	1	1149 03 00630	○
6,4	101	63	1	1149 03 00640	○
6,5	101	63	1	1149 03 00650	●
6,6	101	63	1	1149 03 00660	○
6,7	101	63	1	1149 03 00670	○
6,8	109	69	1	1149 03 00680	●

Punte elicoidali DIN 338 HSS-E (Co5) con **3 taglienti**
Twist drills DIN 338 HSS-E (Co5) with **3 cutting edges**



Code **1149**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	
6,9	109	69	1	1149 03 00690	○
7,0	109	69	1	1149 03 00700	●
7,1	109	69	1	1149 03 00710	○
7,2	109	69	1	1149 03 00720	○
7,3	109	69	1	1149 03 00730	○
7,4	109	69	1	1149 03 00740	○
7,5	109	69	1	1149 03 00750	●
7,6	117	75	1	1149 03 00760	○
7,7	117	75	1	1149 03 00770	○
7,8	117	75	1	1149 03 00780	○
7,9	117	75	1	1149 03 00790	○
8,0	117	75	1	1149 03 00800	●
8,1	117	75	1	1149 03 00810	○
8,2	117	75	1	1149 03 00820	○
8,3	117	75	1	1149 03 00830	○
8,4	117	75	1	1149 03 00840	○
8,5	117	75	1	1149 03 00850	●
8,6	125	81	1	1149 03 00860	○
8,7	125	81	1	1149 03 00870	○
8,8	125	81	1	1149 03 00880	○
8,9	125	81	1	1149 03 00890	○
9,0	125	81	1	1149 03 00900	●
9,1	125	81	1	1149 03 00910	○
9,2	125	81	1	1149 03 00920	○
9,3	125	81	1	1149 03 00930	○
9,4	125	81	1	1149 03 00940	○
9,5	125	81	1	1149 03 00950	●
9,6	133	87	1	1149 03 00960	○
9,7	133	87	1	1149 03 00970	○
9,8	133	87	1	1149 03 00980	○
9,9	133	87	1	1149 03 00990	○
10,0	133	87	1	1149 03 01000	●
10,2	133	87	1	1149 03 01020	●
10,5	133	87	1	1149 03 01050	●
11,0	142	94	1	1149 03 01100	●
11,5	142	94	1	1149 03 01150	●
12,0	151	101	1	1149 03 01200	●
12,5	151	101	1	1149 03 01250	●
13,0	151	101	1	1149 03 01300	●

● a magazzino / ex stock ○ consegna 10-14 giorni / Delivery time 10 – 14 days

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.	
KE 10 Z3	19	Ø 1,0 – 10,0 mm x 0,5 mm*	1149 13 30019	●
KE 24 Z3	24	Ø 1,0 – 10,5 mm x 0,5 mm* + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1149 13 30024	●
KE 13 Z3	25	Ø 1,0 – 13,0 mm x 0,5 mm*	1149 13 30025	●

* Ø 1,0 + 1,5 mm = Code 1147



BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.	
ME 5 Z3	5	Ø 4 · 5 · 6 · 8 · 10 mm	1149 13 30005	●



Punte elicoidali DIN 338 HSS-E (Co8) Tipo N-HD **lega di cobalto,** split point
Twist drills DIN 338 HSS-E M42 (Co8) type N-HD **cobalt alloyed,** split point



Code **1147**



Code **1148 TiALN**

DIN 338 | HSS-E Co8 | Typ N-HD | VA INOX | 130° | 1418 C SPLIT POINT | 5xD

TiALN

Code	P			M	K	N			S	H
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 1.3	1.1
1147	●	●	●	●	●	●	●		●	●
1148	●	●	●	●	●	●	●		●	●

Punta elicoidale ad alte prestazioni con lega di cobalto all'8%, per un'elevata resistenza al calore. Adatta per materiali con resistenza alla trazione fino a 1.400 N/mm² (44 HRC).
Versione Heavy-Duty.

Stable high performance twist drill with 8 % cobalt alloy, thereby high warm hardness durability. Suitable for materials with tensile strength up to 1.400 N/mm² (44 HRC).
Heavy-Duty Version.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
1,0	34	12	10	1147 03 00100	-
1,1	36	14	10	1147 03 00110	-
1,2	38	16	10	1147 03 00120	-
1,3	38	16	10	1147 03 00130	-
1,4	40	18	10	1147 03 00140	-
1,5	40	18	10	1147 03 00150	-
1,6	43	20	10	1147 03 00160	-
1,7	43	20	10	1147 03 00170	-
1,8	46	23	10	1147 03 00180	-
1,9	46	23	10	1147 03 00190	-
2,0	49	24	10	1147 03 00200	1148 03 00200
2,1	49	24	10	1147 03 00210	1148 03 00210
2,2	53	27	10	1147 03 00220	1148 03 00220
2,3	53	27	10	1147 03 00230	1148 03 00230
2,4	57	30	10	1147 03 00240	1148 03 00240
2,5	57	30	10	1147 03 00250	1148 03 00250
2,6	57	30	10	1147 03 00260	1148 03 00260
2,8	61	33	10	1147 03 00280	1148 03 00280
2,9	61	33	10	1147 03 00290	1148 03 00290
3,0	61	33	10	1147 03 00300	1148 03 00300
3,1	65	36	10	1147 03 00310	1148 03 00310
3,2	65	36	10	1147 03 00320	1148 03 00320
3,3	65	36	10	1147 03 00330	1148 03 00330
3,4	70	39	10	1147 03 00340	1148 03 00340
3,5	70	39	10	1147 03 00350	1148 03 00350
3,6	70	39	10	1147 03 00360	1148 03 00360
3,7	70	39	10	1147 03 00370	1148 03 00370
3,8	70	43	10	1147 03 00380	1148 03 00380
3,9	75	43	10	1147 03 00390	1148 03 00390
4,0	75	43	10	1147 03 00400	1148 03 00400
4,1	75	43	10	1147 03 00410	1148 03 00410
4,2	75	43	10	1147 03 00420	1148 03 00420
4,3	80	47	10	1147 03 00430	1148 03 00430
4,4	80	47	10	1147 03 00440	1148 03 00440
4,5	80	47	10	1147 03 00450	1148 03 00450
4,6	80	47	10	1147 03 00460	1148 03 00460
4,7	80	47	10	1147 03 00470	1148 03 00470
4,8	86	52	10	1147 03 00480	1148 03 00480
4,9	86	52	10	1147 03 00490	1148 03 00490
5,0	86	52	10	1147 03 00500	1148 03 00500
5,1	86	52	10	1147 03 00510	1148 03 00510
5,2	86	52	10	1147 03 00520	1148 03 00520
5,3	86	52	10	1147 03 00530	1148 03 00530
5,4	93	57	10	1147 03 00540	1148 03 00540
5,5	93	57	10	1147 03 00550	1148 03 00550
5,6	93	57	10	1147 03 00560	1148 03 00560
5,7	93	57	10	1147 03 00570	1148 03 00570
5,8	93	57	10	1147 03 00580	1148 03 00580
5,9	93	57	10	1147 03 00590	1148 03 00590
6,0	93	57	10	1147 03 00600	1148 03 00600

Punte elicoidali DIN 338 HSS-E (Co8) Tipo N-HD **lega di cobalto,** split point
Twist drills DIN 338 HSS-E M42 (Co8) type N-HD **cobalt alloyed,** split point



Code **1147**



Code **1148 TiALN**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
6,1	101	63	10	1147 03 00610	1148 03 00610
6,2	101	63	10	1147 03 00620	1148 03 00620
6,3	101	63	10	1147 03 00630	1148 03 00630
6,4	101	63	10	1147 03 00640	1148 03 00640
6,5	101	63	10	1147 03 00650	1148 03 00650
6,6	101	63	10	1147 03 00660	1148 03 00660
6,7	101	63	10	1147 03 00670	1148 03 00670
6,8	109	69	10	1147 03 00680	1148 03 00680
6,9	109	69	10	1147 03 00690	1148 03 00690
7,0	109	69	10	1147 03 00700	1148 03 00700
7,1	109	69	5	1147 03 00710	1148 03 00710
7,2	109	69	5	1147 03 00720	1148 03 00720
7,3	109	69	5	1147 03 00730	1148 03 00730
7,4	109	69	5	1147 03 00740	1148 03 00740
7,5	109	69	5	1147 03 00750	1148 03 00750
7,6	117	75	5	1147 03 00760	1148 03 00760
7,7	117	75	5	1147 03 00770	1148 03 00770
7,8	117	75	5	1147 03 00780	1148 03 00780
7,9	117	75	5	1147 03 00790	1148 03 00790
8,0	117	75	5	1147 03 00800	1148 03 00800
8,1	117	75	5	1147 03 00810	1148 03 00810
8,2	117	75	5	1147 03 00820	1148 03 00820
8,3	117	75	5	1147 03 00830	1148 03 00830
8,4	117	75	5	1147 03 00840	1148 03 00840
8,5	117	75	5	1147 03 00850	1148 03 00850
8,6	125	81	5	1147 03 00860	1148 03 00860
8,7	125	81	5	1147 03 00870	1148 03 00870
8,8	125	81	5	1147 03 00880	1148 03 00880
8,9	125	81	5	1147 03 00890	1148 03 00890
9,0	125	81	5	1147 03 00900	1148 03 00900
9,1	125	81	5	1147 03 00910	1148 03 00910
9,2	125	81	5	1147 03 00920	1148 03 00920
9,3	125	81	5	1147 03 00930	1148 03 00930
9,4	125	81	5	1147 03 00940	1148 03 00940
9,5	125	81	5	1147 03 00950	1148 03 00950
9,7	133	87	5	1147 03 00970	1148 03 00970
9,8	133	87	5	1147 03 00980	1148 03 00980
9,9	133	87	5	1147 03 00990	1148 03 00990
10,0	133	87	5	1147 03 01000	1148 03 01000
10,2	133	87	5	1147 03 01020	1148 03 01020
10,5	133	87	5	1147 03 01050	1148 03 01050
10,8	142	94	5	1147 03 01080	1148 03 01080
11,0	142	94	5	1147 03 01100	1148 03 01100
11,5	142	94	5	1147 03 01150	1148 03 01150
12,0	151	101	5	1147 03 01200	1148 03 01200
12,5	151	101	5	1147 03 01250	1148 03 01250
13,0	151	101	5	1147 03 01300	1148 03 01300

Cassette in ABS BC / BC ABS-Boxes

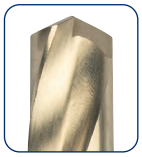
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KE 10 Co8	19	Ø 1,0 – 10,0 mm x 0,5 mm	1147 14 30019
KE 13 Co8	25	Ø 1,0 – 13,0 mm x 0,5 mm	1147 14 30025





Punte elicoidali per **HARDOX** HSS-E (Co8) Tipo HDX **lega di cobalto**
Twist drills for **HARDOX** HSS-E M42 (Co8) type HDX **cobalt alloyed**





- **Angolo di punta stabile**
- **Stable point angle**



- **Spirale extra corta per una maggiore stabilità**
- **Nucleo rinforzato**
- **Extra short flute for higher stability**
- **Reinforced web thickness**



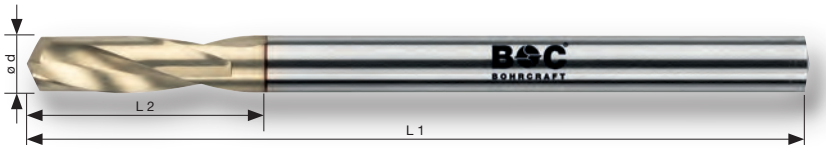
- **ZRN+ rivestimento per una maggiore durata dell'utensile**
- **ZRN+ coating for longer tool life**

Ideale per la lavorazione di benne per escavatori, pale caricatrici gommate, dumper, canali vibranti, ecc., realizzate in lamiera resistente all'usura.

Ideal for machining excavator buckets, wheel loader shovels, dumpers, vibrating chutes etc. made of wear-resistant sheet metals.



Punte elicoidali per **HARDOX** HSS-E (Co8) Tipo HDX **lega di cobalto**
Twist drills for **HARDOX** HSS-E M42 (Co8) type HDX **cobalt alloyed**



Code **1508**

HSS-E Co8 | Typ HDX | ZRN+ | SPLIT POINT | 3xD | HARDOX 400 | HARDOX 450 | HARDOX 500 | HARDOX HiTUF | XAR 400 | XAR 450 | XAR 500

Code	P			M	K	N			S	H
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 1.3	1.1
1508	●	●	●	●	●	●	●	●	●	●

- Punta elicoidale stabile ad alte prestazioni con elevata resistenza al calore. Per lamiere resistenti all'usura, XAR, HARDOX 400/450/500/HiTuf.
- Lunga durata dell'utensile grazie all'acciaio M42/Co8 e allo speciale rivestimento ZRN+ con basso coefficiente di attrito.

- Stable High Performance twist drill with high warm hardness durability. For wear-resistant sheet metal, XAR, HARDOX 400 / 450 / 500 / HiTuf.
- Long tool life due to M42/Co8 steel and special ZRN+ coating with a low coefficient of friction.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
1,0	34	6	1	1508 03 00100
1,5	40	9	1	1508 03 00150
2,0	49	12	1	1508 03 00200
2,5	57	14	1	1508 03 00250
3,0	61	16	1	1508 03 00300
3,2	65	18	1	1508 03 00320
3,3	65	18	1	1508 03 00330
3,5	70	20	1	1508 03 00350
4,0	75	22	1	1508 03 00400
4,2	75	22	1	1508 03 00420
4,5	80	24	1	1508 03 00450
5,0	86	26	1	1508 03 00500
5,5	93	28	1	1508 03 00550
6,0	93	28	1	1508 03 00600
6,5	101	31	1	1508 03 00650
6,8	109	34	1	1508 03 00680
7,0	109	34	1	1508 03 00700
7,5	109	34	1	1508 03 00750
8,0	117	37	1	1508 03 00800
8,5	117	37	1	1508 03 00850
9,0	125	40	1	1508 03 00900
9,5	125	40	1	1508 03 00950
10,0	133	43	1	1508 03 01000
10,2	133	43	1	1508 03 01020
10,5	133	43	1	1508 03 01050
11,0	142	47	1	1508 03 01100
11,5	142	47	1	1508 03 01150
12,0	151	51	1	1508 03 01200
12,5	151	51	1	1508 03 01250
13,0	151	51	1	1508 03 01300

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KE 10 HDX	19	Ø 1,0 – 10,0 mm x 0,5 mm	1508 13 30019
KE 24 HDX	24	Ø 1,0 – 10,5 mm x 0,5 mm + Ø 3,3 · 4,2 · 6,8 · 10,2 mm	1508 13 30024
KE 13 HDX	25	Ø 1,0 – 13,0 mm x 0,5 mm	1508 13 30025



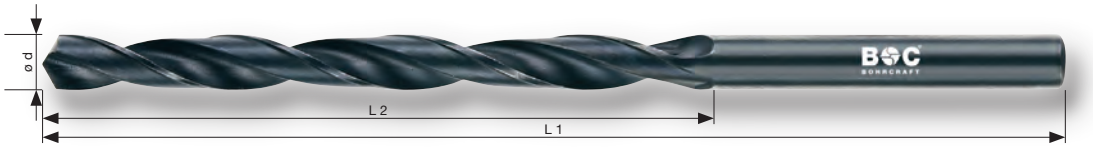
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
ME 5 HDX	5	Ø 4 · 5 · 6 · 8 · 10 mm	1508 13 30005





Punte elicoidali DIN 340 HSS **laminate**
Twist drills DIN 340 HSS **roll forged**



Code **1340**

DIN 340 | HSS R | Typ N | 118° | 10xD

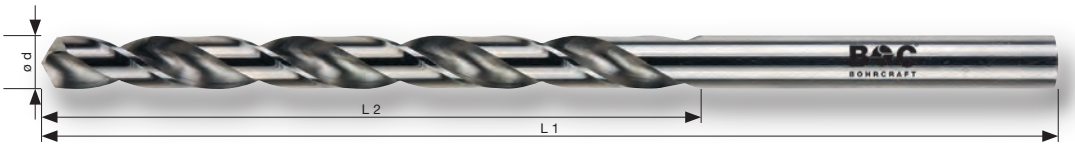
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1340	●					●	●	●	

Punta elicoidale realizzata tramite un processo di forgiatura dei metalli, che ne aumenta l'elasticità e la resistenza alla rottura. Adatta per lavori di foratura gravosi su materiali normali e metalli non ferrosi.

Twist drill made in a metal forging process, thereby increasing of elasticity and breakage resistance. Suitable for robust drilling work in normal materials and non-ferrous metals.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,0	85	56	10	1340 01 00200
2,5	95	62	10	1340 01 00250
2,8	100	66	10	1340 01 00280
3,0	100	66	10	1340 01 00300
3,2	106	69	10	1340 01 00320
3,3	106	69	10	1340 01 00330
3,4	112	73	10	1340 01 00340
3,5	112	73	10	1340 01 00350
3,7	112	73	10	1340 01 00370
3,8	119	78	10	1340 01 00380
3,9	119	78	10	1340 01 00390
4,0	119	78	10	1340 01 00400
4,1	119	78	10	1340 01 00410
4,2	119	78	10	1340 01 00420
4,4	126	82	10	1340 01 00440
4,5	126	82	10	1340 01 00450
4,8	132	87	10	1340 01 00480
4,9	132	87	10	1340 01 00490
5,0	132	87	10	1340 01 00500
5,1	132	87	10	1340 01 00510
5,2	132	87	10	1340 01 00520
5,5	139	91	10	1340 01 00550
5,8	139	91	10	1340 01 00580
6,0	139	91	10	1340 01 00600
6,2	148	97	10	1340 01 00620
6,3	148	97	10	1340 01 00630
6,5	148	97	10	1340 01 00650
6,8	156	102	10	1340 01 00680
7,0	156	102	10	1340 01 00700
7,5	156	102	10	1340 01 00750
8,0	165	109	10	1340 01 00800
8,5	165	109	10	1340 01 00850
9,0	175	115	10	1340 01 00900
9,5	175	115	10	1340 01 00950
10,0	184	121	10	1340 01 01000
10,5	184	121	5	1340 01 01050
11,0	195	128	5	1340 01 01100
11,5	195	128	5	1340 01 01150
12,0	205	134	5	1340 01 01200
12,5	205	134	5	1340 01 01250
13,0	205	134	5	1340 01 01300

Punte elicoidali DIN 340 HSS-G **rettificate,** split point
Twist drills DIN 340 HSS-G **fully ground,** split point



Code **1350**

DIN 340 | HSS G | Typ N | 118° | 1418 D SPLIT POINT | 10xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1350	●				●	●	●	●	

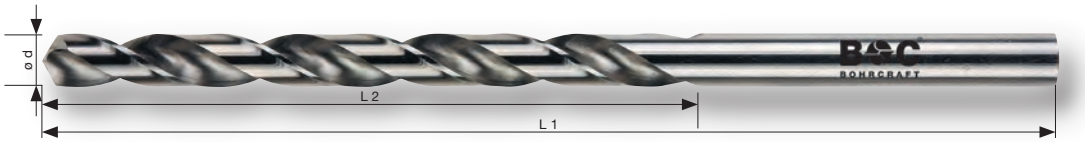
Punta elicoidale per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d1 mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Ar.-Nr. Part-No.
1,0	56	33	10	1350 01 00100	-	-
1,5	70	45	10	1350 01 00150	-	-
2,0	85	56	10	1350 01 00200	2	1350 07 20200
2,5	95	62	10	1350 01 00250	2	1350 07 20250
2,8	100	66	10	1350 01 00280	-	-
3,0	100	66	10	1350 01 00300	2	1350 07 20300
3,1	106	69	10	1350 01 00310	-	-
3,2	106	69	10	1350 01 00320	2	1350 07 20320
3,3	106	69	10	1350 01 00330	-	-
3,5	112	73	10	1350 01 00350	2	1350 07 20350
3,6	112	73	10	1350 01 00360	-	-
3,7	112	73	10	1350 01 00370	-	-
3,8	119	78	10	1350 01 00380	-	-
3,9	119	78	10	1350 01 00390	-	-
4,0	119	78	10	1350 01 00400	2	1350 07 20400
4,1	119	78	10	1350 01 00410	-	-
4,2	119	78	10	1350 01 00420	-	-
4,3	126	82	10	1350 01 00430	-	-
4,4	126	82	10	1350 01 00440	-	-
4,5	126	82	10	1350 01 00450	1	1350 07 00450
4,8	132	87	10	1350 01 00480	-	-
4,9	132	87	10	1350 01 00490	-	-
5,0	132	87	10	1350 01 00500	1	1350 07 00500
5,1	132	87	10	1350 01 00510	-	-
5,2	132	87	10	1350 01 00520	-	-
5,3	132	87	10	1350 01 00530	-	-
5,4	139	91	10	1350 01 00540	-	-
5,5	139	91	10	1350 01 00550	1	1350 07 00550
5,8	139	91	10	1350 01 00580	-	-
6,0	139	91	10	1350 01 00600	1	1350 07 00600
6,2	148	97	10	1350 01 00620	-	-
6,5	148	97	10	1350 01 00650	1	1350 07 00650
6,8	156	102	10	1350 01 00680	-	-
7,0	156	102	10	1350 01 00700	1	1350 07 00700
7,5	156	102	10	1350 01 00750	1	1350 07 00750
7,7*	165	109	10	1350 01 00770	-	-
8,0	165	109	10	1350 01 00800	1	1350 07 00800
8,5	165	109	10	1350 01 00850	1	1350 07 00850
9,0	175	115	10	1350 01 00900	1	1350 07 00900
9,5	175	115	10	1350 01 00950	1	1350 07 00950
9,8*	184	121	10	1350 01 00980	-	-
10,0	184	121	10	1350 01 01000	1	1350 07 01000
10,2	184	121	5	1350 01 01020	-	-
10,5	184	121	5	1350 01 01050	-	-
11,0	195	128	5	1350 01 01100	1	1350 07 01100
11,5	195	128	5	1350 01 01150	-	-
12,0	205	134	5	1350 01 01200	1	1350 07 01200
12,5	205	134	5	1350 01 01250	-	-
13,0	205	134	5	1350 01 01300	1	1350 07 01300
14,0	214	140	1	1350 02 01400	-	-
16,0	227	149	1	1350 02 01600	-	-

* Solo fino ad esaurimento scorte / * Only as long as stock lasts

Punte elicoidali DIN 340 HSS-G Tipo N **rettificate,** split point
Twist drills DIN 340 HSS-G type N **fully ground,** split point



Code **1353**

DIN 340 | HSS G | Typ N | 118° | 1412 C SPLIT POINT | 10xD

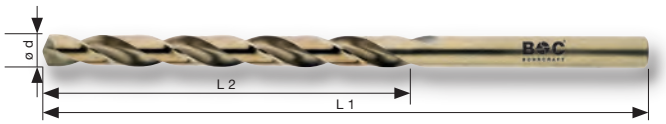
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1353	●	●			●	●	●	●	

Punta elicoidale di alta qualità per materiali con normale resistenza alla trazione, ad esempio acciai strutturali generici, materiali non ferrosi e ghisa.

Premium twist drill for materials with normal tensile strength, e.g. in general structural steels, non ferrous materials and cast iron.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
0,7	42	21	10	1353 03 00070
0,8	46	25	10	1353 03 00080
0,9	51	29	10	1353 03 00090
1,0	56	33	10	1353 03 00100
1,5	70	45	10	1353 03 00150
2,0	85	56	10	1353 03 00200
2,5	95	62	10	1353 03 00250
2,8	100	66	10	1353 03 00280
3,0	100	66	10	1353 03 00300
3,2	106	69	10	1353 03 00320
3,3	106	69	10	1353 03 00330
3,4	112	73	10	1353 03 00340
3,5	112	73	10	1353 03 00350
3,6	112	73	10	1353 03 00360
3,8	119	78	10	1353 03 00380
3,9	119	78	10	1353 03 00390
4,0	119	78	10	1353 03 00400
4,1	119	78	10	1353 03 00410
4,2	119	78	10	1353 03 00420
4,3	126	82	10	1353 03 00430
4,4	126	82	10	1353 03 00440
4,5	126	82	10	1353 03 00450
4,6	126	82	10	1353 03 00460
4,7	126	82	10	1353 03 00470
4,8	132	87	10	1353 03 00480
5,0	132	87	10	1353 03 00500
5,1	132	87	10	1353 03 00510
5,2	132	87	10	1353 03 00520
5,4	139	91	10	1353 03 00540
5,5	139	91	10	1353 03 00550
5,7	139	91	10	1353 03 00570
5,8	139	91	10	1353 03 00580
6,0	139	91	10	1353 03 00600
6,1	148	97	5	1353 03 00610
6,2	148	97	5	1353 03 00620
6,3	148	97	5	1353 03 00630
6,4	148	97	5	1353 03 00640
6,5	148	97	5	1353 03 00650
6,8	156	102	5	1353 03 00680
7,0	156	102	5	1353 03 00700
7,5	156	102	5	1353 03 00750
8,0	165	109	5	1353 03 00800
8,5	165	109	5	1353 03 00850
9,0	175	115	5	1353 03 00900
9,5	175	115	5	1353 03 00950
10,0	184	121	5	1353 03 01000
10,2	184	121	1	1353 03 01020
10,5	184	121	1	1353 03 01050
11,0	195	128	1	1353 03 01100
11,5	195	128	1	1353 03 01150
12,0	205	134	1	1353 03 01200
12,5	205	134	1	1353 03 01250
13,0	205	134	1	1353 03 01300

Punte elicoidali DIN 340 HSS-E (Co5) Tipo N **lega di cobalto,** split point
Twist drills DIN 340 HSS-E (Co5) type N **cobalt alloyed,** split point



Code **1360**



Code **1361 TiN**

DIN 340 | HSS-E Co5 | Typ N | VA INOX | 130° | 1418 D SPLIT POINT | 10xD | TiN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1360	●	●	◐	●	◐	◐	◐		
1361	●	●	◐	●	●		◐		◐

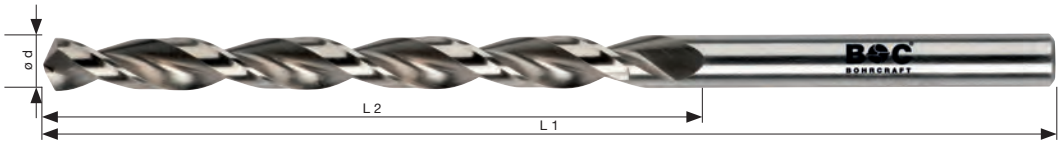
Punta elicoidale di alta qualità con maggiore resistenza al calore, per la foratura di acciai inossidabili e acciai resistenti al calore.

Premium twist drill with higher heat resistance, for drilling stainless steels and heat resistant steels.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
2,0	85	56	10	1360 03 00200	1361 03 00200
2,5	95	62	10	1360 03 00250	1361 03 00250
3,0	100	66	10	1360 03 00300	1361 03 00300
3,1	106	69	10	1360 03 00310	1361 03 00310
3,2	106	69	10	1360 03 00320	1361 03 00320
3,3	106	69	10	1360 03 00330	1361 03 00330
3,5	112	73	10	1360 03 00350	1361 03 00350
3,8	119	78	10	1360 03 00380	1361 03 00380
4,0	119	78	10	1360 03 00400	1361 03 00400
4,1	119	78	10	1360 03 00410	1361 03 00410
4,2	119	78	10	1360 03 00420	1361 03 00420
4,5	126	82	10	1360 03 00450	1361 03 00450
5,0	132	87	10	1360 03 00500	1361 03 00500
5,2	132	87	10	1360 03 00520	1361 03 00520
5,5	139	91	10	1360 03 00550	1361 03 00550
6,0	139	91	10	1360 03 00600	1361 03 00600
6,5	148	97	5	1360 03 00650	1361 03 00650
6,8	156	102	5	1360 03 00680	1361 03 00680
7,0	156	102	5	1360 03 00700	1361 03 00700
7,5	156	102	5	1360 03 00750	1361 03 00750
8,0	165	109	5	1360 03 00800	1361 03 00800
8,5	165	109	5	1360 03 00850	1361 03 00850
9,0	175	115	5	1360 03 00900	1361 03 00900
9,5	175	115	5	1360 03 00950	1361 03 00950
10,0	184	121	5	1360 03 01000	1361 03 01000
10,5	184	121	1	1360 03 01050	1361 03 01050
11,0	195	128	1	1360 03 01100	1361 03 01100
11,5	195	128	1	1360 03 01150	1361 03 01150
12,0	205	134	1	1360 03 01200	1361 03 01200
12,5	205	134	1	1360 03 01250	1361 03 01250
13,0	205	134	1	1360 03 01300	1361 03 01300



Punte multigrado DIN 340 HSS-E (Co5) Tipo U-TL **lega di cobalto,** split point
Multigrade drills DIN 340 HSS-E (Co5) type U-TL **cobalt alloyed,** split point



Code **1362**

DIN 340 | HSS-E Co5 | Typ U-TL | VA INOX | TIEFLOCH DEEPHOLE Version | 130° | 1412 C SPLIT POINT | 10xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1362	●	●	●	●	●	●	●	●	

Punta elicoidale multigrado con scanalatura parabolica per una migliore evacuazione del truciolo. Adatta per materiali con resistenza alla trazione fino a 1.200 N/mm² (38 HRC).

Particolarmente adatta per materiali a truciolo medio, lungo e lavorabili a macchina. Copre i settori di foratura che devono essere forati con punte di tipo N, H e W.

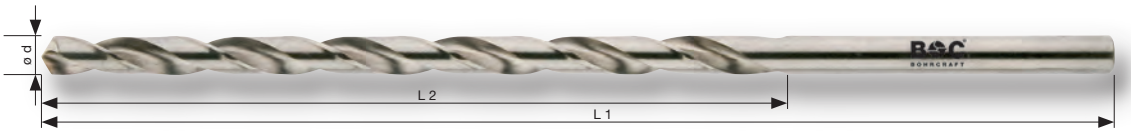
Multigrade twist drill with parabolic flute for improved chip removal. Suitable for materials with tensile strength up to 1.200 N/mm² (38 HRC).

Especially suitable for medium, long chipping and hard machinable materials. Covers drill-sectors which should be drilled with Type N, H and W drills.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,0	85	56	10	1362 03 00200
2,5	95	62	10	1362 03 00250
3,0	100	66	10	1362 03 00300
3,5	112	73	10	1362 03 00350
4,0	119	78	10	1362 03 00400
4,2	119	78	10	1362 03 00420
4,5	126	82	10	1362 03 00450
5,0	132	87	10	1362 03 00500
5,2	132	87	10	1362 03 00520
5,5	139	91	10	1362 03 00550
6,0	139	91	10	1362 03 00600
6,5	148	97	5	1362 03 00650
7,0	156	102	5	1362 03 00700
7,5	156	102	5	1362 03 00750
8,0	165	109	5	1362 03 00800
8,5	165	109	5	1362 03 00850
9,0	175	115	5	1362 03 00900
9,5	175	115	5	1362 03 00950
10,0	184	121	5	1362 03 01000
10,5	184	121	1	1362 03 01050
11,0	195	128	1	1362 03 01100
11,5	195	128	1	1362 03 01150
12,0	205	134	1	1362 03 01200
12,5	205	134	1	1362 03 01250
13,0	205	134	1	1362 03 01300

Punte elicoidali DIN 1869 HSS-G Tipo N **rettificate,** split point
Twist drills DIN 1869 HSS-G type N **fully ground,** split point



Code **1400**

DIN 1869 | HSS G | Typ N | 118° | SPLIT POINT | >10xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1400	●	●			●		●	●	

Per forare fori molto profondi in acciaio/metallo. Durante la foratura, assicurarsi che vi sia un raffreddamento adeguato. La velocità di taglio e l'avanzamento della punta devono essere proporzionati alla stabilità della punta.

For drilling very deep holes in steel/metal. When drilling please care for sufficient cooling. Cutting-speed and drill-feed must be in relation to stability of drill.

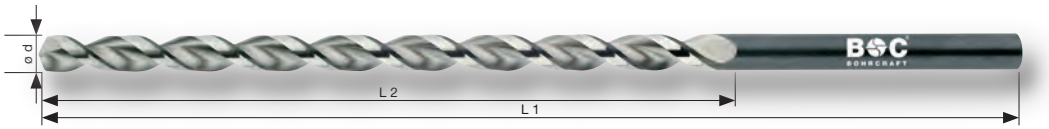
Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
Serie 1 / Series 1				
2,0	125	85	1	1400 07 10200
2,5	140	85	1	1400 07 10250
3,0	150	100	1	1400 07 10300
3,2	155	105	1	1400 07 10320
3,3	155	105	1	1400 07 10330
3,5	165	115	1	1400 07 10350
4,0	175	120	1	1400 07 10400
4,2	175	120	1	1400 07 10420
4,5	185	125	1	1400 07 10450
5,0	195	135	1	1400 07 10500
5,5	205	140	1	1400 07 10550
6,0	205	140	1	1400 07 10600
6,1*	215	150	1	1400 07 10610
6,5	215	150	1	1400 07 10650
7,0	225	155	1	1400 07 10700
7,5	225	155	1	1400 07 10750
8,0	240	165	1	1400 07 10800
8,5	240	165	1	1400 07 10850
9,0	250	175	1	1400 07 10900
9,5	250	175	1	1400 07 10950
10,0	265	185	1	1400 07 11000
10,5	265	185	1	1400 07 11050
11,0	280	195	1	1400 07 11100
11,5	280	195	1	1400 07 11150
12,0	295	205	1	1400 07 11200
12,5	295	205	1	1400 07 11250
13,0	295	205	1	1400 07 11300
Serie 2 / Series 2				
3,0	190	130	1	1400 07 20300
3,2	200	135	1	1400 07 20320
3,5	210	145	1	1400 07 20350
3,8*	220	150	1	1400 07 20380
4,0	220	150	1	1400 07 20400
4,5	235	160	1	1400 07 20450
5,0	245	170	1	1400 07 20500
5,1*	245	170	1	1400 07 20510
5,5	260	180	1	1400 07 20550

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
6,0	260	180	1	1400 07 20600
6,5	275	190	1	1400 07 20650
7,0	290	200	1	1400 07 20700
7,5	290	200	1	1400 07 20750
8,0	305	210	1	1400 07 20800
8,5	305	210	1	1400 07 20850
9,0	320	220	1	1400 07 20900
9,5	320	220	1	1400 07 20950
10,0	340	235	1	1400 07 21000
10,5	340	235	1	1400 07 21050
11,0	365	250	1	1400 07 21100
11,5	365	250	1	1400 07 21150
12,0	375	260	1	1400 07 21200
12,5	375	260	1	1400 07 21250
13,0	375	260	1	1400 07 21300
Serie 3 / Series 3				
3,5	265	180	1	1400 07 30350
3,8*	280	190	1	1400 07 30380
4,0	280	190	1	1400 07 30400
4,2	280	190	1	1400 07 30420
4,5	295	200	1	1400 07 30450
5,0	315	210	1	1400 07 30500
5,5	330	225	1	1400 07 30550
6,0	330	225	1	1400 07 30600
6,5	350	235	1	1400 07 30650
7,0	370	250	1	1400 07 30700
7,5	370	250	1	1400 07 30750
8,0	390	265	1	1400 07 30800
8,5	390	265	1	1400 07 30850
9,0	410	280	1	1400 07 30900
10,0	430	295	1	1400 07 31000
10,5	430	295	1	1400 07 31050
11,0	455	310	1	1400 07 31100
11,5	455	310	1	1400 07 31150
12,0	480	330	1	1400 07 31200
12,5	480	330	1	1400 07 31250
13,0	480	330	1	1400 07 31300

* Solo fino a esaurimento scorte / * Only as long as stock lasts



Punte multigrado DIN 1869 HSS-G Tipop U-TL **rettificate,** split point
Multigrade drills DIN 1869 HSS-G type U-TL **fully ground,** split point



Code **1410**

DIN 1869 | HSS G | Typ U-TL | TIEFLOCH DEEPHOLE Version | 130° | 1410 G SPLIT POINT | >10xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1410	●	●			●	●	●	●	

Punta elicoidale multigrado con anima rinforzata e scanalatura parabolica per una migliore evacuazione dei trucioli. Per acciaio e acciaio fuso legato e non legato, ghisa, ghisa ricotta, ghisa sferoidale, pressofusione, leghe di alluminio a truciolo corto, ottone e bronzo.

Particolarmente adatta per materiali a truciolo medio e lungo.

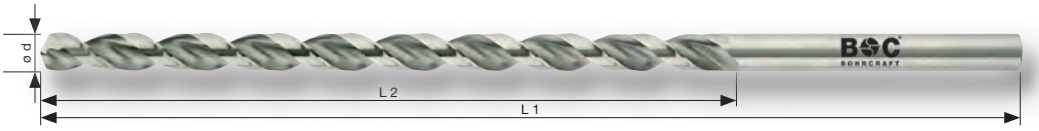
Multigrade twist drill with reinforced web and parabolic flute for better chip flow. For steel and cast steel alloyed and unalloyed, cast iron, annealed cast iron, ductile graphite iron, diecast, short-chipping aluminium-alloys, brass and bronze.

Especially suitable for medium and long chipping materials.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
Serie 1 / Series 1				
2,0	125	85	1	1410 07 10200
2,5	140	95	1	1410 07 10250
3,0	150	100	1	1410 07 10300
3,2	155	105	1	1410 07 10320
3,3	155	105	1	1410 07 10330
3,5	165	115	1	1410 07 10350
4,0	175	120	1	1410 07 10400
4,2	175	120	1	1410 07 10420
4,5	185	125	1	1410 07 10450
5,0	195	135	1	1410 07 10500
5,5	205	140	1	1410 07 10550
6,0	205	140	1	1410 07 10600
6,5	215	150	1	1410 07 10650
7,0	225	155	1	1410 07 10700
7,5	225	155	1	1410 07 10750
8,0	240	165	1	1410 07 10800
8,5	240	165	1	1410 07 10850
9,0	250	175	1	1410 07 10900
9,5	250	175	1	1410 07 10950
10,0	265	185	1	1410 07 11000
10,5	265	185	1	1410 07 11050
11,0	280	195	1	1410 07 11100
11,5	280	195	1	1410 07 11150
12,0	295	205	1	1410 07 11200
12,5	295	205	1	1410 07 11250
13,0	295	205	1	1410 07 11300
Serie 2 / Series 2				
3,0	190	130	1	1410 07 20300
3,2	200	135	1	1410 07 20320
3,5	210	145	1	1410 07 20350
4,0	220	150	1	1410 07 20400
4,2	220	150	1	1410 07 20420
4,5	235	160	1	1410 07 20450
5,0	245	170	1	1410 07 20500
5,5	260	180	1	1410 07 20550
6,0	260	180	1	1410 07 20600

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
6,5	275	190	1	1410 07 20650
7,0	290	200	1	1410 07 20700
7,5	290	200	1	1410 07 20750
8,0	305	210	1	1410 07 20800
8,5	305	210	1	1410 07 20850
9,0	320	220	1	1410 07 20900
9,5	320	220	1	1410 07 20950
10,0	340	235	1	1410 07 21000
10,5	340	235	1	1410 07 21050
11,0	365	250	1	1410 07 21100
11,5	365	250	1	1410 07 21150
12,0	375	260	1	1410 07 21200
12,5	375	260	1	1410 07 21250
13,0	375	260	1	1410 07 21300
Serie 3 / Series 3				
3,5	265	180	1	1410 07 30350
4,0	280	190	1	1410 07 30400
4,2	280	190	1	1410 07 30420
4,5	295	200	1	1410 07 30450
5,0	315	210	1	1410 07 30500
5,5	330	225	1	1410 07 30550
6,0	330	225	1	1410 07 30600
6,5	350	235	1	1410 07 30650
7,0	370	250	1	1410 07 30700
7,5	370	250	1	1410 07 30750
8,0	390	265	1	1410 07 30800
8,5	390	265	1	1410 07 30850
9,0	410	280	1	1410 07 30900
9,5	410	280	1	1410 07 30950
10,0	430	295	1	1410 07 31000
10,5	430	295	1	1410 07 31050
11,0	455	310	1	1410 07 31100
11,5	455	310	1	1410 07 31150
12,0	480	330	1	1410 07 31200
12,5	480	330	1	1410 07 31250
13,0	480	330	1	1410 07 31300

Punte multigrado DIN 1869 HSS-E (Co5) Tipo U-TL **lega di cobalto,** split point
Multigrade drills DIN 1869 HSS-E (Co5) type U-TL **cobalt alloyed,** split point



Code **1420**

DIN 1869 | HSS-E Co5 | Typ U-TL | TIEFLOCH DEEPHOLE Version | VA INOX | 130° | 1412 C SPLIT POINT | >10xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1420	●	●	●	●	●	●	●	●	

Punta elicoidale multigrado con anima rinforzata e scanalatura parabolica per una migliore evacuazione dei trucioli. Adatta per materiali con resistenza alla trazione fino a 1.200 N/mm² (38 HRC).

Particolarmente adatta per materiali a truciolo medio, lungo e lavorabili a macchina. Copre i settori di foratura che devono essere forati con punte di tipo N, H e W.

Multigrade twist drill with reinforced web and parabolic flute for improved chip removal. Suitable for materials with tensile strength up to 1.200 N/mm² (38 HRC).

Especially suitable for medium, long chipping and hard machinable materials. Covers drill-sectors which should be drilled with Type N, H and W drills.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
Serie 1 / Series 1				
2,0	125	85	1	1420 07 10200
2,5	140	85	1	1420 07 10250
3,0	150	100	1	1420 07 10300
3,2	155	105	1	1420 07 10320
3,3	155	105	1	1420 07 10330
3,5	165	115	1	1420 07 10350
4,0	175	120	1	1420 07 10400
4,2	175	120	1	1420 07 10420
4,5	185	125	1	1420 07 10450
5,0	195	135	1	1420 07 10500
5,5	205	140	1	1420 07 10550
6,0	205	140	1	1420 07 10600
6,5	215	150	1	1420 07 10650
7,0	225	155	1	1420 07 10700
7,5	225	155	1	1420 07 10750
8,0	240	165	1	1420 07 10800
8,5	240	165	1	1420 07 10850
9,0	250	175	1	1420 07 10900
9,5	250	175	1	1420 07 10950
10,0	265	185	1	1420 07 11000
10,5	265	185	1	1420 07 11050
11,0	280	195	1	1420 07 11100
11,5	280	195	1	1420 07 11150
12,0	295	205	1	1420 07 11200
12,5	295	205	1	1420 07 11250
13,0	295	205	1	1420 07 11300
Serie 2 / Series 2				
3,0	190	130	1	1420 07 20300
3,2	200	135	1	1420 07 20320
3,5	210	145	1	1420 07 20350
4,0	220	150	1	1420 07 20400
4,2	220	150	1	1420 07 20420
4,5	235	160	1	1420 07 20450
5,0	245	170	1	1420 07 20500
5,5	260	180	1	1420 07 20550
6,0	260	180	1	1420 07 20600

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
6,5	275	190	1	1420 07 20650
7,0	290	200	1	1420 07 20700
7,5	290	200	1	1420 07 20750
8,0	305	210	1	1420 07 20800
8,5	305	210	1	1420 07 20850
9,0	320	220	1	1420 07 20900
9,5	320	220	1	1420 07 20950
10,0	340	235	1	1420 07 21000
10,5	340	235	1	1420 07 21050
11,0	365	250	1	1420 07 21100
11,5	365	250	1	1420 07 21150
12,0	375	260	1	1420 07 21200
12,5	375	260	1	1420 07 21250
13,0	375	260	1	1420 07 21300
Serie 3 / Series 3				
3,5	265	180	1	1420 07 30350
4,0	280	190	1	1420 07 30400
4,2	280	190	1	1420 07 30420
4,5	295	200	1	1420 07 30450
5,0	315	210	1	1420 07 30500
5,5	330	225	1	1420 07 30550
6,0	330	225	1	1420 07 30600
6,5	350	235	1	1420 07 30650
7,0	370	250	1	1420 07 30700
7,5	370	250	1	1420 07 30750
8,0	390	265	1	1420 07 30800
8,5	390	265	1	1420 07 30850
9,0	410	280	1	1420 07 30900
9,5	410	280	1	1420 07 30950
10,0	430	295	1	1420 07 31000
10,5	430	295	1	1420 07 31050
11,0	455	310	1	1420 07 31100
11,5	455	310	1	1420 07 31150
12,0	480	330	1	1420 07 31200
12,5	480	330	1	1420 07 31250
13,0	480	330	1	1420 07 31300



Punte elicoidali per profili cavi HSS-G **rettificate,** split point
Twist drills for hollow profiles HSS-G **fully ground,** split point



Code **1440**

BOHRCRAFT NORM | HSS G | 118° | 1412 C SPLIT POINT

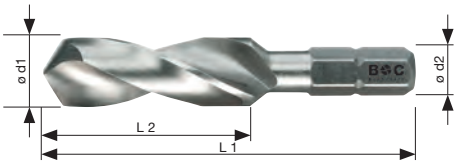
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1440	●					●		●	

Punta elicoidale speciale progettata per lavorare su profili cavi.

Special twist drill designed for working on hollow profiles.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,5	100	30	10	1440 03 25100
3,0	100	30	10	1440 03 30100
3,2	100	30	10	1440 03 32100
3,5	100	30	10	1440 03 35100
4,0	100	30	10	1440 03 40100
4,2	100	30	10	1440 03 42100
4,9	100	30	10	1440 03 49100
4,9	150	30	10	1440 03 49150
5,0	70	30	10	1440 03 50070
5,0	100	30	10	1440 03 50100
5,0	150	30	10	1440 03 50150
5,0	210	30	10	1440 03 50210
5,1	100	30	10	1440 03 51100
5,1	150	30	10	1440 03 51150
5,1	210	30	10	1440 03 51210
5,3	100	30	10	1440 03 53100
5,3	150	30	10	1440 03 53150
5,3	210	30	10	1440 03 53210
5,5	100	30	10	1440 03 55100
5,5	150	30	10	1440 03 55150
5,5	210	30	10	1440 03 55210
5,7	70	30	10	1440 03 57070
5,7	100	30	10	1440 03 57100
5,7	150	30	10	1440 03 57150
5,7	210	30	10	1440 03 57210
5,8	100	30	10	1440 03 58100
5,8	150	30	10	1440 03 58150
5,8	210	30	10	1440 03 58210
5,9	100	30	10	1440 03 59100
5,9	150	30	10	1440 03 59150
5,9	210	30	10	1440 03 59210
6,0	100	30	10	1440 03 60100
6,0	150	30	10	1440 03 60150
6,8	150	30	10	1440 03 68150
6,8	225	30	10	1440 03 68225

Punte elicoidali codolo esagonale ¼" HSS-G **rettificate,** split point
Twist drill bits ¼" hex-shank HSS-G **fully ground,** split point



Code **1104**

HSS G | Typ N | 118° | 1412 C SPLIT POINT | ¼" | 2xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1104	●				●	●	●	●	

Ideale per lavorare con utensili a batteria su metalli come acciaio, ghisa, ecc. Lo speciale attacco della punta consente un rapido cambio dell'utensile. Si adatta a tutti i portapunte, ma può essere utilizzato anche con mandrini per trapano convenzionali.

Especially for working with cordless machines in metal like steel, cast-iron, etc. The special bit shank allows quick change of tool. Fits in all bitholders, but can be used for conventional drill chucks, too.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2		Art.-Nr. Part-No.
1,0	32	7	1/4" / 6,35 mm	1	1104 07 00100
1,5	32	10	1/4" / 6,35 mm	1	1104 07 00150
2,0	34	12	1/4" / 6,35 mm	1	1104 07 00200
2,5	36	14	1/4" / 6,35 mm	1	1104 07 00250
3,0	38	16	1/4" / 6,35 mm	1	1104 07 00300
3,3	40	18	1/4" / 6,35 mm	1	1104 07 00330
3,5	40	18	1/4" / 6,35 mm	1	1104 07 00350
4,0	44	20	1/4" / 6,35 mm	1	1104 07 00400
4,2	45	20	1/4" / 6,35 mm	1	1104 07 00420
4,5	46	24	1/4" / 6,35 mm	1	1104 07 00450
5,0	50	26	1/4" / 6,35 mm	1	1104 07 00500
5,5	50	26	1/4" / 6,35 mm	1	1104 07 00550
6,0	50	30	1/4" / 6,35 mm	1	1104 07 00600
6,5	50	30	1/4" / 6,35 mm	1	1104 07 00650
6,8	50	30	1/4" / 6,35 mm	1	1104 07 00680
7,0	50	30	1/4" / 6,35 mm	1	1104 07 00700
7,5	51	32	1/4" / 6,35 mm	1	1104 07 00750
8,0	51	32	1/4" / 6,35 mm	1	1104 07 00800
8,5	53	33	1/4" / 6,35 mm	1	1104 07 00850
9,0	53	33	1/4" / 6,35 mm	1	1104 07 00900
9,5	54	38	1/4" / 6,35 mm	1	1104 07 00950
10,0	54	38	1/4" / 6,35 mm	1	1104 07 01000
10,2	54	38	1/4" / 6,35 mm	1	1104 07 01020

BC Multi-Pack / BC Multi-Pack

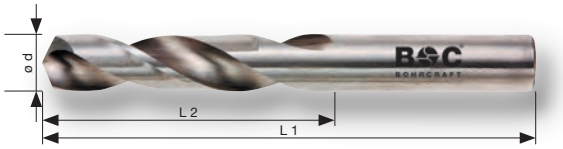
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MG 5-Bit	5	Ø 4 · 5 · 6 · 8 · 10 mm	1104 13 30005



MG 5-Bit



Punte HSS-G **rettificate,** serie extra corta, split point
Rivet drills HSS-G **fully ground,** extra short, split point



Code **1200**

BOC NORM | HSS G | Typ N | 118° | 1418 C SPLIT POINT | 3xD

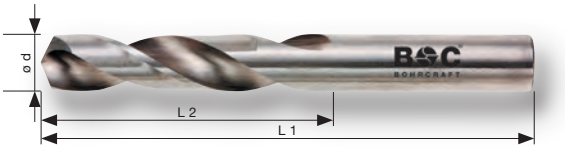
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1200	●				●	●	●	●	

Punta elicoidale extra corta (più corta della norma DIN 1897) adatta per la foratura di lamiere, acciaio piatto e profili.

Extra short twist drill (shorter than DIN 1897) suitable for drilling sheet-metal, flat-steel and profiles.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
3,00	31	13	10	1200 03 00300
3,20	31	13	10	1200 03 00320
3,25	38	15	10	1200 03 00325
3,30	38	15	10	1200 03 00330
3,50	40	15	10	1200 03 00350
3,80	40	15	10	1200 03 00380
4,00	40	15	10	1200 03 00400
4,10	42	16	10	1200 03 00410
4,20	42	16	10	1200 03 00420
4,50	45	18	10	1200 03 00450
4,80	48	20	10	1200 03 00480
4,90	48	20	10	1200 03 00490
5,00	50	22	10	1200 03 00500
5,10	50	22	10	1200 03 00510
5,20	50	22	10	1200 03 00520
5,30	50	22	10	1200 03 00530
5,50	50	22	10	1200 03 00550
5,70	52	24	10	1200 03 00570
6,00	52	24	10	1200 03 00600

Punte elicoidali DIN 1897 HSS-G **rettificate,** split point
Twist drills DIN 1897 HSS-G **fully ground,** split point



Code **1250**

DIN 1897 | HSS G | Typ N | 118° | 1418 D SPLIT POINT | 3xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1250	●				●	●	●	●	

Punte corte rettificate adatte per lamiera, acciaio piatto e profilati.

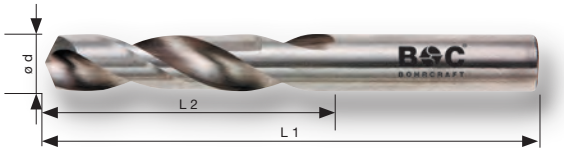
Short and robust fully-ground stub-drills, suitable for drilling sheet-metal, flat-steel and profiles.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,00	38	12	10	1250 01 00200
2,50	43	14	10	1250 01 00250
2,70*	46	16	10	1250 01 00270
2,80	46	16	10	1250 01 00280
3,00	46	16	10	1250 01 00300
3,20	49	18	10	1250 01 00320
3,25	49	18	10	1250 01 00325
3,30	49	18	10	1250 01 00330
3,50	52	20	10	1250 01 00350
3,60*	52	20	10	1250 01 00360
3,80	55	22	10	1250 01 00380
4,00	55	22	10	1250 01 00400
4,10	55	22	10	1250 01 00410
4,20	55	22	10	1250 01 00420
4,50	58	24	10	1250 01 00450
4,80	62	26	10	1250 01 00480
4,90	62	26	10	1250 01 00490
5,00	62	26	10	1250 01 00500
5,10	62	26	10	1250 01 00510
5,20	62	26	10	1250 01 00520
5,50	66	28	10	1250 01 00550
5,70*	66	28	10	1250 01 00570
6,00	66	28	10	1250 01 00600
6,50	70	31	10	1250 01 00650
7,00	74	34	10	1250 01 00700
7,50	74	34	10	1250 01 00750
8,00	79	37	10	1250 01 00800
8,50	79	37	10	1250 01 00850
9,00	84	40	10	1250 01 00900
9,50	84	40	10	1250 01 00950
10,00	89	43	10	1250 01 01000
10,50	89	43	5	1250 01 01050
11,00	95	47	5	1250 01 01100
11,50	95	47	5	1250 01 01150
12,00	102	51	5	1250 01 01200
12,50	102	51	5	1250 01 01250
13,00	102	51	5	1250 01 01300

* Solo fino ad esaurimento scorte / * Only as long as stock lasts



Punte elicoidali DIN 1897 HSS-G Tipo N **rettificate,** split point
Twist drills DIN 1897 HSS-G type N **fully ground,** split point



Code **1255**

DIN 1897 | HSS G | Typ N | 118° | 1412 C SPLIT POINT | 3xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1255	●	●			●	●	●	●	

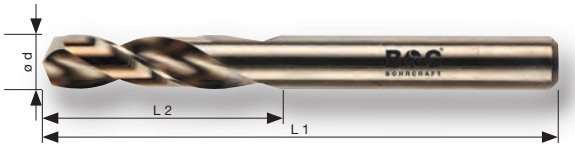
Per acciaio legato e non legato, ghisa, ghisa malleabile, grafite duttile, pressofusione, leghe di alluminio a truciolo corto, ottone e bronzo.

For steel and cast steel alloyed and unalloyed, cast iron, annealed cast iron, ductile graphite iron, diecast, short-chipping aluminium-alloy, brass and bronze.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,00	38	12	10	1255 03 00200
2,50	43	14	10	1255 03 00250
2,80	46	16	10	1255 03 00280
3,00	46	16	10	1255 03 00300
3,10	49	18	10	1255 03 00310
3,20	49	18	10	1255 03 00320
3,25	49	18	10	1255 03 00325
3,30	49	18	10	1255 03 00330
3,40	52	20	10	1255 03 00340
3,50	52	20	10	1255 03 00350
3,60	52	20	10	1255 03 00360
3,70	52	20	10	1255 03 00370
3,80	55	22	10	1255 03 00380
3,90	55	22	10	1255 03 00390
4,00	55	22	10	1255 03 00400
4,10	55	22	10	1255 03 00410
4,20	55	22	10	1255 03 00420
4,30	58	24	10	1255 03 00430
4,40	58	24	10	1255 03 00440
4,50	58	24	10	1255 03 00450
4,60	58	24	10	1255 03 00460
4,70	58	24	10	1255 03 00470
4,80	62	26	10	1255 03 00480
4,90	62	26	10	1255 03 00490
5,00	62	26	10	1255 03 00500
5,10	62	26	10	1255 03 00510
5,20	62	26	10	1255 03 00520
5,30	62	26	10	1255 03 00530
5,40	66	28	10	1255 03 00540
5,50	66	28	10	1255 03 00550
5,60	66	28	10	1255 03 00560
5,70	66	28	10	1255 03 00570
5,80	66	28	10	1255 03 00580
5,90	66	28	10	1255 03 00590
6,00	66	28	10	1255 03 00600
6,50	70	31	10	1255 03 00650
6,80	74	34	10	1255 03 00680
7,00	74	34	10	1255 03 00700
7,50	74	34	5	1255 03 00750
8,00	79	37	5	1255 03 00800
8,50	79	37	5	1255 03 00850
9,00	84	40	5	1255 03 00900
9,50	84	40	5	1255 03 00950
10,00	89	43	5	1255 03 01000
10,20	89	43	5	1255 03 01020
10,50	89	43	5	1255 03 01050
11,00	95	47	5	1255 03 01100
11,50	95	47	5	1255 03 01150
12,00	102	51	5	1255 03 01200
12,50	102	51	5	1255 03 01250
13,00	102	51	5	1255 03 01300

Punte elicoidali DIN 1897 HSS-E (Co5) **lega di cobalto,** split point
Twist drills DIN 1897 HSS-E (Co5) **cobalt alloyed,** split point



Code **1260**

DIN 1897 | HSS-E Co5 | Typ N | 135° | 1418 D SPLIT POINT | VA INOX | 3xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1260	●	●		●	●	●	●	●	

Punta elicoidale con maggiore resistenza al calore, per forare acciaio inossidabile e acciai resistenti al calore.

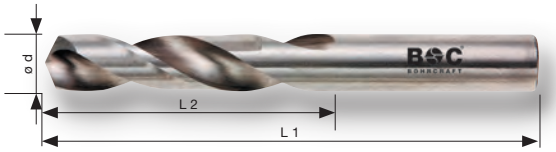
Twist drill with higher heat resistance, for drilling stainless steels and heat resistant steels.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,00	38	12	10	1260 01 00200
2,50	43	14	10	1260 01 00250
2,70*	46	16	10	1260 01 00270
3,00	46	16	10	1260 01 00300
3,10	49	18	10	1260 01 00310
3,20	49	18	10	1260 01 00320
3,25	49	18	10	1260 01 00325
3,30	49	18	10	1260 01 00330
3,40*	52	20	10	1260 01 00340
3,50	52	20	10	1260 01 00350
4,00	55	22	10	1260 01 00400
4,10	55	22	10	1260 01 00410
4,20	55	22	10	1260 01 00420
4,50	58	24	10	1260 01 00450
4,70*	58	24	10	1260 01 00470
4,80	62	26	10	1260 01 00480
4,90	62	26	10	1260 01 00490
5,00	62	26	10	1260 01 00500
5,10	62	26	10	1260 01 00510
5,20	62	26	10	1260 01 00520
5,50	66	28	10	1260 01 00550
5,80*	66	28	10	1260 01 00580
6,00	66	28	10	1260 01 00600
6,50	70	31	10	1260 01 00650
7,00	74	34	10	1260 01 00700
7,50	74	34	10	1260 01 00750
8,00	79	37	10	1260 01 00800
8,50	79	37	10	1260 01 00850
9,00	84	40	10	1260 01 00900
9,50	84	40	10	1260 01 00950
10,00	89	43	10	1260 01 01000
10,20*	89	43	5	1260 01 01020
10,50	89	43	5	1260 01 01050
11,00	95	47	5	1260 01 01100
11,50	95	47	5	1260 01 01150
12,00	102	51	5	1260 01 01200
12,50	102	51	5	1260 01 01250
13,00	102	51	5	1260 01 01300

* Solo fino a esaurimento scorte / * Only as long as stock lasts



Punte elicoidali DIN 1897 HSS-E (Co5) Tipo N **lega di cobalto,** split point
Twist drills DIN 1897 HSS-E (Co5) type N **cobalt alloyed,** split point



Code **1265**



Code **1266 TiN**

DIN 1897 | HSS-E Co5 | Typ N | VA INOX | 130° | 1418 C SPLIT POINT | 3xD | TiN

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1265	●	●	●	●	●	●	●	●	
1266	●	●	●	●	●		●		●

Punta elicoidale di alta qualità per acciaio e acciaio fuso legato e non legato, acciaio inossidabile come AISI 304 + 316, acciaio per lavorazione a caldo e a freddo e acciaio per cuscinetti.

Premium twist drill for steel and cast steel alloyed and unalloyed, stainless steel like AISI 304 + 316, hot and cold working steel and bearing steel.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
2,00	38	12	10	1265 03 00200	1266 03 00200
2,50	43	14	10	1265 03 00250	1266 03 00250
2,80	46	16	10	1265 03 00280	1266 03 00280
3,00	46	16	10	1265 03 00300	1266 03 00300
3,10	49	18	10	1265 03 00310	1266 03 00310
3,20	49	18	10	1265 03 00320	1266 03 00320
3,25	49	18	10	1265 03 00325	1266 03 00325
3,30	49	18	10	1265 03 00330	1266 03 00330
3,40	52	20	10	1265 03 00340	1266 03 00340
3,50	52	20	10	1265 03 00350	1266 03 00350
3,60	52	20	10	1265 03 00360	1266 03 00360
3,70	52	20	10	1265 03 00370	1266 03 00370
3,80	55	22	10	1265 03 00380	1266 03 00380
3,90	55	22	10	1265 03 00390	1266 03 00390
4,00	55	22	10	1265 03 00400	1266 03 00400
4,10	55	22	10	1265 03 00410	1266 03 00410
4,20	55	22	10	1265 03 00420	1266 03 00420
4,30	58	24	10	1265 03 00430	1266 03 00430
4,40	58	24	10	1265 03 00440	1266 03 00440
4,50	58	24	10	1265 03 00450	1266 03 00450
4,60	58	24	10	1265 03 00460	1266 03 00460
4,70	58	24	10	1265 03 00470	1266 03 00470
4,80	62	26	10	1265 03 00480	1266 03 00480
4,90	62	26	10	1265 03 00490	1266 03 00490
5,00	62	26	10	1265 03 00500	1266 03 00500
5,10	62	26	10	1265 03 00510	1266 03 00510
5,20	62	26	10	1265 03 00520	1266 03 00520
5,30	62	26	10	1265 03 00530	1266 03 00530
5,40	66	28	10	1265 03 00540	1266 03 00540
5,50	66	28	10	1265 03 00550	1266 03 00550
5,60	66	28	10	1265 03 00560	1266 03 00560
5,70	66	28	10	1265 03 00570	1266 03 00570
5,80	66	28	10	1265 03 00580	1266 03 00580
5,90	66	28	10	1265 03 00590	1266 03 00590
6,00	66	28	10	1265 03 00600	1266 03 00600
6,50	70	31	10	1265 03 00650	1266 03 00650
6,80	74	34	10	1265 03 00680	1266 03 00680
7,00	74	34	10	1265 03 00700	1266 03 00700
7,50	74	34	5	1265 03 00750	1266 03 00750
8,00	79	37	5	1265 03 00800	1266 03 00800
8,50	79	37	5	1265 03 00850	1266 03 00850
9,00	84	40	5	1265 03 00900	1266 03 00900
9,50	84	40	5	1265 03 00950	1266 03 00950
10,00	89	43	5	1265 03 01000	1266 03 01000
10,20	89	43	5	1265 03 01020	1266 03 01020
10,50	89	43	5	1265 03 01050	1266 03 01050
11,00	95	47	5	1265 03 01100	1266 03 01100
11,50	95	47	5	1265 03 01150	1266 03 01150
12,00	102	51	5	1265 03 01200	1266 03 01200
12,50	102	51	5	1265 03 01250	1266 03 01250
13,00	102	51	5	1265 03 01300	1266 03 01300

Punte a centrare DIN 333 A 60° HSS-G **rettificate**
Centre drills DIN 333 A 60° HSS-G **fully ground**



Code **1600**

DIN 333 **HSS G** **FORM A/60°**

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1600	●				●	●	●	●	

Punte da centro per fori di centraggio a 60° secondo DIN 332. Centre drills for 60° centering holes acc. to DIN 332.

Ø d1 mm	Ø d2 mm	L mm		Art.-Nr. Part-No.
0,80	3,15	25,0	1	1600 03 00080
1,00	3,15	31,5	1	1600 03 00100
1,25	3,15	31,5	1	1600 03 00125
1,60	4,00	35,5	1	1600 03 00160
2,00	5,00	40,0	1	1600 03 00200
2,50	6,30	45,0	1	1600 03 00250
3,15	8,00	50,0	1	1600 03 00315
4,00	10,00	56,0	1	1600 03 00400
5,00	12,50	63,0	1	1600 03 00500
6,30	16,00	71,0	1	1600 03 00630
8,00	20,00	80,0	1	1600 03 00800
10,00	25,00	100,0	1	1600 03 01000



BOC ★★★☆☆

Punte a doppio tagliente HSS-G **rettificate,** split point
Double ended drills HSS-G **fully ground,** split point



Code **1300**

BOC NORM | HSS G | 118° | SPLIT POINT

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1300	●				●	●	●	●	

Particolarmete adatte per materiali sottili come lamiera, acciaio piatto, profilati etc.

Especially designed for drilling thin materials like sheet-metal, flat-steel, profiles, etc.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,00	43	13	10	1300 01 00200
2,50	43	13	10	1300 01 00250
3,00	46	13	10	1300 01 00300
3,10	49	13	10	1300 01 00310
3,20	49	13	10	1300 01 00320
3,25	49	13	10	1300 01 00325
3,30	49	13	10	1300 01 00330
3,50	49	13	10	1300 01 00350
4,00	52	16	10	1300 01 00400
4,10	55	16	10	1300 01 00410
4,20	55	16	10	1300 01 00420
4,50	58	16	10	1300 01 00450
4,90	62	16	10	1300 01 00490
5,00	62	16	10	1300 01 00500
5,10	62	16	10	1300 01 00510
5,20	62	16	10	1300 01 00520
5,50	66	19	10	1300 01 00550
6,00	66	19	10	1300 01 00600

Punte a doppio tagliente HSS-G **rettificate,** split point
Double ended drills HSS-G **fully ground,** split point



Code **1301**

BOHRCRAFT NORM | HSS G | 118° | 1412 C SPLIT POINT

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1301	●	●			●	●	●	●	

Particolarmete adatte per materiali sottili come lamiera, acciaio piatto, profilati etc.

Especially designed for drilling in thin materials like sheet-metal, flat-steel and profiles.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,00	38	7,5	10	1301 03 00200
2,50	43	9,5	10	1301 03 00250
2,70	46	9,5	10	1301 03 00270
3,00	46	9,5	10	1301 03 00300
3,10	49	9,5	10	1301 03 00310
3,20	49	9,5	10	1301 03 00320
3,25	49	9,5	10	1301 03 00325
3,30	49	9,5	10	1301 03 00330
3,50	52	13,0	10	1301 03 00350
3,80	55	13,0	10	1301 03 00380
4,00	55	13,0	10	1301 03 00400
4,10	55	13,0	10	1301 03 00410

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
4,20	55	13,0	10	1301 03 00420
4,50	58	16,0	10	1301 03 00450
4,80	62	16,0	10	1301 03 00480
4,90	62	16,0	10	1301 03 00490
5,00	62	16,0	10	1301 03 00500
5,10	62	16,0	10	1301 03 00510
5,20	62	16,0	10	1301 03 00520
5,50	66	16,0	10	1301 03 00550
6,00	66	16,0	10	1301 03 00600
6,50	70	18,0	10	1301 03 00650
7,00	74	19,0	10	1301 03 00700
8,00	79	20,0	5	1301 03 00800



Punte a doppio tagliente HSS-E (Co5) **lega di cobalto,** split point
Double ended drills HSS-E (Co5) **cobalt alloyed,** split point

BOHRCRAFT NORM | HSS-E Co5 | VA INOX | 130° | 1412 C SPLIT POINT



Code **1310**

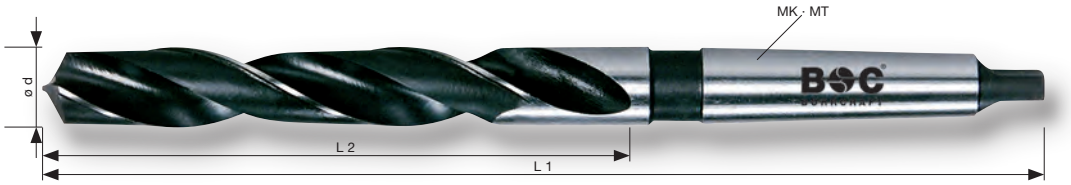
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1310	●	●	●	●	●	●	●	●	●

Particolarmete adatte per materiali sottili come lamiera, acciaio piatto, profilati etc. Versione con lega al 5% di cobalto per una durata dell'utensile notevolmente più lunga.

Especially designed for drilling in thin materials like sheet-metal, flat-steel and profiles. 5 % cobalt-alloyed version for considerable longer tool life.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
3,20	49	12	10	1310 03 00320
3,25	49	12	10	1310 03 00325
3,30	49	12	10	1310 03 00330
4,10	55	14	10	1310 03 00410
4,20	55	14	10	1310 03 00420
4,90	62	17	10	1310 03 00490
5,10	62	17	10	1310 03 00510
5,20	62	17	10	1310 03 00520

Punte elicoidali codolo conico DIN 345 HSS
Taper shank drills DIN 345 HSS



Code **1450**

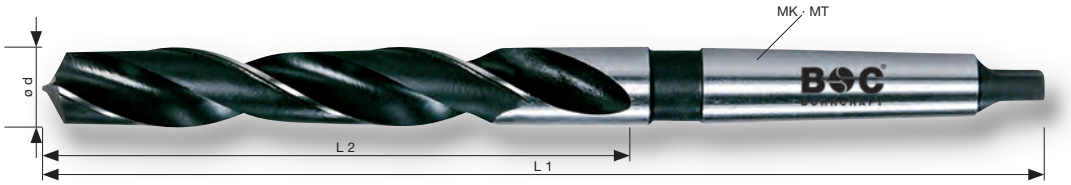
DIN 345 | HSS | Typ N | 118° | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1450	●				●	●	●	●	

Punte elicoidali codolo conico per acciaio, acciaio fuso e materiali non ferrosi. Temprate con finitura lucida.

Twist drills with Morse taper shank for use in steel and cast-steel as well as non-ferrous materials. Steam tempered and outside polished.

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
10,0	168	87	1	1	1450 03 01000
10,2	168	87	1	1	1450 03 01020
10,5	168	87	1	1	1450 03 01050
11,0	175	94	1	1	1450 03 01100
11,5	175	94	1	1	1450 03 01150
12,0	182	101	1	1	1450 03 01200
12,5	182	101	1	1	1450 03 01250
13,0	182	101	1	1	1450 03 01300
13,5	189	108	1	1	1450 03 01350
14,0	189	108	1	1	1450 03 01400
14,5	212	114	2	1	1450 03 01450
15,0	212	114	2	1	1450 03 01500
15,5	218	120	2	1	1450 03 01550
16,0	218	120	2	1	1450 03 01600
16,5	223	125	2	1	1450 03 01650
17,0	228	130	2	1	1450 03 01700
17,5	228	130	2	1	1450 03 01750
18,0	228	130	2	1	1450 03 01800
18,5	233	135	2	1	1450 03 01850
19,0	233	135	2	1	1450 03 01900
19,5	238	140	2	1	1450 03 01950
20,0	238	140	2	1	1450 03 02000
20,5	243	145	2	1	1450 03 02050
21,0	243	145	2	1	1450 03 02100
21,5	248	150	2	1	1450 03 02150
22,0	248	150	2	1	1450 03 02200
22,5	253	155	2	1	1450 03 02250
23,0	253	155	2	1	1450 03 02300
23,5	276	155	3	1	1450 03 02350
24,0	281	160	3	1	1450 03 02400
24,5	281	160	3	1	1450 03 02450
25,0	281	160	3	1	1450 03 02500
25,5	286	165	3	1	1450 03 02550
26,0	286	165	3	1	1450 03 02600
26,5	286	165	3	1	1450 03 02650
27,0	291	170	3	1	1450 03 02700
27,5	291	170	3	1	1450 03 02750
28,0	291	170	3	1	1450 03 02800
28,5	296	175	3	1	1450 03 02850
29,0	296	175	3	1	1450 03 02900
29,5	296	175	3	1	1450 03 02950
30,0	296	175	3	1	1450 03 03000
30,5	301	180	3	1	1450 03 03050
31,0	301	180	3	1	1450 03 03100
31,5	301	180	3	1	1450 03 03150
32,0	334	185	4	1	1450 03 03200
32,5	334	185	4	1	1450 03 03250
33,0	334	185	4	1	1450 03 03300
33,5	334	185	4	1	1450 03 03350
34,0	339	190	4	1	1450 03 03400
34,5	339	190	4	1	1450 03 03450
35,0	339	190	4	1	1450 03 03500
35,5	339	190	4	1	1450 03 03550



Code **1450**

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
36,0	344	195	4	1	1450 03 03600
36,5	344	195	4	1	1450 03 03650
37,0	344	195	4	1	1450 03 03700
37,5	344	195	4	1	1450 03 03750
38,0	349	200	4	1	1450 03 03800
38,5	349	200	4	1	1450 03 03850
39,0	349	200	4	1	1450 03 03900
39,5	349	200	4	1	1450 03 03950
40,0	349	200	4	1	1450 03 04000
40,5	354	205	4	1	1450 03 04050
41,0	354	205	4	1	1450 03 04100
41,5	354	205	4	1	1450 03 04150
42,0	354	205	4	1	1450 03 04200
42,5	354	205	4	1	1450 03 04250
43,0	359	210	4	1	1450 03 04300
43,5	359	210	4	1	1450 03 04350
44,0	359	210	4	1	1450 03 04400
44,5	359	210	4	1	1450 03 04450
45,0	359	210	4	1	1450 03 04500
45,5	364	215	4	1	1450 03 04550
46,0	364	215	4	1	1450 03 04600
46,5	364	215	4	1	1450 03 04650
47,0	364	215	4	1	1450 03 04700
47,5	364	215	4	1	1450 03 04750
48,0	369	220	4	1	1450 03 04800
48,5	369	220	4	1	1450 03 04850
49,0	369	220	4	1	1450 03 04900
49,5	369	220	4	1	1450 03 04950
50,0	369	220	4	1	1450 03 05000
51,0	412	225	5	1	1450 15 05100
52,0	412	225	5	1	1450 15 05200
53,0	412	225	5	1	1450 15 05300
54,0	417	230	5	1	1450 15 05400
55,0	417	230	5	1	1450 15 05500
56,0	417	230	5	1	1450 15 05600
57,0	422	235	5	1	1450 15 05700
58,0	422	235	5	1	1450 15 05800
59,0	422	235	5	1	1450 15 05900
60,0	422	235	5	1	1450 15 06000

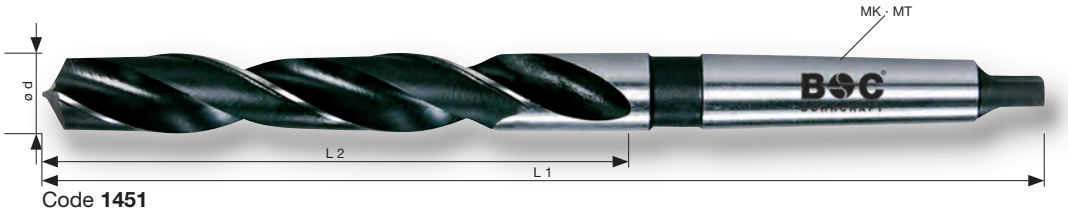
Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MK 10-1	10	Ø 14 · 15 · 16 · 17 · 18 · 19 · 20 · 21 · 22 · 23 mm	1450 14 10001
MK 10-2	10	Ø 14 · 16 · 18 · 20 · 22 · 24 · 25 · 26 · 28 · 30 mm	1450 14 10002



MK 10-1

Punte elicoidali codolo conico DIN 345 HSS **fresate**
Taper shank drills DIN 345 HSS **milled**



Code **1451**

DIN 345 | HSS | Typ N | 118° | DIN 1412 A | 5xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1451	●				●	●	●	●	

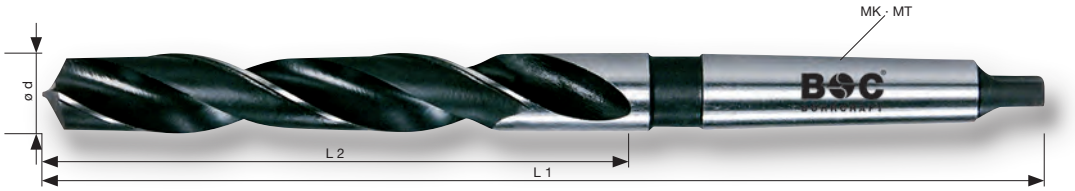
Punte elicoidali codolo conico fresate per la foratura di acciaio e acciaio fuso, metalli non ferrosi, ghisa grigia, ghisa nodulare e ferro sinterizzato.

Milled Morse taper shank drills for drilling steel and cast-steel, non-ferrous metals, grey cast-iron, nodular cast-iron and sintered iron.

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
6,00	138	57	1	1	1451 03 00600
6,50	144	63	1	1	1451 03 00650
7,00	150	69	1	1	1451 03 00700
7,50	150	69	1	1	1451 03 00750
8,00	156	75	1	1	1451 03 00800
8,50	156	75	1	1	1451 03 00850
9,00	162	81	1	1	1451 03 00900
9,50	162	81	1	1	1451 03 00950
10,00	168	87	1	1	1451 03 01000
10,25	168	87	1	1	1451 03 01025
10,50	168	87	1	1	1451 03 01050
10,75	175	94	1	1	1451 03 01075
11,00	175	94	1	1	1451 03 01100
11,25	175	94	1	1	1451 03 01125
11,50	175	94	1	1	1451 03 01150
11,75	182	101	1	1	1451 03 01175
12,00	182	101	1	1	1451 03 01200
12,25	182	101	1	1	1451 03 01225
12,50	182	101	1	1	1451 03 01250
12,75	182	101	1	1	1451 03 01275
13,00	182	101	1	1	1451 03 01300
13,25	189	108	1	1	1451 03 01325
13,50	189	108	1	1	1451 03 01350
13,75	189	108	1	1	1451 03 01375
14,00	189	108	1	1	1451 03 01400
14,25	212	114	2	1	1451 03 01425
14,50	212	114	2	1	1451 03 01450
14,75	212	114	2	1	1451 03 01475
15,00	212	114	2	1	1451 03 01500
15,25	218	120	2	1	1451 03 01525
15,50	218	120	2	1	1451 03 01550
15,75	218	120	2	1	1451 03 01575
16,00	218	120	2	1	1451 03 01600
16,25	223	125	2	1	1451 03 01625
16,50	223	125	2	1	1451 03 01650
16,75	223	125	2	1	1451 03 01675
17,00	228	130	2	1	1451 03 01700
17,25	228	130	2	1	1451 03 01725
17,50	228	130	2	1	1451 03 01750
17,75	228	130	2	1	1451 03 01775
18,00	228	130	2	1	1451 03 01800
18,25	233	135	2	1	1451 03 01825
18,50	233	135	2	1	1451 03 01850
18,75	233	135	2	1	1451 03 01875
19,00	233	135	2	1	1451 03 01900
19,25	238	140	2	1	1451 03 01925
19,50	238	140	2	1	1451 03 01950
19,75	238	140	2	1	1451 03 01975
20,00	238	140	2	1	1451 03 02000
20,25	243	145	2	1	1451 03 02025
20,50	243	145	2	1	1451 03 02050
20,75	243	145	2	1	1451 03 02075
21,00	243	145	2	1	1451 03 02100

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
21,25	248	150	2	1	1451 03 02125
21,50	248	150	2	1	1451 03 02150
21,75	248	150	2	1	1451 03 02175
22,00	248	150	2	1	1451 03 02200
22,25	253	155	2	1	1451 03 02225
22,50	253	155	2	1	1451 03 02250
22,75	253	155	2	1	1451 03 02275
23,00	253	155	2	1	1451 03 02300
23,25	276	155	3	1	1451 03 02325
23,50	276	155	3	1	1451 03 02350
23,75	281	160	3	1	1451 03 02375
24,00	281	160	3	1	1451 03 02400
24,25	281	160	3	1	1451 03 02425
24,50	281	160	3	1	1451 03 02450
24,75	281	160	3	1	1451 03 02475
25,00	281	160	3	1	1451 03 02500
25,25	286	165	3	1	1451 03 02525
25,50	286	165	3	1	1451 03 02550
25,75	286	165	3	1	1451 03 02575
26,00	286	165	3	1	1451 03 02600
26,25	286	165	3	1	1451 03 02625
26,50	286	165	3	1	1451 03 02650
26,75	291	170	3	1	1451 03 02675
27,00	291	170	3	1	1451 03 02700
27,25	291	170	3	1	1451 03 02725
27,50	291	170	3	1	1451 03 02750
27,75	291	170	3	1	1451 03 02775
28,00	291	170	3	1	1451 03 02800
28,25	296	175	3	1	1451 03 02825
28,50	296	175	3	1	1451 03 02850
28,75	296	175	3	1	1451 03 02875
29,00	296	175	3	1	1451 03 02900
29,25	296	175	3	1	1451 03 02925
29,50	296	175	3	1	1451 03 02950
29,75	296	175	3	1	1451 03 02975
30,00	296	175	3	1	1451 03 03000
30,50	301	180	3	1	1451 03 03050
31,00	301	180	3	1	1451 03 03100
31,50	301	180	3	1	1451 03 03150
32,00	334	185	4	1	1451 03 03200
32,50	334	185	4	1	1451 03 03250
33,00	334	185	4	1	1451 03 03300
33,50	334	185	4	1	1451 03 03350
34,00	339	190	4	1	1451 03 03400
34,50	339	190	4	1	1451 03 03450
35,00	339	190	4	1	1451 03 03500
35,50	339	190	4	1	1451 03 03550
36,00	344	195	4	1	1451 03 03600
36,50	344	195	4	1	1451 03 03650
37,00	344	195	4	1	1451 03 03700
37,50	344	195	4	1	1451 03 03750
38,00	349	200	4	1	1451 03 03800
38,50	349	200	4	1	1451 03 03850

Punte elicoidali codolo conico DIN 345 HSS **fresate**
Taper shank drills DIN 345 HSS **milled**



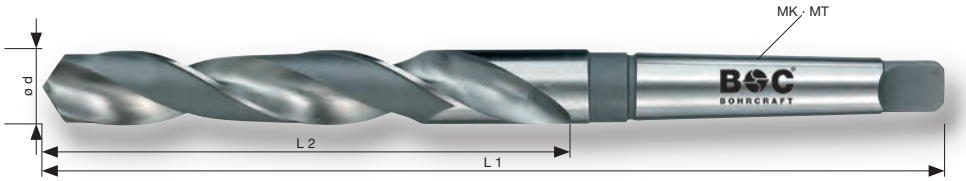
Code **1451**

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
39,00	349	200	4	1	1451 03 03900
39,50	349	200	4	1	1451 03 03950
40,00	349	200	4	1	1451 03 04000
40,50	354	205	4	1	1451 03 04050
41,00	354	205	4	1	1451 03 04100
41,50	354	205	4	1	1451 03 04150
42,00	354	205	4	1	1451 03 04200
42,50	354	205	4	1	1451 03 04250
43,00	359	210	4	1	1451 03 04300
43,50	359	210	4	1	1451 03 04350
44,00	359	210	4	1	1451 03 04400
44,50	359	210	4	1	1451 03 04450
45,00	359	210	4	1	1451 03 04500
45,50	364	215	4	1	1451 03 04550
46,00	364	215	4	1	1451 03 04600
46,50	364	215	4	1	1451 03 04650
47,00	364	215	4	1	1451 03 04700
47,50	364	215	4	1	1451 03 04750
48,00	369	220	4	1	1451 03 04800
48,50	369	220	4	1	1451 03 04850
49,00	369	220	4	1	1451 03 04900
49,50	369	220	4	1	1451 03 04950
50,00	369	220	4	1	1451 03 05000
51,00	412	225	5	1	1451 15 05100
52,00	412	225	5	1	1451 15 05200

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
53,00	412	225	5	1	1451 15 05300
54,00	417	230	5	1	1451 15 05400
55,00	417	230	5	1	1451 15 05500
56,00	417	230	5	1	1451 15 05600
57,00	422	235	5	1	1451 15 05700
58,00	422	235	5	1	1451 15 05800
59,00	422	235	5	1	1451 15 05900
60,00	422	235	5	1	1451 15 06000
61,00	427	240	5	1	1451 15 06100
62,00	427	240	5	1	1451 15 06200
63,00	427	240	5	1	1451 15 06300
65,00	432	245	5	1	1451 15 06500
66,00	432	245	5	1	1451 15 06600
67,00	432	245	5	1	1451 15 06700
69,00	437	250	5	1	1451 15 06900
70,00	437	250	5	1	1451 15 07000
72,00	442	255	5	1	1451 15 07200
75,00	442	255	5	1	1451 15 07500
76,00	447	260	5	1	1451 15 07600
79,00	514	260	6	1	1451 15 07900
80,00	514	260	6	1	1451 15 08000
85,00	519	265	6	1	1451 15 08500
90,00	525	270	6	1	1451 15 09000
100,00	534	280	6	1	1451 15 10000



Punte elicoidali codolo conico DIN 345 HSS-E (Co5) Tipo N **lega di cobalto**
Taper shank drills DIN 345 HSS-E (Co5) type N **cobalt alloyed**



Code **1470**

DIN 345 | HSS-E Co5 | Typ N | VA INOX | 130° | DIN 1412 A | 5xD

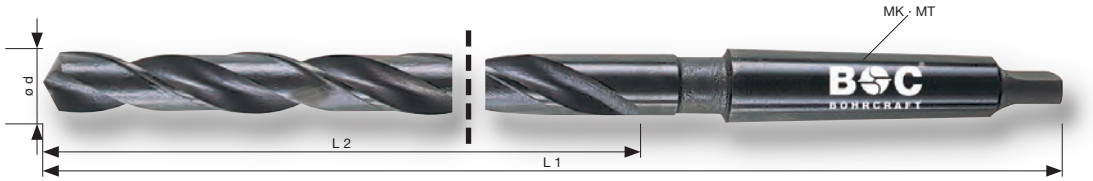
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1470	●	●	●	●	●	●	●	●	

Punte elicoidali codolo conico per acciaio e acciaio fuso, ghisa, ghisa malleabile, acciaio inossidabile come AISI 304 + 316.

Twist drills with Morse taper shank for steel and cast steel, cast iron, malleable cast iron, stainless steel like AISI 304 + 316.

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
10,0	168	87	1	1	1470 03 01000
11,0	175	94	1	1	1470 03 01100
11,5	175	94	1	1	1470 03 01150
12,0	182	101	1	1	1470 03 01200
12,5	182	101	1	1	1470 03 01250
13,0	182	101	1	1	1470 03 01300
13,5	189	108	1	1	1470 03 01350
14,0	189	108	1	1	1470 03 01400
14,5	212	114	2	1	1470 03 01450
15,0	212	114	2	1	1470 03 01500
15,5	218	120	2	1	1470 03 01550
16,0	218	120	2	1	1470 03 01600
16,5	223	125	2	1	1470 03 01650
17,0	228	130	2	1	1470 03 01700
17,5	228	130	2	1	1470 03 01750
18,0	228	130	2	1	1470 03 01800
18,5	233	135	2	1	1470 03 01850
19,0	233	135	2	1	1470 03 01900
19,5	238	140	2	1	1470 03 01950
20,0	238	140	2	1	1470 03 02000
20,5	243	145	2	1	1470 03 02050
21,0	243	145	2	1	1470 03 02100
21,5	248	150	2	1	1470 03 02150
22,0	248	150	2	1	1470 03 02200
22,5	253	155	2	1	1470 03 02250
23,0	253	155	2	1	1470 03 02300
23,5	276	155	3	1	1470 03 02350
24,0	281	160	3	1	1470 03 02400
24,5	281	160	3	1	1470 03 02450
25,0	281	160	3	1	1470 03 02500
26,0	286	165	3	1	1470 03 02600
27,0	291	170	3	1	1470 03 02700
27,5	291	170	3	1	1470 03 02750
28,0	291	170	3	1	1470 03 02800
28,5	296	175	3	1	1470 03 02850
29,0	296	175	3	1	1470 03 02900
29,5	296	175	3	1	1470 03 02950
30,0	296	175	3	1	1470 03 03000
31,0	301	180	3	1	1470 03 03100
32,0	334	185	4	1	1470 03 03200
33,0	334	185	4	1	1470 03 03300
34,0	339	190	4	1	1470 03 03400
35,0	339	190	4	1	1470 03 03500
36,0	344	195	4	1	1470 03 03600
37,0	344	195	4	1	1470 03 03700
38,0	349	200	4	1	1470 03 03800
39,0	349	200	4	1	1470 03 03900
40,0	349	200	4	1	1470 03 04000
45,0	359	210	4	1	1470 03 04500
50,0	369	220	4	1	1470 03 05000

Punte elicoidali codolo conico DIN 341 HSS Tipo N **fresate,** lunghe
Taper Shank / Bushing drills DIN 341 HSS Type N **milled,** long series



Code **1455** • serie lunga / long series

DIN 341 | HSS | Typ N | LANGE LONG Version | 118° | DIN 1412 A | 10xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1455	●	●			●	●	●	●	

Punte elicoidali codolo conico per acciaio e acciaio fuso, ghisa, ghisa duttile e pressofusa.

Twist drills with Morse taper shank for steel and cast steel, cast iron, ductile graphite iron and diecast.

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
10,0	197	116	1	1	1455 03 01000
10,5	197	116	1	1	1455 03 01050
11,0	206	125	1	1	1455 03 01100
11,5	206	125	1	1	1455 03 01150
12,0	215	134	1	1	1455 03 01200
12,5	215	134	1	1	1455 03 01250
13,0	215	134	1	1	1455 03 01300
13,5	223	142	1	1	1455 03 01350
14,0	223	142	1	1	1455 03 01400
14,5	245	147	2	1	1455 03 01450
15,0	245	147	2	1	1455 03 01500
15,5	251	153	2	1	1455 03 01550
16,0	251	153	2	1	1455 03 01600
16,5	257	159	2	1	1455 03 01650
17,0	257	159	2	1	1455 03 01700
17,5	263	165	2	1	1455 03 01750
18,0	263	165	2	1	1455 03 01800
18,5	269	171	2	1	1455 03 01850
19,0	269	171	2	1	1455 03 01900
19,5	275	177	2	1	1455 03 01950
20,0	275	177	2	1	1455 03 02000
20,5	282	184	2	1	1455 03 02050
21,0	282	184	2	1	1455 03 02100
21,5	289	191	2	1	1455 03 02150
22,0	289	191	2	1	1455 03 02200
22,5	296	198	2	1	1455 03 02250
23,0	296	198	2	1	1455 03 02300
23,5	319	198	3	1	1455 03 02350
24,0	327	206	3	1	1455 03 02400
24,5	327	206	3	1	1455 03 02450

Ø d mm	L 1 mm	L 2 mm	MK MT		Art.-Nr. Part-No.
25,0	327	206	3	1	1455 03 02500
25,5	335	214	3	1	1455 03 02550
26,0	335	214	3	1	1455 03 02600
26,5	335	214	3	1	1455 03 02650
27,0	343	222	3	1	1455 03 02700
27,5	343	222	3	1	1455 03 02750
28,0	343	222	3	1	1455 03 02800
28,5	351	230	3	1	1455 03 02850
29,0	351	230	3	1	1455 03 02900
29,5	351	230	3	1	1455 03 02950
30,0	351	230	3	1	1455 03 03000
32,0	397	248	4	1	1455 03 03200
33,0	397	248	4	1	1455 03 03300
34,0	397	248	4	1	1455 03 03400
35,0	406	257	4	1	1455 03 03500
36,0	416	267	4	1	1455 03 03600
37,0	416	267	4	1	1455 03 03700
38,0	426	277	4	1	1455 03 03800
39,0	426	277	4	1	1455 03 03900
40,0	426	277	4	1	1455 03 04000
41,0	436	287	4	1	1455 03 04100
42,0	436	287	4	1	1455 03 04200
43,0	447	298	4	1	1455 03 04300
44,0	447	298	4	1	1455 03 04400
45,0	447	298	4	1	1455 03 04500
46,0	459	310	4	1	1455 03 04600
47,0	459	310	4	1	1455 03 04700
48,0	470	321	4	1	1455 03 04800
49,0	470	321	4	1	1455 03 04900
50,0	470	321	4	1	1455 03 05000



Punte per saldatura a punti HSS-E (Co5)
Spot weld drills HSS-E (Co5)



Code **1801**



Code **1802 TiN**



Code **1803 TiALN**

DIN 1897 | HSS-E Co5 | 1200 N/mm²

TiN

TiALN

Punta speciale con angolo di punta a 180° e scanalatura corta. Per la foratura di punti di saldatura.

Special drill with 180° point-angle and short flute. For drilling out welding spot.

Ø d mm	L 1 mm		TiN	TiALN
			Art.-Nr. Part-No.	Art.-Nr. Part-No.	Art.-Nr. Part-No.
6	66	1	1801 03 00600	1802 03 00600	1803 03 00600
7	74	1	1801 03 00700	1802 03 00700	1803 03 00700
8	79	1	1801 03 00800	1802 03 00800	1803 03 00800
10	89	1	1801 03 01000	1802 03 01000	1803 03 01000



Punte per saldatura a punti HSS-E (Co5) per Spotle T 575 e Vario WS 90
Spot weld drills HSS-E (Co5) for Spotle T 575 and Vario WS 90



BOC BOHRCRAFT NORM | HSS-E Co5 | 1200 N/mm²

Code **1810**



TiN

Code **1811 TiN**



TiALN

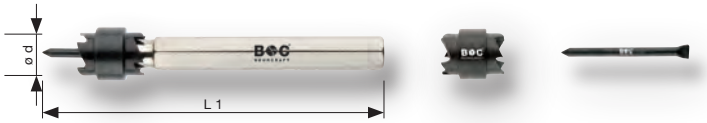
Code **1812 TiALN**

Punta speciale con angolo di punta a 180° e superficie di serraggio per machine pneumatiche. Per la foratura di punti di saldatura.

Special drill with 180° point-angle and clamping surface for pneumatic machines. For drilling out welding spot.

Ø d mm	L 1 mm	Versione Version		TiN	TiALN
				Art.-Nr. Part-No.	Art.-Nr. Part-No.	Art.-Nr. Part-No.
8	40	Spotle-Drill	1	1810 03 00840	1811 03 00840	1812 03 00840
8	44	Vario-Drill	1	1810 03 00844	1811 03 00844	1812 03 00844

Frese per saldatura a punti HSS
HSS spot weld milling cutters



Code **1805**

BOC BOHRCRAFT NORM | HSS

Adatte per la rimozione e la fresatura del punto di saldatura. Intercambiabile e utilizzabile su entrambi i lati.

Designed for removal and milling of welding point. Changeable and usable on both sides.

Descrizione Description	Ø d mm	L1 mm		Art.-Nr. Part-No.
Frese per saldatura a punti HSS / HSS Spot-Weld Milling Cutters complete	10,0	72	1	1805 15 00001
Corona fresata HSS / Milling Crown HSS	10,0	-	5	1805 15 00002
Perno di centraggio / Centering pin	2,5	-	5	1805 15 00003

Punte per saldatura a punti in **metallo duro** con **3 taglienti**
Solid carbide spot weld drill with **3 cutting edges**





Code **1807**

BOC BOHRCRAFT NORM | VHM SC | Z3 | 3 | 1800 N/mm² | TiALN

Punte per saldatura a punti in metallo duro con 3 taglienti. Per la foratura di punti di saldatura in lamiere ad alta resistenza fino a 1.800 N/mm² (~ 52 HRC). Con codolo triangolare per una trasmissione ottimale della potenza. Significativamente più veloce e durevole rispetto a prodotti comparabili con 2 taglienti. Si prega di rispettare la velocità consigliata.

Con rivestimento TiALN per una maggiore durata dell'utensile.

Spot weld drill made of solid carbide with 3 cutting edges. For drilling out welding points in high-strength sheets up to 1.800 N/mm² (~ 52 HRC). With triangle-shank for optimum power transmission. Significantly faster and more durable than comparable products with 2 cutting edges. Please observe the recommended speed.

With TiALN-coating for a longer tool life.

Ø d mm	L 1 mm	U/min. rpm		Art.-Nr. Part-No.
8	80	1800	1	1807 03 00800



Punte per saldatuta a punti **in metallo duro** con **3 taglienti** per Vario WS 90
Solid carbide spot weld drill with **3 cutting edges** for Vario WS 90

BOC BOHRCRAFT NORM | VHM SC | Z3 | 1800 N/mm² | TiALN





Code **1806**

Punte per saldatura a punti in metallo duro con 3 taglienti e superficie di serraggio per macchine pneumatiche. Per la foratura di punti di saldatura su lamiere ad alta resistenza fino a 1.800 N/mm² (~ 52 HRC). Significativamente più veloce e durevole rispetto a prodotti comparabili con 2 taglienti. Si prega di rispettare la velocità consigliata

Con rivestimento TiALN per una maggiore durata dell'utensile.

Spot weld drill made of solid carbide with 3 cutting edges and clamping surface for pneumatic machines. For drilling out welding points in high-strength sheets up to 1.800 N/mm² (~ 52 HRC). Significantly faster and more durable than comparable products with 2 cutting edges. Please observe the recommended speed.

With TiALN-coating for a longer tool life.

Ø d mm	L 1 mm	Versione Version	U/min. rpm		Art.-Nr. Part-No.
8	45	Vario-Drill	1800	1	1806 03 00845

PUNTE ELICOIDALI IN METALLO DURO
CARBIDE TWIST DRILLS

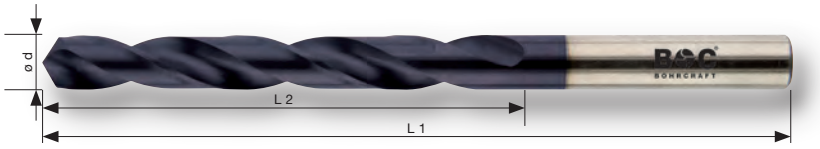


LTF®

PUNTE ELICOIDALI IN MD
CARBIDE TWIST DRILLS

	DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Punte elicoidali in MD / SC twist drills						
	338	MD SC	N	Punte elicoidali in MD **rivestimento in TiALN** Solid carbide drills **TiALN-coated**	1502	**106 – 107**
Punte elicoidali in MD extra corte / SC twist drills extra short						
	6539	MD SC	N	Punte elicoidali in MD, extra corte, **rivestimento in TiALN** Solid carbide drills, extra short, **TiALN-coated**	1504	**108 – 109**
Punte elicoidali in MD / TCT twist drills						
	8037	HSS MD HSS TCT	N	Punte elicoidali con punta in **metallo duro** Twist drills, **carbide tipped**	1500	**110**
Punte per saldatura a punti in MD / Solid carbide spot weld drills						
	BC Norm	MD SC		Punte per saldatura a punti in **MD** con 3 taglienti, **rivestimento in TiALN** **Solid carbide** spot weld drill with 3 cutting edges, **TiALN-coated**	1807	**111**
	BC Norm	MD SC		Punte per saldatura a punti in **MD** con 3 taglienti per Vario WS 90, **rivestimento in TiALN** **Solid carbide** spot weld drill with 3 cutting edges for Vario WS 90, **TiALN-coated**	1806	**111**

Punte elicoidali in MD DIN 338 Tipo N, **TiALN**
Solid carbide twist drills DIN 338 type N, **TiALN**



Code **1502**

DIN 338 | VHM SC | Typ N | 118° | DIN 1412 A | 5xD | TiALN

Code	P			M	K	N					S		H
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1	2.2 – 2.3	2.7 – 2.8	4.2	1.1 – 1.3	2.1 – 2.6	1.1 – 1.5
1502	●	●	●	●	●	●	●	●	●	●	●	●	●

Punta elicoidale in metallo duro integrale stabile per la foratura di acciai resistenti al calore, fusioni di acciaio ad alto tenore di carbonio, ghisa grigia, acciai fusi, acciai al manganese, bronzo, alluminio con elevata percentuale di silicio e per la lavorazione di materiali abrasivi.

Con rivestimento TiALN per una maggiore durata dell'utensile.

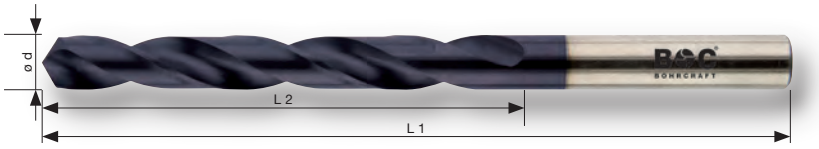
Stable solid carbide twist drill for drilling heat resistant steels, high carbon steel castings, grey cast iron, cast steels, manganese steels, bronze, aluminium with high percentage of silicium and for machining abrasive materials.

With TiALN-coating for a longer tool life.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	
1,0	34	12	1	1502 03 00100	○
1,1	36	14	1	1502 03 00110	○
1,2	38	16	1	1502 03 00120	○
1,3	38	16	1	1502 03 00130	○
1,4	40	18	1	1502 03 00140	○
1,5	40	18	1	1502 03 00150	○
1,6	43	20	1	1502 03 00160	○
1,7	43	20	1	1502 03 00170	○
1,8	46	23	1	1502 03 00180	○
1,9	46	23	1	1502 03 00190	○
2,0	49	24	1	1502 03 00200	●
2,1	49	24	1	1502 03 00210	○
2,2	53	27	1	1502 03 00220	○
2,3	53	27	1	1502 03 00230	○
2,4	57	30	1	1502 03 00240	○
2,5	57	30	1	1502 03 00250	●
2,6	57	30	1	1502 03 00260	○
2,7	61	33	1	1502 03 00270	○
2,8	61	33	1	1502 03 00280	○
2,9	61	33	1	1502 03 00290	○
3,0	61	33	1	1502 03 00300	●
3,1	65	36	1	1502 03 00310	○
3,2	65	36	1	1502 03 00320	○
3,3	65	36	1	1502 03 00330	○
3,4	70	39	1	1502 03 00340	○
3,5	70	39	1	1502 03 00350	●
3,6	70	39	1	1502 03 00360	○
3,7	70	39	1	1502 03 00370	○
3,8	70	43	1	1502 03 00380	○
3,9	75	43	1	1502 03 00390	○
4,0	75	43	1	1502 03 00400	●
4,1	75	43	1	1502 03 00410	●
4,2	75	43	1	1502 03 00420	●
4,3	80	47	1	1502 03 00430	○
4,4	80	47	1	1502 03 00440	○
4,5	80	47	1	1502 03 00450	●
4,6	80	47	1	1502 03 00460	○
4,7	80	47	1	1502 03 00470	○
4,8	86	52	1	1502 03 00480	○
4,9	86	52	1	1502 03 00490	○
5,0	86	52	1	1502 03 00500	●
5,1	86	52	1	1502 03 00510	○
5,2	86	52	1	1502 03 00520	○
5,3	86	52	1	1502 03 00530	○
5,4	93	57	1	1502 03 00540	○
5,5	93	57	1	1502 03 00550	●
5,6	93	57	1	1502 03 00560	○
5,7	93	57	1	1502 03 00570	○
5,8	93	57	1	1502 03 00580	○
5,9	93	57	1	1502 03 00590	○

Punte elicoidali in MD DIN 338 Tipo N, **TiALN**
Solid carbide twist drills DIN 338 type N, **TiALN**



Code **1502**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	
6,0	93	57	1	1502 03 00600	•
6,1	101	63	1	1502 03 00610	○
6,2	101	63	1	1502 03 00620	○
6,3	101	63	1	1502 03 00630	○
6,4	101	63	1	1502 03 00640	○
6,5	101	63	1	1502 03 00650	•
6,6	101	63	1	1502 03 00660	○
6,7	101	63	1	1502 03 00670	○
6,8	109	69	1	1502 03 00680	○
6,9	109	69	1	1502 03 00690	○
7,0	109	69	1	1502 03 00700	•
7,1	109	69	1	1502 03 00710	○
7,2	109	69	1	1502 03 00720	○
7,3	109	69	1	1502 03 00730	○
7,4	109	69	1	1502 03 00740	○
7,5	109	69	1	1502 03 00750	•
7,6	117	75	1	1502 03 00760	○
7,7	117	75	1	1502 03 00770	○
7,8	117	75	1	1502 03 00780	○
7,9	117	75	1	1502 03 00790	○
8,0	117	75	1	1502 03 00800	•
8,1	117	75	1	1502 03 00810	○
8,2	117	75	1	1502 03 00820	○
8,3	117	75	1	1502 03 00830	○
8,4	117	75	1	1502 03 00840	○
8,5	117	75	1	1502 03 00850	•
8,6	125	81	1	1502 03 00860	○
8,7	125	81	1	1502 03 00870	○
8,8	125	81	1	1502 03 00880	○
8,9	125	81	1	1502 03 00890	○
9,0	125	81	1	1502 03 00900	•
9,1	125	81	1	1502 03 00910	○
9,2	125	81	1	1502 03 00920	○
9,3	125	81	1	1502 03 00930	○
9,4	125	81	1	1502 03 00940	○
9,5	125	81	1	1502 03 00950	•
9,6	133	87	1	1502 03 00960	○
9,7	133	87	1	1502 03 00970	○
9,8	133	87	1	1502 03 00980	○
9,9	133	87	1	1502 03 00990	○
10,0	133	87	1	1502 03 01000	•
10,2	133	87	1	1502 03 01020	○
10,5	133	87	1	1502 03 01050	•
11,0	142	94	1	1502 03 01100	•
11,5	142	94	1	1502 03 01150	•
12,0	151	101	1	1502 03 01200	•
13,0	151	101	1	1502 03 01300	•

• Disponibile a magazzino / ex stock ○ Tempi di consegna 10-14 giorni / Delivery time 10-14 days

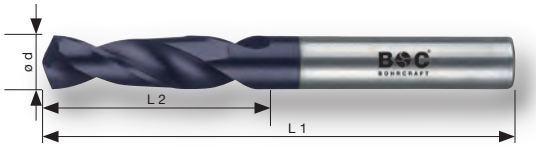
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.	
VHM 5 TiALN	5	Ø 4 · 5 · 6 · 8 · 10 mm	1502 13 30005	•





Punte elicoidali in MD DIN 6539 Tipo N, **TiALN**
Solid carbide twist drills DIN 6539 type N, **TiALN**



Code **1504 TiALN**

DIN 6539 | VHM SC | Typ N | 118° | DIN 1412 A | 3xD | TiALN

Code	P			M	K	N					S		H
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1	2.2 – 2.3	2.7 – 2.8	4.2	1.1 – 1.3	2.1 – 2.6	1.1 – 1.5
1504	●	●	●	●	●	●	●	●	●	●	●	●	●

Punta elicoidale in metallo duro integrale stabile per la foratura di acciai resistenti al calore, fusioni di acciaio ad alto tenore di carbonio, ghisa grigia, acciai fusi, acciai al manganese, bronzo, alluminio con elevata percentuale di silicio e per la lavorazione di materiali abrasivi.

Con rivestimento TiALN per una maggiore durata dell'utensile.

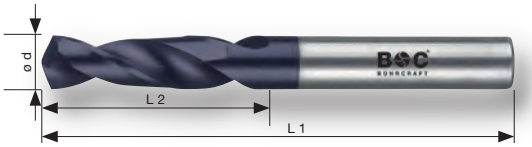
Stable solid carbide twist drill for drilling heat resistant steels, high carbon steel castings, grey cast iron, cast steels, manganese steels, bronze, aluminium with high percentage of silicium and for machining abrasive materials.

With TiALN-coating for a longer tool life.



Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	
1,0	26	6	1	1504 03 00100	○
1,1	28	7	1	1504 03 00110	○
1,2	30	8	1	1504 03 00120	○
1,3	30	8	1	1504 03 00130	○
1,4	32	9	1	1504 03 00140	○
1,5	32	9	1	1504 03 00150	○
1,6	34	10	1	1504 03 00160	○
1,7	34	10	1	1504 03 00170	○
1,8	36	11	1	1504 03 00180	○
1,9	36	11	1	1504 03 00190	○
2,0	38	12	1	1504 03 00200	●
2,1	38	12	1	1504 03 00210	○
2,2	40	13	1	1504 03 00220	○
2,3	40	13	1	1504 03 00230	○
2,4	43	14	1	1504 03 00240	○
2,5	43	14	1	1504 03 00250	○
2,6	43	14	1	1504 03 00260	○
2,7	46	16	1	1504 03 00270	○
2,8	46	16	1	1504 03 00280	○
2,9	46	16	1	1504 03 00290	○
3,0	46	16	1	1504 03 00300	●
3,1	49	18	1	1504 03 00310	○
3,2	49	18	1	1504 03 00320	○
3,3	49	18	1	1504 03 00330	○
3,4	52	20	1	1504 03 00340	○
3,5	52	20	1	1504 03 00350	●
3,6	52	20	1	1504 03 00360	○
3,7	52	20	1	1504 03 00370	○
3,8	55	22	1	1504 03 00380	○
3,9	55	22	1	1504 03 00390	○
4,0	55	22	1	1504 03 00400	●
4,1	55	22	1	1504 03 00410	●
4,2	55	22	1	1504 03 00420	●
4,3	58	24	1	1504 03 00430	○
4,4	58	24	1	1504 03 00440	○
4,5	58	24	1	1504 03 00450	●
4,6	58	24	1	1504 03 00460	○
4,7	58	24	1	1504 03 00470	○
4,8	62	26	1	1504 03 00480	○
4,9	62	26	1	1504 03 00490	○
5,0	62	26	1	1504 03 00500	●
5,1	62	26	1	1504 03 00510	○
5,2	62	26	1	1504 03 00520	○
5,3	62	26	1	1504 03 00530	○
5,4	66	28	1	1504 03 00540	○
5,5	66	28	1	1504 03 00550	●
5,6	66	28	1	1504 03 00560	○
5,7	66	28	1	1504 03 00570	○
5,8	66	28	1	1504 03 00580	○
5,9	66	28	1	1504 03 00590	○

Punte elicoidali in MD DIN 6539 Typ N, **TiALN**
Solid carbide twist drills DIN 6539 type N, **TiALN**



Code **1504 TiALN**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.	
6,0	66	28	1	1504 03 00600	•
6,1	70	31	1	1504 03 00610	○
6,2	70	31	1	1504 03 00620	○
6,3	70	31	1	1504 03 00630	○
6,4	70	31	1	1504 03 00640	○
6,5	70	31	1	1504 03 00650	•
6,6	70	31	1	1504 03 00660	○
6,7	70	31	1	1504 03 00670	○
6,8	74	34	1	1504 03 00680	○
6,9	74	34	1	1504 03 00690	○
7,0	74	34	1	1504 03 00700	•
7,1	74	34	1	1504 03 00710	○
7,2	74	34	1	1504 03 00720	○
7,3	74	34	1	1504 03 00730	○
7,4	74	34	1	1504 03 00740	○
7,5	74	34	1	1504 03 00750	•
7,6	79	37	1	1504 03 00760	○
7,7	79	37	1	1504 03 00770	○
7,8	79	37	1	1504 03 00780	○
7,9	79	37	1	1504 03 00790	○
8,0	79	37	1	1504 03 00800	•
8,1	79	37	1	1504 03 00810	○
8,2	79	37	1	1504 03 00820	○
8,3	79	37	1	1504 03 00830	○
8,4	79	37	1	1504 03 00840	○
8,5	79	37	1	1504 03 00850	•
8,6	84	40	1	1504 03 00860	○
8,7	84	40	1	1504 03 00870	○
8,8	84	40	1	1504 03 00880	○
8,9	84	40	1	1504 03 00890	○
9,0	84	40	1	1504 03 00900	•
9,1	84	40	1	1504 03 00910	○
9,2	84	40	1	1504 03 00920	○
9,3	84	40	1	1504 03 00930	○
9,4	84	40	1	1504 03 00940	○
9,5	84	40	1	1504 03 00950	•
9,6	89	43	1	1504 03 00960	○
9,7	89	43	1	1504 03 00970	○
9,8	89	43	1	1504 03 00980	○
9,9	89	43	1	1504 03 00990	○
10,0	89	43	1	1504 03 01000	•
10,2	89	43	1	1504 03 01020	○
10,5	89	43	1	1504 03 01050	○
11,0	95	47	1	1504 03 01100	•
11,5	95	47	1	1504 03 01150	○
12,0	102	51	1	1504 03 01200	•
12,5	102	51	1	1504 03 01250	○
13,0	102	51	1	1504 03 01300	•
14,0	107	54	1	1504 03 01400	○
15,0	111	56	1	1504 03 01500	○
16,0	115	58	1	1504 03 01600	○

• Disponibile a magazzino / ex stock ○ Tempi di consegna 10-14 giorni / Delivery time 10-14 days

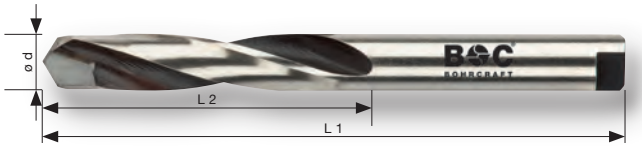
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.	
VHM 5-2 TiALN	5	Ø 4 · 5 · 6 · 8 · 10 mm	1504 13 30005	•





Punte elicoidali DIN 8037 HSS, in MD
Twist drills DIN 8037 HSS, carbide tipped



Code **1500**

DIN 8037 | HSS HM | Typ N | 118° | 4xD

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 1.3
1500	●	●	●	●	●	●	●	●	●

Punta elicoidale in MD per acciaio e ghisa, nastro in acciaio per molle, ghisa in conchiglia oltre 300 HB, bronzo duttile e molibdeno puro.

Carbide tipped twist drill for steel and cast iron, spring strip steel,xed castings over 300 HB, ductile bronze and pure molybdenum.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
2,5	46	17	1	1500 07 00250
3,0	50	20	1	1500 07 00300
3,5	56	25	1	1500 07 00350
4,0	56	25	1	1500 07 00400
4,2	63	28	1	1500 07 00420
4,5	63	28	1	1500 07 00450
5,0	63	28	1	1500 07 00500
5,5	71	32	1	1500 07 00550
6,0	71	32	1	1500 07 00600
6,5	71	32	1	1500 07 00650
6,8	80	40	1	1500 07 00680
7,0	80	40	1	1500 07 00700
7,5	80	40	1	1500 07 00750
8,0	80	40	1	1500 07 00800
8,5	90	50	1	1500 07 00850
9,0	90	50	1	1500 07 00900
9,5	90	50	1	1500 07 00950
10,0	100	56	1	1500 07 01000
10,2	100	56	1	1500 07 01020
10,5	100	56	1	1500 07 01050
11,0	100	56	1	1500 07 01100
11,5	112	63	1	1500 07 01150
12,0	112	63	1	1500 07 01200
12,5	112	63	1	1500 07 01250
13,0	112	63	1	1500 07 01300

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HM 5	5	Ø 4 · 5 · 6 · 8 · 10 mm	1500 13 30005



HM 5

Punte per saldatura a punti in **MD** con **3 taglienti**
Solid carbide spot weld drill with **3 cutting edges**





Code **1807**

BOC BOHRCRAFT NORM | VHM SC | Z3 | 3 | 1800 N/mm² | TiALN

Punta per saldatura a punti in MD con 3 taglienti. Per la foratura di punti di saldatura su lamiere ad alta resistenza fino a 1.800 N/mm² (- 52 HRC). Con codolo triangolare per una trasmissione ottimale della potenza. Significativamente più veloce e durevole rispetto a prodotti comparabili con 2 taglienti. Si prega di rispettare la velocità consigliata.

Con rivestimento TiALN per una maggiore durata dell'utensile.

Spot weld drill made of solid carbide with 3 cutting edges. For drilling out welding points in high-strength sheets up to 1.800 N/mm² (~ 52 HRC). With triangle-shank for optimum power transmission. Significantly faster and more durable than comparable products with 2 cutting edges. Please observe the recommended speed.

With TiALN-coating for a longer tool life.

Ø d mm	L 1 mm	U/min. rpm		Art.-Nr. Part-No.
8	80	1800	1	1807 03 00800

Punte per saldatura a punti in **MD** con **3 taglienti** per Vario WS 90
Solid carbide spot weld drill with **3 cutting edges** for Vario WS 90

BOC BOHRCRAFT NORM | VHM SC | Z3 | 1800 N/mm² | TiALN





Code **1806**

Punta per saldatura a punti in MD con 3 taglienti e superficie di serraggio per macchine pneumatiche. Per la foratura di punti di saldatura su lamiere ad alta resistenza fino a 1.800 N/mm² (~ 52 HRC). Significativamente più veloce e durevole rispetto a prodotti comparabili con 2 taglienti. Si prega di rispettare la velocità consigliata.

Con rivestimento TiALN per una maggiore durata dell'utensile.

Spot weld drill made of solid carbide with 3 cutting edges and clamping surface for pneumatic machines. For drilling out welding points in high-strength sheets up to 1.800 N/mm² (~ 52 HRC). Significantly faster and more durable than comparable products with 2 cutting edges. Please observe the recommended speed.

With TiALN-coating for a longer tool life.

Ø d mm	L 1 mm	Versione Version	U/min. rpm		Art.-Nr. Part-No.
8	45	Vario-Drill	1800	1	1806 03 00845

FRESE HSS-E · HSS-E PM
END MILLS HSS-E · HSS-E PM



LTF®

		DIN	Qualità Quality	Tipo Type	Versione Version	Spirale Flutes	Codolo Shank	Descrizione Description	Code	Pagina Page
Frese HSS-E / End mills HSS-E										
		-	HSS-E Co5	W	corto short	1	DIN 1835 A	Frese a singola elica Single fluted end mills	5345	118
		-	HSS-E Co5	W	lungo long	1	DIN 1835 A	Frese a singola elica Single fluted end mills	5350	119
		844	HSS-E Co8	W	corto short	2	DIN 1835 B	Frese per scanalature Slot end mills	5355	120
		844	HSS-E Co8	W	corto short	3	DIN 1835 B	Frese per scanalature Slot end mills	5365	121
		327	HSS-E Co8	N	corto short	2	DIN 1835 B	Frese per scanalature Slot end mills	5300	122 – 123
		327	HSS-E Co8	N	corto short	2	DIN 1835 B	Frese per scanalature, **TiALN** Slot end mills, **TiALN**	5301	122 – 123
		-	HSS-E Co8	N	lungo long	2	DIN 1835 B	Frese per scanalature Slot end mills	5305	124
		-	HSS-E Co8	N	lungo long	2	DIN 1835 B	Frese per scanalature, **TiALN** Slot end mills, **TiALN**	5306	124
		327	HSS-E Co8	N	corto short	3	DIN 1835 B	Frese per scanalature Slot end mills	5310	125
		327	HSS-E Co8	N	corto short	3	DIN 1835 B	Frese per scanalature, **TiALN** Slot end mills, **TiALN**	5311	125
		844	HSS-E Co8	NR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura Roughing end mills	5325	126
		844	HSS-E Co8	NR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura, **TiALN** Roughing end mills, **TiALN**	5326	126
		844	HSS-E Co8	NR	lungo long	4 – 6	DIN 1835 B	Frese per sgrossatura Roughing end mills	5330	127
		844	HSS-E Co8	NR	lungo long	4 – 6	DIN 1835 B	Frese per sgrossatura, **TiALN** Roughing end mills, **TiALN**	5331	127
		844	HSS-E Co8	HR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura Roughing end mills	5335	128
		844	HSS-E Co8	HR	corto short	4 – 6	DIN 1835 B	Frese per sgrossatura, **TiALN** Roughing end mills, **TiALN**	5336	128
		844	HSS-E Co8	N	corto short	4 – 6	DIN 1835 B	Frese per finitura Finishing end mills	5315	129
		844	HSS-E Co8	N	corto short	4 – 6	DIN 1835 B	Frese per finitura, **TiALN** Finishing end mills, **TiALN**	5316	129
		844	HSS-E Co8	N	lungo long	4 – 6	DIN 1835 B	Frese per finitura Finishing end mills	5320	130
		844	HSS-E Co8	N	lungo long	4 – 6	DIN 1835 B	Frese per finitura, **TiALN** Finishing end mills, **TiALN**	5321	130

FRESE HSS-E PM
END MILLS HSS-E PM

		DIN	Qualità Quality	Tipo Type	Versione Version	Spirale Flutes	Codolo Shank	Descrizione Description	Code	Pagina Page
Frese HSS-E PM / End mills HSS-E PM										
		844	HSS-E PM	HR	corto short	4 – 5	DIN 1835 B	Frese per sgrossatura, **AlTiN** Roughing end mills, **AlTiN**	5435	**131**
		844	HSS-E PM	N	corto short	4 – 5	DIN 1835 B	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5415	**132**
		844	HSS-E PM	N	lungo long	4 – 5	DIN 1835 B	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5420	**133**

Parametri d'impiego consigliati per frese
Application recommendation for end mills

										
DIN		-	-	844	844	327	327	-	-	327
Tipo Type		W	W	W	W	N	N	N	N	N
Materiale da taglio Cutting material		HSS-E Co5	HSS-E Co5	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8
Rivestimento Coating		-	-	-	-	-	TiALN	-	TiALN	-
Taglienti Cutting edges		1	1	2	3	2	2	2	2	3
Intervallo Range		3 – 10 mm	5 – 8 mm	2 – 20 mm	2 – 20 mm	1 – 40 mm	1 – 40 mm	2 – 40 mm	2 – 40 mm	2 – 32 mm
Qualità Quality		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Code		5345	5350	5355	5365	5300	5301	5305	5306	5310
Pagina Page		118	119	120	121	122 – 123	122 – 123	124	124	125
P	1			◔	◔	●	●	●	●	●
	2					●	●	●	●	●
	3					●	●	●	●	●
	4					●	●	●	●	●
	5					●	●	●	●	●
M	1									
	2					●	●	●	●	●
	3									
K	1 – 2					●	●	●	●	●
	4					●	●	●	●	●
N	1.1 – 1.3	●	●	●	●					
	1.4 – 1.5	●	●	●	●			●	●	●
	1.6									
	2.1 –2.6									●
S	1									
	2									

● adatto / suitable ◔ consigliato / limited suitable

Parametri d'impiego consigliati per frese
Application recommendation for end mills

										
DIN		327	844	844	844	844	844	844	844	844
Tipo **Type**		N	NR	NR	NR	NR	HR	HR	N	N
Materiale da taglio **Cutting material**		HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8	HSS-E Co8
Rivestimento **Coating**		TiALN	-	TiALN	-	TiALN	-	TiALN	-	TiALN
Taglienti **Cutting edges**		3	2	2	4 – 6	4 – 6	4 – 6	4 – 6	3 – 6	3 – 6
Intervallo **Range**		2 – 32 mm	6 – 40 mm	6 – 40 mm	6 – 40 mm	6 – 40 mm	6 – 32 mm	6 – 32 mm	2 – 40 mm	2 – 40 mm
Qualità **Quality**		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Code		5311	5325	5326	5330	5331	5335	5336	5315	5316
Pagina **Page**		125	126	126	127	127	128	128	129	129
P	1	●	●	●	●	●			●	●
	2	●	●	●	●	●	●	●	●	●
	3	●							●	●
	4	●	●	●	●	●			●	●
	5	●					●	●		
M	1									
	2	●	●	●	●	●			●	●
	3									
K	1 – 2	●	●	●	●	●				
	4	●					●	●	●	●
N	1.1 – 1.3									
	1.4 – 1.5	●	●	●	●	●			●	●
	1.6									
	2.1 –2.6	●								
S	1									
	2						●	●	●	●

● adatto / suitable ◐ consigliato / limited suitable

Parametri d'impiego consigliati per frese
Application recommendation for end mills

				
844	844	844	844	844
N	N	HR	N	N
HSS-E Co8	HSS-E Co8	HSS-E PM	HSS-E PM	HSS-E PM
-	TiALN	AlTiN	AlTiN	AlTiN
4 – 6	4 – 6	4 – 5	4 – 5	4 – 6
2 – 40 mm	2 – 40 mm	6 – 30 mm	2 – 30 mm	3 – 32 mm
★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★
5320	5321	5435	5415	5420
130	130	131	132	133
●	●			
●	●		●	●
●	●	●	●	●
●	●		●	●
		●	●	●
●	●		●	●
●	●	●	●	●
●	●	●	●	●
		●	●	●
●	●	●	●	●

● adatto / suitable ◐ consigliato / limited suitable

Frese a singola elica HSS-E (Co5), corto, Tipo W
Single fluted end mills HSS-E (Co5), short, type W



Code **5345**

BOC NORM | A DIN 1835 | HSS-E Co5 | Typ W | 20° | 30° | Z1

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5345											●	●				

· 1 tagliente
· A centro taglio
· Per fresatura, scanalatura e fresatura di contorni
· Adatte per la lavorazione di materiali teneri come alluminio, metalli non ferrosi e materie plastiche.

· 1 cutting edge
· Centre cutting
· For milling, grooving and contour milling
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.



Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
3	60	10	8	1	1	5345 03 00300	•
4	60	12	8	1	1	5345 03 00400	•
5	60	14	8	1	1	5345 03 00500	•
6	60	14	8	1	1	5345 03 00600	•
7	60	14	8	1	1	5345 03 00700	•
8	80	14	8	1	1	5345 03 00800	•
10	80	14	8	1	1	5345 03 01000	•

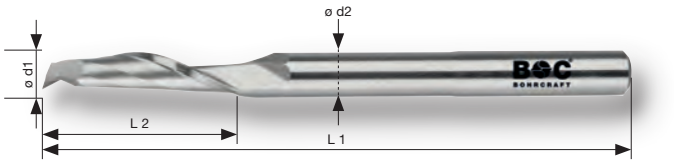
• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Cassetta BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.	
EZ 6	6	Ø 3 · 4 · 5 · 6 · 8 · 10 mm	5345 13 30006	•



Frese a singola elica HSS-E (Co5), versione lunga, Tipo W
Single fluted end mills HSS-E (Co5), long version, type W



Code **5350**

BOHRCRAFT NORM | A DIN 1835 | HSS-E Co5 | Typ W | LANGE LONG Version | 20° | 30° | Z1

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5350											●	●				

· 1 tagliente
· A centro taglio
· Per fresatura, scanalatura e fresatura di contorni
· Adatte per la lavorazione di materiali teneri come alluminio, metalli non ferrosi e materie plastiche.

· 1 cutting edge
· Centre cutting
· For milling, grooving and contour milling
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
5	80	14	8	1	1	5350 03 00500	•
6	80	14	8	1	1	5350 03 00600	•
8	100	30	8	1	1	5350 03 00800	•

• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per scanalature DIN 844 HSS-E (Co8), versione corta, 2 taglienti, Tipo W
Slot end mills DIN 844 HSS-E M42 (Co8), short, 2 cutting edges, type W



Code **5355**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ W | 20° | 30° | | Z2

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5355	●										●	●				

· 2 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento
· Particolarmente indicato per la lavorazione di materiali teneri come alluminio, metalli non ferrosi e materie plastiche.

· 2 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
2,0	51	7	6	2	1	5355 03 00200	•
3,0	52	8	6	2	1	5355 03 00300	•
4,0	55	11	6	2	1	5355 03 00400	•
4,5	55	11	6	2	1	5355 03 00450	○
5,0	57	13	6	2	1	5355 03 00500	•
6,0	57	13	6	2	1	5355 03 00600	•
7,0	66	16	10	2	1	5355 03 00700	○
8,0	69	19	10	2	1	5355 03 00800	•
9,0	69	19	10	2	1	5355 03 00900	○
10,0	72	22	10	2	1	5355 03 01000	•
12,0	83	26	12	2	1	5355 03 01200	•
14,0	83	26	12	2	1	5355 03 01400	•
15,0	83	26	12	2	1	5355 03 01500	○
16,0	92	32	16	2	1	5355 03 01600	•
18,0	92	32	16	2	1	5355 03 01800	○
20,0	104	38	20	2	1	5355 03 02000	•

• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Frese per scanalature DIN 844 HSS-E (Co8), versione corta, 3 taglienti, Tipo W
Slot end mills DIN 844 HSS-E M42 (Co8), short, 3 cutting edges, type W



Code **5365**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ W | 25° | 40° | 90° | Z3

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5365	●										●	●				

· 3 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento
· Particolarmente indicato per la lavorazione di materiali teneri come alluminio, metalli non ferrosi e materie plastiche.

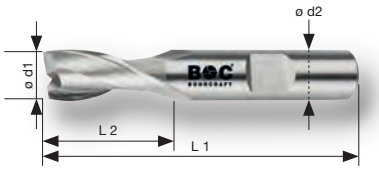
· 3 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling.
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
2,0	51	7	6	3	1	5365 03 00200	•
3,0	52	8	6	3	1	5365 03 00300	•
4,0	55	11	6	3	1	5365 03 00400	•
4,5	55	11	6	3	1	5365 03 00450	○
5,0	57	13	6	3	1	5365 03 00500	•
6,0	57	13	6	3	1	5365 03 00600	•
7,0	66	16	10	3	1	5365 03 00700	○
8,0	69	19	10	3	1	5365 03 00800	•
9,0	69	19	10	3	1	5365 03 00900	○
10,0	72	22	10	3	1	5365 03 01000	•
12,0	83	26	12	3	1	5365 03 01200	•
14,0	83	26	12	3	1	5365 03 01400	•
15,0	83	26	12	3	1	5365 03 01500	○
16,0	92	32	16	3	1	5365 03 01600	•
18,0	92	32	16	3	1	5365 03 01800	○
20,0	104	38	20	3	1	5365 03 02000	•

• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per scanalature DIN 327 HSS-E (Co8), versione corta, 2 taglienti, Tipo N
Slot end mills DIN 327 HSS-E M42 (Co8), short, 2 cutting edges, type N



Code **5300**



Code **5301**

DIN 327 | B DIN 1835 | HSS-E Co8 | Typ N | 12° | 25° | 90° | Z2 | TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5300 · 5301	●	●	●	●	●		●		●	●						

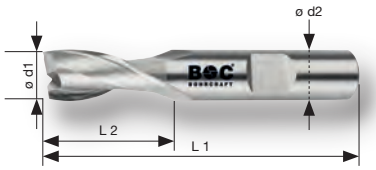
· 2 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento.

· 2 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
1,00	47	2,5	6	2	1	5300 03 00100	5301 03 00100	•
1,50	47	3,0	6	2	1	5300 03 00150	5301 03 00150	•
2,00	48	4,0	6	2	1	5300 03 00200	5301 03 00200	•
2,50	49	5,0	6	2	1	5300 03 00250	5301 03 00250	○
2,80	49	5,0	6	2	1	5300 03 00280	5301 03 00280	○
3,00	49	5,0	6	2	1	5300 03 00300	5301 03 00300	•
3,50	50	6,0	6	2	1	5300 03 00350	5301 03 00350	○
3,80	51	7,0	6	2	1	5300 03 00380	5301 03 00380	○
4,00	51	7,0	6	2	1	5300 03 00400	5301 03 00400	•
4,50	51	7,0	6	2	1	5300 03 00450	5301 03 00450	○
4,80	52	8,0	6	2	1	5300 03 00480	5301 03 00480	○
5,00	52	8,0	6	2	1	5300 03 00500	5301 03 00500	•
5,50	52	8,0	6	2	1	5300 03 00550	5301 03 00550	○
5,75	52	8,0	6	2	1	5300 03 00575	5301 03 00575	○
6,00	52	8,0	6	2	1	5300 03 00600	5301 03 00600	•
6,50	60	10,0	10	2	1	5300 03 00650	5301 03 00650	○
7,00	60	10,0	10	2	1	5300 03 00700	5301 03 00700	○
7,50	60	10,0	10	2	1	5300 03 00750	5301 03 00750	○
7,75	61	11,0	10	2	1	5300 03 00775	5301 03 00775	○
8,00	61	11,0	10	2	1	5300 03 00800	5301 03 00800	•
8,50	61	11,0	10	2	1	5300 03 00850	5301 03 00850	○
9,00	61	11,0	10	2	1	5300 03 00900	5301 03 00900	•
9,50	61	11,0	10	2	1	5300 03 00950	5301 03 00950	○
9,70	63	13,0	10	2	1	5300 03 00970	5301 03 00970	○
10,00	63	13,0	10	2	1	5300 03 01000	5301 03 01000	•
10,50	70	13,0	12	2	1	5300 03 01050	5301 03 01050	○
11,00	70	13,0	12	2	1	5300 03 01100	5301 03 01100	•
11,50	70	13,0	12	2	1	5300 03 01150	5301 03 01150	○
12,00	73	16,0	12	2	1	5300 03 01200	5301 03 01200	•
12,50	73	16,0	12	2	1	5300 03 01250	5301 03 01250	○
13,00	73	16,0	12	2	1	5300 03 01300	5301 03 01300	•
13,50	73	16,0	12	2	1	5300 03 01350	5301 03 01350	○
14,00	73	16,0	12	2	1	5300 03 01400	5301 03 01400	•
15,00	73	16,0	12	2	1	5300 03 01500	5301 03 01500	•
16,00	79	19,0	16	2	1	5300 03 01600	5301 03 01600	•
17,00	79	19,0	16	2	1	5300 03 01700	5301 03 01700	○
18,00	79	19,0	16	2	1	5300 03 01800	5301 03 01800	•
19,00	79	19,0	16	2	1	5300 03 01900	5301 03 01900	○
20,00	88	22,0	20	2	1	5300 03 02000	5301 03 02000	•
21,00	88	22,0	20	2	1	5300 03 02100	5301 03 02100	○
22,00	88	22,0	20	2	1	5300 03 02200	5301 03 02200	•
24,00	102	26,0	25	2	1	5300 03 02400	5301 03 02400	○
25,00*	102	26,0	25	2	1	5300 03 02500	5301 03 02500	•
26,00	102	26,0	25	2	1	5300 03 02600	5301 03 02600	•
28,00*	102	26,0	25	2	1	5300 03 02800	5301 03 02800	•
30,00	102	26,0	25	2	1	5300 03 03000	5301 03 03000	•
32,00	112	32,0	32	2	1	5300 03 03200	5301 03 03200	•
36,00	112	32,0	32	2	1	5300 03 03600	5301 03 03600	•
40,00*	118	38,0	32	2	1	5300 03 04000	5301 03 04000	○

* ≠ DIN 327 • disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Frese per scanalature DIN 327 HSS-E (Co8), versione corta, 2 taglienti, Tipo N
Slot end mills DIN 327 HSS-E M42 (Co8), short, 2 cutting edges, type N



Code **5300**



Code **5301**

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.	
LF 6	6	1x Ø 6 · 8 · 10 · 12 · 16 · 20 mm	5300 13 30006	•
LF 6-2	6	1x Ø 4 · 5 · 6 · 8 · 10 · 12 mm	5300 13 30007	•
LF 8	8	2x Ø 6 · 8 · 10 · 12 mm	5300 13 30008	•
LF 6 TiALN	6	1x Ø 6 · 8 · 10 · 12 · 16 · 20 mm	5301 13 30006	•
LF 6-2 TiALN	6	1x Ø 4 · 5 · 6 · 8 · 10 · 12 mm	5301 13 30007	•
LF 8 TiALN	8	2x Ø 6 · 8 · 10 · 12 mm	5301 13 30008	•



LF 6



LF 6-2



LF 8

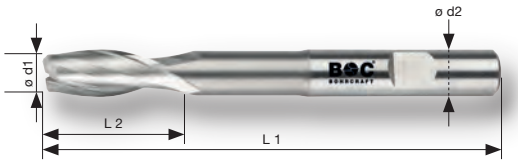


LF 6 TiALN



LF 6-2 TiALN

Frese per scanalature HSS-E (Co8), versione lunga, 2 taglienti, Tipo N
Slot end mills HSS-E M42 (Co8), long version, 2 cutting edges, type N



Code **5305**



Code **5306**

BOC NORM | B DIN 1835 | HSS-E Co8 | Typ N | LANGE LONG Version | 12° | 25° | 90° | Z2 | TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5305 · 5306	●	●	●	●	●		●		●	●		●				

· 2 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento.

· 2 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
2,0	54	7	6	2	1	5305 03 00200	5306 03 00200	○
3,0	56	8	6	2	1	5305 03 00300	5306 03 00300	○
3,5	59	10	6	2	1	5305 03 00350	5306 03 00350	○
4,0	63	11	6	2	1	5305 03 00400	5306 03 00400	○
4,5	63	11	6	2	1	5305 03 00450	5306 03 00450	○
5,0	68	13	6	2	1	5305 03 00500	5306 03 00500	○
5,5	68	13	6	2	1	5305 03 00550	5306 03 00550	○
6,0	68	13	6	2	1	5305 03 00600	5306 03 00600	○
6,5	80	16	10	2	1	5305 03 00650	5306 03 00650	○
7,0	80	16	10	2	1	5305 03 00700	5306 03 00700	○
8,0	88	19	10	2	1	5305 03 00800	5306 03 00800	○
8,5	88	19	10	2	1	5305 03 00850	5306 03 00850	○
9,0	88	19	10	2	1	5305 03 00900	5306 03 00900	○
10,0	95	22	10	2	1	5305 03 01000	5306 03 01000	○
11,0	102	22	12	2	1	5305 03 01100	5306 03 01100	○
12,0	110	26	12	2	1	5305 03 01200	5306 03 01200	○
13,0	110	26	12	2	1	5305 03 01300	5306 03 01300	○
14,0	110	26	12	2	1	5305 03 01400	5306 03 01400	○
15,0	110	26	12	2	1	5305 03 01500	5306 03 01500	○
16,0	123	32	16	2	1	5305 03 01600	5306 03 01600	○
18,0	123	32	16	2	1	5305 03 01800	5306 03 01800	○
20,0	141	38	20	2	1	5305 03 02000	5306 03 02000	○
22,0	141	38	20	2	1	5305 03 02200	5306 03 02200	○
24,0	166	45	25	2	1	5305 03 02400	5306 03 02400	○
25,0	166	45	25	2	1	5305 03 02500	5306 03 02500	○
26,0	166	45	25	2	1	5305 03 02600	5306 03 02600	○
28,0	166	45	25	2	1	5305 03 02800	5306 03 02800	○
30,0	166	45	25	2	1	5305 03 03000	5306 03 03000	○
32,0	186	53	32	2	1	5305 03 03200	5306 03 03200	○
36,0	186	53	32	2	1	5305 03 03600	5306 03 03600	○
40,0*	196	63	32	2	1	5305 03 04000	5306 03 04000	○

* ≠ ISO 1641 • disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per scanalature DIN 327 HSS-E (Co8), versione corta, 3 taglienti, Tipo N
Slot end mills DIN 327 HSS-E M42 (Co8), short, 3 cutting edges, type N



Code **5310**



Code **5311**

DIN 327 · B DIN 1835 · HSS-E Co8 · Typ N · 12° · 30° · 90° · Z3 · TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5310 · 5311	●	●	●	●			●		●	●		●		●		

· 3 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento.

· 3 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
3,0	49	5	6	3	1	5310 03 00300	5311 03 00300	○
3,5	50	6	6	3	1	5310 03 00350	5311 03 00350	○
4,0	51	7	6	3	1	5310 03 00400	5311 03 00400	○
4,5	51	7	6	3	1	5310 03 00450	5311 03 00450	○
5,0	52	8	6	3	1	5310 03 00500	5311 03 00500	○
5,5	52	8	6	3	1	5310 03 00550	5311 03 00550	○
6,0	52	8	6	3	1	5310 03 00600	5311 03 00600	○
6,5	60	10	10	3	1	5310 03 00650	5311 03 00650	○
7,0	60	10	10	3	1	5310 03 00700	5311 03 00700	○
7,5	60	10	10	3	1	5310 03 00750	5311 03 00750	○
8,0	61	11	10	3	1	5310 03 00800	5311 03 00800	○
9,0	61	11	10	3	1	5310 03 00900	5311 03 00900	○
9,5	61	11	10	3	1	5310 03 00950	5311 03 00950	○
10,0	63	13	10	3	1	5310 03 01000	5311 03 01000	○
11,0	70	13	12	3	1	5310 03 01100	5311 03 01100	○
12,0	73	16	12	3	1	5310 03 01200	5311 03 01200	○
13,0	73	16	12	3	1	5310 03 01300	5311 03 01300	○
14,0	73	16	12	3	1	5310 03 01400	5311 03 01400	○
15,0	73	16	12	3	1	5310 03 01500	5311 03 01500	○
16,0	73	19	16	3	1	5310 03 01600	5311 03 01600	○
18,0	79	19	16	3	1	5310 03 01800	5311 03 01800	○
20,0	88	22	20	3	1	5310 03 02000	5311 03 02000	○
22,0	88	22	20	3	1	5310 03 02200	5311 03 02200	○
25,0	102	26	25	3	1	5310 03 02500	5311 03 02500	○
28,0	102	26	25	3	1	5310 03 02800	5311 03 02800	○
30,0	102	26	25	3	1	5310 03 03000	5311 03 03000	○
32,0	112	32	32	3	1	5310 03 03200	5311 03 03200	○

• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per sgrossatura DIN 844 HSS-E (Co8), versione corta, Tipo NR
Roughing end mills DIN 844 HSS-E M42 (Co8), short, type NR



Code **5325**



Code **5326**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ NR | 12° | 30° | 90° | Z4-Z6 | TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5325 · 5326	●	●			●		●		●			●				

· 4-6 taglienti
· A centro taglio
· Profilo di sgrossatura
· Frese per sgrossatura per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

· 4-6 cutting edges
· Centre cutting
· Roughing profile
· Roughing end mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
6	57	13	6	4	1	5325 03 00600	5326 03 00600	●
7	66	16	10	4	1	5325 03 00700	5326 03 00700	●
8	69	19	10	4	1	5325 03 00800	5326 03 00800	●
9	69	19	10	4	1	5325 03 00900	5326 03 00900	○
10	72	22	10	4	1	5325 03 01000	5326 03 01000	●
11	79	22	12	4	1	5325 03 01100	5326 03 01100	○
12	83	26	12	4	1	5325 03 01200	5326 03 01200	●
13	83	26	12	4	1	5325 03 01300	5326 03 01300	○
14	83	26	12	4	1	5325 03 01400	5326 03 01400	●
15	83	26	12	4	1	5325 03 01500	5326 03 01500	○
16	92	32	16	4	1	5325 03 01600	5326 03 01600	●
17	92	32	16	4	1	5325 03 01700	5326 03 01700	●
18	92	32	16	4	1	5325 03 01800	5326 03 01800	●
19	92	32	16	4	1	5325 03 01900	5326 03 01900	○
20	104	38	20	4	1	5325 03 02000	5326 03 02000	●
21	104	38	20	4	1	5325 03 02100	5326 03 02100	○
22	104	38	20	5	1	5325 03 02200	5326 03 02200	○
24	121	45	25	5	1	5325 03 02400	5326 03 02400	○
25	121	45	25	5	1	5325 03 02500	5326 03 02500	○
26	121	45	25	5	1	5325 03 02600	5326 03 02600	○
28	121	45	25	5	1	5325 03 02800	5326 03 02800	○
30	121	45	25	5	1	5325 03 03000	5326 03 03000	○
32	133	53	32	6	1	5325 03 03200	5326 03 03200	○
36	133	53	32	6	1	5325 03 03600	5326 03 03600	○
40*	143	63	32	6	1	5325 03 04000	5326 03 04000	○

* ≠ DIN 844 ● disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Frese per sgrossatura DIN 844 HSS-E (Co8), versione lunga, Tipo NR
Roughing end mills DIN 844 HSS-E M42 (Co8), long version, type NR



Code **5330**



Code **5331**

DIN 844 · B DIN 1835 · HSS-E Co8 · Typ NR · LANGE LONG Version · 12° · 30° · 90° · Z4-Z6 · TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5330 · 5331	●	●			●		●		●			●				

· 4-6 taglienti
· A centro taglio
· Profilo di sgrossatura
· Frese per sgrossatura per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

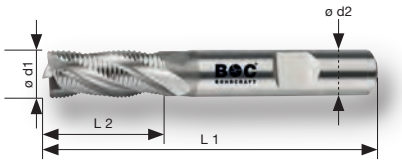
· 4-6 cutting edges
· Centre cutting
· Roughing profile
· Roughing end mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
6	68	24	6	4	1	5330 03 00600	5331 03 00600	●
7	80	30	10	4	1	5330 03 00700	5331 03 00700	○
8	88	38	10	4	1	5330 03 00800	5331 03 00800	●
9	88	38	10	4	1	5330 03 00900	5331 03 00900	○
10	95	45	10	4	1	5330 03 01000	5331 03 01000	●
11	102	45	12	4	1	5330 03 01100	5331 03 01100	○
12	110	53	12	4	1	5330 03 01200	5331 03 01200	●
14	110	53	12	4	1	5330 03 01400	5331 03 01400	○
15	110	53	12	4	1	5330 03 01500	5331 03 01500	○
16	123	63	16	4	1	5330 03 01600	5331 03 01600	●
18	123	63	16	4	1	5330 03 01800	5331 03 01800	●
20	141	75	20	4	1	5330 03 02000	5331 03 02000	●
22	141	75	20	5	1	5330 03 02200	5331 03 02200	○
24	166	90	25	5	1	5330 03 02400	5331 03 02400	○
25	166	90	25	5	1	5330 03 02500	5331 03 02500	●
26	166	90	25	5	1	5330 03 02600	5331 03 02600	○
28	166	90	25	5	1	5330 03 02800	5331 03 02800	●
30	166	90	25	5	1	5330 03 03000	5331 03 03000	●
32	186	106	32	6	1	5330 03 03200	5331 03 03200	●
36	186	106	32	6	1	5330 03 03600	5331 03 03600	○
40*	205	125	32	6	1	5330 03 04000	5331 03 04000	○

* ≠ DIN 844 ● disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per sgrossatura DIN 844 HSS-E (Co8), versione corta, Tipo HR
Roughing end mills DIN 844 HSS-E M42 (Co8), short, type HR



Code **5335**



Code **5336**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ HR | 10° | 30° | 90° | Z4-Z6 | TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5335 · 5336		●			●					●						●

· 4-6 taglienti
· A centro taglio
· Profilo di sgrossatura a passo fine
· Frese per sgrossatura per la lavorazione di materiali con resistenza alla trazione media e superiore fino a 1.200 N/mm² (38 HRC)
· Adatte per fresatura a tuffo, nella fresatura di cave e nella fresatura frontale e periferica.

· 4-6 cutting edges
· Centre cutting
· Fine pitched roughing profile
· Roughing end mills for machining materials with medium and higher tensile strength up to 1.200 N/mm² (38 HRC).
· Suitable for plunge and slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
6	57	13	6	4	1	5335 03 00600	5336 03 00600	•
7	66	16	10	4	1	5335 03 00700	5336 03 00700	○
8	69	19	10	4	1	5335 03 00800	5336 03 00800	•
9	69	19	10	4	1	5335 03 00900	5336 03 00900	○
10	72	22	10	4	1	5335 03 01000	5336 03 01000	•
11	79	22	12	4	1	5335 03 01100	5336 03 01100	○
12	83	26	12	4	1	5335 03 01200	5336 03 01200	•
13	83	26	12	4	1	5335 03 01300	5336 03 01300	○
14	83	26	12	4	1	5335 03 01400	5336 03 01400	○
15	83	26	12	4	1	5335 03 01500	5336 03 01500	○
16	92	32	16	4	1	5335 03 01600	5336 03 01600	•
17	92	32	16	4	1	5335 03 01700	5336 03 01700	○
18	92	32	16	4	1	5335 03 01800	5336 03 01800	•
20	104	38	20	5	1	5335 03 02000	5336 03 02000	•
22	104	38	20	5	1	5335 03 02200	5336 03 02200	○
24	121	45	25	5	1	5335 03 02400	5336 03 02400	○
25	121	45	25	5	1	5335 03 02500	5336 03 02500	•
26	121	45	25	5	1	5335 03 02600	5336 03 02600	○
28	121	45	25	5	1	5335 03 02800	5336 03 02800	○
30	121	45	25	5	1	5335 03 03000	5336 03 03000	•
32	133	53	32	6	1	5335 03 03200	5336 03 03200	○

• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Frese per finitura DIN 844 HSS-E (Co8), versione corta, Tipo N
Finishing end mills DIN 844 HSS-E M42 (Co8), short, type N



Code **5315**



Code **5316**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ N | 8° | 30° | 90° | Ø ≤ 2,5mm | Z3-Z6 | TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5315 · 5316	●	●	●	●			●			●		●				●

- 3-6 taglienti
- A centro taglio
- Profilo di finitura
- Frese per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

- 3-6 cutting edges
- Centre cutting
- Finishing profile
- End mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.	
2,0	51	7	6	3	1	5315 03 00200	5316 03 00200	•
2,5	52	8	6	3	1	5315 03 00250	5316 03 00250	•
3,0	52	8	6	4	1	5315 03 00300	5316 03 00300	•
3,5	54	10	6	4	1	5315 03 00350	5316 03 00350	•
4,0	55	11	6	4	1	5315 03 00400	5316 03 00400	•
4,5	55	11	6	4	1	5315 03 00450	5316 03 00450	•
5,0	57	13	6	4	1	5315 03 00500	5316 03 00500	•
5,5	57	13	6	4	1	5315 03 00550	5316 03 00550	•
6,0	57	13	6	4	1	5315 03 00600	5316 03 00600	•
6,5	66	16	10	4	1	5315 03 00650	5316 03 00650	•
7,0	66	16	10	4	1	5315 03 00700	5316 03 00700	•
7,5	66	16	10	4	1	5315 03 00750	5316 03 00750	•
8,0	69	19	10	4	1	5315 03 00800	5316 03 00800	•
8,5	69	19	10	4	1	5315 03 00850	5316 03 00850	•
9,0	69	19	10	4	1	5315 03 00900	5316 03 00900	•
10,0	72	22	10	4	1	5315 03 01000	5316 03 01000	•
11,0	79	22	12	4	1	5315 03 01100	5316 03 01100	•
12,0	83	26	12	4	1	5315 03 01200	5316 03 01200	•
13,0	83	26	12	4	1	5315 03 01300	5316 03 01300	•
14,0	83	26	14	4	1	5315 03 01400	5316 03 01400	•
15,0	83	26	15	4	1	5315 03 01500	5316 03 01500	•
16,0	92	32	16	4	1	5315 03 01600	5316 03 01600	•
17,0	92	32	16	4	1	5315 03 01700	5316 03 01700	•
18,0	92	32	18	4	1	5315 03 01800	5316 03 01800	•
20,0	104	38	20	4	1	5315 03 02000	5316 03 02000	•
22,0	104	38	20	5	1	5315 03 02200	5316 03 02200	•
24,0	121	45	25	5	1	5315 03 02400	5316 03 02400	•
25,0	121	45	25	5	1	5315 03 02500	5316 03 02500	•
26,0	121	45	25	5	1	5315 03 02600	5316 03 02600	•
28,0	121	45	25	5	1	5315 03 02800	5316 03 02800	•
30,0	121	45	25	5	1	5315 03 03000	5316 03 03000	•
32,0	133	53	32	6	1	5315 03 03200	5316 03 03200	•
35,0	133	53	32	6	1	5315 03 03500	5316 03 03500	•
36,0	133	53	32	6	1	5315 03 03600	5316 03 03600	•
40,0*	143	63	32	6	1	5315 03 04000	5316 03 04000	•

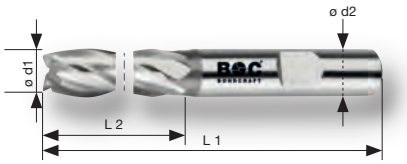
* ≠ DIN 844 • disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
SF 6	6	1x Ø 6 · 8 · 10 · 12 · 16 · 20 mm	5315 13 30006
SF 6-2	6	1x Ø 4 · 5 · 6 · 8 · 10 · 12 mm	5315 13 30007
SF 8	8	2x Ø 6 · 8 · 10 · 12 mm	5315 13 30008
SF 6 TiALN	6	1x Ø 6 · 8 · 10 · 12 · 16 · 20 mm	5316 13 30006
SF 6-2 TiALN	6	1x Ø 4 · 5 · 6 · 8 · 10 · 12 mm	5316 13 30007
SF 8 TiALN	8	2x Ø 6 · 8 · 10 · 12 mm	5316 13 30008



Frese per finitura DIN 844 HSS-E (Co8), versione lunga, Tipo N
Finishing end mills DIN 844 HSS-E M42 (Co8), long version, type N



Code **5320**



Code **5321**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ N | LANGE LONG Version | 8° | 30° | 90° | Ø ≥ 2,0mm | Z3-Z6 | TiALN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5320 · 5321	●	●	●	●			●		●			●				●

· 4-6 taglienti
· A centro taglio
· Profilo di finitura
· Frese per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

· 4-6 cutting edges
· Centre cutting
· Finishing profile
· End mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Artikel-Nr. Part-No.	TiALN Artikel-Nr. Part-No.	
2,0	54	10	6	3	1	5320 03 00200	5321 03 00200	○
3,0	56	12	6	4	1	5320 03 00300	5321 03 00300	○
3,5	59	15	6	4	1	5320 03 00350	5321 03 00350	○
4,0	63	19	6	4	1	5320 03 00400	5321 03 00400	○
4,5	63	19	6	4	1	5320 03 00450	5321 03 00450	○
5,0	68	24	6	4	1	5320 03 00500	5321 03 00500	○
5,5	68	24	6	4	1	5320 03 00550	5321 03 00550	○
6,0	68	24	6	4	1	5320 03 00600	5321 03 00600	●
7,0	80	30	10	4	1	5320 03 00700	5321 03 00700	○
8,0	88	38	10	4	1	5320 03 00800	5321 03 00800	●
9,0	88	38	10	4	1	5320 03 00900	5321 03 00900	○
10,0	95	45	10	4	1	5320 03 01000	5321 03 01000	●
11,0	102	45	12	4	1	5320 03 01100	5321 03 01100	○
12,0	110	53	12	4	1	5320 03 01200	5321 03 01200	●
13,0	110	53	12	4	1	5320 03 01300	5321 03 01300	○
14,0	110	53	12	4	1	5320 03 01400	5321 03 01400	●
15,0	110	53	12	4	1	5320 03 01500	5321 03 01500	○
16,0	123	63	16	4	1	5320 03 01600	5321 03 01600	●
18,0	123	63	16	4	1	5320 03 01800	5321 03 01800	●
20,0	141	75	20	4	1	5320 03 02000	5321 03 02000	●
22,0	141	75	20	5	1	5320 03 02200	5321 03 02200	○
24,0	166	90	25	5	1	5320 03 02400	5321 03 02400	○
25,0	166	90	25	5	1	5320 03 02500	5321 03 02500	○
26,0	166	90	25	5	1	5320 03 02600	5321 03 02600	○
28,0	166	90	25	5	1	5320 03 02800	5321 03 02800	○
30,0	166	90	25	5	1	5320 03 03000	5321 03 03000	○
32,0	186	106	32	6	1	5320 03 03200	5321 03 03200	○
36,0	186	106	32	6	1	5320 03 03600	5321 03 03600	○
40,0*	205	125	32	6	1	5320 03 04000	5321 03 04000	○

* ≠ DIN 844 ● disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per sgrossatura DIN 844 HSS-E PM **AlTiN**, versione corta, Tipo HR
Roughing end mills DIN 844 HSS-E PM **AlTiN**, short, type HR



Code **5435**

DIN 844 | B DIN 1835 | HSS-E PM | Typ HR | 10° | 30° | 90° | Z4-Z5 | AlTiN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5435			●		●					●		●			●	●

· 4-5 taglienti
· A centro taglio
· Profilo di sgrossatura fine
· Materiale da taglio HSS-E PM con rivestimento AlTiN, adatto per acciai difficili da lavorare
· Frese per sgrossatura per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

· 4-5 cutting edges
· Centre cutting
· Fine roughing profile
· Cutting material HSS-E PM with AlTiN coating, suitable for tough and difficult to machine steels.
· Roughing end mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
6	67	13	6	4	1	5435 03 00600	●
7	66	16	10	4	1	5435 03 00700	○
8	69	19	10	4	1	5435 03 00800	●
9	69	19	10	4	1	5435 03 00900	○
10	72	22	10	4	1	5435 03 01000	●
12	83	26	12	4	1	5435 03 01200	●
14	83	26	12	4	1	5435 03 01400	○
16	92	32	16	4	1	5435 03 01600	●
18	92	32	16	4	1	5435 03 01800	○
20	104	38	20	4	1	5435 03 02000	●
22	104	38	20	5	1	5435 03 02200	○
25	121	45	25	5	1	5435 03 02500	●
30	121	45	25	5	1	5435 03 03000	●

● disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



Frese per finitura DIN 844 HSS-E PM **AlTiN**, versione corta, Tipo N
Finishing end mills DIN 844 HSS-E PM **AlTiN**, short, type N



Code **5415**

DIN 844 | B DIN 1835 | HSS-E PM | Typ N | 12° | 30° | 90° | Z4-Z5 | AlTiN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5415		●	●	●	●		●		●			●			●	●

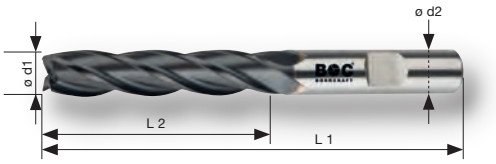
· 4-5 taglienti
· A centro taglio
· Materiale da taglio HSS-E PM con rivestimento AlTiN, adatto per acciai difficili da lavorare
· Frese per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

· 4-5 cutting edges
· Centre cutting
· Cutting material HSS-E PM with AlTiN coating, suitable for tough and difficult to machine steels.
· End mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
2	51	7	6	4	1	5415 03 00200	●
3	52	8	6	4	1	5415 03 00300	○
4	55	11	6	4	1	5415 03 00400	●
5	57	13	6	4	1	5415 03 00500	○
6	57	13	6	4	1	5415 03 00600	●
8	69	19	10	4	1	5415 03 00800	●
10	72	22	10	4	1	5415 03 01000	●
12	83	26	12	4	1	5415 03 01200	●
14	83	26	12	4	1	5415 03 01400	●
16	92	32	16	4	1	5415 03 01600	●
18	92	32	16	4	1	5415 03 01800	●
20	104	38	20	4	1	5415 03 02000	●
25	121	45	25	5	1	5415 03 02500	○
30	121	45	25	5	1	5415 03 03000	○

● disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days

Frese per finitura DIN 844 HSS-E PM **AlTiN,** versione lunga, Tipo N
Finishing end mills DIN 844 HSS-E PM **AlTiN,** long version, type N



Code **5420**

DIN 844 | B DIN 1835 | HSS-E Co8 | Typ N | LANGE LONG Version | 12° | 30° | 90° | Z4-Z6 | AlTiN

Code	P					M			K		N				S	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2
5420		●	●	●	●		●		●			●			●	●

· 4-6 taglienti
· A centro taglio
· Materiale da taglio HSS-E PM con rivestimento AlTiN, adatto per acciai difficili da lavorare
· Frese per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

· 4-6 cutting edges
· Centre cutting
· Cutting material HSS-E PM with AlTiN coating, suitable for tough and difficult to machine steels.
· End mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.	
3	56	12	6	4	1	5420 03 00300	○
6	68	24	6	4	1	5420 03 00600	○
8	88	38	10	4	1	5420 03 00800	○
10	95	45	10	4	1	5420 03 01000	○
12	110	53	12	4	1	5420 03 01200	○
14	110	53	12	4	1	5420 03 01400	○
16	123	63	16	4	1	5420 03 01600	○
18	123	63	16	4	1	5420 03 01800	○
20	141	75	20	4	1	5420 03 02000	○
32	186	106	32	6	1	5420 03 03200	○

• disponibile a magazzino / ex stock ○ tempi di consegna 10-14 giorni / delivery time 10-14 days



FRESE IN MD
SOLID CARBIDE END MILLS



FRESE IN MD
SOLID CARBIDE END MILLS

		DIN	Qualità Quality	Tipo Type	Versione Version	Elica Flutes	Codolo Shank	Descrizione Description	Code	Pagina Page
Frese in MD / Solid carbide end mills										
		-	MD SC	W	corto short	1	DIN 6535 HA	Frese a singola elica Single fluted end mills	5500	138
		-	MD SC	W	corto short	2	DIN 6535 HA/HB	Frese per scanalature Slot end mills	5505 5506	139
		~ 6527 L	MD SC	W	lungo long	3	DIN 6535 HA/HB	Frese per scanalature Slot end mills	5510 5511	140
		~ 6527 L	MD SC	N	corto short	2	DIN 6535 HA/HB	Frese per scanalature, **AlTiN** Slot end mills, **AlTiN**	5515 5516	141
		~ 6527 L	MD SC	N	lungo long	3	DIN 6535 HA/HB	Frese per scanalature, **AlTiN** Slot end mills, **AlTiN**	5520 5521	142
		~ 6527 L	MD SC	N	lungo long	4	DIN 6535 HA/HB	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5525 5526	143
		~ 6527 L	MD SC	N	extra lungo / long	4	DIN 6535 HA/HB	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5530 5531	144
		6527 L	MD SC	HPC	lungo long	4	DIN 6535 HA/HB	Frese HPC, **AlTiN** HPC end mills, **AlTiN**	5535 5536	145
		~ 6527 L	MD SC	NH	lungo long	6	DIN 6535 HA/HB	Frese per finitura, **AlTiN** Finishing end mills, **AlTiN**	5540 5541	146
		~ 6527 L	MD SC	HRf	lungo long	3 – 5	DIN 6535 HA/HB	Frese per sgrossatura, **AlTiN** Roughing end mills, **AlTiN**	5545 5546	147
		~ 6527 L	MD SC	N	lungo long	2	DIN 6535 HA	Frese a testa raggiata, **AlTiN** Ball nose end mills, **AlTiN**	5550	148
		-	MD SC	N	lungo long	4	DIN 6535 HA	Frese sbavatrici, **TiALN** Deburring end mills, **TiALN**	5555	149

Parametri d'impiego consigliati per frese in MD
Application recommendation for solid carbide end mills

										
DIN		-	-	~ 6527 L	~ 6527 L	~ 6527 L	~ 6527 L	~ 6527 L	6527 L	~ 6527 L
Tipo Type		W	W	W	N	N	N	N	HPC	NH
Materiale da taglio Cutting material		MD / SC	MD / SC	MD / SC	MD / SC	MD / SC	MD / SC	MD / SC	MD / SC	MD / SC
Rivestimento Coating		-	-	-	AlTiN	AlTiN	AlTiN	AlTiN	AlTiN	AlTiN
Taglienti Cutting edges		1	2	3	2	3	4	4	4	6
Intervallo Range		3 – 12 mm	2 – 20 mm	2 – 20 mm	2 – 20 mm	2 – 20 mm	2 – 20 mm	3 – 20 mm	3 – 20 mm	3 – 20 mm
Qualità Quality		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Code		5500	5505 5506	5510 5511	5515 5516	5520 5521	5525 5526	5530 5531	5535 5536	5540 5541
Pagina Page		138	139	140	141	142	143	144	145	146
P	1				●	●	●	●	◐	●
	2				●	●	●	●	◐	●
	3				●	●	●	●	◐	●
	4				●	●	●	●	◐	●
	5				◐	●	●	◐	●	●
M	1				●	●	●		◐	●
	2				●	●	●		◐	●
	3				◐	◐	●		●	●
K	1 – 2				●	●	●	◐	◐	●
	4				●	●	◐	◐	●	●
N	1.1 – 1.3	●	●	●	◐		◐	◐		◐
	1.4 – 1.5	●	●	●	◐		◐	◐		◐
	1.6		●	●	◐		●	◐		◐
	2.1 –2.6	●	◐	◐	◐		●	◐		◐
S	1				●	●	●			●
	2				●	●	◐			●
H	1.1 – 1.3 (≤ 48 HRC)				◐				●	◐
	1.4 – 1.5 (≤ 66 HRC)									

● adatto / suitable ◐ consiglio / limited suitable

Parametri d'impiego consigliati per frese in MD
Application recommendation for solid carbide end mills

		
~ 6527 L	~ 6527 L	-
HRf	N	N
MD / SC	MD / SC	MD / SC
AlTiN	AlTiN	TiALN
3 – 5	2	4
5 – 25 mm	2 – 20 mm	4 – 12 mm
★★★★★★	★★★★★★	★★★★★★
5545 5546	5550	5555
147	148	149
	●	◐
	●	◐
◐	●	◐
	●	◐
◐	●	●
	●	◐
	●	◐
	●	●
◐	●	◐
●	●	●
	◐	●
	◐	◐
	◐	
◐	◐	
		●
	◐	●
●	●	●
◐		

● adatto / suitable ◐ consiglio / limited suitable

Frese a singola elica in MD, Tipo W
Solid carbide single fluted end mills, type W



Code **5500**

BOC NORM | HA DIN 6535 | VHM SC | Typ W | 45° | 20° | 30° | Z1

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5500											●	●		●				

· 1 tagliente
· A centro taglio
· Per fresatura, scanalatura e fresatura di contorni
· Particolarmente indicato per la lavorazione di materiali come alluminio, metalli non ferrosi e materie plastiche.

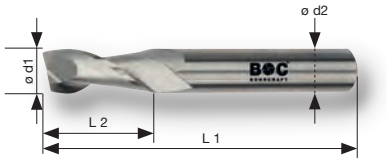
· 1 cutting edge
· Centre cutting
· For milling, grooving and contour milling
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.



HA

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.
3	50	8	6	1	1	5500 03 00300
4	54	11	6	1	1	5500 03 00400
5	54	13	6	1	1	5500 03 00500
6	54	13	6	1	1	5500 03 00600
8	58	19	8	1	1	5500 03 00800
10	66	22	10	1	1	5500 03 01000
12	73	26	12	1	1	5500 03 01200

Frese per scanalature in MD con 2 taglienti, versione corta, Tipo W
Solid carbide slot end mills with 2 cutting edges, short, type W



Code **5505 · 5506**

~DIN 6527 L | HA DIN 6535 | HB DIN 6535 | VHM SC | Typ W | 15° | 35° | 90° | | Z2

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5505 · 5506											●	●	●	●				

· 2 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento
· Particolarmente indicato per la lavorazione di materiali come alluminio, metalli non ferrosi e materie plastiche.

· 2 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
2	40	7	4	2	1	5505 03 00200	-
3	50	9	4	2	1	5505 03 00300	-
4	57	11	6	2	1	5505 03 00400	5506 03 00400
5	57	13	6	2	1	5505 03 00500	5506 03 00500
6	57	13	6	2	1	5505 03 00600	5506 03 00600
8	63	19	8	2	1	5505 03 00800	5506 03 00800
10	72	22	10	2	1	5505 03 01000	5506 03 01000
12	83	26	12	2	1	5505 03 01200	5506 03 01200
14	83	26	14	2	1	5505 03 01400	5506 03 01400
16	92	32	16	2	1	5505 03 01600	5506 03 01600
18	92	32	18	2	1	5505 03 01800	5506 03 01800
20	104	38	20	2	1	5505 03 02000	5506 03 02000



Frese per scanalature in MD con 3 taglienti, versione lunga, Tipo W
Solid carbide slot end mills with 3 cutting edges, long version, type W



Code **5510 · 5511**

~DIN	HA	HB	VHM	Typ	LANGE LONG					
6527 L	DIN 6535	DIN 6535	SC	W	Version	12°	45°	45°		Z3

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5510 · 5511											●	●	●	●				

· 3 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento
· Particolarmente indicato per la lavorazione di materiali come alluminio, metalli non ferrosi e materie plastiche.

· 3 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling
· Especially for machining soft materials such as aluminum, non-ferrous metals and plastics.



							HA	HB
Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z			Art.-Nr. Part-No.	Art.-Nr. Part-No.
2	50	6	4	3	1		5510 03 00200	-
3	57	8	6	3	1		5510 03 00300	5511 03 00300
4	57	11	6	3	1		5510 03 00400	5511 03 00400
5	57	13	6	3	1		5510 03 00500	5511 03 00500
6	57	13	6	3	1		5510 03 00600	5511 03 00600
8	63	19	8	3	1		5510 03 00800	5511 03 00800
10	72	22	10	3	1		5510 03 01000	5511 03 01000
12	83	26	12	3	1		5510 03 01200	5511 03 01200
14	83	26	14	3	1		5510 03 01400	5511 03 01400
16	92	32	16	3	1		5510 03 01600	5511 03 01600
20	104	38	20	3	1		5510 03 02000	5511 03 02000

Frese per scanalature in MD con 2 taglienti, versione corta, Tipo N, **AlTiN**
Solid carbide slot end mills with 2 cutting edges, short, type N, **AlTiN**



Code **5515 · 5516**

~DIN 6527 L | HA DIN 6535 | HB DIN 6535 | VHM SC | Typ N | 9° | 30° | 45° | Z2 | AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5515 · 5516	●	●	●	●	○	●	●	○	●	●	○	○	○	○	●	●	○	

· 2 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento.

· 2 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
2	40	6	4	2	1	5515 03 00200	-
3	50	8	4	2	1	5515 03 00300	-
4	50	11	6	2	1	5515 03 00400	5516 03 00400
5	50	13	6	2	1	5515 03 00500	5516 03 00500
6	50	13	6	2	1	5515 03 00600	5516 03 00600
7	60	16	8	2	1	5515 03 00700	5516 03 00700
8	60	19	8	2	1	5515 03 00800	5516 03 00800
9	70	19	10	2	1	5515 03 00900	5516 03 00900
10	70	22	10	2	1	5515 03 01000	5516 03 01000
11	75	22	12	2	1	5515 03 01100	5516 03 01100
12	75	26	12	2	1	5515 03 01200	5516 03 01200
14	75	26	14	2	1	5515 03 01400	5516 03 01400
16	75	26	16	2	1	5515 03 01600	5516 03 01600
18	100	32	18	2	1	5515 03 01800	5516 03 01800
20	100	32	20	2	1	5515 03 02000	5516 03 02000



Frese per scanalature in MD con 3 taglienti, versione lunga, Tipo N, **AlTiN**
Solid carbide slot end mills with 3 cutting edges, long version, type N, **AlTiN**



Code **5520 · 5521**

~DIN	HA	HB	VHM	Typ	LANGE LONG						
6527 L	DIN 6535	DIN 6535	SC	N	Version	12°	30°	45°		Z3	AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5520 · 5521	●	●	●	●	●	●	●	◐	●	●					●	●		

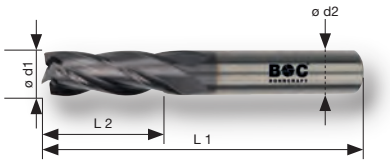
· 3 taglienti
· A centro taglio
· Adatto per fresatura a tuffo, a cava e di accoppiamento.

· 3 cutting edges
· Centre cutting
· Suitable for plunge, slot and fitting milling.



Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
2	50	6	4	3	1	5520 03 00200	-
3	57	8	6	3	1	5520 03 00300	5521 03 00300
4	57	11	6	3	1	5520 03 00400	5521 03 00400
5	57	13	6	3	1	5520 03 00500	5521 03 00500
6	57	13	6	3	1	5520 03 00600	5521 03 00600
8	63	19	8	3	1	5520 03 00800	5521 03 00800
10	72	22	10	3	1	5520 03 01000	5521 03 01000
12	83	26	12	3	1	5520 03 01200	5521 03 01200
14	83	26	14	3	1	5520 03 01400	5521 03 01400
16	92	32	16	3	1	5520 03 01600	5521 03 01600
20	104	38	20	3	1	5520 03 02000	5521 03 02000

Frese per scanalature in MD con 4 taglienti, versione lunga, Tipo N, AlTiN
Solid carbide finishing end mills with 4 cutting edges, long version, type N, AlTiN



Code **5525 · 5526**

~DIN 6527 L | HA DIN 6535 | HB DIN 6535 | VHM SC | Typ N | LANGE LONG Version | 9° | 30° | 45° | Z4 | AlTiN

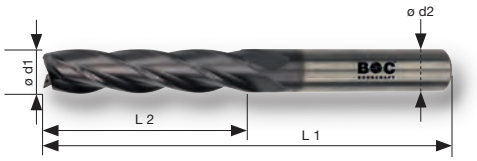
Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5525 · 5526	●	●	●	●	●	●	●	●	●	○	○	○	●	●	●			

- 4 taglienti
- A centro taglio
- Profilo di finitura
- Frese per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

- 4 cutting edges
- Centre cutting
- Finishing profile
- End mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
2	32	8	2	4	1	5525 03 00200	-
3	38	12	3	4	1	5525 03 00300	-
4	40	12	4	4	1	5525 03 00400	-
5	50	15	5	4	1	5525 03 00500	-
6	57	16	6	4	1	5525 03 00600	5526 03 00600
7	60	16	8	4	1	5525 03 00700	5526 03 00700
8	68	22	8	4	1	5525 03 00800	5526 03 00800
9	72	22	10	4	1	5525 03 00900	5526 03 00900
10	72	25	10	4	1	5525 03 01000	5526 03 01000
11	83	26	12	4	1	5525 03 01100	5526 03 01100
12	83	28	12	4	1	5525 03 01200	5526 03 01200
14	83	28	14	4	1	5525 03 01400	5526 03 01400
16	92	35	16	4	1	5525 03 01600	5526 03 01600
18	92	35	18	4	1	5525 03 01800	5526 03 01800
20	104	40	20	4	1	5525 03 02000	5526 03 02000

Frese per finitura in MD con 4 taglienti, versione extra lunga, Tipo N, **AlTiN**
Solid carbide finishing end mills with 4 cutting edges, extra long version, type N, **AlTiN**



Code **5530 · 5531**

~DIN 6527 L | HA DIN 6535 | HB DIN 6535 | VHM SC | Typ N | EXTRA LANGE EXTRA LONG Version | 9° | 30° | 45° | Z4 | AlTiN

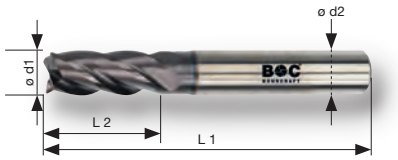
Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5530 · 5531	●	●	●	●	○				○	○	○	○	○	○				

· 4 taglienti
· A centro taglio
· Profilo di finitura
· Frese per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

· 4 cutting edges
· Centre cutting
· Finishing profile
· End mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
3	57	15	6	4	1	5530 03 00300	5531 03 00300
4	63	19	6	4	1	5530 03 00400	5531 03 00400
5	68	24	6	4	1	5530 03 00500	5531 03 00500
6	68	24	6	4	1	5530 03 00600	5531 03 00600
8	88	38	8	4	1	5530 03 00800	5531 03 00800
10	95	45	10	4	1	5530 03 01000	5531 03 01000
12	110	53	12	4	1	5530 03 01200	5531 03 01200
14	110	53	14	4	1	5530 03 01400	5531 03 01400
16	125	63	16	4	1	5530 03 01600	5531 03 01600
18	125	63	18	4	1	5530 03 01800	5531 03 01800
20	141	75	20	4	1	5530 03 02000	5531 03 02000

Frese HPC in MD con 4 taglienti, versione lunga, AlTiN
Solid carbide HPC end mills with 4 cutting edges, long version, AlTiN



Code **5535 · 5536**

DIN 6527 L | HA DIN 6535 | HB DIN 6535 | VHM SC | HPC | LANGE LONG Version | 9° | 35-38° | 45° | | Z4 | AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5535 · 5536	●	●	●	●	◐	●	●	◐	●	◐							◐	

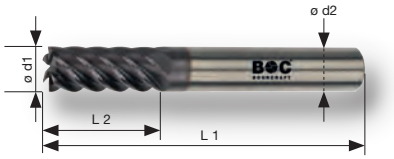
- 4 taglienti
- A centro taglio
- Elica variabile con scarico del collo
- Per sgrossatura e finitura
- Frese ad alte prestazioni per uso universale nella fresatura a tuffo, nella fresatura di cave, nonché nella fresatura frontale e periferica.

- 4 cutting edges
- Centre cutting
- Variable helix angle with neck clearance
- For roughing and finishing
- High performance end mills for universal use in plunge, slot milling as well as face and peripheral milling.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
3	57	8	6	4	1	5535 03 00300	5536 03 00300
4	57	11	6	4	1	5535 03 00400	5536 03 00400
5	57	13	6	4	1	5535 03 00500	5536 03 00500
6	57	13	6	4	1	5535 03 00600	5536 03 00600
8	63	19	8	4	1	5535 03 00800	5536 03 00800
10	72	22	10	4	1	5535 03 01000	5536 03 01000
12	83	26	12	4	1	5535 03 01200	5536 03 01200
14	83	26	14	4	1	5535 03 01400	5536 03 01400
16	92	32	16	4	1	5535 03 01600	5536 03 01600
20	104	38	20	4	1	5535 03 02000	5536 03 02000



Frese per finitura in MD con 6 taglienti, versione lunga, Tipo NH, **AlTiN**
Solid carbide finishing end mills with 6 cutting edges, long version, type NH, **AlTiN**



Code **5540 · 5541**

~DIN	HA	HB	VHM	Typ	LANGE LONG						
6527 L	DIN 6535	DIN 6535	SC	NH	Version	7°	45°	90°		Z6	AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5540 · 5541	●	●	●	●	●	●	●	●	●	●	◐	◐	◐	◐	●	●	◐	

· 6 taglienti
· Senza centro taglio
· Frese multi dente per la finitura fine di materiali altolegati e ghisa grigia fino a circa 1600 N/mm² (48,5 HRC).

· 6 cutting edges
· Without centre cutting
· Multi tooth end mills for fine finishing high alloyed materials and grey cast iron up to approx. 1600 N/mm² (48,5 HRC).



Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
3	50	10	4	6	1	5540 03 00300	-
4	57	11	6	6	1	5540 03 00400	5541 03 00400
5	57	13	6	6	1	5540 03 00500	5541 03 00500
6	57	13	6	6	1	5540 03 00600	5541 03 00600
8	63	19	8	6	1	5540 03 00800	5541 03 00800
10	72	22	10	6	1	5540 03 01000	5541 03 01000
12	83	26	12	6	1	5540 03 01200	5541 03 01200
14	83	26	14	6	1	5540 03 01400	5541 03 01400
16	92	32	16	6	1	5540 03 01600	5541 03 01600
18	92	32	18	6	1	5540 03 01800	5541 03 01800
20	104	38	20	6	1	5540 03 02000	5541 03 02000

Frese per sgrossatura in MD con 3-5 taglienti, versione lunga, lipo HRf, **AlTiN**
Solid carbide roughing end mills with 3-5 cutting edges, long version, type HRf, **AlTiN**



Code **5545 · 5546**

~DIN 6527 L | HA DIN 6535 | HB DIN 6535 | VHM SC | Typ HRf | LANGE LONG Version | ·3° | 20° | 45° | Z3-Z5 | AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5545 · 5546			●		●				●	●				●			●	●

- 3-5 taglienti
- A centro taglio
- Profilo di sgrossatura fine
- Produce trucioli corti con buona evacuazione. Adatto alla fresatura di materiali temprati, nonché di ghisa grigia e temprata fino a 54 HRC.

- 3-5 cutting edges
- Centre cutting
- Fine roughing profile
- Produces short chips with good chip evacuation. Suitable for milling hardened materials as well as grey and chilled cast iron up to 54 HRC.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		HA Art.-Nr. Part-No.	HB Art.-Nr. Part-No.
5	57	16	6	3	1	5545 03 00500	5546 03 00500
6	57	16	6	3	1	5545 03 00600	5546 03 00600
8	63	19	8	3	1	5545 03 00800	5546 03 00800
10	72	22	10	4	1	5545 03 01000	5546 03 01000
12	83	26	12	4	1	5545 03 01200	5546 03 01200
16	92	32	16	4	1	5545 03 01600	5546 03 01600
20	104	38	20	4	1	5545 03 02000	5546 03 02000
25	121	45	25	5	1	5545 03 02500	5546 03 02500



Frese a testa raggiata in MD con 2 taglienti, versione lunga, Tipo N, **AlTiN**
Solide carbide ball nose end mills with 2 cutting edges, long version, type N, **AlTiN**



Code **5550**

~DIN 6527 L | HA DIN 6535 | VHM SC | Typ N | LANGE LONG Version | 9° | 30° | Z2 | AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5550	●	●	●	●	●	●	●	●	●	●	◐	◐	◐	◐		◐	●	

· 2 taglienti
· A centro taglio
· Fresa a raggio pieno per fresatura a copiare, ad esempio nella costruzione di stampi e matrici.

· 2 cutting edges
· Centre cutting
· End mill with full radius for copy milling, e.g. in die and mold making.



HA

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.
2	40	6	4	2	1	5550 03 00200
3	50	7	4	2	1	5550 03 00300
4	50	8	6	2	1	5550 03 00400
5	50	10	6	2	1	5550 03 00500
6	50	10	6	2	1	5550 03 00600
8	60	19	8	2	1	5550 03 00800
10	70	22	10	2	1	5550 03 01000
12	75	26	12	2	1	5550 03 01200
14	75	26	14	2	1	5550 03 01400
16	75	26	16	2	1	5550 03 01600
18	100	32	18	2	1	5550 03 01800
20	100	32	20	2	1	5550 03 02000

Frese per sbavatura con 4 taglienti, versione lunga, lipo N, **TiALN**
Solid carbide deburring end mills with 4 cutting edges, long version, type N, **TiALN**



Code **5555**

BOHRCRAFT NORM | HA DIN 6535 | VHM SC | Typ N | 90° | 0° | 7° | | Z4 | AlTiN

Code	P					M			K		N				S		H	
	1	2	3	4	5	1	2	3	1 – 2	4	1.1 – 1.3	1.4 – 1.5	1.6	2.1 – 2.6	1	2	1.1 – 1.3	1.4 – 1.5
5555	○	○	○	○	●	○	○	●	○	●	●	○			●	●	●	

· 4 taglienti
· A centro taglio
· Per smussare, sbavare e svasare.

· 4 cutting edges
· Centre cutting
· For chamfering, deburring and countersinking.

HA

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 / h6 mm	Z		Art.-Nr. Part-No.
4	50	4,2	4	4	1	5555 03 00490
6	57	6,2	6	4	1	5555 03 00690
8	63	8,3	8	4	1	5555 03 00890
10	72	10,4	10	4	1	5555 03 01090
12	83	12,5	12	4	1	5555 03 01290



FRESE A CAROTARE · FRESE A TAZZA TCT
CORE DRILLS · TCT-MULTIGRADE HOLE SAWS



FRESE A CAROTARE · FRESE A TAZZA TCT
ÙCORE DRILLS · TCT-MULTIGRADE HOLE SAWS

		Qualità Quality	Descrizione Description	Code	Pagina Page
Frese a carotare + accessori / Core drills + accessories					
PROFI PLUS		HSS	Frese a carotare con attacco weldon di profondità 30 e 55 mm Core drills with weldon shank 30 and 55 mm cutting depth	1950	**153**
PROFI PLUS		HSS-E Co	Frese a carotare con attacco weldon di profondità 30 e 55 mm Core drills with weldon shank 30 and 55 mm cutting depth	1951	**154**
PROFI PLUS		TCT TCT	Frese a carotare TCT con attacco weldon di profondità 30 e 55 mm Core drills TCT with weldon shank 35 and 55 mm cutting depth	1952	**155**
PROFI PLUS		-	Accessori per frese a carotare Accessories for core drills	1955 1956 1957	**156**
Frese a tazza TCT / TCT-Hole saws					
BOC		TCT TCT	Frese a tazza TCT + accessori Multigrade hole saws TCT + accessories	1920 1925	**157**

Versioni disponibili frese a carotare
Available core drill versions

HSS WELDON



Frese a carotare in HSS adatte per acciaio (travi a T, lamiere di grandi dimensioni), acciaio fuso e metalli non ferrosi.

Core drills made of high speed steel. Suitable for steel (T-girder, large-size sheets), cast steel and non-ferrous metals.

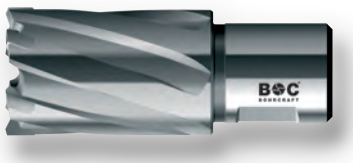
HSS-E Co WELDON



Frese a carotare HSS-E (Co8) adatte per acciaio (travi a T, lamiere di grandi dimensioni), acciaio inossidabile come AISI 304 + AISI 316 e metalli non ferrosi.

Core drills made of cobalt-alloyed high speed steel. Suitable for steel (T-girder, large-size sheets), stainless steel like AISI 304 + AISI 316 and non-ferrous metals.

HM TCT WELDON



Frese a carotare in metallo duro. Adatte per acciaio (travi a T, lamiere di grandi dimensioni), acciaio inossidabile come AISI 304 + AISI 316 e metalli non ferrosi.

Core drills with TC-cutters, Suitable for steel (T-girder, large-size sheets), stainless steel like AISI 304 + AISI 316 and non-ferrous metals.



DETTAGLI TECNICI
TECHNICAL DETAILS



Frese a carotare:
Rispetto a una punta elicoidale, una fresa a carotare taglia fino a 10 volte più velocemente!

Core drills:
Compared with a twist drill a core drill cuts up to 10 times faster!



Una fresa a carotare taglia solo un anello (vedi parte verde}.
Vantaggio: puoi risparmiare costi e tempo!

A core drill cuts only a ring (see green part).
Advantage: You can save costs and time!



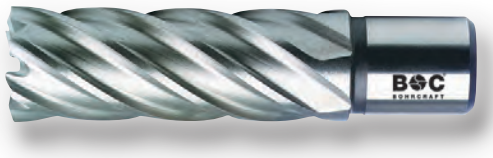
Una punta elicoidale taglia l'intero diametro del foro (vedi parte blu}.
Svantaggio: tanto spreco di energia e tempo!

A twist drill cuts the entire diameter of the hole (see blue part).
Disadvantage: High effort of energy and time!

Frese a carotare HSS con attacco Weldon (¾)
Core drills HSS with Weldon shank (¾")



Code **1950** • 30 mm


Code **1950** • 55 mm

HSS CBN WELDON KURZE SHORT Version 30 mm

HSS, superficie in CBN. Adatto per tutti i trapani magnetici con attacco Weldon, per la foratura di acciaio (travi a T, lamiere di grandi dimensioni), acciaio fuso e metallo non ferroso.

HSS CBN WELDON LANGE LONG Version 55 mm

High Speed Steel, CBN-ground, suitable for all magnetic drill machines with Weldon attachment. For drilling steel (T-steel-girder, large-size sheets), cast steel, non-ferrous metal.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.	L 1 mm		Art.-Nr. Part-No.
12	19	30	1	1950 03 01225	55	1	1950 03 01250
13	19	30	1	1950 03 01325	55	1	1950 03 01350
14	19	30	1	1950 03 01425	55	1	1950 03 01450
15	19	30	1	1950 03 01525	55	1	1950 03 01550
16	19	30	1	1950 03 01625	55	1	1950 03 01650
17	19	30	1	1950 03 01725	55	1	1950 03 01750
18	19	30	1	1950 03 01825	55	1	1950 03 01850
19	19	30	1	1950 03 01925	55	1	1950 03 01950
20	19	30	1	1950 03 02025	55	1	1950 03 02050
21	19	30	1	1950 03 02125	55	1	1950 03 02150
22	19	30	1	1950 03 02225	55	1	1950 03 02250
23	19	30	1	1950 03 02325	55	1	1950 03 02350
24	19	30	1	1950 03 02425	55	1	1950 03 02450
25	19	30	1	1950 03 02525	55	1	1950 03 02550
26	19	30	1	1950 03 02625	55	1	1950 03 02650
27	19	30	1	1950 03 02725	55	1	1950 03 02750
28	19	30	1	1950 03 02825	55	1	1950 03 02850
29	19	30	1	1950 03 02925	55	1	1950 03 02950
30	19	30	1	1950 03 03025	55	1	1950 03 03050
31	19	30	1	1950 03 03125	55	1	1950 03 03150
32	19	30	1	1950 03 03225	55	1	1950 03 03250
35	19	30	1	1950 03 03525	55	1	1950 03 03550
40	19	30	1	1950 03 04025	55	1	1950 03 04050
45	19	30	1	1950 03 04525	55	1	1950 03 04550
50	19	30	1	1950 03 05025	55	1	1950 03 05050
55	19	30	1	1950 03 05525	55	1	1950 03 05550
60	19	30	1	1950 03 06025	55	1	1950 03 06050

Cassette BC / BC Boxes

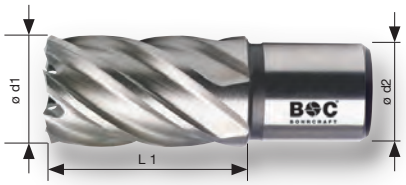
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KB 3 HSS	4	Ø 14 · 18 · 22 x 30 mm + Estrattore / Ejector pin	1950 14 30003
KB 6 HSS	7	Ø 12 · 14 · 16 · 18 · 20 · 22 x 30 mm + Estrattore / Ejector pin	1950 13 10006


KB 3 HSS

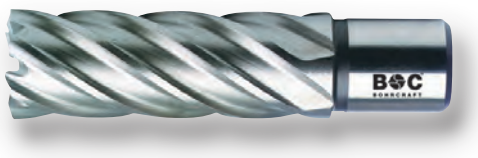


KB 6 HSS

Frese a carotare HSS-E **lega di cobalto,** con attacco Weldon (¾")
Core drills HSS-E **cobalt alloyed,** with Weldon shank (¾")



Code **1951** • 30 mm



Code **1951** • 55 mm

HSS-E Co | CBN | WELDON | KURZ SHORT Version 30 mm

HSS lega di cobalto, superficie in CBN. Adatto per tutti i trapani magnetici con attacco Weldon, per la foratura di acciaio (travi a T, lamiere di grandi dimensioni), acciaio inossidabile come AISI 304 + AISI 316, metallo non ferroso.

HSS-E Co | CBN | WELDON | LANGE LONG Version 55 mm

High Speed Steel cobalt-alloyed, CBN-ground, suitable for all magnetic drill machines with Weldon attachment. For drilling steel (T-steel-girder, large-size sheets), stainless steel like AISI 304 + AISI 316, non-ferrous metal.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.	L 1 mm		Art.-Nr. Part-No.
12	19	30	1	1951 03 01225	55	1	1951 03 01250
13	19	30	1	1951 03 01325	55	1	1951 03 01350
14	19	30	1	1951 03 01425	55	1	1951 03 01450
15	19	30	1	1951 03 01525	55	1	1951 03 01550
16	19	30	1	1951 03 01625	55	1	1951 03 01650
17	19	30	1	1951 03 01725	55	1	1951 03 01750
18	19	30	1	1951 03 01825	55	1	1951 03 01850
19	19	30	1	1951 03 01925	55	1	1951 03 01951
20	19	30	1	1951 03 02025	55	1	1951 03 02050
21	19	30	1	1951 03 02125	55	1	1951 03 02150
22	19	30	1	1951 03 02225	55	1	1951 03 02250
23	19	30	1	1951 03 02325	55	1	1951 03 02350
24	19	30	1	1951 03 02425	55	1	1951 03 02450
25	19	30	1	1951 03 02525	55	1	1951 03 02550
26	19	30	1	1951 03 02625	55	1	1951 03 02650
27	19	30	1	1951 03 02725	55	1	1951 03 02750
28	19	30	1	1951 03 02825	55	1	1951 03 02850
29	19	30	1	1951 03 02925	55	1	1951 03 02950
30	19	30	1	1951 03 03025	55	1	1951 03 03050
31	19	30	1	1951 03 03125	55	1	1951 03 03150
32	19	30	1	1951 03 03225	55	1	1951 03 03250
35	19	30	1	1951 03 03525	55	1	1951 03 03550
40	19	30	1	1951 03 04025	55	1	1951 03 04050
45	19	30	1	1951 03 04525	55	1	1951 03 04550
50	19	30	1	1951 03 05025	55	1	1951 03 05050
55	19	30	1	1951 03 05525	55	1	1951 03 05550
60	19	30	1	1951 03 06025	55	1	1951 03 06050

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KBE 3 Co	4	Ø 14 · 18 · 22 x 30 mm + Estrattore / Ejector pin	1951 14 30003
KBE 6 Co	7	Ø 12 · 14 · 16 · 18 · 20 · 22 x 30 mm + Estrattore / Ejector pin	1951 13 10006

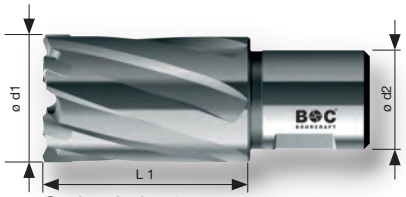


KB 3 HSS

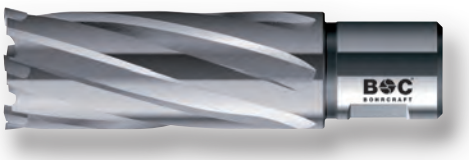


KB 6 HSS

Frese a carotare TCT HM, con attacco Weldon (¾)
Core drills TCT, with Weldon shank (¾")



Code **1952** • 35 mm



Code **1952** • 55 mm

HM TCT | WELDON | KURZE SHORT Version 35 mm

Metallo duro, superficie in CBN adatto per tutti i trapani magnetici con attacco Weldon, per la foratura di acciaio (travi a T, lamiere di grandi dimensioni), acciaio inossidabile come AISI 304 + AISI 316, metalli non ferrosi.

HM TCT | WELDON | LANGE LONG Version 55 mm

TCT, CBN-ground, suitable for all magnetic drill machines with Weldon attachment. For drilling steel (T-steel-girder, large-size sheets), stainless steel like AISI 304 + AISI 316, non-ferrous metal.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.	L 1 mm		Art.-Nr. Part-No.
14	19	35	1	1952 03 01435	55	1	1952 03 01455
15	19	35	1	1952 03 01535	55	1	1952 03 01555
16	19	35	1	1952 03 01635	55	1	1952 03 01655
17	19	35	1	1952 03 01735	55	1	1952 03 01755
18	19	35	1	1952 03 01835	55	1	1952 03 01855
19	19	35	1	1952 03 01935	55	1	1952 03 01955
20	19	35	1	1952 03 02035	55	1	1952 03 02055
21	19	35	1	1952 03 02135	55	1	1952 03 02155
22	19	35	1	1952 03 02235	55	1	1952 03 02255
23	19	35	1	1952 03 02335	55	1	1952 03 02355
24	19	35	1	1952 03 02435	55	1	1952 03 02455
25	19	35	1	1952 03 02535	55	1	1952 03 02550
26	19	35	1	1952 03 02635	55	1	1952 03 02655
27	19	35	1	1952 03 02735	55	1	1952 03 02755
28	19	35	1	1952 03 02835	55	1	1952 03 02855
29	19	35	1	1952 03 02935	55	1	1952 03 02955
30	19	35	1	1952 03 03035	55	1	1952 03 03055
31	19	35	1	1952 03 03135	55	1	1952 03 03155
32	19	35	1	1952 03 03235	55	1	1952 03 03255
35	19	35	1	1952 03 03535	55	1	1952 03 03555
40	19	35	1	1952 03 04035	55	1	1952 03 04055
45	19	35	1	1952 03 04535	55	1	1952 03 04555
50	19	35	1	1952 03 05035	55	1	1952 03 05055
55	19	35	1	1952 03 05535	55	1	1952 03 05555
60	19	35	1	1952 03 06035	55	1	1952 03 06055

Bussolotto BC / BC Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KB 3 HM	4	Ø 14 · 18 · 22 x 35 mm + Estrattore / Ejector pin	1952 14 30003



KB 3 HM

Estrattori per frese a carotare con attacco Weldon (¾")
Ejector pins for core drills with Weldon shank (¾")



Code **1955**

Descrizione Description	Profondità di taglio Cutting depth	Ø Foro Frese Ø Core drills		Art.-Nr. Part-No.
HSS / HSS-E				
Estrattore per frese a carotare / Ejector pin for core drills	30	12 – 60	1	1955 03 00025
Estrattore per frese a carotare / Ejector pin for core drills	55	12 – 60	1	1955 03 00050
HM / TCT				
Estrattore per frese a carotare/ / Ejector pin for core drills	35	14 – 17	1	1955 03 00350
Estrattore per frese a carotare / Ejector pin for core drills	35	18 – 60	1	1955 03 00300
Estrattore per frese a carotare / Ejector pin for core drills	55	14 – 17	1	1955 03 00050
Estrattore per frese a carotare / Ejector pin for core drills	55	18 – 60	1	1955 03 00355



Supporti industriali con lubrificazioni interna automatica
Industrial holders with automatic internal lubrication



Code **1956**

Descrizione Description	Codolo Tapershank	Foro frese a carotare For core drills		Art.-Nr. Part-No.
MK 2 / Weldon	MK / MT 2	Weldon 19 mm (3/4")	1	1956 03 00219
MK 3 / Weldon	MK / MT 3	Weldon 19 mm (3/4")	1	1956 03 00319

Adattatori per frese a carotare
Adaptors for core drills



1957 03 00001



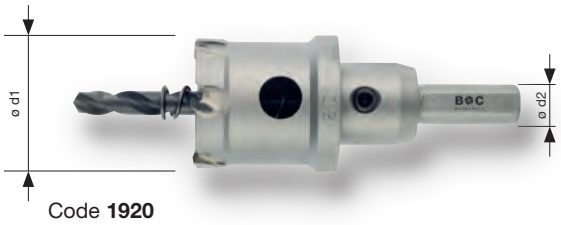
1957 03 00002



1957 03 00003

Code **1957**

Descrizione Description	Foro frese a carotare For core drills		Art.-Nr. Part-No.
Adattatore / Adaptor Weldon 19 mm (3/4")	Fein M18x6 P 1,5	1	1957 03 00001
Adattatore / Adaptor Weldon 19 mm (3/4")	Quick-IN	1	1957 03 00002
Adattatore / Adaptor Fein Quick-IN	Weldon 19 mm (3/4")	1	1957 03 00003



Code **1920**

HM TCT 3

Solida fresa a tazza composta di un unico pezzo (tazza e codolo) con denti in MD. Profondità di foratura consigliata 15 mm, profondità di taglio massima possibile 30 mm. Punta pilota HSS intercambiabile. Adatta per acciaio, acciaio inossidabile, metalli non ferrosi e plastica. Particolarmente adatta per la foratura di tubi.

Solid constructed hole saw made of one piece (shank and crown) with carbide-tipped cutting teeth. Recommended cutting depth 15 mm, maximum possible cutting depth 30 mm. Exchangeable HSS pilot-drill. Suitable for steel, stainless steel, non-ferrous metals and plastic. Especially suitbale for drilling into pipes.

Ø d1 mm	Ø d1 Zoll / inch	Ø d2 mm		Art.-Nr. Part-No.
16	5/8"	13	1	1920 09 00160
18	-	13	1	1920 09 00180
20	-	13	1	1920 09 00200
21	-	13	1	1920 09 00210
22	-	13	1	1920 09 00220
25	-	13	1	1920 09 00250
26	-	13	1	1920 09 00260
27	1.1/16"	13	1	1920 09 00270
30	1.3/16"	13	1	1920 09 00300
32	1.1/4"	13	1	1920 09 00320
35	1.3/8"	13	1	1920 09 00350
37	1.7/16"	13	1	1920 09 00370
40	1.9/16"	13	1	1920 09 00400
45	-	13	1	1920 09 00450
47	1.7/8"	13	1	1920 09 00470
50	1.31/32"	13	1	1920 09 00500
51	2"	13	1	1920 09 00510
54	2.1/8"	13	1	1920 09 00540
55	-	13	1	1920 09 00550
60	2.3/8"	13	1	1920 09 00600
65	-	13	1	1920 09 00650
68	-	13	1	1920 09 00680
70	2.3/4"	13	1	1920 09 00700
75	-	13	1	1920 09 00750
80	-	13	1	1920 09 00800
85	-	13	1	1920 09 00850
90	-	13	1	1920 09 00900
95	3.3/4"	13	1	1920 09 00950
100	-	13	1	1920 09 01000

Punta pilota HSS-G & Molla di espulsione
Pilot-drill HSS-G & centrifugal spring

Descrizione Description	Ø mm		Art.-Nr. Part-No.
Punta pilota HSS-G / Pilot-drill HSS-G	6	1	1925 03 00600
Molla di espulsione fino a Ø 20 mm / Centrifugal spring up to Ø 20 mm	-	1	1925 03 00001
Molla di spulsione da Ø 21 mm / Centrifugal spring from Ø 21 mm	-	1	1925 03 00002


Code **1925**


Code **1925**

ALESATORI
REAMERS



	DIN	Qualità Quality	Forma Form	Descrizione Description	Code	Pagina Page
Alesatori / Reamers						
	206	HSS	B	Alesatori a mano Hand reamers	1670	**161**
	9	HSS	B	Alesatori a mano conici Taper hand reamers	1671	**162**
	311	HSS		Alesatori conici per carpenteria Taper shank bridge reamers	1672	**163**
	212	HSS-E Co5	B/D	Alesatori a macchina Machine reamers	1673	**164**
	212	HSS-E Co5	C	Alesatori a macchina NC NC Machine reamers	1674	**165**
	208	HSS-E Co5	B	Alesatori conici a macchina Taper shank machine reamers	1675	**166**

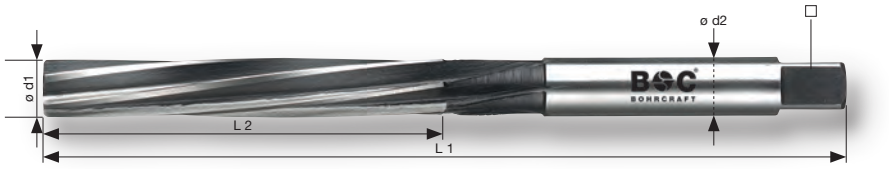
Parametri d'impiego consigliati per alesatori
Application recommendation for reamers



							
DIN		206	9	311	212	212	208
Materiale da taglio Cutting material		HSS	HSS	HSS	HSS-E Co5	HSS-E Co5	HSS-E Co5
Forma Form		B	B	-	B/D	C	B
Angolo d'elica Helix angle		7 – 9°	7°	25°	7 – 9°	45°	7°
Tolleranza Tolerance		H7	H7	H11	H7	H7	H7
Codolo Shank		cil. cyl.	cil. cyl.	MK MT	cil. cyl.	cil. cyl.	MK MT
Intervallo Range		4 – 30 mm	4 – 20 mm	10 – 30 mm	3 – 20 mm	3 – 20 mm	10 – 30 mm
Qualità Quality		★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Code		1670	1671	1672	1673	1674	1675
Pagina Page		161	162	163	164	165	166
P	1.1	●	●	●	●	●	●
	2.1	●	●	●	●	●	●
	3.1	◐	◐	◐	◐	◐	◐
	4.1	◐	◐	◐	◐	◐	◐
	5.1						
M	1.1 – 2.1				◐	◐	◐
	3.1 – 4.1						
K	1.1 – 1.2	●	●	●	●	●	●
	2.1 – 2.2	●	●	●	●	●	●
	3.1 – 3.2						
	4.1 – 4.2	●	●	●	●	●	●
N	1.1 – 1.3			●	●	●	●
	1.4 – 1.5						
	1.6						
	2.1 – 2.2			●	●	●	●
	2.3 – 2.6			●	●	●	●
	4.1 – 4.2	◐	◐	◐	◐	◐	◐
S	1.1 – 1.3				◐	◐	◐
	2.1 – 2.6				◐	◐	◐

● adatto / suitable ◐ consigliato / limited suitable

Alesatori a mano DIN 206 Form B HSS
Hand reamers DIN 206 form B HSS



Code **1670**

DIN 206 | HSS | FORM B | 45° | L 7-9° | R | Tol. H7

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1670	●	●			●	●		●	

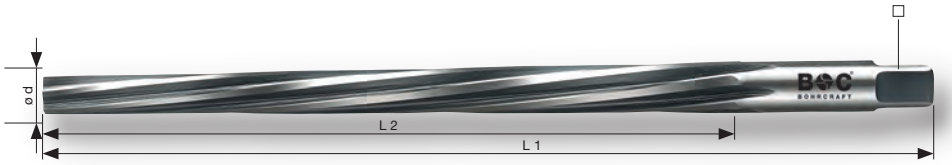
Per alesatura di fori passanti in materiali ferrosi e non ferrosi, plastica dura e morbida.
Non adatto per fori ciechi.

For reaming of through holes in ferrous and non-ferrous materials, hard and soft plastic.
Not suitable for blind holes.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	□ mm	Denti Teeth		Art.-Nr. Part-No.
4	76	38	4	3,0	4	1	1670 03 00400
5	87	44	5	3,8	6	1	1670 03 00500
6	93	47	6	4,9	6	1	1670 03 00600
7	107	54	7	5,5	6	1	1670 03 00700
8	115	58	8	6,2	6	1	1670 03 00800
9	124	62	9	7,0	6	1	1670 03 00900
10	133	66	10	8,0	6	1	1670 03 01000
11	142	71	11	9,0	8	1	1670 03 01100
12	152	76	12	9,0	8	1	1670 03 01200
14	163	81	14	11,0	8	1	1670 03 01400
16	175	87	16	12,0	8	1	1670 03 01600
18	188	93	18	14,5	8	1	1670 03 01800
20	201	100	20	16,0	8	1	1670 03 02000
22	215	107	22	18,0	8	1	1670 03 02200
24	231	115	24	20,0	8	1	1670 03 02400
25	231	115	25	20,0	8	1	1670 03 02500
26	231	115	26	20,0	8	1	1670 03 02600
28	247	124	28	22,0	8	1	1670 03 02800
30	247	124	30	24,0	8	1	1670 03 03000



Alesatori a mano conici DIN 9 forma B HSS
Taper hand reamers DIN 9 form B HSS



Code **1671**

DIN 9 | HSS | FORM B | L 7° | R | Tol. H7 | 1:50

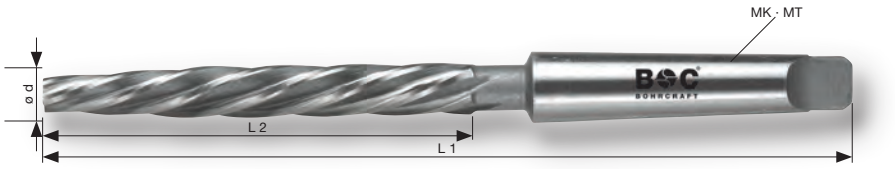
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1671	●	●			●	●		●	

Per alesare fori per perni conici in materiali ferrosi e non ferrosi, plastica dura e morbida.

For reaming taper pin holes in ferrous and non-ferrous materials, hard and soft plastic.

Ø d mm	L 1 mm	L 2 mm	Ø min. mm	Ø max. mm	□ mm	Denti Teeth		Art.-Nr. Part-No.
4	93	67	3,9	5,25	3,8	4	1	1671 03 00400
5	100	73	4,9	6,36	4,9	6	1	1671 03 00500
6	135	105	5,9	8,00	6,2	6	1	1671 03 00600
8	180	145	7,9	10,80	8,0	6	1	1671 03 00800
10	215	175	8,9	13,40	10,0	6	1	1671 03 01000
12	255	210	11,8	16,00	11,0	6	1	1671 03 01200
16	280	230	15,8	20,40	14,5	8	1	1671 03 01600
20	310	250	19,8	24,80	18,0	8	1	1671 03 02000

Alesatori da carpenteria DIN 311 HSS
Bridge reamers DIN 311 HSS



Code **1672**

DIN 311 | HSS | L 25° | R | Tol. H11 | 1:10

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1672	●	●			●	●	●	●	

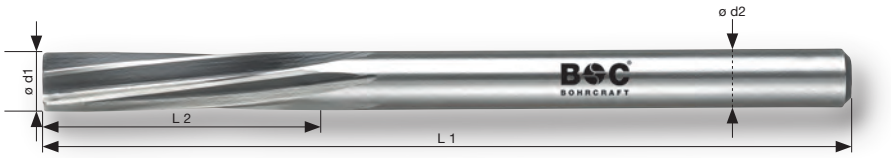
Per correggere lo spostamento dei fori di piastre sovrapposte in modo che corrispondano al diametro del foro richiesto (ad esempio durante la rivettatura o l'avvitamento).

For correction of the drill hole offset of superimposed plates to match the drill hole diameter required (e.g. when riveting or screwing).

Ø d mm	L 1 mm	L 2 mm	MK MT	Denti Teeth		Art.-Nr. Part-No.
10	171	95	1	5	1	1672 03 01000
12	199	105	2	5	1	1672 03 01200
13	199	105	2	5	1	1672 03 01300
14	209	115	2	5	1	1672 03 01400
15	219	125	2	5	1	1672 03 01500
16	229	135	2	5	1	1672 03 01600
17	251	135	3	5	1	1672 03 01700
18	261	145	3	5	1	1672 03 01800
20	271	155	3	5	1	1672 03 02000
21	271	155	3	5	1	1672 03 02100
22	281	165	3	5	1	1672 03 02200
25	296	180	3	5	1	1672 03 02500
28	311	195	3	5	1	1672 03 02800
30	311	195	3	5	1	1672 03 03000



Alesatori a macchina DIN 212 Forma B/D HSS-E (Co5)
Machine-reamers DIN 212 form B/D HSS-E (Co5)



Code **1673**

DIN 212 | HSS-E Co5 | FORM B/D | 45° | L 7-9° | R | Tol. H7

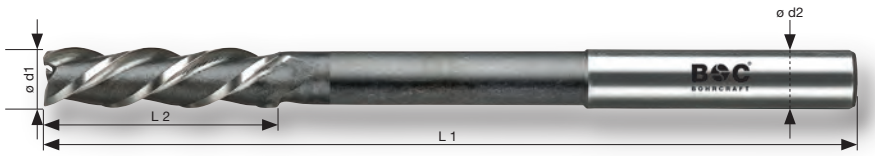
Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1673	●	●		●	●	●	●	●	●

Per alesatura di fori passanti in materiali ferrosi e non ferrosi, plastica dura e morbida.

For reaming of through holes in ferrous and non-ferrous materials, hard and soft plastic.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	Denti Teeth		Art.-Nr. Part-No.
3	61	15	3,0	4	1	1673 03 00300
4	75	19	4,0	4	1	1673 03 00400
5	86	23	5,0	6	1	1673 03 00500
6	93	26	6,0	6	1	1673 03 00600
7	109	30	7,0	6	1	1673 03 00700
8	117	32	8,0	6	1	1673 03 00800
9	125	36	9,0	6	1	1673 03 00900
10	133	38	10,0	6	1	1673 03 01000
11	142	41	10,0	8	1	1673 03 01100
12	151	44	10,0	8	1	1673 03 01200
13	151	44	10,0	8	1	1673 03 01300
14	160	47	12,5	8	1	1673 03 01400
15	162	50	12,5	8	1	1673 03 01500
16	170	52	12,5	8	1	1673 03 01600
17	175	54	14,0	8	1	1673 03 01700
18	182	56	14,0	8	1	1673 03 01800
19	189	58	16,0	8	1	1673 03 01900
20	195	60	16,0	8	1	1673 03 02000

Alesatori a macchina NC DIN 212 Form C HSS-E (Co5)
NC Machine-reamers DIN 212 form C HSS-E (Co5)



Code **1674**

DIN 212 | HSS-E Co5 | FORM C | L 45° | R | Tol. H7

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1674	●	●		●	●	●	●	●	●

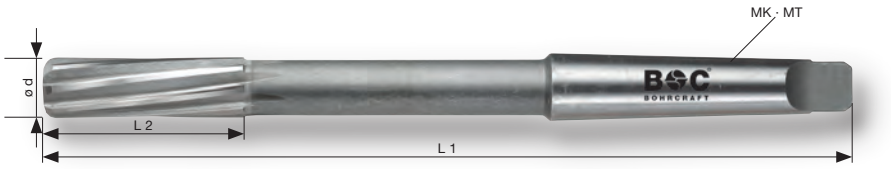
Adatto per macchine CNC. Per l'alesatura di fori passanti in materiali ferrosi e non ferrosi, plastica dura e morbida.

Suitable for CNC-machines. For reaming of through holes in ferrous and non-ferrous materials, hard and soft plastic.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	Denti Teeth		Art.-Nr. Part-No.
3	61	15	3,0	6	1	1674 03 00300
4	75	19	4,0	6	1	1674 03 00400
5	86	23	5,0	6	1	1674 03 00500
6	93	26	6,0	6	1	1674 03 00600
7	109	30	7,0	6	1	1674 03 00700
8	117	32	8,0	6	1	1674 03 00800
9	125	36	9,0	6	1	1674 03 00900
10	133	38	10,0	6	1	1674 03 01000
11	142	41	10,0	8	1	1674 03 01100
12	151	44	10,0	8	1	1674 03 01200
13	151	44	10,0	8	1	1674 03 01300
14	160	47	12,5	8	1	1674 03 01400
16	170	52	12,5	8	1	1674 03 01600
18	182	56	14,0	8	1	1674 03 01800
20	195	60	16,0	10	1	1674 03 02000



Alesatori a macchina DIN 208 Forma B HSS-E (Co5)
Machine-reamers DIN 208 form B HSS-E (Co5)



Code **1675**

DIN 208 | HSS-E Co5 | FORM B | 45° | L 7° | R | Tol. H7

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1675	●	○		○	●	●	●	○	○

Per l'alesatura di fori passanti in materiali ferrosi e non ferrosi, plastica dura e morbida.

For reaming of through holes in ferrous and non-ferrous materials, hard and soft plastic.

Ø d mm	L 1 mm	L 2 mm	MK MT	Denti Teeth		Art.-Nr. Part-No.
10	168	38	1	6	1	1675 03 01000
12	182	44	1	6	1	1675 03 01200
14	189	47	1	8	1	1675 03 01400
16	210	52	2	8	1	1675 03 01600
18	219	56	2	8	1	1675 03 01800
20	228	60	2	8	1	1675 03 02000
22	237	64	2	8	1	1675 03 02200
24	268	68	3	8	1	1675 03 02400
25	268	68	3	8	1	1675 03 02500
26	273	70	3	8	1	1675 03 02600
28	277	71	3	10	1	1675 03 02800
30	281	73	3	10	1	1675 03 03000



UTENSILI DA TAGLIO A FILETTARE
THREAD CUTTING TOOLS



		Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
Maschi a mano / Hand taps							
BOC		M	-	HSS-G	352	4100	178 – 179
PROFI PLUS		M	-	HSS-E VAP	352	4110	180
BOC		M (LH) sx / left	-	HSS-G	352	4109	181
BOC		MF	-	HSS-G	2181	4101	214 – 215
BOC		G (BSP)	-	HSS-G	5157	4102	222
BOC		BSW	-	HSS-G	~ 352	4103	228
BOC		UNC	-	HSS-G	~ 352	4104	231
BOC		UNF	-	HSS-G	~ 2181	4105	235
Filiere tonde / Circular dies							
BOC		M	B	HSS-G	EN 22568	4200 4201 (25x9)	182 – 183
PROFI PLUS		M	B	HSS-E VAP	EN 22568	4210	184
BOC		M (LH) sx / left	B	HSS-G	EN 22568	4209	185
BOC		MF	B	HSS-G	EN 22568	4202	216 – 217
BOC		G (BSP)	B	HSS-G	EN 24231	4203	223
BOC		BSW	B	HSS-G	EN 22568	4205	229
BOC		UNC	B	HSS-G	EN 22568	4206	232
BOC		UNF	B	HSS-G	EN 22568	4207	236
Dadi maschianti / Hexagon die nuts							
BOC		M	-	HSS-G	382	4204	186
BOC		G (BSP)	-	HSS-G	382	4208	224

	Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
Maschi a macchina / Machine taps						
	M	B	HSS-G	371/376	4140, 4141	192 – 193
	M	C RSP 35° C SFT 35°	HSS-G	371/376	4150, 4151	192 – 193
	M	B	HSS-E	371/376	4142, 4143	194 – 195
	M	C RSP 35° C SFT 35°	HSS-E	371/376	4152, 4153	196 – 197
	M	B	HSS-E TiN	371/376	4147, 4148	194 – 195
	M	C RSP 35° C SFT 35°	HSS-E TiN	371/376	4157, 4158	196 – 197
	M (XL)	B	HSS-E	371/376	4161	207
	M (XL)	C RSP 35° C SFT 35°	HSS-E	371/376	4162	207
	M (LH) sx / left	C	HSS-E	371/376	4159	208
	MF	B	HSS-E	374	4165	219
	MF	C RSP 35° C SFT 35°	HSS-E	374	4166	219
	G (BSP)	B	HSS-E	5156	4175	226
	G (BSP)	C RSP 35° C SFT 35°	HSS-E	5156	4176	226
	UNC	B	HSS-E	~ 371/376	4196	234
	UNC	C RSP 35° C SFT 35°	HSS-E	~ 371/376	4197	234
	UNF	B	HSS-E	~ 371/376	4198	238
	UNF	C RSP 35° C SFT 35°	HSS-E	~ 371/376	4199	238
	M	-	HSS-E	-	4172	209
 ○	M	B	HSS-E PM	371/376	4169, 4170	200
 ○	M	C RSP 40° C SFT 40°	HSS-E PM	371/376	4179, 4180	200
 ○	M	B	HSS-E	371/376	4163, 4164	198
 ○	M	C RSP 40° C SFT 40°	HSS-E	371/376	4167, 4168	199
	M	B	HSS-E TiN	371/376	4183, 4184	198
	M	C RSP 40° C SFT 40°	HSS-E TiN	371/376	4187, 4188	199
	M	B	HSS-E TiALN	371/376	4181, 4182	198
	M	C RSP 40° C SFT 40°	HSS-E TiALN	371/376	4185, 4186	199
○	MF	C	HSS-E	374	4139	220
 ○	G	C	HSS-E	5156	4247	227
 ○	M	B	HSS-E	371/376	4173, 4174	202
 ○	M	C RSP 40° C SFT 40°	HSS-E	371/376	4177, 4178	203
	M	B	HSS-E TiALN	371/376	4189, 4190	202
	M	C RSP 40° C SFT 40°	HSS-E TiALN	371/376	4191, 4192	203
 ○	M	B	HSS-E VAP	371/376	4144, 4145	201
 ○	M	C RSP 40° C SFT 40°	HSS-E VAP	371/376	4154, 4155	201
 ○	MF	B	HSS-E VAP	374	4146	221

		Filetto Thread	Forma Form	Qualità Quality	DIN	Code	Pagina Page
PROFI PLUS		MF	C RSP 40° C SFT 40°	HSS-E VAP	374	4156	221
PROFI PLUS		M	C	HSS-E TiCN	371/376	4193	206
PROFI PLUS		M	C RSP 45° C SFT 45°	HSS-E	371/376	4149	204
PROFI PLUS		M	B-AZ	HSS-E	371/376	4240 4241	205
Maschi a rullare / Forming/Fluteless taps							
PROFI PLUS		M	D	HSS-E TiN	371/376	4243	212
PROFI PLUS		M	C	HSS-E TiN	371/376	4245	213
Maschi a macchina corti / Short machine taps							
BOC		M	B	HSS-G	352	4120	187
BOC		M	B	HSS-E	352	4125	188
BOC		M	C	HSS-G	352	4121	189
PROFI PLUS		M	C	HSS-E	352	4111	190
BOC		M (LH) sx / left	C	HSS-G	352	4129	191
BOC		MF	C	HSS-G	2181	4131	218
BOC		G (BSP)	C	HSS-G	5157	4132	225
BOC		BSW	C	HSS-G	~ 352	4133	230
BOC		UNC	C	HSS-G	~ 352	4134	233
BOC		UNF	C	HSS-G	~ 2181	4135	237
BOC		NPT	C	HSS-G	BC Norm	4136	239
BOC		PG	C	HSS-G	40432	4130	240
BOC		M	C	HSS-G	-	4171	210
Maschi a macchina per dadi / Machine nut taps							
BOC		M	-	HSS-G	357	4160	211
Giramaschi regolabili / Adjustable tap wrenches							
BOC					1814	4300	242
Porta filiere tonde / Die stocks							
BOC					225	4400	242
Giramaschi a cricchetto / Tap wrenches with ratchet							
BOC					BC Norm	4302	243
Bussole di estensione / Extension sleeves							
BOC					377	4500	243
Lime per ripristino filettature / Thread restoring files							
BOC					-	4501	241
Estrattori di viti / Screw extractors							
BOC				CV	-	9700	244

Versioni disponibili
Available versions

HSS G | 800 N/mm²



Acciaio rapido adatto per materiali con resistenza alla trazione fino a 800 N/mm² (22 HRC).

High-Speed-Steel suitable for materials with tensile strength up to 800 N/mm² (22 HRC).

HSS-E Co5 | 1000 N/mm²



Acciaio rapido legato al 5% di cobalto. Adatto per acciaio non legato e debolmente legato. Alta resistenza alla durezza a caldo e all'usura.

High-Speed-Steel 5 % cobald alloyed. Suitable for unaloyed and low-alloyed steel. Higher warm hardness resistance and wear resistance.

HSS-E Co5 | 1000 N/mm² | TiN



Rivestimento TiN per una maggiore durezza superficiale e un coefficiente di attrito ridotto. Ciò aumenta la durata dell'utensile e consente una maggiore velocità di taglio.

TiN-coating for higher surface hardness and reduced friction coefficient. This increases the tool life and allows higher cutting speed.



HSS-E PM | 1200 N/mm² | HARD LUBE | Schwarzring



Realizzato in HSS-E PM per un'elevata resistenza all'usura. Con rivestimento HARDLUBE per un basso attrito superficiale e formazione di truciolo continuo.

Made of HSS-E PM for very high wear-resistance and toughness. With HARDLUBE-Coating for low surface friction and consistent chip flow.

HSS-E Co5 | 1000 N/mm² | UNI | Grünring



Per l'impiego universale su acciaio da costruzione generico, acciaio automatico, acciaio per cementazione non legato e leghe di alluminio (truciolo piccolo).

For universal use in general structural steel, free-cutting steel, unalloyed case hardening steel and aluminium-alloys (short chipping).

HSS-E Co5 | 1000 N/mm² | UNI | TiN



Per l'impiego universale su acciaio da costruzione generico, acciaio automatico e acciaio per cementazione non legato. Inoltre con rivestimento TiN per aumentare la durata dell'utensile.

For universal use in general structural steel, free-cutting steel und unalloyed case hardening steel. Additionally with TiN-coating to increase the tool life.

HSS-E Co5 | 1000 N/mm² | UNI | TiALN



Per l'impiego universale su acciaio da costruzione generico, acciaio automatico e acciaio per cementazione non legato. Inoltre con rivestimento TiALN per aumentare la durata dell'utensile.

For universal use in general structural steel, free-cutting steel und unalloyed case hardening steel. Additionally with TiALN-coating to increase the tool life.

HSS-E Co5 | 1200 N/mm² | HD | Rotring



Per l'impiego su acciai temprati e resistenti al calore, nonché su acciai per utensili.

For use in tempered and heat-resistant steels as well as tool steel.

HSS-E Co5 | 1200 N/mm² | HD | TiALN



Per l'impiego su acciai temprati e resistenti al calore, nonché su acciaio per utensili TiALN. Con rivestimento TiALN.

For use in tempered and heat-resistant steels as well as tool steel. With TiALN-coating.

Versioni disponibili
Available versions

HSS-E Co5 | 1000 N/mm² | VA INOX | Blauring



Speciale geometria del tagliente e superficie vaporizzata, particolarmente adatto per acciai inossidabili come AISI 304 e 316

Special cutting edge geometry and vap. surface, especially suitable for stainless steel like AISI 304 and 316.

HSS-E Co5 | TiCN | GG | Weißring



Maschio a macchina particolarmente adatto per ghisa grigia (GG).

Machine-Tap especially suitable for grey cast iron (GG).

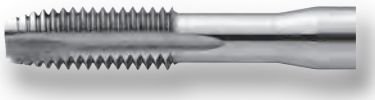
HSS-E Co5 | 450 N/mm² | ALU | Gelbring



Con 2 ampie scanalature elicoidali 45°. Particolarmente adatto per alluminio e leghe di alluminio e materiale termoplastico (truciolo grande).

With 2 wide spiral flutes 45°. Especially suitable for aluminium and aluminium-alloys as well as thermoplastics (long chipping).

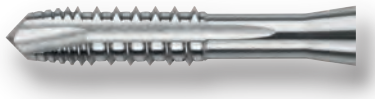
B | 3 x D



Maschio a macchina con imbocco corretto, per fori passanti.

4 – 5 threads lead with spiral point (gun nose) for through holes.

B-AZ | 3 x D



Maschio a macchina con imbocco corretto e denti alternati, per fori passanti.

4 – 5 threads lead with spiral point (gun nose) and interrupted thread for through holes.

C | 1,5 x D | 1,5 x D



Maschio a macchina con imbocco corto, per fori ciechi/passanti.

2 – 3 threads lead for through/blind holes.

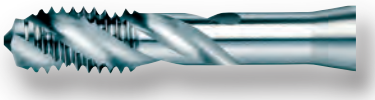
FORM C | 35° | 2,5 x D



Maschio a macchina con imbocco corto, scanalatura elicoidale 35°, per fori ciechi.

2 – 3 threads lead with 35° spiral flute for blind holes.

FORM C | 40° | 2,5 x D



Maschio a macchina con imbocco corto, scanalatura elicoidale 40°, per fori ciechi.

2 – 3 threads lead with 40° spiral flute for blind holes.

FORM C | 45° | 2,5 x D



Maschio a macchina con imbocco corto, scanalatura elicoidale 45°, per fori ciechi.

2 – 3 threads lead with 45° spiral flute for blind holes.

Parametri d'impiego consigliati per maschi a macchina
Application recommendation for machine taps

										
Filetto Thread		M	M	M	M	M	M	M	M	M
Tipo Type		-	-	-	-	-	-	UNI	UNI	UNI
DIN		371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376
Materiale da taglio Cutting material		HSS	HSS	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Rivestimento Coating		-	-	-	TiN	-	TiN	-	TiN	TiALN
Elica Flutes		dritta straight	35°	dritta straight	dritta straight	35°	35°	dritta straight	dritta straight	dritta straight
Smusso Chamfer		B	C	B	B	C	B	B	B	B
Profondità filetto Thread depth		3xD	2,5xD	3xD	3xD	2,5xD	2,5xD	3xD	3xD	3xD
Intervallo Range		M3 – M24	M3 – M24	M2 – M36	M3 – M24	M2 – M36	M3 – M24	M2 – M24	M3 – M24	M3 – M24
Qualità Quality		★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★★
Code		4140 4141	4150 4151	4142 4143	4147 4148	4152 4153	4157 4158	4163 4164	4183 4184	4181 4182
Pagina Page		192 – 193	192 – 193	194 – 195	194 – 195	196 – 197	196 – 197	198	198	198
P	1.1	●	●	●	●	●	●	●	●	●
	2.1	◐	◐	●	●	●	●	●	●	●
	3.1			◐	◐	◐	◐	●	●	●
	4.1							◐	◐	◐
	5.1									
M	1.1 – 2.1									
	3.1 – 4.1									
K	1.1 – 1.2							●	◐	◐
	2.1 – 2.2	●	●	●	●	●	●		●	●
	3.1 – 3.2									
	4.1 – 4.2	●	●	●	●	●	●	●	●	●
N	1.1 – 1.3	◐	◐	◐		◐		◐		
	1.4 – 1.5			◐		◐		●		
	1.6			◐		◐		●		
	2.1 – 2.2							◐		
	2.3 – 2.5							◐		
	4.2	◐	◐	◐		◐		◐	◐	◐

● adatto / suitable ◐ consigliato / limited suitable

Parametri d'impiego consigliati per maschi a macchina
Application recommendation for machine taps

										
M	M	M	M	M	M	M	M	M	M	M
UNI	UNI	UNI	UNI	UNI	INOX	INOX	HD	HD	HD	HD
371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376
HSS-E	HSS-E	HSS-E	HSS-E PM	HSS-E PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
-	TiN	TiALN	Hardlube	Hardlube	VAP	VAP	-	TiALN	-	TiALN
40°	40°	40°	dritta straight	40°	dritta straight	40°	dritta straight	dritta straight	40°	40°
C	C	C	B	C	B	C	B	B	C	C
2,5xD	2,5xD	2,5xD	3xD	2,5xD	3xD	2,5xD	3xD	3xD	2,5xD	3xD
M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24	M3 – M24
★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★
4167 4168	4187 4188	4185 4186	4169 4170	4179 4180	4144 4145	4154 4155	4173 4174	4189 4190	4177 4178	4191 4192
199	199	199	200	200	201	201	202	202	203	203
●	●	●	●	●						
●	●	●	●	●						
●	●	●	●	●	●	●				
◐	◐	◐	◐	◐	◐	◐	●	●	●	●
			◐	◐	◐	◐	●	●	●	●
			●	●	●	●	◐	◐	◐	◐
●	◐	◐								
	●	●	◐	◐						
●	●	●	◐	◐						
◐			◐	◐						
●			◐	◐						
●			◐	◐						
◐			◐	◐						
◐			◐	◐						
◐	◐	◐	◐	◐						

● adatto / suitable ◐ consigliato / limited suitable

Parametri d'impiego consigliati per maschi a macchina
Application recommendation for machine taps

										
Filetto Thread		M	M	M	M	M	M - LH	M	M	MF
Tipo Type		ALU	AZ	GG	XL	XL	LH	-	Kombi	-
DIN		371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	371 / 376	357	-	374
Materiale da taglio Cutting material		HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS	HSS-E	HSS-E
Rivestimento Coating		-	-	TiCN	-	-	-	-	-	-
Elica Flutes		45°	dritta straight	dritta straight	dritta straight	35°	dritta straight	dritta straight	-	dritta straight
Smusso Chamfer		C	B-AZ	C	B	C	C	-	-	B
Profondità filetto Thread depth		2,5xD	3xD	3xD	3xD	2,5xD	1,5xD	1xD	2xD	3xD
Intervallo Range		M3 – M20	M3 – M12	M3 – M24	M3 – M12	M3 – M12	M3 – M24	M3 – M16	M3 – M12	M3x0,35 – 30x2
Qualità Quality		★★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★★	★★★	★★★	★★★★
Code		4149	4240 4241	4193	4161	4162	4159	4160	4172	4165
Pagina Page		204	205	206	207	207	208	211	209	219
P	1.1		●		●	●	●	●	●	●
	2.1		◐		●	●	●	◐	◐	●
	3.1				◐	◐	◐			◐
	4.1									
	5.1									
M	1.1 – 2.1									
	3.1 – 4.1									
K	1.1 – 1.2			●						
	2.1 – 2.2		●		●	●	●	●	●	●
	3.1 – 3.2									
	4.1 – 4.2		●		●	●	●	●	●	●
N	1.1 – 1.3	●			◐	◐	◐	◐	◐	◐
	1.4 – 1.5		◐	●	◐	◐	◐			◐
	1.6		◐		◐	◐	◐			◐
	2.1 – 2.2	●	◐							
	2.3 – 2.5	●	◐							
	4.2	●			◐	◐	◐	◐	◐	◐

● adatto / suitable ◐ consigliato / limited suitable

Parametri d'impiego consigliati per maschi a macchina
Application recommendation for machine taps

										
MF	MF	MF	MF	G	G	G	UNC	UNC	UNF	UNF
-	UNI	INOX	INOX	-	-	UNI	-	-	-	-
374	374	374	374	5156	5156	5156	371 / 376	371 / 376	371 / 376	371 / 376
HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
-	-	VAP	VAP	-	-	-	-	-	-	-
35°	dritta straight	dritta straight	40°	dritta straight	35°	dritta straight	dritta straight	35°	dritta straight	35°
C	C	B	C	B	C	C	B	C	B	C
2,5xD	1,5xD	3xD	2,5xD	3xD	2,5xD	1,5xD	3xD	2,5xD	3xD	2,5xD
M3x0,35 – 30x2	M6x0,75 – 30x1,5	M6x0,75 – 20x1,5	M6x0,75 – 20x1,5	G 1/8" – 1"	G 1/8" – 1"	G 1/8" – 1"	1/4" – 1"	1/4" – 1"	1/4" – 1"	1/4" – 1"
★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★	★★★★	★★★★★★	★★★★	★★★★	★★★★	★★★★
4166	4139	4146	4156	4175	4176	4247	4196	4197	4198	4199
219	220	221	221	226	226	227	234	234	238	238
●	●			●	●	●	●	●	●	●
●	●			●	●	●	●	●	●	●
◐	◐	●	●	◐	◐	◐	◐	◐	◐	◐
		◐	◐							
		◐	◐							
		●	●							
●	●			●	●	●	●	●	●	●
●	●			●	●	●	●	●	●	●
◐	◐			◐	◐	◐	◐	◐	◐	◐
◐	◐			◐	◐	◐	◐	◐	◐	◐
◐	◐			◐	◐	◐	◐	◐	◐	◐
◐	◐			◐	◐	◐	◐	◐	◐	◐

● adatto / suitable ◐ consigliato / limited suitable



Code **4100** Nr. 1



Nr. 2



Nr. 3

M | DIN 352 | HSS G | ISO2 6H | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili con resistenza alla trazione fino a 800 N/mm² (22,5 HRC).

· Per la filettatura metrica ISO (DIN 13)
· Per fori passanti e ciechi
· N. 1 Maschio di sgrossatura (imbocco: 6-8 spire)
· N. 2 Maschio intermedio (imbocco: 4-5 spire)
· N. 3 Maschio di finitura (imbocco: 2-3 spire).

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric ISO-Thread DIN 13
· For through- and blind holes
· No. 1 Rougher 6-8 threads lead
· No. 2 Intermediate 4-5 threads lead
· No. 3 Finisher 2-3 threads lead.



M

MASCHI A MANO
HAND TAPS

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2	Nr. 3
M 1 x 0,25	0,75	32	5,5	2,8	2,1	1	4100 11 00100	4100 11 10100	4100 11 20100	4100 11 30100
M 1,1 x 0,25	0,85	32	5,5	2,8	2,1	1	4100 11 00110	4100 11 10110	4100 11 20110	4100 11 30110
M 1,2 x 0,25	0,95	32	5,5	2,8	2,1	1	4100 11 00120	4100 11 10120	4100 11 20120	4100 11 30120
M 1,4 x 0,30	1,10	32	7,0	2,8	2,1	1	4100 11 00140	4100 11 10140	4100 11 20140	4100 11 30140
M 1,6 x 0,35	1,25	32	8,0	2,8	2,1	1	4100 11 00160	4100 11 10160	4100 11 20160	4100 11 30160
M 1,7 x 0,35	1,30	32	8,0	2,8	2,1	1	4100 11 00170	4100 11 10170	4100 11 20170	4100 11 30170
M 1,8 x 0,35	1,45	32	8,0	2,8	2,1	1	4100 11 00180	4100 11 10180	4100 11 20180	4100 11 30180
M 2 x 0,4	1,60	36	8,0	2,8	2,1	1	4100 11 00200	4100 11 10200	4100 11 20200	4100 11 30200
M 2,2 x 0,45	1,75	36	9,0	2,8	2,1	1	4100 11 00220	4100 11 10220	4100 11 20220	4100 11 30220
M 2,3 x 0,4	1,90	36	9,0	2,8	2,1	1	4100 11 00230	4100 11 10230	4100 11 20230	4100 11 30230
M 2,5 x 0,45	2,05	40	9,0	2,8	2,1	1	4100 11 00250	4100 11 10250	4100 11 20250	4100 11 30250
M 2,6 x 0,45	2,10	40	9,0	2,8	2,1	1	4100 11 00260	4100 11 10260	4100 11 20260	4100 11 30260
M 3 x 0,5	2,50	40	11,0	3,5	2,7	1	4100 11 00300	4100 11 10300	4100 11 20300	4100 11 30300
M 3,5 x 0,6	2,90	45	13,0	4,0	3,0	1	4100 11 00350	4100 11 10350	4100 11 20350	4100 11 30350
M 4 x 0,7	3,30	45	13,0	4,5	3,4	1	4100 11 00400	4100 11 10400	4100 11 20400	4100 11 30400
M 5 x 0,8	4,20	50	16,0	6,0	4,9	1	4100 11 00500	4100 11 10500	4100 11 20500	4100 11 30500
M 6 x 1	5,00	50	19,0	6,0	4,9	1	4100 11 00600	4100 11 10600	4100 11 20600	4100 11 30600
M 7 x 1	6,00	50	19,0	6,0	4,9	1	4100 11 00700	4100 11 10700	4100 11 20700	4100 11 30700
M 8 x 1,25	6,80	56	22,0	6,0	4,9	1	4100 11 00800	4100 11 10800	4100 11 20800	4100 11 30800
M 9 x 1,25	7,80	63	22,0	7,0	5,5	1	4100 11 00900	4100 11 10900	4100 11 20900	4100 11 30900
M 10 x 1,5	8,50	70	24,0	7,0	5,5	1	4100 11 01000	4100 11 11000	4100 11 21000	4100 11 31000
M 12 x 1,75	10,20	75	29,0	9,0	7,0	1	4100 11 01200	4100 11 11200	4100 11 21200	4100 11 31200
M 14 x 2	12,00	80	30,0	11,0	9,0	1	4100 11 01400	4100 11 11400	4100 11 21400	4100 11 31400
M 16 x 2	14,00	80	32,0	12,0	9,0	1	4100 11 01600	4100 11 11600	4100 11 21600	4100 11 31600
M 18 x 2,5	15,50	95	40,0	14,0	11,0	1	4100 11 01800	4100 11 11800	4100 11 21800	4100 11 31800
M 20 x 2,5	17,50	95	40,0	16,0	12,0	1	4100 11 02000	4100 11 12000	4100 11 22000	4100 11 32000
M 22 x 2,5	19,50	100	40,0	18,0	14,5	1	4100 11 02200	4100 11 12200	4100 11 22200	4100 11 32200
M 24 x 3	21,00	110	50,0	18,0	14,5	1	4100 11 02400	4100 11 12400	4100 11 22400	4100 11 32400
M 27 x 3	24,00	110	50,0	20,0	16,0	1	4100 11 02700	4100 11 12700	4100 11 22700	4100 11 32700
M 30 x 3,5	26,50	125	56,0	22,0	18,0	1	4100 11 03000	4100 11 13000	4100 11 23000	4100 11 33000
M 33 x 3,5	29,50	125	56,0	25,0	20,0	1	4100 11 03300	4100 11 13300	4100 11 23300	4100 11 33300
M 36 x 4	32,00	150	63,0	28,0	22,0	1	4100 11 03600	4100 11 13600	4100 11 23600	4100 11 33600
M 39 x 4	35,00	150	63,0	32,0	24,0	1	4100 11 03900	4100 11 13900	4100 11 23900	4100 11 33900
M 42 x 4,5	37,50	150	63,0	32,0	24,0	1	4100 11 04200	4100 11 14200	4100 11 24200	4100 11 34200
M 45 x 4,5	40,50	160	70,0	36,0	29,0	1	4100 11 04500	4100 11 14500	4100 11 24500	4100 11 34500
M 48 x 5	43,00	180	75,0	36,0	29,0	1	4100 11 04800	4100 11 14800	4100 11 24800	4100 11 34800
M 52 x 5	47,00	180	75,0	40,0	32,0	1	4100 11 05200	4100 11 15200	4100 11 25200	4100 11 35200



Code **4100** Nr. 1



Nr. 2



Nr. 3

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
G 12-K	21 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS · M3 · M4 · M5 · M6 · M8 · M10 · M12	4100 13 30021
GK 12-K	28 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS · M3 · M4 · M5 · M6 · M8 · M10 · M12 Punte DIN 338 / Drills DIN 338 Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4100 13 30028



Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
G 12	21 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS · M3 · M4 · M5 · M6 · M8 · M10 · M12	4100 14 10021
GK 12	28 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS · M3 · M4 · M5 · M6 · M8 · M10 · M12 Punte DIN 338 / Drills DIN 338 Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4100 14 10028
GS 25	31 M3 – M12 (25 x 9)	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS + Filiere tonde / Circular dies, HSS (Ø 25 mm), M3 · M4 · M5 · M6 · M8 · M10 · M12 Porta filiere / Holder DIN 225, 25 x 9 Giramaschi / Tap wrench DIN 1814 Gr. 1,5 Cacciavite / Screwdriver	6000 14 10025
GW 12	44 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS + Filiere tonde / Circular dies, HSS, M3 · M4 · M5 · M6 · M8 · M10 · M12 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 Giramaschi / Tap wrench DIN 1814 Gr. 1 + 2 Contafiletti / Gauge Cacciavite / Screwdriver Pre foro / Core hole drills DIN 338 HSS-G Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	6000 14 10044
GW 20	54 M3 – M20	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS + Filiere tonde / Circular dies, HSS, M3 · M4 · M5 · M6 · M8 · M10 · M12 · M14 · M16 · M18 · M20 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 Giramaschi / Tap wrenches DIN 1814 Gr. 1 + 3 Contafiletti / Gauge Cacciavite / Screwdriver	6000 14 10054









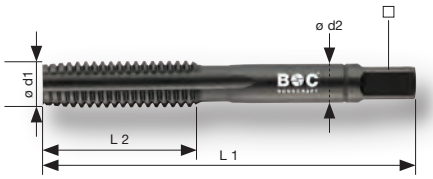
Cassette in legno BC / BC Wooden-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GWH 20	52 M3 – M20	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs., DIN 352 HSS + Filiere tonde / Circular dies, HSS, M3 · M4 · M5 · M6 · M8 · M10 · M12 · M14 · M16 · M18 · M20, Porta filiere / Holders DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 Giramaschi / Tap wrenches DIN 1814 Gr. 1 + 3	6000 14 50052
GWH 24	62 M3 – M24	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs., DIN 352 HSS + Filiere tonde / Circular dies, HSS, M3 · M4 · M5 · M6 · M8 · M10 · M12 · M14 · M16 · M18 · M20 · M22 · M24, Porta filiere / Holders DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 · 55 x 22 Giramaschi / Tap wrenches DIN 1814 Gr. 0 · 2 · 4	6000 14 50062





M Maschi a mano DIN 352 HSS-E (Co5) **VAP**
Hand taps DIN 352 HSS-E (Co5) **VAP**



Code **4110** Nr. 1


Nr. 2


Nr. 3

M | DIN 352 | HSS-E Co5 | VAP | VA INOX | ISO2 6H | 60° | 1000 N/mm²

· Filettatura metrica ISO DIN 13
· Per fori passanti e ciechi
· Acciaio inossidabile
· N. 1 Maschio di sgrossatura (imbocco: 6-8 spire)
· N. 2 Maschio intermedio (imbocco: 4-5 spire)
· N. 3 Maschio di finitura (imbocco: 2-3 spire).

· For cutting metric ISO-Thread DIN 13
· For through- and blind holes
· Stainless steel
· No. 1 Rougher 6-8 threads lead
· No. 2 Intermediate 4-5 threads lead
· No. 3 Finisher 2-3 threads lead.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2	Nr. 3
M 3 x 0,5	2,5	40	11	3,5	2,7	1	4110 11 00300	4110 11 10300	4110 11 20300	4110 11 30300
M 4 x 0,7	3,3	45	13	4,5	3,4	1	4110 11 00400	4110 11 10400	4110 11 20400	4110 11 30400
M 5 x 0,8	4,2	50	16	6,0	4,9	1	4110 11 00500	4110 11 10500	4110 11 20500	4110 11 30500
M 6 x 1	5,0	50	19	6,0	4,9	1	4110 11 00600	4110 11 10600	4110 11 20600	4110 11 30600
M 8 x 1,25	6,8	56	22	6,0	4,9	1	4110 11 00800	4110 11 10800	4110 11 20800	4110 11 30800
M 10 x 1,5	8,5	70	24	7,0	5,5	1	4110 11 01000	4110 11 11000	4110 11 21000	4110 11 31000
M 12 x 1,75	10,2	75	29	9,0	7,0	1	4110 11 01200	4110 11 11200	4110 11 21200	4110 11 31200
M 14 x 2	12,0	80	30	11,0	9,0	1	4110 11 01400	4110 11 11400	4110 11 21400	4110 11 31400
M 16 x 2	14,0	80	32	12,0	9,0	1	4110 11 01600	4110 11 11600	4110 11 21600	4110 11 31600
M 18 x 2,5	15,5	95	40	14,0	11,0	1	4110 11 01800	4110 11 11800	4110 11 21800	4110 11 31800
M 20 x 2,5	17,5	95	40	16,0	12,0	1	4110 11 02000	4110 11 12000	4110 11 22000	4110 11 32000

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GE 12-K	21 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS-E VAP M3 · M4 · M5 · M6 · M8 · M10 · M12	4110 13 30021
GKE 12-K	28 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS-E VAP M3 · M4 · M5 · M6 · M8 · M10 · M12 HSS-E Punte / Drills DIN 338 Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4110 13 30028



Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GWE 12 P-Plus	44 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 + Filiere tonde / Circular dies DIN EN 22568 HSS-E VAP M3 · M4 · M5 · M6 · M8 · M10 · M12 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 Giramaschi / Tap-Wrench DIN 1814 Gr. 1 + 2 Contafiletti / Gauge Cacciavite / Screwdriver Pre foro / Core Hole Drills DIN 338 HSS-E Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	6001 14 10044
GWE 20 P-Plus	54 M3 – M20	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 + Filiere tonde / Circular dies DIN EN 22568 HSS-E VAP · M3 · M4 · M5 · M6 · M8 · M10 · M12 · M14 · M16 · M18 · M20 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 Giramaschi / Tap wrenches DIN 1814 Gr. 1 + 3 Contafiletti / Gauge Cacciavite / Screwdriver	6001 14 10054







Code **4109** Nr. 1



Nr. 2



Nr. 3

M | LINKS LEFT HAND LH | DIN 352 | HSS G | ISO2 6H | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili con resistenza alla trazione fino a 800 N/mm² (22,5 HRC).

· Per la filettatura metrica ISO (DIN 13)
· Per fori passanti e ciechi
· N. 1 Maschio di sgrossatura (imbocco: 6-8 spire)
· N. 2 Maschio intermedio (imbocco: 4-5 spire)
· N. 3 Maschio di finitura (imbocco: 2-3 spire).

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric ISO-Thread DIN 13
· For through- and blind holes
· No. 1 Rougher 6-8 threads lead
· No. 2 Intermediate 4-5 threads lead
· No. 3 Finisher 2-3 threads lead.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2	Nr. 3
M 3 x 0,5	2,5	40	11	3,5	2,7	1	4109 11 00300	4109 11 10300	4109 11 20300	4109 11 30300
M 4 x 0,7	3,3	45	13	4,5	3,4	1	4109 11 00400	4109 11 10400	4109 11 20400	4109 11 30400
M 5 x 0,8	4,2	50	16	6,0	4,9	1	4109 11 00500	4109 11 10500	4109 11 20500	4109 11 30500
M 6 x 1	5,0	50	19	6,0	4,9	1	4109 11 00600	4109 11 10600	4109 11 20600	4109 11 30600
M 8 x 1,25	6,8	56	22	6,0	4,9	1	4109 11 00800	4109 11 10800	4109 11 20800	4109 11 30800
M 10 x 1,5	8,5	70	24	7,0	5,5	1	4109 11 01000	4109 11 11000	4109 11 21000	4109 11 31000
M 12 x 1,75	10,2	75	29	9,0	7,0	1	4109 11 01200	4109 11 11200	4109 11 21200	4109 11 31200
M 14 x 2	12,0	80	30	11,0	9,0	1	4109 11 01400	4109 11 11400	4109 11 21400	4109 11 31400
M 16 x 2	14,0	80	32	12,0	9,0	1	4109 11 01600	4109 11 11600	4109 11 21600	4109 11 31600
M 18 x 2,5	15,5	95	40	14,0	11,0	1	4109 11 01800	4109 11 11800	4109 11 21800	4109 11 31800
M 20 x 2,5	17,5	95	40	16,0	12,0	1	4109 11 02000	4109 11 12000	4109 11 22000	4109 11 32000
M 22 x 2,5	19,5	100	40	18,0	14,5	1	4109 11 02200	4109 11 12200	4109 11 22200	4109 11 32200
M 24 x 3	21,0	110	50	18,0	14,5	1	4109 11 02400	4109 11 12400	4109 11 22400	4109 11 32400

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GK 12-K LH	28 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS-G · M3 · M4 · M5 · M6 · M8 · M10 · M12 HSS-G Punte / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4109 13 30028

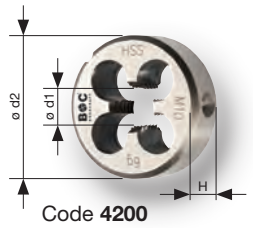


Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GW 12 LH	44 M3 – M12	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS-G + Filiere tonde / Circular dies HSS-G, M3 · M4 · M5 · M6 · M8 · M10 · M12 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 Giramaschi / Tap-Wrench DIN 1814 Gr. 1 + 2 Contafiletti / Gauge Cacciaviti / Screwdriver Pre foro / Core Hole Drills DIN 338 HSS-G Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	6000 14 20044
GW 20 LH	54 M3 – M20	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS-G + Filiere tonde / Circular dies HSS-G, M3 · M4 · M5 · M6 · M8 · M10 · M12 · M14 · M16 · M18 · M20 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 Giramaschi / Tap wrenches DIN 1814 Gr. 1 + 3 Contafiletti / Gauge Cacciavite / Screwdriver	6000 14 20054







Code **4200**

M | DIN EN 22568 | HSS G | FORM B | Tol. 6g | 60° | 800 N/mm²

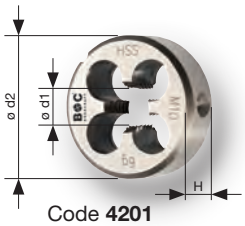
Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Per filettatura metrica ISO DIN 13
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric ISO-Thread DIN 13
· Form B = preslotted, closed.

Ø d1 mm	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
M 1 x 0,25	0,97	16	5	1	4200 11 00100
M 1,1 x 0,25	1,07	16	5	1	4200 11 00110
M 1,2 x 0,25	1,17	16	5	1	4200 11 00120
M 1,4 x 0,3	1,36	16	5	1	4200 11 00140
M 1,6 x 0,35	1,54	16	5	1	4200 11 00160
M 1,7 x 0,35	1,64	16	5	1	4200 11 00170
M 1,8 x 0,35	1,74	16	5	1	4200 11 00180
M 2 x 0,4	1,93	16	5	1	4200 11 00200
M 2,2 x 0,45	2,13	16	5	1	4200 11 00220
M 2,3 x 0,4	2,23	16	5	1	4200 11 00230
M 2,5 x 0,45	2,43	16	5	1	4200 11 00250
M 2,6 x 0,45	2,53	16	5	1	4200 11 00260
M 3 x 0,5	2,92	20	5	1	4200 11 00300
M 3,5 x 0,6	3,41	20	5	1	4200 11 00350
M 4 x 0,7	3,91	20	5	1	4200 11 00400
M 5 x 0,8	4,90	20	7	1	4200 11 00500
M 6 x 1	5,88	20	7	1	4200 11 00600
M 7 x 1	6,88	25	9	1	4200 11 00700
M 8 x 1,25	7,87	25	9	1	4200 11 00800
M 9 x 1,25	8,87	25	9	1	4200 11 00900
M 10 x 1,5	9,85	30	11	1	4200 11 01000
M 12 x 1,75	11,83	38	14	1	4200 11 01200
M 14 x 2	13,82	38	14	1	4200 11 01400
M 16 x 2	15,82	45	18	1	4200 11 01600
M 18 x 2,5	17,79	45	18	1	4200 11 01800
M 20 x 2,5	19,79	45	18	1	4200 11 02000
M 22 x 2,5	21,79	55	22	1	4200 11 02200
M 24 x 3	23,77	55	22	1	4200 11 02400
M 27 x 3	26,77	65	25	1	4200 11 02700
M 30 x 3,5	29,73	65	25	1	4200 11 03000
M 33 x 3,5	32,73	65	25	1	4200 11 03300
M 36 x 4	35,70	65	25	1	4200 11 03600
M 39 x 4	38,70	75	30	1	4200 11 03900
M 42 x 4,5	41,69	75	30	1	4200 11 04200
M 45 x 4,5	44,69	90	36	1	4200 11 04500
M 48 x 5	47,66	90	36	1	4200 11 04800
M 52 x 5	51,66	90	36	1	4200 11 05200



Code **4201**

M | 25 x 9 Ø | HSS G | FORM B | Tol. 6g | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Per filettatura metrica ISO DIN 13
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric ISO-Thread DIN 13
· Form B = preslotted, closed.

Ø d1 mm	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
M 3 x 0,5	2,92	25	9	1	4201 11 00300
M 4 x 0,7	3,91	25	9	1	4201 11 00400
M 5 x 0,8	4,90	25	9	1	4201 11 00500
M 6 x 1	5,88	25	9	1	4201 11 00600
M 8 x 1,25	7,87	25	9	1	4201 11 00800
M 10 x 1,5	9,85	25	9	1	4201 11 01000
M 12 x 1,75	11,83	25	9	1	4201 11 01200

Cassetta Mini in metallo BC / BC Metal-Mini-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MSR 8	8 M3 – M12 (25 x 9)	Filiere tonde / Circular dies (25 x 9) M3 · M4 · M5 · M6 · M8 · M10 · M12 Porta filiere / Holder DIN 225 25 x 9	4200 14 10007

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GS 25	31 M3 – M12 (25 x 9)	Set maschi a mano 3 pz. / Hand-tap sets 3 pcs. DIN 352 HSS + Filiere tonde / Circular dies (25 x 9) HSS, M3 · M4 · M5 · M6 · M8 · M10 · M12 Porta filiere / Holder DIN 225, 25 x 9 Giramaschi / Tap wrench DIN 1814 Gr. 1,5 Cacciavite / Screwdriver	6000 14 10025

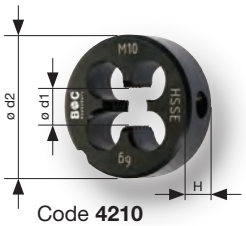


MSR 8



GS 25

M Filiere tonde DIN EN 22568 HSS-E (Co5) **VAP**
Circular dies DIN EN 22568 HSS-E (Co5) **VAP**



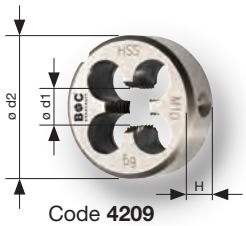
Code **4210**

M | DIN EN 22568 | HSS-E Co5 | VAP | VA INOX | FORM B | Tol. 6g | 60° | 1000 N/mm²

· Filettatura metrica ISO DIN 13
· Per acciaio inossidabile
. Forma B - imbocco corretto, preintagliata e chiusa
· Maschio a imbocco corretto con superficie vaporizzata (VAP).

· For cutting metric ISO-Thread DIN 13
· Stainless steel
· Form B = preslotted, closed
· Spiral point, steam tempered.

Ø d1 mm	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
M 3 x 0,5	2,92	20	5	1	4210 11 00300
M 4 x 0,7	3,91	20	5	1	4210 11 00400
M 5 x 0,8	4,90	20	7	1	4210 11 00500
M 6 x 1	5,88	20	7	1	4210 11 00600
M 8 x 1,25	7,87	25	9	1	4210 11 00800
M 10 x 1,5	9,85	30	11	1	4210 11 01000
M 12 x 1,75	11,83	38	14	1	4210 11 01200
M 14 x 2	13,82	38	14	1	4210 11 01400
M 16 x 2	15,82	45	18	1	4210 11 01600
M 18 x 2,5	17,79	45	18	1	4210 11 01800
M 20 x 2,5	19,79	45	18	1	4210 11 02000



Code **4209**

M | LINKS LEFT HAND LH | DIN EN 22568 | HSS G | FORM B | Tol. 6g | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

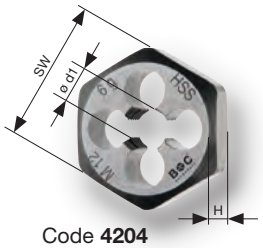
· Per filettatura metrica ISO DIN 13
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric ISO-Thread DIN 13
· Form B = preslotted, closed.

Ø d1 mm	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
M 3 x 0,5	2,92	20	5	1	4209 11 00300
M 4 x 0,7	3,91	20	5	1	4209 11 00400
M 5 x 0,8	4,90	20	7	1	4209 11 00500
M 6 x 1	5,88	20	7	1	4209 11 00600
M 8 x 1,25	7,87	25	9	1	4209 11 00800
M 10 x 1,5	9,85	30	11	1	4209 11 01000
M 12 x 1,75	11,83	38	14	1	4209 11 01200
M 14 x 2	13,82	38	14	1	4209 11 01400
M 16 x 2	15,82	45	18	1	4209 11 01600
M 18 x 2,5	17,79	45	18	1	4209 11 01800
M 20 x 2,5	19,79	45	18	1	4209 11 02000
M 22 x 2,5	21,79	55	22	1	4209 11 02200
M 24 x 3	23,77	55	22	1	4209 11 02400

M Dadi maschianti DIN 382 HSS-G
Hexagon die nuts DIN 382 HSS-G



Code **4204**

M | DIN 382 | HSS G | Tol. 6g | 60° | 800 N/mm²

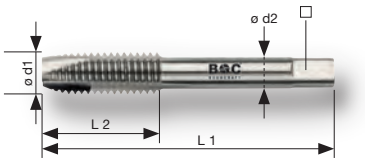
Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Per filettatura metrica ISO DIN 13
· Ideale per operazioni in luoghi difficilmente accessibili.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric ISO-Thread DIN 13
· Ideal for operations at difficult accesssible places.

Ø d1 mm	Barra / Bolt mm	SW mm	H mm		Art.-Nr. Part-No.
M 3 x 0,5	2,92	19	5	1	4204 11 00300
M 4 x 0,7	3,91	19	5	1	4204 11 00400
M 5 x 0,8	4,90	19	7	1	4204 11 00500
M 6 x 1	5,88	19	7	1	4204 11 00600
M 8 x 1,25	7,87	22	9	1	4204 11 00800
M 10 x 1,5	9,85	27	11	1	4204 11 01000
M 12 x 1,75	11,83	36	14	1	4204 11 01200
M 14 x 2	13,82	36	14	1	4204 11 01400
M 16 x 2	15,82	41	18	1	4204 11 01600
M 18 x 2,5	17,79	41	18	1	4204 11 01800
M 20 x 2,5	19,79	41	18	1	4204 11 02000
M 22 x 2,5	21,79	50	22	1	4204 11 02200
M 24 x 3	23,76	50	22	1	4204 11 02400



Code **4120**

M | DIN 352 | HSS G | B | ISO2 6H | 60° | 3 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4120	●	●					●	●			●

· Per filettatura metrica ISO DIN 13
· Per uso manuale e macchina
· Forma B - Maschio con imbocco corretto 4-5 spire.

· For cutting metric ISO-Thread DIN 13
· For manual and machine use
· Form B = 4-5 threads lead with spiral point (gun nose).

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
M 3 x 0,5	2,5	40	11	3,5	2,7	1	4120 03 00300	1	4120 07 00300
M 4 x 0,7	3,3	45	13	4,5	3,4	1	4120 03 00400	1	4120 07 00400
M 5 x 0,8	4,2	50	16	6,0	4,9	1	4120 03 00500	1	4120 07 00500
M 6 x 1	5,0	56	19	6,0	4,9	1	4120 03 00600	1	4120 07 00600
M 8 x 1,25	6,8	63	22	6,0	4,9	1	4120 03 00800	1	4120 07 00800
M 10 x 1,5	8,5	70	24	7,0	5,5	1	4120 03 01000	1	4120 07 01000
M 12 x 1,75	10,2	75	28	9,0	7,0	1	4120 03 01200	1	4120 07 01200

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
EGB 15-K	15 M3 – M12	Maschi a macchina corti / Short machine taps DIN 352 HSS-G M3 · M4 · M5 · M6 · M8 · M10 · M12 Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm Giramaschi / Tap wrench DIN 1814 Gr. 1,5	4120 13 30015

Cassetta in metalo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
EGB 15	15 M3 – M12	Maschi a macchina corti / Short machine taps DIN 352 HSS-G M3 · M4 · M5 · M6 · M8 · M10 · M12 Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm Giramaschi / Tap wrench DIN 1814 Gr. 1,5	4120 14 10015

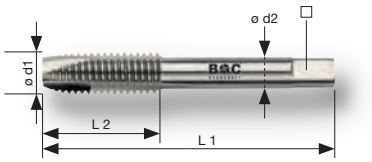


EGB 15-K



EGB 15

M Maschi a macchina corti DIN 352 HSS-E (Co5)
Short machine taps DIN 352 HSS-E (Co5)



Code **4125**

M | DIN 352 | HSS-E Co5 | B | ISO2 6H | 60° | 3 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4125	●	●	●				●	●	●		●

· Per filettatura metrica ISO DIN 13
· Per uso manuale e macchina
· Forma B - Maschio con imbocco corretto 4-5 spire.

· For cutting metric ISO-Thread DIN 13
· For manual and machine use
· Form B = 4-5 threads lead with spiral point (gun nose).

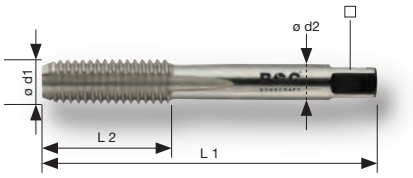
Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
M 3 x 0,5	2,5	40	11	3,5	2,7	1	4125 03 00300
M 4 x 0,7	3,3	45	13	4,5	3,4	1	4125 03 00400
M 5 x 0,8	4,2	50	16	6,0	4,9	1	4125 03 00500
M 6 x 1	5,0	56	19	6,0	4,9	1	4125 03 00600
M 8 x 1,25	6,8	63	22	6,0	4,9	1	4125 03 00800
M 10 x 1,5	8,5	70	24	7,0	5,5	1	4125 03 01000
M 12 x 1,75	10,2	75	28	9,0	7,0	1	4125 03 01200

Cassetta in ABS BC ABS-Box / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
EGB 15-K Co	15 M3 – M12	Maschi a macchina corti / Short machine taps DIN 352 HSS-E (Co5) M3 · M4 · M5 · M6 · M8 · M10 · M12 Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm Giramaschi / Tap wrench DIN 1814 Gr. 1,5	4125 13 30015



EGB 15-K Co



Code **4121**

M | DIN 352 | HSS G | C | ISO2 6H | 60° | 1,5 x D | 1,5 x D

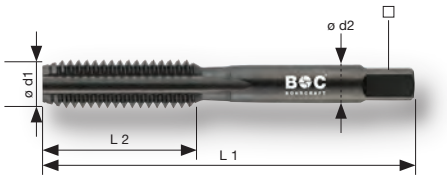
Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4121	●	●					●	●			●

· Per filettatura metrica ISO DIN 13
· Per uso manuale e macchina
· Maschio con imbocco corto 2-3 spire per fori ciechi/ passanti.

· For cutting metric ISO-Thread DIN 13
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
M 1 x 0,25	0,75	32	5,5	2,5	2,1	1	4121 03 00100
M 1,1 x 0,25	0,85	32	5,5	2,5	2,1	1	4121 03 00110
M 1,2 x 0,25	0,95	32	5,5	2,5	2,1	1	4121 03 00120
M 1,4 x 0,3	1,10	32	7,0	2,5	2,1	1	4121 03 00140
M 1,6 x 0,35	1,25	32	8,0	2,5	2,1	1	4121 03 00160
M 1,7 x 0,35	1,30	32	8,0	2,5	2,1	1	4121 03 00170
M 1,8 x 0,35	1,45	32	8,0	2,5	2,1	1	4121 03 00180
M 2 x 0,4	1,60	36	8,0	2,8	2,1	1	4121 03 00200
M 2,2 x 0,45	1,75	36	9,0	2,8	2,1	1	4121 03 00220
M 2,3 x 0,4	1,90	36	9,0	2,8	2,1	1	4121 03 00230
M 2,5 x 0,45	2,05	40	9,0	2,8	2,1	1	4121 03 00250
M 2,6 x 0,45	2,10	40	9,0	2,8	2,1	1	4121 03 00260
M 3 x 0,5	2,50	40	11,0	3,5	2,7	1	4121 03 00300
M 3,5 x 0,6	2,90	45	13,0	4,0	3,0	1	4121 03 00350
M 4 x 0,7	3,30	45	13,0	4,5	3,4	1	4121 03 00400
M 5 x 0,8	4,20	50	16,0	6,0	4,9	1	4121 03 00500
M 6 x 1	5,00	50	19,0	6,0	4,9	1	4121 03 00600
M 7 x 1	6,00	50	19,0	6,0	4,9	1	4121 03 00700
M 8 x 1,25	6,80	56	22,0	6,0	4,9	1	4121 03 00800
M 9 x 1,25	7,80	63	22,0	7,0	5,5	1	4121 03 00900
M 10 x 1,5	8,50	70	24,0	7,0	5,5	1	4121 03 01000
M 12 x 1,75	10,20	75	29,0	9,0	7,0	1	4121 03 01200
M 14 x 2	12,00	80	30,0	11,0	9,0	1	4121 03 01400
M 16 x 2	14,00	80	32,0	12,0	9,0	1	4121 03 01600
M 18 x 2,5	15,50	95	40,0	14,0	11,0	1	4121 03 01800
M 20 x 2,5	17,50	95	40,0	16,0	12,0	1	4121 03 02000
M 22 x 2,5	19,50	100	40,0	18,0	14,5	1	4121 03 02200
M 24 x 3	21,00	110	50,0	18,0	14,5	1	4121 03 02400
M 27 x 3	24,00	110	50,0	20,0	16,0	1	4121 03 02700
M 30 x 3,5	26,50	125	56,0	22,0	18,0	1	4121 03 03000
M 33 x 3,5	29,50	125	56,0	25,0	20,0	1	4121 03 03300
M 36 x 4	32,00	150	63,0	28,0	22,0	1	4121 03 03600
M 39 x 4	35,00	150	63,0	32,0	24,0	1	4121 03 03900
M 42 x 4,5	37,50	150	63,0	32,0	24,0	1	4121 03 04200
M 45 x 4,5	40,50	160	70,0	36,0	29,0	1	4121 03 04500
M 48 x 5	43,00	180	75,0	36,0	29,0	1	4121 03 04800
M 52 x 5	47,00	180	75,0	40,0	32,0	1	4121 03 05200

M Maschi a macchina corti DIN 352 HSS-E (Co5) **VAP**
Short machine taps DIN 352 HSS-E (Co5) **VAP**



Code **4111**

M | DIN 352 | HSS-E Co5 | VAP | VA INOX | C | ISO2 6H | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4111			●	●	●	●					

· Per filettatura metrica ISO DIN 13
· Acciaio inossidabile
· Per uso manuale e macchina
· Maschio con imbocco corto 2-3 spire per fori ciechi/ passanti.

· For cutting metric ISO-Thread DIN 13
· Stainless steel
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
M 3 x 0,5	2,5	40	11	3,5	2,7	1	4111 03 00300
M 4 x 0,7	3,3	45	13	4,5	3,4	1	4111 03 00400
M 5 x 0,8	4,2	50	16	6,0	4,9	1	4111 03 00500
M 6 x 1	5,0	50	19	6,0	4,9	1	4111 03 00600
M 8 x 1,25	6,8	56	22	6,0	4,9	1	4111 03 00800
M 10 x 1,5	8,5	70	24	7,0	5,5	1	4111 03 01000
M 12 x 1,75	10,2	75	29	9,0	7,0	1	4111 03 01200
M 14 x 2	12,0	80	30	11,0	9,0	1	4111 03 01400
M 16 x 2	14,0	80	32	12,0	9,0	1	4111 03 01600
M 18 x 2,5	15,5	95	40	14,0	11,0	1	4111 03 01800
M 20 x 2,5	17,5	95	40	16,0	12,0	1	4111 03 02000



Code **4129**

M | LINKS LEFT HAND LH | DIN 352 | HSS G | C | ISO2 6H | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4129	●	●					●	●			●

· Per filettatura metrica ISO DIN 13
· Per uso manuale e macchina
· Maschio con imbocco corto 2-3 spire per fori ciechi/ passanti.

· For cutting metric ISO-Thread DIN 13
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
M 3 x 0,5	2,5	40	11	3,5	2,7	1	4129 03 00300
M 4 x 0,7	3,3	45	13	4,5	3,4	1	4129 03 00400
M 5 x 0,8	4,2	50	16	6,0	4,9	1	4129 03 00500
M 6 x 1	5,0	50	19	6,0	4,9	1	4129 03 00600
M 8 x 1,25	6,8	56	22	6,0	4,9	1	4129 03 00800
M 10 x 1,5	8,5	70	24	7,0	5,5	1	4129 03 01000
M 12 x 1,75	10,2	75	29	9,0	7,0	1	4129 03 01200
M 14 x 2	12,0	80	30	11,0	9,0	1	4129 03 01400
M 16 x 2	14,0	80	32	12,0	9,0	1	4129 03 01600
M 18 x 2,5	15,5	95	40	14,0	11,0	1	4129 03 01800
M 20 x 2,5	17,5	95	40	16,0	12,0	1	4129 03 02000
M 22 x 2,5	19,5	100	40	18,0	14,5	1	4129 03 02200
M 24 x 3	21,0	110	50	18,0	14,5	1	4129 03 02400



Code **4140** / DIN 371



Code **4150** / DIN 371

M | DIN 371/376 | HSS G | ISO2 6H | 60° | B | 3 x D | FORM C | 35° | 2,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4140 · 4141	●	●					●	●			●
4150 · 4151	●	●					●	●			●

· Per filettatura metrica ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire
· Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°.

· For cutting metric ISO-Thread DIN 13.
· Form B = 4 – 5 threads lead with spiral point (gun nose)
· Form C 35° = 2-3 threads lead with spiral flute 35°.

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 35° Art.-Nr. Part-No.
DIN 371			B	C 35°					
M 3 x 0,5	2,5	56	11	5	3,5	2,7	1	4140 03 00300	4150 03 00300
M 4 x 0,7	3,3	63	13	7	4,5	3,4	1	4140 03 00400	4150 03 00400
M 5 x 0,8	4,2	70	16	8	6,0	4,9	1	4140 03 00500	4150 03 00500
M 6 x 1	5,0	80	19	10	6,0	4,9	1	4140 03 00600	4150 03 00600
M 8 x 1,25	6,8	90	22	13	8,0	6,2	1	4140 03 00800	4150 03 00800
M 10 x 1,5	8,5	100	24	15	10,0	8,0	1	4140 03 01000	4150 03 01000
DIN 376									
M 12 x 1,75	10,2	110	29	18	9,0	7,0	1	4141 03 01200	4151 03 01200
M 14 x 2	12,0	110	30	20	11,0	9,0	1	4141 03 01400	4151 03 01400
M 16 x 2	14,0	110	32	22	12,0	9,0	1	4141 03 01600	4151 03 01600
M 18 x 2,5	15,5	125	34	25	14,0	11,0	1	4141 03 01800	4151 03 01800
M 20 x 2,5	17,5	140	34	25	16,0	12,0	1	4141 03 02000	4151 03 02000
M 22 x 2,5	19,5	140	34	27	18,0	14,5	1	4141 03 02200	4151 03 02200
M 24 x 3	21,0	160	38	30	18,0	14,5	1	4141 03 02400	4151 03 02400

Confezione da espositore / Display packaging

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 35° Art.-Nr. Part-No.
DIN 371			B	C 35°					
M 3 x 0,5	2,5	56	11	5	3,5	2,7	1	4140 07 00300	4150 07 00300
M 4 x 0,7	3,3	63	13	7	4,5	3,4	1	4140 07 00400	4150 07 00400
M 5 x 0,8	4,2	70	16	8	6,0	4,9	1	4140 07 00500	4150 07 00500
M 6 x 1	5,0	80	19	10	6,0	4,9	1	4140 07 00600	4150 07 00600
M 8 x 1,25	6,8	90	22	13	8,0	6,2	1	4140 07 00800	4150 07 00800
M 10 x 1,5	8,5	100	24	15	10,0	8,0	1	4140 07 01000	4150 07 01000
DIN 376									
M 12 x 1,75	10,2	110	29	18	9,0	7,0	1	4141 07 01200	4151 07 01200
M 14 x 2	12,0	110	30	20	11,0	9,0	1	4141 07 01400	4151 07 01400
M 16 x 2	14,0	110	32	22	12,0	9,0	1	4141 07 01600	4151 07 01600



Code **4140** / DIN 371



Code **4150** / DIN 371

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MBA 7 G-K	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4140 13 30007
MBA 14 G-K	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4140 13 30014
MBA 7 S-K	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT**	4150 13 30007
MBA 14 S-K	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT** Punte HSS-G Bohrer / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4150 13 30014

Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MBA 7-G	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4140 14 10007
MBA 14-G	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4140 14 10014
MBA 7-S	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT**	4150 14 10007
MBA 14-S	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4150 14 10014



MBA 7 S-K



MBA 14 S-K



MBA 7-G



MBA 14-G

M Maschi a macchina DIN 371 / 376 HSS-E (Co5)
Machine taps DIN 371 / 376 HSS-E (Co5)



Code **4142** / DIN 371



Code **4147** / DIN 371

M | DIN 371/376 | HSS-E Co5 | ISO2 6H | 60° | B | 3 x D | TiN

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4142 · 4143	●	●	●				●	●	●		●
4147 · 4148	●	●	●				●				

· Per filettatura metrica ISO DIN 13.
· Forma B - Maschio da 4-5 spire con imbocco corretto (rompitruciolo).

· For cutting metric ISO-Thread DIN 13.
· Form B = 4-5 threads lead with spiral point (gun nose).

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
DIN 371								
M 2 x 0,4	1,60	45	8	2,8	2,1	1	4142 03 00200	-
M 2,5 x 0,45	2,05	50	9	2,8	2,1	1	4142 03 00250	-
M 3 x 0,5	2,50	56	11	3,5	2,7	1	4142 03 00300	4147 03 00300
M 4 x 0,7	3,30	63	13	4,5	3,4	1	4142 03 00400	4147 03 00400
M 5 x 0,8	4,20	70	16	6,0	4,9	1	4142 03 00500	4147 03 00500
M 6 x 1	5,00	80	19	6,0	4,9	1	4142 03 00600	4147 03 00600
M 7 x 1	6,00	80	19	7,0	5,5	1	4142 03 00700	-
M 8 x 1,25	6,80	90	22	8,0	6,2	1	4142 03 00800	4147 03 00800
M 10 x 1,50	8,50	100	24	10,0	8,0	1	4142 03 01000	4147 03 01000
DIN 376								
M 3 x 0,5	2,50	56	11	2,2	-	1	4143 03 00300	-
M 4 x 0,7	3,30	63	13	2,8	2,1	1	4143 03 00400	-
M 5 x 0,8	4,20	70	16	3,5	2,7	1	4143 03 00500	-
M 6 x 1	5,00	80	19	4,5	3,4	1	4143 03 00600	-
M 8 x 1,25	6,80	90	22	6,0	4,9	1	4143 03 00800	-
M 10 x 1,5	8,50	100	24	7,0	5,5	1	4143 03 01000	-
M 12 x 1,75	10,20	110	29	9,0	7,0	1	4143 03 01200	4148 03 01200
M 14 x 2	12,00	110	30	11,0	9,0	1	4143 03 01400	4148 03 01400
M 16 x 2	14,00	110	32	12,0	9,0	1	4143 03 01600	4148 03 01600
M 18 x 2,5	15,50	125	34	14,0	11,0	1	4143 03 01800	4148 03 01800
M 20 x 2,5	17,50	140	34	16,0	12,0	1	4143 03 02000	4148 03 02000
M 22 x 2,5	19,50	140	34	18,0	14,5	1	4143 03 02200	4148 03 02200
M 24 x 3	21,00	160	38	18,0	14,5	1	4143 03 02400	4148 03 02400
M 27 x 3	24,00	160	38	20,0	16,0	1	4143 03 02700	-
M 30 x 3,5	26,50	180	45	22,0	18,0	1	4143 03 03000	-
M 33 x 3,5	29,50	180	50	25,0	20,0	1	4143 03 03300	-
M 36 x 4	32,00	200	56	28,0	22,0	1	4143 03 03600	-

Confezione da espositore / Display packaging

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
DIN 371								
M 3 x 0,5	2,5	56	11	3,5	2,7	1	4142 07 00300	-
M 4 x 0,7	3,3	63	13	4,5	3,4	1	4142 07 00400	-
M 5 x 0,8	4,2	70	16	6,0	4,9	1	4142 07 00500	-
M 6 x 1	5,0	80	19	6,0	4,9	1	4142 07 00600	-
M 8 x 1,25	6,8	90	22	8,0	6,2	1	4142 07 00800	-
M 10 x 1,5	8,5	100	24	10,0	8,0	1	4142 07 01000	-
DIN 376								
M 12 x 1,75	10,2	110	29	9,0	7,0	1	4143 07 01200	-
M 14 x 2	12,0	110	30	11,0	9,0	1	4143 07 01400	-
M 16 x 2	14,0	110	32	12,0	9,0	1	4143 07 01600	-



Code **4142** / DIN 371



Code **4147** / DIN 371

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 G-K	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4142 13 30007
MGB 14 G-K	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4142 13 30014
MGB 7 G-K TiN	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4147 13 30007
MGB 14 G-K TiN	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4147 13 30014

Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7-G	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4142 14 10007
MGB 14-G	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4142 14 10014
MGB 21	21 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte + scanalature elicoidali / straight-flute + spiral-flute, **Form B + C / 35° RSP / SFT,** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4142 14 10021

Bussolotto BC / BC Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
RG 12	12 M4 – M10	M4 · M5 · M6 · M8 · M10 scanalature dritte / straight-flute, **Form B** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 3,3 · 4,2 · 5,0 · 6,8 · 8,5 mm Svasatori / Countersinks 90° HSS 10,4 + 16,5 mm	4142 14 30012



MGB 7 G-K



MGB 14 G-K TiN



MGB 7-G



MGB 21



RG 12

M Maschi a macchina DIN 371 / 376 HSS-E (Co5)
Machine taps DIN 371 / 376 HSS-E (Co5)



Code **4152** / DIN 371



Code **4157** / DIN 371

M | DIN 371/376 | HSS-E Co5 | FORM C | ISO2 6H | 60° | 35° | 2,5 x D | TiN

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4152 · 4153	●	●	●				●	●	●		●
4157 · 4158	●	●	●				●				

· Per filettatura metrica ISO DIN 13
· Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°.

· For cutting metric ISO-Thread DIN 13
· Form C 35° = 2-3 threads lead with spiral flute 35°.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		TiN Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
DIN 371								
M 2 x 0,4	1,60	45	6	2,8	2,1	1	4152 03 00200	-
M 2,5 x 0,45	2,05	50	6	2,8	2,1	1	4152 03 00250	-
M 3 x 0,5	2,50	56	5	3,5	2,7	1	4152 03 00300	4157 03 00300
M 4 x 0,7	3,30	63	7	4,5	3,4	1	4152 03 00400	4157 03 00400
M 5 x 0,8	4,20	70	8	6,0	4,9	1	4152 03 00500	4157 03 00500
M 6 x 1	5,00	80	10	6,0	4,9	1	4152 03 00600	4157 03 00600
M 8 x 1,25	6,80	90	13	8,0	6,2	1	4152 03 00800	4157 03 00800
M 10 x 1,50	8,50	100	15	10,0	8,0	1	4152 03 01000	4157 03 01000
DIN 376								
M 3 x 0,5	2,50	56	5	2,2	-	1	4153 03 00300	-
M 4 x 0,7	3,30	63	7	2,8	2,1	1	4153 03 00400	-
M 5 x 0,8	4,20	70	8	3,5	2,7	1	4153 03 00500	-
M 6 x 1	5,00	80	10	4,5	3,4	1	4153 03 00600	-
M 8 x 1,25	6,80	90	13	6,0	4,9	1	4153 03 00800	-
M 10 x 1,5	8,50	100	15	7,0	5,5	1	4153 03 01000	-
M 12 x 1,75	10,20	110	18	9,0	7,0	1	4153 03 01200	4158 03 01200
M 14 x 2	12,00	110	20	11,0	9,0	1	4153 03 01400	4158 03 01400
M 16 x 2	14,00	110	22	12,0	9,0	1	4153 03 01600	4158 03 01600
M 18 x 2,5	15,50	125	25	14,0	11,0	1	4153 03 01800	4158 03 01800
M 20 x 2,5	17,50	140	25	16,0	12,0	1	4153 03 02000	4158 03 02000
M 22 x 2,5	19,50	140	27	18,0	14,5	1	4153 03 02200	4158 03 02200
M 24 x 3	21,00	160	30	18,0	14,5	1	4153 03 02400	4158 03 02400
M 27 x 3	24,00	160	30	20,0	16,0	1	4153 03 02700	-
M 30 x 3,5	26,50	180	35	22,0	18,0	1	4153 03 03000	-
M 33 x 3,5	29,50	180	35	25,0	20,0	1	4153 03 03300	-
M 36 x 4	32,00	200	40	28,0	22,0	1	4153 03 03600	-

Confezione da espositore / Display packaging

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		TiN Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
DIN 371								
M 3 x 0,5	2,5	56	5	3,5	2,7	1	4152 07 00300	-
M 4 x 0,7	3,3	63	7	4,5	3,4	1	4152 07 00400	-
M 5 x 0,8	4,2	70	8	6,0	4,9	1	4152 07 00500	-
M 6 x 1	5,0	80	10	6,0	4,9	1	4152 07 00600	-
M 8 x 1,25	6,8	90	13	8,0	6,2	1	4152 07 00800	-
M 10 x 1,5	8,5	100	15	10,0	8,0	1	4152 07 01000	-
DIN 376								
M 12 x 1,75	10,2	110	18	9,0	7,0	1	4153 07 01200	-
M 14 x 2	12,0	110	20	11,0	9,0	1	4153 07 01400	-
M 16 x 2	14,0	110	22	12,0	9,0	1	4153 07 01600	-



Code **4152** / DIN 371



Code **4157** / DIN 371

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 S-K	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT**	4152 13 30007
MGB 14 S-K	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4152 13 30014
MGB 7 S-K TiN	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT**	4157 13 30007
MGB 14 S-K TiN	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4157 13 30014

Cassette BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7-S	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT**	4152 14 10007
MGB 14-S	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4152 14 10014
MGB 21	21 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte+ scanalature elicoidali / straight-flute + spiral-flute, **Form B + C / 35° RSP / SFT,** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4142 14 10021

Bussolotto BC / BC Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
RG 12 RSP	12 M4 – M10	M4 · M5 · M6 · M8 · M10 scanalature elicoidali / spiral-flute, **Form C / 35° RSP / SFT** Punte HSS-G / HSS-drills DIN 338, Tipo N Ø 3,3 · 4,2 · 5,0 · 6,8 · 8,5 mm Svasatori / Countersinks 90° HSS 10,4 + 16,5 mm	4152 14 30012



MGB 7 S-K



MGB 14 S-K TiN



MGB 7-S

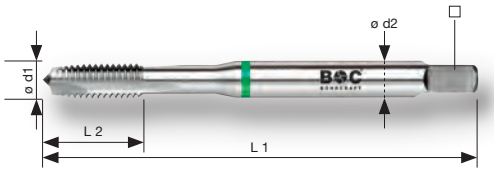


MGB 21



RG 12 RSP

M Maschi a macchina UNI DIN 371 / 376 HSS-E (Co5)
UNI machine taps DIN 371 / 376 HSS-E (Co5)



Code **4163** / DIN 371


Code **4183** / DIN 371


Code **4181** / DIN 371

M | DIN 371/376 | HSS-E Co5 | Grünring | B | 3 x D | UNI | ISO2 6H | 60° | 1000 N/mm²

TiN | TiALN

Code	P					M	K		N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	1.1 – 1.2	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4163 · 4164	●	●	●	◐				●	◐	●	◐	◐
4183 · 4184	●	●	●				◐	●				◐
4181 · 4182	●	●	●	◐			◐	●				◐

Per impiego universale su acciai strutturali generici, acciai per lavorazioni ad altà velocità (automatici), acciai da cementazione non legati e leghe di alluminio (a truciolo corto).
· Per filettatura metrica ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire (rompitruciolo).

For universal use in general structural steel, free-cutting steel, unalloyed case hardening steel and aluminium-alloys (short chipping).
· For cutting metric ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose).

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
DIN 371									
M 2 x 0,4	1,60	45	8	2,8	-	1	4163 03 00200	-	-
M 2,5 x 0,45	2,05	50	9	2,8	-	1	4163 03 00250	-	-
M 3 x 0,5	2,50	56	11	3,5	2,7	1	4163 03 00300	4183 03 00300	4181 03 00300
M 4 x 0,7	3,30	63	13	4,5	3,4	1	4163 03 00400	4183 03 00400	4181 03 00400
M 5 x 0,8	4,20	70	16	6,0	4,9	1	4163 03 00500	4183 03 00500	4181 03 00500
M 6 x 1	5,00	80	19	6,0	4,9	1	4163 03 00600	4183 03 00600	4181 03 00600
M 8 x 1,25	6,80	90	22	8,0	6,2	1	4163 03 00800	4183 03 00800	4181 03 00800
M 10 x 1,50	8,50	100	24	10,0	8,0	1	4163 03 01000	4183 03 01000	4181 03 01000
DIN 376									
M 12 x 1,75	10,20	110	29	9,0	7,0	1	4164 03 01200	4184 03 01200	4182 03 01200
M 14 x 2	12,00	110	30	11,0	9,0	1	4164 03 01400	4184 03 01400	4182 03 01400
M 16 x 2	14,00	110	32	12,0	9,0	1	4164 03 01600	4184 03 01600	4182 03 01600
M 18 x 2,5	15,50	125	34	14,0	11,0	1	4164 03 01800	4184 03 01800	4182 03 01800
M 20 x 2,5	17,50	140	34	16,0	12,0	1	4164 03 02000	4184 03 02000	4182 03 02000
M 22 x 2,5	19,50	140	34	18,0	14,5	1	4164 03 02200	4184 03 02200	4182 03 02200
M 24 x 3	21,00	160	38	18,0	14,5	1	4164 03 02400	4184 03 02400	4182 03 02400

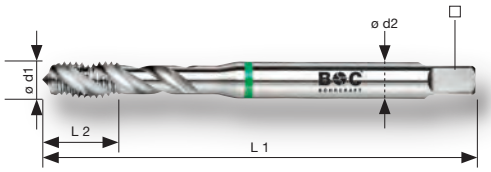
Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 G-K GREEN RING	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4163 13 30007
MGB 14 G-K GREEN RING	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-G Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4163 13 30014
MGB 7 G-K TiN P-PLUS	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4183 13 30007
MGB 14 G-K TiN P-PLUS	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-G Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4183 13 30014
MGB 7 G-K TiALN UNI	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4181 13 30007
Bussolotto BC / BC Round-Box			
RG 12 GREEN RING	12 M4 – M10	M4 · M5 · M6 · M8 · M10 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-G, Ø 3,3 · 4,2 · 5,0 · 6,8 · 8,5 mm Svasatori / Countersinks 90° HSS-G 10,4 · 16,5 mm	4163 14 30012



Maschi a macchina UNI DIN 371 / 376 HSS-E (Co5)
UNI machine taps DIN 371 / 376 HSS-E (Co5)

M



Code **4167** / DIN 371


Code **4187** / DIN 371


Code **4185** / DIN 371

M | DIN 371/376 | HSS-E Co5 | Grünring | FORM C | 40° | 2,5 x D | UNI | ISO2 6H | 60° | 1000 N/mm²

TiN | TiALN

Code	P					M	K		N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	1.1 – 1.2	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4167 · 4168	●	●	●	◐				●	◐	●	◐	◐
4187 · 4188	●	●	●				◐	●				◐
4185 · 4186	●	●	●	◐			◐	●				◐

Per impiego universale su acciai strutturali generici, acciai per lavorazioni ad altà velocità (automatici), acciai da cementazione non legati e leghe di alluminio (a truciolo corto).

· Per filettatura metrica ISO DIN 13
· Forma C 40° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 40°.

For universal use in general structural steel, free-cutting steel, unalloyed case hardening steel and aluminium-alloys (short chipping).

· For cutting metric ISO-Thread DIN 13
· Form C 40° = 2-3 threads lead with spiral flute 40°.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		TiN Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
DIN 371								
M 3 x 0,5	2,50	56	5	3,5	2,7	1	4167 03 00300	4187 03 00300	4185 03 00300
M 4 x 0,7	3,30	63	7	4,5	3,4	1	4167 03 00400	4187 03 00400	4185 03 00400
M 5 x 0,8	4,20	70	8	6,0	4,9	1	4167 03 00500	4187 03 00500	4185 03 00500
M 6 x 1	5,00	80	10	6,0	4,9	1	4167 03 00600	4187 03 00600	4185 03 00600
M 8 x 1,25	6,80	90	13	8,0	6,2	1	4167 03 00800	4187 03 00800	4185 03 00800
M 10 x 1,50	8,50	100	15	10,0	8,0	1	4167 03 01000	4187 03 01000	4185 03 01000
DIN 376								
M 12 x 1,75	10,20	110	18	9,0	7,0	1	4168 03 01200	4188 03 01200	4186 03 01200
M 14 x 2	12,00	110	20	11,0	9,0	1	4168 03 01400	4188 03 01400	4186 03 01400
M 16 x 2	14,00	110	20	12,0	9,0	1	4168 03 01600	4188 03 01600	4186 03 01600
M 18 x 2,5	15,50	125	25	14,0	11,0	1	4168 03 01800	4188 03 01800	4186 03 01800
M 20 x 2,5	17,50	140	25	16,0	12,0	1	4168 03 02000	4188 03 02000	4186 03 02000
M 22 x 2,5	19,50	140	25	18,0	14,5	1	4168 03 02200	4188 03 02200	4186 03 02200
M 24 x 3	21,00	160	30	18,0	14,5	1	4168 03 02400	4188 03 02400	4186 03 02400

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 S-K GREEN RING	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT**	4167 13 30007
MGB 14 S-K GREEN RING	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT** DIN 338 HSS-G Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4167 13 30014
MGB 7 S-K TiN P-PLUS	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT**	4187 13 30007
MGB 14 S-K TiN P-PLUS	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT** DIN 338 HSS-G Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4187 13 30014
MGB 7 S-K TiALN UNI	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT**	4185 13 30007



M Maschi a macchina PM DIN 371 / 376 HSS-E **HARDLUBE**
PM machine taps DIN 371 / 376 HSS-E **HARDLUBE**



Code **4169** / DIN 371



Code **4179** / DIN 371

M | DIN 371/376 | HSS-E PM | Schwarz-ring | B | 3 x D | ISO2 6H | 60° | HARD LUBE | 1200 N/mm²

FORM C | 40° | 2,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4169 – 4180	●	●	●	◎	◎	●	◎	◎	◎	◎	◎

Realizzato in HSS-E PM per un'elevata resistenza all'usura e tenacità. Con rivestimento HARDLUBE per un basso attrito superficiale e un flusso di trucioli uniforme.

· Per filettatura metrica ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire (rompitruciolo)
· Forma C 40° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 40°.

Made of HSS-E PM for very high wear-resistance and toughness. With HARDLUBE-Coating for low surface friction and consistent chip flow.

· For cutting metric ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 40° = 2-3 threads lead with spiral flute 40°.

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 40° Art.-Nr. Part-No.
DIN 371			B	C 40°					
M 3 x 0,5	2,5	56	9	5	3,5	2,7	1	4169 03 00300	4179 03 00300
M 4 x 0,7	3,3	63	12	7	4,5	3,4	1	4169 03 00400	4179 03 00400
M 5 x 0,8	4,2	70	13	8	6,0	4,9	1	4169 03 00500	4179 03 00500
M 6 x 1	5,0	80	15	10	6,0	4,9	1	4169 03 00600	4179 03 00600
M 8 x 1,25	6,8	90	18	13	8,0	6,2	1	4169 03 00800	4179 03 00800
M 10 x 1,5	8,5	100	20	15	10,0	8,0	1	4169 03 01000	4179 03 01000
DIN 376									
M 12 x 1,75	10,2	110	23	18	9,0	7,0	1	4170 03 01200	4180 03 01200
M 14 x 2	12,0	110	25	20	11,0	9,0	1	4170 03 01400	4180 03 01400
M 16 x 2	14,0	110	25	20	12,0	9,0	1	4170 03 01600	4180 03 01600
M 18 x 2,5	15,5	125	30	25	14,0	11,0	1	4170 03 01800	4180 03 01800
M 20 x 2,5	17,5	140	30	25	16,0	12,0	1	4170 03 02000	4180 03 02000
M 22 x 2,5	19,5	140	30	25	18,0	14,5	1	4170 03 02200	4180 03 02200
M 24 x 3	21,0	160	36	30	18,0	14,5	1	4170 03 02400	4180 03 02400

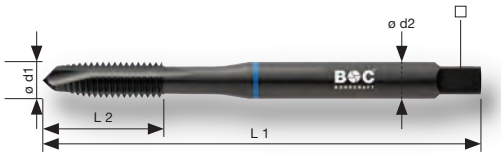
Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 14 G-K PM	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / straight-flute, **Form B** DIN 338 HSS-E (Co8) TiALN Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4169 13 30014
MGB 14 S-K PM	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT** DIN 338 HSS-E (Co8) TiALN Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4179 13 30014



Maschi a macchina INOX DIN 371 / 376 HSS-E (Co5) VAP
INOX machine taps DIN 371 / 376 HSS-E (Co5) VAP

M



Code **4144** / DIN 371



Code **4154** / DIN 371

M | DIN 371/376 | HSS-E Co5 | VAP | Blauring | B | 3 x D | FORM C | 40° | 2,5 x D | VA INOX | ISO2 6H | 60° | 1000 N/mm²

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4144 – 4155			●	●	●	●					

Geometria speciale del tagliente con superficie vaporizzata, particolarmente adatta per acciai inossidabili come AISI 304 e 316.

· Filettatura metrica ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire (rompitruciolo)
· Forma C 40° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 40°.

Special cutting edge geometry and vap. surface, especially suitable for stainless steel like AISI 304 and 316.

· For cutting metric ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 40° = 2-3 threads lead with spiral flute 40°.

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 40° Art.-Nr. Part-No.
DIN 371			B	C 40°					
M 3 x 0,5	2,5	56	11	6	3,5	2,7	1	4144 03 00300	4154 03 00300
M 4 x 0,7	3,3	63	13	7	4,5	3,4	1	4144 03 00400	4154 03 00400
M 5 x 0,8	4,2	70	16	8	6,0	4,9	1	4144 03 00500	4154 03 00500
M 6 x 1	5,0	80	19	10	6,0	4,9	1	4144 03 00600	4154 03 00600
M 8 x 1,25	6,8	90	22	14	8,0	6,2	1	4144 03 00800	4154 03 00800
M 10 x 1,5	8,5	100	24	16	10,0	8,0	1	4144 03 01000	4154 03 01000
DIN 376									
M 12 x 1,75	10,2	110	29	18	9,0	7,0	1	4145 03 01200	4155 03 01200
M 14 x 2	12,0	110	30	20	11,0	9,0	1	4145 03 01400	4155 03 01400
M 16 x 2	14,0	110	32	22	12,0	9,0	1	4145 03 01600	4155 03 01600
M 18 x 2,5	15,5	125	34	25	14,0	11,0	1	4145 03 01800	4155 03 01800
M 20 x 2,5	17,5	140	34	25	16,0	12,0	1	4145 03 02000	4155 03 02000
M 22 x 2,5	19,5	140	34	27	18,0	14,5	1	4145 03 02200	4155 03 02200
M 24 x 3	21,0	160	38	30	18,0	14,5	1	4145 03 02400	4155 03 02400

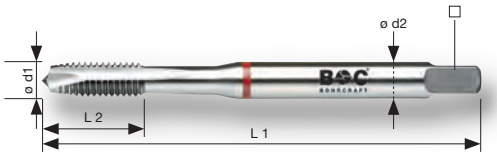
Cassette in ABS-BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 G-K BLUE RING	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4144 13 30007
MGB 14 G-K BLUE RING	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-E Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4144 13 30014
MGB 7 S-K BLUE RING	7 M3 – M12	M3 – M12, scanalature elicoidali / spiral-flute, **Form C / 40° RSP**	4154 13 30007
MGB 14 S-K BLUE RING	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT** DIN 338 HSS-E Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4154 13 30014
Bussolotto BC / BC Round-Box			
RG 12 VA BLUE RING	12 M4 – M10	M4 · M5 · M6 · M8 · M10 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-E (Co5) Ø 3,3 · 4,2 · 5,0 · 6,8 · 8,5 mm, Svasatori / Countersinks 90° HSS-E (Co5) 10,4 · 16,5 mm	4144 14 30012





M Maschi a macchina HD DIN 371 / 376 HSS-E (Co5)
HD machine taps DIN 371 / 376 HSS-E (Co5)



Code **4173** / DIN 371



Code **4189** / DIN 371

M | DIN 371/376 | HSS-E Co5 | Rotring | B | 3 x D | TiALN | Typ HD | ISO2 6H | 60° | 1200 N/mm²

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4173 · 4174				●	●	⊛					
4189 · 4190				●	●	⊛					

Per l'impiego su acciai temprati e resistenti al calore e acciai da utensili.

· Filettatura metrica ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire (rompitruciolo).

For use in tempered and heat-resistant steels as well as tool steel.

· For cutting metric ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose).

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
DIN 371								
M 3 x 0,5	2,5	56	9	3,5	2,7	1	4173 03 00300	4189 03 00300
M 4 x 0,7	3,3	63	12	4,5	3,4	1	4173 03 00400	4189 03 00400
M 5 x 0,8	4,2	70	13	6,0	4,9	1	4173 03 00500	4189 03 00500
M 6 x 1	5,0	80	15	6,0	4,9	1	4173 03 00600	4189 03 00600
M 8 x 1,25	6,8	90	18	8,0	6,2	1	4173 03 00800	4189 03 00800
M 10 x 1,50	8,5	100	20	10,0	8,0	1	4173 03 01000	4189 03 01000
DIN 376								
M 12 x 1,75	10,2	110	23	9,0	7,0	1	4174 03 01200	4190 03 01200
M 14 x 2	12,0	110	25	11,0	9,0	1	4174 03 01400	4190 03 01400
M 16 x 2	14,0	110	25	12,0	9,0	1	4174 03 01600	4190 03 01600
M 18 x 2,5	15,5	125	30	14,0	11,0	1	4174 03 01800	4190 03 01800
M 20 x 2,5	17,5	140	30	16,0	12,0	1	4174 03 02000	4190 03 02000
M 22 x 2,5	19,5	140	30	18,0	14,5	1	4174 03 02200	4190 03 02200
M 24 x 3	21,0	160	36	18,0	14,5	1	4174 03 02400	4190 03 02400

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 G-K RED RING	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4173 13 30007
MGB 14 G-K RED RING	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-E (Co5) Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4173 13 30014
MGB 7 G-K HD	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B**	4189 13 30007
MGB 14 G-K HD	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-E (Co8) Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4189 13 30014
Bussolotto BC / BC Round-Box			
RG 12 RED RING	12 M4 – M10	M4 · M5 · M6 · M8 · M10 scanalature dritte / straight-flute, **Form B** DIN 338 HSS-E (Co5) Ø 3,3 · 4,2 · 5,0 · 6,8 · 8,5 mm Svasatori / Countersinks 90° HSS-E (Co5) 10,4 · 16,5 mm	4173 14 30012

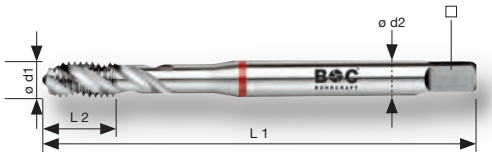






Maschi a macchina HD DIN 371 / 376 HSS-E (Co5)
HD machine taps DIN 371 / 376 HSS-E (Co5)

M



Code **4177** / DIN 371



Code **4191** / DIN 371

M | DIN 371/376 | HSS-E Co5 | Rotring | FORM C | 40° | 2,5 x D | TiALN | Typ HD | ISO2 6H | 60° | 1200 N/mm²

Code	P					M	K		N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	1.1 – 1.2	4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4177 · 4178				●	●	●						
4191 · 4192				●	●	●						

Per l'impiego su acciai temprati e resistenti al calore e acciai da utensili.

· Filettatura metrica ISO DIN 13
· Forma C 40° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 40°.

For use in tempered and heat-resistant steels as well as tool steel.

· For cutting metric ISO-Thread DIN 13
· Form C 40° = 2-3 threads lead with spiral flute 40°.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
DIN 371								
M 3 x 0,5	2,5	56	5	3,5	2,7	1	4177 03 00300	4191 03 00300
M 4 x 0,7	3,3	63	7	4,5	3,4	1	4177 03 00400	4191 03 00400
M 5 x 0,8	4,2	70	8	6,0	4,9	1	4177 03 00500	4191 03 00500
M 6 x 1	5,0	80	10	6,0	4,9	1	4177 03 00600	4191 03 00600
M 8 x 1,25	6,8	90	13	8,0	6,2	1	4177 03 00800	4191 03 00800
M 10 x 1,50	8,5	100	15	10,0	8,0	1	4177 03 01000	4191 03 01000
DIN 376								
M 12 x 1,75	10,2	110	18	9,0	7,0	1	4178 03 01200	4192 03 01200
M 14 x 2	12,0	110	20	11,0	9,0	1	4178 03 01400	4192 03 01400
M 16 x 2	14,0	110	20	12,0	9,0	1	4178 03 01600	4192 03 01600
M 18 x 2,5	15,5	125	25	14,0	11,0	1	4178 03 01800	4192 03 01800
M 20 x 2,5	17,5	140	25	16,0	12,0	1	4178 03 02000	4192 03 02000
M 22 x 2,5	19,5	140	25	18,0	14,5	1	4178 03 02200	4192 03 02200
M 24 x 3	21,0	160	30	18,0	14,5	1	4178 03 02400	4192 03 02400

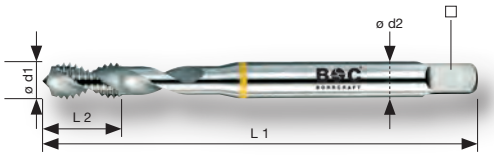
Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 S-K RED RING	7 M3 – M12	M3 – M12, scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT**	4177 13 30007
MGB 14 S-K RED RING	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT** DIN 338 HSS-E (Co5) Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4177 13 30014
MGB 7 S-K HD	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT**	4191 13 30007
MGB 14 S-K HD	14 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 40° RSP / SFT** DIN 338 HSS-E (Co8) Ø 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm	4191 13 30014





M Maschi a macchina ALU DIN 371 / 376 HSS-E (Co5)
ALU machine taps DIN 371 / 376 HSS-E (Co5)



Code **4149** / DIN 371



Code **4149** / DIN 376

M | DIN 371/376 | HSS-E Co5 | Gelbring | FORM C | 45° | 2,5 x D | 2,5 x D | ALU | ISO2 6H | 60°

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4149								●		●	●

Con 2 ampie scanalature a spirale 45°. Particolarmente adatto per alluminio, leghe di alluminio e materiale termoplastico (truciolo lungo).
· Filettatura metrica ISO DIN 13
· Forma C 45° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 45°.

With 2 wide spiral flutes 45°. Especially suitable for aluminium and aluminium-alloys as well as thermoplastics (long chipping).
· For cutting metric ISO-Thread DIN 13
· Form C 45° = 2-3 threads lead with spiral flute 45°.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
DIN 371							
M 3 x 0,5	2,5	56	5	3,5	2,7	1	4149 03 00300
M 4 x 0,7	3,3	63	7	4,5	3,4	1	4149 03 00400
M 5 x 0,8	4,2	70	8	6,0	4,9	1	4149 03 00500
M 6 x 1	5,0	80	10	6,0	4,9	1	4149 03 00600
M 8 x 1,25	6,8	90	13	8,0	6,2	1	4149 03 00800
M 10 x 1,5	8,5	100	15	10,0	8,0	1	4149 03 01000
DIN 376							
M 12 x 1,75	10,2	110	18	9,0	7,0	1	4149 03 01200
M 14 x 2	12,0	110	20	11,0	9,0	1	4149 03 01400
M 16 x 2	14,0	110	20	12,0	9,0	1	4149 03 01600
M 18 x 2,5	15,5	125	25	14,0	11,0	1	4149 03 01800
M 20 x 2,5	17,5	140	25	16,0	12,0	1	4149 03 02000

Cassetta in ABS BC / BC ABS-Box

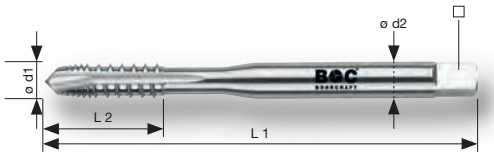
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MGB 7 ALU-K	7 M3 – M12	M3 · M4 · M5 · M6 · M8 · M10 · M12 scanalature elicoidali / spiral-flute, **Form C / 45° RSP / SFT**	4149 13 30007



MGB 7 ALU-K

Maschi a macchina (filettatura interrotta) DIN 371 / 376 HSS-E (Co5)
Machine taps (with interrupted threads) DIN 371 / 376 HSS-E (Co5)

M



Code **4240** / DIN 371



Code **4241** / DIN 376

M | DIN 371/376 | HSS-E Co5 | ISO2 6H | 60° | B-AZ | 3 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4240	●	●					●	●	●	●	

· Filettatura metrica ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire con elica sinistra
· Denti alternati.

· For cutting metric ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose)
· With interrupted threads.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
DIN 371							
M 3 x 0,5	2,5	56	11	3,5	2,7	1	4240 03 00300
M 4 x 0,7	3,3	63	13	4,5	3,4	1	4240 03 00400
M 5 x 0,8	4,2	70	16	6,0	4,9	1	4240 03 00500
M 6 x 1	5,0	80	19	6,0	4,9	1	4240 03 00600
M 8 x 1,25	6,8	90	22	8,0	6,2	1	4240 03 00800
M 10 x 1,5	8,5	100	24	10,0	8,0	1	4240 03 01000
DIN 376							
M 12 x 1,75	10,2	110	29	9,0	7,0	1	4241 03 01200



M Maschi a macchina GHISA GRIGIA DIN 371 / 376 HSS-E (Co5) **TiCN**
GREY CAST IRON machine taps DIN 371 / 376 HSS-E (Co5) **TiCN**



Code **4193** / DIN 371



Code **4193** / DIN 376

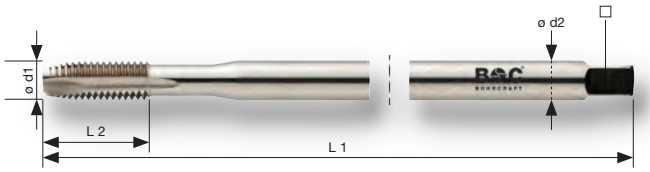
M | DIN 371/376 | HSS-E Co5 | TiCN | Weißring | C | 1,5 x D | 1,5 x D
GG | ISO2 6HX | 60°

Code	P					M	K		N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	1.1 – 1.2	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4193							●			●		

Maschio a macchina particolrmente adatto per ghisa grigia (GG).
· Filettatura metrica ISO DIN 13
· Forma C - Maschio con imbocco corto 2-3 spire.

Machine tap especially suitable for grey cast iron (GG).
· For cutting metric ISO-Thread DIN 13
· Form C = 2-3 threads lead.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
DIN 371							
M 3 x 0,5	2,5	56	5	3,5	2,7	1	4193 03 00300
M 4 x 0,7	3,3	63	7	4,5	3,4	1	4193 03 00400
M 5 x 0,8	4,2	70	8	6,0	4,9	1	4193 03 00500
M 6 x 1	5,0	80	10	6,0	4,9	1	4193 03 00600
M 8 x 1,25	6,8	90	13	8,0	6,2	1	4193 03 00800
M 10 x 1,5	8,5	100	15	10,0	8,0	1	4193 03 01000
DIN 376							
M 12 x 1,75	10,2	110	18	9,0	7,0	1	4193 03 01200
M 14 x 2	12,0	110	20	11,0	9,0	1	4193 03 01400
M 16 x 2	14,0	110	20	12,0	9,0	1	4193 03 01600
M 18 x 2,5	15,5	125	25	14,0	11,0	1	4193 03 01800
M 20 x 2,5	17,5	140	25	16,0	12,0	1	4193 03 02000
M 22 x 2,5	19,5	140	30	18,0	14,5	1	4193 03 02200
M 24 x 3	21,0	160	36	18,0	14,5	1	4193 03 02400



Code **4161** / DIN 371



Code **4162** / DIN 371

M | DIN 371/376 | HSS-E Co5 | EXTRA LANGE EXTRA LONG Version | B | 3 x D | FORM C | 35° | 2,5 x D | ISO2 6H | 60°

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4161 · 4162	●	●	◐				●	◐	◐		◐

· Filettatura metrica ISO DIN 13.
· Forma B - Maschio con imbocco corretto 4-5 spire
· Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°.

· For cutting metric ISO-Thread DIN 13.
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 35° = 2-3 threads lead with spiral flute 35°.

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 35° Art.-Nr. Part-No.
DIN 371			B	C 35°					
M 3 x 0,5	2,5	100	11	5	3,5	2,7	1	4161 03 00300	4162 03 00300
M 4 x 0,7	3,3	100	13	7	4,5	3,4	1	4161 03 00400	4162 03 00400
M 5 x 0,8	4,2	120	16	8	6,0	4,9	1	4161 03 00500	4162 03 00500
M 6 x 1	5,0	120	19	10	6,0	4,9	1	4161 03 00600	4162 03 00600
M 8 x 1,25	6,8	150	22	13	8,0	6,2	1	4161 03 00800	4162 03 00800
M 10 x 1,5	8,5	150	24	15	10,0	8,0	1	4161 03 01000	4162 03 01000
DIN 376									
M 12 x 1,75	10,2	150	29	18	9,0	7,0	1	4161 03 01200	4162 03 01200

M Maschi a macchina **SINISTRI** DIN 371 / 376 HSS-E (Co5)
Machine taps **LEFT HAND** DIN 371 / 376 HSS-E (Co5)



Code **4159** / DIN 371



Code **4159** / DIN 376

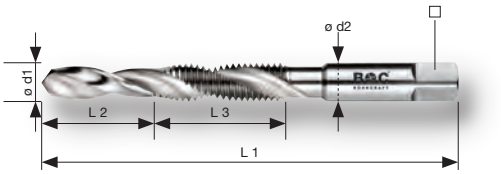
M | LINKS LEFT HAND LH | DIN 371/376 | HSS-E Co5 | C | ISO2 6H | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4159	●	●	○				●	○	○		○

· Filettatura metrica ISO DIN 13
· Forma C - Maschio con imbocco corto 2-3 spire.

· For cutting metric ISO-Thread DIN 13
· Form C = 2-3 threads lead.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
DIN 371							
M 3 x 0,5	2,5	56	11	3,5	2,7	1	4159 03 00300
M 4 x 0,7	3,3	63	13	4,5	3,4	1	4159 03 00400
M 5 x 0,8	4,2	70	16	6,0	4,9	1	4159 03 00500
M 6 x 1	5,0	80	19	6,0	4,9	1	4159 03 00600
M 8 x 1,25	6,8	90	22	8,0	6,2	1	4159 03 00800
M 10 x 1,5	8,5	100	24	10,0	8,0	1	4159 03 01000
DIN 376							
M 12 x 1,75	10,2	110	29	9,0	7,0	1	4159 03 01200
M 14 x 2	12,0	110	30	11,0	9,0	1	4159 03 01400
M 16 x 2	14,0	110	32	12,0	9,0	1	4159 03 01600
M 18 x 2,5	15,5	125	34	14,0	11,0	1	4159 03 01800
M 20 x 2,5	17,5	140	34	16,0	12,0	1	4159 03 02000
M 22 x 2,5	19,5	140	34	18,0	14,5	1	4159 03 02200
M 24 x 3	21,0	160	38	18,0	14,5	1	4159 03 02400



Code **4172**

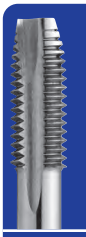
M | ISO2 6H | HSS-E Co5 | 60° | 2 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4172	●	○					●	○			

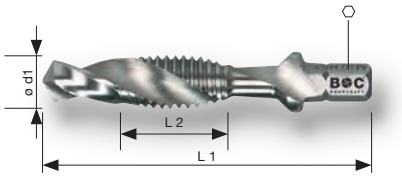
· Filettatura metrica ISO DIN 13
· Per forare e filettare in una sola operazione.

· For cutting metric ISO-Thread DIN 13
· Drilling and threading in just one working-operation.

Ø d1 mm		L 1 mm	L 2 mm	L 3 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
M 3 x 0,5	2,5	56	16	11	3,0	2,4	1	4172 03 00300
M 4 x 0,7	3,3	63	18	14	4,0	3,0	1	4172 03 00400
M 5 x 0,8	4,2	71	20	18	5,0	3,8	1	4172 03 00500
M 6 x 1	5,0	80	22	22	6,0	4,9	1	4172 03 00600
M 8 x 1,25	6,8	95	26	25	8,0	6,2	1	4172 03 00800
M 10 x 1,5	8,5	106	30	31	10,0	8,0	1	4172 03 01000
M 12 x 1,75	10,2	115	32	35	12,0	9,0	1	4172 03 01200



M | Punte combinate codolo esagonale ¼", HSS-G
Combined thread-bits ¼" hex-shank, HSS-G



Code **4171**

M | HSS G | ISO2 6H | 60° | SPLIT POINT | ¼" | 600 N/mm² | 1 x D

Per forare, filettare e sbavare in una sola operazione. Possono essere usate con utensili a mano, a batteria o trapani fissi, con rotazione a destra e sinistra.

Lo spessore del materiale non deve essere superiore al diametro del pre-foro.

For drilling, thread cutting and deburring in just one working-operation. For use in cordless and stationary drilling machines with right-hand and left-hand rotation.

Material thickness must not exceed diameter of thread.

Ø d1 mm		L 1 mm	L 2 mm	⬡		Art.-Nr. Part-No.
M 3 x 0,5	2,5	36	6	1/4" / 6,35 mm	1	4171 03 00300
M 4 x 0,7	3,3	39	8	1/4" / 6,35 mm	1	4171 03 00400
M 5 x 0,8	4,2	41	9	1/4" / 6,35 mm	1	4171 03 00500
M 6 x 1	5,0	44	11	1/4" / 6,35 mm	1	4171 03 00600
M 8 x 1,25	6,8	50	14	1/4" / 6,35 mm	1	4171 03 00800
M 10 x 1,5	8,5	59	15	1/4" / 6,35 mm	1	4171 03 01000

Mini cassetta in metallo BC / BC Metal-Mini-Box

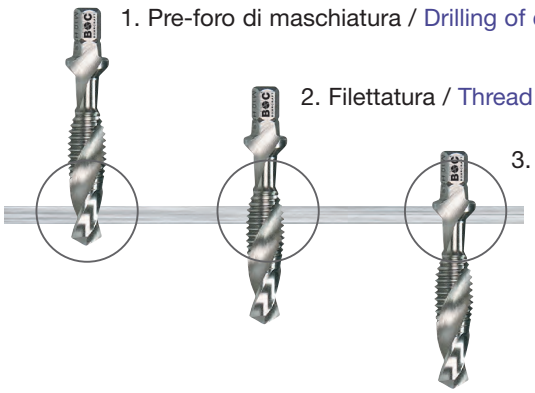
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
MB 7	7 M3 – M10	Punte combinate / Combined thread-bits M3 · M4 · M5 · M6 · M8 · M10 Portainserti magnetico / Magnet-holder	4171 14 10007



Diametro / Diameter	M 3	M 4	M 5	M 6	M 8	M 10
Pre-foro Ø / Core hole dia.	2,5 mm	3,3 mm	4,2 mm	5,0 mm	6,8 mm	8,5 mm
RPM acciaio / RPM steel	1600	1200	950	800	600	450
RPM Plastica / RPM plastic	1850	1450	1250	1000	750	550

Tutto in un'unica operazione / All in one operation:

1. Pre-foro di maschiatura / Drilling of core hole
2. Filettatura / Thread cutting
3. Sbavatura e svasatura
   Deburring and countersinking





Code **4160**

M | DIN 357 | HSS G | ISO2 6H | 60° | 1 x D

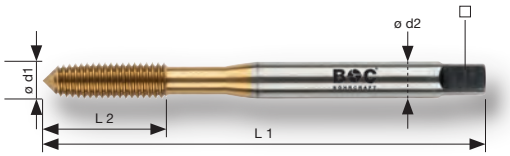
Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4160	●	●					●	●			●

Filettatura metrica ISO DIN 13.

For cutting metric ISO-Thread DIN 13.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
M 3 x 0,5	2,5	70	22	2,2	-	1	4160 03 00305
M 4 x 0,7	3,3	90	25	2,8	2,1	1	4160 03 00407
M 5 x 0,8	4,2	100	28	3,5	2,7	1	4160 03 00508
M 6 x 1	5,0	110	32	4,5	3,4	1	4160 03 00610
M 8 x 1,25	6,8	125	40	6,0	4,9	1	4160 03 00812
M 10 x 1,5	8,5	140	45	7,0	5,5	1	4160 03 01015
M 12 x 1,75	10,2	180	50	9,0	7,0	1	4160 03 01217
M 14 x 2	12,0	200	56	11,0	9,0	1	4160 03 01420
M 16 x 2	14,0	200	63	12,0	9,0	1	4160 03 01620

M Maschi a rullare DIN 371 / 376 HSS-E (Co5) **TiN**
Forming/Fluteless taps DIN 371 / 376 HSS-E (Co5) **TiN**



Code **4243** / DIN 371



Code **4243** / DIN 376

M | DIN 371/376 | HSS-E Co5 | TiN | D | ISO2 6H | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1	1.4 – 1.5	2.1	4.2
4243	●	●	●			●			●	●	

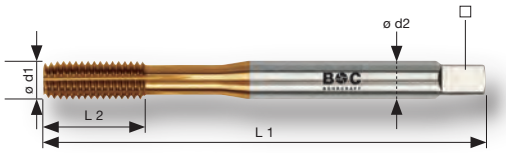
· Filettatura metrica ISO DIN 13 senza produzione di truciolo
· Senza canali di espulsione.

· For chipless production of metric ISO-Threads DIN 13
· Without oil grooves.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
DIN 371							
M 3 x 0,5	2,80	56	11	3,5	2,7	1	4243 03 00300
M 4 x 0,7	3,70	63	13	4,5	3,4	1	4243 03 00400
M 5 x 0,8	4,65	70	16	6,0	4,9	1	4243 03 00500
M 6 x 1	5,55	80	19	6,0	4,9	1	4243 03 00600
M 8 x 1,25	7,40	90	22	8,0	6,2	1	4243 03 00800
M 10 x 1,5	9,30	100	24	10,0	8,0	1	4243 03 01000
DIN 376							
M 12 x 1,75	11,20	110	29	9,0	7,0	1	4243 03 01200

Maschi a rullare con canali di espulsione DIN 371 / 376 HSS-E (Co5) **TiN**
Forming/Fluteless taps with oil grooves DIN 371 / 376 HSS-E (Co5) **TiN**

M



Code **4245** / DIN 371



Code **4245** / DIN 376

M | DIN 371/376 | HSS-E Co5 | TiN | C | ISO2 6H | 60° | >1,5 x D | >1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1	1.4 – 1.5	2.1	4.2
4245	●	●	○			○		○	○	○	

· Filettatura metrica ISO DIN 13 senza produzione di truciolo
· Con canali di espulsione.

· For chipless production of metric ISO-Threads DIN 13
· With oil grooves.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
DIN 371							
M 3 x 0,5	2,80	56	11	3,5	2,7	1	4245 03 00300
M 4 x 0,7	3,70	63	13	4,5	3,4	1	4245 03 00400
M 5 x 0,8	4,65	70	16	6,0	4,9	1	4245 03 00500
M 6 x 1,0	5,55	80	19	6,0	4,9	1	4245 03 00600
M 8 x 1,25	7,40	90	22	8,0	6,2	1	4245 03 00800
M 10 x 1,5	9,30	100	24	10,0	8,0	1	4245 03 01000
DIN 376							
M 12 x 1,75	11,20	110	29	9,0	7,0	1	4245 03 01200
M 14 x 2,0	13,10	110	30	11,0	9,0	1	4245 03 01400
M 16 x 2,0	15,10	110	32	12,0	9,0	1	4245 03 01600

MF | Maschi a mano DIN 2181 HSS-G
Hand taps DIN 2181 HSS-G



Code **4101** Nr. 1



Nr. 2

MF | DIN 2181 | HSS G | ISO2 6H | 60° | 800 N/mm²

· Filettatura metrica passo fine ISO DIN 13
· Per fori passanti e ciechi
· Nr. 1 Maschio sgrossatore 5-6 spire
· Nr. 2 Maschio di finitura 2-3 spire.

· For cutting metric fine ISO-Thread DIN 13
· For through- and blind hole
· No. 1 Rougher 5-6 threads lead
· No. 2 Finisher 2-3 threads lead.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2
MF 3 x 0,35	3,15	40	9	3,5	2,7	1	4101 11 00303	4101 11 10303	4101 11 20303
MF 4 x 0,35	3,65	45	10	4,5	3,4	1	4101 11 00403	4101 11 10403	4101 11 20403
MF 4 x 0,5	3,50	45	10	4,5	3,4	1	4101 11 00405	4101 11 10405	4101 11 20405
MF 5 x 0,5	4,50	50	12	6,0	4,9	1	4101 11 00505	4101 11 10505	4101 11 20505
MF 5 x 0,75	4,25	50	12	6,0	4,9	1	4101 11 00507	4101 11 10507	4101 11 20507
MF 6 x 0,5	5,50	50	14	6,0	4,9	1	4101 11 00605	4101 11 10605	4101 11 20605
MF 6 x 0,75	5,20	50	14	6,0	4,9	1	4101 11 00607	4101 11 10607	4101 11 20607
MF 7 x 0,75	6,20	50	14	6,0	4,9	1	4101 11 00707	4101 11 10707	4101 11 20707
MF 8 x 0,5	8,50	50	19	6,0	4,9	1	4101 11 00805	4101 11 10805	4101 11 20805
MF 8 x 0,75	7,20	50	19	6,0	4,9	1	4101 11 00807	4101 11 10807	4101 11 20807
MF 8 x 1	7,00	56	22	6,0	4,9	1	4101 11 00810	4101 11 10810	4101 11 20810
MF 9 x 0,75	8,20	56	19	7,0	5,5	1	4101 11 00907	4101 11 10907	4101 11 20907
MF 9 x 1	8,00	63	20	7,0	5,5	1	4101 11 00910	4101 11 10910	4101 11 20910
MF 10 x 0,35	9,20	63	20	7,0	5,5	1	4101 11 01007	4101 11 11007	4101 11 21007
MF 10 x 1	9,00	63	20	7,0	5,5	1	4101 11 01010	4101 11 11010	4101 11 21010
MF 10 x 1,25	8,80	70	24	7,0	5,5	1	4101 11 01012	4101 11 11012	4101 11 21012
MF 11 x 1	10,00	63	20	8,0	6,2	1	4101 11 01110	4101 11 11110	4101 11 21110
MF 11 x 1,25	9,80	63	22	8,0	6,2	1	4101 11 01112	4101 11 11112	4101 11 21112
MF 12 x 0,75	11,20	70	22	9,0	7,0	1	4101 11 01207	4101 11 11207	4101 11 21207
MF 12 x 1	11,00	70	22	9,0	7,0	1	4101 11 01210	4101 11 11210	4101 11 21210
MF 12 x 1,25	10,80	70	22	9,0	7,0	1	4101 11 01212	4101 11 11212	4101 11 21212
MF 12 x 1,5	10,50	70	22	9,0	7,0	1	4101 11 01215	4101 11 11215	4101 11 21215
MF 13 x 1	12,00	70	22	11,0	9,0	1	4101 11 01310	4101 11 11310	4101 11 21310
MF 13 x 1,5	11,50	70	22	11,0	9,0	1	4101 11 01315	4101 11 11315	4101 11 21315
MF 14 x 0,75	13,25	70	22	11,0	9,0	1	4101 11 01407	4101 11 11407	4101 11 21407
MF 14 x 1	13,00	70	22	11,0	9,0	1	4101 11 01410	4101 11 11410	4101 11 21410
MF 14 x 1,25	12,80	70	22	11,0	9,0	1	4101 11 01412	4101 11 11412	4101 11 21412
MF 14 x 1,5	12,50	70	22	11,0	9,0	1	4101 11 01415	4101 11 11415	4101 11 21415
MF 15 x 1	14,00	70	22	12,0	9,0	1	4101 11 01510	4101 11 11510	4101 11 21510
MF 15 x 1,5	13,50	70	22	12,0	9,0	1	4101 11 01515	4101 11 11515	4101 11 21515
MF 16 x 1	15,00	70	22	12,0	9,0	1	4101 11 01610	4101 11 11610	4101 11 21610
MF 16 x 1,25	14,75	70	22	12,0	9,0	1	4101 11 01612	4101 11 11612	4101 11 21612
MF 16 x 1,5	14,50	70	22	12,0	9,0	1	4101 11 01615	4101 11 11615	4101 11 21615
MF 18 x 1	17,00	80	22	14,0	11,0	1	4101 11 01810	4101 11 11810	4101 11 21810
MF 18 x 1,25	16,75	80	22	14,0	11,0	1	4101 11 01812	4101 11 11812	4101 11 21812
MF 18 x 1,5	16,50	80	22	14,0	11,0	1	4101 11 01815	4101 11 11815	4101 11 21815
MF 18 x 2	16,00	80	22	14,0	11,0	1	4101 11 01820	4101 11 11820	4101 11 21820
MF 20 x 1	19,85	80	22	16,0	12,0	1	4101 11 02010	4101 11 12010	4101 11 22010
MF 20 x 1,25	18,75	80	22	16,0	12,0	1	4101 11 02012	4101 11 12012	4101 11 22012
MF 20 x 1,5	18,50	80	22	16,0	12,0	1	4101 11 02015	4101 11 12015	4101 11 22015
MF 20 x 2	20,00	80	22	16,0	12,0	1	4101 11 02020	4101 11 12020	4101 11 22020
MF 22 x 1	21,00	80	22	18,0	14,5	1	4101 11 02210	4101 11 12210	4101 11 22210
MF 22 x 1,5	20,50	80	22	18,0	14,5	1	4101 11 02215	4101 11 12215	4101 11 22215
MF 22 x 2	20,00	80	22	18,0	14,5	1	4101 11 02220	4101 11 12220	4101 11 22220
MF 24 x 1	23,00	90	22	18,0	14,5	1	4101 11 02410	4101 11 12410	4101 11 22410
MF 24 x 1,25	22,75	90	22	18,0	14,5	1	4101 11 02412	4101 11 12412	4101 11 22412
MF 24 x 1,5	22,50	90	22	18,0	14,5	1	4101 11 02415	4101 11 12415	4101 11 22415
MF 24 x 2	22,00	90	22	18,0	14,5	1	4101 11 02420	4101 11 12420	4101 11 22420
MF 25 x 1,5	23,50	90	22	18,0	14,5	1	4101 11 02515	4101 11 12515	4101 11 22515
MF 26 x 1	25,00	90	22	18,0	14,5	1	4101 11 02610	4101 11 12610	4101 11 22610
MF 26 x 1,5	24,50	90	22	18,0	14,5	1	4101 11 02615	4101 11 12615	4101 11 22615
MF 26 x 2	24,00	90	22	18,0	14,5	1	4101 11 02620	4101 11 12620	4101 11 22620
MF 27 x 1,5	25,50	90	22	20,0	16,0	1	4101 11 02715	4101 11 12715	4101 11 22715
MF 27 x 2	25,00	90	22	20,0	16,0	1	4101 11 02720	4101 11 12720	4101 11 22720
MF 28 x 1,5	26,50	90	22	20,0	16,0	1	4101 11 02815	4101 11 12815	4101 11 22815
MF 28 x 2	26,00	90	22	20,0	16,0	1	4101 11 02820	4101 11 12820	4101 11 22820
MF 30 x 1	29,00	90	22	22,0	18,0	1	4101 11 03010	4101 11 13010	4101 11 23010



Code **4101** Nr. 1



Nr. 2

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2
MF 30 x 1,5	28,50	90	22	22,0	18,0	1	4101 11 03015	4101 11 13015	4101 11 23015
MF 30 x 2	28,00	90	22	22,0	18,0	1	4101 11 03020	4101 11 13020	4101 11 23020
MF 30 x 3	27,00	125	56	22,0	18,0	1	4101 11 03030	4101 11 13030	4101 11 23030
MF 32 x 1,5	30,50	90	22	22,0	18,0	1	4101 11 03215	4101 11 13215	4101 11 23215
MF 33 x 1,5	31,50	100	25	25,0	20,0	1	4101 11 03315	4101 11 13315	4101 11 23315
MF 33 x 2	31,00	100	25	25,0	20,0	1	4101 11 03320	4101 11 13320	4101 11 23320
MF 33 x 3	30,00	125	56	25,0	20,0	1	4101 11 03330	4101 11 13330	4101 11 23330
MF 34 x 1,5	32,50	100	25	28,0	22,0	1	4101 11 03415	4101 11 13415	4101 11 23415
MF 34 x 2	32,00	125	40	28,0	22,0	1	4101 11 03420	4101 11 13420	4101 11 23420
MF 35 x 1,5	33,50	100	25	28,0	22,0	1	4101 11 03515	4101 11 13515	4101 11 23515
MF 36 x 1,5	34,50	100	25	28,0	22,0	1	4101 11 03615	4101 11 13615	4101 11 23615
MF 36 x 2	34,00	125	40	28,0	22,0	1	4101 11 03620	4101 11 13620	4101 11 23620
MF 36 x 3	33,00	125	40	28,0	22,0	1	4101 11 03630	4101 11 13630	4101 11 23630
MF 38 x 1,5	36,50	100	25	28,0	22,0	1	4101 11 03815	4101 11 13815	4101 11 23815
MF 39 x 1,5	37,50	110	25	32,0	24,0	1	4101 11 03915	4101 11 13915	4101 11 23915
MF 39 x 2	37,00	125	40	32,0	24,0	1	4101 11 03920	4101 11 13920	4101 11 23920
MF 39 x 3	36,00	125	40	32,0	24,0	1	4101 11 03930	4101 11 13930	4101 11 23930
MF 40 x 1,5	38,50	110	25	32,0	24,0	1	4101 11 04015	4101 11 14015	4101 11 24015
MF 40 x 2	38,00	125	40	32,0	24,0	1	4101 11 04020	4101 11 14020	4101 11 24020
MF 40 x 3	37,00	125	40	32,0	24,0	1	4101 11 04030	4101 11 14030	4101 11 24030
MF 42 x 1,5	40,50	110	25	32,0	24,0	1	4101 11 04215	4101 11 14215	4101 11 24215
MF 42 x 2	40,00	125	40	32,0	24,0	1	4101 11 04220	4101 11 14220	4101 11 24220
MF 42 x 3	39,00	125	40	32,0	24,0	1	4101 11 04230	4101 11 14230	4101 11 24230
MF 45 x 1,5	43,50	110	25	36,0	29,0	1	4101 11 04515	4101 11 14515	4101 11 24515
MF 45 x 2	43,00	125	40	36,0	29,0	1	4101 11 04520	4101 11 14520	4101 11 24520
MF 45 x 3	42,00	125	40	36,0	29,0	1	4101 11 04530	4101 11 14530	4101 11 24530
MF 48 x 1,5	46,50	140	40	36,0	29,0	1	4101 11 04815	4101 11 14815	4101 11 24815
MF 48 x 2	46,00	140	40	36,0	29,0	1	4101 11 04820	4101 11 14820	4101 11 24820
MF 48 x 3	45,00	140	40	36,0	29,0	1	4101 11 04830	4101 11 14830	4101 11 24830
MF 50 x 1,5	48,50	140	40	36,0	29,0	1	4101 11 05015	4101 11 15015	4101 11 25015
MF 50 x 2	48,00	140	40	36,0	29,0	1	4101 11 05020	4101 11 15020	4101 11 25020
MF 50 x 3	47,00	140	40	36,0	29,0	1	4101 11 05030	4101 11 15030	4101 11 25030
MF 52 x 1,5	50,50	140	40	40,0	32,0	1	4101 11 05215	4101 11 15215	4101 11 25215
MF 52 x 2	50,00	140	40	40,0	32,0	1	4101 11 05220	4101 11 15220	4101 11 25220
MF 52 x 3	49,00	140	40	40,0	32,0	1	4101 11 05230	4101 11 15230	4101 11 25230
MF 63 x 1,5	61,50	160	32	50,0	39,0	1	4101 11 06315	4101 11 16315	4101 11 26315

Cassetta in metallo BC / BC Metal-Box

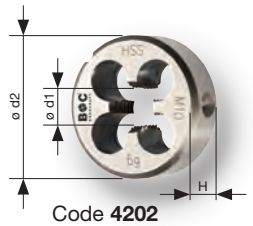
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GW 43	43 MF3 – MF 20	Set Maschi a mano 2 pz. / Hand-tap sets 2 pcs., DIN 2181 HSS-G, Filiere tonde / Circular dies DIN EN 22568 HSS-G, MF3 x 0,35 · MF4 x 0,5 · MF5 x 0,5 · MF6 x 0,75 · MF8 x 1,0 · MF10 x 1,0 · MF12 x 1,5 · MF14 x 1,5 · MF16 x 1,5 · MF18 x 1,50 · MF20 x 1,5 Porta filiere / Holders DIN 225, 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 10 · 45 x 14, Giramaschi / Tap wrenches DIN 1814 Gr. 1 + 3, Contafiletti / Gauge, Giravite / Screwdriver	6000 14 10043



Cassetta in legno BC / BC Wooden-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GWH MF	47 MF6 – MF24	Set Maschi a mano 2 pz. / Hand-tap sets 2 pcs. DIN 2181 + Filiere tonde / Circular dies DIN EN 22568 MF6 x 0,75 · MF8 x 0,75 · MF8 x 1,0 · MF10 x 1,0 · MF12 x 1,0 · MF12 x 1,5 · MF14 x 1,25 · MF14 x 1,5 · MF16 x 1,5 · MF18 x 1,50 · MF20 x 1,5 · MF22 x 1,5 · MF24 x 1,5, Porta filiere / Holders DIN 225 20 x 7 · 25 x 9 · 30 x 11 · 38 x 10 · 45 x 14 · 55 x 16 Giramaschi / Tap wrenches DIN 1814, Gr. 1 + 4	6000 14 50047





Code **4202**

MF | DIN EN 22568 | HSS G | FORM B | Tol. 6g | 60° | 800 N/mm²

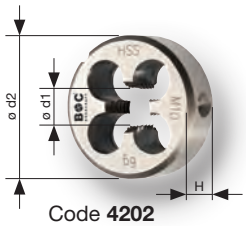
Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Filettatura metrica passo fine ISO DIN 13
· Forma B = imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting metric fine ISO-Thread DIN 13
· Form B = preslotted, closed.

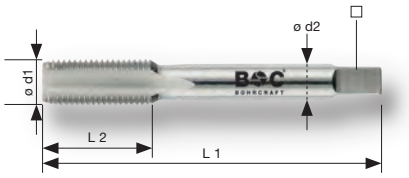
Ø d1 mm	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
MF 3 x 0,35	2,94	20	5	1	4202 11 00303
MF 4 x 0,35	3,94	20	5	1	4202 11 00403
MF 4 x 0,5	3,93	20	5	1	4202 11 00405
MF 5 x 0,5	4,93	20	5	1	4202 11 00505
MF 5 x 0,75	4,91	20	7	1	4202 11 00507
MF 6 x 0,5	5,93	20	5	1	4202 11 00605
MF 6 x 0,75	5,90	20	7	1	4202 11 00607
MF 7 x 0,75	6,90	20	7	1	4202 11 00707
MF 8 x 0,5	7,93	25	9	1	4202 11 00805
MF 8 x 0,75	7,90	25	9	1	4202 11 00807
MF 8 x 1	7,83	25	9	1	4202 11 00810
MF 9 x 0,75	8,90	25	9	1	4202 11 00907
MF 9 x 1	8,88	25	9	1	4202 11 00910
MF 10 x 0,75	9,90	30	11	1	4202 11 01007
MF 10 x 1	9,88	30	11	1	4202 11 01010
MF 10 x 1,25	9,86	30	11	1	4202 11 01012
MF 11 x 1	10,88	30	11	1	4202 11 01110
MF 11 x 1,25	10,86	30	11	1	4202 11 01112
MF 12 x 0,75	11,90	38	10	1	4202 11 01207
MF 12 x 1	11,88	38	10	1	4202 11 01210
MF 12 x 1,25	11,86	38	10	1	4202 11 01212
MF 12 x 1,5	11,85	38	10	1	4202 11 01215
MF 13 x 1	12,88	38	10	1	4202 11 01310
MF 13 x 1,5	12,85	38	10	1	4202 11 01315
MF 14 x 0,75	13,90	38	10	1	4202 11 01407
MF 14 x 1	13,88	38	10	1	4202 11 01410
MF 14 x 1,25	13,86	38	10	1	4202 11 01412
MF 14 x 1,5	13,85	38	10	1	4202 11 01415
MF 15 x 1	14,88	38	10	1	4202 11 01510
MF 15 x 1,5	14,85	38	10	1	4202 11 01515
MF 16 x 1	15,88	45	14	1	4202 11 01610
MF 16 x 1,25	15,86	45	14	1	4202 11 01612
MF 16 x 1,5	15,85	45	14	1	4202 11 01615
MF 18 x 1	17,88	45	14	1	4202 11 01810
MF 18 x 1,25	17,86	45	14	1	4202 11 01812
MF 18 x 1,5	17,85	45	14	1	4202 11 01815
MF 18 x 2	17,82	45	14	1	4202 11 01820
MF 20 x 1	19,85	45	14	1	4202 11 02010
MF 20 x 1,25	19,86	45	14	1	4202 11 02012
MF 20 x 1,5	19,85	45	14	1	4202 11 02015
MF 20 x 2	19,82	45	14	1	4202 11 02020
MF 22 x 1	21,88	55	16	1	4202 11 02210
MF 22 x 1,5	21,85	55	16	1	4202 11 02215
MF 22 x 2	21,82	55	16	1	4202 11 02220
MF 24 x 1	23,88	55	16	1	4202 11 02410
MF 24 x 1,25	23,86	55	16	1	4202 11 02412
MF 24 x 1,5	23,85	55	16	1	4202 11 02415
MF 24 x 2	22,82	55	16	1	4202 11 02420
MF 25 x 1,5	24,85	55	16	1	4202 11 02515
MF 26 x 1	25,88	55	16	1	4202 11 02610
MF 26 x 1,5	25,85	55	16	1	4202 11 02615
MF 26 x 2	25,82	55	16	1	4202 11 02620
MF 27 x 1,5	26,85	65	18	1	4202 11 02715
MF 27 x 2	26,82	65	18	1	4202 11 02720
MF 28 x 1,5	27,85	65	18	1	4202 11 02815
MF 28 x 2	27,82	65	18	1	4202 11 02820



Code **4202**

Ø d1 mm	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
MF 30 x 1	29,88	65	18	1	4202 11 03010
MF 30 x 1,5	29,85	65	18	1	4202 11 03015
MF 30 x 2	29,82	65	18	1	4202 11 03020
MF 30 x 3	29,76	65	25	1	4202 11 03030
MF 32 x 1,5	31,85	65	18	1	4202 11 03215
MF 33 x 1,5	32,85	65	18	1	4202 11 03315
MF 33 x 2	32,82	65	18	1	4202 11 03320
MF 33 x 3	32,76	65	25	1	4202 11 03330
MF 34 x 1,5	33,85	65	18	1	4202 11 03415
MF 34 x 2	33,82	65	18	1	4202 11 03420
MF 35 x 1,5	34,85	65	18	1	4202 11 03515
MF 36 x 1,5	35,85	65	18	1	4202 11 03615
MF 36 x 2	35,82	65	18	1	4202 11 03620
MF 36 x 3	35,76	65	25	1	4202 11 03630
MF 38 x 1,5	37,85	75	20	1	4202 11 03815
MF 39 x 1,5	38,85	75	30	1	4202 11 03915
MF 39 x 2	38,82	75	20	1	4202 11 03920
MF 39 x 3	38,76	75	30	1	4202 11 03930
MF 40 x 1,5	39,85	75	20	1	4202 11 04015
MF 40 x 2	39,82	75	20	1	4202 11 04020
MF 40 x 3	39,76	75	30	1	4202 11 04030
MF 42 x 1,5	41,85	75	20	1	4202 11 04215
MF 42 x 2	41,82	75	20	1	4202 11 04220
MF 42 x 3	41,76	75	30	1	4202 11 04230
MF 45 x 1,5	44,85	90	22	1	4202 11 04515
MF 45 x 2	44,82	90	22	1	4202 11 04520
MF 45 x 3	44,76	90	36	1	4202 11 04530
MF 48 x 1,5	47,85	90	22	1	4202 11 04815
MF 48 x 2	47,82	90	22	1	4202 11 04820
MF 48 x 3	47,46	90	36	1	4202 11 04830
MF 50 x 1,5	49,85	90	22	1	4202 11 05015
MF 50 x 2	49,82	90	22	1	4202 11 05020
MF 50 x 3	49,76	90	36	1	4202 11 05030
MF 52 x 1,5	51,85	90	22	1	4202 11 05215
MF 52 x 2	51,82	90	22	1	4202 11 05220
MF 52 x 3	51,76	90	36	1	4202 11 05230
MF 63 x 1,5	62,92	105	22	1	4202 11 06315

MF | Maschi a macchina corti DIN 2181 HSS-G
Short machine taps DIN 2181 HSS-G



Code **4131**

MF | DIN 2181 | HSS G | C | ISO2 6H | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4131	●	●					●	●			●

· Filettatura metrica passo fine ISO DIN 13
· Per uso manuale e a macchina
· Maschio con imbocco corto 2-3 spire per fori passanti e ciechi.

· For cutting metric fine ISO-Thread DIN 13
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
MF 4 x 0,35	3,65	45,0	10,0	4,5	3,4	1	4131 03 00403
MF 5 x 0,75	4,25	50,0	12,0	6,0	4,9	1	4131 03 00507
MF 6 x 0,75	5,20	50,0	14,0	6,0	4,9	1	4131 03 00607
MF 7 x 0,75	6,20	50,0	14,0	6,0	4,9	1	4131 03 00707
MF 8 x 0,5	7,50	50,0	19,0	6,0	4,9	1	4131 03 00805
MF 8 x 0,75	7,20	50,0	19,0	6,0	4,9	1	4131 03 00807
MF 8 x 1	7,00	56,0	22,0	6,0	4,9	1	4131 03 00810
MF 9 x 0,75	8,20	50,0	19,0	7,0	4,9	1	4131 03 00907
MF 9 x 1	8,00	63,0	20,0	7,0	5,5	1	4131 03 00910
MF 10 x 0,75	9,20	63,0	20,0	7,0	5,5	1	4131 03 01007
MF 10 x 1	9,00	63,0	20,0	7,0	5,5	1	4131 03 01010
MF 10 x 1,25	8,80	70,0	24,0	7,0	5,5	1	4131 03 01012
MF 11 x 1	10,00	63,0	20,0	8,0	6,2	1	4131 03 01110
MF 11 x 1,25	9,80	63,0	22,0	8,0	6,2	1	4131 03 01112
MF 12 x 0,75	11,20	70,0	22,0	9,0	7,0	1	4131 03 01207
MF 12 x 1	11,00	70,0	22,0	9,0	7,0	1	4131 03 01210
MF 12 x 1,25	10,80	70,0	22,0	9,0	7,0	1	4131 03 01212
MF 12 x 1,5	10,50	70,0	22,0	9,0	7,0	1	4131 03 01215
MF 13 x 1	12,00	70,0	22,0	11,0	9,0	1	4131 03 01310
MF 13 x 1,5	11,50	70,0	22,0	11,0	9,0	1	4131 03 01315
MF 14 x 0,75	13,25	70,0	22,0	11,0	9,0	1	4131 03 01407
MF 14 x 1	13,00	70,0	22,0	11,0	9,0	1	4131 03 01410
MF 14 x 1,25	12,80	70,0	22,0	11,0	9,0	1	4131 03 01412
MF 14 x 1,5	12,50	70,0	22,0	11,0	9,0	1	4131 03 01415
MF 15 x 1	14,00	70,0	22,0	12,0	9,0	1	4131 03 01510
MF 15 x 1,5	13,50	70,0	22,0	12,0	9,0	1	4131 03 01515
MF 16 x 1	15,00	70,0	22,0	12,0	9,0	1	4131 03 01610
MF 16 x 1,5	14,50	70,0	22,0	12,0	9,0	1	4131 03 01615
MF 18 x 1	17,00	80,0	22,0	14,0	11,0	1	4131 03 01810
MF 18 x 1,25	16,75	80,0	22,0	14,0	11,0	1	4131 03 01812
MF 18 x 1,5	16,50	80,0	22,0	14,0	11,0	1	4131 03 01815
MF 20 x 1,25	18,75	80,0	22,0	16,0	12,0	1	4131 03 02012
MF 20 x 1,5	18,50	80,0	22,0	16,0	12,0	1	4131 03 02015
MF 20 x 2	20,00	80,0	22,0	16,0	12,0	1	4131 03 02020
MF 22 x 1	21,00	80,0	22,0	18,0	14,5	1	4131 03 02210
MF 22 x 1,5	20,50	80,0	22,0	18,0	14,5	1	4131 03 02215
MF 22 x 2	20,00	80,0	22,0	18,0	14,5	1	4131 03 02220
MF 24 x 1	23,00	90,0	22,0	18,0	14,5	1	4131 03 02410
MF 24 x 1,25	22,75	90,0	22,0	18,0	14,5	1	4131 03 02412
MF 24 x 1,5	22,50	90,0	22,0	18,0	14,5	1	4131 03 02415
MF 24 x 2	22,00	90,0	22,0	18,0	14,5	1	4131 03 02420
MF 25 x 1,5	23,50	90,0	22,0	18,0	14,5	1	4131 03 02515
MF 26 x 1	25,00	90,0	22,0	18,0	14,5	1	4131 03 02610
MF 26 x 1,5	24,50	90,0	22,0	18,0	14,5	1	4131 03 02615
MF 26 x 2	24,00	90,0	22,0	18,0	14,5	1	4131 03 02620
MF 27 x 1,5	25,50	90,0	22,0	20,0	16,0	1	4131 03 02715
MF 27 x 2	25,00	90,0	22,0	20,0	16,0	1	4131 03 02720
MF 28 x 1,5	26,50	90,0	22,0	20,0	16,0	1	4131 03 02815
MF 28 x 2	26,00	90,0	22,0	20,0	16,0	1	4131 03 02820
MF 30 x 1	29,00	90,0	22,0	22,0	18,0	1	4131 03 03010
MF 30 x 1,5	28,50	90,0	22,0	22,0	18,0	1	4131 03 03015
MF 30 x 2	28,00	90,0	22,0	22,0	18,0	1	4131 03 03020
MF 30 x 3	27,00	125,0	56,0	22,0	18,0	1	4131 03 03030
MF 32 x 1,5	30,50	90,0	22,0	22,0	18,0	1	4131 03 03215



Code **4165**



Code **4166**

MF | DIN 374 | HSS-E Co5 | ISO2 6H | 60° | B | 3 x D

FORM C | 35° | 2,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4165 · 4166	●	●	●				●	●	●		●

· Filettatura metrica passo fine ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire
· Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°.

· For cutting metric fine ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 35° = 2-3 threads lead with spiral flute 35°.

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 35° Art.-Nr. Part-No.
			B	C 35°					
MF 3 x 0,35	2,60	56	9	5	2,2	-	1	4165 03 00303	4166 03 00303
MF 4 x 0,5	3,50	63	10	5	2,8	2,1	1	4165 03 00405	4166 03 00405
MF 5 x 0,5	4,50	70	12	5	3,5	2,7	1	4165 03 00505	4166 03 00505
MF 6 x 0,5	5,50	80	14	5	4,5	3,4	1	4165 03 00605	4166 03 00605
MF 6 x 0,75	5,20	80	14	8	4,5	3,4	1	4165 03 00607	4166 03 00607
MF 8 x 0,75	7,20	80	19	8	6,0	4,9	1	4165 03 00807	4166 03 00807
MF 8 x 1	7,00	90	22	10	6,0	4,9	1	4165 03 00810	4166 03 00810
MF 10 x 0,75	9,20	90	20	10	7,0	5,5	1	4165 03 01007	4166 03 01007
MF 10 x 1	9,00	90	20	10	7,0	5,5	1	4165 03 01010	4166 03 01010
MF 10 x 1,25	8,80	100	24	16	7,0	5,5	1	4165 03 01012	4166 03 01012
MF 12 x 1	11,00	100	22	11	9,0	7,0	1	4165 03 01210	4166 03 01210
MF 12 x 1,25	10,80	100	22	15	9,0	7,0	1	4165 03 01212	4166 03 01212
MF 12 x 1,5	10,50	100	22	15	9,0	7,0	1	4165 03 01215	4166 03 01215
MF 14 x 1	13,00	100	22	11	11,0	9,0	1	4165 03 01410	4165 03 01410
MF 14 x 1,25	12,80	100	22	15	11,0	9,0	1	4165 03 01412	4166 03 01412
MF 14 x 1,5	12,50	100	22	15	11,0	9,0	1	4165 03 01415	4166 03 01415
MF 16 x 1	15,00	100	22	12	12,0	9,0	1	4165 03 01610	4166 03 01610
MF 16 x 1,25	14,75	100	22	15	12,0	9,0	1	4165 03 01612	4166 03 01612
MF 16 x 1,5	14,50	100	22	15	12,0	9,0	1	4165 03 01615	4166 03 01615
MF 18 x 1	17,00	110	25	17	14,0	11,0	1	4165 03 01810	4166 03 01810
MF 18 x 1,5	16,50	110	25	17	14,0	11,0	1	4165 03 01815	4166 03 01815
MF 18 x 2	16,00	125	25	20	14,0	11,0	1	4165 03 01820	4166 03 01820
MF 20 x 1	19,00	125	25	14	16,0	12,0	1	4165 03 02010	4166 03 02010
MF 20 x 1,5	18,50	125	25	17	16,0	12,0	1	4165 03 02015	4166 03 02015
MF 20 x 2	18,00	140	25	20	16,0	12,0	1	4165 03 02020	4166 03 02020
MF 22 x 1	21,00	125	25	14	18,0	14,5	1	4165 03 02210	4166 03 02210
MF 22 x 1,5	20,50	125	25	17	18,0	14,5	1	4165 03 02215	4166 03 02215
MF 22 x 2	20,00	140	34	20	18,0	14,5	1	4165 03 02220	4166 03 02220
MF 24 x 1	23,00	140	28	15	18,0	14,5	1	4165 03 02410	4166 03 02410
MF 24 x 1,5	22,50	140	28	20	18,0	14,5	1	4165 03 02415	4166 03 02415
MF 24 x 2	22,00	140	28	20	18,0	14,5	1	4165 03 02420	4166 03 02420
MF 25 x 1,5	23,50	140	28	20	18,0	14,5	1	4165 03 02515	4166 03 02515
MF 26 x 1,5	24,50	140	28	20	18,0	14,5	1	4165 03 02615	4166 03 02615
MF 27 x 1,5	25,50	140	28	20	20,0	16,0	1	4165 03 02715	4166 03 02715
MF 28 x 1,5	26,50	140	28	20	20,0	16,0	1	4165 03 02815	4166 03 02815
MF 30 x 1,5	28,50	150	28	22	22,0	18,0	1	4165 03 03015	4166 03 03015
MF 30 x 2	28,00	150	28	22	22,0	18,0	1	4165 03 03020	4166 03 03020

MF | Maschi a macchina UNI DIN 374 HSS-E (Co5)
UNI machine taps DIN 374 HSS-E (Co5)



Code **4139**

MF | DIN 374 | HSS-E Co5 | Grünring | C | 1,5 x D | 1,5 x D
UNI | ISO2 6H | 60° | 1000 N/mm²

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4139	●	●	●	◐			●	◐	●	◐	◐

Per impiego universale su acciai strutturali generali, acciai per lavorazioni ad alta velocità (automatici), acciai da cementazione non legati e leghe di alluminio (truciolo corto).

· Filettatura metrica passo fine ISO DIN 13
· Forma C - Maschio con imbocco corto 2-3 spire
· Per fori passanti e ciechi.

For universal use in general structural steel, free-cutting steel, unalloyed case hardening steel and aluminium-alloys (short chipping).

· For cutting metric fine ISO-Thread DIN 13
· Form C = 2 – 3 threads lead
· For through- and blind hole.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
MF 6 x 0,75	5,2	80	15	4,5	3,4	1	4139 03 00607
MF 8 x 1	7,0	90	18	6,0	4,9	1	4139 03 00810
MF 10 x 1	9,0	90	20	7,0	5,5	1	4139 03 01010
MF 12 x 1	11,0	100	21	9,0	7,0	1	4139 03 01210
MF 12 x 1,25	10,8	100	21	9,0	7,0	1	4139 03 01212
MF 14 x 1,25	10,5	100	21	9,0	7,0	1	4139 03 01215
MF 14 x 1,5	12,8	100	21	11,0	9,0	1	4139 03 01412
MF 16 x 1,5	12,5	100	21	11,0	9,0	1	4139 03 01415
MF 18 x 1,5	14,5	100	21	12,0	9,0	1	4139 03 01615
MF 20 x 1,5	16,5	110	24	14,0	11,0	1	4139 03 01815
MF 22 x 1,5	18,5	125	24	16,0	12,0	1	4139 03 02015
MF 22 x 2	20,5	125	24	18,0	14,5	1	4139 03 02215
MF 24 x 1,5	22,5	140	26	18,0	14,5	1	4139 03 02415
MF 26 x 1,5	24,5	140	26	18,0	14,5	1	4139 03 02615
MF 30 x 1,5	28,5	150	28	22,0	18,0	1	4139 03 03015

Maschi a macchina INOX DIN 374 HSS-E (Co5) VAP
INOX machine taps DIN 374 HSS-E (Co5) VAP

MF



Code **4146**



Code **4156**

MF | DIN 374 | HSS-E Co5 | VAP | Blauring | B | 3 x D | FORM C | 40° | 2,5 x D | VA INOX | ISO2 6H | 60° | 1000 N/mm²

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4146 · 4156			●	●	●	●					

Speciale geometria del tagliente con superficie vaporizzata, particolarmente adatto per la lavorazione di acciai come AISI 304 e 316.

· Filettatura metrica passo fine ISO DIN 13
· Forma B - Maschio con imbocco corretto 4-5 spire
· Form C 40° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 40°.

Special cutting edge geometry and vap. surface, especially suitable for stainless steels like AISI 304 and 316.

· For cutting metric fine ISO-Thread DIN 13
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 40° = 2-3 threads lead with spiral flute 40°.

Ø d1 mm		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 40° Art.-Nr. Part-No.
			B	C 40°					
MF 6 x 0,75	5,2	80	14	8	4,5	3,4	1	4146 03 00607	4156 03 00607
MF 8 x 0,75	7,2	80	19	8	6,0	4,9	1	4146 03 00807	4156 03 00807
MF 8 x 1	7,0	90	22	10	6,0	4,9	1	4146 03 00810	4156 03 00810
MF 10 x 1	9,0	90	20	10	7,0	5,5	1	4146 03 01010	4156 03 01010
MF 12 x 1	11,0	100	22	11	9,0	7,0	1	4146 03 01210	4156 03 01210
MF 12 x 1,5	10,5	100	22	15	9,0	7,0	1	4146 03 01215	4156 03 01215
MF 14 x 1,5	12,5	100	22	15	11,0	9,0	1	4146 03 01415	4156 03 01415
MF 16 x 1,5	14,5	100	22	15	12,0	9,0	1	4146 03 01615	4156 03 01615
MF 18 x 1,5	16,5	110	25	17	14,0	11,0	1	4146 03 01815	4156 03 01815
MF 20 x 1,5	18,5	125	25	17	16,0	12,0	1	4146 03 02015	4156 03 02015



Code **4102** Nr. 1



Nr. 2

G BSP | DIN 5157 | HSS G | 55° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Filettatura Whitworth secondo DIN ISO 228/1 per fori passanti e ciechi
· Nr. 1 Maschio sgrossatore 5-6 spire
· Nr. 2 Maschio di finitura 2-3 spire.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting whitworth pipe threads acc. to DIN ISO 228/1 for through- and blind hole.
· No. 1 Rougher 5-6 threads lead
· No. 2 Finisher 2-3 threads lead.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2
G 1/8" x 28	8,80	63	20	7	5,5	1	4102 11 00018	4102 11 10018	4102 11 20018
G 1/4" x 19	11,80	70	22	11	9,0	1	4102 11 00014	4102 11 10014	4102 11 20014
G 3/8" x 19	15,25	70	22	12	9,0	1	4102 11 00038	4102 11 10038	4102 11 20038
G 1/2" x 14	19,00	80	22	16	12,0	1	4102 11 00012	4102 11 10012	4102 11 20012
G 5/8" x 14	21,00	80	22	18	14,5	1	4102 11 00058	4102 11 10058	4102 11 20058
G 3/4" x 14	24,50	90	22	20	16,0	1	4102 11 00034	4102 11 10034	4102 11 20034
G 7/8" x 14	28,25	90	22	22	18,0	1	4102 11 00078	4102 11 10078	4102 11 20078
G 1" x 11	30,75	100	25	25	20,0	1	4102 11 00100	4102 11 10100	4102 11 20100
G 1.1/4" x 11	39,50	125	40	40	24,0	1	4102 11 00114	4102 11 10114	4102 11 20114
G 1.1/2" x 11	45,00	140	40	40	29,0	1	4102 11 00112	4102 11 10112	4102 11 20112
G 2" x 11	57,00	160	40	40	35,0	1	4102 11 00200	4102 11 10200	4102 11 20200

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GW 28	28 G · BSP 1/8" – G 1"	Set Maschi a mano 2 pz. / Hand-tap sets of 2 pcs. DIN 5157 HSS + Filiere tonde / Circular dies DIN EN 24231 HSS G 1/8" · G 1/4" · G 3/8" · G 1/2" · G 3/4" · G 1" Porta filiere / Holders DIN 225 30 x 11 · 38 x 10 · 45 x 14 · 55 x 16 · 65 x 18 Giramaschi / Tap wrenches DIN 1814 Gr. 1 + 3 + 5 Contafiletti / Gauge, Giravite / Screwdriver	6000 14 10028

Cassetta in legno BC / BC Wooden-Box

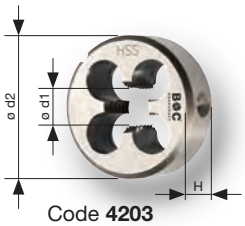
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GWH G	25 G · BSP 1/8" – G 1"	Set Maschi a mano 2 pz. / Hand-tap sets 2 pcs. DIN 5157 + Filiere tonde / Circular dies DIN EN 24231 HSS G 1/8" · G 1/4" · G 3/8" · G 1/2" · G 3/4" · G 1" Porta filiere / Holders DIN 225 30 x 11 · 38 x 10 · 45 x 14 · 55 x 16 · 65 x 18 Giramaschi / Tap wrenches DIN 1814, Gr. 3 + 5	6000 14 50026



GW 28



GWH G



Code **4203**

G BSP | DIN EN 24231 | HSS G | FORM B | 55° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

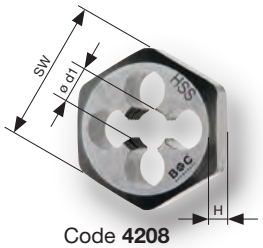
· Filettatura Whitworth DIN ISO 228/1
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting whitworth pipe threads acc. to DIN ISO 228/1
· Form B = preslotted, closed.

Ø d1	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
G 1/8" x 28	9,62	30	11	1	4203 11 00018
G 1/4" x 19	13,03	38	10	1	4203 11 00014
G 3/8" x 19	16,53	45	14	1	4203 11 00038
G 1/2" x 14	20,81	45	14	1	4203 11 00012
G 5/8" x 14	22,77	55	16	1	4203 11 00058
G 3/4" x 14	26,30	55	16	1	4203 11 00034
G 7/8" x 14	30,06	65	18	1	4203 11 00078
G 1" x 11	33,07	65	18	1	4203 11 00100
G 1.1/4" x 11	41,73	75	20	1	4203 11 00114
G 1.1/2" x 11	47,62	90	22	1	4203 11 00112
G 2" x 11	59,43	105	22	1	4203 11 00200

BSP · Dadi maschianti DIN 382 HSS-G
BSP · Hexagon die nuts DIN 382 HSS-G



Code **4208**

G BSP | DIN 382 | HSS G | 55° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Filettatura Whitworth DIN ISO 228/1
· Ideale per lavorazioni in aree di difficile accesso.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting whitworth pipe threads acc. to DIN ISO 228
· Ideal for operations at difficult accesssible places.

Ø d1	Barra / Bolt mm	SW mm	H mm		Art.-Nr. Part-No.
G 1/8" x 28	9,62	27	11	1	4208 11 00018
G 1/4" x 19	13,03	36	10	1	4208 11 00014
G 3/8" x 19	16,53	41	14	1	4208 11 00038
G 1/2" x 14	20,81	41	14	1	4208 11 00012
G 5/8" x 14	22,77	50	16	1	4208 11 00058
G 3/4" x 14	26,30	50	16	1	4208 11 00034
G 7/8" x 14	30,06	60	18	1	4208 11 00078
G 1" x 11	33,07	60	18	1	4208 11 00100



Code **4132**

G BSP | DIN 5157 | HSS G | C | 55° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4132	●	●					●	●			●

· Filettatura Whitworth secondo DIN ISO 228-1
· Per uso manuale e a macchina
· Maschio con imbocco corto per fori passanti e ciechi.

· For cutting whitworth pipe threads acc. to DIN ISO 228/1
· For manual and machine use
· 2 – 3 threads lead for through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
G 1/8" x 28	8,80	63	20	7,0	5,5	1	4132 03 00018
G 1/4" x 19	11,80	70	22	11,0	9,0	1	4132 03 00014
G 3/8" x 19	15,25	70	22	12,0	9,0	1	4132 03 00038
G 1/2" x 14	19,00	80	22	16,0	12,0	1	4132 03 00012
G 3/4" x 14	24,50	90	22	20,0	16,0	1	4132 03 00034
G 1" x 11	30,75	100	25	25,0	20,0	1	4132 03 00100
G 1.1/4" x 11	39,50	125	40	40,0	24,0	1	4132 03 00114
G 1.1/2" x 11	45,25	140	40	40,0	29,0	1	4132 03 00112
G 2" x 11	57,00	160	40	40,0	35,0	1	4132 03 00200

G BSP · Maschi a macchina DIN 5156 HSS-E (Co5)
BSP · Machine taps DIN 5156 HSS-E (Co5)



Code **4175**



Code **4176**

G BSP | DIN 5156 | HSS-E Co5 | B | 3 x D | FORM C | 35° | 2,5 x D | 55°

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4175 · 4176	●	●	○				●	○	○		○

· Filettatura Whitworth secondo DIN ISO 228-1
· Forma B - Maschio con imbocco corretto 4-5 spire
· Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°.

· For cutting whitworth pipe threads acc. to DIN ISO 228/1
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 35° = 2-3 threads lead with spiral flute 35°.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 35° Art.-Nr. Part-No.
G 1/8" x 28	8,80	90	20	7,0	5,5	1	4175 03 00018	4176 03 00018
G 1/4" x 19	11,80	100	22	11,0	9,0	1	4175 03 00014	4176 03 00014
G 3/8" x 19	15,25	100	22	12,0	9,0	1	4175 03 00038	4176 03 00038
G 1/2" x 14	19,00	125	25	16,0	12,0	1	4175 03 00012	4176 03 00012
G 3/4" x 14	24,50	140	28	20,0	16,0	1	4175 03 00034	4176 03 00034
G 1" x 11	30,75	160	30	25,0	20,0	1	4175 03 00100	4176 03 00100

Maschi a macchina UNI DIN 5156 HSS-E (Co5) · BSP
UNI machine taps DIN 5156 HSS-E (Co5) · BSP

G



Code **4247**

G BSP | DIN 5156 | HSS-E Co5 | Grünring | C | 1,5 x D | 1,5 x D | UNI | 55° | 1000 N/mm²

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4247	●	●	●	◐			●	◐	●	◐	◐

Per impiego universale su acciai strutturali generali, acciai per lavorazioni ad alta velocità (automatici), acciai da cementazione non legati e leghe di alluminio (truciolo corto).

· Filettatura Whitworth secondo DIN ISO 228-1
· Forma C - 3 Maschio con imbocco corto 2-3 spire
· Per fori passanti e ciechi.

For universal use in general structural steel, free-cutting steel, unalloyed case hardening steel and aluminium-alloys (short chipping).

· For cutting whitworth pipe threads acc. to ISO 228/1
· Form C = 2-3 threads lead
· For through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
G 1/8" x 28	8,80	90	20	7	5,5	1	4247 03 00018
G 1/4" x 19	11,80	100	21	11	9,0	1	4247 03 00014
G 3/8" x 19	15,25	100	21	12	9,0	1	4247 03 00038
G 1/2" x 14	19,00	125	24	16	12,0	1	4247 03 00012
G 5/8" x 14	21,00	125	24	18	14,5	1	4247 03 00058
G 3/4" x 14	24,50	140	26	20	16,0	1	4247 03 00034
G 7/8" x 14	28,25	150	28	22	18,0	1	4247 03 00078
G 1" x 11	30,75	160	30	25	20,0	1	4247 03 00100

BSW | Maschi a mano tipo DIN 352 HSS-G
Hand taps similar DIN 352 HSS-G



Code **4103** Nr. 1



Nr. 2



Nr. 3

BSW | -DIN 352 | HSS G | 55° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Filettatura BSW Whitworth secondo BS 84 per fori passanti e ciechi
· Nr. 1 Maschio sgrossatore (imbocco: 6-8 spire)
· Nr. 2 Maschio intermedio (imbocco: 4-5 spire)
· Nr. 3 Maschio di finitura (imbocco: 2-3 spire).

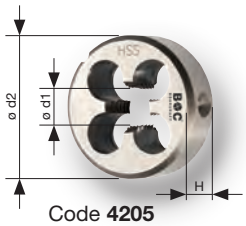
For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting british-standard-whitworth-threadss acc. to BS 84 for through- and blind hole
· No. 1 Rougher 6-8 threads lead
· No. 2 Intermediate 4-5 threads lead
· No. 3 Finisher 2-3 threads lead.



BSW

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Seie / Set	Nr. 1	Nr. 2	Nr. 3
BSW 1/8" x 40	2,60	40	12	3,5	2,7	1	4103 11 00018	4103 11 10018	4103 11 20018	4103 11 30018
BSW 5/32" x 32	3,10	45	14	4,5	3,4	1	4103 11 00532	4103 11 10532	4103 11 20532	4103 11 30532
BSW 3/16" x 24	3,60	50	18	6,0	4,9	1	4103 11 00316	4103 11 10316	4103 11 20316	4103 11 30316
BSW 1/4" x 20	5,10	50	19	6,0	4,9	1	4103 11 00014	4103 11 10014	4103 11 20014	4103 11 30014
BSW 5/16" x 18	6,50	56	22	6,0	4,9	1	4103 11 00516	4103 11 10516	4103 11 20516	4103 11 30516
BSW 3/8" x 16	7,90	70	24	7,0	5,5	1	4103 11 00038	4103 11 10038	4103 11 20038	4103 11 30038
BSW 7/16" x 14	9,30	70	24	8,0	6,2	1	4103 11 00716	4103 11 10716	4103 11 20716	4103 11 30716
BSW 1/2" x 12	10,50	75	29	9,0	7,0	1	4103 11 00012	4103 11 10012	4103 11 20012	4103 11 30012
BSW 9/16" x 12	12,00	80	30	11,0	9,0	1	4103 11 00916	4103 11 10916	4103 11 20916	4103 11 30916
BSW 5/8" x 11	13,50	80	32	12,0	9,0	1	4103 11 00058	4103 11 10058	4103 11 20058	4103 11 30058
BSW 3/4" x 10	16,50	95	40	14,0	11,0	1	4103 11 00034	4103 11 10034	4103 11 20034	4103 11 30034
BSW 7/8" x 9	19,25	100	40	18,0	14,5	1	4103 11 00078	4103 11 10078	4103 11 20078	4103 11 30078
BSW 1" x 8	22,00	110	50	18,0	14,5	1	4103 11 00100	4103 11 10100	4103 11 20100	4103 11 30100



Code **4205**

BSW | DIN EN 22568 | HSS G | FORM B | 55° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

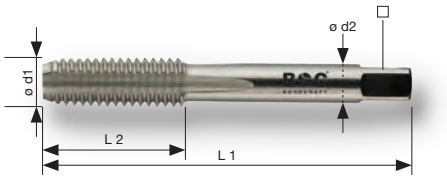
· Filettatura BSW Whitworth secondo BS 84
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting british-standard-whitworth-threads acc. to BS 84
· Form B = preslotted, closed

Ø d1	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
BSW 1/8" x 40	3,09	20	5	1	4205 11 00018
BSW 5/32" x 32	3,88	20	5	1	4205 11 00532
BSW 3/16" x 24	4,46	20	7	1	4205 11 00316
BSW 1/4" x 20	6,17	20	7	1	4205 11 00014
BSW 5/16" x 18	7,76	25	9	1	4205 11 00516
BSW 3/8" x 16	9,30	30	11	1	4205 11 00038
BSW 7/16" x 14	10,90	30	11	1	4205 11 00716
BSW 1/2" x 12	12,44	38	14	1	4205 11 00012
BSW 9/16" x 12	14,02	38	14	1	4205 11 00916
BSW 5/8" x 11	15,62	45	18	1	4205 11 00058
BSW 3/4" x 10	18,76	45	18	1	4205 11 00034
BSW 7/8" x 9	21,90	55	22	1	4205 11 00078
BSW 1" x 8	25,08	55	22	1	4205 11 00100

BSW | Maschi a macchina corti tipo DIN 352 HSS-G
Short machine taps similar DIN 352 HSS-G



Code **4133**

BSW | DIN 352 | HSS G | C | 55° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4133	●	●					●	●			●

· Filettatura BSW Whitworth secondo BS 84
· Per uso manuale e a macchina
· Maschio con imbocco corto 2-3 spire per fori passanti e ciechi.

· For cutting british-standard-whitworth-threads acc. to BS 84
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
BSW 1/8" x 40	2,60	40	12	3,5	2,7	1	4133 03 00018
BSW 3/16" x 24	3,60	50	18	6,0	4,9	1	4133 03 00316
BSW 1/4" x 20	5,10	50	19	6,0	4,9	1	4133 03 00014
BSW 5/16" x 18	6,50	56	22	6,0	4,9	1	4133 03 00516
BSW 3/8" x 16	7,90	70	24	7,0	5,5	1	4133 03 00038
BSW 7/16" x 14	9,30	70	24	8,0	6,2	1	4133 03 00716
BSW 1/2" x 12	10,50	75	29	9,0	7,0	1	4133 03 00012
BSW 9/16" x 12	12,00	80	30	11,0	9,0	1	4133 03 00916
BSW 5/8" x 11	13,50	80	32	12,0	9,0	1	4133 03 00058
BSW 3/4" x 10	16,50	95	40	14,0	11,0	1	4133 03 00034
BSW 7/8" x 9	19,25	100	40	18,0	14,5	1	4133 03 00078
BSW 1" x 8	22,00	110	50	18,0	14,5	1	4133 03 00100



Code **4104** Nr. 1



Nr. 2



Nr. 3

UNC | ~DIN 352 | HSS G | Tol. 2B | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Per la filettatura a passo grosso tipo americano secondo ANSI B1.1 per fori passanti e ciechi
· Nr. 1 Maschio di sgrossatura (imbocco: 6-8 spire)
· Nr. 2 Maschio intermedio (imbocco: 4-5 spire)
· Nr. 3 Maschio di finitura (imbocco: 2-3 spire).

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting american unified national coarse thread acc. to ANSI B1. 1 for through- and blind hole
· No. 1 Rougher 6-8 threads lead
· No. 2 Intermediate 4-5 threads lead
· No. 3 Finisher 2-3 threads lead.

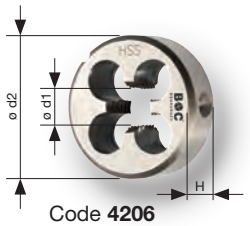
Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2	Nr. 3
UNC Nr. 2 x 56	1,80	36	11	2,8	2,1	1	4104 11 00256	4104 11 10256	4104 11 20256	4104 11 30256
UNC Nr. 3 x 48	2,10	36	11	2,8	2,1	1	4104 11 00348	4104 11 10348	4104 11 20348	4104 11 30348
UNC Nr. 4 x 40	2,30	40	12	3,5	2,7	1	4104 11 00440	4104 11 10440	4104 11 20440	4104 11 30440
UNC Nr. 5 x 40	2,60	40	12	3,5	2,7	1	4104 11 00540	4104 11 10540	4104 11 20540	4104 11 30540
UNC Nr. 6 x 32	2,85	45	14	4,0	3,0	1	4104 11 00632	4104 11 10632	4104 11 20632	4104 11 30632
UNC Nr. 8 x 32	3,50	45	14	4,5	3,4	1	4104 11 00832	4104 11 10832	4104 11 20832	4104 11 30832
UNC Nr. 10 x 24	3,90	50	16	6,0	4,9	1	4104 11 01024	4104 11 11024	4104 11 21024	4104 11 31024
UNC Nr. 12 x 24	4,50	50	18	6,0	4,9	1	4104 11 01224	4104 11 11224	4104 11 21224	4104 11 31224
UNC 1/4" x 20	5,20	56	22	6,0	4,9	1	4104 11 00014	4104 11 10014	4104 11 20014	4104 11 30014
UNC 5/16" x 18	6,60	63	25	6,0	4,9	1	4104 11 00516	4104 11 10516	4104 11 20516	4104 11 30516
UNC 3/8" x 16	8,00	70	28	7,0	5,5	1	4104 11 00038	4104 11 10038	4104 11 20038	4104 11 30038
UNC 7/16" x 14	9,40	75	30	8,0	6,2	1	4104 11 00716	4104 11 10716	4104 11 20716	4104 11 30716
UNC 1/2" x 13	10,80	80	32	9,0	7,0	1	4104 11 00012	4104 11 10012	4104 11 20012	4104 11 30012
UNC 9/16" x 12	12,20	80	32	11,0	9,0	1	4104 11 00916	4104 11 10916	4104 11 20916	4104 11 30916
UNC 5/8" x 11	13,50	90	36	12,0	9,0	1	4104 11 00058	4104 11 10058	4104 11 20058	4104 11 30058
UNC 3/4" x 10	16,50	105	40	14,0	11,0	1	4104 11 00034	4104 11 10034	4104 11 20034	4104 11 30034
UNC 7/8" x 9	19,50	110	45	18,0	14,5	1	4104 11 00078	4104 11 10078	4104 11 20078	4104 11 30078
UNC 1" x 8	22,25	110	50	18,0	14,5	1	4104 11 00100	4104 11 10100	4104 11 20100	4104 11 30100
UNC 1.1/8" x 7	25,00	132	56	22,0	18,0	1	4104 11 00118	4104 11 10118	4104 11 20118	4104 11 30118
UNC 1.1/4" x 7	28,25	132	56	22,0	18,0	1	4104 11 00114	4104 11 10114	4104 11 20114	4104 11 30114
UNC 1.1/2" x 6	34,00	150	63	32,0	24,0	1	4104 11 00112	4104 11 10112	4104 11 20112	4104 11 30112
UNC 2" x 4.1/2	45,00	190	80	40,0	32,0	1	4104 11 00200	4104 11 10200	4104 11 20200	4104 11 30200

Cassetta in legno BC / BC Wooden-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GWH UNC	44 UNC 1/4" – 1"	Set Maschi a mano 3 pz. / Hand-tap sets 3 pcs. ~ DIN 352 + Filiere tonde / Circular dies DIN EN 22568 UNC 1/4" · UNC 5/16" · UNC 3/8" · UNC 7/16" · UNC 1/2" · UNC 5/8" · UNC 3/4" · UNC 7/8" · UNC 1" Porta filiere / Holders DIN 225 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 · 55 x 22 Giramaschi / Tap wrenches DIN 1814, Gr. 1 + 4	6000 14 50044



GWH UNC



Code **4206**

UNC | DIN EN 22568 | HSS G | FORM B | Tol. 2A | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

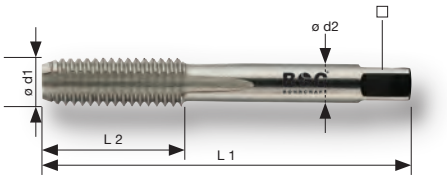
· Per la filettatura a passo grosso tipo americano (UNC) secondo ANSI B1. 1
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting american unified national coarse thread acc. to ANSI B1. 1
· Form B = preslotted, closed.

Ø d1	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
UNC Nr. 2 x 56	2,12	16	5	1	4206 11 00256
UNC Nr. 3 x 48	2,44	16	5	1	4206 11 00348
UNC Nr. 4 x 40	2,76	20	5	1	4206 11 00440
UNC Nr. 5 x 40	3,09	20	5	1	4206 11 00540
UNC Nr. 6 x 32	3,41	20	7	1	4206 11 00632
UNC Nr. 8 x 32	4,07	20	7	1	4206 11 00832
UNC Nr. 10 x 24	4,71	20	7	1	4206 11 01024
UNC Nr. 12 x 24	5,37	20	7	1	4206 11 01224
UNC 1/4" x 20	6,22	20	7	1	4206 11 00014
UNC 5/16" x 18	7,80	25	9	1	4206 11 00516
UNC 3/8" x 16	9,37	30	11	1	4206 11 00038
UNC 7/16" x 14	10,95	30	11	1	4206 11 00716
UNC 1/2" x 13	12,52	38	14	1	4206 11 00012
UNC 9/16" x 12	14,10	38	14	1	4206 11 00916
UNC 5/8" x 11	15,68	45	18	1	4206 11 00058
UNC 3/4" x 10	18,84	45	18	1	4206 11 00034
UNC 7/8" x 9	22,00	55	22	1	4206 11 00078
UNC 1" x 8	25,16	55	22	1	4206 11 00100
UNC 1.1/8" x 7	28,31	65	25	1	4206 11 00118
UNC 1.1/4" x 7	31,49	65	25	1	4206 11 00114
UNC 1.1/2" x 6	37,80	65	25	1	4206 11 00112
UNC 2" x 4.1/2	50,45	90	36	1	4206 11 00200

Maschi a macchina corti tipo DIN 352 HSS-G
Short machine taps similar DIN 352 HSS-G



Code **4134**

UNC | ~DIN 352 | HSS G | C | Tol. 2B | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4134	●	●					●	●			●

- Per la filettatura a passo grosso tipo americano (UNC) secondo ANSI B1. 1
- Per uso manuale e a macchina
- Maschio con imbocco corto 2-3 spire per fori passanti e ciechi.

- For cutting american unified national coarse thread acc. to ANSI B1. 1
- For manual and machine use
- 2-3 threads lead for through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
UNC 1/4" x 20	5,20	56	22	6,0	4,9	1	4134 03 00014
UNC 5/16" x 18	6,60	63	25	7,0	4,9	1	4134 03 00516
UNC 3/8" x 16	8,00	70	28	7,0	5,5	1	4134 03 00038
UNC 7/16" x 14	9,40	75	30	8,0	6,2	1	4134 03 00716
UNC 1/2" x 13	10,80	80	32	9,0	7,0	1	4134 03 00012
UNC 9/16" x 12	12,20	80	32	11,0	9,0	1	4134 03 00916
UNC 5/8" x 11	13,50	90	36	12,0	9,0	1	4134 03 00058
UNC 3/4" x 10	16,50	105	40	14,0	11,0	1	4134 03 00034
UNC 7/8" x 9	19,50	110	45	18,0	14,5	1	4134 03 00078
UNC 1" x 8	22,25	110	50	18,0	14,5	1	4134 03 00100
UNC 1.1/8" x 7	25,00	132	56	22,0	18,0	1	4134 03 00118
UNC 1.1/4" x 7	28,25	132	56	22,0	18,0	1	4134 03 00114
UNC 1.1/2" x 6	34,00	150	63	32,0	24,0	1	4134 03 00112
UNC 2" x 4.1/2	45,00	190	80	40,0	32,0	1	4134 03 00200

BOC ★★★★☆

UNC | Maschi a macchina tipo DIN 371 / 376 HSS-E (Co5)
Machine taps similar DIN 371 / 376 HSS-E (Co5)



Code **4196** / ~DIN 371



Code **4197** / ~DIN 371

UNC | ~DIN 371/376 | HSS-E Co5 | B | 3 x D | Tol. 2B | 60°

FORM C | 35° | 2,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4196 · 4197	●	●	●				●	●	●		●

· Per la filettatura a passo grosso tipo americano (UNC) secondo ANSI B1. 1
· Forma B - Maschio con imbocco corretto 4-5 spire
· Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°.

· For cutting american unified national coarse thread acc. to ANSI B1. 1
· Form B = 4-5 threads lead with spiral point (gun nose)
· Form C 35° = 2-3 threads lead with spiral flute 35°.

Ø d1		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art.-Nr. Part-No.	C 35° Art.-Nr. Part-No.
~DIN 371			**B**	**C 35°**					
UNC 1/4" x 20	5,20	80	17	13	7,0	5,5	1	4196 03 00014	4197 03 00014
UNC 5/16" x 18	6,60	90	20	14	8,0	6,2	1	4196 03 00516	4197 03 00516
UNC 3/8" x 16	8,00	100	22	16	9,0	7,0	1	4196 03 00038	4197 03 00038
~DIN 376									
UNC 7/16" x 14	9,40	100	22	17	8,0	6,2	1	4196 03 00716	4197 03 00716
UNC 1/2" x 13	10,80	110	25	20	9,0	7,0	1	4196 03 00012	4197 03 00012
UNC 9/16" x 12	12,20	110	26	20	11,0	9,0	1	4196 03 00916	4197 03 00916
UNC 5/8" x 11	13,50	110	27	22	12,0	9,0	1	4196 03 00058	4197 03 00058
UNC 3/4" x 10	16,50	125	30	25	14,0	11,0	1	4196 03 00034	4197 03 00034
UNC 7/8" x 9	19,50	140	32	27	18,0	14,5	1	4196 03 00078	4197 03 00078
UNC 1" x 8	22,25	160	36	30	20,0	16,0	1	4196 03 00100	4197 03 00100



Code **4105** Nr. 1



Nr. 2

UNF | ~DIN 2181 | HSS G | Tol. 2B | 60° | 800 N/mm²

Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Per la filettatura a passo fine tipo americano (UNF) secondo ANSI B1. 1 per fori passanti e ciechi
· Nr. 1 Maschio di sgrossatura (imbocco: 5-6 spire)
· Nr. 2 Maschio di finitura (imbocco: 2-3 spire).

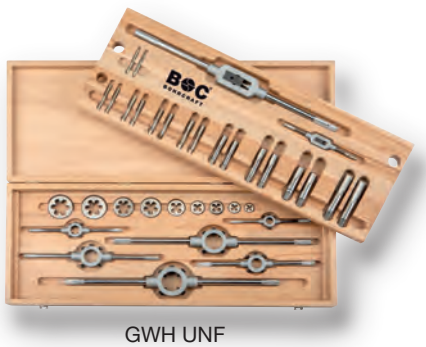
For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting american unified national fine thread acc. to ANSI B1. 1 for through- and blind hole
· No. 1 Rougher 5-6 threads lead
· No. 2 Finisher 2-3 threads lead.

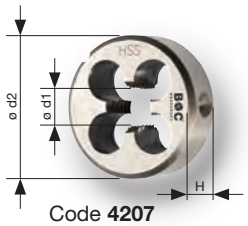
Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Serie / Set	Nr. 1	Nr. 2
UNF Nr. 2 x 64	1,90	32	10	2,8	2,1	1	4105 11 00264	4105 11 10264	4105 11 20264
UNF Nr. 3 x 56	2,10	32	10	2,8	2,1	1	4105 11 00356	4105 11 10356	4105 11 20356
UNF Nr. 4 x 48	2,40	36	11	3,5	2,7	1	4105 11 00448	4105 11 10448	4105 11 20448
UNF Nr. 5 x 44	2,70	36	11	3,5	2,7	1	4105 11 00544	4105 11 10544	4105 11 20544
UNF Nr. 6 x 40	3,00	40	12	4,5	3,4	1	4105 11 00640	4105 11 10640	4105 11 20640
UNF Nr. 8 x 36	3,50	40	12	4,5	3,4	1	4105 11 00836	4105 11 10836	4105 11 20836
UNF Nr. 10 x 32	4,10	45	14	6,0	4,9	1	4105 11 01032	4105 11 11032	4105 11 21032
UNF Nr. 12 x 28	4,70	50	14	6,0	4,9	1	4105 11 01228	4105 11 11228	4105 11 21228
UNF 1/4" x 28	5,50	56	18	6,0	4,9	1	4105 11 00014	4105 11 10014	4105 11 20014
UNF 5/16" x 24	6,90	56	18	6,0	4,9	1	4105 11 00516	4105 11 10516	4105 11 20516
UNF 3/8" x 24	8,50	63	18	7,0	5,5	1	4105 11 00038	4105 11 10038	4105 11 20038
UNF 7/16" x 20	9,90	63	18	8,0	6,2	1	4105 11 00716	4105 11 10716	4105 11 20716
UNF 1/2" x 20	11,50	63	20	9,0	7,0	1	4105 11 00012	4105 11 10012	4105 11 20012
UNF 9/16" x 18	12,90	70	20	11,0	9,0	1	4105 11 00916	4105 11 10916	4105 11 20916
UNF 5/8" x 18	14,50	70	20	12,0	9,0	1	4105 11 00058	4105 11 10058	4105 11 20058
UNF 3/4" x 16	17,50	80	22	14,0	11,4	1	4105 11 00034	4105 11 10034	4105 11 20034
UNF 7/8" x 14	20,25	80	22	18,0	14,5	1	4105 11 00078	4105 11 10078	4105 11 20078
UNF 1" x 12	23,25	90	22	18,0	14,5	1	4105 11 00100	4105 11 10100	4105 11 20100

Cassetta in legno BC / BC Wooden-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GWH UNF	35 UNF 1/4" – 1"	Set Maschio a mano 2 pz. / Hand-tap sets 2 pcs. ~ DIN 2181 + Filiere tonde / Circular dies DIN EN 22568 UNF 1/4" · UNF 5/16" · UNF 3/8" · UNF 7/16" · UNF 1/2" · UNF 5/8" · UNF 3/4" · UNF 7/8" · UNF 1" Porta filiere / Holders DIN 225 20 x 7 · 25 x 9 · 30 x 11 · 38 x 10 · 45 x 14 · 55 x 16 Giramaschi / Tap wrenches DIN 1814, Gr. 1 + 4	6000 14 50035



GWH UNF



Code **4207**

UNF | DIN EN 22568 | HSS G | FORM B | Tol. 2A | 60° | 800 N/mm²

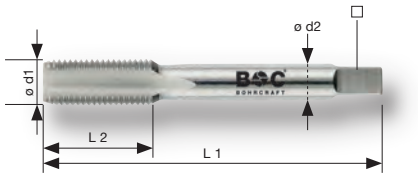
Per impiego generale su materiali facilmente lavorabili fino a 800 N/mm² (22,5 HRC) di resistenza alla trazione.

· Per la filettatura a passo fine tipo americano (UNF) secondo ANSI B1. 1
· Forma B - imbocco corretto, preintagliata e chiusa.

For general use in good machinable materials up to 800 N/mm² (22,5 HRC) tensile strength.

· For cutting american unified national fine thread acc. to ANSI B1. 1
· Form B = preslotted, closed.

Ø d1	Barra / Bolt mm	Ø d2 mm	H mm		Art.-Nr. Part-No.
UNF Nr. 2 x 64	2,12	16	5	1	4207 11 00264
UNF Nr. 3 x 56	2,44	16	5	1	4207 11 00356
UNF Nr. 4 x 48	2,77	20	5	1	4207 11 00448
UNF Nr. 5 x 44	3,10	20	5	1	4207 11 00544
UNF Nr. 6 x 40	3,42	20	5	1	4207 11 00640
UNF Nr. 8 x 36	4,08	20	7	1	4207 11 00836
UNF Nr. 10 x 32	4,73	20	7	1	4207 11 01032
UNF Nr. 12 x 28	5,38	20	7	1	4207 11 01228
UNF 1/4" x 28	6,24	20	7	1	4207 11 00014
UNF 5/16" x 24	7,82	25	9	1	4207 11 00516
UNF 3/8" x 24	9,41	30	11	1	4207 11 00038
UNF 7/16" x 20	10,98	30	11	1	4207 11 00716
UNF 1/2" x 20	12,56	38	10	1	4207 11 00012
UNF 9/16" x 18	14,14	38	10	1	4207 11 00916
UNF 5/8" x 18	15,73	45	14	1	4207 11 00058
UNF 3/4" x 16	18,89	45	14	1	4207 11 00034
UNF 7/8" x 14	22,05	55	16	1	4207 11 00078
UNF 1" x 12	25,21	55	16	1	4207 11 00100



Code **4135**

UNF | ~DIN 2181 | HSS G | C | Tol. 2B | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4135	●	●					●	●			●

- Per la filettatura a passo fine tipo americano (UNF) secondo ANSI B1. 1
- Per uso manuale e a macchina
- Maschio con imbocco corto 2-3 spire per fori passanti e ciechi.

- For cutting american unified national fine thread acc. to ANSI B1. 1
- For manual and machine use
- 2-3 threads lead for through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art.-Nr. Part-No.
UNF 1/4" x 28	5,50	50	18	6,0	4,9	1	4135 03 00014
UNF 5/16" x 24	6,90	56	22	6,0	4,9	1	4135 03 00516
UNF 3/8" x 24	8,50	63	22	7,0	5,5	1	4135 03 00038
UNF 7/16" x 20	9,90	63	22	8,0	6,2	1	4135 03 00716
UNF 1/2" x 20	11,50	75	24	9,0	7,0	1	4135 03 00012
UNF 9/16" x 18	12,90	80	28	11,0	9,0	1	4135 03 00916
UNF 5/8" x 18	14,50	80	28	12,0	9,0	1	4135 03 00058
UNF 3/4" x 16	17,50	95	32	14,0	11,0	1	4135 03 00034
UNF 7/8" x 14	20,25	100	36	18,0	14,5	1	4135 03 00078
UNF 1" x 12	23,25	110	40	18,0	14,5	1	4135 03 00100



BOC ★★★★☆

UNF | Maschi a macchina tipo DIN 371 / 376 HSS-E (Co5)
Machine taps similar DIN 371 / 376 HSS-E (Co5)



Code **4198** / ~DIN 371



Code **4199** / ~DIN 371

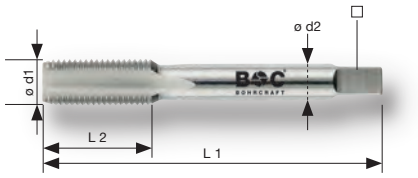
UNF | ~DIN 371/376 | HSS-E Co5 | Tol. 2B | 60° | B | 3 x D | FORM C | 35° | 2,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4198 · 4199	●	●	●				●	●	●		●

- Per la filettatura a passo fine tipo americano (UNF) secondo ANSI B1. 1
- Forma B - Maschio con imbocco corretto 4-5 spire
- Forma C 35° - Maschio con imbocco corto 2-3 spire con scanalatura elicoidale 35°

- For cutting american unified national fine thread acc. to ANSI B1. 1
- Form B = 4-5 threads lead with spiral point (gun nose)
- Form C 35° = 2-3 threads lead with spiral flute 35°

Ø d1		L 1 mm	L 2 mm		Ø d2 mm	□ mm		B Art. Nr. Part-No.	C 35° Art. Nr. Part-No.
~DIN 371			B	C 35°					
UNF 1/4" x 28	5,50	80	17	10	7,0	5,5	1	4198 03 00014	4199 03 00014
UNF 5/16" x 24	6,90	90	17	10	8,0	6,2	1	4198 03 00516	4199 03 00516
UNF 3/8" x 24	8,50	100	18	10	9,0	7,0	1	4198 03 00038	4199 03 00038
~DIN 376									
UNF 7/16" x 20	9,90	100	22	13	8,0	6,2	1	4198 03 00716	4199 03 00716
UNF 1/2" x 20	11,50	100	22	13	9,0	7,0	1	4198 03 00012	4199 03 00012
UNF 9/16" x 18	12,90	100	22	15	11,0	9,0	1	4198 03 00916	4199 03 00916
UNF 5/8" x 18	14,50	100	22	15	12,0	9,0	1	4198 03 00058	4199 03 00058
UNF 3/4" x 16	17,50	110	25	17	14,0	11,0	1	4198 03 00034	4199 03 00034
UNF 7/8" x 14	20,25	140	26	17	18,0	14,5	1	4198 03 00078	4199 03 00078
UNF 1" x 12	23,25	150	28	20	20,0	16,0	1	4198 03 00100	4199 03 00100



Code **4136**

NPT | BOC BOHRCRAFT NORM | HSS G | C | 60° | Kegel Taper 1:16 | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4136	●	●					●	●			●

· Filettatura API NPT, conicità 1 :16
· Per filettatura con materiale sigillante
· Per uso manuale e a macchina
· Maschio con imbocco corto 2-3 spire per fori passanti e ciechi.

· For cutting amrerican standard pipe thread, taper 1:16
· For threads with sealing material
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art. Nr. Part-No.
NPT 1/16" x 27	6,25	54	17,5	7,9	6,0	1	4136 03 00116
NPT 1/8" x 27	8,50	54	19,0	8,0	8,3	1	4136 03 00018
NPT 1/4" x 18	11,10	62	27,0	14,3	11,0	1	4136 03 00014
NPT 3/8" x 18	14,70	65	27,0	17,8	13,5	1	4136 03 00038
NPT 1/2" x 14	18,00	79	35,0	17,4	13,0	1	4136 03 00012
NPT 3/4" x 14	23,25	82	35,0	23,0	17,0	1	4136 03 00034
NPT 1" x 11,5	29,25	95	44,5	28,6	21,0	1	4136 03 00100
NPT 1.1/4" x 11,5	38,00	102	44,5	33,3	25,0	1	4136 03 00114
NPT 1.1/2" x 11,5	44,25	108	44,5	36,0	28,0	1	4136 03 00112
NPT 2" x 11,5	56,25	114	44,5	47,6	35,0	1	4136 03 00200

PG Maschi a macchina corti DIN 40432 HSS-G
Short machine taps DIN 40432 HSS-G



Code **4130**

PG | DIN 40432 | HSS G | C | 60° | 1,5 x D | 1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4130	●	●					●	●			●

· Filettatura PG per tubi in acciaio secondo DIN 40430
· Per uso manuale e a macchina
· Maschio con imbocco corto 2-3 spire per fori passanti e ciechi.

· For cutting steel conduit thread acc. to DIN 40430
· For manual and machine use
· 2-3 threads lead for through- and blind hole.

Ø d1		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art. Nr. Part-No.
PG 7 x 20	11,35	70	22	9,0	7,0	1	4130 03 00700
PG 9 x 18	13,95	70	22	12,0	9,0	1	4130 03 00900
PG 11 x 18	17,35	80	22	14,0	11,0	1	4130 03 01100
PG 13,5 x 18	19,15	80	22	16,0	12,0	1	4130 03 01350
PG 16 x 18	21,25	80	22	18,0	14,5	1	4130 03 01600
PG 21 x 16	26,75	90	22	22,0	18,0	1	4130 03 02100
PG 29 x 16	35,50	100	25	28,0	22,0	1	4130 03 02900
PG 36 x 16	45,50	140	40	36,0	29,0	1	4130 03 03600
PG 42 x 16	52,50	140	40	40,0	32,0	1	4130 03 04200
PG 48 x 16	58,00	160	40	45,0	35,0	1	4130 03 04800



Code **4501**

M 60° **WW** 55° **UNC** 60° **UNF** 60°

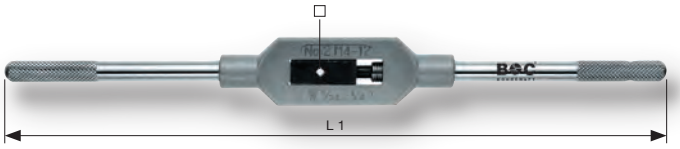
Adatte per la rilavorazione e la riparazione di filettature interne ed esterne danneggiate.

For reworking and repairing damaged internal and external threads.

Filetto Thread	⩘	Passo Pitch	L 1		Art. Nr. Part-No.
M	60°	0,8 · 1,0 · 1,25 · 1,5 · 1,75 · 2,0 · 2,5 · 3,0	230	1	4501 03 00001
WW	55°	10 · 11 · 12 · 14 · 16 · 18 · 20 · 24	230	1	4501 03 00002
UNC/UNF	60°	11 · 12 · 13 · 14 · 16 · 18 · 20 · 24	230	1	4501 03 00003



Giramaschi regolabili DIN 1814
Adjustable tap wrenches DIN 1814



Code **4300**

DIN 1814

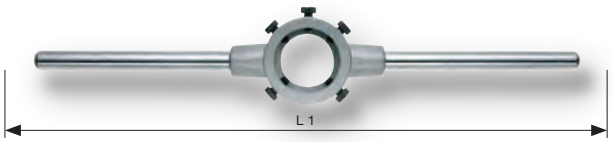
· Corpo pressofuso in zinco
· Ganasce temprate
· Per utensili con condolo quadro
· Impugnatura secondaria rimovibile.

· Housing made of zinc die casting
· Hardened chuck jaws
· For tools with square shanks
· One handle can be unscrewed.

Grandezza Size	M - MF	G	□ mm	L 1 mm		Art. Nr. Part-No.		Art. Nr. Part-No.
0	M 1 – 8	-	2,1 – 4,9	130	1	4300 15 00000	1	4300 07 00000
1	M 1 – 10	-	2,4 – 5,5	180	1	4300 15 00010	1	4300 07 00010
1.1/2	M 1 – 12	1/8"	2,4 – 7,0	180	1	4300 15 00015	1	4300 07 00015
2	M 4 – 12	1/8" – 3/8"	3,4 – 8,0	280	1	4300 15 00020	-	-
3	M 5 – 20	1/8" – 1/2"	4,9 – 12,0	380	1	4300 15 00030	-	-
4	M 11 – 27	1/8" – 3/4"	5,5 – 16,0	500	1	4300 15 00040	-	-
5	M 13 – 32	1/4" – 1"	9,0 – 20,0	700	1	4300 15 00050	-	-
6	M 18 – 42	1/2" – 1.1/4"	12,0 – 24,0	1000	1	4300 15 00060	-	-
7	M 27 – 52	3/4" – 1.3/4"	16,0 – 32,0	1250	1	4300 15 00070	-	-



Porta filiere DIN 225
Die stocks DIN 225



DIN 225

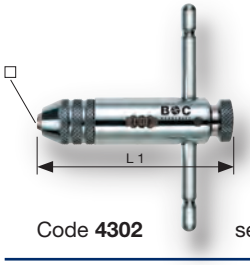
Code **4400**

· Corpo pressofuso in zinco
· Per serraggio diretto di filiere tonde.

· Housing made of zinc die casting
· For direct holding of circular dies.

Grandezza Size	Misure / Measure mm	M - MF	G	L 1 mm		Art. Nr. Part-No.		Art. Nr. Part-No.
0	16 x 5	M 1 – 2,6	-	160	1	4400 15 01605	-	-
1	20 x 5	M 3 – 4	-	200	1	4400 15 02005	1	4400 07 02005
2	20 x 7	M 4,5 – 6	-	200	1	4400 15 02007	1	4400 07 02007
3	25 x 9	M 7 – 9	-	224	1	4400 15 02509	1	4400 07 02509
4	30 x 11	M 10 – 11	1/8"	280	1	4400 15 03011	1	4400 07 03011
5	38 x 10	MF 12 – 14	1/4"	315	1	4400 15 03810	-	-
5b	38 x 14	M 12 – 14	-	315	1	4400 15 03814	1	4400 07 03814
6	45 x 14	MF 16 – 20	3/8" – 1/2"	450	1	4400 15 04514	-	-
6b	45 x 18	M 16 – 20	-	450	1	4400 15 04518	-	-
7	55 x 16	MF 22 – 24	5/8" – 3/4"	560	1	4400 15 05516	-	-
7b	55 x 22	M 22 – 24	-	560	1	4400 15 05522	-	-
8	65 x 18	MF 27 – 36	7/8" – 1"	630	1	4400 15 06518	-	-
8b	65 x 25	M 27 – 36	-	630	1	4400 15 06525	-	-
9	75 x 20	MF 38 – 42	1.1/8" – 1.1/4"	800	1	4400 15 07520	-	-
9b	75 x 30	M 39 – 42	-	800	1	4400 15 07530	-	-
10b	90 x 36	M 45 – 52	-	900	1	4400 15 09036	-	-

Giramaschi a cricchetto
Tap wrenches with ratchet



Code **4302** serie corta / short version



serie lunga / long version

- Per uso destro e sinistro
- Impugnatura scorrevole
- Con pinza a 2 griffe temprate
- Ideale per filettare in posizioni poco accessibili.

- Adjustable for left- and right-hand use
- Sliding cross-handle
- With two jack chuck for holding square-shanks
- Ideal for operations at difficult accessible places.

Grandezza Size	Versione Version	M - MF	□ mm	L 1 mm		Art. Nr. Part-No.		Art. Nr. Part-No.
1	kurz / short	M3 – M10	2,5 – 5,5	85	1	4302 15 00001	1	4302 07 00001
2	kurz / short	M5 – M12	4,5 – 7,0	100	1	4302 15 00002	1	4302 07 00002
10	lang / long	M3 – M10	2,5 – 5,5	250	1	4302 15 00010	-	-
20	lang / long	M5 – M12	4,5 – 7,0	300	1	4302 15 00020	-	-

Bussole di estensione DIN 377
Extension sleeves DIN 377

DIN 377



Code **4500**

- Rettificate e temprate
- Per attacchi quadri secondo DIN 10
- Quadro interno ed esterno hanno la stessa grandezza.

- Ground and hardened version
- For squares according DIN 10
- Inside and outside square with same size.

□ mm	M / DIN 352	L 1 mm		Art. Nr. Part-No.
2,1	M 1 – M 2,6	60	1	4500 15 00210
2,4	-	70	1	4500 15 00240
2,7	M 3	80	1	4500 15 00270
3,0	M 3,5	90	1	4500 15 00300
3,4	M 4	95	1	4500 15 00340
3,8	-	100	1	4500 15 00380
4,3	-	105	1	4500 15 00430
4,9	M 5 – M 8	110	1	4500 15 00490
5,5	M 9 – M 10	115	1	4500 15 00550
6,2	M 11	120	1	4500 15 00620
7,0	M 12	125	1	4500 15 00700
8,0	-	125	1	4500 15 00800
9,0	M 13 – M 16	135	1	4500 15 00900
10,0	-	140	1	4500 15 01000
11,0	M 18	150	1	4500 15 01100
12,0	M 20	155	1	4500 15 01200
13,0	-	165	1	4500 15 01300
14,5	M 22 – M 24	174	1	4500 15 01450
16,0	M 27	180	1	4500 15 01600
18,0	M 30	200	1	4500 15 01800
20,0	M 33	220	1	4500 15 02000

Estrattori CV
Screw extractors CV



Code **9700**

CV

· In acciaio al cromo vanadio di alta qualità
· Per rimuovere viti rotte.

· Made of high-quality chrome-vanadium steel
· For removing broken screws in threads.

Grandezza Size	M - MF Per viti For Screws	Pollici / inch Per viti For Screws			Art. Nr. Part-No.
1	M 3 – 6	1/8" – 1/4"	2,5	1	9700 07 00001
2	M 6 – 8	1/4" – 5/16"	3,0	1	9700 07 00002
3	M 8 – 11	5/16" – 7/16"	4,5	1	9700 07 00003
4	M 11 – 14	7/16" – 9/16"	6,0	1	9700 07 00004
5	M 14 – 18	9/16" – 3/4"	8,0	1	9700 07 00005
6	M 18 – 24	3/4" – 1"	11,0	1	9700 07 00006
7	M 24 – 33	1" – 1.3/8"	14,0	1	9700 07 00007
8	M 33 – 50	1.3/8" – 2"	21,0	1	9700 07 00008

Cassette in plastica BC / BC Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content		Art. Nr. Part-No.
SE 5	5	Grandezza / Size 1 – 5	1	9700 14 30005
SE 6	6	Grandezza / Size 1 – 6	1	9700 14 30006
SE 8	8	Grandezza / Size 1 – 8	1	9700 14 30008



SE 5

FILETTI RIPORTATI PER RIPARAZIONI
THREAD REPAIR



FILETTI RIPORTATI PER RIPARAZIONI
THREAD REPAIR

	Filetto Thread	Descrizione Description	Code	Pagina Page
Filetti riportati per riparazioni / Thread repair				
	M	Inserti filettati Thread inserts	4600 ÷ 4604	**248**
	MF	Inserti filettati Thread inserts	4610 ÷ 4614	**248**
	MF (CANDELE / SPARK PLUG)	Inserti filettati per candele Thread inserts for spark plug thread	4615	**249**
	M, MF	Kit filetti riportati per riparazioni Thread repair sets	4601 4611 4615	**250 ÷ 253**
	M, MF, UNC, UNF, BSW	Utensili di montaggio Fitting-tools	4700	**254**
	M, MF, UNC, UNF, BSW	Pin estrattore Pin-breaker	4701	**255**
	M, MF	Maschi a macchina corti STI STI short machine taps	4800 4801	**256**
	MF (CANDELE / SPARK PLUG)	Maschio a macchina combinato STI STI combined-thread tap	4802	**257**
Punte elicoidali / Twist drills				
		Punte elicoidali rettificate, cilindriche + codolo ridotto Twist drills **fully ground,** cylindrical + reduced	1121 1121-red.	**257**

Inserti filettati
Thread inserts



Code **4600 – 4614**

M

· Filetto continuo in acciaio inossidabile
· Filetto rinforzato per materiali, con bassa resistenza al taglio, ad es. alluminio, leghe di magnesio e per la ripazione di filetti usurati o danneggiati.

· Free running made of stainless steel
· Thread reinforcement for materials with low shearing strength, e.g. aluminium and magnesium alloys as well as to repair enables worn and damaged threads.

Ø d mm			L1 = 1,0 x d	L1 = 1,5 x d	L1 = 2,0 x d	L1 = 2,5 x d	L1 = 3,0 x d
M 3 x 0,5	3,20	100	4600 15 00300	4601 15 00300	4602 15 00300	4603 15 00300	4604 15 00300
M 4 x 0,7	4,20	100	4600 15 00400	4601 15 00400	4602 15 00400	4603 15 00400	4604 15 00400
M 5 x 0,8	5,20	100	4600 15 00500	4601 15 00500	4602 15 00500	4603 15 00500	4604 15 00500
M 6 x 1	6,30	100	4600 15 00600	4601 15 00600	4602 15 00600	4603 15 00600	4604 15 00600
M 8 x 1,25	8,30	100	4600 15 00800	4601 15 00800	4602 15 00800	4603 15 00800	4604 15 00800
M 10 x 1,5	10,40	100	4600 15 01000	4601 15 01000	4602 15 01000	4603 15 01000	4604 15 01000
M 12 x 1,75	12,40	50	4600 15 01200	4601 15 01200	4602 15 01200	4603 15 01200	4604 15 01200
M 14 x 2	14,50	50	4600 15 01400	4601 15 01400	4602 15 01400	4603 15 01400	4604 15 01400
M 16 x 2	16,50	50	4600 15 01600	4601 15 01600	4602 15 01600	4603 15 01600	4604 15 01600
M 18 x 2,5	18,60	25	4600 15 01800	4601 15 01800	4602 15 01800	4603 15 01800	4604 15 01800
M 20 x 2,5	20,60	25	4600 15 02000	4601 15 02000	4602 15 02000	4603 15 02000	4604 15 02000
M 22 x 2,5	22,60	10	4600 15 02200	4601 15 02200	4602 15 02200	4603 15 02200	4604 15 02200
M 24 x 3	24,75	10	4600 15 02400	4601 15 02400	4602 15 02400	4603 15 02400	4604 15 02400

MF

Ø d mm			L1 = 1,0 x d	L1 = 1,5 x d	L1 = 2,0 x d	L1 = 2,5 x d	L1 = 3,0 x d
MF 8 x 1	8,30	100	4610 15 00810	4611 15 00810	4612 15 00810	4613 15 00810	4614 15 00810
MF 10 x 1	10,30	100	4610 15 01010	4611 15 01010	4612 15 01010	4613 15 01010	4614 15 01010
MF 10 x 1,25	10,30	100	4610 15 01012	4611 15 01012	4612 15 01012	4613 15 01012	4614 15 01012
MF 12 x 1	12,30	50	4610 15 01210	4611 15 01210	4612 15 01210	4613 15 01210	4614 15 01210
MF 12 x 1,25	12,30	50	4610 15 01212	4611 15 01212	4612 15 01212	4613 15 01212	4614 15 01212
MF 12 x 1,5	12,40	50	4610 15 01215	4611 15 01215	4612 15 01215	4613 15 01215	4614 15 01215
MF 14 x 1	14,30	50	4610 15 01410	4611 15 01410	4612 15 01410	4613 15 01410	4614 15 01410
MF 14 x 1,25	14,40	50	4610 15 01412	4611 15 01412	4612 15 01412	4613 15 01412	4614 15 01412
MF 14 x 1,5	14,40	50	4610 15 01415	4611 15 01415	4612 15 01415	4613 15 01415	4614 15 01415
MF 16 x 1,5	16,40	50	4610 15 01615	4611 15 01615	4612 15 01615	4613 15 01615	4614 15 01615
MF 18 x 1,5	18,50	25	4610 15 01815	4611 15 01815	4612 15 01815	4613 15 01815	4614 15 01815
MF 18 x 2	18,50	25	4610 15 01820	4611 15 01820	4612 15 01820	4613 15 01820	4614 15 01820
MF 20 x 1,5	20,50	25	4610 15 02015	4611 15 02015	4612 15 02015	4613 15 02015	4614 15 02015
MF 20 x 2	20,50	25	4610 15 02020	4611 15 02020	4612 15 02020	4613 15 02020	4614 15 02020
MF 22 x 1,5	22,50	10	4610 15 02215	4611 15 02215	4612 15 02215	4613 15 02215	4614 15 02215
MF 22 x 2	22,50	10	4610 15 02220	4611 15 02220	4612 15 02220	4613 15 02220	4614 15 02220
MF 24 x 1,5	24,50	10	4610 15 02415	4611 15 02415	4612 15 02415	4613 15 02415	4614 15 02415
MF 24 x 2	24,50	10	4610 15 02420	4611 15 02420	4612 15 02420	4613 15 02420	4614 15 02420

Inserti filettati per candele
Thread inserts for spark plug thread





Code **4615**

MF

· Filetto continuo in acciaio inossidabile
· Filetto rinforzato per materiali, con bassa resistenza al taglio, ad es. alluminio, leghe di magnesio e per la ripazione di filetti usurati o danneggiati.

· Free running made of stainless steel
· Thread reinforcement for materials with low shearing strength, e.g. aluminium and magnesium alloys as well as to repair enables worn and damaged threads.

Ø d mm			L1 = 8,4 x d	L1 = 12,4 x d	L1 = 16,4 x d
MF 14 x 1,25	14,40	50	4615 15 14084	4615 15 14124	4615 15 14164



Kit filetti riportati per riparazioni
Thread repair sets



M

Contenuto:
· Inserti filettati
· Punta elicoidale DIN 338 (codice BC 1121) fino a M12
· Maschio STI
· Utensile di montaggio
· Pin estrattore fino a M12.

Content:
· Thread inserts
· Twist drill DIN 338 (BC-Code 1121) up to M12
· STI tap
· Fitting tool
· Pin breaker up to M12.

Descrizione Description	Filetto Thread		Maschio STI STI tap	Utensile di montaggio Fitting tool	Pin estrattore Pin breaker	Inserto / Insert (1,5 x d)	Art. Nr. Part-No.
GR-M3	M 3 x 0,5	3,2	M 3 x 0,5	No. 4	No. 4	20	4601 13 30300
GR-M4	M 4 x 0,7	4,2	M 4 x 0,7	No. 6	No. 6	20	4601 13 30400
GR-M5	M 5 x 0,8	5,2	M 5 x 0,8	No. 8	No. 8	20	4601 13 30500
GR-M6	M 6 x 1	6,3	M 6 x 1	No. 9	No. 9	20	4601 13 30600
GR-M8	M 8 x 1,25	8,3	M 8 x 1,25	No. 11	No. 11	20	4601 13 30800
GR-M10	M 10 x 1,5	10,4	M 10 x 1,5	No. 13	No. 13	15	4601 13 31000
GR-M12	M 12 x 1,75	12,4	M 12 x 1,75	No. 15	No. 15	10	4601 13 31200
GR-M14	M 14 x 2	-	M 14 x 2	No. 16	-	10	4601 13 31400
GR-M16	M 16 x 2	-	M 16 x 2	No. 18	-	10	4601 13 31600
GR-M18	M 18 x 2,5	-	M 18 x 2,5	No. 20	-	3	4601 13 31800
GR-M20	M 20 x 2,5	-	M 20 x 2,5	No. 21	-	3	4601 13 32000
GR-M22	M 22 x 2,5	-	M 22 x 2,5	No. 22	-	3	4601 13 32200
GR-M24	M 24 x 3	-	M 24 x 3	No. 23	-	3	4601 13 32400



GR-M3 – GR-M12



GR-M14 – GR-M24

Kit filetti riportati per riparazioni
Thread repair sets



MF

Contenuto:
- Inserti filettati
- Punta elicoidale DIN 338 (codice BC 1121) fino a MF12
- Maschio STI
- Utensile di montaggio
- Pin estrattore fino a MF12.

Content:
- Thread inserts
- Twist drill DIN 338 (BC-Code 1121) up to MF12
- STI tap
- Fitting tool
- Pin breaker up to MF12.

Descrizione Description	Filetto Thread		Maschio STI STI tap	Utensile di montaggio Fitting tool	Pin estrattore Pin breaker	Inserto / Insert (1,5 x d)	Art. Nr. Part-No.
GR-MF810	MF 8 x 1	8,3	MF 8 x 1	No. 11	No. 11	20	4611 13 30810
GR-MF1010	MF 10 x 1	10,3	MF 10 x 1	No. 13	No. 13	15	4611 13 31010
GR-MF1012	MF 10 x 1,25	10,3	MF 10 x 1,25	No. 13	No. 13	15	4611 13 31012
GR-MF1210	MF 12 x 1	12,3	MF 12 x 1	No. 15	No. 15	10	4611 13 31210
GR-MF1212	MF 12 x 1,25	12,3	MF 12 x 1,25	No. 15	No. 15	10	4611 13 31212
GR-MF1215	MF 12 x 1,5	12,4	MF 12 x 1,5	No. 15	No. 15	10	4611 13 31215
GR-MF1410	MF 14 x 1	-	MF 14 x 1	No. 16	-	10	4611 13 31410
GR-MF1412	MF 14 x 1,25	-	MF 14 x 1,25	No. 16	-	10	4611 13 31412
GR-MF1415	MF 14 x 1,5	-	MF 14 x 1,5	No. 16	-	10	4611 13 31415
GR-MF1615	MF 16 x 1,5	-	MF 16 x 1,5	No. 18	-	10	4611 13 31615
GR-MF1815	MF 18 x 1,5	-	MF 18 x 1,5	No. 20	-	3	4611 13 31815
GR-MF1820	MF 18 x 2	-	MF 18 x 2	No. 20	-	3	4611 13 31820
GR-MF2015	MF 20 x 1,5	-	MF 20 x 1,5	No. 21	-	3	4611 13 32015
GR-MF2020	MF 20 x 2	-	MF 20 x 2	No. 21	-	3	4611 13 32020
GR-MF2215	MF 22 x 1,5	-	MF 22 x 1,5	No. 22	-	3	4611 13 32215
GR-MF2220	MF 22 x 2	-	MF 22 x 2	No. 22	-	3	4611 13 32220
GR-MF2415	MF 24 x 1,5	-	MF 24 x 1,5	No. 23	-	3	4611 13 32415
GR-MF2420	MF 24 x 2	-	MF 24 x 2	No. 23	-	3	4611 13 32420



GR-MF810 – GR-MF1215



GR-MF1410 – GR-MF2420

Kit filetti riportati per riparazioni
Thread repair sets



M

Contenuto:
- Inserti filettati
- Punta elicoidale DIN 338 (codice BC 1121) fino a M12
- Maschio STI
- Utensile di montaggio
- Pin estrattore fino a M12.

Content:
- Thread inserts
- Twist drill DIN 338 (BC-Code 1121) up to M12
- STI tap
- Fitting tool
- Pin breaker up to M12.

Descrizione Description	Filetto Thread		Maschio STI STI tap	Utensile di montaggio Fitting tool	Pin estrattore Pin breaker	Inserto / Insert (1,5 x d)	Art. Nr. Part-No.
GR-512 130-pz. / pcs.	M 5 x 0,8	5,2	M 5 x 0,8	No. 8	No. 8	25	4601 13 31512
	M 6 x 1	6,3	M 6 x 1	No. 9	No. 9	25	
	M 8 x 1,25	8,3	M 8 x 1,25	No. 11	No. 11	25	
	M 10 x 1,5	10,4	M 10 x 1,5	No. 13	No. 13	25	
	M 12 x 1,75	12,4	M 12 x 1,75	No. 15	No. 15	10	
GR-M614* 104-pz. / pcs.	M 6 x 1	6,3	M 6 x 1	No. 9	No. 9	25	4601 13 30614
	M 8 x 1,25	8,3	M 8 x 1,25	No. 11	No. 11	25	
	M 10 x 1,5	10,4	M 10 x 1,5	No. 13	No. 13	15	
	M 12 x 1,75	12,4	M 12 x 1,75	No. 15	No. 15	10	
	MF 14 x 1,25	14,4	MF 14 x 1,25	No. 16	-	10	

* Fino ad esaurimento scorte / * Only stock out selling quantities

Descrizione Description	Filetto Thread		Maschio STI STI tap	Utensile di montaggio Fitting tool	Pin estrattore Pin breaker	Inserto / Insert (1,0 / 1,5 / 2,5 x d)	Art. Nr. Part-No.
GR-M312* 133-pz. / pcs.	M 3 x 0,5	3,2	M 3 x 0,5	No. 4	No. 4	5	4601 13 30312
	M 4 x 0,7	4,2	M 4 x 0,7	No. 6	No. 6	5	
	M 5 x 0,8	5,2	M 5 x 0,8	No. 8	No. 8	5	
	M 6 x 1	6,3	M 6 x 1	No. 9	No. 9	5	
	M 8 x 1,25	8,3	M 8 x 1,25	No. 11	No. 11	5	
	M 10 x 1,5	10,4	M 10 x 1,5	No. 13	No. 13	5	
	M 12 x 1,75	12,4	M 12 x 1,75	No. 15	No. 15	5	

* Fino ad esaurimento scorte / * Only stock out selling quantities



GR-512



GR-M614



GR-M312

Kit filetti riportati per riparazioni per candele
Thread repair set for spark plug



MF

Contenuto:
- Inserti filettati
- Maschio a mano combinato STI
- Utensili di montaggio.

Content:
- Thread inserts
- STI combined-thread tap
- Fitting tool.

Descrizione Description	Filetto Thread	Maschio STI STI tap	Utensile di montaggio Fitting tool	Inserto / Insert (8,4 / 12,4 / 16,4 mm)	Art. Nr. Part-No.
GRZK-14	MF 14 x 1,25	MF 14 x 1,25	No. 16	5	4615 13 31412



GRZK-14

Utensili di montaggio
Fitting-tools



Code **4700**

M **MF** **UNC** **UNF** **BSW**

Per avvitare gli inserti filettati.

To screw in the thread inserts.

Grandezza Size	M - MF	UNC	UNF	BSW		Art. Nr. Part-No.
4	M 3 x 0,5	Nr. 4 x 40 Nr. 5 x 40	Nr. 4 x 48	1/8" x 40	1	4700 15 00004
6	M 4 x 0,7	Nr. 8 x 32	Nr. 8 x 36	-	1	4700 15 00006
8	M 5 x 0,8	Nr. 12 x 24	Nr. 10 x 32	-	1	4700 15 00008
9	M 6 x 1	1/4" x 20	1/4" x 28	1/4" x 20	1	4700 15 00009
11	M 8 x 1,25 M 8 x 1	-	5/16" x 24	-	1	4700 15 00011
13	M 10 x 1 M 10 x 1,25 M 10 x 1,5	-	3/4" x 24	-	1	4700 15 00013
15	M 12 x 1 M 12 x 1,25 M 12 x 1,5 M 12 x 1,75	1/2" x 13	1/2" x 20	1/2" x 12	1	4700 15 00015
16	M 14 x 1 M 14 x 1,25 M 14 x 1,5 M 14 x 2	9/16" x 12	9/16" x 18	9/16" x 12	1	4700 15 00016
18	M 16 x 1,5 M 16 x 2	5/8" x 11	5/8" x 18	5/8" x 11	1	4700 15 00018
20	M 18 x 1,5 M 18 x 2 M 18 x 2,5	3/4" x 10	-	3/4" x 10	1	4700 15 00020
21	M 20 x 1,5 M 20 x 2 M 20 x 2,5	-	3/4" x 16	-	1	4700 15 00021
22	M 22 x 1,5 M 22 x 2 M 22 x 2,5	7/8" x 9	7/8" x 14	7/8" x 9	1	4700 15 00022
23	M 24 x 1,5 M 24 x 2 M 24 x 3	1" x 8	1" x 12	1" x 8	1	4700 15 00023



Pin estrattore
Pin-breaker



Code **4701**

M **MF** **UNC** **UNF** **BSW**

Per rimuovere il piolo dall'inserto filettato.

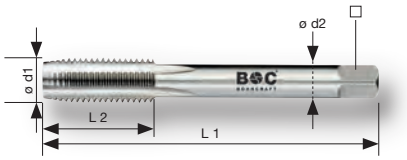
To remove the tang of the thread insert.

Grandezza Size	M - MF	UNC	UNF	BSW		Arti. Nr. Part-No.
4	M 3 x 0,5	Nr. 4 x 40 Nr. 5 x 40	Nr. 4 x 48	1/8" x 40	1	4701 15 00004
6	M 4 x 0,7	Nr. 8 x 32	Nr. 8 x 36	-	1	4701 15 00006
8	M 5 x 0,8	Nr. 12 x 24	Nr. 10 x 32	-	1	4701 15 00008
9	M 6 x 1	1/4" x 20	1/4" x 28	1/4" x 20	1	4701 15 00009
11	M 8 x 1,25 M 8 x 1	-	5/16" x 24	-	1	4701 15 00011
13	M 10 x 1 M 10 x 1,25 M 10 x 1,5	-	3/4" x 24	-	1	4701 15 00013
15	M 12 x 1 M 12 x 1,25 M 12 x 1,5 M 12 x 1,75	1/2" x 13	1/2" x 20	1/2" x 12	1	4701 15 00015

Dalla grandezza M 14 rimuovere il piolo con una pinza a becco lungo o un altro oggetto.
From size M 14 please remove the tang with a long-nosed pliers or another object.



Maschi a macchina corti STI HSS-G
STI short machine taps HSS-G



Code **4800 • 4801**

M | MF | HSS G | D | ISO1 4H | 60° | 800 N/mm² | 1,5 x D | 1,5 x D

· Taglio di filettature interne per inserti filettati secondo ISO 2 (6H)
· Per uso manuale e a macchina
· Forma D = imbocco a 4-5 spire.

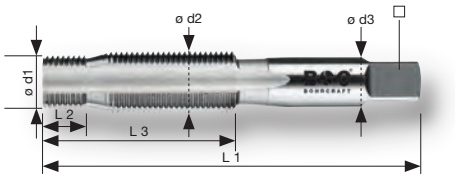
· For cutting internal threads for thread inserts according to ISO 2 (6H)
· For manual and machine use
· Form D = 4-5 threads lead.

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art. Nr. Part-No.
M 3 x 0,5	3,20	53	13	4,0	3,15	1	4800 11 00300
M 4 x 0,7	4,20	58	16	5,0	4,0	1	4800 11 00400
M 5 x 0,8	5,20	66	19	6,3	5,0	1	4800 11 00500
M 6 x 1	6,30	72	22	8,0	6,3	1	4800 11 00600
M 8 x 1,25	8,30	80	24	10,0	8,0	1	4800 11 00800
M 10 x 1,5	10,40	89	29	9,0	7,1	1	4800 11 01000
M 12 x 1,75	12,40	95	30	11,2	9,0	1	4800 11 01200
M 14 x 2	14,50	102	32	12,5	10,0	1	4800 11 01400
M 16 x 2	16,50	112	37	14,0	11,2	1	4800 11 01600
M 18 x 2,5	18,60	118	38	16,0	12,5	1	4800 11 01800
M 20 x 2,5	20,60	118	38	16,0	12,5	1	4800 11 02000
M 22 x 2,5	22,60	130	45	20,3	14,0	1	4800 11 02200
M 24 x 3	24,75	138	48	23,0	16,0	1	4800 11 02400

Ø d1 mm		L 1 mm	L 2 mm	Ø d2 mm	□ mm		Art. Nr. Part-No.
MF 8 x 1	8,3	80	24	10,0	8,0	1	4801 11 00810
MF 10 x 1	10,3	85	25	8,0	6,3	1	4801 11 01010
MF 10 x 1,25	10,3	85	25	8,0	6,3	1	4801 11 01012
MF 12 x 1	12,3	95	30	10,9	9,0	1	4801 11 01210
MF 12 x 1,25	12,3	95	30	11,2	9,0	1	4801 11 01212
MF 12 x 1,5	12,4	95	30	11,2	9,0	1	4801 11 01215
MF 14 x 1	14,3	102	32	12,5	10,0	1	4801 11 01410
MF 14 x 1,25	14,4	102	32	12,5	10,0	1	4801 11 01412
MF 14 x 1,5	14,4	102	32	12,5	10,0	1	4801 11 01415
MF 16 x 1,5	16,4	104	29	14,0	11,2	1	4801 11 01615
MF 18 x 1,5	18,5	104	29	14,0	11,2	1	4801 11 01815
MF 18 x 2	18,5	104	29	16,0	11,2	1	4801 11 01820
MF 20 x 1,5	20,5	113	33	16,0	12,5	1	4801 11 02015
MF 20 x 2	20,5	113	33	16,0	12,5	1	4801 11 02020
MF 22 x 1,5	22,5	120	35	19,3	14,0	1	4801 11 02215
MF 22 x 2	22,5	120	35	20,3	14,0	1	4801 11 02220
MF 24 x 1,5	24,5	120	35	18,0	14,0	1	4801 11 02415
MF 24 x 2	24,5	127	37	20,0	16,0	1	4801 11 02420

Maschio cobinato STI HSS-G, specifico per candele
STI combined-thread tap HSS-G, especially for spark plugs





Code **4802**

MF | HSS G | ISO1 4H | 60° | 800 N/mm² | T

- Indicato per la riparazione delle filettature delle candele
- Per uso manuale e a macchina
- Con la punta pilota
- Non è necessario praticare un pre-foro.

- Especially for repair of spark plug threads
- For manual and machine use
- With pilot-nose
- No need to drill a core hole.

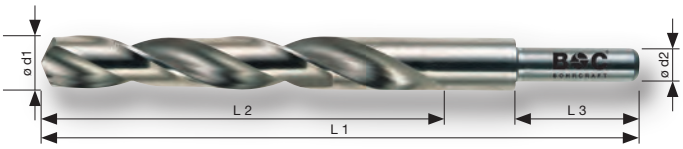
MF	Ø d1 mm	Ø d2 mm	Ø d3 mm	L 1 mm	L 2 mm	L 3 mm	□ mm		Art. Nr. Part-No.
MF 14 x 1,25	14	15,6	12	90	10	45	9,2	1	4802 11 01412

Punte elicoidali DIN 338 HSS-G Tipo N, split point
Twist drills DIN 338 HSS-G type N, split point

DIN 338 | HSS G | Typ N | 118° | SPLIT POINT | 800 N/mm² | 5xD



Code **1121** (≤ 12,4 mm)



Code **1121-red.** (≥ 14,3 mm)

Per acciaio legato e non legato, ghisa, ghisa malleabile, grafite duttile, pressofusione, leghe di alluminio a truciolo corto, ottone e bronzo.

For steel and cast steel alloyed and unalloyed, cast iron, annealed cast iron, ductile graphite iron, diecast, short-chipping aluminium-alloy, brass and bronze.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm	L 3 mm	Per filetto For thread		Art. Nr. Part-No.
3,20	65	36	cil. / cyl.	-	M 3 x 0,50	10	1121 01 00320
4,20	75	43	cil. / cyl.	-	M 4 x 0,70	10	1121 01 00420
5,20	86	52	cil. / cyl.	-	M 5 x 0,80	10	1121 01 00520
6,30	101	63	cil. / cyl.	-	M 6 x 1,00	10	1121 01 00630
8,30	117	75	cil. / cyl.	-	M 8 x 1,00 / M 8 x 1,25	10	1121 01 00830
10,30	133	87	cil. / cyl.	-	M 10 x 1,00 / M 10 x 1,25	5	1121 01 01030
10,40	133	87	cil. / cyl.	-	M 10 x 1,50	5	1121 01 01040
12,30	151	101	cil. / cyl.	-	M 12 x 1,00 / M 12 x 1,25	5	1121 01 01230
12,40	151	101	cil. / cyl.	-	M 12 x 1,75 / M 12 x 1,50	5	1121 01 01240
14,30	169	114	13	30	M 14 x 1,00	1	1121 01 11430
14,40	169	114	13	30	M 14 x 1,25 / M 14 x 1,50	1	1121 01 11440
14,50	169	114	13	30	M 14 x 2,00	1	1121 01 11450
16,40	184	125	13	35	M 16 x 1,50	1	1121 01 11640
16,50	184	125	13	35	M 16 x 2,00	1	1121 01 11650
18,50	198	135	13	35	M 18 x 1,50 / M 18 x 2,00	1	1121 01 11850
18,60	198	135	13	35	M 18 x 2,50	1	1121 01 11860
20,50	225	145	13	40	M 20 x 1,50 / M 20 x 2,00	1	1121 01 12050
20,60	225	145	13	40	M 20 x 2,50	1	1121 01 12060
22,50	230	155	13	40	M 22 x 1,50 / M 22 x 2,00	1	1121 01 12250
22,60	230	155	13	40	M 22 x 2,50	1	1121 01 12260
24,50	250	160	13	40	M 24 x 1,50 / M 24 x 2,00	1	1121 01 12450
24,75	250	160	13	40	M 24 x 3,00	1	1121 01 12475

BOC

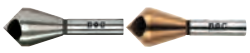
SVASATORI · SVASATORI PER LAMIERA · PUNTE A GRADINO
COUNTERSINKS · SHEET METAL DRILLS · STEP DRILLS

PROFI PLUS by BOHRCRAFT

PROFI BASIC by BOHRCRAFT



LTF

	DIN	Qualità Quality	Tipo Type	Descrizione Description	Code	Pagina Page
Svasatori / Countersinks						
PROFI PLUS 	335 C	HSS AlCro	90°	Svasatori, a PASSO DISUGUALE Countersinks, UNEQUAL PITCH	1730 1731	264
PROFI PLUS 	335 C	HSS-E blue+	90°	Svasatori, a PASSO DISUGUALE Countersinks, UNEQUAL PITCH	1732 1733	265
PROFI PLUS 	335 C	VHM/SC blue+	90°	Svasatori, a PASSO DISUGUALE Countersinks, UNEQUAL PITCH	1715 1719	266
PROFI BASIC 	335 C	HSS-E PM	90°	Svasatori ricavati da **polveri sinterizzate** Countersinks **powder metal**	1714	267
PROFI BASIC 	335 C	HSS TiN TiALN	90°	Svasatori Countersinks	1700 1701 1702	268
PROFI BASIC 	335 C	HSS-E Co5	90°	Svasatori in **lega di cobalto** Countersinks **cobalt alloyed**	1710	269
PROFI BASIC 	335 C	HSS	90°	Svasatori, lunghi / extra lunghi Countersinks, long / extra long version	1703-L 1703-EL	270
BOC 	BC Norm	HSS	90°	Svasatori con codolo esagonale ¼" Countersinks, ¼" hex-shank	1705	271
BOC 		HSS	90°	Sbavatori a mano Hand deburring tools	1820	271
PROFI BASIC 	335 D	HSS	90°	Svasatori con codolo conico Countersinks with taper shank	1704	272
PROFI BASIC 	334 C	HSS	60°	Svasatori Countersinks	1700-60	272
PROFI BASIC 	BC Norm	HSS	75°	Svasatori Countersinks	1700-75	273
PROFI BASIC 	BC Norm	HSS	120°	Svasatori Countersinks	1700-120	273
BOC 	BC Norm	HSS TiN	90°	Svasatori a foro trasversale Countersinks with cross hole	1720 1721	274
BOC 	373	HSS TiN	180°	Svasatori per sedi viti Flat countersinks	1706 ÷ 1718	275
Punte a passo multiplo / Subland drills						
BOC 	8374 8376	HSS-G	90° 180°	Punte a passo multiplo Subland drills	1625 1626	276
Punte a gradino / Step Drills						
PROFI BASIC 	BC Norm	HSS TiN blue+		Punte a gradino **con scanalature elicoidali** Step drills **with spiral flute**	1763 1764 1767	278
PROFI BASIC 	BC Norm	HSS-E Co5 blue+		Punte a gradino in lega di cobalto, **con scanalature elicoidali** Step drills **with spiral flute**	1765 1766	279
BOC 	BC Norm	HSS TiN TiALN		Punte a gradino Step drills	1760 1761 1762	280
BOC 	BC Norm	HSS		Punte a gradino elicoidali, codolo esagonale ¼" Step drills with ¼" hex-shank	1760-1/4"	281
Svasatori per lamiera / Sheet metal drills						
BOC 	BC Norm	HSS TiN TiALN		Svasatori per lamiera Sheet metal drills	1740 1741 1742	282
BOC 	BC Norm	HSS-E Co5		Svasatori per lamiera in **lega di cobalto** Sheet metal drills **cobalt alloyed**	1743	283
BOC 	BC Norm	HSS TiN		Svasatori per lamiera con fermo di profondità Sheet metal drills with backstop	1740-A 1741-A	283

					UNEQUAL 	UNEQUAL 				
DIN		335	335	335	335	335	335	335	334	-
Tipo Type		C	C	C	C	C	C	D	C	C
Materiale da taglio Cutting material		HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS
Rivestimento Coating		-	TiN	TiALN	-	AlCro	-	-	-	-
Angolo di taglio Cutting angle		90°	90°	90°	90°	90°	90°	90°	60°	75°
Codolo Shank		cil. cyl.	cil. cyl.	cil. cyl.	3-lati 3-flat	3-lati 3-flat	cil. cyl.	MK MT	cil. cyl.	cil. cyl.
Intervallo Range		4,3 – 50,0 mm	4,3 – 31,0 mm	4,3 – 31,0 mm	6,3 – 40,0 mm	6,3 – 40,0 mm	6,3 – 20,5 mm	15 – 120 mm	6,3 – 30,0 mm	6,3 – 25,0 mm
Qualità Quality		★★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★
Code		1700	1701	1702	1730	1731	1703	1704	1700-60	1700-75
Pagina Page		268	268	268	264	264	270	272	272	273
P	1.1 – 2.1	●	●	●	●	●	●	●	●	●
	3.1 – 4.1		◐	●	◐	●				
	5.1			◐		◐				
M	1.1 – 2.1		◐	●		●				
	3.1 – 4.1									
K	1.1 – 1.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
	2.1 – 2.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
	3.1 – 3.2									
	4.1 – 4.2	◐	◐	◐	◐	◐	◐	◐	◐	◐
N	1.1 – 1.5	●			●		●	●	●	●
	2.1	●	◐	●	●	●	●	●	●	●
	2.2 – 2.3	◐		●		●	◐	◐	◐	◐
	4.1 – 4.2	●	●	●	●	●	●	●	●	●
S	1.1 – 1.2		◐	◐	◐	◐				
	2.1 – 2.6									
H	1.1									
	1.2									

● adatto / suitable ◐ consigliato / limited suitable

		UNEQUAL 	UNEQUAL 		UNEQUAL 	UNEQUAL 				
-	335	335	335	335	335	335	-	-	-	373
C	C	C	C	C	C	C	-	-	-	-
HSS	HSS-E Co5	HSS-E Co5	HSS-E Co5	HSS-E PM	VHM SC	VHM SC	HSS	HSS	HSS	HSS
-	-	-	blue+	-	-	blue+	-	-	TiN	-
120°	90°	90°	90°	90°	90°	90°	90°	90°	90°	180°
cil. cyl.	cil. cyl.	3-lati 3-flat	3-lati 3-flat	cil. cyl.	cil. cyl.	cil. cyl.	esag. 1/4" 1/4" hex	cil. cyl.	cil. cyl.	cil. cyl.
6,3 – 25,0 mm	6,3 – 50,0 mm	6,3 – 31,0 mm	6,3 – 31,0 mm	6,3 – 31,0 mm	6,3 – 31,0 mm	6,3 – 31,0 mm	6,3 – 25,0 mm	2 – 30 mm	2 – 25 mm	M3 – M12
★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★	★★★	★★★	★★★
1700-120	1710	1732	1733	1714	1715	1719	1705	1720	1721	1706 ÷ 1708
273	269	265	265	267	266	266	271	274	274	275
●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●			◐	
	◐	◐	●	◐	●	●				
	●	●	●	●	●	●			◐	
			◐	◐	●	●				
◐	◐	◐	●	●	●	●	◐	◐	◐	◐
◐	◐	◐	●	●	●	●	◐	◐	◐	◐
					●	●				
◐	◐	◐	●	●	●	●	◐	◐	◐	◐
●	●	●			●	●	●	●		●
●	●	●	●	●	●	●	●	●	◐	●
◐	●	●	●	●	●	●	◐	◐		◐
●	●	●	●	●	●	●	●	●	●	●
	◐	◐	◐	◐	●	●			◐	
					●	●				
				◐	◐	◐				
				◐	◐	◐				

● adatto / suitable ◐ consigliato / limited suitable

Parametri d'impiego consigliati
Application recommendation

										
DIN		373	8374	8376	-	-	-	-	-	-
Tipo Type		-	-	-	-	-	-	-	-	-
Materiale da taglio Cutting material		HSS	HSS	HSS	HSS	HSS	HSS	HSS-E Co5	HSS-E Co5	HSS
Rivestimento Coating		TiN	-	-	-	TiN	blue+	-	blue+	-
Angolo di taglio Cutting angle		180°	90°	180°	-	-	-	-	-	-
Codolo Shank		cil. cyl.	cil. cyl.	cil. cyl.	3-lati 3-flat	3-kant 3-flat	3-lati 3-flat	3-lati 3-flat	3-lati 3-flat	3-lati 3-flat
Intervallo Range		M3 – M12	M3 – M10	M3 – M10	4,0 – 40,5 mm	4,0 – 40,5 mm	4,0 – 40,5 mm	4 – 39 mm	4 – 39 mm	4,0 – 40,5 mm
Qualità Quality		★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★
Code		1706 ÷ 1718	1625	1626	1763	1764	1767	1765	1766	1760
Pagina Page		275	276	276	278	278	278	279	279	280
P	1.1 – 2.1	●	●	●	●	●	●	●	●	●
	3.1 – 4.1	◐				◐	●	●	●	
	5.1						◐	◐	●	
M	1.1 – 2.1	◐				◐	●	●	●	
	3.1 – 4.1								◐	
K	1.1 – 1.2	◐	◐	◐	◐	◐	◐	◐	●	◐
	2.1 – 2.2	◐	◐	◐	◐	◐	◐	◐	●	◐
	3.1 – 3.2									
	4.1 – 4.2	◐	◐	◐	◐	◐	◐	◐	●	◐
N	1.1 – 1.5		●	●	●			●		●
	2.1	◐	●	●	●	◐	●	●	●	●
	2.2 – 2.3		◐	◐	◐		●	●	●	◐
	4.1 – 4.2	●	●	●	●	●	●	●	●	●
S	1.1 – 1.2	◐				◐	◐	◐	◐	
	2.1 – 2.6									
H	1.1									
	1.2									

● adatto / suitable ◐ consigliato / limited suitable

								
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS-E Co5
TiN	TiALN	-	-	TiN	TiALN	-	TiN	-
-	-	-	-	-	-	-	-	-
3-lati 3-flat	3-lati 3-flat	esag. 1/4" 1/4" hex	3-lati 3-flat	3-lati 3-flat	3-kant 3-flat	3-lati 3-flat	3-lati 3-flat	3-lati 3-flat
4,0 – 40,5 mm	4,0 – 40,5 mm	4 – 30 mm	3 – 50 mm	3 – 50 mm	3 – 50 mm	2,5 – 15,0 mm	2,5 – 15,0 mm	3,0 – 30,5 mm
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
1761	1762	1760-1/4"	1740	1741	1742	1740-A	1741-A	1743
280	280	281	282	282	282	283	283	283
●	●	●	●	●	●	●	●	●
◐	●			◐	●		◐	●
	◐				◐			◐
◐	●			◐	●		◐	●
◐	◐	◐	◐	◐	◐	◐	◐	◐
◐	◐	◐	◐	◐	◐	◐	◐	◐
◐	◐	◐	◐	◐	◐	◐	◐	◐
		●	●			●		●
◐	●	●	●	◐	●	●	◐	●
	●	◐	◐		●	◐		●
●	●	●	●	●	●	●	●	●
◐	◐			◐	◐		◐	◐

● adatto / suitable ◐ consigliato / limited suitable

Svasatori di precisione HSS DIN 335 C 90°, a **PASSO DISUGUALE**
Precision-countersinks HSS DIN 335 C 90°, **UNEQUAL PITCH**







Code **1730**

Code **1731**

DIN 335C · HSS G · 90° · Z3 · CBN · 3 · UNEQUAL · Al-Cro

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1730	●	●				●	●		●	●	●		●	●
1731	●	●	●	●		●	●		●		●	●	●	●

Svasatore di precisione a passo disuguale e scanalature rettificate in modo speciale. Risultati perfetti su diversi materiali come acciai strutturali, metalli non ferrosi e ghisa.

· Il passo disuguale garantisce un funzionamento fluido e senza vibrazioni
· Le scanalature ottimizzate assicurano un'asportazione ideale di trucioli e calore
· Riduzione della forza di avanzamento
· Perfetta trasmissione della potenza grazie al codolo a tre lati
· Rivestimento AlCro per superfici più lisce e maggiore durata dell'utensile.

Precision countersink with unequal pitch and specially grinded flutes. Perfect results in various materials such as general structural steels, non-ferrous metals and cast iron.

· The unequal pitch guarantees smooth running and chatter-free work
· Optimized flutes ensure ideal chip and heat removal
· Reduction in feed force
· Perfect power transmission due to the triangle shank
· AlCro coating for smoother surfaces and longer tool life.

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.	Al-Cro Art.-Nr. Part-No.
6,3	1,5	5	45	M 3	1	1730 03 06390	1731 03 06390
8,3	2,0	6	50	M 4	1	1730 03 08390	1731 03 08390
10,4	2,5	6	50	M 5	1	1730 03 10490	1731 03 10490
12,4	2,8	8	56	M 6	1	1730 03 12490	1731 03 12490
16,5	3,2	10	60	M 8	1	1730 03 16590	1731 03 16590
20,5	3,5	10	63	M 10	1	1730 03 20590	1731 03 20590
25,0	3,8	10	67	M 12	1	1730 03 25090	1731 03 25090
31,0	4,2	12	71	M 16	1	1730 03 31090	1731 03 31090
40,0	4,2	13	80	-	1	1730 03 40090	1731 03 40090

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 3 UT	3	Ø 12,4 · 16,5 · 20,5 mm	1730 13 30003
KS 5-K UT	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1730 13 30005
KS 6-K UT	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1730 13 30006
KS 3 Al-Cro	3	Ø 12,4 · 16,5 · 20,5 mm	1731 13 30003
KS 5-K Al-Cro	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1731 13 30005
KS 6-K Al-Cro	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1731 13 30006
Bussolotto BC / BC Round-Box			
KS 5 UT	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1730 13 32005
KS 5 Al-Cro	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1731 13 32005



KS 5-K Al-Cro



KS 3 Al-Cro



KS 5 UT

Svasatori di precisione HSS-E (Co5) DIN 335 C 90°, a **PASSO DISUGUALE**
Precision-countersinks HSS-E (Co5) DIN 335 C 90°, **UNEQUAL PITCH**



Code **1732**





Code **1733**

DIN 335C · HSS-E Co5 · 90° · Z3 · CBN · VA INOX · 3 · UNEQUAL · blue+

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1732	●	●	◐	●		◐	◐		●	●	●	●	●	◐
1733	●	●	●	●	◐	●	●		●		●	●	●	◐

Svasatori di precisione in acciaio inossidabile HSS-E. A passo disuguale.

- Il passo disuguale garantisce un funzionamento fluido e senza vibrazioni
- Le scanalature ottimizzate assicurano un'asportazione ideale di trucioli e calore
- Riduzione della forza di avanzamento
- Perfetta trasmissione della potenza grazie al codolo a tre lati
- Rivestimento multistrato blue+ per una durata ottimizzata dell'utensile.

Precision countersink made of HSS-E for stainless steels. With unequal pitch and specially grinded flutes.

- The unequal pitch guarantees smooth running and chatter-free work
- Optimized flutes ensure ideal chip and heat removal
- Reduction in feed force
- Perfect power transmission due to the triangle shank
- blue+ multilayer coating for optimized tool life.

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.	blue+ Art.-Nr. Part-No.
6,3	1,5	5	45	M 3	1	1732 03 06390	1733 03 06390
8,3	2,0	6	50	M 4	1	1732 03 08390	1733 03 08390
10,4	2,5	6	50	M 5	1	1732 03 10490	1733 03 10490
12,4	2,8	8	56	M 6	1	1732 03 12490	1733 03 12490
16,5	3,2	10	60	M 8	1	1732 03 16590	1733 03 16590
20,5	3,5	10	63	M 10	1	1732 03 20590	1733 03 20590
25,0	3,8	10	67	M 12	1	1732 03 25090	1733 03 25090
31,0	4,2	12	71	M 16	1	1732 03 31090	1733 03 31090

Cassette BC Boxen / BC Boxes

Descrizione Description	Pezzi Pieces	contenuto Content	Art.-Nr. Part-No.
KS 3 Co UT	3	Ø 12,4 · 16,5 · 20,5 mm	1732 13 30003
KS 5-K Co UT	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1732 13 30005
KS 6-K Co UT	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1732 13 30006
KS 3 Co B+	3	Ø 12,4 · 16,5 · 20,5 mm	1733 13 30003
KS 5-K Co B+	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1733 13 30005
KS 6-K Co B+	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1733 13 30006
Bussolotti BC / BC Round-Box			
KS 5 Co UT	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1732 13 32005
KS 5 Co B+	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1733 13 32005



KS 6-K Co B+



KS 3 Co B+

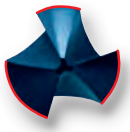


KS 5 Co UT

Svasatori di precisione in **MD** DIN 335 C 90°, a **PASSO DISUGUALE**
Solide carbide precision-countersinks DIN 335 C 90°, **UNEQUAL PITCH**



Code **1715**





Code **1719**

DIN 335C | VHM SC | 90° | Z3 | CBN | UNEQUAL | blue+

Code	P			M		K				N				S	H	
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 2.6	1.1	1.2
1715	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○
1719	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○

Svasatori di alta qualità in MD. Elevata durezza, resistenza alle alte temperature e all'usura rispetto ai normali utensili in HSS, garantisce un'eccellente durata anche su acciai ad alta resistenza ≤ 55 HRC.

- Il passo disuguale garantisce un funzionamento fluido e un lavoro senza vibrazioni
- Le scanalature ottimizzate assicurano un'ideale rimozione di trucioli e calore
- Riduzione della forza di avanzamento
- Rivestimento multistrato blue+ per una durata ottimale dell'utensile

Premium countersink made of solid carbide. High hardness and temperature resistance as well as wear resistance compared to normal HSS tools, enables excellent tool life even in high-strength steels ≤ 55 HRC.

- The unequal pitch guarantees smooth running and chatter-free work
- Optimized flutes ensure ideal chip and heat removal
- Reduction in feed force
- blue+ multilayer coating for optimized tool life

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.	blue+ Art.-Nr. Part-No.
6,3	1,5	5	45	M 3	1	1715 03 06390	1719 03 06390
8,3	2,0	6	50	M 4	1	1715 03 08390	1719 03 08390
10,4	2,5	6	50	M 5	1	1715 03 10490	1719 03 10490
12,4	2,8	8	56	M 6	1	1715 03 12490	1719 03 12490
16,5	3,2	10	60	M 8	1	1715 03 16590	1719 03 16590
20,5	3,5	10	63	M 10	1	1715 03 20590	1719 03 20590
25,0	3,8	10	67	M 12	1	1715 03 25090	1719 03 25090
31,0	4,2	12	71	M 16	1	1715 03 31090	1719 03 31090

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 3 HM	3	Ø 12,4 · 16,5 · 20,5 mm	1715 13 30003
KS 5-K HM	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1715 13 30005
KS 6-K HM	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1715 13 30006
KS 3 HM B+	3	Ø 12,4 · 16,5 · 20,5 mm	1719 13 30003
KS 5-K HM B+	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1719 13 30005
KS 6-K HM B+	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1719 13 30006
Bussolotti BC / BC Round-Box			
KS 5 HM	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1715 13 32005
KS 5 HM B+	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1719 13 32005


KS 6-K HM B+


KS 3 HM B+


KS 5 HM

Svasatori PM DIN 335 C 90° **ricavati da polveri sinterizzate** HSS-E
PM Precision-countersinks DIN 335 C 90° **powder metal** HSS-E



Code **1714**

DIN 335C | PM HSS-E | 90° | Z3 | CBN | VA INOX

Code	P			M		K				N				S	H	
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 2.6	1.1	1.2
1714	●	●	○	●	○	●	●		●	●	●	●	●	●	○	○

Svasatori di alta qualità ricavati da polveri sinterizzate HSS. La microstruttura omogenea e la conseguente elevata stabilità del tagliente garantiscono un'ottima resistenza all'usura. Particolarmente adatto alla lavorazione di acciai altolegati come INOX, nonché titanio e leghe di titanio.

Premium countersink made of powder metal high speed steels. The homogeneous microstructure and the resulting high cutting edge stability ensure very good wear resistance. Particularly suitable for machining higher-alloyed steels such as INOX as well as titanium and titanium alloys.

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.
6,3	1,5	5	45	M 3	1	1714 03 06390
8,3	2,0	6	50	M 4	1	1714 03 08390
10,4	2,5	6	50	M 5	1	1714 03 10490
12,4	2,8	8	56	M 6	1	1714 03 12490
16,5	3,2	10	60	M 8	1	1714 03 16590
20,5	3,5	10	63	M 10	1	1714 03 20590
25,0	3,8	10	67	M 12	1	1714 03 25090
31,0	4,2	12	71	M 16	1	1714 03 31090

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 6-K PM	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1714 13 30006



KS 6-K PM

Svasatori DIN 335 Form C 90° HSS
Countersinks DIN 335 type C 90° HSS



Code **1700**



Code **1701**



Code **1702**

DIN 335C | HSS G | 90° | Z3 | CBN | TiN | TiALN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1700	●					○	○		○	●	○	○	●	
1701	●	○		○		○	○		○		○		●	○
1702	●	○	○	○		○	○		○		○	○	●	○

Svasatore rettificato CBN realizzato in HSS per sbavatura e svasatura senza bave né vibrazioni in materiali duri come acciai strutturali, metalli non ferrosi e ghisa.

CBN-ground countersink made of HSS for burr- and chatter-free deburring and countersinking in normal hard materials such as general structural steels, non-ferrous metals and cast iron.

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 AF	DIN 74 BF		TiN	TiALN
							Art.-Nr. Part-No.	Art.-Nr. Part-No.	Art.-Nr. Part-No.
4,3	1,3	4	40			1	1700 03 04390	1701 03 04390	1702 03 04390
5,0	1,5	4	40	M 2,5		1	1700 03 05090	1701 03 05090	1702 03 05090
6,0	1,5	5	45	M 3		1	1700 03 06090	1701 03 06090	1702 03 06090
6,3	1,5	5	45		M 3	1	1700 03 06390	1701 03 06390	1702 03 06390
7,0	1,8	6	50	M 3,5		1	1700 03 07090	1701 03 07090	1702 03 07090
7,3	1,8	6	50			1	1700 03 07390	1701 03 07390	1702 03 07390
8,0	2,0	6	50	M 4		1	1700 03 08090	1701 03 08090	1702 03 08090
8,3	2,0	6	50		M 4	1	1700 03 08390	1701 03 08390	1702 03 08390
9,4	2,2	6	50			1	1700 03 09490	1701 03 09490	1702 03 09490
10,0	2,5	6	50	M 5		1	1700 03 10090	1701 03 10090	1702 03 10090
10,4	2,5	6	50		M 5	1	1700 03 10490	1701 03 10490	1702 03 10490
11,5	2,8	8	56	M 6		1	1700 03 11590	1701 03 11590	1702 03 11590
12,0	2,8	8	56			1	1700 03 12090	1701 03 12090	1702 03 12090
12,4	2,8	8	56		M 6	1	1700 03 12490	1701 03 12490	1702 03 12490
15,0	3,2	10	60	M 8		1	1700 03 15090	1701 03 15090	1702 03 15090
16,5	3,2	10	60		M 8	1	1700 03 16590	1701 03 16590	1702 03 16590
19,0	3,5	10	63	M 10		1	1700 03 19090	1701 03 19090	1702 03 19090
20,5	3,5	10	63		M 10	1	1700 03 20590	1701 03 20590	1702 03 20590
23,0	3,8	10	67	M 12		1	1700 03 23090	1701 03 23090	1702 03 23090
25,0	3,8	10	67		M 12	1	1700 03 25090	1701 03 25090	1702 03 25090
28,0	4,0	12	71		M 14	1	1700 03 28090	1701 03 28090	1702 03 28090
31,0	4,2	12	71		M 16	1	1700 03 31090	1701 03 31090	1702 03 31090
40,0	4,2	13	80			1	1700 03 40090	-	-
50,0	4,5	15	92			1	1700 03 50090	-	-

Cassette ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 5-K	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1700 13 30005
KS 6-K	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1700 13 30006
KS 6-K TiN	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1701 13 30006
KS 6-K TiALN	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1702 13 30006




Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 6	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1700 14 10006
KS 6 TiN	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1701 14 10006
KS 6 TiALN	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1702 14 10006




Svasatori DIN 335 Forma C 90° HSS-E (Co5) in **lega di cobalto**
Countersinks DIN 335 type C 90° HSS-E (Co5) **cobalt alloyed**



Code **1710**

DIN 335C | HSS-E Co5 | 90° | Z3 | CBN | VA INOX

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1710	●	●	◐	●		◐	◐		◐	●	●	●	●	◐

Svasatore rettificato CBN realizzato in HSS per sbavatura e svasatura senza bave né vibrazioni. Svasatore con elevata resistenza al calore, adatto per acciai inossidabili e resistenti al calore.

CBN-ground countersink made of HSS-E for burr- and chatter-free deburring and countersinking. Countersink with higher heat resistance, suitable for stainless and heat-resistant steels.

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.
6,3	1,5	5	45	M 3	1	1710 03 06390
8,3	2,0	6	50	M 4	1	1710 03 08390
10,4	2,5	6	50	M 5	1	1710 03 10490
12,4	2,8	8	56	M 6	1	1710 03 12490
16,5	3,2	10	60	M 8	1	1710 03 16590
20,5	3,5	10	63	M 10	1	1710 03 20590
25,0	3,8	10	67	M 12	1	1710 03 25090
31,0	4,2	12	71	M 16	1	1710 03 31090
40,0	4,2	13	80		1	1710 03 40090
50,0	4,5	15	92		1	1710 03 50090

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 5-K Co	5	Ø 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1710 13 30005
KS 6-K Co	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1710 13 30006

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KS 6 Co	6	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1710 14 10006

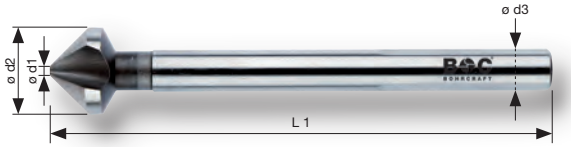


KS 6-K Co

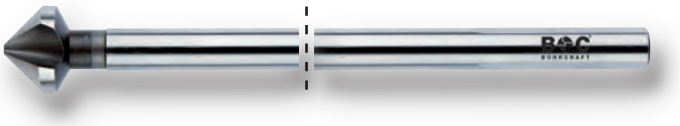


KS 6 Co

Svasatori ~ DIN 335 Forma C 90° HSS, versione lunga ed extra lunga
Countersinks ~DIN 335 type C 90° HSS, long and extra long version



Code **1703-L**



Code **1703-EL**

BOHRCRAFT NORM | HSS G | 90° | Z3 | CBN | LANGE LONG Version

EXTRA LANGE EXTRA LONG Version

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1703	●					●	●		●	●	●	●	●	

Svasatori rettificati CBN con codolo lungo o extra lungo. Per sbavature e svasature senza bave né vibrazioni in punti difficilmente accessibili o su spigoli che possono interferire. Adatto a materiali duri come acciai strutturali, metalli non ferrosi e ghisa.

CBN ground countersink with long or extra long shank. For burr and chatter-free deburring and countersinking in difficult accesssible places or interfering edges. Suitable for normal hard materials such as general structural steels, non-ferrous metals and cast iron.

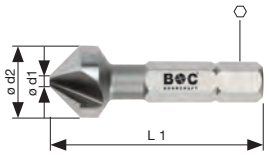
Versione lunga / Long version

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.
6,3	1,5	5	85	M 3	1	1703 03 06390
8,3	2,0	6	85	M 4	1	1703 03 08390
10,4	2,5	6	88	M 5	1	1703 03 10490
12,4	2,8	8	108	M 6	1	1703 03 12490
16,5	3,2	10	112	M 8	1	1703 03 16590
20,5	3,5	10	115	M 10	1	1703 03 20590

Versione Extra-lunga / Extra-long version

Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.
6,3	1,5	5	154	M 3	1	1703 03 06391
8,3	2,0	6	155	M 4	1	1703 03 08391
10,4	2,5	6	157	M 5	1	1703 03 10491
12,4	2,8	8	158	M 6	1	1703 03 12491
16,5	3,2	10	161	M 8	1	1703 03 16591
20,5	3,5	10	164	M 10	1	1703 03 20591

Svasatori 90° HSS con attacco ¼" esagonale
Countersink-bits 90° HSS ¼" hex-shank



Code **1705**

BC NORM | HSS G | 90° | Z3 | CBN | ¼"

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1705	●					●	●		●	●	●	●	●	

Svasatori rettificati CBN con codolo esagonale ¼". Per sbavature e svasature senza bave né vibrazioni in materiali duri come acciai strutturali, metalli non ferrosi e ghisa.

CBN ground countersink with ¼" hex. shank. For burr- and chatter-free deburring and countersinking in normal hard materials such as general structural steels, non-ferrous metals and cast iron.

Ø d2 mm	Ø d1 mm	⬡	L 1 mm	DIN 74 BF		Art.-Nr. Part-No.
6,3	1,5	1/4" / 6,35 mm	31	M 3	1	1705 03 06390
8,3	2,0	1/4" / 6,35 mm	31	M 4	1	1705 03 08390
10,4	2,5	1/4" / 6,35 mm	31	M 5	1	1705 03 10490
12,4	2,8	1/4" / 6,35 mm	35	M 6	1	1705 03 12490
16,5	3,2	1/4" / 6,35 mm	40	M 8	1	1705 03 16590
20,5	3,5	1/4" / 6,35 mm	41	M 10	1	1705 03 20590
25,0	3,8	1/4" / 6,35 mm	41	M 12	1	1705 03 25090

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KSB 6-K	8	Ø 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm + Portainserti e impugnatura · Bitholder and handle	1705 13 30006



Sbavatori a mano 90° HSS
Hand deburring tools 90° HSS

BC NORM | HSS G | 90° | Z3 | CBN | ¼"



Code **1820**

/



Ø d2 mm	Ø d1 mm	DIN 74 BF		Art.-Nr. Part-No.
10,4	2,5	M 5	1	1820 03 10490
12,4	2,8	M 6	1	1820 03 12490
16,5	3,2	M 8	1	1820 03 16590
20,5	3,5	M 10	1	1820 03 20590
25,0	3,8	M 12	1	1820 03 25090

¼"



Code **6300**



Code **1820-H**

Descrizione Description		Art.-Nr. Part-No.
Impugnatura BC / BC-Handle	1	1820 03 00001
Portainserti 60 mm / Bitholder 60 mm	1	6300 15 01060

Svasatori DIN 335 Forma D 90° HSS, con codolo conico
Countersinks DIN 335 type D 90° HSS, with taper shank



Code **1704**

DIN 335D | HSS G | 90° | Z3 | CBN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1704	●					●	●		●	●	●	●	●	

Svasatori rettificati CBN realizzati in HSS per sbavatura e svasatura senza bave e vibrazioni in materiali duri come acciai strutturali, metalli non ferrosi e ghisa

CBN-ground countersink made of HSS for burr- & chatterfree deburring and countersinking in normal hard materials such as general structural steels, non-ferrous metals and cast iron.

Ø d2 mm	Ø d1 mm	MK MT	L 1 mm	DIN 74 AF	DIN 74 BF		Art.-Nr. Part-No.
15,0	3,2	1	85	M 8		1	1704 03 15090
16,5	3,2	1	85		M 8	1	1704 03 16590
19,0	3,5	2	100	M 10		1	1704 03 19090
20,5	3,5	2	100		M 10	1	1704 03 20590
23,0	3,8	2	106	M 12		1	1704 03 23090
25,0	3,8	2	106		M 12	1	1704 03 25090
26,0	3,8	2	106	M 14		1	1704 03 26090
28,0	4,0	2	112		M 14	1	1704 03 28090
30,0	4,2	2	112	M 16		1	1704 03 30090
31,0	4,2	2	112		M 16	1	1704 03 31090
34,0	4,5	2	118	M 18	M 18	1	1704 03 34090
37,0	4,8	2	118	M 20	M 20	1	1704 03 37090
40,0	10,0	3	140			1	1704 03 40090
50,0	14,0	3	150			1	1704 03 50090
63,0	16,0	4	180			1	1704 03 63090
80,0	22,0	4	190			1	1704 03 80090
100,0	28,0	4	200			1	1704 03 10090
120,0	34,0	4	208			1	1704 03 12090

Svasatori DIN 334 Forma C 60° HSS
Countersinks DIN 334 type C 60° HSS



Code **1700-60**

DIN 334C | HSS G | 60° | Z3 | CBN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1700-60	●					●	●		●	●	●	●	●	

Svasatori rettificati CBN realizzati in HSS sbavatura e svasatura senza bave e vibrazioni in materiali duri come acciai strutturali, metalli non ferrosi e ghisa.

CBN-ground countersink made of HSS for burr- & chatterfree deburring and countersinking in normal hard materials such as general structural steels, non-ferrous metals and cast iron.

Ø d2 mm	Ø d1 mm	L 1 mm	Ø d3 mm		Art.-Nr. Part-No.
6,3	1,6	45	5	1	1700 03 06360
8,3	2,0	50	6	1	1700 03 08060
10,0	2,5	50	6	1	1700 03 10060
12,5	3,2	56	8	1	1700 03 12560
16,0	4,0	63	10	1	1700 03 16060
20,0	5,0	67	10	1	1700 03 20060
25,0	6,3	71	10	1	1700 03 25060
30,0	7,1	71	12	1	1700 03 30060

Svasatori Forma C 75° HSS
Countersinks type C 75° HSS



Code **1700-75**

BOHRCRAFT NORM | HSS G | 75° | Z3 | CBN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1700-75	●					●	●		●	●	●	●	●	

Svasatori rettificati CBN realizzati in HSS sbavatura e svasatura senza bave e vibrazioni in materiali duri come acciai strutturali, metalli non ferrosi e ghisa.

CBN-ground countersink made of HSS for burr- & chatterfree deburring and countersinking in normal hard materials such as general structural steels, non-ferrous metals and cast iron.

Ø d2 mm	Ø d1 mm	L 1 mm	Ø d3 mm		Art.-Nr. Part-No.
6,3	1,6	45	5	1	1700 03 06375
8,3	2,0	50	6	1	1700 03 08375
10,4	2,5	50	6	1	1700 03 10475
12,4	3,2	56	8	1	1700 03 12475
16,5	4,0	63	10	1	1700 03 16575
20,5	5,0	67	10	1	1700 03 20575
25,0	6,3	71	10	1	1700 03 25075



Svasatori Forma C 120° HSS
Countersinks type C 120° HSS

BOHRCRAFT NORM | HSS G | 120° | Z3 | CBN



Code **1700-120**

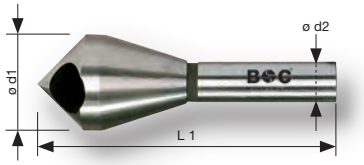
Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1700-120	●					●	●		●	●	●	●	●	

Svasatori rettificati CBN realizzati in HSS sbavatura e svasatura senza bave e vibrazioni in materiali duri come acciai strutturali, metalli non ferrosi e ghisa.

CBN-ground countersink made of HSS for burr- & chatterfree deburring and countersinking in normal hard materials such as general structural steels, non-ferrous metals and cast iron.

Ø d2 mm	Ø d1 mm	L 1 mm	Ø d3 mm		Art.-Nr. Part-No.
6,3	1,6	45	5	1	1700 03 06312
8,3	2,0	50	6	1	1700 03 08312
10,4	2,5	50	6	1	1700 03 10412
12,4	3,0	56	8	1	1700 03 12412
16,5	3,5	63	10	1	1700 03 16512
20,5	4,0	67	10	1	1700 03 20512
25,0	5,0	71	10	1	1700 03 25012

Svasatori HSS con foro trasversale
Countersinks HSS with cross hole



Code **1720**



Code **1721**

HSS G · 90° · Z1 · CBN · TiN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1720	●					○	○		○	●	○	○	●	
1721	●	○		○		○	○		○		○		●	○

Svasatori con foro trasversale in HSS con un tagliente. I trucioli vengono rimossi attraverso il foro nella direzione del codolo. Ideale per sbavatura e svasatura senza bave e vibrazioni in materiali facilmente lavorabili come acciai strutturali, metalli non ferrosi e ghisa. La bassa velocità di taglio garantisce risultati ottimali.

Cross hole countersink made of HSS with one cutting edge. The chips are removed through the hole in the direction of the shank. For burr and chatter-free deburring and countersinking in good machinable materials such as general structural steels, non-ferrous metals and cast iron. Low cutting speed ensures the best results.

Misura Size	Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
1	2 – 5	6	45	1	1720 03 00001	1721 03 00001
2	5 – 10	8	48	1	1720 03 00002	1721 03 00002
3	10 – 15	10	65	1	1720 03 00003	1721 03 00003
4	15 – 20	12	85	1	1720 03 00004	1721 03 00004
5	20 – 25	12	102	1	1720 03 00005	1721 03 00005
6	25 – 30	15	115	1	1720 03 00006	-

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
QS 4-K	4	Misura / Size: 1 · 2 · 3 · 4 Intervallo / Range: Ø 2-5 · 5-10 · 10-15 · 15-20 mm	1720 13 30004



QS 4-K

Frese per sedi viti a testa cilindrica DIN 373 HSS con guida fissa
Flat countersinks DIN 373 HSS with fixed guide



Code **1706 • 1707 • 1708**



Code **1716 • 1717 • 1718**

DIN 373 · HSS G · 180° · CBN

TiN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1706 – 1708	●					◐	◐		◐	●	●	◐	●	
1716 – 1718	●	◐		◐		◐	◐		◐		◐		●	◐

Frese per sedi viti a testa cilindrica bulloni e dadi esagonali in materiali facilmente lavorabili come acciai strutturali generici, metalli non ferrosi e ghisa. Una bassa velocità di taglio garantisce i migliori risultati.
Secondo norme DIN 74, foglio 2, Forma H - J -K.

Flat countersinks for producing countersinkings for cylinder-head screws, thread-cutting screws and thread-furrowing screws in good machinable materials such as general structural steels, non-ferrous metals and cast iron. Low cutting speed ensures the best results.
For countersinkings according to DIN 74, Sheet 2, form H – J – K.

M	Ø d2 mm	Ø d1 mm	Ø d3 mm	L 1 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
Foro passante fine / Fine grade for through hole							
M 3	6	3,2	5,0	71	1	1706 03 00300	1716 03 00300
M 4	8	4,3	5,0	71	1	1706 03 00400	1716 03 00400
M 5	10	5,3	8,0	80	1	1706 03 00500	1716 03 00500
M 6	11	6,4	8,0	80	1	1706 03 00600	1716 03 00600
M 8	15	8,4	12,5	100	1	1706 03 00800	1716 03 00800
M 10	18	10,5	12,5	100	1	1706 03 01000	1716 03 01000
M 12	20	13,0	12,5	100	1	1706 03 01200	1716 03 01200
Foro passante medio / Medium grade for through hole							
M 3	6	3,4	5,0	71	1	1707 03 00300	1717 03 00300
M 4	8	4,5	5,0	71	1	1707 03 00400	1717 03 00400
M 5	10	5,5	8,0	80	1	1707 03 00500	1717 03 00500
M 6	11	6,6	8,0	80	1	1707 03 00600	1717 03 00600
M 8	15	9,0	12,5	100	1	1707 03 00800	1717 03 00800
M 10	18	11,0	12,5	100	1	1707 03 01000	1717 03 01000
M 12	20	13,5	12,5	100	1	1707 03 01200	1717 03 01200
Pre-foro / For thread core hole							
M 3	6	2,5	5,0	71	1	1708 03 00300	1718 03 00300
M 4	8	3,3	5,0	71	1	1708 03 00400	1718 03 00400
M 5	10	4,2	8,0	80	1	1708 03 00500	1718 03 00500
M 6	11	5,0	8,0	80	1	1708 03 00600	1718 03 00600
M 8	15	6,8	12,5	100	1	1708 03 00800	1718 03 00800
M 10	18	8,5	12,5	100	1	1708 03 01000	1718 03 01000
M 12	20	10,2	12,5	100	1	1708 03 01200	1718 03 01200

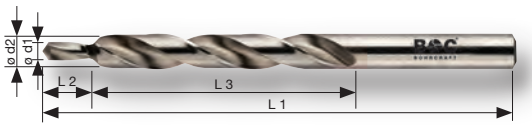
Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
FS 6-FK	6 M3 – M10	Foro passante fine / Fine grade M3 · M4 · M5 · M6 · M8 · M10	1706 13 30006
FS 6-MK	6 M3 – M10	Foro passante medio / Medium grade M3 · M4 · M5 · M6 · M8 · M10	1707 13 30006
FS 6-KK	6 M3 – M10	Pre-foro / Thread core hole M3 · M4 · M5 · M6 · M8 · M10	1708 13 30006





Punte a passo multiplo DIN 8374 / 8376 HSS-G
Subland drills DIN 8374 / 8376 HSS-G



Code **1625**



Code **1626**

DIN 8374 · HSS G · 90°

DIN 8376 · HSS G · 180°

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1625 · 1626	●					●	●		●	●	●	●	●	

Punte a passo multiplo in HSS Per fori passanti e per sedi viti a testa svasata.

Subland drill made of HSS for producing precise, cylindrical through holes and screw head counterborings.



Esecuzione fine per foro passante 90° / 90° Fine grade for through hole

M	Ø d1 mm	Ø d2 mm	L 2 mm	L 3 mm	L 1 mm		Art.-Nr. Part-No.
M 3	3,2	6,0	9	57	93	1	1625 03 00300
M 4	4,3	8,0	11	75	117	1	1625 03 00400
M 5	5,3	10,0	13	87	133	1	1625 03 00500
M 6	6,4	11,5	15	94	142	1	1625 03 00600
M 8	8,4	15,0	19	114	169	1	1625 03 00800
M 10	10,5	19,0	23	135	191	1	1625 03 01000

Esecuzione media per foro passante 180° / 180° Medium grade for through hole

M	Ø d1 mm	Ø d2 mm	L 2 mm	L 3 mm	L 1 mm		Art.-Nr. Part-No.
M 3	3,4	6,0	9	57	93	1	1626 03 00300
M 4	4,5	8,0	11	75	117	1	1626 03 00400
M 5	5,5	10,0	13	87	133	1	1626 03 00500
M 6	6,6	11,0	15	94	142	1	1626 03 00600
M 8	9,0	15,0	19	114	169	1	1626 03 00800
M 10	11,0	18,0	23	135	191	1	1626 03 01000

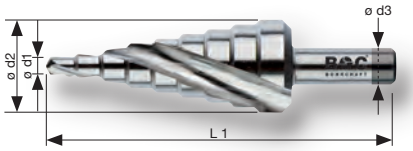
Versioni disponibili punte a gradino
Available versions step drills

Misura Size	Descrizione Description
1A	Per fori metrici diametro / For metric hole diameters Ø 4,0 mm · Ø 6,0 mm · Ø 8,0 mm · Ø 10,0 mm · Ø 12,0 mm
2A	Per fori metrici diametro / For metric hole diameters Ø 4,0 mm · Ø 6,0 mm · Ø 8,0 mm · Ø 10,0 mm · Ø 12,0 mm · Ø 14,0 mm · Ø 16,0 mm · Ø 18,0 mm · Ø 20,0 mm
3A	Per fori metrici diametro / For metric hole diameters Ø 4,0 mm · Ø 6,0 mm · Ø 8,0 mm · Ø 10,0 mm · Ø 12,0 mm · Ø 14,0 mm · Ø 16,0 mm · Ø 18,0 mm · Ø 20,0 mm Ø 22,0 mm · Ø 24,0 mm · Ø 26,0 mm · Ø 28,0 mm · Ø 30,0 mm
1	Per fori metrici diametro / For metric hole diameters Ø 4,0 mm · Ø 5,0 mm · Ø 6,0 mm · Ø 7,0 mm · Ø 8,0 mm · Ø 9,0 mm · Ø 10,0 mm · Ø 11,0 mm · Ø 12,0 mm
2	Per fori metrici diametro / For metric hole diameters Ø 12,0 mm · Ø 13,0 mm · Ø 14,0 mm · Ø 15,0 mm · Ø 16,0 mm · Ø 17,0 mm · Ø 18,0 mm · Ø 19,0 mm · Ø 20,0 mm
3	Per fori metrici diametro / For metric hole diameters Ø 20,0 mm · Ø 21,0 mm · Ø 22,0 mm · Ø 23,0 mm · Ø 24,0 mm · Ø 25,0 mm · Ø 26,0 mm · Ø 27,0 mm · Ø 28,0 mm Ø 29,0 mm · Ø 30,0 mm
4	Per montaggio pressacavi in acciaio (fori passanti) / For steel conduit threads (core holes) PG 7 · PG 9 · PG 11 · PG 13,5 · PG 16 · PG 21 Ø 11,4 mm · Ø 14,0 mm · Ø 17,25 mm · Ø 19,0 mm · Ø 21,25 mm · Ø 26,75 mm
5	Per montaggio pressacavi in acciaio (fori passanti) / For steel conduit threads (through holes) PG 7 · PG 9 · PG 11 · PG 13,5 · PG 16 · PG 21 · PG 29 Ø 12,5 mm · Ø 15,2 mm · Ø 18,6 mm · Ø 20,4 mm · Ø 22,5 mm · Ø 28,3 mm · Ø 37,0 mm
6	Per fori metrici diametro/ For metric hole diameters Ø 4,0 mm · Ø 6,0 mm · Ø 9,0 mm · Ø 12,0 mm · Ø 15,0 mm · Ø 18,0 mm · Ø 21,0 mm · Ø 24,0 mm · Ø 27,0 mm Ø 30,0 mm · Ø 33,0 mm · Ø 36,0 mm · Ø 39,0 mm
7	Per fori metrici diametro / For metric hole diameters Ø 6,0 mm · Ø 9,0 mm · Ø 13,0 mm · Ø 16,0 mm · Ø 19,0 mm · Ø 21,0 mm · Ø 23,0 mm · Ø 26,0 mm · Ø 29,0 mm Ø 32,0 mm · Ø 35,0 mm · Ø 38,0 mm
9	Per precassavi e fori metrici secondo norme/ For metric cable connections, core holes according DIN/EN 60423 M 6 · M 8 · M 10 · M 12 · M 16 · M 20 · M 25 · M 32 Ø 5,3 mm · Ø 7,0 mm · Ø 9,0 mm · Ø 10,5 mm · Ø 14,5 mm · Ø 18,5 mm · Ø 23,5 mm · Ø 30,5 mm
10	Per precassavi e fori metrici secondo norme / For metric cable connections, core holes according DIN/EN 60423 M 6 · M 8 · M 10 · M 12 · M 16 · M 20 · M 25 · M 32 · M 40 Ø 5,3 mm · Ø 7,0 mm · Ø 9,0 mm · Ø 10,5 mm · Ø 14,5 mm · Ø 18,5 mm · Ø 23,5 mm · Ø 30,5 mm · Ø 38,5 mm
11	Per pressacavi, fori passanti secondo norme DIN/EN 50262 For metric cable connections, through holes according DIN/EN 50262 M 6 · M 8 · M 10 · M 12 · M 16 · M 20 · M 25 · Ø 30,5 mm Ø 6,5 mm · Ø 8,5 mm · Ø 10,5 mm · Ø 12,5 mm · Ø 16,5 mm · Ø 20,5 mm · Ø 25,5 mm · Ø 32,5 mm
12	Per pressacavi, fori passanti secondo norme DIN/EN 50262 For metric cable connections, through holes according DIN/EN 50262 M 6 · M 8 · M 10 · M 12 · M 16 · M 20 · M 25 · M 32 · M 40 Ø 6,5 mm · Ø 8,5 mm · Ø 10,5 mm · Ø 12,5 mm · Ø 16,5 mm · Ø 20,5 mm · Ø 25,5 mm · Ø 32,5 mm · Ø 40,5 mm

Misura Size	Intervallo Range mm	Panoramica / Overview														
		Gradino Steps	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	4 – 12	9	4,0	5,0	6,0	7,0	8,0	9,0	10,0	11,0	12,0	-	-	-	-	-
2	12 – 20	9	12,0	13,0	14,0	15,0	16,0	17,0	18,0	19,0	20,0	-	-	-	-	-
3	20 – 30	11	20,0	21,0	22,0	23,0	24,0	25,0	26,0	27,0	28,0	29,0	30,0	-	-	-
1A	4 – 12	5	4,0	6,0	8,0	10,0	12,0	-	-	-	-	-	-	-	-	-
2A	4 – 20	9	4,0	6,0	8,0	10,0	12,0	14,0	16,0	18,0	20,0	-	-	-	-	-
3A	4 – 30	14	4,0	6,0	8,0	10,0	12,0	14,0	16,0	18,0	20,0	22,0	24,0	26,0	28,0	30,0
4	6 – 26,75	8	6,0	9,0	11,4	14,0	17,25	19,0	21,25	26,75	-	-	-	-	-	-
5	6 – 37	12	6,0	9,0	12,5	15,2	18,6	20,4	22,5	26,0	28,3	30,5	34,0	37,0	-	-
6	4 – 39	13	4,0	6,0	9,0	12,0	15,0	18,0	21,0	24,0	27,0	30,0	33,0	36,0	39,0	
7	6 – 38	12	6,0	9,0	13,0	16,0	19,0	21,0	23,0	26,0	29,0	32,0	35,0	38,0	-	-
9	5,3 – 30,5	9	5,3	7,0	9,0	10,5	14,5	18,5	23,5	27,0	30,5	-	-	-	-	-
10	5,3 – 38,5	11	5,3	7,0	9,0	10,5	14,5	18,5	23,5	27,0	30,5	34,5	38,5	-	-	-
11	6,5 – 32,5	9	6,5	8,5	10,5	12,5	16,5	20,5	25,5	29,0	32,5	-	-	-	-	-
12	6,5 – 40,5	11	6,5	8,5	10,5	12,5	16,5	20,5	25,5	29,0	32,5	36,5	40,5	-	-	-

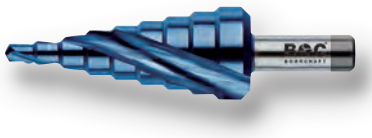


Punte a gradino con scanalature elicoidali HSS
Step drills HSS with spiral flute



Code **1763**


Code **1764**


Code **1767**

BOC NORM · HSS G · CBN · 140° SPLIT POINT · 3 · TiN · blue+

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1763	●					⊛	⊛		⊛	●	⊛	⊛	●	
1764	●	⊛		⊛		⊛	⊛		⊛		⊛		●	⊛
1767	●	●	⊛	●		⊛	⊛		⊛		●	●	●	⊛

Punte a gradino elicoidali di alta qualità. La scanalatura elicoidale rettificata CBN garantisce un funzionamento fluido e fori puliti e privi di bave. I trucioli prodotti vengono evacuati in modo affidabile nella direzione opposta a quella di taglio. Adatte per materiali duri come acciai strutturali, metalli non ferrosi e plastica.
Spessore massimo del materiale = altezza del gradino.

Premium step drill with spiral flute. The CBN-ground spiral flute ensures smooth running and clean, burr-free holes. The produced chips are reliably evacuated in the opposite direction to the cutting direction. For normal hard materials such as general structural steels, non-ferrous metals and plastic. Maximum material thickness = step height.

Misura Size	Ø d1 – d2 mm	Gradino Steps	Ø d3 mm	L 1 mm			TiN	blue+
						Art.-Nr. Part-No.	Art.-Nr. Part-No.	Art.-Nr. Part-No.
1-S	4 – 12	9	6	65	1	1763 03 00001	1764 03 00001	1767 03 00001
1A-S	4 – 12	5	6	65	1	1763 03 00011	1764 03 00011	1767 03 00011
2A-S	4 – 20	9	8	75	1	1763 03 00022	1764 03 00022	1767 03 00022
3A-S	4 – 30	14	10	100	1	1763 03 00033	1764 03 00033	1767 03 00033
4-S	6 – 26,75	8	10	75	1	1763 03 00044	1764 03 00044	1767 03 00044
5-S	6 – 37	12	10	100	1	1763 03 00055	1764 03 00055	1767 03 00055
6-S	4 – 39	13	10	107	1	1763 03 00066	1764 03 00066	1767 03 00066
7-S	6 – 38	12	10	100	1	1763 03 00077	1764 03 00077	1767 03 00077
11-S	6,5 – 32,5	9	10	79	1	1763 03 01111	1764 03 01111	1767 03 01111
12-S	6,5 – 40,5	11	10	96	1	1763 03 01212	1764 03 01212	1767 03 01212

Cassette in ABS BC / BC ABS-Box

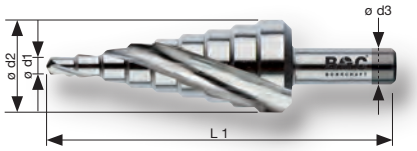
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
STB 3-KS	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4–12 · 4–20 · 4–30 mm	1763 13 30003
STB 3-KS TiN	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4–12 · 4–20 · 4–30 mm	1764 13 30003
STB 3-KS B+	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4–12 · 4–20 · 4–30 mm	1767 13 30003


STB 3-KS

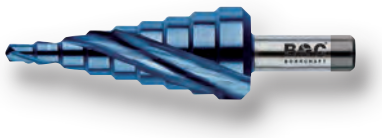

STB 3-KS TiN


STB 3-KS B+

Punte a gradino HSS-E (Co5) in **lega di cobalto,** con scanalature elicoidali
Step drills HSS-E (Co5) **cobalt alloyed,** with spiral flute



Code **1765**



Code **1766**

BC NORM · HSS-E Co5 · CBN · 1412 C SPLIT POINT · VA INOX · 3 · blue+

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1765	●	●	○	●		○	●		○	●	●	●	●	○
1766	●	●	●	●	○	●	●		●		●	●	●	●

Punte a gradino di alta qualità in HSS-E ad alta resistenza termica, adatte per acciai inossidabili e resistenti al calore. La scanalatura elicoidale rettificata CBN garantisce un funzionamento fluido e fori puliti e privi di bave. I trucioli prodotti vengono evacuati in modo affidabile nella direzione opposta a quella di taglio. Spessore massimo del materiale = altezza del gradino.

Premium step drill made of HSS-E with higher heat resistance, suitable for stainless and heat-resistant steels. The CBN-ground spiral flute ensures smooth running and clean, burr-free holes. The produced chips are reliably evacuated in the opposite direction to the cutting direction.
Maximum material thickness = step height.

Misura Size	Ø d1 – d2 mm	Gradino Steps	Ø d3 mm	L 1 mm		Art.-Nr. Part-No.	blue+ Art.-Nr. Part-No.
1-S	4 – 12	9	6	65	1	1765 03 00001	1766 03 00001
2A-S	4 – 20	9	8	75	1	1765 03 00022	1766 03 00022
3A-S	4 – 30	14	10	100	1	1765 03 00033	1766 03 00033
5-S	6 – 37	12	10	100	1	1765 03 00055	1766 03 00055
6-S	4 – 39	13	10	107	1	1765 03 00066	1766 03 00066

Cassette in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
STB 3 KS-Co	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4–12 · 4–20 · 4–30 mm	1765 13 30003
STB 3 KS-Co B+	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4–12 · 4–20 · 4–30 mm	1766 13 30003

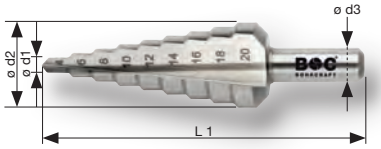


STB 3 KS-Co



STB 3 KS-Co B+

Punte a gradino HSS
Step drills HSS



Code **1760**



Code **1761**



Code **1762**

HSS G · CBN · 3 · TiN · TiALN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1760	●					⊛	⊛		⊛	●	⊛	⊛	●	
1761	●	⊛		⊛		⊛	⊛		⊛		⊛		●	⊛
1762	●	●	⊛	●		⊛	⊛		⊛		●	●	●	⊛

Punte a gradino rettificate CBN in HSS. Il codolo a tre lati garantisce una migliore trasmissione della potenza e impedisce lo slittamento nel mandrino. Per forare senza sbavature in materiali normalmente duri come acciai strutturali, metalli non ferrosi e plastica. Spessore massimo del materiale = altezza del gradino.

CBN ground step drill made of HSS. The triangle shank ensures optimal power transmission and prevents slipping in the drill chuck. For burr-free drilling in normal-hard materials such as general structural steels, non-ferrous metals and plastic.
Maximum material thickness = step height.

Misura Size	Ø d1 – d2 mm	Gradino Steps	Ø d3 mm	L 1 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.	TiALN Art.-Nr. Part-No.
1	4 – 12	9	6	65	1	1760 03 00001	1761 03 00001	1762 03 00001
2	12 – 20	9	8	66	1	1760 03 00002	1761 03 00002	1762 03 00002
3	20 – 30	11	10	82	1	1760 03 00003	1761 03 00003	1762 03 00003
1A	4 – 12	5	6	65	1	1760 03 00011	1761 03 00011	1762 03 00011
2A	4 – 20	9	8	75	1	1760 03 00022	1761 03 00022	1762 03 00022
3A	4 – 30	14	10	100	1	1760 03 00033	1761 03 00033	1762 03 00033
4	6 – 26,75	8	10	75	1	1760 03 00044	-	-
5	6 – 37	12	10	100	1	1760 03 00055	1761 03 00055	1762 03 00055
6	4 – 39	13	10	107	1	1760 03 00066	1761 03 00066	1762 03 00066
9	5,3 – 30,5	9	10	79	1	1760 03 00099	-	-
10	5,3 – 38,5	11	10	96	1	1760 03 01010	-	-
11	6,5 – 32,5	9	10	79	1	1760 03 01111	-	-
12	6,5 – 40,5	11	10	96	1	1760 03 01212	-	-

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
STB 3-K	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4-12 · 4-20 · 4-30 mm	1760 13 30003
STB 3-K TiN	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4-12 · 4-20 · 4-30 mm	1761 13 30003
STB 3-K TiALN	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4-12 · 4-20 · 4-30 mm	1762 13 30003

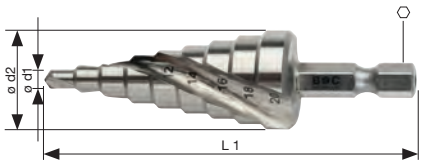


Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
STB 3	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4-12 · 4-20 · 4-30 mm	1760 14 10003
STB 3 TiN	3	Misura / Size: 1 · 2A · 3A Intervallo / Range: Ø 4-12 · 4-20 · 4-30 mm	1761 14 10003



Punte a gradino HSS ¼" codolo esagonale
Step drills HSS ¼" hex-shank



Code **1760-1/4"**

BOC NORM | HSS G | CBN | 1412 C SPLIT POINT | ¼"

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1760-1/4"	●					○	○		○	●	●	○	●	

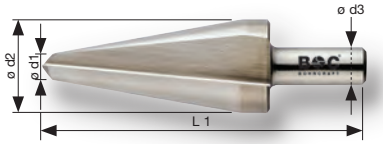
Punte a gradino rettificate CBN in HSS ¼" codolo esagonale. Per forare senza sbavature in materiali normalmente duri come acciai strutturali, metalli non ferrosi e plastica. Spessore massimo del materiale = altezza del gradino.

CBN-ground step drill made of HSS with ¼" hex. shank. For burr-free drilling in normal hard materials such as general structural steels, non-ferrous metals and plastic. Maximum material thickness = step height.

Misura Size	Ø d1 – d2 mm	Gradino Steps	⬡	L 1 mm		Art.-Nr. Part-No.
1	4 – 12	9	1/4" / 6,35 mm	68	1	1760 03 10001
2A	4 – 20	9	1/4" / 6,35 mm	78	1	1760 03 10022
3A	4 – 30	14	1/4" / 6,35 mm	103	1	1760 03 10033



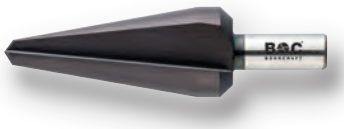
Svasatori per lamiera HSS
Sheet metal drills HSS



Code **1740**



Code **1741**



Code **1742**

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1740	●					⊛	⊛		⊛	●	⊛	⊛	●	
1741	●	⊛		⊛		⊛	⊛		⊛		⊛		●	⊛
1742	●	●	⊛	●		⊛	⊛		⊛		●	●	●	⊛

Svasatori per lamiera rettificati CBN in HSS per la foratura di materiali sottili. Autocentrante grazie allo split point secondo DIN 1412 C. Codolo a tre lati che garantisce una miglior trasmissione della potenza e impedisce lo slittamento nel mandrino. Per forare senza sbavature in materiali normalmente duri come acciai strutturali, metalli non ferrosi e plastica. Spessore massimo del materiale = 4 mm.

CBN-ground sheet metal drill made of HSS for stepless drilling and drilling of thin-walled materials. Self-centering due to the split point according to DIN 1412 C. The triangle shank ensures optimal power transmission and prevents slipping in the drill chuck. For burr-free drilling in normal hard materials such as general structural steels, non-ferrous metals and plastic.
Maximum material thickness = 4 mm.

Misura Size	Ø d1 – d2 mm	Ø d3 mm	L 1 mm			TiN	TiALN
					Art.-Nr. Part-No.	Art.-Nr. Part-No.	Art.-Nr. Part-No.
1	3 – 14	6	58	1	1740 03 00001	1741 03 00001	1742 03 00001
2	6 – 20	8	70	1	1740 03 00002	1741 03 00002	1742 03 00002
3	16 – 30,5	9	76	1	1740 03 00003	1741 03 00003	1742 03 00003
4	26 – 40	10	87	1	1740 03 00004	1741 03 00004	1742 03 00004
5	36 – 50	12	97	1	1740 03 00005	1741 03 00005	1742 03 00005
L	6 – 30	10	90	1	1740 03 00007	1741 03 00007	1742 03 00007

Cassette in ABS BC / BC ABS-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
B 3-K	3	Misura / Size: 1 · 2 · 3	1740 13 30003
B 3-K TiN	3	Misura / Size: 1 · 2 · 3	1741 13 30003
B 3-K TiALN	3	Misura / Size: 1 · 2 · 3	1742 13 30003

Cassette in metallo BC / BC Metal-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
B 3	3	Misura / Size: 1 · 2 · 3	1740 14 10003
B 3 TiN	3	Misura / Size: 1 · 2 · 3	1741 14 10003



B 3-K



B 3-K TiALN

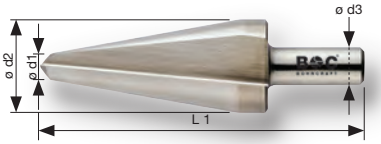


B 3



B 3 TiN

Svasatori per lamiera HSS-E (Co5) in **lega di cobalto**
Sheet metal drills HSS-E (Co5) **cobalt alloyed**



Code **1743**

BOC NORM | HSS-E Co5 | CBN | 1412 C SPLIT POINT | VA INOX | 3

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1743	●	●	◉	●		◉	◉		◉	●	●	●	●	◉

Svasatori per lamiera rettificati CBN in HSS-E ad alta resistenza termica, adatti per acciai inossidabili e resistenti al calore. Autocentrante grazie allo split point secondo DIN 1412 C. Codolo a tre lati che garantisce una miglior trasmissione della potenza e impedisce lo slittamento nel mandrino. Per forare senza sbavature in materiali normalmente duri come acciai strutturali, metalli non ferrosi e plastica. Spessore massimo del materiale = 4 mm.

CBN-ground sheet metal drill made of HSS-E with higher heat resistance, suitable for stainless and heat-resistant steels. For stepless drilling and drilling of thin-walled materials. Self-centering due to the split point according to DIN 1412 C. The triangle shank ensures optimal power transmission and prevents slipping in the drill chuck.
Maximum material thickness = 4 mm.

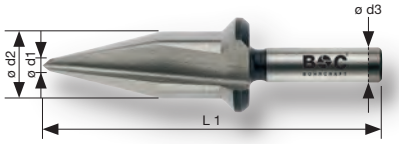
Misura Size	Ø d1 – d2 mm	Ø d3 mm	L 1 mm		Art.-Nr. Part-No.
1	3 – 14	6	58	1	1743 03 00001
2	6 – 20	8	70	1	1743 03 00002
3	16 – 30,5	9	76	1	1743 03 00003

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
B 3-K Co	3	Misura / Size: 1 · 2 · 3	1743 13 30003



Svasatori per lamiera HSS con fermo di profondità
Sheet metal drills HSS with backstop



Code **1740-A**



Code **1741-A**

BOC NORM | HSS G | CBN | 1412 C SPLIT POINT | 3

TiN

Code	P			M		K				N				S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 2.1	3.1 – 4.1	1.1 – 1.2	2.1 – 2.2	3.1 – 3.2	4.1 – 4.2	1.1 – 1.5	2.1	2.2 – 2.3	4.1 – 4.2	1.1 – 1.2
1740	●					◉	◉		◉	●	●	◉	●	
1741	●	◉		◉		◉	◉		◉		◉		●	◉

Svasatori per lamiera rettificati CBN in HSS con fermo di profondità.

CBN-ground sheet metal drill made of HSS with backstop.

Misura Size	Ø d1 – d2 mm	Ø d3 mm	L 1 mm		Art.-Nr. Part-No.	TiN Art.-Nr. Part-No.
1A	2,5 – 7,8	6	48	1	1740 03 00011	-
2A	2,5 – 10,2	6	53	1	1740 03 00022	-
3A	2,5 – 11,8	6	57	1	1740 03 00033	-
4A	3 – 15	6	68	1	1740 03 00044	1741 03 00044

FRESE ROTATIVE IN HSS
HSS ROTARY BURRS



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		DIN	Qualità Quality	Forma Shape	Descrizione Description	Code	Pagina Page
Frese rotative In HSS codolo 6 mm / HSS Rotary burrs shank 6 mm							
		BC Norm	HSS	B ZYAS	Frese rotative cilindriche con taglio frontale Rotary burrs cylinder with endcut	5205	286
		BC Norm	HSS	C WRC	Frese rotative con testa a sfera Rotary burrs ball nosed cylinder	5210	286
		BC Norm	HSS	D KUD	Frese rotative a sfera Rotary burrs ball	5215	287
		BC Norm	HSS	G SPG	Frese rotative a ogiva Rotary burrs pointed tree	5230	287
		BC Norm	HSS	L KEL	Frese rotative con punta arrotondata Rotary burrs ball nosed cone	5250	288
		BC Norm	HSS	M SKM	Frese rotative coniche Rotary burrs cone	5255	288
					Assortimento Sets	5902	289

Versioni disponibili
Available version

Z3-SP



Frese rotative in HSS con dentatura semplice e rompitruciolo.
Per lavorazioni di acciaio, fusioni di acciaio e ghisa.

HSS rotary burrs with medium single toothing and chip breaker. For machining of steel, cast steel and cast iron.

ZYAS | Frese rotative in HSS cilindriche con taglio frontale Forma B
HSS rotary burrs shape B cylinder with endcut



Code **5205**

BOC NORM | HSS | B ZYAS

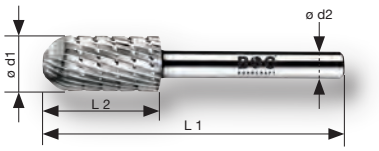
Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.



Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-SP
6	16	56	6	1	5205 03 00600
8	20	60	6	1	5205 03 00800
10	20	60	6	1	5205 03 01000
12	25	65	6	1	5205 03 01200
16	25	65	6	1	5205 03 01600

WRC | Frese rotative in HSS cilindriche con testa a sfera Forma C
HSS rotary burrs shape C ball nosed cylinder



Code **5210**

BOC NORM | HSS | C WRC

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.



Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-SP
6	16	56	6	1	5210 03 00600
8	20	60	6	1	5210 03 00800
10	20	60	6	1	5210 03 01000
12	25	65	6	1	5210 03 01200
16	25	65	6	1	5210 03 01600



Code **5215**

BOC NORM | HSS | D KUD

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

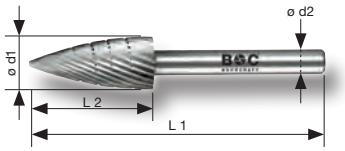


Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-SP
6	5	45	6	1	5215 03 00600
8	7	47	6	1	5215 03 00800
10	9	49	6	1	5215 03 01000
12	10	50	6	1	5215 03 01200
16	14	54	6	1	5215 03 01600



Frese rotative in HSS a ogiva Forma G
HSS rotary burrs shape G pointed tree | SPG

BOC NORM | HSS | G SPG



Code **5230**

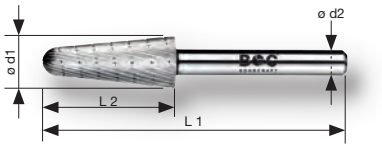
Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.



Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-SP
6	18	58	6	1	5230 03 00600
10	20	60	6	1	5230 03 01000
12	25	65	6	1	5230 03 01200

KEL | Frese rotative in HSS con punta arrotondata Forma L
HSS rotary burrs shape L ball nosed cone



Code **5250**

BOC BOHRCRAFT NORM | HSS | L KEL

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

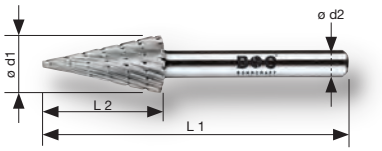
To deburr, break edges, trim, process welding seams and surface processing.



Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-SP
12	30	70	6	1	5250 03 01200
16	30	70	6	1	5250 03 01600



SKM | Frese rotative in HSS coniche Forma M
HSS rotary burrs shape M cone



Code **5255**

BOC BOHRCRAFT NORM | HSS | M SKM

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.



Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-SP
6	18	58	6	1	5255 03 00600
10	20	60	6	1	5255 03 01000
12	25	65	6	1	5255 03 01200

Assortimento di frese rotative in HSS Frässtifte, dentatura Z3-SP, codolo 6 mm
Assortments HSS rotary burrs, toothing Z3-SP, shank 6 mm

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
R3 HSS	3	1x B · D · G, Ø 10 mm	5902 13 30003
R5 HSS	5	1x B · C · D · G · M, Ø 10 mm	5902 13 30005



R3 HSS



R5 HSS

FRESE ROTATIVE IN MD
CARBIDE ROTARY BURRS



		DIN	Qualità Quality	Forma Shape	Descrizione Description	Code	Pagina Page
Frese rotative codolo 6 mm / Rotary burrs shank 6 mm							
B&C		8033*	HM TC	A ZYA	Frese rotative cilindriche Rotary burrs cylinder	5100, 5102 5103, 5104	294
B&C		8033*	HM TC	B ZYAS	Frese rotative cilindriche con taglio frontale Rotary burrs cylinder with endcut	5105, 5107 5108, 5109	295
B&C		8033*	HM TC	C WRC	Frese rotative con testa a sfera Rotary burrs ball nosed cylinder	5110, 5112 5113, 5114	296
B&C		8033*	HM TC	D KUD	Frese rotative a sfera Rotary burrs ball	5115, 5117 5118, 5119	297
B&C		8033*	HM TC	E TRE	Frese rotative ovali Rotary burrs oval	5120 5121 **TiALN** 5124	298
B&C		8033*	HM TC	F RBF	Frese rotative ad albero Rotary burrs ball nosed tree	5125, 5127 5128, 5129	299
B&C		8033*	HM TC	G SPG	Frese rotative a ogiva Rotary burrs pointed tree	5130, 5133 5134	300
B&C		8033*	HM TC	H FLH	Frese rotative a fiamma Rotary burrs flame	5135 5136 **TiALN**	301
B&C		8033*	HM TC	J KSJ	Frese rotative a svasare 60° Rotary burrs countersink 60°	5140 5141	301
B&C		8033*	HM TC	K KSK	Frese rotative a svasare 90° Rotary burrs countersink 90°	5145 5146 **TiALN**	302
B&C		8033*	HM TC	L KEL	Frese rotative con punta arrotondata Rotary burrs ball nosed cone	5150 5153 5154	303
B&C		8033*	HM TC	M SKM	Frese rotative a cono Rotary burrs cone	5155 5156 **TiALN** 5159	302
B&C		8033*	HM TC	N WKN	Frese rotative a cono rovesciato Rotary burrs inverted cone	5160 5161 **TiALN**	304
B&C		BC Norm	HM TC	RX	Frese rotative a raggio Rotary burr radius	5170	304
B&C		8033*	HM TC		Mini frese rotative, codolo 3 mm Miniature carbide rotary burrs, shank 3 mm	5100 ÷ 5160	305
B&C		8033*	HM TC		Frese rotative, codolo 8 mm Rotary burrs, shank 8 mm	5100 ÷ 5151	306
B&C		8033*	HM TC		Frese rotative, **extra lunghe**, codolo 6 mm Rotary burrs, **extra long**, shank 6 mm	5100 ÷ 5151	307
B&C					Assortimento + display Sets + display	5900 ÷ 5905	308
B&C					Assortimento + display Sets + display	5105 ÷ 5151	309

* Frese rotative simili a DIN 8033 / * Rotary burrs similar to DIN 8033

Versioni disponibili
Available versions

Z3-X



Frese rotative in metallo duro a dentatura incrociata per un'elevata asportazione di ghisa, acciaio e acciaio inossidabile.

Carbide rotary burrs with cross toothing for high stock removal of cast iron, steel and stainless steel.

Z3-X **TiALN**



Frese rotative in metallo duro a dentatura incrociata con rivestimento supplementare TiALN. Il rivestimento conferisce una migliore durezza superficiale e stabilità termica aumentando la durata dell'utensile.

Carbide rotary burrs with cross toothing and additional TiALN-coating. Due to the coating the rotary burrs have a higher surface hardness and a higher heat resistance which increases the tool life.

Z4



Frese rotanti in metallo duro con dentatura diamantata fine per materiali più duri.

Carbide rotary burrs with fine diamond toothing for harder materials.

Z5



Frese rotanti in metallo duro con dentatura singola fine per una ottimale finitura superficiale. Per la lavorazione di ghisa, acciaio, acciaio inossidabile e materiali più duri.

Carbide rotary burrs with fine single toothing for a clean surface finish. For machining cast iron, steel, stainless steel and harder materials.

Z-ALU



Frese rotative in metallo duro con dentatura in alluminio per la lavorazione di alluminio e leghe di alluminio, metalli non ferrosi e materie plastiche.

Carbide rotary burrs with aluminium-toothing for machining of aluminium and aluminium-alloys, non-ferrous metals and plastics.

Z3-X | SCHAFT SHANK Ø 3 mm



Mini Frese rotative in metallo duro con codolo 3 mm e dentatura incrociata per un'elevata asportazione di materiale da ghisa, acciaio e acciaio inossidabile.

Miniature carbide rotary burrs with 3 mm shank and cross toothing for high stock removal of cast iron, steel and stainless steel.

Z3-X | SCHAFT SHANK Ø 8 mm



Frese rotative in metallo duro con codolo 8 mm e dentatura incrociata per un'elevata asportazione di materiale da ghisa, acciaio e acciaio inossidabile.

Carbide rotary burrs with 8 mm shank cross toothing for high stock removal of cast iron, steel and stainless steel.

Z3-X | LANGE LONG Version



Frese rotative in metallo duro con codolo lungo per punti di difficile accesso.

Carbide rotary burrs with long shank for difficult accessible places.

Z5 | RX



Ideale per la lavorazione degli spigoli. La speciale forma combinata impedisce lo scivolamento dal pezzo in lavorazione.

Perfect for edge processing. The special combined shape prevents slipping off the workpiece.



BOC ★★★★★

ZYA | Frese rotative in metallo duro cilindriche Forma A senza taglio frontale
Carbide rotary burrs shape A cylinder without endcut



Code **5100**


Code **5102**


Code **5104**


Code **5103**

DIN 8033 | HM | A ZYA

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

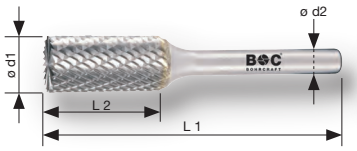
To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z4	Art.-Nr. Z5	Art.-Nr. Z-ALU
Codolo 3 mm / 3 mm shank									
3	13	38	3	1	5100 03 00303	5101 03 00303	-	5104 03 00303	-
6	13	48	3	1	5100 03 00603	5101 03 00603	-	5104 03 00603	-
Codolo 6 mm / 6 mm shank									
6	16	50	6	1	5100 03 00600	5101 03 00600	5102 03 00600	5104 03 00600	5103 03 00600
8	20	64	6	1	5100 03 00800	5101 03 00800	5102 03 00800	5104 03 00800	-
10	20	64	6	1	5100 03 01000	5101 03 01000	5102 03 01000	5104 03 01000	5103 03 01000
12	25	70	6	1	5100 03 01200	5101 03 01200	5102 03 01200	5104 03 01200	5103 03 01200
16	25	70	6	1	5100 03 01600	5101 03 01600	-	-	-
19	25	70	6	1	5100 03 01900	5101 03 01900	-	-	-
Codolo 6 mm, Versione lunga* / 6 mm shank, long version*									
6	16	100	6	1	5100 03 06100	5101 03 06100	-	-	-
6	16	150	6	1	5100 03 06150	5101 03 06150	-	-	-
8	20	170	6	1	5100 03 08170	5101 03 08170	-	-	-
10	20	170	6	1	5100 03 10170	5101 03 10170	-	-	-
12	25	175	6	1	5100 03 12175	5101 03 12175	-	-	-
Codolo 8 mm / 8 mm shank									
12	25	70	8	1	5100 03 01208	5101 03 01208	-	-	-
16	25	70	8	1	5100 03 01608	5101 03 01608	-	-	-

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni da espositore / Display packaging

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X
6	16	50	6	1	5100 05 00600
10	20	64	6	1	5100 05 01000
12	25	70	6	1	5100 05 01200



Code **5105**



Code **5107**



Code **5109**



Code **5108**

DIN 8033 | HM | B ZYAS

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z4	Art.-Nr. Z5	Art.-Nr. Z-ALU
Codolo 3 mm / 3 mm shank									
3	13	38	3	1	5105 03 00303	5106 03 00303	-	5109 03 00303	5108 03 00303
6	13	48	3	1	5105 03 00603	5106 03 00603	-	5109 03 00603	5108 03 00603
Codolo 6 mm / 6 mm shank									
6	16	50	6	1	5105 03 00600	5106 03 00600	5107 03 00600	5109 03 00600	5108 03 00600
8	20	64	6	1	5105 03 00800	5106 03 00800	5107 03 00800	5109 03 00800	-
10	20	64	6	1	5105 03 01000	5106 03 01000	5107 03 01000	5109 03 01000	5108 03 01000
12	25	70	6	1	5105 03 01200	5106 03 01200	5107 03 01200	5109 03 01200	5108 03 01200
16	25	70	6	1	5105 03 01600	5106 03 01600	-	-	-
19	25	70	6	1	5105 03 01900	5106 03 01900	-	-	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*									
6	16	100	6	1	5105 03 06100	5106 03 06100	-	-	-
6	16	150	6	1	5105 03 06150	5106 03 06150	-	-	-
8	20	170	6	1	5105 03 08170	5106 03 08170	-	-	-
10	20	170	6	1	5105 03 10170	5106 03 10170	-	-	-
12	25	175	6	1	5105 03 12175	5106 03 12175	-	-	-
Codolo 8 mm / 8 mm shank									
12	25	70	8	1	5105 03 01208	5106 03 01208	-	-	-
16	25	70	8	1	5105 03 01608	5106 03 01608	-	-	-

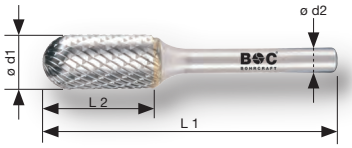
* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni da espositore / Display packaging

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X
6	16	50	6	1	5105 05 00600
10	20	64	6	1	5105 05 01000
12	25	70	6	1	5105 05 01200

BOC ★★★★★

WRC | Frese rotative in MD cilindriche sferiche Forma C
Carbide rotary burrs shape C ball nosed cylinder



Code **5110**



Code **5112**



Code **5114**



Code **5113**

DIN 8033 | **HM** | **C WRC**

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.







Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3·X	Art.-Nr. Z3·X TiALN	Art.-Nr. Z4	Art.-Nr. Z5	Art.-Nr. Z·ALU
Codolo 3 mm / 3 mm shank									
3	13	38	3	1	5110 03 00303	5111 03 00303	-	5114 03 00303	5113 03 00303
6	13	48	3	1	5110 03 00603	5111 03 00603	-	5114 03 00603	5113 03 00603
Codolo 6 mm / 6 mm shank									
6	16	50	6	1	5110 03 00600	5111 03 00600	5112 03 00600	5114 03 00600	5113 03 00600
8	20	64	6	1	5110 03 00800	5111 03 00800	5112 03 00800	5114 03 00800	-
10	20	64	6	1	5110 03 01000	5111 03 01000	5112 03 01000	5114 03 01000	5113 03 01000
12	25	70	6	1	5110 03 01200	5111 03 01200	5112 03 01200	5114 03 01200	5113 03 01200
16	25	70	6	1	5110 03 01600	5111 03 01600	-	-	-
19	25	70	6	1	5110 03 01900	5111 03 01900	-	-	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*									
6	16	100	6	1	5110 03 06100	5111 03 06100	-	-	-
6	16	150	6	1	5110 03 06150	5111 03 06150	-	-	-
8	20	170	6	1	5110 03 08170	5111 03 08170	-	-	-
10	20	170	6	1	5110 03 10170	5111 03 10170	-	-	-
12	25	175	6	1	5110 03 12175	5111 03 12175	-	-	-
Codolo 8 mm / 8 mm shank									
12	25	70	8	1	5110 03 01208	5111 03 01208	-	-	-
16	25	70	8	1	5110 03 01608	5111 03 01608	-	-	-

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni da espositore / Display packaging



Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3·X
6	16	50	6	1	5110 05 00600
10	20	64	6	1	5110 05 01000
12	25	70	6	1	5110 05 01200



Code **5115**


Code **5117**


Code **5119**


Code **5118**

DIN 8033 | HM | D KUD

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

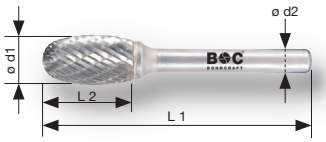
Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z4	Art.-Nr. Z5	Art.-Nr. Z-ALU
Codolo 3 mm / 3 mm shank									
3	2,5	38	3	1	5115 03 00303	5116 03 00303	-	5119 03 00303	5118 03 00303
4	3,0	38	3	1	5115 03 00403	5116 03 00403	-	-	-
6	5,0	40	3	1	5115 03 00603	5116 03 00603	-	5119 03 00603	5118 03 00603
Codolo 6 mm / 6 mm shank									
6	5,0	50	6	1	5115 03 00600	5116 03 00600	5117 03 00600	-	5118 03 00600
8	6,0	52	6	1	5115 03 00800	5116 03 00800	5117 03 00800	-	-
10	9,0	54	6	1	5115 03 01000	5116 03 01000	5117 03 01000	5119 03 01000	5118 03 01000
12	10,0	56	6	1	5115 03 01200	5116 03 01200	5117 03 01200	5119 03 01200	5118 03 01200
16	14,0	59	6	1	5115 03 01600	5116 03 01600	-	-	-
19	18,0	63	6	1	5115 03 01900	5116 03 01900	-	-	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*									
8	6,0	170	6	1	5115 03 08170	5116 03 08170	-	-	-
10	8,0	170	6	1	5115 03 10170	5116 03 10170	-	-	-
12	11,0	175	6	1	5115 03 12175	5116 03 12175	-	-	-
Codolo 8 mm / 8 mm shank									
12	10,0	56	8	1	5115 03 01208	5116 03 01208	-	-	-
16	14,0	59	8	1	5115 03 01608	5116 03 01608	-	-	-

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni da espositore / Display packaging

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X
6	5	50	6	1	5115 05 00600
10	9	54	6	1	5115 05 01000
12	10	56	6	1	5115 05 01200

TRE Frese rotative in MD Forma E Ovale
Carbide rotary burrs shape E oval



Code **5120**



Code **5121 TiALN**



Code **5124**

DIN 8033 **HM** **E TRE**

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

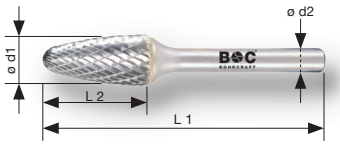




Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z5
Codolo 3 mm / 3 mm shank							
3	6	38	3	1	5120 03 00303	5121 03 00303	5124 03 00303
6	10	45	3	1	5120 03 00603	5121 03 00603	5124 03 00603
Codolo 6 mm / 6 mm shank							
6	10	50	6	1	5120 03 00600	5121 03 00600	-
8	13	60	6	1	5120 03 00800	5121 03 00800	-
10	16	60	6	1	5120 03 01000	5121 03 01000	-
12	20	65	6	1	5120 03 01200	5121 03 01200	-
16	25	70	6	1	5120 03 01600	5121 03 01600	-
19	25	70	6	1	5120 03 01900	5121 03 01900	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*							
10	16	170	6	1	5120 03 10170	5121 03 10170	-
12	22	175	6	1	5120 03 12175	5121 03 12175	-
Codolo 8 mm / 8 mm shank							
12	20	65	8	1	5120 03 01208	5121 03 01208	-
16	25	70	8	1	5120 03 01608	5121 03 01608	-

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.





Code **5125**


Code **5127**


Code **5129**


Code **5128**

DIN 8033 | HM | F RBF

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z4	Art.-Nr. Z5	Art.-Nr. Z-ALU
Codolo 3 mm / 3 mm shank									
3	13	38	3	1	5125 03 00303	5126 03 00303	-	5129 03 00303	5128 03 00303
6	13	48	3	1	5125 03 00603	5126 03 00603	-	5129 03 00603	5128 03 00603
Codolo 6 mm / 6 mm shank									
6	18	60	6	1	5125 03 00600	5126 03 00600	5127 03 00600	5129 03 00600	5128 03 00600
8	20	64	6	1	5125 03 00800	5126 03 00800	5127 03 00800	5129 03 00800	-
10	20	64	6	1	5125 03 01000	5126 03 01000	5127 03 01000	5129 03 01000	5128 03 01000
12	25	70	6	1	5125 03 01200	5126 03 01200	5127 03 01200	5129 03 01200	5128 03 01200
16	25	70	6	1	5125 03 01600	5126 03 01600	-	-	-
19	25	70	6	1	5125 03 01900	5126 03 01900	-	-	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*									
6	16	150	6	1	5125 03 06150	5126 03 06150	-	-	-
10	20	170	6	1	5125 03 10170	5126 03 10170	-	-	-
12	25	175	6	1	5125 03 12175	5126 03 12175	-	-	-
Codolo 8 mm / 8 mm shank									
12	25	70	8	1	5125 03 01208	5126 03 01208	-	-	-
16	25	70	8	1	5125 03 01608	5126 03 01608	-	-	-

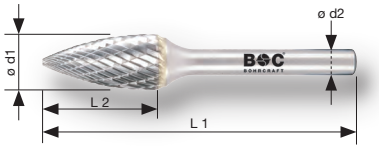
* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni da espositore / Display packaging

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X
6	18	60	6	1	5125 05 00600
10	20	64	6	1	5125 05 01000
12	25	70	6	1	5125 05 01200

BOC ★★★★★

SPG | Frase rotative in MD a ogiva Forna G
Carbide rotary burrs shape G pointed tree



Code **5130**



Code **5134**



Code **5133**

DIN 8033 | HM | G SPG

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

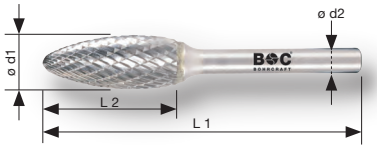
To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3·X	Art.-Nr. Z3·X TiALN	Art.-Nr. Z5	Art.-Nr. Z·ALU
Codolo 3 mm / 3 mm shank								
3	13	38	3	1	5130 03 00303	5131 03 00303	5134 03 00303	5133 03 00303
6	13	48	3	1	5130 03 00603	5131 03 00603	5134 03 00603	5133 03 00603
Codolo 6 mm / 6 mm shank								
6	16	50	6	1	5130 03 00600	5131 03 00600	5134 03 00600	-
8	20	64	6	1	5130 03 00800	5131 03 00800	5134 03 00800	-
10	20	64	6	1	5130 03 01000	5131 03 01000	5134 03 01000	-
12	25	70	6	1	5130 03 01200	5131 03 01200	5134 03 01200	5133 03 01200
16	25	70	6	1	5130 03 01600	5131 03 01600	-	-
19	25	70	6	1	5130 03 01900	5131 03 01900	-	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*								
10	20	170	6	1	5130 03 10170	5131 03 10170	-	-
12	25	175	6	1	5130 03 12175	5131 03 12175	-	-
Codolo 8 mm / 8 mm shank								
12	25	70	8	1	5130 03 01208	5131 03 01208	-	-
16	25	70	8	1	5130 03 01608	5131 03 01608	-	-

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni da espositore / Display packaging

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3·X
6	16	50	6	1	5130 05 00600
10	20	64	6	1	5130 05 01000
12	25	70	6	1	5130 05 01200



Code **5135**



Code **5136 TiALN**

BOC BOHRCRAFT NORM | HM | H FLH

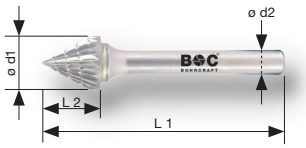
TiALN

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
Codolo 3 mm / 3 mm shank						
3	6	38	3	1	5135 03 00303	5136 03 00303
Codolo 6 mm / 6 mm shank						
6	18	50	6	1	5135 03 00600	5136 03 00600
8	20	64	6	1	5135 03 00800	5136 03 00800
10	20	64	6	1	5135 03 01000	5136 03 01000
12	32	77	6	1	5135 03 01200	5136 03 01200
16	36	81	6	1	5135 03 01600	5136 03 01600
19	38	83	6	1	5135 03 01900	5136 03 01900

Frese rotative in MD a svasare 60° Forma J
Carbide rotary burrs shape J countersink 60°
KSJ



Code **5140**



Code **5141 TiALN**

DIN 8033 | HM | J KSJ | 60°

TiALN

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
Codolo 3 mm / 3 mm shank						
3	2,5	38	3	1	5140 03 00303	-
Codolo 6 mm / 6 mm shank						
6	4,0	50	6	1	5140 03 00600	5141 03 00600
10	8,0	53	6	1	5140 03 01000	-
12	11,0	55	6	1	5140 03 01200	5141 03 01200
16	14,0	60	6	1	5140 03 01600	-

KSK | Frese rotative in MD a svasare 90° Forma K
Carbide rotary burrs shape K countersink 90°



Code **5145**



Code **5146 TiALN**

DIN 8033 | HM | K KSK | 90°

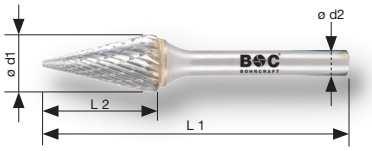
TiALN

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
Codolo 3 mm / 3 mm shank						
3	1,5	38	3	1	5145 03 00303	-
Codolo 6 mm / 6 mm shank						
6	3,0	50	6	1	5145 03 00600	5146 03 00600
10	4,7	50	6	1	5145 03 01000	-
12	6,0	52	6	1	5145 03 01200	5146 03 01200
16	8,0	54	6	1	5145 03 01600	-

SKM | Frese rotative in MD a cono Forma M
Carbide rotary burrs shape M cone



Code **5155**



Code **5156 TiALN**



Code **5159**

DIN 8033 | HM | M SKM

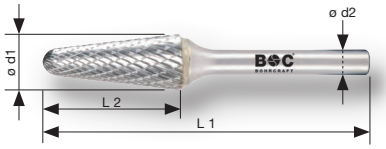
TiALN

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z5
Codolo 3 mm / 3 mm shank							
3	11	38	3	1	5155 03 00303	5156 03 00303	-
6	13	45	3	1	5155 03 00603	5156 03 00603	5159 03 00603
Codolo 6 mm / 6 mm shank							
6	18	50	6	1	5155 03 00600	5156 03 00600	-
8	20	64	6	1	5155 03 00800	5156 03 00800	-
10	20	64	6	1	5155 03 01000	5156 03 01000	-
12	25	71	6	1	5155 03 01200	5156 03 01200	-
16	25	71	6	1	5155 03 01600	5156 03 01600	-

Frese rotative in MD con punta arrotondata Forma L
Carbide rotary burrs shape L ball nosed cone



Code **5150**



Code **5154**



Code **5153**

DIN 8033 | HM | L KEL

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3·X	Art.-Nr. Z3·X TiALN	Art.-Nr. Z5	Art.-Nr. Z·ALU
Codolo 3 mm / 3 mm shank								
3	13	38	3	1	5150 03 00303	5151 03 00303	5154 03 00303	-
6	13	48	3	1	5150 03 00603	5151 03 00603	5154 03 00603	-
Codolo 6 mm / 6 mm shank								
6	16	50	6	1	5150 03 00600	5151 03 00600	-	5153 03 00600
8	22	68	6	1	5150 03 00800	5151 03 00800	5154 03 00800	-
10	25	72	6	1	5150 03 01000	5151 03 01000	5154 03 01000	5153 03 01000
12	28	75	6	1	5150 03 01200	5151 03 01200	5154 03 01200	5153 03 01200
16	33	78	6	1	5150 03 01600	5151 03 01600	-	5153 03 01600
19	38	83	6	1	5150 03 01900	5151 03 01900	-	-
Codolo 6 mm, versione lunga* / 6 mm shank, long version*								
10	25	170	6	1	5150 03 10170	5151 03 10170	-	-
12	28	175	6	1	5150 03 12175	5151 03 12175	-	-
Codolo 8 mm / 8 mm shank								
12	28	75	8	1	5150 03 01208	5151 03 01208	-	-
16	33	78	8	1	5150 03 01608	5151 03 01608	-	-

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Confezioni per espositore / Display packaging

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3·X
6	16	50	6	1	5150 05 00600
10	25	72	6	1	5150 05 01000
12	28	75	6	1	5150 05 01200

WKN | Frese rotative in MD a cono rovesciato Forma N
Carbide rotary burrs shape N inverted cone



Code **5160**



Code **5161 TiALN**

DIN 8033 | HM | N WKN

TiALN

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
Codolo 3 mm / 3 mm shank						
3	4,0	38	3	1	5160 03 00303	-
Codolo 6 mm / 6 mm shank						
6	7,0	50	6	1	5160 03 00600	5161 03 00600
10	9,5	55	6	1	5160 03 01000	-
12	13,0	58	6	1	5160 03 01200	5161 03 01200
16	16,0	62	6	1	5160 03 01600	-

RX | Frese rotative a raggio in MD Forma RX
Carbide rotary burrs shape RX radius



Code **5170**

HM | RX

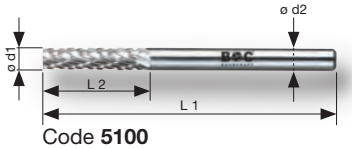


Ideale per la lavorazione degli spigoli. La speciale forma combinata impedisce lo scivolamento dal pezzo in lavorazione.

Perfect for edge processing. The special combined shape prevents slipping off the workpiece.

Ø d1 mm	L2 mm	L1 mm	Ø d2 mm			Art.-Nr. Z5
12	25	70	6	1	-	5170 03 01200
12	25	70	6	-	1	5170 05 01200

Mini frese rotative in MD, dentatura trasversale, attacco 3 mm
Miniature carbide rotary burrs, cross toothing, shank 3 mm



Code **5100**


Code **5120**


Code **5130**


Code **5150**


Code **5104**


Code **5129**


Code **5134**


Code **5154**

DIN 8033 | HM | SCHAFT SHANK Ø 3 mm

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.



Forma Shape	DIN 8033	Ø d1 mm	L2 mm	L1 mm	Ø d2 mm	Descrizione Description		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN	Art.-Nr. Z5	Art.-Nr. Z-ALU
A	ZYA	3	13,0	38	3	Cilindriche	1	5100 03 00303	5101 03 00303	5104 03 00303	-
		6	13,0	48	3	Cylinder	1	5100 03 00603	5101 03 00603	5104 03 00603	-
B	ZYAS	3	13,0	38	3	Cilindriche taglio frontale	1	5105 03 00303	5106 03 00303	5109 03 00303	5108 03 00303
		6	13,0	48	3	Cylinder endcut	1	5105 03 00603	5106 03 00603	5109 03 00603	5108 03 00603
C	WRC	3	13,0	38	3	Cilindriche sferiche	1	5110 03 00303	5111 03 00303	5114 03 00303	5113 03 00303
		6	13,0	48	3	Ball nosed cylinder	1	5110 03 00603	5111 03 00603	5114 03 00603	5113 03 00603
D	KUD	3	2,5	38	3	Sferiche	1	5115 03 00303	5116 03 00303	5119 03 00303	5118 03 00303
		4	3,0	38	3	Ball	1	5115 03 00403	5116 03 00403	-	-
		6	5,0	40	3		1	5115 03 00603	5116 03 00603	5119 03 00603	5118 03 00603
E	TRE	3	6,0	38	3	Ovali	1	5120 03 00303	5121 03 00303	5124 03 00303	-
		6	10,0	45	3	Oval	1	5120 03 00603	5121 03 00603	5124 03 00603	-
F	RBF	3	13,0	38	3	Ogivale raggiata	1	5125 03 00303	5126 03 00303	5129 03 00303	5128 03 00303
		6	13,0	48	3	Nosed tree	1	5125 03 00603	5126 03 00603	5129 03 00603	5128 03 00603
G	SPG	3	13,0	38	3	Ogiva	1	5130 03 00303	5131 03 00303	5134 03 00303	5133 03 00303
		6	13,0	48	3	Pointed tree	1	5130 03 00603	5131 03 00603	5134 03 00603	5133 03 00603
H	FLH	3	6,0	38	3	Fiamma / Flame	1	5135 03 00303	5136 03 00303	-	-
J	KSJ	3	2,5	38	3	A svasare 60° Countersink 60°	1	5140 03 00303	-	-	-
K	KSK	3	1,5	38	3	A svasare 90° Countersink 90°	1	5145 03 00303	-	-	-
L	KEL	3	13,0	38	3	Conica raggiata	1	5150 03 00303	5151 03 00303	5154 03 00303	-
		6	13,0	48	3	Ball nosed cone	1	5150 03 00603	5151 03 00603	5154 03 00603	-
M	SKM	3	11,0	38	3	Cono	1	5155 03 00303	5156 03 00303	-	-
		6	13,0	48	3	Cone	1	5155 03 00603	5156 03 00603	5159 03 00603	-
N	WKN	3	4,0	38	3	Cono rovesciato Inverted cone	1	5160 03 00303	-	-	-

Assortimento mini frese rotative in MD, attacco 3 mm
Assortments miniature carbide rotary burrs, shank 3 mm

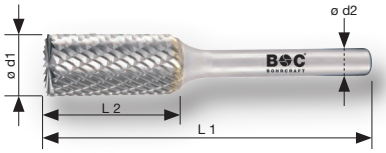
Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KF10	10	1x A · B · C · D · E · F · G · H · L · M, Ø 3 mm Z3-X dentatura incrociata / Cross toothing	5900 13 30014
KF15 Z3-X	15	1x B · C · D · E · F · G · M, Ø 3 + 6 mm 1x H, Ø 3 mm Z3-X dentatura incrociata / Cross toothing	5900 13 30015
KF15 Z5	15	1x B · C · D · E · F · G · L, Ø 3 + 6 mm 1x M, Ø 6 mm Z5 dentatura fine / Fine toothing	5905 13 30015





Frese rotative in MD, dentatura trasversale, codolo 8 mm
Carbide rotary burrs, cross toothing, shank 8 mm



Code **5105**


Code **5106**


Code **5110**

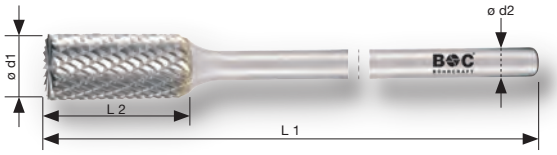
DIN 8033 | HM | Z3-X | SCHAFT SHANK Ø 8 mm

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Forma Shape	DIN 8033	Ø d1 mm	L2 mm	L1 mm	Ø d2 mm	Descrizione Description		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
A	ZYA	12	25	70	8	Cilindriche Cylinder	1	5100 03 01208	5101 03 01208
		16	25	70	8		1	5100 03 01608	5101 03 01608
B	ZYAS	12	25	70	8	Cliindriche taglio frontale Cylinder endcut	1	5105 03 01208	5106 03 01208
		16	25	70	8		1	5105 03 01608	5106 03 01608
C	WRC	12	25	70	8	Cilindrica raggiata con testa bombata Ball nosed cylinder	1	5110 03 01208	5111 03 01208
		16	25	70	8		1	5110 03 01608	5111 03 01608
D	KUD	12	10	56	8	Sferiche Ball	1	5115 03 01208	5116 03 01208
		16	14	59	8		1	5115 03 01608	5116 03 01608
E	TRE	12	20	65	8	Ovali Oval	1	5120 03 01208	5121 03 01208
		16	25	70	8		1	5120 03 01608	5121 03 01608
F	RBF	12	25	70	8	Ogivale raggiata Nosed tree	1	5125 03 01208	5126 03 01208
		16	25	70	8		1	5125 03 01608	5126 03 01608
G	SPG	12	25	70	8	Ogivale appuntita Pointed tree	1	5130 03 01208	5131 03 01208
		16	25	70	8		1	5130 03 01608	5131 03 01608
L	KEL	12	28	75	8	Conica raggiata Ball nosed cone	1	5150 03 01208	5151 03 01208
		16	33	78	8		1	5150 03 01608	5151 03 01608

Frese rotative in MD **con codolo lungo,** dentatura trasversale
Carbide rotary burrs **with long shank,** cross toothing



Code **5105-L**



Code **5110-L**

DIN 8033 | HM | Z3-X | LANGE LONG Version | SCHAFT SHANK ø 6 mm

Per lavori di sbavatura, smussatura degli spigoli, per lavorazioni sui punti di saldatura e finitura delle superfici.

To deburr, break edges, trim, process welding seams and surface processing.

Forma Shape	DIN 8033	Ø d1 mm	L2 mm	L1 mm	Ø d2 mm	Descrizione Description		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
A	ZYA	6	16	100	6	Cilindriche Cylinder	1	5100 03 06100	5101 03 06100
		6	16	150	6		1	5100 03 06150	5101 03 06150
		8	20	170	6		1	5100 03 08170	5101 03 08170
		10	20	170	6		1	5100 03 10170	5101 03 10170
		12	25	175	6		1	5100 03 12175	5101 03 12175
B	ZYAS	6	16	100	6	Cilindriche taglio frontale Cylinder endcut	1	5105 03 06100	5106 03 06100
		6	16	150	6		1	5105 03 06150	5106 03 06150
		8	20	170	6		1	5105 03 08170	5106 03 08170
		10	20	170	6		1	5105 03 10170	5106 03 10170
		12	25	175	6		1	5105 03 12175	5106 03 12175
C	WRC	6	16	100	6	Cilindrica raggiata con testa bombata Ball nosed cylinder	1	5110 03 06100	5111 03 06100
		6	16	150	6		1	5110 03 06150	5111 03 06150
		8	20	170	6		1	5110 03 08170	5111 03 08170
		10	20	170	6		1	5110 03 10170	5111 03 10170
		12	25	175	6		1	5110 03 12175	5111 03 12175
D	KUD	8	6	170	6	Sferiche Ball	1	5115 03 08170	5116 03 08170
		10	8	170	6		1	5115 03 10170	5116 03 10170
		12	11	175	6		1	5115 03 12175	5116 03 12175
E	TRE	10	16	170	6	Ovali Oval	1	5120 03 10170	5121 03 10170
		12	22	175	6		1	5120 03 12175	5121 03 12175
F	RBF	6	16	150	6	Ogivale raggiata Nosed tree	1	5125 03 06150	5126 03 06150
		10	20	170	6		1	5125 03 10170	5126 03 10170
		12	25	175	6		1	5125 03 12175	5126 03 12175
G	SPG	10	20	170	6	Ad albero Pointed tree	1	5130 03 10170	5131 03 10170
		12	25	175	6		1	5130 03 12175	5131 03 12175
L	KEL	10	25	170	6	Conica raggiata Ball nosed cone	1	5150 03 10170	5151 03 10170
		12	28	175	6		1	5150 03 12175	5151 03 12175

* Si prega di utilizzare velocità ridotta! Dettagli a pagina 430. / Please use reduced speed! Details on page 430.

Assortimenti frese rotative in MD a dentatura trasversale Z3-X, codolo 6 mm
Assortments carbide rotary burrs cross-toothing Z3-X, shank 6 mm


R3


R5


R10


RK10

Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
R3	3	1x B · D · G, Ø 10 mm Z3-X	5900 13 30003
R5	5	1x B · C · D · F · G, Ø 10 mm Z3-X	5900 13 30006
R10	10	1x B · C · F · G, Ø 6 + 12 mm Z3-X	5900 13 30011
RK10	10	1x B · C · F · G, Ø 10 + 12 mm Z3-X 1x D · L, Ø 12 mm Z3-X	5900 13 30012
R3 TiALN	3	1x B · D · G, Ø 10 mm Z3-X	5901 13 30003
R5 TiALN	5	1x B · C · D · F · G, Ø 10 mm Z3-X	5901 13 30006
R10 TiALN	10	1x B · C · F · G, Ø 6 + 12 mm Z3-X	5901 13 30011
RK10 TiALN	10	1x B · C · F · G, Ø 10 + 12 mm Z3-X 1x D · L, Ø 12 mm Z3-X	5901 13 30012


R3 TiALN


R10 TiALN



Assortimento frese rotative in MD a dentatura fine Z5, codolo 6 mm
Assortment carbide rotary burrs fine toothing Z5, shank 6 mm

Cassetta BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
R5-F	5	1x B · C · D · F · G, Ø 10 mm Z5	5905 13 30005



Assortimenti frese rotative in MD con dentatura in ALLUMINIO, codolo 3 + 6 mm
Assortments carbide rotary burrs ALU-toothing, shank 3 + 6 mm

Cassetta BC / BC Boxes (3 mm)

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KF10-ALU	10	1x B · C · D · F · G, Ø 3 + 6 mm Z-ALU	5903 13 30010



Cassette BC / BC Boxes (6 mm)

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
R3 ALU	3	1x B · C · F, Ø 12 mm Z-ALU	5903 13 30003
R5 ALU	5	1x B · F, Ø 6 + 12 mm Z-ALU 1x C, Ø 12 mm Z-ALU	5903 13 30005


R3 ALU


R5 ALU

FRESE ROTATIVE IN MD
CARBIDE ROTARY BURRS

Espositore per frese rotative in MD con codolo da 6 mm
Display for carbide rotary burrs with 6 mm shank



RD 36



RD 36 TiALN

Contenuto 36 Frese **Proposta Nr. 1**
Content 36 burrs **proposal No. 1**

Forma Shape	DIN 8033	Ø mm Kopf / Head	Descrizione Description		Art.-Nr. Z3-X	Art.-Nr. Z3-X TiALN
					RD 36	RD 36 TiALN
B	ZYAS	6 10 12	Cilindriche taglio frontale Cylinder endcut	2 2 2	5105 03 00600 5105 03 01000 5105 03 01200	5106 03 00600 5106 03 01000 5106 03 01200
C	WRC	6 10 12	Cilindrica raggiata Ball nosed cylinder	2 2 2	5110 03 00600 5110 03 01000 5110 03 01200	5111 03 00600 5111 03 01000 5111 03 01200
D	KUD	6 10 12	Sferiche Ball	2 2 2	5115 03 00600 5115 03 01000 5115 03 01200	5116 03 00600 5116 03 01000 5116 03 01200
F	RBF	6 10 12	Ogivale raggiata Nosed tree	2 2 2	5125 03 00600 5125 03 01000 5125 03 01200	5126 03 00600 5126 03 01000 5126 03 01200
G	SPG	6 10 12	Ad albero Pointed tree	2 2 2	5130 03 00600 5130 03 01000 5130 03 01200	5131 03 00600 5131 03 01000 5131 03 01200
L	KEL	6 10 12	Conica raggiata Ball nosed cone	2 2 2	5150 03 00600 5150 03 01000 5150 03 01200	5151 03 00600 5151 03 01000 5151 03 01200

Desiderate un assortimento diverso? L'espositore sopra indicato può essere allestito in base alle vostre esigenze. Saremo lieti di formularvi un'offerta personalizzata Non esitate a contattarci (lunghezza massima 75 mm).

You want a different content? Above display can be filled with burrs according to your request. We would be pleased to provide you with an individual offer. Please ask for it (max. length 75 mm).

Senza frese / Without burrs

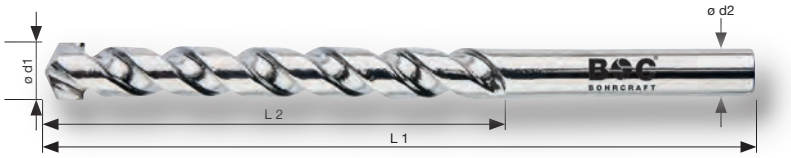
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
RD 36 leer	36	Espositore vuoto per 36 frese codolo 6 mm / Rotary burrs 6 mm shank Dimensioni / Dimension: 230 x 180 x 188 mm	0130 15 00009

PUNTE DA MURO
MASONRY AND CONCRETE DRILL BITS

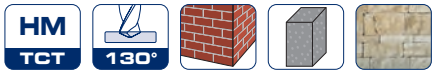


	Tipo Type	Descrizione Description	Code	Pagina Page
Punte per foratura a percussione e rotative / Percussion and rotary drill bits				
		Punte da muro, versione standard Masonry drill bits, standard version	2100 2150	312
		Punte da muro con inserti in MD Percussion drill bits, TCT	2260 2261	313
	LASER	Punte per cemento con inserti in MD Premium concrete drill bits, TCT	2250 2251 2252	314
	GRANIT	Punte per granito con inserti in MD Granite drill bits, TCT	2280	315
	MULTI-LASER	Punte universali con inserti in MD Multi-Purpose / Ceramic drills, TCT	2270	316
		Punte per vetro in MD Glass and ceramic drill bits, TCT	2700	317
	T4	GlasPunte per vetro con 4 taglienti ed inserti in MD Glass / Ceramic drill bits, 4 carbide cutting edges	2710	317
Punte per martelli / Hammer drill bits				
	QX-*4*	Punte per martelli SDS-Plus QX-4 con 4 taglienti MD, certificate PGM Hammer drill bits SDS-plus, 4 cutting edges, full carbide head, PGM certification-mark	2612	320 ÷ 322
	4-*X*	Punte per martelli SDS-Plus, 4-X, con 4 taglienti MD Hammer drill bits SDS-plus, 4 carbide cutting edges	2615	323 – 324
	X-TREME	Punte per martelli SDS-Plus con 4 eliche, X-TREME4, certificate PGM Hammer drill bits SDS-plus, 2 carbide cutting edges, PGM certification-mark	2610	325 ÷ 327
		Punte per martelli SDS-Plus Hammer drill bits SDS-plus, 2 carbide cutting edges	2590	328 – 329
	SDS max	Punte per martelli SDS-max, certificate PGM Hammer drill bits SDS-max, PGM certification-mark	2620	330 – 331
Scalpelli / Chisels				
	SDS plus SDS max	Scalpelli SDS-Plus / Scalpelli SDS-max Chisels SDS-plus / Chisels SDS-max	2650 2660	332 – 333

Punte da muro con inserti in MD, versione standard
Masonry drill bits TCT, standard version



Code **2100 • 2150**



Punte da muro per uso professionale su cemento, muratura e pietra naturale.

Basic masonry drill bit with stable carbide plate for simple drilling operations in concrete, masonry and natural stone.

Ø d1 mm	Ø d1 Poll / inch	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.
3,0	1/8"	70	42	2,8	1	2100 07 00300
4,0	5/32"	75	45	3,2	1	2100 07 00400
5,0	3/16"	85	51	4,2	1	2100 07 00500
5,5	7/32"	85	51	4,2	1	2100 07 00550
6,0	15/64"	100	60	5,2	1	2100 07 00600
6,5	1/4"	100	60	5,2	1	2100 07 00650
7,0	9/32"	100	60	5,2	1	2100 07 00700
8,0	5/16"	120	72	6,2	1	2100 07 00800
10,0	3/8"	120	72	8,2	1	2100 07 01000
11,0	7/16"	150	90	9,5	1	2100 07 01100
12,0	15/32"	150	90	9,5	1	2100 07 01200
13,0	1/2"	150	90	9,5	1	2100 07 01300
14,0	9/16"	150	90	10,0	1	2100 07 01400
16,0	5/8"	160	96	10,0	1	2100 07 01600
6,0	15/64"	150	90	5,2	1	2150 07 00600
8,0	5/16"	200	120	6,2	1	2150 07 00800
10,0	3/8"	200	120	8,2	1	2150 07 01000
12,0	15/32"	200	120	9,5	1	2150 07 01200
14,0	9/16"	200	120	10,0	1	2150 07 01400

Cassette in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
S 410	5	Ø 4 · 5 · 6 · 8 · 10 mm	18	2100 14 30005
S 80	8	Ø 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 mm	16	2100 14 30008



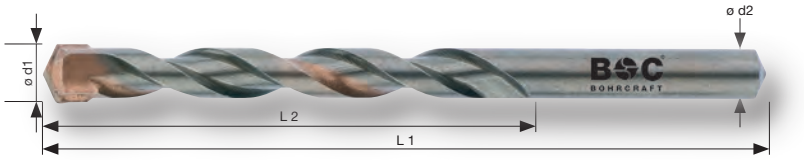
S 410



S 80



Display S 410



Code **2260 • 2261**

HM TCT | 130° | PRO

Punte da muro per uso professionale su cemento, muratura, e pietra naturale.

Percussion drill bit with stable carbide plate and milled flute for professional drilling operations in concrete, masonry and natural stone.

Ø d1 mm	Ø d1 Poll. / inch	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
4,0	5/32"	75	40	3,6	1	2260 07 00400	10	2260 03 00400
5,0	3/16"	85	50	4,5	1	2260 07 00500	10	2260 03 00500
6,0	15/64"	100	60	5,5	1	2260 07 00600	10	2260 03 00600
6,5	1/4"	100	60	6,0	1	2260 07 00650	-	-
7,0	9/32"	100	60	6,5	1	2260 07 00700	10	2260 03 00700
8,0	5/16"	120	80	7,0	1	2260 07 00800	10	2260 03 00800
10,0	3/8"	120	80	9,0	1	2260 07 01000	10	2260 03 01000
12,0	15/32"	150	90	10,0	1	2260 07 01200	5	2260 03 01200
14,0	9/16"	150	90	10,0	1	2260 07 01400	-	-
16,0	5/8"	150	90	10,0	1	2260 07 01600	-	-
5,0	3/16"	150	90	4,5	1	2261 07 00500	-	-
6,0	15/64"	150	90	5,4	1	2261 07 00600	-	-
6,5	1/4"	150	90	6,0	1	2261 07 00650	-	-
8,0	5/16"	200	135	7,0	1	2261 07 00800	-	-
10,0	3/8"	200	135	9,0	1	2261 07 01000	-	-
12,0	15/32"	200	135	10,0	1	2261 07 01200	-	-
14,0	9/16"	200	135	10,0	1	2261 07 01400	-	-
16,0	5/8"	200	135	10,0	1	2261 07 01600	-	-
8,0	5/16"	400	300	7,0	1	2261 07 00840	-	-
10,0	3/8"	400	300	9,0	1	2261 07 01040	-	-
12,0	15/32"	400	300	10,0	1	2261 07 01240	-	-
14,0	9/16"	400	300	10,0	1	2261 07 01440	-	-
16,0	5/8"	400	300	10,0	1	2261 07 01640	-	-

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
SP 3 HM	3	Ø 5 · 6 · 8 mm	2260 13 30003
SP 5 HM	5	Ø 4 · 5 · 6 · 8 · 10 mm	2260 13 30005

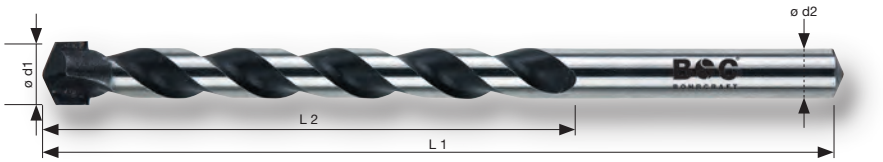


SP 3 HM



SP 5 HM

LASER Punte per cemento con inserti in MD DIN 8039 / ISO 5468
LASER Concrete drill bits TCT DIN 8039 / ISO 5468



Code **2250 • 2251 • 2252**

DIN 8039 | HM TCT | 130° | LONG LIFE

Punte per cemento brasate ad alta temperatura, con sede fresata e superfici rettificate per uso professionale con trapani a percussione e rotativi su cemento, muratura, pietra, etc.

Concrete and concrete masonry drill bit. High-temperature brazed carbide plate, milled flute and ground surface. For professional drilling operations and a long tool life in concrete, masonry and natural stone.

Ø d1 mm	Ø d1 Poll. / inch	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
3,0	1/8"	70	35	2,9	1	2250 07 00300	-	-
4,0	5/32"	75	40	3,5	1	2250 07 00400	10	2250 03 00400
5,0	3/16"	85	50	4,5	1	2250 07 00500	10	2250 03 00500
5,5	7/32"	85	50	5,1	1	2250 07 00550	-	-
6,0	15/64"	100	60	5,4	1	2250 07 00600	10	2250 03 00600
6,5	1/4"	100	60	5,9	1	2250 07 00650	-	-
7,0	9/32"	100	60	6,1	1	2250 07 00700	-	-
8,0	5/16"	120	80	7,0	1	2250 07 00800	10	2250 03 00800
9,0	11/32"	120	80	8,0	1	2250 07 00900	-	-
10,0	3/8"	120	80	8,4	1	2250 07 01000	10	2250 03 01000
12,0	15/32"	150	90	10,0	1	2250 07 01200	-	-
13,0	1/2"	150	90	10,0	1	2250 07 01300	-	-
14,0	9/16"	150	90	10,0	1	2250 07 01400	-	-
16,0	5/8"	150	90	10,0	1	2250 07 01600	-	-
5,0	3/16"	150	90	4,5	1	2251 07 00500	-	-
5,5	7/32"	150	90	5,1	1	2251 07 00550	-	-
6,0	15/64"	150	90	5,4	1	2251 07 00600	-	-
6,5	1/4"	150	90	5,9	1	2251 07 00650	-	-
8,0	5/16"	200	140	7,0	1	2251 07 00800	-	-
10,0	3/8"	200	140	8,4	1	2251 07 01000	-	-
12,0	15/32"	200	140	10,0	1	2251 07 01200	-	-
14,0	9/16"	200	140	10,0	1	2251 07 01400	-	-
6,0	15/64"	400	340	5,4	1	2252 07 00600	-	-
8,0	5/16"	400	340	7,0	1	2252 07 00800	-	-
10,0	3/8"	400	340	8,4	1	2252 07 01000	-	-
12,0	1/2"	400	340	10,0	1	2252 07 01200	-	-
14,0	9/16"	400	340	10,0	1	2252 07 01400	-	-
16,0	5/8"	400	340	10,0	1	2252 07 01600	-	-
18,0	11/16"	400	340	13,0	1	2252 07 01800	-	-
20,0	25/32"	400	340	13,0	1	2252 07 02000	-	-

Cassette in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
SL 410	5	Ø 4 · 5 · 6 · 8 · 10 mm	18	2250 14 30005
SL 80	8	Ø 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 mm	16	2250 14 30008

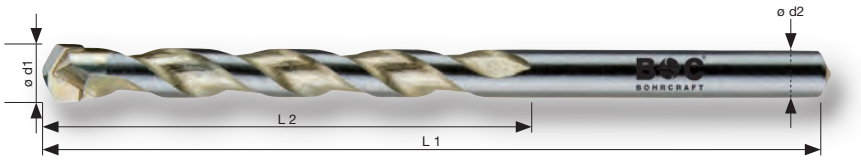


BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
SL 3	3	Ø 5 · 6 · 8 mm	2250 13 30003



Punte per granito con inserti in MD DIN 8039 I ISO 5468
Granite drill bits TCT DIN 8039 / ISO 5468



Code **2280**

DIN 8039 | HM TCT | 130° | PRO | GRANIT

Punte per granito per uso professionale con trapani a percussione e rotativi su per pietre naturali dure come granito, marmo, ardesia, nonché per muratura e cemento.

Granite drill bit with diamond-ground carbide plate. Suitable for hard natural stone such as granite, marble, slate as well as masonry and aerated concrete.

Ø d1 mm	Ø d1 Poll. / inch	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.
5	3/16"	85	50	4,6	1	2280 07 00500
6	15/64"	100	60	5,4	1	2280 07 00600
7	9/32"	100	60	6,5	1	2280 07 00700
8	5/16"	120	80	7,0	1	2280 07 00800
10	3/8"	120	80	9,0	1	2280 07 01000
12	15/32"	150	90	10,0	1	2280 07 01200

BC Multi-Pack / BC Multi-Pack

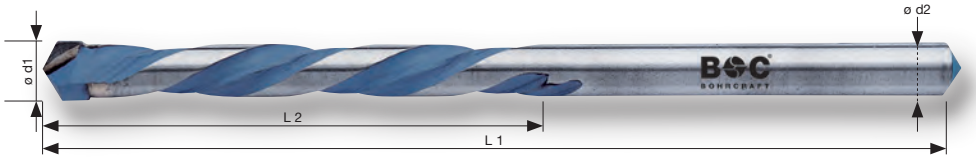
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
SG 4	4	Ø 5 · 6 · 8 · 10 mm	2280 13 30004



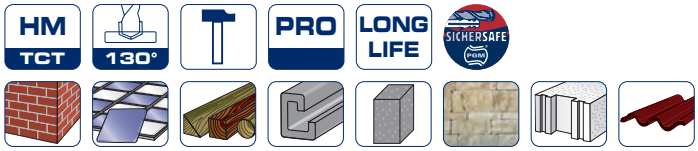
SG 4



MULTI-LASER Punte universali e per ceramica con inserti in MD
MULTI-LASER Multi-Purpose / Ceramic drills TCT



Code **2270**



Punte universali adatte per moltissimi materiali: piastrelle e ceramica (fino a durezza Mohs 8), cemento, legno, acciaio e plastica. Robusta testa della punta con placchetta in metallo duro con un nuovo design e taglienti multipli rettificati al diamante.

Multi-Purpose drill bit for application in nearly any materials e. g. tiles and ceramic (up to Mohs-hardness 8), concrete, wood, steel, plastics and roof tiles. Robust drill bit head with new designed carbide plate and multiple diamond-ground cutting edges.



Ø d1 mm	Ø d1 Poll. / inch	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
3,0	1/8"	70	40	2,8	1	2270 07 00300	-	-
4,0	5/32"	75	40	3,8	1	2270 07 00400	10	2270 03 00400
5,0	3/16"	85	50	4,5	1	2270 07 00500	10	2270 03 00500
5,5	7/32"	85	50	4,5	1	2270 07 00550	-	-
6,0	15/64"	100	60	5,5	1	2270 07 00600	10	2270 03 00600
6,5	1/4"	100	60	5,5	1	2270 07 00650	-	-
7,0	9/32"	100	60	6,5	1	2270 07 00700	-	-
8,0	5/16"	120	80	7,2	1	2270 07 00800	10	2270 03 00800
9,0*	11/32"	120	80	8,0	1	2270 07 00900	-	-
10,0	3/8"	120	80	9,0	1	2270 07 01000	10	2270 03 01000
12,0	15/32"	150	90	10,0	1	2270 07 01200	-	-
6,0	15/64"	150	90	5,5	1	2270 07 00615	-	-
6,5	1/4"	150	90	5,5	1	2270 07 06515	-	-
7,0*	9/32"	150	90	6,5	1	2270 07 00715	-	-
6,0	15/64"	250	200	5,5	1	2270 07 00625	-	-
6,5	1/4"	250	200	5,5	1	2270 07 06525	-	-
8,0	5/16"	250	200	7,2	1	2270 07 00825	-	-
10,0	3/8"	250	200	9,0	1	2270 07 01025	-	-
12,0*	15/32"	250	200	10,0	1	2270 07 01225	-	-

* Solo fino ad esaurimento scorte. / * Only as long as stock lasts

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
UMK 412	7	Ø 4 · 5 · 6 · 6 · 8 · 10 · 12 mm	2270 13 10007



Cassetta in plastica / Plastic-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
UM 410	5	Ø 4 · 5 · 6 · 8 · 10 mm	18	2270 14 30005



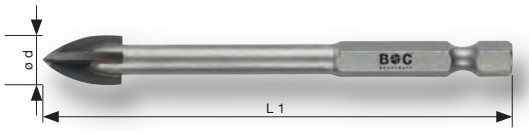
BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
UM 3	3	Ø 5 · 6 · 8 mm	2270 13 30003



Punte per vetro/ceramica con 4 taglienti, con inserti in MD
Glass / Ceramic drill bits T4, with 4 carbide cutting edges





Code **2710**

HM TCT | PRO | LONG LIFE

Punte speciali con 4 taglienti in MD. Per forare vetro, bottiglie, porcellana e piastrelle. Un raffreddamento adeguato con acqua, trementina o petrolio aumenta la durata dell'utensile.
Adatto anche per cemento, cartongesso, ecc.

Special drill with 4 carbide cutting edges. For drilling glass, bottles, porcelain and tiles. Sufficent cooling with water, turpentine or petroleum increases tool life.
Also suitable for aerated concrete, plasterboard, etc.

Ø d mm	L 1 mm		Art.-Nr. Part-No.
5	75	1	2710 07 00500
6	80	1	2710 07 00600
8	85	1	2710 07 00800
10	90	1	2710 07 01000
12	95	1	2710 07 01200

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GM-T4	4	Ø 5 · 6 · 8 · 10 mm	2710 13 30004





☆☆★★★ Punte per vetro / ceramica in MD
Glass / Ceramic drill bits TCT

HM TCT



Code **2700**

Punta per vetro, porcellana, piastrelle, ceramica ecc. Si consiglia una bassa velocità di foratura e un raffreddamento adeguato con acqua, aceto, trementina o vaselina.
Solo per uso rotativo.

Special drill for glass, porcelain, tiles, ceramics etc. Low drilling-speed and sufficient cooling with water, vinegar, turpentine and petroleum recommended.
For rotary use only.

Ø d mm	L 1 mm		Art.-Nr. Part-No.
3	58	1	2700 07 00300
4	58	1	2700 07 00400
5	58	1	2700 07 00500
6	58	1	2700 07 00600
8	78	1	2700 07 00800
10	98	1	2700 07 01000
12	98	1	2700 07 01200

BC Multi-Pack / BC Multi-Pack

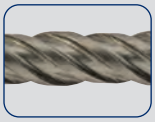
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
GM-5	5	Ø 4 · 5 · 6 · 8 · 10 mm	2700 13 30005



Indice di Qualità Punte per martelli SDS-plus / SDS-max
Quality-Index hammer drill bits SDS-plus / SDS-max

	Taglienti Cutting edges	Qualità Quality
	4	Code 2612 • QX-*4* (Pagina / Page 324 ÷ 326) 
	4	Code 2615 • 4-*X* (Pagina / Page 327 – 328) 
	2	Code 2610 • X-TREME (Pagina / Page 329 ÷ 331) 
	2	Code 2590 • BASIC (Pagina / Page 332 – 333) 
	4	Code 2620 (Pagina / Page 334 – 335) 

Indice di Qualità Punte per martelli SDS-plus / SDS-max
Quality-Index hammer drill bits SDS-plus / SDS-max

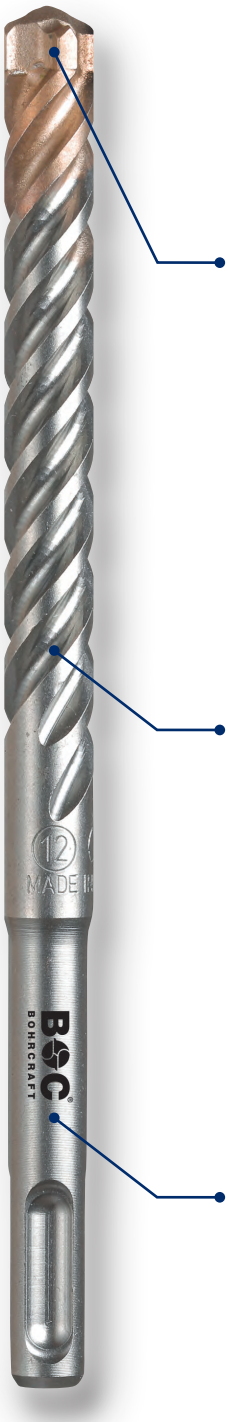
Descrizione Description	Spirale Flute	Cemento armato Reinforced concrete	Cemento Concrete	Muro Masonry	Pietra naturale Natural stone
Punte di alta qualità con 4 taglienti in metallo duro. Foratura: 5 - 32 mm Top-class hammer drill bits with 4 cutting edges, full carbide head. Drill range: 5 – 32 mm		●●	●●	●●	●●
Punte con 4 taglienti in metallo duro e punta con forma a X. Foratura: 5 - 30 mm Hammer drill bits with 4-carbide cutting edges arranged in X-shape. Drill range: 5 – 30 mm		●	●●	●●	●●
Punte di alta qualità con 4 eliche e punta a centrare. Foratura: 3,5 - 26 mm High-class hammer drill bits with 4-fold flute and centering tip. Drill range: 3,5 – 26 mm		●	●●	●●	●●
Punte per martelli economiche. Foratura: 4 - 26 mm Economic hammer drill bits. Drill range: 4 – 26 mm			●	●	
Punte di alta qualità con 4 taglienti in metallo duro, da 16 mm. Fino a 15 mm con 2 taglienti. Foratura: 12 - 50 mm Top-class hammer drill bits with 4 cutting edges, from 16 mm. Up to 15 mm with 2 carbide cutting edges. Drill range: 12 – 50 mm		●●	●●	●●	●●

● adatto / suitable ●● consigliato / recommended

Punte per martelli SDS-plus **QX-*4***, con testa in MD, certificate PGM
Hammer drill bits SDS-plus **QX-*4***, with solid carbide head, PGM certification-mark



Code **2612**



Particolarmente adatte per forare cemento armato!
Especially suitable for drilling in reinforced concrete!



Punte a 4 taglienti con testa in MD
Testa appositamente progettata con 4 taglienti in metallo duro per una trasmissione ottimale della potenza e una rapida progressione della foratura. Nessun inceppamento in caso di contatto con il cemento armato. Il punto di centraggio garantisce una foratura precisa senza slittamenti.

4-cutting with solid carbide head
Special designed drill head with 4 carbide cutting edges for optimum power transmission and fast drilling progress. No jamming if reinforced concrete will be hit. The centering point ensures precise drilling without slipping.



Punte a 4 eliche
Le ampie scanalature d'ingresso, in combinazione con la scanalatura a 4 eliche, garantiscono una perfetta rimozione della polvere di foratura. Inoltre, il design a 4 eliche assicura un funzionamento molto fluido e una guida ottimale della punta. Anima rinforzata per un'elevata stabilità alla frattura e una trasmissione ottimale dell'energia d'impatto.

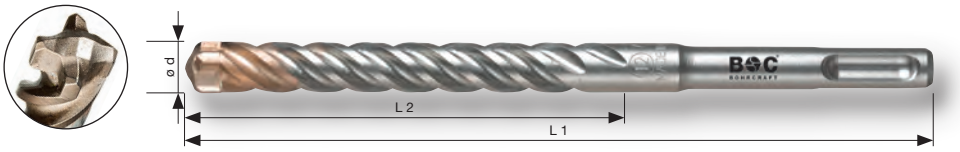
4-fold flute
Large entry grooves in combination with 4-fold flute for a perfect removal of the drilling dust. Furthermore the 4-flute design ensures very smooth running and optimal guidance of the drill. Reinforced core for high fracture stability and optimum transmission of impact energy.



Marchio di certificazione PGM
Le punte certificate PGM garantiscono fori esatti e precisi. Elevati standard qualitativi e ispezioni periodiche assicurano il rispetto delle tolleranze di foratura.

PGM test mark
PGM certified drills guarantee exact and precise holes. High quality standards and regular inspections ensure the compliance of exact drill tolerances.

Punte per martelli SDS-plus **QX-*4***, con 4 taglienti in MD, certificate PGM
Hammer drill bits SDS-plus **QX-*4,*** with solid carbide head, PGM certification-mark



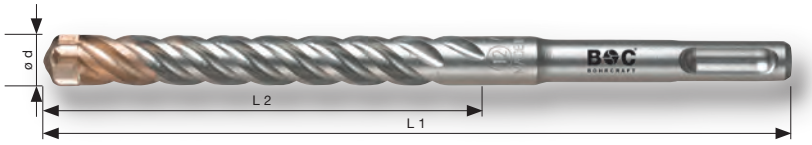
Code **2612**

PRO HM TCT SDS PLUS

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
5,0	110	50	1	2612 05 05011	10	2612 09 05011
5,0	160	100	1	2612 05 05016	10	2612 09 05016
5,0	210	150	1	2612 05 05021	-	-
6,0	110	50	1	2612 05 06011	10	2612 09 06011
6,0	160	100	1	2612 05 06016	10	2612 09 06016
6,0	210	150	1	2612 05 06021	10	2612 09 06021
6,0	260	200	1	2612 05 06026	10	2612 09 06026
6,5	160	100	1	2612 05 06516	10	2612 09 06516
6,5	210	150	1	2612 05 06521	10	2612 09 06521
6,5	260	200	1	2612 05 06526	10	2612 09 06526
6,5	310	250	1	2612 05 06531	-	-
8,0	110	50	1	2612 05 08011	10	2612 09 08011
8,0	160	100	1	2612 05 08016	10	2612 09 08016
8,0	210	150	1	2612 05 08021	10	2612 09 08021
8,0	260	200	1	2612 05 08026	10	2612 09 08026
8,0	310	250	1	2612 05 08031	-	-
8,0	460	400	1	2612 05 08046	-	-
10,0	160	100	1	2612 05 10016	10	2612 09 10016
10,0	210	150	1	2612 05 10021	10	2612 09 10021
10,0	260	200	1	2612 05 10026	10	2612 09 10026
10,0	310	250	1	2612 05 10031	5	2612 09 10031
10,0	460	400	1	2612 05 10046	-	-
10,0	600	540	1	2612 05 10060	-	-
12,0	160	100	1	2612 05 12016	10	2612 09 12016
12,0	210	150	1	2612 05 12021	5	2612 09 12021
12,0	260	200	1	2612 05 12026	5	2612 09 12026
12,0	310	250	1	2612 05 12031	5	2612 09 12031
12,0	450	400	1	2612 05 12045	-	-
12,0	600	540	1	2612 05 12060	-	-
14,0	160	100	1	2612 05 14016	5	2612 09 14016
14,0	210	150	1	2612 05 14021	5	2612 09 14021
14,0	260	200	1	2612 05 14026	5	2612 09 14026
14,0	310	250	1	2612 05 14031	-	-
14,0	450	400	1	2612 05 14045	-	-
14,0	600	540	1	2612 05 14060	-	-
16,0	160	100	1	2612 05 16016	-	-
16,0	210	150	1	2612 05 16021	-	-
16,0	260	200	1	2612 05 16026	-	-
16,0	450	400	1	2612 05 16045	-	-
16,0	600	540	1	2612 05 16060	-	-
18,0	250	200	1	2612 05 18025	-	-
18,0	450	400	1	2612 05 18045	-	-
20,0	250	200	1	2612 05 20025	-	-
20,0	450	400	1	2612 05 20045	-	-
22,0	250	200	1	2612 05 22025	-	-
22,0	450	400	1	2612 05 22045	-	-
24,0	250	200	1	2612 05 24025	-	-
24,0	450	400	1	2612 05 24045	-	-
25,0	250	200	1	2612 05 25025	-	-
25,0	450	400	1	2612 05 25045	-	-

Punte per martelli SDS-plus **QX-4,** con 4 taglienti in MD, certificate PGM
Hammer drill bits SDS-plus **QX-4,** with solid carbide head, PGM certification-mark





Code **2612**

PRO HM TCT SDS PLUS

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
28,0	250	200	1	2612 05 28025	-	-
28,0	450	400	1	2612 05 28045	-	-
30,0	450	400	1	2612 05 30045	-	-
32,0	450	400	1	2612 05 32045	-	-

Con lunghezze superiori ai 400 mm è necessario pre-forare con un diametro minimo di 150 mm.
For a working length of 400 mm and more pre-drilling with the same diameter minimum 150 mm is essential.



Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 7 QX-4	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2612 14 10007

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 3 QX-4	3	Ø 6 · 8 · 10 x 160 mm	2612 13 30003
HB 5 QX-4	5	Ø 5 · 6 x 110 mm + 6 · 8 · 10 x 160 mm	2612 13 30005
HB 7-2 QX-4	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2612 13 30007

BC Quadro Pack / BC Quadro Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 8 QX-4	8	Ø 6 · 8 · 10 · 12 x 160 mm + 8 · 10 x 210 mm + Scalpello / Chisel A punta / Point 250 mm · Piatto / Flat 20 x 250 mm	2612 03 00008

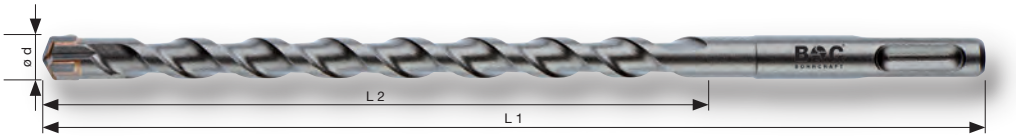

HB 7QX-4


HB 5 QX-4


HB 8 QX-4

Punte per martelli SDS-plus *4-X,* con 4 taglienti in MD
Hammer drill bits SDS-plus *4-X,* with 4 carbide cutting edges





Code **2615**

BASIC | HM TCT | SDS PLUS | 4

Punte per martelli con 4 taglienti e 2 eliche. Taglienti in MD a forma di X per forare cemento, muro e pietra naturale.

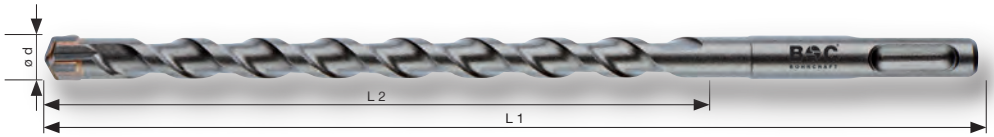
Basic hammer drill bit with 4 cutting edges and 2 flutes. Robust X-shaped carbide cutting edges for all normal drilling operations in concrete, masonry and natural stone.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
5,0	110	50	1	2615 05 05011
5,0	160	100	1	2615 05 05016
5,5	160	100	1	2615 05 05516
6,0	110	50	1	2615 05 06011
6,0	160	100	1	2615 05 06016
6,0	210	150	1	2615 05 06021
6,0	260	200	1	2615 05 06026
6,5	160	100	1	2615 05 06516
6,5	210	150	1	2615 05 06521
6,5	260	200	1	2615 05 06526
6,5	450	400	1	2615 05 06545
8,0	110	50	1	2615 05 08011
8,0	160	100	1	2615 05 08016
8,0	210	150	1	2615 05 08021
8,0	260	200	1	2615 05 08026
8,0	450	400	1	2615 05 08045
10,0	160	100	1	2615 05 10016
10,0	210	150	1	2615 05 10021
10,0	260	200	1	2615 05 10026
10,0	450	400	1	2615 05 10045
12,0	160	100	1	2615 05 12016
12,0	210	150	1	2615 05 12021
12,0	260	200	1	2615 05 12026
12,0	450	400	1	2615 05 12045
14,0	160	100	1	2615 05 14016
14,0	210	150	1	2615 05 14021
14,0	260	200	1	2615 05 14026
14,0	450	400	1	2615 05 14045
15,0	160	100	1	2615 05 15016
15,0	260	200	1	2615 05 15026
16,0	160	100	1	2615 05 16016
16,0	250	200	1	2615 05 16025
16,0	450	400	1	2615 05 16045
18,0	250	200	1	2615 05 18025
18,0	450	400	1	2615 05 18045
20,0	250	200	1	2615 05 20025
20,0	450	400	1	2615 05 20045
22,0	250	200	1	2615 05 22025
22,0	450	400	1	2615 05 22045
24,0	250	200	1	2615 05 24025
24,0	450	400	1	2615 05 24045
25,0	250	200	1	2615 05 25025
25,0	450	400	1	2615 05 25045



Punte per martelli SDS-plus ***4-X,*** con 4 taglienti in MD
Hammer drill bits SDS-plus ***4-X,*** with 4 carbide cutting edges





Code **2615**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
28,0	450	400	1	2615 05 28045
30,0	450	400	1	2615 05 30045

Con lunghezze superiori ai 400 mm è necessario pre-forare con un diametro minimo di 150 mm.
For a working length of 400 mm and more pre-drilling with the same diameter (minimum 150 mm) is essential.

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 7-4X	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2615 14 10007

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB3 4-X	3	Ø 6 · 8 · 10 x 160 mm	2615 13 30003
HB5 4-X	5	Ø 5 · 6 x 110 mm + 6 · 8 · 10 x 160 mm	2615 13 30005
HB7-2 4-X	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2615 13 30007

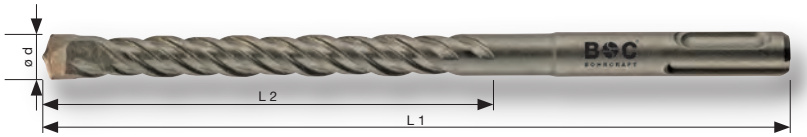

HB 7-4X


HB3 4-X


HB5 4-X

Punte per martelli SDS-plus **X-TREME,** certificate PGM
Hammer drill bits SDS-plus **X-TREME,** with PGM certification-mark





Code **2610**

PRO HM TCT SDS PLUS

Punte per martelli di prima classe con 2 taglienti e punta a centrare. 4 eliche, in combinazione con ampie scanalature di ingresso, garantisce una perfetta rimozione della polvere di foratura. Le punte certificate PGM garantiscono fori precisi e accurati, oltre a una lunga durata dell'utensile.

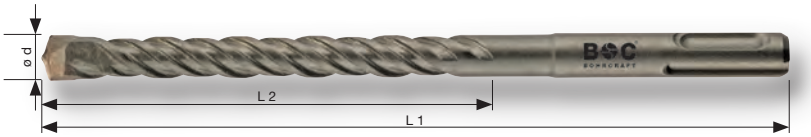
First class hammer drill bit with 2 cutting edges and centering tip. The optimized 4-fold flute, in combination with large entry grooves, ensures that the drilling dust is perfectly removed. PGM certified drills guarantee exact and precise holes together with a long tool life.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
3,5	110	50	1	2610 05 03511	-	-
4,0	110	50	1	2610 05 04011	-	-
4,0	160	100	1	2610 05 04016	-	-
5,0	110	50	1	2610 05 05011	10	2610 09 05011
5,0	160	100	1	2610 05 05016	10	2610 09 05016
5,0	210	150	1	2610 05 05021	-	-
5,5	110	50	1	2610 05 05501	10	2610 09 05511
5,5	160	100	1	2610 05 05516	10	2610 09 05516
6,0	110	50	1	2610 05 06011	10	2610 09 06011
6,0	160	100	1	2610 05 06016	10	2610 09 06016
6,0	210	150	1	2610 05 06021	10	2610 09 06021
6,0	260	200	1	2610 05 06026	10	2610 09 06026
6,0	460	400	1	2610 05 06046	-	-
6,5	110	50	1	2610 05 06511	10	2610 09 06511
6,5	160	100	1	2610 05 06516	10	2610 09 06516
6,5	210	150	1	2610 05 06521	10	2610 09 06521
6,5	260	200	1	2610 05 06526	10	2610 09 06526
6,5	310	250	1	2610 05 06531	-	-
7,0	110	50	1	2610 05 07011	-	-
7,0	160	100	1	2610 05 07016	-	-
7,0	210	150	1	2610 05 07021	-	-
8,0	110	50	1	2610 05 08011	10	2610 09 08011
8,0	160	100	1	2610 05 08016	10	2610 09 08016
8,0	210	150	1	2610 05 08021	10	2610 09 08021
8,0	260	200	1	2610 05 08026	10	2610 09 08026
8,0	310	250	1	2610 05 08031	-	-
8,0	460	400	1	2610 05 08046	-	-
8,0	600	550	1	2610 05 08061	-	-
10,0	110	50	1	2610 05 10011	10	2610 09 10011
10,0	160	100	1	2610 05 10016	10	2610 09 10016
10,0	210	150	1	2610 05 10021	10	2610 09 10021
10,0	260	200	1	2610 05 10026	10	2610 09 10026
10,0	310	250	1	2610 05 10031	5	2610 09 10031
10,0	460	400	1	2610 05 10046	-	-
10,0	600	550	1	2610 05 10061	-	-
10,0	1000	950	1	2610 05 10010	-	-
12,0	160	100	1	2610 05 12016	10	2610 09 12016
12,0	200	150	1	2610 05 12021	5	2610 09 12021
12,0	260	200	1	2610 05 12026	5	2610 09 12026
12,0	300	250	1	2610 05 12031	5	2610 09 12031
12,0	450	400	1	2610 05 12046	-	-
12,0	600	550	1	2610 05 12060	-	-
12,0	1000	950	1	2610 05 12010	-	-
14,0	160	100	1	2610 05 14016	5	2610 09 14016
14,0	200	150	1	2610 05 14021	5	2610 09 14021



Punte per martelli SDS-plus **X-TREME,** certificate PGM
Hammer drill bits SDS-plus **X-TREME,** with PGM certification-mark





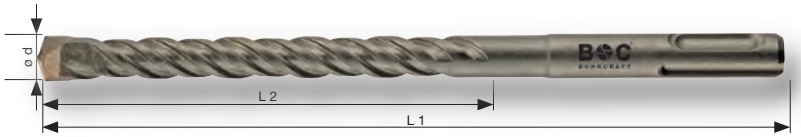
Code **2610**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
14,0	260	200	1	2610 05 14026	5	2610 09 14026
14,0	300	250	1	2610 05 14031	-	-
14,0	450	400	1	2610 05 14046	-	-
14,0	600	550	1	2610 05 14060	-	-
14,0	1000	950	1	2610 05 14010	-	-
15,0	160	100	1	2610 05 15016	-	-
15,0	260	200	1	2610 05 15026	-	-
16,0	160	100	1	2610 05 16016	-	-
16,0	200	150	1	2610 05 16021	-	-
16,0	300	250	1	2610 05 16031	-	-
16,0	450	400	1	2610 05 16046	-	-
16,0	600	550	1	2610 05 16061	-	-
16,0	1000	950	1	2610 05 16010	-	-
18,0	200	150	1	2610 05 18021	-	-
18,0	250	200	1	2610 05 18025	-	-
18,0	300	250	1	2610 05 18030	-	-
18,0	450	400	1	2610 05 18045	-	-
18,0	600	550	1	2610 05 18060	-	-
18,0	1000	950	1	2610 05 18010	-	-
20,0	200	150	1	2610 05 20020	-	-
20,0	300	250	1	2610 05 20030	-	-
20,0	450	400	1	2610 05 20045	-	-
20,0	600	550	1	2610 05 20060	-	-
20,0	1000	950	1	2610 05 20010	-	-
22,0	250	200	1	2610 05 22025	-	-
22,0	450	400	1	2610 05 22045	-	-
22,0	600	550	1	2610 05 22060	-	-
22,0	1000	950	1	2610 05 22010	-	-
24,0	250	200	1	2610 05 24025	-	-
24,0	450	400	1	2610 05 24045	-	-
25,0	450	400	1	2610 05 25045	-	-
26,0	250	200	1	2610 05 26025	-	-
26,0	450	400	1	2610 05 26045	-	-

Con lunghezze superiori ai 400 mm (800 mm) è necessario pre-forare con un diametro minimo di 150 mm (400 mm).
For a working length of 400 mm (800 mm) and more pre-drilling with the same diameter minimum 150 mm (400 mm) is essential.







Code **2610**

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 7-XT	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2610 14 10007

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 3-XT	3	Ø 6 · 8 · 10 x 160 mm	2610 14 30003
HB 4-XT	4	Ø 5 · 6 x 110 mm + 8 · 10 x 160 mm	2610 14 30004
HB 5-XT	5	Ø 5 · 6 x 110 mm + 6 · 8 · 10 x 160 mm	2610 14 30005
HB 7-2 XT	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2610 14 30007

BC Quadro Pack / BC Quadro Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 8-XT	8	Ø 6 · 8 · 10 · 12 x 160 mm + 8 · 10 x 210 mm + Scalpello / Chisel A punta / Point 250 mm · Piatto / Flat 20 x 250 mm	2610 03 00008

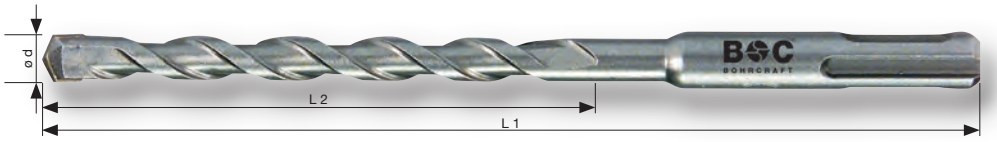

HB 7-XT


HB 5-XT


HB 8-XT



Punte per martelli SDS-plus
Hammer drill bits SDS-plus



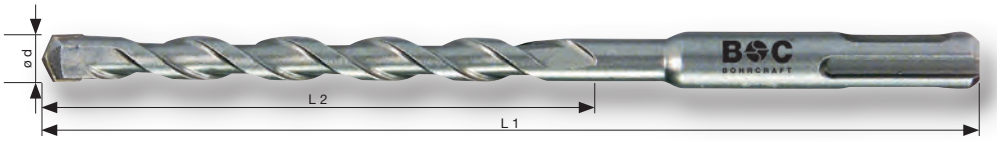
Code **2590**

BASIC | HM TCT | SDS PLUS | 2

Punte per martelli con 2 taglienti e 2 eliche. Per forare cemento, muro e pietra naturale.

Basic hammer drill bit with 2 cutting edges and 2 flutes. Stable carbide plate for normal drilling operations in concrete, masonry and natural stone.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
4,0	110	50	1	2590 05 04011	-	-
5,0	110	50	1	2590 05 05011	10	2590 09 05011
5,0	160	100	1	2590 05 05016	10	2590 09 05016
5,5	110	50	1	2590 05 05511	-	-
5,5	160	100	1	2590 05 05516	-	-
6,0	110	50	1	2590 05 06011	10	2590 09 06011
6,0	160	100	1	2590 05 06016	10	2590 09 06016
6,0	210	150	1	2590 05 06021	10	2590 09 06021
6,0	260	200	1	2590 05 06026	10	2590 09 06026
6,5	110	50	1	2590 05 06511	-	-
6,5	160	100	1	2590 05 06516	-	-
6,5	210	150	1	2590 05 06521	-	-
6,5	260	200	1	2590 05 06526	-	-
7,0	160	100	1	2590 05 07016	-	-
8,0	110	50	1	2590 05 08011	10	2590 09 08011
8,0	160	100	1	2590 05 08016	10	2590 09 08016
8,0	210	150	1	2590 05 08021	10	2590 09 08021
8,0	260	200	1	2590 05 08026	10	2590 09 08026
8,0	310	250	1	2590 05 08031	-	-
8,0	460	400	1	2590 05 08046	-	-
10,0	110	50	1	2590 05 10011	-	-
10,0	160	100	1	2590 05 10016	10	2590 09 10016
10,0	210	150	1	2590 05 10021	10	2590 09 10021
10,0	260	200	1	2590 05 10026	10	2590 09 10026
10,0	310	250	1	2590 05 10031	5	2590 09 10031
10,0	460	400	1	2590 05 10046	-	-
10,0	600	550	1	2590 05 10060	-	-
12,0	160	100	1	2590 05 12016	10	2590 09 12016
12,0	210	150	1	2590 05 12021	5	2590 09 12021
12,0	260	200	1	2590 05 12026	5	2590 09 12026
12,0	310	250	1	2590 05 12031	5	2590 09 12031
12,0	460	400	1	2590 05 12046	-	-
12,0	600	550	1	2590 05 12060	-	-
12,0	1000	950	1	2590 05 12010	-	-
14,0	160	100	1	2590 05 14016	5	2590 09 14016
14,0	210	150	1	2590 05 14021	5	2590 09 14021
14,0	260	200	1	2590 05 14026	5	2590 09 14026
14,0	310	250	1	2590 05 14031	5	2590 09 14016
14,0	460	400	1	2590 05 14046	5	2590 09 14021
14,0	600	550	1	2590 05 14060	5	2590 09 14026
14,0	1000	950	1	2590 05 14010	-	-
15,0	160	100	1	2590 05 15016	-	-
15,0	260	200	1	2590 05 15026	-	-
16,0	160	100	1	2590 05 16016	-	-
16,0	210	150	1	2590 05 16021	-	-
16,0	300	250	1	2590 05 16030	-	-



Code **2590**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
16,0	450	400	1	2590 05 16046	-	-
16,0	600	550	1	2590 05 16060	-	-
16,0	1000	950	1	2590 05 16010	-	-
18,0	200	150	1	2590 05 18020	-	-
18,0	300	250	1	2590 05 18030	-	-
18,0	450	400	1	2590 05 18046	-	-
18,0	600	550	1	2590 05 18060	-	-
18,0	1000	950	1	2590 05 18010	-	-
20,0	200	150	1	2590 05 20020	-	-
20,0	300	250	1	2590 05 20030	-	-
20,0	450	400	1	2590 05 20046	-	-
20,0	600	550	1	2590 05 20060	-	-
20,0	1000	950	1	2590 05 20010	-	-
					-	
22,0	250	200	1	2590 05 22025	-	-
22,0	300	250	1	2590 05 22030	-	-
22,0	450	400	1	2590 05 22046	-	-
22,0	600	550	1	2590 05 22060	-	-
22,0	1000	950	1	2590 05 22010	-	-
24,0	250	200	1	2590 05 24025	-	-
24,0*	300	250	1	2590 05 24030	-	-
24,0	450	400	1	2590 05 24046	-	-
26,0*	450	400	1	2590 05 26046	-	-

* Solo fino ad esaurimento scorte. / * Only as long as stock lasts

Con lunghezze superiori ai 400 mm (800 mm) è necessario pre-forare con un diametro minimo di 150 mm (400 mm).
For a working length of 400 mm (800 mm) and more pre-drilling with the same diameter minimum 150 mm (400 mm) is essential.

Cassetta in metallo BC / BC Metal-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 7	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2590 14 10007

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
HB 3	3	Ø 6 · 8 · 10 x 160 mm	2590 14 30003
HB 4	4	Ø 5 · 6 x 110 mm + 8 · 10 x 160 mm	2590 14 30004
HB 5	5	Ø 5 · 6 x 110 mm + 6 · 8 · 10 x 160 mm	2590 14 30005
HB 7-2	7	Ø 5 · 6 · 8 x 110 mm + 6 · 8 · 10 · 12 x 160 mm	2590 14 30007



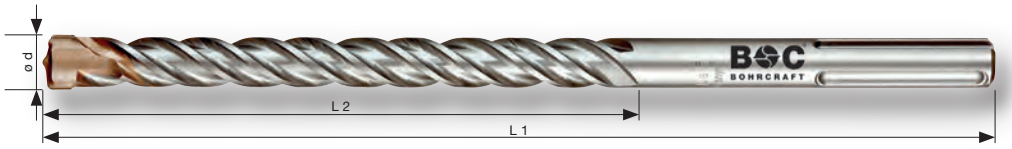
HB 7



HB 5

Punte per martelli SDS-max **PRO,** Pcertificate PGM
Hammer drill bits SDS-max **PRO,** PGM certification-mark





Code **2620**



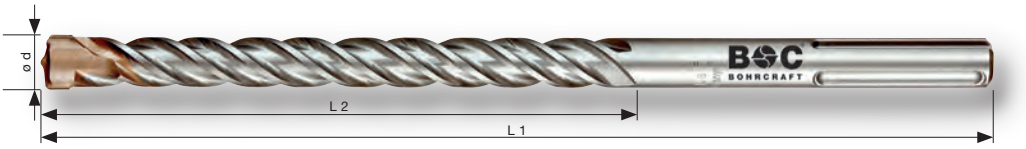
Punte per martelli di prima classe con 4 taglienti in MD (≥ 16 mm) per una trasmissione di potenza ideale e una rapida progressione della foratura. Funzionamento fluido e guida perfetta nel foro grazie alle 4 eliche. Le punte certificate PGM garantiscono fori precisi e accurati, oltre a una lunga durata dell'utensile.

First class hammer drill bit with 4 carbide cutting edges (≥ 16 mm) for ideal power transmission and fast drilling progress. Smooth running and perfect guidance in the drill hole due to the optimized 4-fold flute. PGM certified drills guarantee exact and precise holes together with a long tool life.

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
12	340	200	1	2620 03 12034
12	540	400	1	2620 03 12054
12	740	600	1	2620 03 12069
14	340	200	1	2620 03 14034
14	540	400	1	2620 03 14054
15	340	200	1	2620 03 15034
15	540	400	1	2620 03 15054
16	340	200	1	2620 03 16034
16	540	400	1	2620 03 16054
18	340	200	1	2620 03 18034
18	540	400	1	2620 03 18054
18	940	800	1	2620 03 18094
20	340	200	1	2620 03 20032
20	540	400	1	2620 03 20052
20	920	800	1	2620 03 20092
22	340	200	1	2620 03 22032
22	540	400	1	2620 03 22052
22	920	800	1	2620 03 22092
24	340	200	1	2620 03 24032
24	540	400	1	2620 03 24052
25	340	200	1	2620 03 25032
25	540	400	1	2620 03 25052
25	920	800	1	2620 03 25092
25	1320	1200	1	2620 03 25132
28	380	250	1	2620 03 28037
28	570	450	1	2620 03 28057
28	670	550	1	2620 03 28067
30	320	200	1	2620 03 30037
30	570	450	1	2620 03 30057
32	380	250	1	2620 03 32037
32	570	450	1	2620 03 32057
32	920	800	1	2620 03 32092
32	1320	1200	1	2620 03 32132
35	370	250	1	2620 03 35037
35	570	450	1	2620 03 35057
35	670	550	1	2620 03 35067
38	370	250	1	2620 03 38037
38	570	450	1	2620 03 38057

Punte per martelli SDS-max **PRO,** certificate PGM
Hammer drill bits SDS-max **PRO,** PGM certification-mark





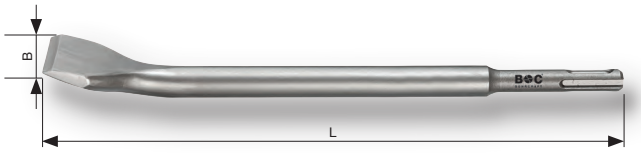
Code **2620**

Ø d mm	L 1 mm	L 2 mm		Art.-Nr. Part-No.
40	370	250	1	2620 03 40037
40	570	450	1	2620 03 40057
40	920	800	1	2620 03 40092
40	1320	1200	1	2620 03 40132
45	570	450	1	2620 03 45057
50	570	450	1	2620 03 50057

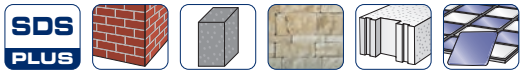
Con lunghezze superiori ai 400 mm (800 mm) è necessario pre-forare con un diametro minimo di 150 mm (400 mm).
For a working length of 400 mm (800 mm) and more pre-drilling with the same diameter minimum 150 mm (400 mm) is essential.

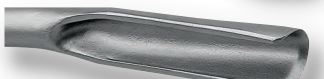
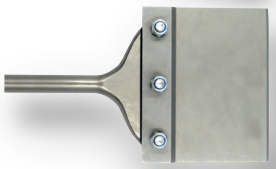


Scalpelli SDS-plus
Chisels SDS-plus



Code **2650**

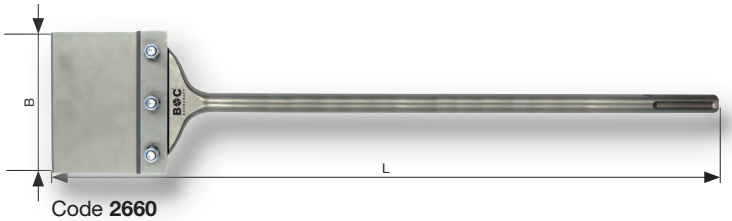


Descrizione Version		L mm	B mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
	Scalpello a punta Point-Chisel	250	-	1	2650 05 00025	10	2650 15 00025
	Scalpello piatto Flat-Chisel	250	20	1	2650 05 02025	10	2650 15 02025
	Scalpello largo Spade-Chisel	250	40	1	2650 05 04020	10	2650 15 04020
	Scalpello a sgorbia Hollow-Chisel	250	22	1	2650 05 02224	-	-
	Scalpello per mattonelle Tile-Chisel	250	40	1	2650 05 04025	-	-
	Raschietto per pavimenti Floor Scraper	250	100	1	2650 05 10025	-	-
	Raschietto di ricambio Replacement Scraper	102	100	1	2650 15 00001	-	-

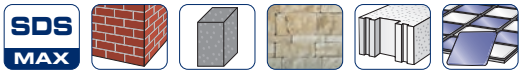
Assortimento scalpelli SDS-plus / Chisels assortment SDS-plus

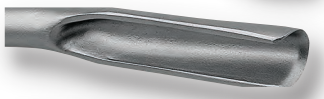
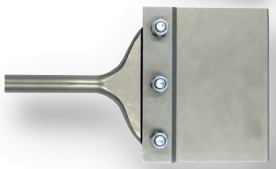
Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
M3-plus	3	A punta / Point 250 mm Piatto / Flat 20 x 250 mm Largo / Spade 40 x 250 mm	1	2650 03 00003





Code **2660**



Versione / Version		L mm	B mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
	Scalpello a punta Point-Chisel	280	-	1	2660 05 00028	-	-
		400	-	1	2660 05 00040	10	2660 15 00040
		600	-	1	2660 05 00600	-	-
	Scalpello piatto Flat-Chisel	280	25	1	2660 05 02428	-	-
		400	25	1	2660 05 02440	10	2660 15 02440
		600	25	1	2660 05 02060	-	-
	Scalpello largo Spade-Chisel	400	50	1	2660 05 05036	10	2660 15 05036
		300	80	1	2660 05 08030	-	-
	Scalpello a sgorbia Hollow-Chisel	300	26	1	2660 05 02630	-	-
	Scalpello per mattonelle Tile-Chisel	300	50	1	2660 05 05030	-	-
	Raschietto per pavimenti Floor Scraper	600	125	1	2660 05 12560	-	-
	Raschietto di ricambio Replacement Scraper	102	125	1	2660 15 00001	-	-

Assortimento scalpelli SDS-max / Chisels assortment SDS-max

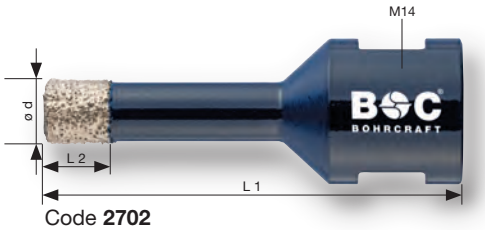
Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
M3-max	3	A punta / Point 400 mm Piatto / Flat 25 x 400 mm Largo / Spade 50 x 400 mm	1	2660 03 00003





		Tipo Type	Descrizione Description	Code	Pagina Page
Punte diamantate / Diamond drill bits					
BOC		DIAMANT M14	Punte diamantate M14 per smerigliatrici angolari Diamond tile drill bits M14 for angle grinders	2702	336
BOC		DIAMANT	Punte diamantate con attacco esagonale Diamond tile drill bits with hex-shank	2701	337
BOC		BASIC	Punte diamantate con codolo a 3 facce Diamond tile drill bits with triangle-shank	2703	338
Seghe diamantate / Diamond core drills					
BOC		PROFI	Seghe diamantate Diamond core drills	2720	339
BOC			Accessori per seghe diamantate Accessories for diamond core drills	2301 2301 SDS-Plus 2302	339

DIAMANT Punte diamantate M14 per smerigliatrici angolari
DIAMOND Tile drills with M14 thread for angle grinders



Code **2702**



DIAMANT

Tagliente rivestito di diamante (saldato sottovuoto)
Diamond-coated cutting edge (vacuum brazed)

PRO M14 TROCKEN DRY

Punte speciali per piastrelle molto dure per esempio: gres porcellanato, porcellana, marmo, granito e ceramica. **Con cera refrigerante fino al Ø 15,0 mm per taglio a secco. Dopo 30 secondi di foratura è necessaria una pausa per refrigerare. Solo per uso rotativo.**

Special drill for dry cutting of extremely hard tiles, for example: stoneware, porcelain, marble, granite, ceramic. **Up to size Ø 15 mm filled with cooling-wax. After drilling 30 seconds it is necessary to have a short cooling break. For rotary use only.**

Ø d mm	L 1 mm	L 2 mm	Lungh. di lavoro mm Working length mm	Filetto Thread		Art.-Nr. Part-No.
con cera refrigerante / with cooling wax						
6	63	10	35	M14	1	2702 03 00600
8	63	10	35	M14	1	2702 03 00800
10	63	10	35	M14	1	2702 03 01000
12	63	10	35	M14	1	2702 03 01200
14	63	10	35	M14	1	2702 03 01400
15	63	10	35	M14	1	2702 03 01500
senza cera refrigerante / without cooling wax						
20	63	15	40	M14	1	2702 03 02000
25	63	15	40	M14	1	2702 03 02500
30	63	15	40	M14	1	2702 03 03000
35	63	15	40	M14	1	2702 03 03500
40	63	15	40	M14	1	2702 03 04000
43	63	15	40	M14	1	2702 03 04300
45	63	15	40	M14	1	2702 03 04500
50	63	15	40	M14	1	2702 03 05000
55	63	15	40	M14	1	2702 03 05500
57	63	15	40	M14	1	2702 03 05700
60	63	15	40	M14	1	2702 03 06000
68	63	15	40	M14	1	2702 03 06800
70	63	15	40	M14	1	2702 03 07000
80	63	15	40	M14	1	2702 03 08000
100	63	15	40	M14	1	2702 03 10000
110	63	15	40	M14	1	2702 03 11000
120	63	15	40	M14	1	2702 03 12000

Adattatore esagonale / Hexagon adaptor

Code	Descrizione Description		Art.-Nr. Part-No.
AD-M14	Adattatore esagonale SW 8,5 mm per punte diamantate M14 Hexagon adaptor SW 8,5 mm for M14 diamond tile drills	1	2702 03 00001



Cassette BC / BC Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
DB 4-2	4	Ø 35 · 40 · 50 · 68 mm	2702 13 30004
DB 7	7	2x Ø 6 · 2x Ø 8 · 1x Ø 10 · 1x Ø 12 · 1x Ø 14 mm	2702 13 30007



Bussolotto / Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
DB 4	4	2x Ø 6 · 1x Ø 8 · 1x Ø 10 mm	2702 14 30004



DIAMANT Punte diamantate con attacco esagonale (SW 8,3)
DIAMOND Tile drills with hex-shank (SW 8,3)

DIAMANT





Code **2701**

PRO

Punte speciali per piastrelle molto dure per esempio: gres porcellanato, porcellana, marmo, granito, ceramica e terracotta. **Con cera refrigerante fino al Ø 15,0 mm per taglio a secco. Per dimensioni maggiori, il raffreddamento ad acqua è essenziale per garantire una lunga durata dell'utensile. Dopo 30 secondi di foratura è necessaria una pausa per refrigerare. Solo per uso rotativo.**

Special drill for extremely hard tiles, for example: stoneware, porcelain, marble, granite, ceramic and terracotta. **Up to Ø 15 mm filled with cooling-wax for dry cutting. For bigger sizes cooling with water is essential in order to guarantee a long tool life. After drilling 30 seconds it is necessary to have a short cooling break. For rotary use only.**

Ø d mm	L 1 mm	L 2 mm	Lungh. di lavoro mm Working length mm	⬡ mm		Art.-Nr. Part-No.
con cera refrigerante / with cooling wax						
5	67	10	32	8,3	1	2701 03 00500
6	67	10	32	8,3	1	2701 03 00600
8	80	10	32	8,3	1	2701 03 00800
10	80	10	40	8,3	1	2701 03 01000
12	80	10	40	8,3	1	2701 03 01200
14	80	10	40	8,3	1	2701 03 01400
15	80	10	40	8,3	1	2701 03 01500
senza cera refrigerante / without cooling wax						
17	90	10	40	8,3	1	2701 03 01700
20	90	10	40	8,3	1	2701 03 02000
22	90	10	40	8,3	1	2701 03 02200
25	90	10	40	8,3	1	2701 03 02500
30	90	10	40	8,3	1	2701 03 03000
35	90	10	40	8,3	1	2701 03 03500
40	90	10	40	8,3	1	2701 03 04000
50	90	10	40	8,3	1	2701 03 05000
55	90	10	40	8,3	1	2701 03 05500
65	90	10	40	8,3	1	2701 03 06500
70	90	10	40	8,3	1	2701 03 07000

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
DKB 3	3	Ø 6 · 8 · 10 mm	2701 13 30003



COOLING

Importante: dal Ø 17,0 mm in poi è necessario refrigerare con acqua, in caso contrario la durata della punta potrebbe ridursi del 10%. Velocità di foratura consigliata: 1500/2000 rpm. Solo per uso rotativo!

Nota: per le macchine alimentate dalla rete elettrica è necessario utilizzare un connettore FI/PRCD!

Important: From size 17 mm always cool with water because without cooling the tool life would be reduced to 10 % of the normal lifetime! Recommended drilling speed 1500/2000 rpm. Rotary use only!

Comment: For line-powered machines a FI-/PRCD-connector must be used!



DIAMANT Punte diamantate BASIC con codolo a 3 facce (9,5 mm)
DIAMOND Tile drills BASIC with triangle-shank (9,5 mm)



Code **2703**

DIAMANT

Tagliente rivestito di diamante
Diamond-coated cutting edge

BASIC 3 COOLING

Punta da trapano speciale per il taglio a umido di piastrelle dure come gres porcellanato, marmo, granito e ceramica. ***Il raffreddamento ad acqua è essenziale per garantire una lunga durata dell'utensile.***

Special drill for wet cutting in hard tiles like stoneware, porcelain, marble, granite, ceramic. ***Cooling with water is essential in order to guarantee a long tool life.***

Ø d1 mm	L 1 mm	L 2 mm	Lungh. di lavoro mm Working length mm	Ø d2 mm		Art.-Nr. Part-No.
5	53	4	35	9,5	1	2703 03 00500
6	53	4	35	9,5	1	2703 03 00600
8	53	4	35	9,5	1	2703 03 00800
10	53	4	35	9,5	1	2703 03 01000
12	53	4	35	9,5	1	2703 03 01200
25	53	4	35	9,5	1	2703 03 02500

Bussolotto / Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
DB 6	6	2x Ø 6 · 8 · 10 mm	2703 14 30006



DB 6

COOLING

Importante: E' necessario refrigerare con acqua, in caso contrario la durata della punta potrebbe ridursi del 10%. Velocità di foratura consigliata: 1500/2000 rpm. Solo per uso rotativo!
Nota: per le macchine alimentate dalla rete elettrica è necessario utilizzare un connettore FI/PRCD!

Important: Always cool with water because without cooling the tool life would be reduced to 10 % of the normal lifetime! Recommended drilling speed 1500/2000 rpm. Rotary use only!
Comment: For line-powered machines a FI-/PRCD-connector must be used!

DIAMANT Seghe a tazza PROFI, con segmenti diamantati Turbo
DIAMOND Core drills PROFI, with Turbo-segments



Code **2720**

PRO M16

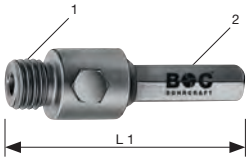
Seghe a tazza diamantate con attacco filettato M16 per cemento, pietra calcarea e muratura. ***Solo per uso rotativo.***

Diamond core drill with M16 thread for concrete, all types of limestone and masonry. ***For rotary use only.***

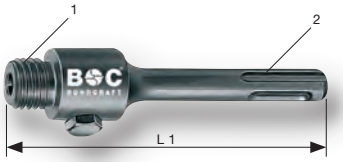
Ø d mm	Segmenti Segments	Altezza segmento mm Segment height mm	Lungh. di lavoro mm Working length mm		Art.-Nr. Part-No.
68	3	8	60	1	2720 03 00068
82	4	8	60	1	2720 03 00082

Accessori per seghe a tazza DIAMANT
Accessories for DIAMOND Core drills

M16



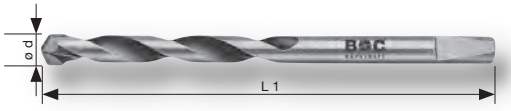
Code **2301**
(codolo esagonale / hex.)



Code **2301 (SDS-plus)**

Attacco per seghe a tazza senza punta pilota
Arbors without pilot-drill

1	2	L1 mm		Art.-Nr. Part-No.
M16	codolo esagonale / hex. SW 12	100	1	2301 15 00001
M16	SDS-plus	100	1	2301 15 00002



Code **2302**

Punta pilota in MD / Pilot-drill TCT

Ø d mm	L1 mm		Art.-Nr. Part-No.
8	120	1	2302 07 00800

PUNTE PER LEGNO
WOOD DRILL BITS



	Tipo Type	Descrizione Description	Code	Pagina Page
Punte per il legno e svasatori / Wood drill bits and countersinks				
		Punte per il legno in acciaio CV Brad point wood drill bits	3100	342
		Punte per il legno in acciaio CV, versione lunga Brad point wood drill bits, long version	3101	342
	INDUSTRIE	Punte per il legno HSS-G rettificate, versione industriale HSS-G premium wood drill bits industrial type	3110	343
		Svasatori 90° per punte da trapano Shell drill countersinks	3450	344
		Svasatori DIN 6446 B Countersinks DIN 6446 B	3700	344
Frese Forstner + mecchie / Forstner bits + miscellaneous bits				
		Frese per legno Forstner Forstner bits	3250	345
		Frese con inserti in MD Cylinder boring bits, TCT	3261	346
		Frese a tenoni per tasselli e perni di legno DIN 7489 Tenon dowel / Plug cutters DIN 7489	3650	347
Punte per telai + mecchie / Frame work drills + flat bits				
		Punte cilindriche per telai Frame work drills with cylindrical shank	3120	348
	SDS	Punte per telai, codolo SDS-plus Frame work drills with SDS-plus shank	3130	349
		Mecchie Machine flat bits	3410 3411	353
Punte per legno Lewis / Auger bits				
	LEWIS	Punte per legno Lewis, codolo esagonale Auger bits with hexagon shank	3200	350 – 351
	LEWIS SDS	Punte per legno Lewis, codolo SDS-Plus Auger bits with SDS-plus shank	3210	352

Punte per il legno in acciaio CV
Brad point wood drill bits



Code **3100**



Code **3101**

Z2 **BASIC** **CV**

Punte per legno in acciaio CV con punta di centraggio, 2 taglienti per spallamento e 2 smussi di guida. Per forare legno tenero, compensato e truciolato non rivestito. Codice 3101 con uno smusso di guida.

LANGE LONG Version

Basic brad point wood drill bit with center tip, 2 shoulde-red cutting edges and 2 guiding chamfers. For drilling in softwood, plywood and uncoated chipboard.
Code 3101 with one guiding chamfer.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.
3	61	33	3	1	3100 07 00300
4	75	43	4	1	3100 07 00400
5	86	52	5	1	3100 07 00500
6	93	57	6	1	3100 07 00600
7	109	69	7	1	3100 07 00700
8	117	75	8	1	3100 07 00800
9	120	81	9	1	3100 07 00900
10	133	87	10	1	3100 07 01000
11	142	89	10	1	3100 07 01100
12	151	96	10	1	3100 07 01200
13	151	96	10	1	3100 07 01300
14	151	96	10	1	3100 07 01400
15	160	100	10	1	3100 07 01500
16	160	100	10	1	3100 07 01600
18	180	120	10	1	3100 07 01800
20	200	130	10	1	3100 07 02000
6	250	155	6	1	3101 07 00600
8	250	155	8	1	3101 07 00800
10	250	155	10	1	3101 07 01000
12	250	155	10	1	3101 07 01200
14	250	155	10	1	3101 07 01400
16	250	155	10	1	3101 07 01600
18	250	155	10	1	3101 07 01800
20	250	155	10	1	3101 07 02000
8	400	340	8	1	3101 07 00840
10	400	340	10	1	3101 07 01040
12	400	340	10	1	3101 07 01240
14	400	340	10	1	3101 07 01440
16	400	340	10	1	3101 07 01640
20	400	340	10	1	3101 07 02040

Cassette in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
H 50	5	Ø 4 · 5 · 6 · 8 · 10 mm	18	3100 14 30005
H 80	8	Ø 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 mm	16	3100 14 30008



H 50

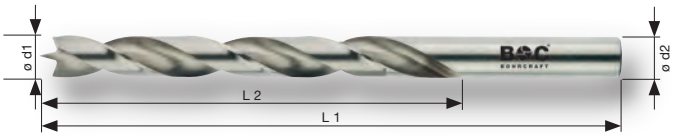


H 80



Display H 50

Punte per il legno HSS-G **rettificate,** versione industriale
Brad point wood drill bits HSS-G **fully ground,** industrial-type



Code **3110**

Z2 PRO HSS G LONG LIFE

Punte per il legno di prima qualità con punta di centraggio rettificata e 2 taglienti per spallamento. Per tagli precisi e accurati in legno tenero e duro, compensato e truciolato rivestito.

First class brad point wood drill bit with grinded center tip and 2 shouldered cutting edges. For precise and accurate drilling in softwood and hardwood, plywood and coated chipboard.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2 mm		Art.-Nr. Part-No.
3	61	33	3	1	3110 07 00300
4	75	43	4	1	3110 07 00400
5	86	52	5	1	3110 07 00500
6	93	57	6	1	3110 07 00600
7	109	69	7	1	3110 07 00700
8	117	75	8	1	3110 07 00800
9	120	81	9	1	3110 07 00900
10	133	87	10	1	3110 07 01000
11	142	89	10	1	3110 07 01100
12	151	96	10	1	3110 07 01200
13	151	96	10	1	3110 07 01300
14	151	96	10	1	3110 07 01400
16	180	100	10	1	3110 07 01600

Cassette in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
HP 50	5	Ø 4 · 5 · 6 · 8 · 10 mm	18	3110 14 30005
HP 80	8	Ø 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 mm	16	3110 14 30008





- **Punta di centraggio rettificata per fori precisi**
- **Centraggio perfetto grazie all'affilata punta**
- **Precision grinded centering point for accurate holes**
- **Exact centering due to sharp centering tip**



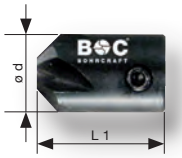
- **Spirale ottimizzata per una migliore rimozione dei trucioli**
- **Optimized flute geometry for quick chip removal**



- **Perfetta per fori puliti e senza sbavature**
- **Perfect for clean and splinterfree holes**



Svasatori 90° per punte da trapano
Shell drill countersinks



Code **3450**

WS Z5 90°

In acciaio speciale, 5 taglienti, angolo di svasatura 90°. Per forare e svasare nel legno tenero in un'unica operazione. Da usare con una punta da legno del diametro corrispondente. Utilizzabile anche come fermo di profondità.

Made of tool steel, 5 cutting edges, countersink angle 90°. For drilling and countersinking in soft wood in one single operation. Must be used in combination with a woodworking drill bit of corresponding diameter. Can be used as a drilling depth stop by turning the tool.

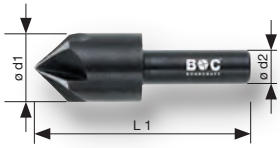
Ø d mm	per punte 0 mm for drill Ø mm	L 1 mm		Art.-Nr. Part-No.
12	3	25	1	3450 05 01203
12	4	25	1	3450 05 01204
12	5	25	1	3450 05 01205
12	6	25	1	3450 05 01206
16	8	25	1	3450 05 01608
16	10	25	1	3450 05 01610

Cassetta in legno / Wooden-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
AHB 5	5	Ø 3 · 4 · 5 · 6 mm + chiave / L-key	3450 14 50005



Svasatori 90° DIN 6446
Countersinks DIN 6446 B



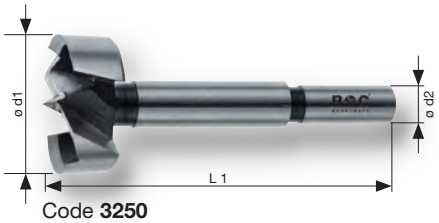
Code **3700**

WS Z5 90°

In acciaio speciale, 5 taglienti, angolo di svasatura 90°. Per forare e svasare nel legno e altri materiali teneri.

Made of tool steel, with 5 cutting edges, countersink angle 90°. For countersinking drilling-holes in wood and other soft materials for different screw-heads.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.
10	6	50	1	3700 07 01000
13	8	50	1	3700 07 01300
16	8	50	1	3700 07 01600
20	8	50	1	3700 07 02000



Code **3250**

Z2 **BASIC**

Frese per legno Forstner con punta di centraggio, 2 taglienti principali e un tagliente periferico circolare, rotazione destrorsa, versione forgiata. Per fori precisi e senza scheggiature su legno e derivati.
Ideale per l'uso con utensili a batteria o a filo.

Forstner bit with centre-point, 2 cutting edges and one circumferential cutting blade, right hand cutting, forged version. For exact and splinterfree holes in wood, etc.
Perfect for use with cordless/corded machines.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.
8	8	90	1	3250 05 00800
10	8	90	1	3250 05 01000
12	8	90	1	3250 05 01200
14	8	90	1	3250 05 01400
15	8	90	1	3250 05 01500
16	8	90	1	3250 05 01600
18	8	90	1	3250 05 01800
20	8	90	1	3250 05 02000
22	8	90	1	3250 05 02200
24	8	90	1	3250 05 02400
25	8	90	1	3250 05 02500
26	8	90	1	3250 05 02600
28	8	90	1	3250 05 02800
30	8	90	1	3250 05 03000
32	10	90	1	3250 05 03200
35	10	90	1	3250 05 03500
38	10	90	1	3250 05 03800
40	10	90	1	3250 05 04000
45	10	90	1	3250 05 04500
50	10	90	1	3250 05 05000

Cassetta in legno / Wooden-Box

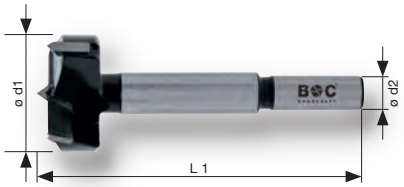
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
FB 5	5	Ø 15 · 20 · 25 · 30 · 35 mm	3250 14 50005



FB 5

Frese per cerniere in MD
Cylinder boring bits, carbide tipped





Code **3261**

Z2 | HM TCT | LONG LIFE

In acciaio speciale forgiato, punta di centraggio, 2 taglienti principali e 2 incisori periferici in metallo duro (HM), gambo cilindrico, rotazione destrorsa, lunghezza totale 90 mm. Per forature precise e senza scheggiature su legni duri, pannelli impiallacciati, truciolare, ecc. Elevata durata tagliente grazie ai riporti in metallo duro.

Forged special-steel, centre-point, 2 main-cutters and 2 cutting-lips made of carbide, cylindrical shank, right hand cutting, total length 90 mm. For exact, splinterfree drilling in hardwood, veneered wood sheet, chipboard, etc. Long tool life due to the carbide tips.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.
10	8	90	1	3261 05 01000
15	8	90	1	3261 05 01500
18	8	90	1	3261 05 01800
20	8	90	1	3261 05 02000
24	8	90	1	3261 05 02400
25	8	90	1	3261 05 02500
30	10	90	1	3261 05 03000
35	10	90	1	3261 05 03500
40	10	90	1	3261 05 04000

Cassetta in legno / Wooden-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
KBH 5	5	Ø 15 · 20 · 25 · 30 · 35 mm	3261 14 50005



KBH 5



Code **3650**

DIN 7489

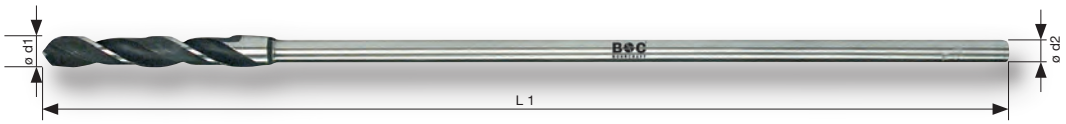
Taglienti interni ed esterni a spoglia rettificata di precisione, realizzati in acciaio legato per utensili, bruniti e parzialmente lucidati. Ideali per la riparazione dei nodi difettosi e il ripristino di parti danneggiate del legno in combinazione con le punte Forstner BC.

Precision ground outer and inner cutting edge, made of alloyed tool steel, black finish and partly polished. Designed to repair knot-holes in connection with BC-Forstner-Bits.

Ø d1 mm	Ø d2 mm	L 1 mm		Art.-Nr. Part-No.
8	11	140	1	3650 05 00800
10	11	140	1	3650 05 01000
12	13	140	1	3650 05 01200
15	13	140	1	3650 05 01500
16	13	140	1	3650 05 01600
20	13	140	1	3650 05 02000
22	13	140	1	3650 05 02200
25	13	140	1	3650 05 02500
26	13	140	1	3650 05 02600
30	13	140	1	3650 05 03000
35	16	160	1	3650 05 03500
40	16	160	1	3650 05 04000



Punte per telai, codolo cilindrico
Frame work drills, cylindrical shank



Code **3120**

Z2

Robusta punta elicoidale con gambo lungo e affilatura speciale a cuspide. A partire dal Ø 12 mm con scarico truciolo aperto. Per la foratura di casseforme, travi, perline, cartongesso e pannelli leggeri. Pericolo di infortunio se la punta gira a vuoto. Posizionare la punta sul materiale da forare prima di avviare la macchina.

Solid Twist drill with extended shank and special tip. 12 mm drills and bigger dimensions with open flute for better chip removal. Designed for drilling inner and outer covering boards in one operation; also for beams, hardboard etc. Accident-danger at freerunning drills. Place drill to the workpiece before switching on the machine.

Ø d1 mm	L 1 mm	Ø d2 mm		Art.-Nr. Part-No.
6	400	6,0	1	3120 07 00640
6	600	6,0	1	3120 07 00660
8	400	6,0	1	3120 07 00840
8	600	6,0	1	3120 07 00860
10	400	8,0	1	3120 07 01040
10	600	8,0	1	3120 07 01060
12	400	8,0	1	3120 07 01240
12	600	8,0	1	3120 07 01260
13*	400	8,0	1	3120 07 01340
14	400	8,0	1	3120 07 01440
14	600	8,0	1	3120 07 01460
16	400	10,0	1	3120 07 01640
16	600	10,0	1	3120 07 01660
17*	400	10,0	1	3120 07 01740
18	400	10,0	1	3120 07 01840
18	600	10,0	1	3120 07 01860
20	400	10,0	1	3120 07 02040
20	600	10,0	1	3120 07 02060
21*	400	12,0	1	3120 07 02140
22	400	12,0	1	3120 07 02240
22	600	12,0	1	3120 07 02260
24	400	12,0	1	3120 07 02440
24	600	12,0	1	3120 07 02460
26	400	12,0	1	3120 07 02640
26	600	12,0	1	3120 07 02660
28	400	12,0	1	3120 07 02840
28	600	12,0	1	3120 07 02860
30	400	12,0	1	3120 07 03040
30	600	12,0	1	3120 07 03060

* Solo fino ad esaurimento scorte / * Only as long as stock lasts



Code **3130**

Z2 SDS PLUS

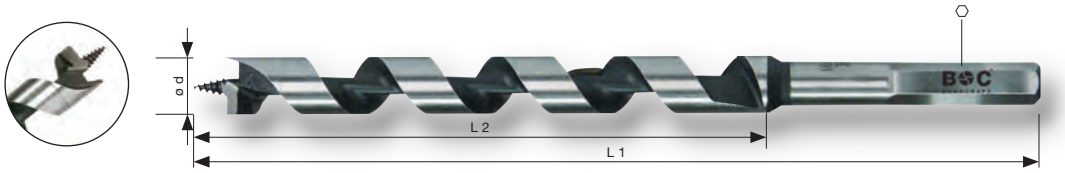
Robusta punta elicoidale con gambo lungo e affilatura speciale a cuspide. A partire dal Ø 12 mm con scarico truciolo aperto. Per la foratura di casseforme, travi, perline, cartongesso e pannelli leggeri. Pericolo di infortunio se la punta gira a vuoto. Posizionare la punta sul materiale da forare prima di avviare la macchina.

Solid twist drill with extended shank and special tip. 12 mm drills and bigger dimensions with open flute for better chip removal. Designed for drilling inner and outer covering boards in one operation; also for beams, hardboard etc. Accident-danger at freerunning drills. Place drill to the workpiece before switching on the machine.

Ø d1 mm	L 1 mm	Ø d2		Art.-Nr. Part-No.
10	600	SDS-plus	1	3130 07 01060
12	600	SDS-plus	1	3130 07 01260
14	600	SDS-plus	1	3130 07 01460
16	600	SDS-plus	1	3130 07 01660
18	600	SDS-plus	1	3130 07 01860
20	600	SDS-plus	1	3130 07 02060



Punte per legno Forma LEWIS
Auger bits LEWIS-pattern



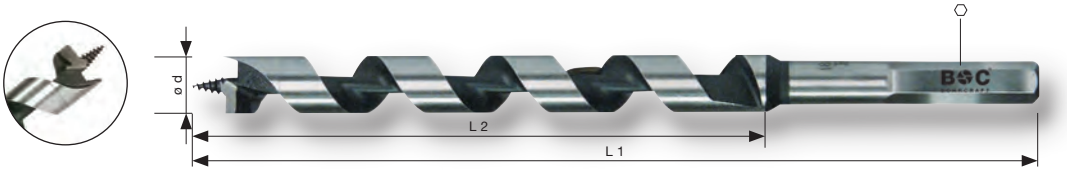
Code **3200**

Z1

Spirale fresata e rettificata, punta di centraggio filettata autocentrante, 1 pre-tagliatore, speciale scarico posteriore dietro la testa di taglio. Foratura di massima precisione con ottima evacuazione del truciolo. Grazie allo speciale scarico, è adatta anche per la foratura di legno umido.

Milled version with self-threatening tip, 1 cutting lip, special step-tip. Exact drilling with excellent chip removal. Due to special "step-tip" also for drilling in wet wood.

Ø d mm	L 1 mm	L 2 mm	⬡ mm	▯	Art.-Nr. Part-No.
6	235	160	5,6	1	3200 07 00623
6	320	255	5,6	1	3200 07 00632
6	460	360	5,6	1	3200 07 00646
6	600	520	5,6	1	3200 07 00660
8	235	160	7,2	1	3200 07 00823
8	320	255	7,2	1	3200 07 00832
8	460	360	7,2	1	3200 07 00846
8	600	520	7,2	1	3200 07 00860
10*	95	60	9,0	1	3200 07 01095
10	235	160	9,0	1	3200 07 01023
10	320	255	9,0	1	3200 07 01032
10	460	360	9,0	1	3200 07 01046
10	600	520	9,0	1	3200 07 01060
12	235	160	10,9	1	3200 07 01223
12	320	255	10,9	1	3200 07 01232
12	460	360	10,9	1	3200 07 01246
12	600	520	10,9	1	3200 07 01260
14	235	160	11,2	1	3200 07 01423
14	320	255	11,2	1	3200 07 01432
14	460	360	11,2	1	3200 07 01446
14	600	520	11,2	1	3200 07 01460
16	235	160	11,2	1	3200 07 01623
16	320	255	11,2	1	3200 07 01632
16	460	360	11,2	1	3200 07 01646
16	600	520	11,2	1	3200 07 01660
18	235	160	11,2	1	3200 07 01823
18	320	255	11,2	1	3200 07 01832
18	460	360	11,2	1	3200 07 01846
18	600	520	11,2	1	3200 07 01860
20*	95	60	11,2	1	3200 07 02095
20*	155	90	11,2	1	3200 07 02015
20	235	160	11,2	1	3200 07 02023
20	320	255	11,2	1	3200 07 02032
20	460	360	11,2	1	3200 07 02046
20	600	520	11,2	1	3200 07 02060
22*	155	90	11,2	1	3200 07 02215
22	235	160	11,2	1	3200 07 02223
22	460	360	11,2	1	3200 07 02246
22	600	520	11,2	1	3200 07 02260
24*	155	90	11,2	1	3200 07 02415
24	235	160	11,2	1	3200 07 02423
24	460	360	11,2	1	3200 07 02446
24	600	520	11,2	1	3200 07 02460
25	235	160	11,2	1	3200 07 02523
25	460	360	11,2	1	3200 07 02546



Code **3200**

Ø d mm	L 1 mm	L 2 mm	⬡ mm		Art.-Nr. Part-No.
25	600	520	11,2	1	3200 07 02560
26*	155	90	11,2	1	3200 07 02615
26	235	160	11,2	1	3200 07 02623
26	460	360	11,2	1	3200 07 02646
26	600	520	11,2	1	3200 07 02660
28	235	160	11,2	1	3200 07 02823
28	460	360	11,2	1	3200 07 02846
28	600	520	11,2	1	3200 07 02860
30*	155	90	11,2	1	3200 07 03015
30	235	160	11,2	1	3200 07 03023
30	460	360	11,2	1	3200 07 03046
30	600	520	11,2	1	3200 07 03060
32	235	160	11,2	1	3200 07 03223
32	460	360	11,2	1	3200 07 03246
32	600	520	11,2	1	3200 07 03260

* Solo fino ad esaurimento scorte / * Only as long as stock lasts

Cassette in legno / Wooden-Boxes

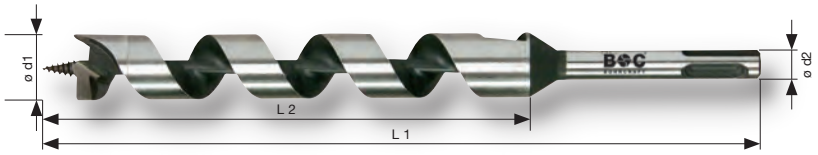
Descrizione Description	Pezzi Pieces	Contenuto Content	Art.Nr. Part-No.
SB 235	8	Ø 6 · 8 · 10 · 12 · 14 · 16 · 18 · 20 x 235 mm	3200 14 50623
SB 320	6	Ø 10 · 12 · 14 · 16 · 18 · 20 x 320 mm	3200 14 50632
SB 460	6	Ø 10 · 12 · 14 · 16 · 18 · 20 x 460 mm	3200 14 50646



SB 320

Punte per legno Forma LEWIS, codolo SDS-plus
Auger bits LEWIS-pattern, SDS-plus shank





Code **3210**

Z1 | SDS PLUS

Spirale fresata e rettificata, punta di centraggio filettata autocentrante, 1 pre-tagliatore, speciale scarico posteriore dietro la testa di taglio. Foratura di massima precisione con ottima evacuazione del truciolo, adatta per legni teneri e per la maggior parte dei legni duri. Grazie allo speciale scarico, è adatta anche per la foratura di legno umido.

Milled version with self-threatening tip, 1 cutting lip, special step-tip. Exact drilling with excellent chip removal in soft- and most hard-woods. Due to special "step-tip" also suitable for drilling in wet wood.

Ø d1 mm	L 1 mm	L 2 mm	Ø d2		Art.-Nr. Part-No.
8	235	160	SDS-plus	1	3210 07 00823
10	235	160	SDS-plus	1	3210 07 01023
10	460	360	SDS-plus	1	3210 07 01046
12	235	160	SDS-plus	1	3210 07 01223
12	460	360	SDS-plus	1	3210 07 01246
14	235	160	SDS-plus	1	3210 07 01423
14	460	360	SDS-plus	1	3210 07 01446
16	235	160	SDS-plus	1	3210 07 01623
16	460	360	SDS-plus	1	3210 07 01646
18	235	160	SDS-plus	1	3210 07 01823
18	460	360	SDS-plus	1	3210 07 01846
20	235	160	SDS-plus	1	3210 07 02023
20	460	360	SDS-plus	1	3210 07 02046
22	235	160	SDS-plus	1	3210 07 02223
22	460	360	SDS-plus	1	3210 07 02246
24*	460	360	SDS-plus	1	3210 07 02446
25	235	160	SDS-plus	1	3210 07 02523
25	460	360	SDS-plus	1	3210 07 02546

* Solo fino ad esaurimento scorte / * Only as long as stock lasts



Code **3410**

Code **3411** (400 mm)



Z2 | ¼"

Versione rettificata con punta di centraggio e 2 taglienti per lato codolo esagonale, in acciaio temprato per utensili. Per forare nel legno tenero, travi e pannelli truciolari.

Ground version with centre tip and 2 cutting-edges on both sides, hexagon-shank, made of heat-tempered tool steel. For drilling in soft-wood, beams and chipboards.

Ø d mm	L 1 mm	⬡	▮	Art.-Nr. Part-No.
6	150	1/4" / 6,35 mm	1	3410 07 00600
8	150	1/4" / 6,35 mm	1	3410 07 00800
10	150	1/4" / 6,35 mm	1	3410 07 01000
12	150	1/4" / 6,35 mm	1	3410 07 01200
13	150	1/4" / 6,35 mm	1	3410 07 01300
14	150	1/4" / 6,35 mm	1	3410 07 01400
16	150	1/4" / 6,35 mm	1	3410 07 01600
17	150	1/4" / 6,35 mm	1	3410 07 01700
18	150	1/4" / 6,35 mm	1	3410 07 01800
19	150	1/4" / 6,35 mm	1	3410 07 01900
20	150	1/4" / 6,35 mm	1	3410 07 02000
22	160	1/4" / 6,35 mm	1	3410 07 02200
24	160	1/4" / 6,35 mm	1	3410 07 02400
25	160	1/4" / 6,35 mm	1	3410 07 02500
26	160	1/4" / 6,35 mm	1	3410 07 02600
28	160	1/4" / 6,35 mm	1	3410 07 02800
30	160	1/4" / 6,35 mm	1	3410 07 03000
32	160	1/4" / 6,35 mm	1	3410 07 03200
34	160	1/4" / 6,35 mm	1	3410 07 03400
35	160	1/4" / 6,35 mm	1	3410 07 03500
36	160	1/4" / 6,35 mm	1	3410 07 03600
38	160	1/4" / 6,35 mm	1	3410 07 03800
40	160	1/4" / 6,35 mm	1	3410 07 04000
8*	400	-	1	3411 07 00800
10*	400	-	1	3411 07 01000
12*	400	-	1	3411 07 01200
14*	400	-	1	3411 07 01400
16*	400	-	1	3411 07 01600
18*	400	-	1	3411 07 01800
19*	400	-	1	3411 07 01900
20*	400	-	1	3411 07 02000
28*	400	-	1	3411 07 02800
30*	400	-	1	3411 07 03000
32*	400	-	1	3411 07 03200
35*	400	-	1	3411 07 03500
38*	400	-	1	3411 07 03800

* Solo fino ad esaurimento scorte / * Only as long as stock lasts

BC Multi-Pack / BC Multi-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
FL 5	5	Ø 16 · 18 · 20 · 22 · 24 x 150 mm	3410 13 30005



SEGHE A TAZZA
HOLE SAWS



		Tipo Type	Descrizione Description	Code	Pagina Page
Seghe a tazza / Hole saws					
BOC			Seghe a tazza bimetalliche in HSS Bi-Metal hole saws HSS	1900	358 – 359
BOC		VA-CUT8	Seghe a tazza bimetalliche in HSS-E (Co8) in lega di cobalto Premium Bi-Metal hole saws HSS-E (Co8) **cobalt alloyed**	1901	360 – 361
BOC			Accessori per seghe a tazza Accessories for hole saws	1910 1911 1913	357
BOC		MULTI-CUT	Seghe a tazza universali con inserti in MD Multi-Purpose hole saws TCT	1930	362
BOC			Accessori per seghe a tazza universali Accessories for Multi-Purpose hole saws TCT	1935 1936 HM 1936 HSS	363
Seghe a tazza DIAMANTATE / DIAMOND hole saws					
BOC		DIAMANT M14	Punte diamantate M14 per smerigliatrici angolari Diamond tile drill bits M14 for angle grinders	2702	336
BOC		DIAMANT	Punte diamantate con codolo esagonale Diamond tile drill bits with hex-shank	2701	337
BOC		BASIC	Punte diamantate con codolo a 3 facce Diamond tile drill bits with triangle-shank	2703	338
Seghe a tazza in MD / TCT-hole saws					
BOC		HM TCT	Frese a tazza in MD + Accessori Multigrade hole saws TCT + accessories	1920 1925	157

Applicazioni
Table of application

	Seghe a tazza bimetalliche Bi-Metal hole saws		Seghe a tazza in MD TCT hole saws	Punte diamantate Diamond hole saws
	Code 1900 HSS	Code 1901 HSS-E VA-CUT8	Code 1930 MULTI-CUT	Code 2701 – 2703 DIAMANT
				
Metallo Metal	◔	◔◔		
Alluminio Aluminium	◔◔	◔◔		
Acciaio inox Stainless steel		◔		
Metalli non ferrosi Non ferrous metal	◔◔	◔◔		
Legno Wood	◔	◔	◔◔	
Laminato Laminate	◔	◔	◔◔	
Plastica Plastics	◔	◔	◔◔	
Plexiglas Acrylic glass	◔	◔	◔◔	◔◔
Ceramica · Piastrelle Ceramics · Tiles			◔	◔◔
Vetro Glass				◔◔
Fibra di vetro Glass-fibre	◔	◔	◔◔	◔◔
Piani di lavoro Worktops	◔	◔	◔◔	
Cartongesso Gypsum board	◔◔	◔◔	◔◔	
MDF MDF			◔◔	
Muratura Masonry			◔	

◔◔ consigliato / recommended ◔ adatto / suitable

Attacco per seghe a tazza con punta pilota
Arbors with pilot-drill


1


2


3


4

Code **1910 • 1913**

Tipo Type	Codolo Shank	Punta pilota Pilot-drill	Ø mm Seghe Ø mm Hole saws	Filetto Thread	Immagine Figure		Art.-Nr. Part-No.
AS 1	SW 11	HSS	14 – 30	1/2" x 20	1	1	1910 09 00001
AS 11	SW 8,5	HSS	14 – 30	1/2" x 20	1	1	1910 09 00011
AS 4	SDS-plus	HSS	14 – 30	1/2" x 20	3	1	1910 09 00004
AS 3	SW 11	HSS	32 – 210	5/8" x 18	2	1	1910 09 00003
AS 33	SW 8,5	HSS	32 – 210	5/8" x 18	2	1	1910 09 00033
AS 6	SDS-plus	HSS	32 – 210	5/8" x 18	4	1	1910 09 00006
AS-E11	SW 8,5	HSS-E (Co5)	14 – 30	1/2" x 20	1	1	1913 09 00011
AS-E33	SW 8,5	HSS-E (Co5)	32 – 210	5/8" x 18	2	1	1913 09 00033

Punte pilota per alberi
Pilot-drills for arbors



Code **1911 HSS**

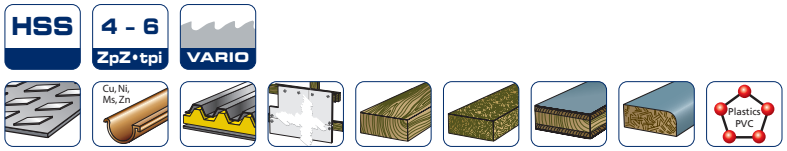

Code **1911 HSS-E (Co5)**

Tipo Type	Versione Version	Ø x L mm	Per supporto Fitting in		Art.-Nr. Part-No.
ZB 1	HSS	6,35 x 104	AS 1 + AS 11	10	1911 03 00001
ZB 2	HSS	6,35 x 83	AS 3 - AS 6	10	1911 03 00002
ZB 3	HSS-E (Co5)	6,35 x 104	AS 1 + AS 11	1	1911 07 00003
ZB 4	HSS-E (Co5)	6,35 x 83	AS 3 - AS 6	1	1911 07 00004

Seghe a tazza bimetalliche in HSS
Bi-Metal hole saws HSS



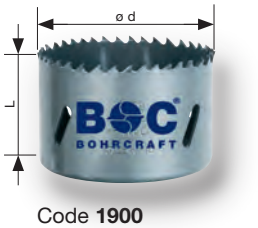
Code **1900**



Seghe a tazza bimetalliche HSS con dentatura a passo variabile (4/6 denti per pollice). L'elevata fluidità di rotazione e la bassa generazione di calore assicurano un taglio uniforme e una lunga durata dell'utensile.

HSS bi-metal hole saw with variable tooth pitch (4/6 teeth per inch). Smooth running and low heat generation ensure an even cut and a long tool life.

Ø d mm	Ø d Pollice / Inch	L mm	Alberi Arbors		Art.-Nr. Part-No.
14	9/16"	38	AS1 · AS11 · AS4	1	1900 09 00014
16	5/8"	38	AS1 · AS11 · AS4	1	1900 09 00016
17	11/16"	38	AS1 · AS11 · AS4	1	1900 09 00017
19	3/4"	38	AS1 · AS11 · AS4	1	1900 09 00019
20	-	38	AS1 · AS11 · AS4	1	1900 09 00020
21	13/16"	38	AS1 · AS11 · AS4	1	1900 09 00021
22	7/8"	38	AS1 · AS11 · AS4	1	1900 09 00022
24	15/16"	38	AS1 · AS11 · AS4	1	1900 09 00024
25	1"	38	AS1 · AS11 · AS4	1	1900 09 00025
27	11/16"	38	AS1 · AS11 · AS4	1	1900 09 00027
29	11/8"	38	AS1 · AS11 · AS4	1	1900 09 00029
30	1.3/16"	38	AS1 · AS11 · AS4	1	1900 09 00030
32	1.1/4"	38	AS3 · AS33 · AS6	1	1900 09 00032
33	1.5/16"	38	AS3 · AS33 · AS6	1	1900 09 00033
35	1.3/8"	38	AS3 · AS33 · AS6	1	1900 09 00035
37	1.7/16"	38	AS3 · AS33 · AS6	1	1900 09 00037
38	1.1/2"	38	AS3 · AS33 · AS6	1	1900 09 00038
40	1.9/16"	38	AS3 · AS33 · AS6	1	1900 09 00040
41	1.5/8"	38	AS3 · AS33 · AS6	1	1900 09 00041
43	1.11/16"	38	AS3 · AS33 · AS6	1	1900 09 00043
44	1.3/4"	38	AS3 · AS33 · AS6	1	1900 09 00044
45	-	38	AS3 · AS33 · AS6	1	1900 09 00045
46	1.13/16"	38	AS3 · AS33 · AS6	1	1900 09 00046
48	1.7/8"	38	AS3 · AS33 · AS6	1	1900 09 00048
50	-	38	AS3 · AS33 · AS6	1	1900 09 00050
51	2"	38	AS3 · AS33 · AS6	1	1900 09 00051
52	2.1/16"	38	AS3 · AS33 · AS6	1	1900 09 00052
54	2.1/8"	38	AS3 · AS33 · AS6	1	1900 09 00054
55	-	38	AS3 · AS33 · AS6	1	1900 09 00055
56	-	38	AS3 · AS33 · AS6	1	1900 09 00056
57	2.1/4"	38	AS3 · AS33 · AS6	1	1900 09 00057
59	2.5/16"	38	AS3 · AS33 · AS6	1	1900 09 00059
60	2.3/8"	38	AS3 · AS33 · AS6	1	1900 09 00060
64	2.1/2"	38	AS3 · AS33 · AS6	1	1900 09 00064
65	2.9/16"	38	AS3 · AS33 · AS6	1	1900 09 00065
67	2.5/8"	38	AS3 · AS33 · AS6	1	1900 09 00067
68	2.11/16"	38	AS3 · AS33 · AS6	1	1900 09 00068
70	2.3/4"	38	AS3 · AS33 · AS6	1	1900 09 00070
73	2.7/8"	38	AS3 · AS33 · AS6	1	1900 09 00073
75	-	38	AS3 · AS33 · AS6	1	1900 09 00075
76	3"	38	AS3 · AS33 · AS6	1	1900 09 00076
79	3.1/8"	38	AS3 · AS33 · AS6	1	1900 09 00079
83	3.1/4"	38	AS3 · AS33 · AS6	1	1900 09 00083
86	3.3/8"	38	AS3 · AS33 · AS6	1	1900 09 00086
89	3.1/2"	38	AS3 · AS33 · AS6	1	1900 09 00089
92	3.5/8"	38	AS3 · AS33 · AS6	1	1900 09 00092
95	3.3/4"	38	AS3 · AS33 · AS6	1	1900 09 00095
98	3.7/8"	38	AS3 · AS33 · AS6	1	1900 09 00098
102	4"	38	AS3 · AS33 · AS6	1	1900 09 00102
105	4.1/8"	38	AS3 · AS33 · AS6	1	1900 09 00105
108	4.1/4"	38	AS3 · AS33 · AS6	1	1900 09 00108
111	4.3/8"	38	AS3 · AS33 · AS6	1	1900 09 00111



Code **1900**

Ø d mm	Ø d Pollice / Inch	L mm	Alberi Arbors		Art.-Nr. Part-No.
114	4.1/2"	38	AS3 · AS33 · AS6	1	1900 09 00114
121	4.3/4"	38	AS3 · AS33 · AS6	1	1900 09 00121
127	5"	38	AS3 · AS33 · AS6	1	1900 09 00127
133	5.1/4"	38	AS3 · AS33 · AS6	1	1900 09 00133
140	5.1/2"	38	AS3 · AS33 · AS6	1	1900 09 00140
152	6"	38	AS3 · AS33 · AS6	1	1900 09 00152
168	6.5/8"	38	AS3 · AS33 · AS6	1	1900 09 00168
210	8.9/32"	38	AS3 · AS33 · AS6	1	1900 09 00210

Cassette in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
LS 6 ELEKTRO	8	Ø 22 · 29 · 35 · 44 · 51 · 68 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1900 14 30006
RLS 9 SANITÄR	11	Ø 19 · 22 · 29 · 35 · 38 · 44 · 51 · 57 · 64 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32-210 mm codolo esagonale / hex-shank)	1900 13 30009
RLS 12 ELEKTRO 2	14	Ø 16 · 19 · 22 · 25 · 29 · 32 · 35 · 38 · 45 · 51 · 64 · 76 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1900 13 30012
RLS 14 ALLROUND	14	Ø 19 · 22 · 25 · 29 · 32 · 35 · 44 · 51 · 57 · 64 · 68 · 76 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1900 13 30014
RLS 15 UNIVERSAL	17	Ø 19 · 22 · 29 · 35 · 38 · 44 · 51 · 57 · 64 · 76 · 83 · 92 · 95 · 105 · 127 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1900 13 30015

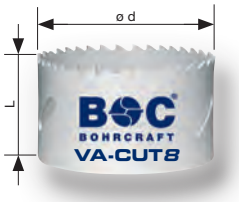


LS 6 ELEKTRO

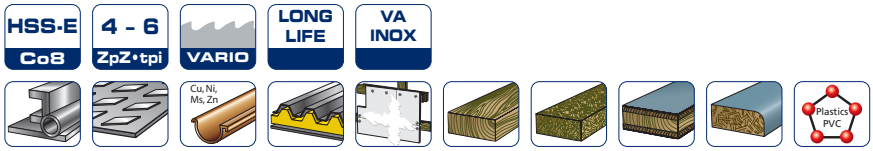


RLS 14 ALLROUND

Seghe a tazza bimetalliche in HSS-E (Co8) **lega di cobalto**
Bi-Metal hole saws HSS-E M42 (Co8) **cobalt alloyed**



Code **1901**



Seghe a tazza bimetalliche HSS-E in lega di cobato 8% e dentatura a passo variabile (4/6 denti per pollice). L'elevata fluidità di rotazione e la bassa generazione di calore assicurano un taglio uniforme e una lunga durata dell'utensile. Particolarmente indicata per la lavorazione di acciaio e acciaio inox (AISI 304/AISI 316).

HSS-E bi-metal hole saw alloyed with 8% cobalt and variable tooth pitch with 4/6 teeth per inch. Smooth running and low heat generation ensure an even cut and a long tool lifetime. Suitable for machining steel and stainless steel (AISI 304 / AISI 316).

Ø d mm	Ø d Zoll / Inch	L mm	Alberi Arbors		Art.-Nr. Part-No.
14	9/16"	38	AS1 · AS11 · AS4	1	1901 09 00014
16	5/8"	38	AS1 · AS11 · AS4	1	1901 09 00016
17	11/16"	38	AS1 · AS11 · AS4	1	1901 09 00017
19	3/4"	38	AS1 · AS11 · AS4	1	1901 09 00019
20	-	38	AS1 · AS11 · AS4	1	1901 09 00020
21	13/16"	38	AS1 · AS11 · AS4	1	1901 09 00021
22	7/8"	38	AS1 · AS11 · AS4	1	1901 09 00022
24	15/16"	38	AS1 · AS11 · AS4	1	1901 09 00024
25	1"	38	AS1 · AS11 · AS4	1	1901 09 00025
27	11/16"	38	AS1 · AS11 · AS4	1	1901 09 00027
29	11/8"	38	AS1 · AS11 · AS4	1	1901 09 00029
30	1.3/16"	38	AS1 · AS11 · AS4	1	1901 09 00030
32	1.1/4"	38	AS3 · AS33 · AS6	1	1901 09 00032
33	1.5/16"	38	AS3 · AS33 · AS6	1	1901 09 00033
35	1.3/8"	38	AS3 · AS33 · AS6	1	1901 09 00035
37	1.7/16"	38	AS3 · AS33 · AS6	1	1901 09 00037
38	1.1/2"	38	AS3 · AS33 · AS6	1	1901 09 00038
40	1.9/16"	38	AS3 · AS33 · AS6	1	1901 09 00040
41	1.5/8"	38	AS3 · AS33 · AS6	1	1901 09 00041
43	1.11/16"	38	AS3 · AS33 · AS6	1	1901 09 00043
44	1.3/4"	38	AS3 · AS33 · AS6	1	1901 09 00044
46	1.13/16"	38	AS3 · AS33 · AS6	1	1901 09 00046
48	1.7/8"	38	AS3 · AS33 · AS6	1	1901 09 00048
51	2"	38	AS3 · AS33 · AS6	1	1901 09 00051
52	2.1/16"	38	AS3 · AS33 · AS6	1	1901 09 00052
54	2.1/8"	38	AS3 · AS33 · AS6	1	1901 09 00054
57	2.1/4"	38	AS3 · AS33 · AS6	1	1901 09 00057
59	2.5/16"	38	AS3 · AS33 · AS6	1	1901 09 00059
60	2.3/8"	38	AS3 · AS33 · AS6	1	1901 09 00060
64	2.1/2"	38	AS3 · AS33 · AS6	1	1901 09 00064
65	2.9/16"	38	AS3 · AS33 · AS6	1	1901 09 00065
67	2.5/8"	38	AS3 · AS33 · AS6	1	1901 09 00067
68	2.11/16"	38	AS3 · AS33 · AS6	1	1901 09 00068
70	2.3/4"	38	AS3 · AS33 · AS6	1	1901 09 00070
73	2.7/8"	38	AS3 · AS33 · AS6	1	1901 09 00073
76	3"	38	AS3 · AS33 · AS6	1	1901 09 00076
79	3.1/8"	38	AS3 · AS33 · AS6	1	1901 09 00079
83	3.1/4"	38	AS3 · AS33 · AS6	1	1901 09 00083
86	3.3/8"	38	AS3 · AS33 · AS6	1	1901 09 00086
89	3.1/2"	38	AS3 · AS33 · AS6	1	1901 09 00089
92	3.5/8"	38	AS3 · AS33 · AS6	1	1901 09 00092
95	3.3/4"	38	AS3 · AS33 · AS6	1	1901 09 00095
98	3.7/8"	38	AS3 · AS33 · AS6	1	1901 09 00098
102	4"	38	AS3 · AS33 · AS6	1	1901 09 00102
105	4.1/8"	38	AS3 · AS33 · AS6	1	1901 09 00105
108	4.1/4"	38	AS3 · AS33 · AS6	1	1901 09 00108
111	4.3/8"	38	AS3 · AS33 · AS6	1	1901 09 00111
114	4.1/2"	38	AS3 · AS33 · AS6	1	1901 09 00114
121	4.3/4"	38	AS3 · AS33 · AS6	1	1901 09 00121

Seghe a tazza bimetalliche in HSS-E (Co8) **lega di cobalto**
Bi-Metal hole saws HSS-E M42 (Co8) **cobalt alloyed**



Code **1901**

Ø d mm	Ø d Zoll / Inch	L mm	Alberi Arbors		Art.-Nr. Part-No.
127	5"	38	AS3 · AS33 · AS6	1	1901 09 00127
133	5.1/4"	38	AS3 · AS33 · AS6	1	1901 09 00133
140	5.1/2"	38	AS3 · AS33 · AS6	1	1901 09 00140
152	6"	38	AS3 · AS33 · AS6	1	1901 09 00152
168	6.5/8"	38	AS3 · AS33 · AS6	1	1901 09 00168
177	7"	38	AS3 · AS33 · AS6	1	1901 09 00177
210	8.9/32"	38	AS3 · AS33 · AS6	1	1901 09 00210

Cassette in plastica / Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
LS 6-E	8	Ø 22 · 29 · 35 · 44 · 51 · 68 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1901 14 30006
RLS 9-E	11	Ø 19 · 22 · 29 · 35 · 38 · 44 · 51 · 57 · 64 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1901 13 30009
RLS 14-E	14	Ø 19 · 22 · 25 · 29 · 32 · 35 · 44 · 51 · 57 · 64 · 68 · 76 mm AS 11 (14–30 mm codolo esagonale / hex-shank) AS 33 (32–210 mm codolo esagonale / hex-shank)	1901 13 30014



LS 6-E



RLS 14-E



Denti in HSS Co 8%

- **Taglio incisivo**
- **Resistente all'usura**
- **Lunga durata**

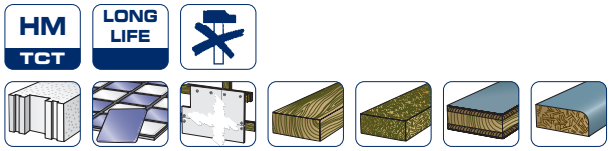
8 % Co toothing

- **Aggressive cut**
- **Extreme wear resistant**
- **Long tool life**

MULTI-CUT Seghe a tazza universali con inserti in MD
MULTI-CUT Multi-Purpose hole saws TCT



Code **1930**



Pensate per elettricisti, installatori di impianti di riscaldamento, idraulici e carpentieri. Profondità di taglio 60 mm. Adatte per legno tenero e duro, MDF, compensato, pannelli di legno rivestito, cartongesso, plastica, calcestruzzo e piastrelle.
Solo per uso rotativo.

Especially designed for electricians, heating installers, plumbers, carpenters and cabinet-makers due to universal application. Cutting depth 60 mm. Suitable for soft and hard wood, MDF, plywood, coated wood boards, dry wall, plastics, gas concrete and soft tiles.
For rotary mode only.

Ø d mm	Ø d Pollice / Inch	L mm	Denti Teeth	Alberi Arbors		Art.-Nr. Part-No.
19	3/4"	60	1	AM11	1	1930 09 00019
22	7/8"	60	1	AM11	1	1930 09 00022
25	1"	60	1	AM11	1	1930 09 00025
29	-	60	1	AM11	1	1930 09 00029
32	1.1/4"	60	1	AM33	1	1930 09 00032
35	1.3/8"	60	1	AM33	1	1930 09 00035
38	1.1/2"	60	2	AM33	1	1930 09 00038
40	1.9/16"	60	2	AM33	1	1930 09 00040
44	1.3/4"	60	2	AM33	1	1930 09 00044
51	2"	60	3	AM33	1	1930 09 00051
54	2.1/8"	60	3	AM33	1	1930 09 00054
57	2.1/4"	60	3	AM33	1	1930 09 00057
60	2.3/8"	60	3	AM33	1	1930 09 00060
64	2.1/2"	60	3	AM33	1	1930 09 00064
68	2.11/16"	60	3	AM33	1	1930 09 00068
70	2.3/4"	60	3	AM33	1	1930 09 00070
73	2.7/8"	60	3	AM33	1	1930 09 00073
76	3"	60	4	AM33	1	1930 09 00076
79	3.1/8"	60	4	AM33	1	1930 09 00079
80	-	60	4	AM33	1	1930 09 00080
83	3.1/4"	60	4	AM33	1	1930 09 00083
86	3.3/8"	60	4	AM33	1	1930 09 00086
89	3.1/2"	60	4	AM33	1	1930 09 00089
92	3.5/8"	60	4	AM33	1	1930 09 00092
102	4"	60	5	AM33	1	1930 09 00102
105	4.1/8"	60	5	AM33	1	1930 09 00105
121	4.3/4"	60	6	AM33	1	1930 09 00121
127	5"	60	6	AM33	1	1930 09 00127
152	6"	60	6	AM33	1	1930 09 00152

Cassetta in plastica / Plastic-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
LM 9	11	Ø 19 · 22 · 29 · 35 · 38 · 44 · 51 · 57 · 64 mm AM 11 (14–30 mm codolo esagonale / hex-shank) AM 33 (32–210 mm codolo esagonale / hex-shank)	1930 13 30009



MULTI-CUT Attacchi per seghe a tazza con punta pilota
MULTI-CUT Arbors with pilot-drill



1

Code **1935**

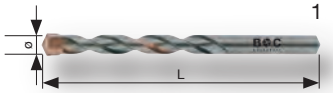


2

Tipo Type	Codolo Shank	Punta pilota Pilot-drill	Ø mm Seghe Ø mm Hole saws	Filetto Thread	Immagine Figure		Art.-Nr. Part-No.
AM 11	SW 8,5	HSS	14 – 30	1/2" x 20	1	1	1935 09 00011
AM 33	SW 8,5	HSS	32 – 210	5/8" x 18	2	1	1935 09 00033

MULTI-CUT Punte pilota per alberi
MULTI-CUT Pilot-drills for arbors

1



Code **1936 HM**

2



Code **1936 HSS**

Versione Version	Ø x L mm	Per supporto Fitting in	Immagine Figure		Art.-Nr. Part-No.
HM	6,50 x 100	AM 11 + AM 33	1	1	1936 07 00001
HSS	6,35 x 104	AM 11 + AM 33	2	1	1936 07 00002

LAME PER SEGHETTI
SAW BLADES



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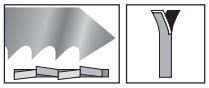
	Tipo Type	Descrizione Description	Code	Pagina Page
Lame per seghetti alternativi / Jigsaw blades				
	Legno e plastica Wood and plastics	Lame per seghetti alternativi con attacco a T Jigsaw blades with T-Shank	1960 ÷ 1963	370 ÷ 372
	Metallo Metal	Lame per seghetti alternativi con attacco a T Jigsaw blades with T-Shank	1964 1965	373 – 374
	Applicazioni speciali Special applications	Lame per seghetti alternativi con attacco a T Jigsaw blades with T-Shank	1966	375
		Assortimenti Sets	1990 1991	375
Lame per seghe a gattuccio / Reciprocating saw blades				
	Legno e plastica Wood and plastics	Lame per seghe a gattuccio con attacco universale / Reciprocating (Sabre) saw blades with universal shank	1970	376
	Legno e plastica Wood and green wood	Lame per seghe a gattuccio con attacco universale / Reciprocating (Sabre) saw blades with universal shank	1970-SPEED	376
	Metallo Metal	Lame per seghe a gattuccio con attacco universale / Reciprocating (Sabre) saw blades with universal shank	1971	377
	Legno e metallo Wood and metal	Lame per seghe a gattuccio con attacco universale / Reciprocating (Sabre) saw blades with universal shank	1971 1972 1974	378
Lame per seghe a gattuccio / Reciprocating saw blades				
	Applicazioni speciali Special applications	Lame per seghe a gattuccio con attacco universale / Reciprocating (Sabre) saw blades with universal shank	1973	379
	Materiali isolanti Insulation materials	Lame per seghe a gattuccio con attacco universale / Reciprocating (Sabre) saw blades with universal shank	1974	379
Lame per seghetti pneumatici / Compressed air saw blades				
		Lame per seghetti pneumatici ed elettrici Compressed air saw blades for pneumatic and electric car-body saws	1975	379
Lame per seghetti a mano / Hack saw blade				
		Lame per seghetti a mano Hack saw blade	1980	375

Le prestazioni di una lama dipendono dalla qualità del materiale, dal tipo di dentatura e dalla geometria del dente.

The productive power of a saw blade depends on the base material quality, the kind of toothing and the tooth geometry.

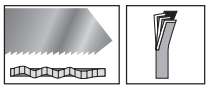
A seguire una breve descrizione dei diversi tipi di dentatura:

Here is a short description about the different kind of toothing:



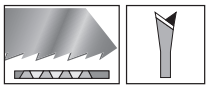
Denti fresati, linea di taglio stradata per tagli grezzi.

Side set toothing for rough cuts.



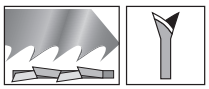
Denti fresati, linea di taglio ondulata per tagli sottili e puliti.

Wavy set toothing for fine and clean cuts.



Denti rettificati, linea di taglio diritta. Lama con dorso rettificato a cono per tagli precisi e puliti.

Conical ground blade with diagonally sharpened toothing for precise and clean cuts.



Denti rettificati, linea di taglio stradata per tagli rapidi e grezzi.

Side set, diagonally sharpened toothing for rough and quick cuts.

Per ogni materiale è necessario scegliere il tipo di acciaio più adatto. I diversi acciai si dividono in:

Different materials need an individual choice of steel qualities. We distinguish between:



Acciaio Cromo-Vanadio.

Alloyed tool steel



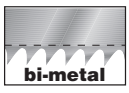
Acciaio super rapido.

High speed steel



Lega di acciaio con rivestimento, inserto o bordo in metallo duro.

Alloyed tool steel with carbide coating, tungsten carbide teeth or toothed carbide coated ledge.



Giunzione flessibile realizzata in acciaio per molle ad alta temperatura come materiale di supporto e acciaio rapido sul tagliente per soddisfare le massime esigenze. Vantaggi rispetto alle lame standard in acciaio rapido:

- altissime prestazioni
- lunga durata
- grande flessibilità

Flexible electron beam welded joint of high temperature spring band steel as backing material and high speed steel on the cutting edge to meet the highest demands given to a blade during use. Advantages against standard high speed steel blades:

- optimum cutting efficiency
- longer tool life
- high elasticity for high demand

Lame per seghetti alternativi / Jigsaw blades					
Bohrcraft	AEG Atlas Copco	Bosch	Festool	Makita	Metabo
1963-SPEED	-	T234X	-	-	-
1960-25	254061	T101B	S75/2,5	B11/P04606	23634
1960-K	373392	T101AO	S50K/1,4	-	23651
1960-R	346079	T101BR	-	B19/P04662	23650
1960-30	-	T301CD	-	-	23977
1960-40	274351	T101D	-	B12/P04612	23635
1960-D	373080	T101DP	S75/4FS	-	23655
1961-30	254071	T111C	-	B13/P04628	23632
1961-U	213116	T144D	S75/4	B16/P04640	23633
1961-UL	311633	T344D	S105/4	L2/P06454	23678
1961-K	346078	T244D	S75/4K	B17/P04656	23649
1964-12	254063	T118A	-	B22/P04503	23637
1965-12	340011	T118AF	HS60/1,2BI	-	23971
1965-10	274654	T318AF	HS105/1,2BI	-	23978
1965-10L	373086	-	HS155/1,2BI	-	-
1965-1825	-	T111HF	-	-	-
1964-20	254064	T118B	-	B23/P04519	23638
1964-30	274315	T127D	-	B25/P04531	23639
1966-42	-	T141HM	HM75/4,5	P38766	23652

Lame per seghe a gattuccio / Recipro saw blades				
Bohrcraft	AEG Atlas Copco	Bosch	Makita	Lenox
1970-6	323800	S644D	-	-
1970-6EL	323802	-	P05016	-
1970-4/5	323803	S1531L	-	-
1971-6L	354777	S1111DF	-	956 R
1971-18	354792	S922EF	P04880	-
1971-18L	354793	S1122EF	P04933	818 R
1971-14	354789	S922BF	P04911	614 R
1971-14L	361345	S1122BF	P04927	-
1971-14EL	354790	-	-	-
1971-10	-	S922HF	-	610 R
1971-10EL	-	-	P04983	-
1972-VEL	-	S1222VF	-	-
1973-3L	323815	S2041HM	-	-
1974-8/10	-	S3456XF	-	-
1974-Spez	-	S1120CF	P46975	960 R
1974-WM	-	S1113AWP	-	-

BOHRCRAFT Code	Legno / Wood										Plastica / Plastics		
	Legno Wood	Pannelli truciolati rivestiti Laminated chipboard	Legno tenero Soft wood	Legno duro Hard wood	Compensato Plywood	Riparazione pallet Pallet repair	Smontaggio finestre Dismantling of window frames	Laminati, Parquet Laminate, parquet	Legno con residui metallici Wood with metal residues	Legno verde Green wood	Plastica Plastic	Plexiglas Acrylic glass	Materiale in fibra di carbonio Carbon-fibre reinorced plastic
Lame per seghetti alternativi / Jigsaw blades													
1960-25	●	◐	◐	●	◐			◐			●		◐
1963-SPEED	●	●	◐	●	◐			◐			●	◐	●
1960-K	◐	◐	◐		●								
1960-R	●	●	◐	●	◐						●		◐
1960-40	●	◐	◐	●	◐						●		◐
1960-D	●	◐	◐	●	◐						●		◐
1960-30	●	◐	◐	●	◐						◐	◐	◐
1961-30	●		◐		◐						◐		
1961-U	●	◐	●	●	◐								
1965-40	●	◐	●	●	◐								
1961-K	●	◐	●	●	◐								
1961-UL	●	◐	●	●	◐								
1964-12													
1965-12													
1964-20													
1965-10													
1965-10L													
1965-1825									●				
1964-30											●	●	◐
1966-42	●		●										●
Lame per seghe a gattuccio / Recipro saw blades													
1970-6	●										●		
1970-6EL	●										●		
1970-4/5										●			
	●		●	●	●		●				●		
1971-18													
1971-18L													
1971-14													
1971-14L													
1971-14EL													
1971-10													
1971-10EL													
1972-VEL						●	◐		●				
1973-3L	●												●
	●		●	●	●		●				●		
1974-Spez									●				
1974-WM													

● consigliato / recommended ◐ adatto / suitable

BOHRCRAFT Code	Metallo / Metal								Caratteristiche / Characteristics						
	Acciaio inox Stainless steel	Tubi in acciaio, profilati in acciaio Steelpipe, steelprofile	Lamiere Sheet metal	Metalli non ferrosi Non-ferrous metal	Alluminio Aluminium	Materiali stratificati Sandwich material	Cartongesso Gipsum board	Cemento Aerated concrete	Taglio pulito Clean cut	Taglio grezzo Rough cut	Taglio curvo Curve cut	Taglio veloce Fast cut	Taglio dritto Straight cut	Passo denti Reverse teeth	Lunga durata Long life time
Lame per seghetti alternativi / Jigsaw blades															
1960-25									●			●			
1963-SPEED									●			●			
1960-K									●		●	●			
1960-R									●					●	
1960-40									●						
1960-D									●				●		
1960-30									●						
1961-30										●		●			
1961-U										●		●			
1965-40										●		●			●
1961-K										●	●	●			
1961-UL										●		●			
1964-12		◐	◐	◐											
1965-12	◐	◐	◐	◐											●
1964-20		◐		◐	●										
1965-10	◐	◐		◐	●	●									●
1965-10L	◐	◐	◐	◐		●									●
1965-1825	◐	◐	◐	◐											●
1964-30		◐		◐	●			◐				●			●
1966-42										●					●
Lame per seghe a gattuccio / Recipro saw blades															
1970-6							●			●					
1970-6EL							●			●					
1970-4/5										●					
					●							●	●		●
1971-18	◐	◐	◐						●						●
1971-18L	◐	◐	◐						●						●
1971-14	◐	◐	◐						●						●
1971-14L	◐	◐	◐						●						●
1971-14EL	◐	◐	◐	●	◐				●						●
1971-10	◐	◐	◐	●	◐					●					●
1971-10EL	◐	◐	◐	●	◐					●					●
1972-VEL		◐								●					●
1973-3L								●		●					●
		◐			●								●		
1974-Spez	●	●	●										●		●
1974-WM												●			●

● consigliato / recommended ◐ adatto / suitable

Code **1963-SPEED**



Acciaio HCS, rettificato a cono e denti con tripla affilatura.
Tagli estremamente puliti e veloci su tutti i tipi di legno (10 - 60 mm) e plastica.

HCS-steel, conically ground and teeth 3-times sharpened.
Extreme clean and fast cuts in all wood types (10 – 60 mm) and plastics.



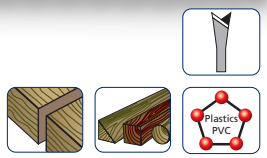
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
2,5	91 mm	T234X	5	1963 16 00001

Code **1960-25**



Acciaio CV, rettificato a cono, denti affilati diagonalmente.
Tagli puliti su tutti i tipi di legno e plastica fino a 30 mm.

CV-steel, conically ground blade, teeth diagonally sharpened.
Clean cuts in all wood types and plastics up to 30 mm.



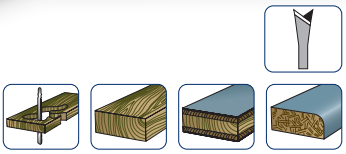
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch			Art.-Nr. Part-No.
2,5	75 mm	T101B	5	-	1960 16 00001
2,5	75 mm	T101B	-	25	1960 03 00001

Code **1960-K**



Acciaio CV, rettificato a cono, denti affilati diagonalmente con dentatura a punta.
Tagli sagomati sul legno duro, tenero e compensato.

CV-steel, conically ground blade, teeth diagonally sharpened, tapered toothing.
Saw blade for curve cutting in hard, soft and plywood.



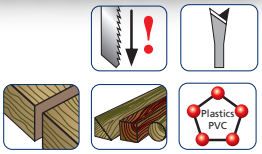
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1,35	50 mm	T101AO	5	1960 16 00002

Code **1960-R**



Acciaio CV, rettificato a cono e denti affilati diagonalmente.
Dentatura a spinta per tagli puliti e privi di schegge su tutti i tipi di legno e plastica.

CV-steel, conically ground blade, teeth diagonally sharpened.
Reverse teeth for clean, splinterfree surface cuts in all wood types and plastics.



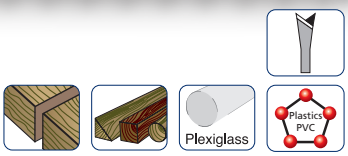
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
2,5	75 mm	T101BR	5	1960 16 00003

Code **1960-30**



Acciaio CV, rettificato a cono e denti affilati diagonalmente.
Lama extra lunga per tagli diritti e puliti su tutti i tipi di legno e plastica.

CV-steel, conically ground blade, teeth diagonally sharpened.
Extra long blade for clean and straight cuts in all wood types and plastics.



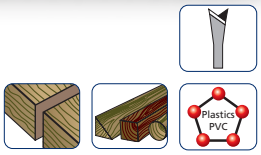
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
3,0	105 mm	T301CD	5	1960 16 00004

Code **1960-40**



Acciaio CV, rettificato a cono, denti affilati diagonalmente.
Tagli puliti su tutti i tipi di legno e plastica.

CV-steel, conically ground blade, teeth diagonally sharpened.
Clean cuts in all wood types and plastics.



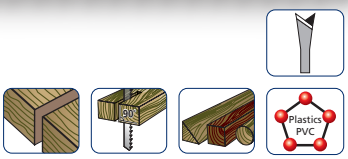
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
4,0	75 mm	T101D	5	1960 16 00005

Code **1960-D**



Acciaio CV, rettificato a cono e denti affilati diagonalmente.
Lama con spessore speciale per tagli diritti e puliti su tutti i tipi di legno e plastica.

CV-steel, conically ground blade, teeth diagonally sharpened.
Special thick blade for clean and straight cuts in wood and plastics.



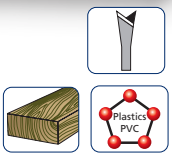
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
4,0	75 mm	T101DP	5	1960 16 00006

Code **1961-30**



Acciaio CV, lama a denti stradati e affilati.
Per legno tenero e plastica.

CV-steel, sharpened and side set teeth.
For soft wood and plastics.

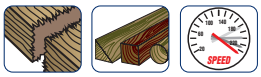


Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch			Art.-Nr. Part-No.
3,0	75 mm	T111C	5	-	1961 16 00001
3,0	75 mm	T111C	-	25	1961 03 00001

Code **1961-U**







Acciaio CV, lama a denti stradati e affilati diagonalmente.
Lama universale per tagli rapidi su tutti i tipi di legno.

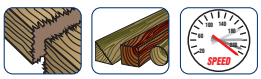
CV-steel, side set and diagonally sharpened teeth.
Universal saw blade for quick cuts in all wood types.

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch			Art.-Nr. Part-No.
4,0	75 mm	T144D	5	-	1961 16 00002
4,0	75 mm	T144D	-	25	1961 03 00002

Code **1961-UL**







Acciaio CV, lama a denti stradati e affilati diagonalmente.
Lama universale per tagli rapidi su tutti i tipi di legno (5 - 80 mm).

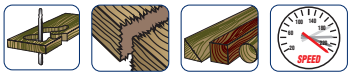
CV-steel, side set and diagonally sharpened teeth.
Universal saw blade for quick cuts in all wood types (5 – 80 mm).

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
4,0	105 mm	T344D	5	1961 16 00004

Code **1961-K**







Acciaio CV, lama a denti stradati e affilati diagonalmente.
Lama per tagli curvi e veloci su tutti i tipi di legno.

CV-steel, side set and diagonally sharpened teeth.
Saw blade for curve and quick cutting in all wood types.

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
4,0	75 mm	T244D	5	1961 16 00003

Code **1964-12**

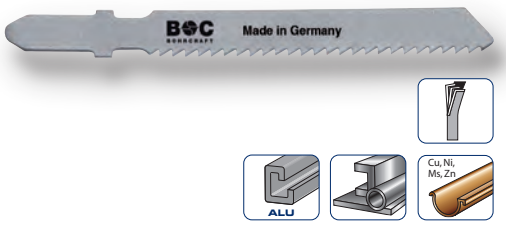


HSS, denti ondulati.
Per acciaio e lamiera (da 1,2 a 2,0 mm).

HSS, wavy set teeth.
For steel and sheet metals (1,2 to 2,0 mm).

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1,2	55 mm	T118A	5	1964 16 00001

Code **1964-20**

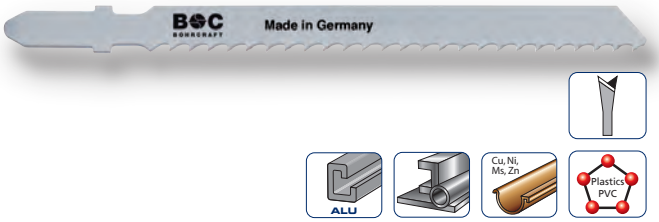


HSS, denti ondulati.
Per acciaio, alluminio e metalli non ferrosi.

HSS, wavy set teeth.
For steel, aluminium and non-ferrous metals.

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
2,0	55 mm	T118B	5	1964 16 00002

Code **1964-30**

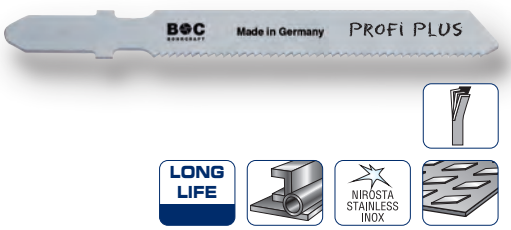


HSS, denti stradati.
Per acciaio, metalli non ferrosi, alluminio e plastica.

HSS, side set teeth.
For steel, non-ferrous metals, aluminium and plastics.

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
3,0	75 mm	T127D	5	1964 16 00003

Code **1965-12**



Bimetallo, denti ondulati.
Lama flessibile per acciaio e acciaio inox (1,2 - 2,0 mm).

Bi-metal, wavy set teeth.
Flexible saw blade for steel and **stainless steel** (1,2 – 2,0 mm).

Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1,2	55 mm	T118AF	5	1965 16 00001

Code **1965-1825**



Bimetallo, denti stradati. Lama flessibile **con dentatura a passo variabile per acciaio e legno** con residui metallici.

Bi-metal, side set teeth.
Vario toothed flexible saw blade for **steel and wood** with metal residues.



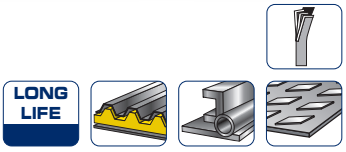
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1,8 – 2,5	75 mm	T111HF	5	1965 16 00002

Code **1965-10**



Bimetallo, denti ondulati.
Lama lunga e flessibile per acciaio (1,0 - 1,8 mm)
e **materiali stratificati fino a 80 mm.**

Bi-metal, wavy set teeth.
Long flexible saw blade for steel (1,0 – 1,8 mm)
and **sandwich-material up to 80 mm.**



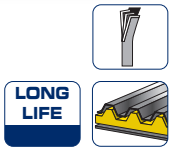
Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1,0	105 mm	T318AF	5	1965 16 00003

Code **1965-10L**



Bimetallo, denti ondulati.
Lama extra lunga e flessibile ideale per la costruzione di facciate
e il taglio di **materiali stratificati fino a 120 mm.**

Bi-metal, wavy set teeth.
Extra long flexible saw blade especially for facade constructions
to cut **sandwich-materials up to 120 mm.**



Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1,0	155 mm	-	5	1965 16 00004

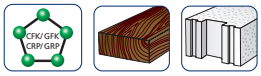
Code **1966-42**



Inserti in metallo duro.
Ideali per prodotti rinforzati in fibra di vetro, **legno duro** e calcestruzzo.

Tungsten carbide teeth.
Suitable for Glass-fibre reinforced products, **hard wood** and aerated concrete.

HM TCT



Denti / inch Tooth pitch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
4,2	75 mm	T141HM	1	1966 16 00002

Assortimenti di lame per seghetti alternativi
Jigsaw blades assortments

Cassetta in plastica / Plastic-Box

Descrizione Description		Contenuto Content	Denti / inch Tooth pitch	Lunghezza denti Toothed length	≈ Ref.-No. Bosch	Art.-Nr. Part-No.
St-W10	10-pz/ 10-pcs.	1 x 1961-K 1 x 1960-K 1 x 1960-R 2 x 1960-25 2 x 1961-30 3 x 1961-U	4,00 1,35 2,50 2,50 3,00 4,00	75 mm 50 mm 75 mm 75 mm 105 mm 75 mm	T244D T101AO T101BR T101B T111C T144D	1990 13 30010







Cassetta in plastica / Plastic-Box

Descrizione Description		Contenuto Content	Denti / inch Tooth pitch	Lunghezza denti Toothed length	≈ Ref.-No. Bosch	Art.-Nr. Part-No.
St-M10	10-pz/ 10-pcs.	2 x 1964-12 2 x 1964-20 2 x 1965-12 2 x 1964-30 2 x 1965-1825	1,2 2,0 1,2 3,0 1,8 – 2,5	55 mm 55 mm 55 mm 75 mm 75 mm	T118A T118B T118AF T127D T111HF	1991 13 30010







Lame per seghetti a mano
Hack saw blade

Code **1980-2430**



Bimetallo
Bi-metal

Code	Lunghezza length	Denti / inch Teeth / inch	Tipo Blade version		Art.-Nr. Part-No.
1980-2430	300	24	a denti odulati/wavy set	100*	1980 03 00001

* Quantità minori vengono consegnate sfuse / * Smaller quantities will be delivered bulk

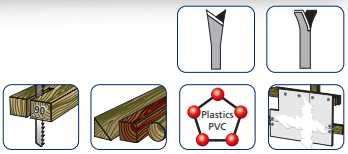
Lame per seghe a gattuccio per legno e plastica
Recipro saw blades for wood and plastics

Code **1970-6 • 1970-6EL**



Acciaio CV, denti stradati **(1970-6 affilati diagonalmente)**. Lama per tutti i tipi di legno, plastica e gesso

CV-steel, side set teeth **(1970-6 diagonally sharpened).**
Saw blade for all wood types, plastics and gypsum.



Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1970-6	6	130 mm	S644D	5	1970 16 00001
1970-6EL	6	280 mm	S1344D	5	1970 16 00002

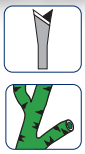
Lame per seghe a gattuccio per legno e legno verde
Recipro saw blades for wood and green wood

Code **1970-4/5**



Acciaio CV, denti stradati, affilata diagonalmente e **denti temprati ad induzione.**
Lama speciale per legno verde.

CV-steel, side set teeth, diagonally sharpened and **induction hardened teeth.**
Special saw blade for green wood.



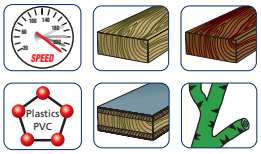
Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1970-4/5	4/5	220 mm	S1531L	5	1970 16 00004

Code **1970-SPEED**



Acciaio CV, lama conica, denti con tripla affilatura diagonale e temprati a induzione (estremamente affilati). **Lama e spessore maggiorato per la massima stabilità.**
Per tagli puliti, veloci e aggressivi su legno secco e umido.
Particolarmente indicata per tagli su legno verde.

CV-Steel, Conical Blade, Teeth 3-times diagonally sharpened. Teeth hardened by in induction (extremely sharp grounded).**Very stable due to special thickness of blade.**
For clean, fast and aggressive cuts in dry and wet wood.
Especially suitable for aggressive cuts in green wood.



Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1970-Speed	6	255 mm	-	2	1970 16 00005

Code **1971-18 • 1971-18L**

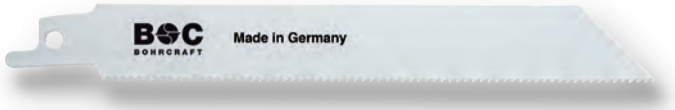


Bimetallo, denti ondulati.
Lame universali per acciaio e acciaio inox (1,5 - 2,5 mm).

Bi-metal, wavy set teeth.
Universal saw blade for steel and stainless steel (1,5 – 2,5 mm).

Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1971-18	18	130 mm	S922EF	5	1971 16 00001
1971-18L	18	180 mm	S1122EF	5	1971 16 00002

Code **1971-14 • 1971-14L • 1971-14EL**



Bimetallo, denti ondulati.
Lame universali per acciaio, **acciaio inox** (2,5 - 3,5 mm)
e metalli non ferrosi.

Bi-metal, wavy set teeth.
Universal saw blade for steel, **stainless steel**
(2,5 – 3,5 mm) and non-ferrous metals.

Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch			Art.-Nr. Part-No.
1971-14	14	130 mm	S922BF	5	-	1971 16 00003
1971-14	14	130 mm	S922BF	-	20	1971 03 00003
1971-14L	14	180 mm	S1122BF	5	-	1971 16 00004
1971-14L	14	180 mm	S1122BF	-	20	1971 03 00004
1971-14EL	14	230 mm	-	5	-	1971 16 00005

Code **1971-10 • 1971-10EL**



Bimetallo, denti stradati.
Lama universale per acciaio, **acciaio inox**
(3,5 - 5,0 mm) e metalli non ferrosi.

Bi-metal, side set teeth.
Universal saw blade for steel, **stainless steel**
(3,5 – 5,0 mm) and non-ferrous metal.

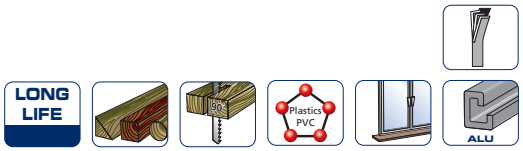
Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1971-10	10	130 mm	S922HF	5	1971 16 00006
1971-10EL	10	260 mm	-	5	1971 16 00007

Code **1971-6L**



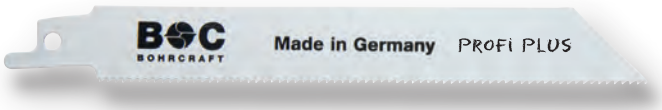
Bimetallo, denti fresati e stradati.
Per tagli rapidi e rettilinei su tutti i tipi di legno e plastica.
Adatta anche per la rimozione di infissi.

Bi-metal, teeth milled and side set.
For fast and straight cuts in all wood types and plastics.
Also suitable for window dismantling.



Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1971-6L	6	205 mm	S1111DF	5	1971 16 00009

Code **1972-VEL**



Bimetallo, denti stradati.
Lama con dentatura a passo variabile per tutti i tipi di legno con residui metallici; acciaio da 2,5 mm di spessore. Particolarmente indicata per la riparazione dei pallet.

Bi-metal, side set teeth.
Vario-toothed saw blade for all wood types with **metal residues;** steel from 2,5 mm thickness. Especially designed for pallet construction.



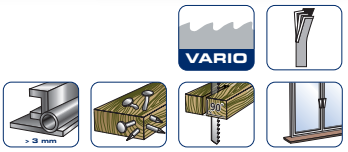
Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1972-VEL	10/14	260 mm	S1222VF	5	1972 16 00003

Code **1974-8/10**



Bimetallo, denti fresati e stradati.
Lama a spessore maggiorato per tagli rettilinei su tutti i tipi di legno con residui metallici; acciaio a partire da 3 mm. **Specifica per la rimozione di infissi.**

Bi-metal, teeth milled and side set.
Special thick saw blade for straight cuts in all wood types of wood with metal residues; steel > 3 mm. **Especially for window dismantling.**



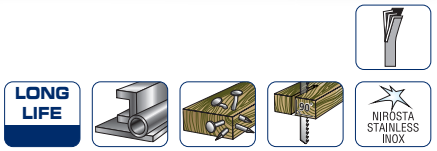
Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1974-8/10	8/10	180 mm	S3456XF	5	1974 16 00007

Code **1974-Spez**



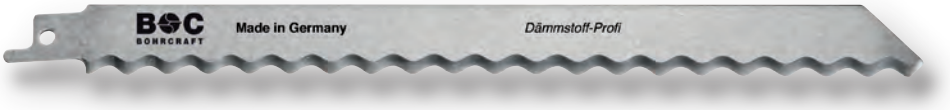
Bimetallo, denti stradati. **Lama speciale per lavori di recupero e demolizione.** Per tagli rettilinei nell'acciaio con spessore a partire da 3 mm e tutti i tipi di legno con residui metallici.

Bi-metal, side set teeth.
Special saw-blade for dismantling, rescue and salvage. For straight cuts in steel bigger than 3 mm and all wood types with metal residues.



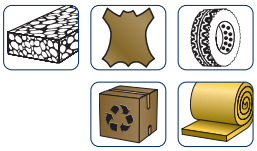
Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1974-Spez	10	205 mm	S1120CF	3	1974 16 00004

Code **1974-WM**



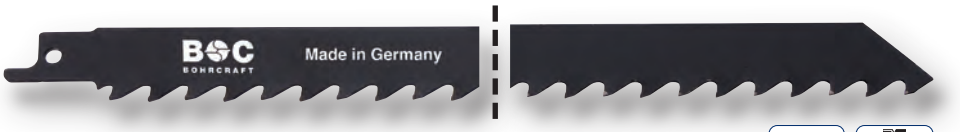
Acciaio CV, a doppia affilatura odulata. **Lama speciale** per la **lavorazione di materiali isolati per** interni e isolamento termico. **Per tagli rapidi e puliti** su lana di roccia, poliuretano espanso (EPS, PUR), polistirolo, pelle, gomma, carta, moquette fino a 175 mm e prodotti rinforzati in fibra di vetro.

CV-steel, double wave cut.
Special saw-blade for interior fitting **insulation** and thermal insulation.
For quick and clean cuts in mineral rock wool, foams (EPS, PUR), Polystrene, leather, rubber, paper, carpet up to 175 mm.and glass-fibre reinforced products.



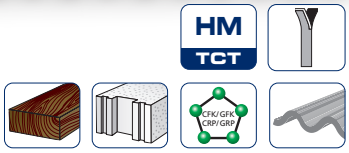
Code	Denti teeth	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1974-WM	Wellenschliff Wavy grounded	205 mm	S1113AWP	2	1974 16 00006

Code **1973-3L**



Denti in metallo duro.
Lama per **legno duro,** calcestruzzo e prodotti in fibra di vetro rinforzata.

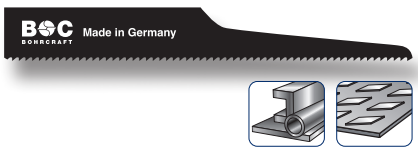
Tungsten carbide teeth.
Saw blade for **hard wood,** aerated concrete and glass-fibre reinforced products.



Code	Denti / inch Teeth / inch	Lunghezza denti Toothed length	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1973-3L	3	280 mm	S2041HM	1	1973 16 00001

Punte per seghetti pneumatici ed elettrici
Compressed-air saw blades for pneumatic and electric car-body saws

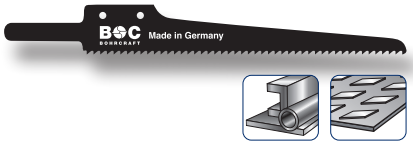
Code **1975-01**



Bimetallo. Adatte per: Pneutec, Ober, Shinano.
Bi-metal. Suitable for: Pneutec, Ober, Shinano.

Code	Denti / inch Teeth / inch	Tipo Blade version	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1975-0114	14	gewellt / wavy set	-	5	1975 07 00007
1975-0124	24	gewellt / wavy set	-	5	1975 07 00001
1975-0132	32	gewellt / wavy set	-	5	1975 07 00002

Code **1975-02**



Bimetallo. Adatta per: SIG, Flex.
Bi-metal. Suitable for: SIG, Flex.

Code	Denti / inch Teeth / inch	Tipo Blade version	Rif. Bosch Ref.-No. Bosch		Art.-Nr. Part-No.
1975-0214	14	gewellt / wavy set	-	5	1975 07 00005
1975-0224	24	gewellt / wavy set	-	5	1975 07 00003
1975-0232	32	gewellt / wavy set	-	5	1975 07 00004

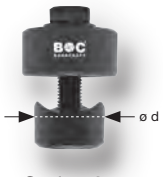
PUNZONI A VITE
SCREW-HOLE PUNCHES (KNOCKOUT PUNCHES)



www.ltf.it

		Descrizione Description	Code	Pagina Page
Punzoni a vite e accessori / Screw-hole punches and accessories				
B&C		Punzoni a vite con 3 punte di taglio Screw-hole punches with 3-point cutting tip	1915	382
B&C		Viti di ricambio per punzoni a vite Replacement screws for screw-hole punches	1916	383
B&C		Assortimenti Sets	1915	382

Punzoni a vite a 3 punte di taglio
Screw-hole punches (Knockout punches) with 3-point cutting tip



Code **1915**

MF | 2,0 mm < 800 N/mm² | 1,5 mm VA INOX

Per una punzonatura precisa e senza sbavature di lamiere di diversi materiali come alluminio, ferro, acciaio inox, rame e ottone. Spessore massimo del materiale = 2 mm.

For a burr-free and exact punching of sheet made of different materials like aluminium, iron, stainless steel, copper and brass. Maximum material thickness = 2 mm.

ø d mm	Dim. fori passanti Through dimensions		Dim. Condotti & tubi Conduit & pipe size	ø Inch ø Inch	Bullone Draw-in bolt		Art.-Nr. Part-No.
12,7	M 12	PG 7		1/2"	MF 8 x 1.0	1	1915 03 01270
15,2		PG 9			MF 8 x 1.0	1	1915 03 01520
16,0					MF 8 x 1.0	1	1915 03 01600
16,5	M 16				MF 10 x 1.0	1	1915 03 01650
18,6		PG 11			MF 10 x 1.0	1	1915 03 01860
19,0				3/4"	MF 10 x 1.0	1	1915 03 01900
20,4	M 20	PG 13,5			MF 10 x 1.0	1	1915 03 02040
22,5		PG 16	1/2"	7/8"	MF 10 x 1.0	1	1915 03 02250
24,0					MF 10 x 1.0	1	1915 03 02400
25,0					MF 10 x 1.0	1	1915 03 02500
25,4	M 25			1"	MF 10 x 1.0	1	1915 03 02540
26,0					MF 12 x 1.5	1	1915 03 02600
28,3		PG 21	3/4"		MF 12 x 1.5	1	1915 03 02830
30,0					MF 12 x 1.5	1	1915 03 03000
32,0					MF 12 x 1.5	1	1915 03 03200
32,5	M 32				MF 12 x 1.5	1	1915 03 03250
35,0				1.3/8"	MF 12 x 1.5	1	1915 03 03500
37,0		PG 29			MF 12 x 1.5	1	1915 03 03700
40,0					MF 12 x 1.5	1	1915 03 04000
40,5	M 40				MF 16 x 1.5	1	1915 03 04050
45,0					MF 16 x 1.5	1	1915 03 04500
47,0		PG 36			MF 16 x 1.5	1	1915 03 04700
50,0			1.1/2"		MF 16 x 1.5	1	1915 03 05000
50,5	M 50				MF 16 x 1.5	1	1915 03 05050
60,0		PG 48			MF 16 x 1.5	1	1915 03 06000
63,5	M 63			2.1/2"	MF 16 x 1.5	1	1915 03 06350

Cassetta in ABS BC / BC ABS-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
BL 2835	6	je 1x Ø 18,3 · 32,0 · 35,0 mm 2x Vite di ricambio / Replacement screw MF 12 x 1,5 1x Punta per lamiera / Sheet metal drill Gr. 2 / 6 – 20 mm	1915 13 30006



Cassetta in plastica / Plastic-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
BL 1663	12	je 1x Ø 16,5 · 20,4 · 25,4 · 32,5 · 40,5 · 50,5 · 63,5 mm je 1 Vite di ricambio / Replacement screw MF 10 x 1,0 · MF 12 x 1,5 · MF 16 x 1,5 1x Punta per lamiera / Sheet metal drill Gr. 2 / 6 – 20 mm 1x Pasta da taglio / Cutting paste BP 20	1915 13 30012



Viti di ricambio per punzoni a vite
Replacement screws for screw-hole punches (Knockout punches)



Code **1916**

MF

Misura Size	Per punzoni a vite For screw-hole punches		Art.-Nr. Part-No.
MF 8 x 1,0	12,7 – 16,0 mm	1	1916 03 00810
MF 10 x 1,0	16,5 – 25,4 mm	1	1916 03 01010
MF 12 x 1,5	26,0 – 40,0 mm	1	1916 03 01215
MF 16 x 1,5	40,5 – 63,5 mm	1	1916 03 01615



INSERTI E ACCESSORI
SCREWDRIVER-BITS AND ACCESSORIES



	Descrizione Description	Code	Pagina Page
Inserti e portainserti attacco ¼" / Screwdriver-bits and holders ¼" drive			
	Inserti ¼" Screwdriver-bits ¼"	6100 ÷ 6230	387 ÷ 394
	Inserti ¼", rivestimento **TiN** Screwdriver-bits ¼" **TiN-coated**	6121 ÷ 6141	387 ÷ 394
	Inserti ¼" ad anello colorato **Colour Ring** screwdriver-bits ¼"	6123 ÷ 6143	388 ÷ 391
	Assortimenti Sets	6900	394
	Portainserti per inserti ¼" Bitholders for screwdriver-bits ¼"	6300 ÷ 6330	395
Portainserti attacco ¼" / Holders ¼" drive			
	Portainserti a L ¼" per inserti e punte L-shaped drivers for ¼" bits and for drills	6350 6351	396
Bussole + Adattatori attacco ¼" / Sockets + adaptors ¼" drive			
	Bussole ¼", lunghezza 45 mm Sockets ¼", 45 mm length	6500	397
	Bussole ¼", lunghezza 65 mm Sockets ¼", 65 mm length	6500-65	397
	Bussole ¼", non magnetiche Sockets ¼", non-magnetic	6501	398
	Bussole con anello di tenuta per viti in acciaio inox Sockets with spring for stainless screws	6502	398
	Accessorio per viti a doppia filettatura Fixing-tool for setting hanger bolts	6505	398
	Adattatori Adaptors	6400 6645-1/4"	399
Inserti+ Accessori attacco 5/16" / Screwdriver-bits + accessories 5/16" drive			
	Inserti con attacco esagonale 5/16" Screwdriver-bits 5⁄16" hexagon	6710 ÷ 6720	400 – 401
Inserti e portainserti con attacco 10 mm / Screwdriver-bits and holders 10 mm drive			
	Inserti con attacco esagonale 10 mm Screwdriver-bits 10 mm hexagon	6614 ÷ 6624	402 – 403
	Adattatori con sfera per inserti attacco esagonale 10 mm Adaptors with ball for 10 mm hexagon	6645	403

Inserti Standard



- adatti per tutte le esigenze di avvitatura
- speciale trattamento termico
- disponibili in numerose versioni
- disponibili in diverse lunghezze

Standard-Bits



- optimal for most screwing demands
- special heat-treatment
- wide bit-range available
- different lengths available

Inserti ACR (Nervature Antiscivolamento)



- migliore tenuta della vite grazie alle nervature
- ottima trasmissione della forza
- effetto "Cam-out" diminuito
- meno usura
- meno forza necessaria

ACR-Bits (Anti Cam-out ribs)



- better grip in the screw-head due to special bit-tip with ribs
- optimal torque transmission
- reduced "Cam-out forces"
- less wear
- less pressing force necessary

Inserti TiN



- maggiore durezza grazie al rivestimento al titanio
- adatti per lavori continuativi
- tenacità del nucleo
- lunga durata
- resistenza alla corrosione

TiN-Bits



- high surface hardness due to titanium-coating
- suitable for continious heavy use in industry
- optimal tenacity of the core
- improved wear-resisting layer
- longer tool life
- good corrosion protection

Inserti ad anello colorato



- Disponibile per PH / PZ / Tx

Colour Ring-Bits



- Available in PH / PZ / Tx

Code 6120



PH 1/4"

Inserti per viti Phillips.
Bits for Phillips screws.

Misura Size	L mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
PH 1	25	100	6120 15 00125	10	6120 11 10125
PH 2	25	100	6120 15 00225	10	6120 11 10225
PH 3	25	100	6120 15 00325	10	6120 11 10325
PH 1	50	50	6120 15 00150	-	-
PH 2	50	50	6120 15 00250	-	-
PH 3	50	50	6120 15 00350	-	-
PH 1	75	25	6120 15 00175	-	-
PH 2	75	25	6120 15 00275	-	-
PH 3	75	25	6120 15 00375	-	-
PH 1	100	25	6120 15 00110	-	-
PH 2	100	25	6120 15 00210	-	-
PH 3	100	25	6120 15 00310	-	-
PH 1	150	25	6120 15 00115	-	-
PH 2	150	25	6120 15 00215	-	-
PH 3	150	25	6120 15 00315	-	-

Code 6121-TiN



PH TiN LONG LIFE 1/4"

Inserti TiN per viti Phillips.
TiN-bits for Phillips screws.

Misura Size	L mm		Art.-Nr. Part-No.
PH 1	25	100	6121 15 00125
PH 2	25	100	6121 15 00225
PH 3	25	100	6121 15 00325
PH 1	50	50	6121 15 00150
PH 2	50	50	6121 15 00250
PH 3	50	50	6121 15 00350

Code 6122-ACR



PH 1/4"

Inserti ACR alta tenacità per viti Phillipis.
(Migliore presa grazie alla speciale punta con nervature)
High flexible ACR-bits for Phillips screws.
(Better grip due to special bit-tip with ribs)

Misura Size	L mm		Art.-Nr. Part-No.
PH 1	25	100	6122 15 00125
PH 2	25	100	6122 15 00225
PH 3	25	100	6122 15 00325

Code 6120-red.



PH 1/4"

Inserti per viti Phillips (Grabber), con punta stretta per viti per cartongesso.
Bits for Phillips screws (Grabber), reduced nose for drywall.

Misura Size	L mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
PH 2	25	100	6120 15 02025	10	6120 11 12025

Code 6123 SB



PH 1/4"

Inserti ad anello colorato per viti Phillips.

Colour Ring-Bits for Phillips screws.

Misura Size	L mm		Art.-Nr. Part-No.
PH 1	25	10	6123 11 10125
PH 2	25	10	6123 11 10225
PH 3	25	10	6123 11 10325

Code 6130



PZ 1/4"

Inserti per viti Pozidriv.

Bits for Pozidriv screws.

Misura Size	L mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
PZ 0	25	100	6130 15 00025	-	-
PZ 1	25	100	6130 15 00125	10	6130 11 10125
PZ 2	25	100	6130 15 00225	10	6130 11 10225
PZ 3	25	100	6130 15 00325	10	6130 11 10325
PZ 4	32	100	6130 15 00432	-	-
PZ 1	50	50	6130 15 00150	-	-
PZ 2	50	50	6130 15 00250	-	-
PZ 3	50	50	6130 15 00350	-	-
PZ 1	75	25	6130 15 00175	-	-
PZ 2	75	25	6130 15 00275	-	-
PZ 3	75	25	6130 15 00375	-	-
PZ 1	100	25	6130 15 00110	-	-
PZ 2	100	25	6130 15 00210	-	-
PZ 3	100	25	6130 15 00310	-	-
PZ 1	150	25	6130 15 00115	-	-
PZ 2	150	25	6130 15 00215	-	-
PZ 3	150	25	6130 15 00315	-	-

Code 6131-TiN



PZ TiN LONG LIFE 1/4"

Inserti TiN per viti Pozidriv.

TiN-bits for Pozidriv screws.

Misura Size	L mm		Art.-Nr. Part-No.
PZ 1	25	100	6131 15 00125
PZ 2	25	100	6131 15 00225
PZ 3	25	100	6131 15 00325
PZ 1	50	50	6131 15 00150
PZ 2	50	50	6131 15 00250
PZ 3	50	50	6131 15 00350

Code **6132-ACR**



Inserti ACR alta tenacità per viti Pozidriv.
(Migliore presa grazie alla speciale punta con nervature)

High flexible ACR-bits for Pozidriv screws.
(Better grip due to special bit-tip with ribs)

Misura Size	L mm		Art.-Nr. Part-No.
PZ 1	25	100	6132 15 00125
PZ 2	25	100	6132 15 00225
PZ 3	25	100	6132 15 00325

Code **6130-red.**



Inserti per viti Pozidriv (Grabber), con punta stretta per viti per cartongesso.

Bits for Pozidriv screws (Grabber), reduced nose for drywall.

Misura Size	L mm		Art.-Nr. Part-No.
PZ 2	25	100	6130 15 02025

Code **6133 SB**



Inserti ad anello colorato per viti Pozidriv.

Colour Ring-Bits for Pozidriv screws.

Misura Size	L mm		Art.-Nr. Part-No.
PZ 1	25	10	6133 11 10125
PZ 2	25	10	6133 11 10225
PZ 3	25	10	6133 11 10325

Code **6100**



Inserti per viti a taglio.

Bits for slotted-head screws.

Misura Size	L mm		Art.-Nr. Part-No.
3,0 x 0,5	25	100	6100 15 03025
3,5 x 0,5	25	100	6100 15 03525
4,0 x 0,5	25	100	6100 15 04025
4,5 x 0,6	25	100	6100 15 04525
5,5 x 0,8	25	100	6100 15 05525
6,0 x 1,0	25	100	6100 15 06025
6,5 x 1,2	25	100	6100 15 06525
8,0 x 1,2	25	100	6100 15 08025

Code 6140



Tx | 1/4"

Inserti per viti Tx.
Bits for Tx screws.

Misura Size	L mm		Art.-Nr. Part-No.		Art.-Nr. Part-No.
Tx 6	25	100	6140 15 00625	-	-
Tx 7	25	100	6140 15 00725	-	-
Tx 8	25	100	6140 15 00825	-	-
Tx 9	25	100	6140 15 00925	-	-
Tx 10	25	100	6140 15 01025	10	6140 11 11025
Tx 15	25	100	6140 15 01525	10	6140 11 11525
Tx 20	25	100	6140 15 02025	10	6140 11 12025
Tx 25	25	100	6140 15 02525	10	6140 11 12525
Tx 27	25	100	6140 15 02725	-	-
Tx 30	25	100	6140 15 03025	10	6140 11 13025
Tx 40	25	100	6140 15 04025	10	6140 11 14025
Tx 45	25	100	6140 15 04525	-	-
Tx 50	25	100	6140 15 05025	-	-
Tx 55	25	100	6140 15 05525	-	-
Tx 7	50	50	6140 15 00750	-	-
Tx 8	50	50	6140 15 00850	-	-
Tx 9	50	50	6140 15 00950	-	-
Tx 10	50	50	6140 15 01050	-	-
Tx 15	50	50	6140 15 01550	-	-
Tx 20	50	50	6140 15 02050	-	-
Tx 25	50	50	6140 15 02550	-	-
Tx 27	50	50	6140 15 02750	-	-
Tx 30	50	50	6140 15 03050	-	-
Tx 40	50	50	6140 15 04050	-	-
Tx 45	50	50	6140 15 04550	-	-
Tx 50	50	50	6140 15 05050	-	-
Tx 55	50	50	6140 15 05550	-	-
Tx 6	75	25	6140 15 00675	-	-
Tx 7	75	25	6140 15 00775	-	-
Tx 8	75	25	6140 15 00875	-	-
Tx 9	75	25	6140 15 00975	-	-
Tx 10	75	25	6140 15 01075	-	-
Tx 15	75	25	6140 15 01575	-	-
Tx 20	75	25	6140 15 02075	-	-
Tx 25	75	25	6140 15 02575	-	-
Tx 27	75	25	6140 15 02775	-	-
Tx 30	75	25	6140 15 03075	-	-
Tx 40	75	25	6140 15 04075	-	-

Code 6141-TiN



Tx | TiN | LONG LIFE | 1/4"

Inserti TiN per viti Tx.
TiN-bits for Tx screws.

Misura Size	L mm		Art.-Nr. Part-No.
Tx 10	25	100	6141 15 01025
Tx 15	25	100	6141 15 01525
Tx 20	25	100	6141 15 02025
Tx 25	25	100	6141 15 02525
Tx 30	25	100	6141 15 03025
Tx 40	25	100	6141 15 04025

Code **6143 SB**



Tx 1/4"

Inserti ad anello colorato per viti Tx.

Colour Ring-Bits for Tx screws.

Misura Size	L mm		Art.-Nr. Part-No.
Tx 10	25	10	6143 11 11025
Tx 15	25	10	6143 11 11525
Tx 20	25	10	6143 11 12025
Tx 25	25	10	6143 11 12525
Tx 27	25	10	6143 11 12725
Tx 30	25	10	6143 11 13025
Tx 40	25	10	6143 11 14025
Tx 50	25	10	6143 11 15025

Code **6150**



TR 1/4"

Inserti per viti Tx Tamper Resistant.

Bits with hole for Tx screws with safety-pin.

Misura Size	L mm		Art.-Nr. Part-No.
TR 6	25	100	6150 15 00625
TR 7	25	100	6150 15 00725
TR 8	25	100	6150 15 00825
TR 9	25	100	6150 15 00925
TR 10	25	100	6150 15 01025
TR 15	25	100	6150 15 01525
TR 20	25	100	6150 15 02025
TR 25	25	100	6150 15 02525
TR 27	25	100	6150 15 02725
TR 30	25	100	6150 15 03025
TR 40	25	100	6150 15 04025
TR 45	25	100	6150 15 04525
TR 50	25	100	6150 15 05025
TR 55	25	100	6150 15 05525
TR 6	50	50	6150 15 00650
TR 7	50	50	6150 15 00750
TR 8	50	50	6150 15 00850
TR 9	50	50	6150 15 00950
TR 10	50	50	6150 15 01050
TR 15	50	50	6150 15 01550
TR 20	50	50	6150 15 02050
TR 25	50	50	6150 15 02550
TR 27	50	50	6150 15 02750
TR 30	50	50	6150 15 03050
TR 40	50	50	6150 15 04050
TR 6	75	25	6150 15 00675
TR 7	75	25	6150 15 00775
TR 8	75	25	6150 15 00875
TR 9	75	25	6150 15 00975
TR 10	75	25	6150 15 01075
TR 15	75	25	6150 15 01575
TR 20	75	25	6150 15 02075
TR 25	75	25	6150 15 02575
TR 27	75	25	6150 15 02775
TR 30	75	25	6150 15 03075
TR 40	75	25	6150 15 04075

Code 6160



Inserti per viti esagonali incassate.
Bits for inside hexagon screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 1,5	25	100	6160 15 01525
SW 2,0	25	100	6160 15 00225
SW 2,5	25	100	6160 15 02525
SW 3,0	25	100	6160 15 00325
SW 4,0	25	100	6160 15 00425
SW 5,0	25	100	6160 15 00525
SW 6,0	25	100	6160 15 00625
SW 7,0	25	100	6160 15 00725
SW 8,0	25	100	6160 15 00825
SW 10,0	25	100	6160 15 01025
SW 1/8"	25	100	6160 15 01825
SW 5/32"	25	100	6160 15 05325
SW 3/16"	25	100	6160 15 03125
SW 1,5	50	50	6160 15 01550
SW 2,0	50	50	6160 15 00250

Misura Size	L mm		Art.-Nr. Part-No.
SW 2,5	50	50	6160 15 02550
SW 3,0	50	50	6160 15 00350
SW 4,0	50	50	6160 15 00450
SW 5,0	50	50	6160 15 00550
SW 6,0	50	50	6160 15 00650
SW 8,0	50	50	6160 15 00850
SW 10,0	50	50	6160 15 01050
SW 1,5	75	25	6160 15 01575
SW 2,0	75	25	6160 15 00275
SW 2,5	75	25	6160 15 02575
SW 3,0	75	25	6160 15 00375
SW 4,0	75	25	6160 15 00475
SW 5,0	75	25	6160 15 00575
SW 6,0	75	25	6160 15 00675
SW 8,0	75	25	6160 15 00875
SW 10,0	75	25	6160 15 01075

Code 6170



Inserti per viti esagonali Tamper Resistant.
Bits with hole for inside hexagon screws with safety-pin.

Misura Size	L mm		Art.-Nr. Part-No.
SW 2,0	25	100	6170 15 00225
SW 2,5	25	100	6170 15 02525
SW 3,0	25	100	6170 15 00325
SW 4,0	25	100	6170 15 00425

Misura Size	L mm		Art.-Nr. Part-No.
SW 5,0	25	100	6170 15 00525
SW 6,0	25	100	6170 15 00625
SW 8,0	25	100	6170 15 00825
SW 10,0	25	100	6170 15 01025

Code 6180



Inserti con testa sferica per viti esagonali incassate.
Ballpoint-Bits for inside hexagon screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 2,5	25	100	6180 15 02525
SW 3,0	25	100	6180 15 00325
SW 4,0	25	100	6180 15 00425

Misura Size	L mm		Art.-Nr. Part-No.
SW 5,0	25	100	6180 15 00525
SW 6,0	25	100	6180 15 00625

Code 6190



Inserti colorati per viti Robertson.
Bits for Robertson square screws.

Misura Size	L mm		Art.-Nr. Part-No.
# 0	25	100	6190 15 00025
# 1	25	100	6190 15 00125
# 2	25	100	6190 15 00225
# 3	25	100	6190 15 00325

Misura Size	L mm		Art.-Nr. Part-No.
# 0	50	50	6190 15 00050
# 1	50	50	6190 15 00150
# 2	50	50	6190 15 00250
# 3	50	50	6190 15 00350

Code **6200**



Inserti per viti XZN zigrinate.
Bits for XZN multi-spline screws.

Misura Size	L mm		Art.-Nr. Part-No.
M 4	25	100	6200 15 00425
M 5	25	100	6200 15 00525

Misura Size	L mm		Art.-Nr. Part-No.
M 6	25	100	6200 15 00625
M 8	25	100	6200 15 00825

Code **6210**



Inserti per viti TRI-WING (Three-Wing screws).
Bits for TRI-WING screws (Threewing screws).

Misura Size	L mm		Art.-Nr. Part-No.
# 0	25	100	6210 15 00025
# 1	25	100	6210 15 00125
# 2	25	100	6210 15 00225

Misura Size	L mm		Art.-Nr. Part-No.
# 3	25	100	6210 15 00325
# 4	25	100	6210 15 00425
# 5	25	100	6210 15 00525

Code **6220**



Inserti per viti TORQ-SET(Four-Wing screws).
Bits for TORQ-SET screws (Fourwing screws).

Misura Size	L mm		Art.-Nr. Part-No.
# 4	25	100	6220 15 00425
# 5	25	100	6220 15 00525
# 6	25	100	6220 15 00625

Misura Size	L mm		Art.-Nr. Part-No.
# 8	25	100	6220 15 00825
# 10	25	100	6220 15 01025

Code **6230**



Inserti per viti Spanner.
Bits for Spanner screws.

Misura Size	L mm		Art.-Nr. Part-No.
# 4	25	100	6230 15 00425
# 6	25	100	6230 15 00625

Misura Size	L mm		Art.-Nr. Part-No.
# 8	25	100	6230 15 00825
# 10	25	100	6230 15 01025





Cassette Mini BC / BC Mini-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
PB 7-HEX	7	Esagonale / Hexagon SW 2 · SW 2,5 · SW 3 · SW 4 · SW 5 · SW 6 + Portainserti / Holder	6900 14 30072
PB 10-PZ	10	3 x Pozidriv PZ1 · PZ2 · PZ3 + Portainserti / Holder	6900 14 30105
PB 10-TX	10	Tx T8 · T9 · T10 · T15 · T20 · 2 x T25 · T30 · T40 + Portainserti / Holder	6900 14 30104



Cassette in plastica BC / BC Plastic-Boxes

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
PB 32	32	Phillips PH1 · 2 x PH2 · PH3 Pozidriv 2 x PZ1 · 5 x PZ2 · 3 x PZ3 Tx con foro / with hole 2 x TR10 · TR20 · TR30 · TR40 4 x TR15 · TR25 Adattatore / Adaptor Portainserti / Holder	12	6900 14 30031
PB 32-3	32	Phillips PH1 · 2 x PH2 · PH3 Pozidriv PZ1 · 2 x PZ2 · PZ3 Taglio / Slotted 3,0 · 4,0 · 5,0 · 6,0 Esagonale / Hexagon SW 3 · SW 4 · SW 5 · SW 6 Tx T10 · T15 · T20 · T25 · T27 · T30 · T40 Tx con foro / with hole TR10 · TR15 · TR20 · TR25 · TR27 · TR30 · TR40 Adattatore / Adaptor Portainserti / Holder	12	6900 14 30032


BC Display

Cassette in plastica BC / BC Plastic-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Display	Art.-Nr. Part-No.
PB 24	24	Mini cricchetto / Ratchet "Mini" Phillips PH1 · PH2 Pozidriv PZ1 · PZ2 Tx con foro / with hole TR10 · TR15 · TR20 · TR25 · TR30 · TR40 Esagonale / Hexagon SW4 · SW5 · SW6 Taglio / Slotted 4,5 · 6,5 Bussole / Sockets SW 6 · SW7 · SW8 · SW 10 · SW11 · SW13 Adattatore / Adaptor Portainserti / Holder	12	6900 14 30023


BC Display

Code 6300



Portainserti magnetici, bussola in ottone cromato.
Magnetic bitholders, chromated brass barrel.

Attacco Drive	L mm		Art.-Nr. Part-No.
1/4" E 6,3	60	25	6300 15 01060
1/4" E 6,3	75	25	6300 15 01075

Code 6310



Portainserti magnetici, con anello di tenuta.
Magnetic bitholders, with spring clip.

Attacco Drive	L mm		Art.-Nr. Part-No.
1/4" E 6,3	60	25	6310 15 01160
1/4" E 6,3	75	25	6310 15 01175
1/4" E 6,3	150	5	6310 15 01115
1/4" E 6,3	200	5	6310 15 01120
1/4" E 6,3	250	5	6310 15 01125

Code 6330



Portainserti magnetici, "Quick Lock".
Magnetic bitholders, "Quick-Lock".

Attacco Drive	L mm		Art.-Nr. Part-No.
1/4" E 6,3	60	25	6330 15 01160
1/4" E 6,3	75	25	6330 15 01175
1/4" E 6,3	150	5	6330 15 01115
1/4" E 6,3	200	5	6330 15 01120

Code 6330-SDS



Portainserti magnetici, "Quick Lock".
Magnetic bitholders, "Quick-Lock".

Attacco Drive	L mm		Art.-Nr. Part-No.
SDS-plus	100	5	6330 15 01110



1/4" | Portainserti a L **PRO 90,** per inserti ¼"
1/4" | L-shaped driver HD **PRO 90,** for all ¼" bits

Code **6350**



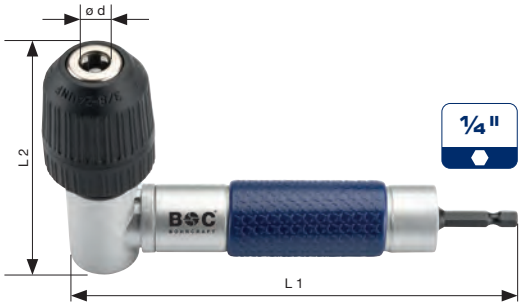
· Ideale per lavori in spazi ristretti
· Versione per lavori gravosi e adatto per avvitatori ad impulsi
· Lunga durata grazie all'elevata coppia di torsione.
· Coppia Max.: 40 Nm

· Easier access to narrow spaces
· Heavy Duty version especially suitable for impact drivers
· Durability and long life due to high torque
· Max. torque: 40 Nm

Attacco Drive	L 1 mm	L 2 mm		Art.-Nr. Part-No.
1/4" E 6,3	175	65	1	6350 16 00001

1/4" | Portainserti A L **PRO 100**
1/4" | L-shaped driver HD **PRO 100**

Code **6351**



· Ideale per lavori in spazi ristretti
· Adatto per avvitatori ad impulsi
· Versione per lavori gravosi
· Max. 2.100 rpm.
· Acciaio = Ø 10 mm max.
· Legno= Ø 16 mm max.

· Easier access to narrow spaces
· Especially suitable for impact drivers
· Heavy Duty version
· Max. 2.100 rpm.
· Steel = Ø 10 mm max.
· Wood = Ø 16 mm max.

Ø d mm	Attacco Drive	L 1 mm	L 2 mm		Art.-Nr. Part-No.
1 – 10	1/4" E 6,3	175	97	1	6351 16 00001

Code **6500**



Bussole magnetiche attacco ¼".
Per viti esagonali.

Magnetic sockets ¼" drive.
For outside hexagon screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 4,0	45	25	6500 15 00445
SW 5,0	45	25	6500 15 00545
SW 5,5	45	25	6500 15 05545
SW 6,0	45	25	6500 15 00645
SW 7,0	45	25	6500 15 00745
SW 8,0	45	25	6500 15 00845
SW 9,0	45	25	6500 15 00945
SW 10,0	45	25	6500 15 01045

Misura Size	L mm		Art.-Nr. Part-No.
SW 11,0	45	25	6500 15 01145
SW 12,0	45	25	6500 15 01245
SW 13,0	45	25	6500 15 01345
SW 14,0	45	25	6500 15 01445
SW 1/4"	45	25	6500 15 14045
SW 5/16"	45	25	6500 15 05145
SW 3/8"	45	25	6500 15 03845

Bussolotto BC / BC Round-Box

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
RST 7	7	SW 7 / SW 8 / SW 10 / SW 12 / SW 13 / SW 3/8" / SW 1/4"	6500 14 30007



Code **6500-65**



Bussole magnetiche attacco¼".
Per viti esagonali.

Magnetic sockets ¼" drive.
For outside hexagon screws.

Misura Size	L mm		Art. Nr. Part-No.
SW 5,5	65	25	6500 15 05565
SW 6,0	65	25	6500 15 00665
SW 7,0	65	25	6500 15 00765
SW 8,0	65	25	6500 15 00865
SW 10,0	65	25	6500 15 01065
SW 12,0	65	25	6500 15 01265

Misura Size	L mm		Art.-Nr. Part-No.
SW 13,0	65	25	6500 15 01365
SW 17,0	65	25	6500 15 01765
SW 1/4"	65	25	6500 15 14065
SW 5/16"	65	25	6500 15 05165
SW 3/8"	65	25	6500 15 03865

Confezione per espositore BC / BC Display-QuadroPack

Descrizione Description	Pezzi Pieces	Contenuto Content	Art.-Nr. Part-No.
RST 3-65	3	SW 1/4" · SW 5/16" · SW 3/8"	6500 03 30003
RST 4-65	4	SW 7 · SW 8 · SW 10 · SW 13	6500 03 30004
RST 8-65	8	SW 5,5 · SW 6 · SW 7 · SW 8 · SW 10 · SW 12 · SW 13 · SW 17	6500 03 30008



¼" | Busoole, attacco ¼"
Sockets, ¼" drive

Code 6501



Bussole **(non Magnetiche)** attacco ¼".
Per viti esagonali.

Sockets **(non magnetic)** ¼" drive.
For outside hexagon screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 6,0	65	25	6501 15 00665
SW 7,0	65	25	6501 15 00765
SW 8,0	65	25	6501 15 00865
SW 10,0	65	25	6501 15 01065
SW 13,0	65	25	6501 15 01365
SW 1/4"	65	25	6501 15 14065
SW 3/8"	65	25	6501 15 03865

Code 6502



Bussole con anello di tenuta attacco ¼".
Per viti in **acciaio inox.**

Sockets with spring ¼" drive.
For **stainless** screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 7,0	65	25	6502 15 00765
SW 8,0	65	25	6502 15 00865
SW 10,0	65	25	6502 15 01065
SW 3/8"	65	25	6502 15 03865

¼" | Accessorio per viti a doppia filettatura
Fixing-Tool for setting hanger bolts

Code 6505



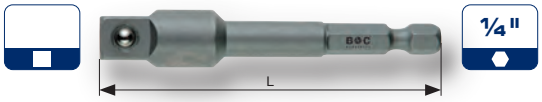
Accessorio per viti a doppia filettatura.
Per viti con filettatura metrica.

Fixing-Tool for setting hanger bolts.
For screws with metric thread end.



Misura Size	L mm		Art.-Nr. Part-No.
M 6	50	5	6505 15 00650
M 8	50	5	6505 15 00850
M 10	50	5	6505 15 01050

Code **6400**



Adattatori per bussole.
Adaptors for sockets.

■	L mm		Art.-Nr. Part-No.
1/4"	25	5	6400 15 01425
1/4"	50	5	6400 15 01450
3/8"	50	5	6400 15 03850
1/2"	50	5	6400 15 01250

Confezione da espositore BC / BC Display-Pack

Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
A 3	3	1/4" · 3/8" · 1/2" x 50 mm	1	6400 11 00003



Adattatori per inserti
Adaptor for bits
¼"

Code **6645-1/4"**



Adattatore ½" per inserti ¼".
½" Adaptor for ¼" bits.

⬢	■		Art.-Nr. Part-No.
1/4"	1/2"	5	6645 15 01214

Code 6710



Inserti per viti a taglio.
Bits for slotted-head screws.

Misura Size	L mm		Art.-Nr. Part-No.
5,5 x 0,8	41	5	6710 15 05541
6,5 x 1,2	41	5	6710 15 06541
8,0 x 1,2	41	5	6710 15 08041

Misura Size	L mm		Art.-Nr. Part-No.
10,0 x 1,6	41	5	6710 15 01041
12,0 x 2,0	41	5	6710 15 01241

Code 6712



Inserti per viti Phillips.
Bits for Phillips screws.

Misura Size	L mm		Art.-Nr. Part-No.
PH 1	32	5	6712 15 00132
PH 2	32	5	6712 15 00232
PH 3	32	5	6712 15 00332
PH 4	38	5	6712 15 00438

Misura Size	L mm		Art.-Nr. Part-No.
PH 1	70	5	6712 15 00170
PH 2	70	5	6712 15 00270
PH 3	70	5	6712 15 00370

Code 6713



Inserti per viti Pozidriv.
Bits for Pozidriv screws.

Misura Size	L mm		Art.-Nr. Part-No.
PZ 1	32	5	6713 15 00132
PZ 2	32	5	6713 15 00232
PZ 3	32	5	6713 15 00332
PZ 4	38	5	6713 15 00438

Misura Size	L mm		Art.-Nr. Part-No.
PZ 1	70	5	6713 15 00170
PZ 2	70	5	6713 15 00270
PZ 3	70	5	6713 15 00370

Code 6714



Inserti per viti Tx.
Bits for Tx screws.

Misura Size	L mm		Art.-Nr. Part-No.
Tx 20	35	5	6714 15 02035
Tx 25	35	5	6714 15 02535
Tx 27	35	5	6714 15 02735
Tx 30	35	5	6714 15 03035
Tx 40	35	5	6714 15 04035
Tx 45	35	5	6714 15 04535
Tx 50	35	5	6714 15 05035
Tx 55	35	5	6714 15 05535

Misura Size	L mm		Art.-Nr. Part-No.
Tx 20	70	5	6714 15 02070
Tx 25	70	5	6714 15 02570
Tx 27	70	5	6714 15 02770
Tx 30	70	5	6714 15 03070
Tx 40	70	5	6714 15 04070
Tx 45	70	5	6714 15 04570
Tx 50	70	5	6714 15 05070
Tx 55	70	5	6714 15 05570

Code 6715



TR | 5/16"

Inserti per viti Torx Tamper Resistant.
Bits with hole for Tx screws with safety-pin.

Misura Size	L mm		Art.-Nr. Part-No.
TR 20	35	5	6715 15 02035
TR 25	35	5	6715 15 02535
TR 27	35	5	6715 15 02735
TR 30	35	5	6715 15 03035
TR 40	35	5	6715 15 04035
TR 45	35	5	6715 15 04535
TR 50	35	5	6715 15 05035
TR 55	35	5	6715 15 05535

Misura Size	L mm		Art.-Nr. Part-No.
TR 20	70	5	6715 15 02070
TR 25	70	5	6715 15 02570
TR 27	70	5	6715 15 02770
TR 30	70	5	6715 15 03070
TR 40	70	5	6715 15 04070
TR 45	70	5	6715 15 04570
TR 50	70	5	6715 15 05070
TR 55	70	5	6715 15 05570

Code 6716



5/16"

Inserti per viti esagonali.
Bits for inside hexagon screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 4,0	30	5	6716 15 00430
SW 5,0	30	5	6716 15 00530
SW 6,0	30	5	6716 15 00630
SW 8,0	30	5	6716 15 00830
SW 10,0	30	5	6716 15 01030

Misura Size	L mm		Art.-Nr. Part-No.
SW 4,0	70	5	6716 15 00470
SW 5,0	70	5	6716 15 00570
SW 6,0	70	5	6716 15 00670
SW 8,0	70	5	6716 15 00870

Code 6720



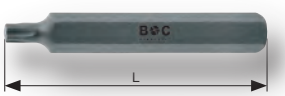
5/16"

Inserti per viti XZN zigrinate.
Bits for XZN multi-spline screws.

Misura Size	L mm		Art.-Nr. Part-No.
M 6	30	5	6720 15 00630
M 8	30	5	6720 15 00830

Misura Size	L mm		Art.-Nr. Part-No.
M 10	30	5	6720 15 01030
M 12	30	5	6720 15 01230

Code 6614



Tx 10 mm

Inserti per viti Tx.
Bits for Tx screws.

Misura Size	L mm		Art.-Nr. Part-No.
Tx 10	30	5	6614 15 01030
Tx 15	30	5	6614 15 01530
Tx 20	30	5	6614 15 02030
Tx 25	30	5	6614 15 02530
Tx 27	30	5	6614 15 02730
Tx 30	30	5	6614 15 03030
Tx 40	30	5	6614 15 04030
Tx 45	30	5	6614 15 04530
Tx 50	30	5	6614 15 05030
Tx 55	30	5	6614 15 05530

Misura Size	L mm		Art.-Nr. Part-No.
Tx 10	75	5	6614 15 01075
Tx 15	75	5	6614 15 01575
Tx 20	75	5	6614 15 02075
Tx 25	75	5	6614 15 02575
Tx 27	75	5	6614 15 02775
Tx 30	75	5	6614 15 03075
Tx 40	75	5	6614 15 04075
Tx 45	75	5	6614 15 04575
Tx 50	75	5	6614 15 05075
Tx 55	75	5	6614 15 05575

Code 6615



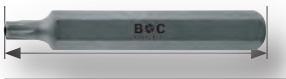
TR 10 mm

Inserti per viti Torx Tamper Resistant.
Bits with hole for Tx screws with safety-pin.

Misura Size	L mm		Art.-Nr. Part-No.
TR 10	30	5	6615 15 01030
TR 15	30	5	6615 15 01530
TR 20	30	5	6615 15 02030
TR 25	30	5	6615 15 02530
TR 27	30	5	6615 15 02730
TR 30	30	5	6615 15 03030
TR 40	30	5	6615 15 04030
TR 45	30	5	6615 15 04530
TR 50	30	5	6615 15 05030
TR 55	30	5	6615 15 05530

Misura Size	L mm		Art.-Nr. Part-No.
TR 10	75	5	6615 15 01075
TR 15	75	5	6615 15 01575
TR 20	75	5	6615 15 02075
TR 25	75	5	6615 15 02575
TR 27	75	5	6615 15 02775
TR 30	75	5	6615 15 03075
TR 40	75	5	6615 15 04075
TR 45	75	5	6615 15 04575
TR 50	75	5	6615 15 05075
TR 55	75	5	6615 15 05575

Code 6616



10 mm

Inserti per viti esagonali.
Bits for inside hexagon screws.

Misura Size	L mm		Art.-Nr. Part-No.
SW 4	30	5	6616 15 00430
SW 5	30	5	6616 15 00530
SW 6	30	5	6616 15 00630
SW 7	30	5	6616 15 00730
SW 8	30	5	6616 15 00830
SW 10	30	5	6616 15 01030
SW 12	30	5	6616 15 01230
SW 14	30	5	6616 15 01430

Misura Size	L mm		Art.-Nr. Part-No.
SW 4	75	5	6616 15 00475
SW 5	75	5	6616 15 00575
SW 6	75	5	6616 15 00675
SW 7	75	5	6616 15 00775
SW 8	75	5	6616 15 00875
SW 10	75	5	6616 15 01075
SW 12	75	5	6616 15 01275
SW 14	75	5	6616 15 01475

Code 6617



10 mm

Inserti per viti esagonali Tamper Resistant.
Bits with hole for inside hexagon screws with safety-pin.

Misura Size	L mm		Art.-Nr. Part-No.
SW 4	30	5	6617 15 00430
SW 5	30	5	6617 15 00530
SW 6	30	5	6617 15 00630
SW 7	30	5	6617 15 00730
SW 8	30	5	6617 15 00830
SW 10	30	5	6617 15 01030
SW 12	30	5	6617 15 01230

Misura Size	L mm		Art.-Nr. Part-No.
SW 4	75	5	6617 15 00475
SW 5	75	5	6617 15 00575
SW 6	75	5	6617 15 00675
SW 7	75	5	6617 15 00775
SW 8	75	5	6617 15 00875
SW 10	75	5	6617 15 01075
SW 12	75	5	6617 15 01275

Code 6620





Inserti per viti XZN zigrinate.

Bits for XZN multi-spline screws.

Misura Size	L mm		Art.-Nr. Part-No.
M 5	30	5	6620 15 00530
M 6	30	5	6620 15 00630
M 8	30	5	6620 15 00830
M 10	30	5	6620 15 01030
M 12	30	5	6620 15 01230
M 14	30	5	6620 15 01430

Misura Size	L mm		Art.-Nr. Part-No.
M 5	75	5	6620 15 00575
M 6	75	5	6620 15 00675
M 8	75	5	6620 15 00875
M 10	75	5	6620 15 01075
M 12	75	5	6620 15 01275
M 14	75	5	6620 15 01475

Code 6624





Inserti per viti Ribe.

Bits for Ribe screws.

Misura Size	L mm		Art.-Nr. Part-No.
4	30	5	6624 15 00430
5	30	5	6624 15 00530
6	30	5	6624 15 00630
7	30	5	6624 15 00730
8	30	5	6624 15 00830
9	30	5	6624 15 00930
10	30	5	6624 15 01030
12	30	5	6624 15 01230
13	30	5	6624 15 01330
14	30	5	6624 15 01430
16	30	5	6624 15 01630

Misura Size	L mm		Art.-Nr. Part-No.
4	75	5	6624 15 00475
5	75	5	6624 15 00575
6	75	5	6624 15 00675
7	75	5	6624 15 00775
8	75	5	6624 15 00875
9	75	5	6624 15 00975
10	75	5	6624 15 01075
12	75	5	6624 15 01275
13	75	5	6624 15 01375
14	75	5	6624 15 01475
16	75	5	6624 15 01675

Adattatore per inserti 10 mm
Adaptor for 10 mm bits

Code 6645



Adattatore con sfera per attacco esagonale 10 mm.

Adaptor with ball for 10 mm hexagon.

⬢	■		Art.-Nr. Part-No.
10 mm	3/8"	5	6645 15 03810
10 mm	1/2"	5	6645 15 01210

CASSETTE ED ESPOSITORI DA BANCO VUOTI
EMPTY BOXES · DRILL CABINETS









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K 13 leer


KS 6-K leer


K 170 leer

Per punte elicoidali DIN 338 / For twist drills DIN 338

Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
K 10 leer	19	Ø 1,0 – 10,0 mm x 0,5 mm	1	0081 15 20019
K 13 leer	25	Ø 1,0 – 13,0 mm x 0,5 mm	1	0081 15 20025
K 24 leer	24	Ø 1,0 – 10,5 mm x 0,5 mm + 3,3 · 4,2 · 6,8 · 10,2 mm	1	0081 15 20024
K 591 leer	51	Ø 1,0 – 6,0 mm x 0,1 mm	1	0081 15 20050
K 601 leer	41	Ø 6,0 – 10,0 mm x 0,1 mm	1	0081 15 20041
K 170 leer	170	Ø 1,0 – 10,0 mm x 0,5 mm	1	0081 15 20170



Per utensili filettati / For thread cutting tools

Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
MGB 7-K leer	7	Maschi a macchina / Machine taps DIN 371/376 · M3 – M12	1	0081 15 20007
MGB 14-K leer	14	Maschi a macchina / Machine taps DIN 371/376 · M3 – M12 + 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm, DIN 338	1	0081 15 20014
EGB 15-K leer	15	Maschi a macchina corti / Short machine taps DIN 352 · M3 – M12 + 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm, DIN 338 + Giramaschi / Tap wrench DIN 1814 Gr. 1,5	1	0081 15 20015
G 12-K leer	21	Set maschi a mano 3 pz / Hand-tap sets 3 pcs. DIN 352 · M3 – M12	1	0081 15 20021
GK 12-K leer	28	Set maschi a mano 3 pz / Hand-tap sets 3 pcs. DIN 352 · M3 – M12 + 2,5 · 3,3 · 4,2 · 5,0 · 6,8 · 8,5 · 10,2 mm, DIN 338	1	0081 15 20028



Per svasatori conici, frese a gradino e punte a gradino
For countersinks, sheet metal drills & step drills

Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
KS 5-K leer	5	Svasatori / Countersinks DIN 335 6,3 · 10,4 · 16,5 · 20,5 · 25,0 mm	1	0081 15 20005
KS 6-K leer	6	Svasatori / Countersinks DIN 335 6,3 · 8,3 · 10,4 · 12,4 · 16,5 · 20,5 mm	1	0081 15 20006
FS 6-K leer	6	Frese per sedi viti a testa cilindrica / Flat countersinks DIN 373 M3 – M10	1	0081 15 20004
B 3-K leer	3	Svasatori per lamiera / Sheet metal drills Misura / Size: 1 · 2 · 3	1	0081 15 20003
STB 3-K leer	3	Punte a gradino / Step drills Misura / Size: 1 · 2A · 3A	1	0081 15 20013



Cassette in metallo vuote
Empty metal-boxes


M 13 leer


M 170 leer



GW 12 leer

Per punte elicoidali DIN 338 / For twist drills DIN 338

Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
M 10 leer	19	Ø 1,0 – 10,0 mm x 0,5 mm	1	0080 15 20019
M 13 leer	25	Ø 1,0 – 13,0 mm x 0,5 mm	1	0080 15 20025
M 24 leer	24	Ø 1,0 – 10,5 mm x 0,5 mm + 3,3 · 4,2 · 6,8 · 10,2 mm	1	0080 15 20024
M 591 leer	50	Ø 1,0 – 5,9 mm x 0,1 mm	1	0080 15 20051
M 601 leer	41	Ø 6,0 – 10,0 mm x 0,1 mm	1	0080 15 20041
M 170 leer	170	Ø 1,0 – 10,0 mm x 0,5 mm Ø 1,0 – 8,0 mm = 10 pz / pcs. Ø 8,5 – 10,0 mm = 5 pz / pcs.	1	0080 15 21170
M 220 leer	220	Ø 1,0 – 13,0 mm x 0,5 mm + 3,3 · 4,2 mm Ø 1,0 – 8,0 mm = 10 pz / pcs. Ø 8,5 – 13,0 mm = 5 pz / pcs.	1	0080 15 20220



Per utensili filettati / For thread cutting tools

Descrizione Description	Pezzi Pieces	Contenuto Content		Art.-Nr. Part-No.
GW 12 leer	44	Set maschi a mano 3 pz / Hand-tap sets 3 pcs. DIN 352 + Filiere tonde / Circuar dies M3 – M12 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 Giramaschi / Tap wrench DIN 1814 Gr. 1 + 2 Contafiletti / Gauge Giravite / Screwdriver Pre foro / core hole drills DIN 338	1	0080 15 20044
GW 20 leer	54	Set maschi a mano 3 pz / Hand-tap sets 3 pcs. DIN 352 + Filiere tonde / Circuar dies M3 – M20 Porta filiere / Holder DIN 225 20 x 5 · 20 x 7 · 25 x 9 · 30 x 11 · 38 x 14 · 45 x 18 Giramaschi / Tap wrench DIN 1814 Gr. 1 + 3 Contafiletti / Gauge Giravite / Screwdriver	1	0080 15 20054



Espositori da banco per punte elicoidali DIN 338
Drill cabinets for twist drills DIN 338



BD 435 leer



BD 980 leer

BD 435 Proposta di contenuto / Proposal of content

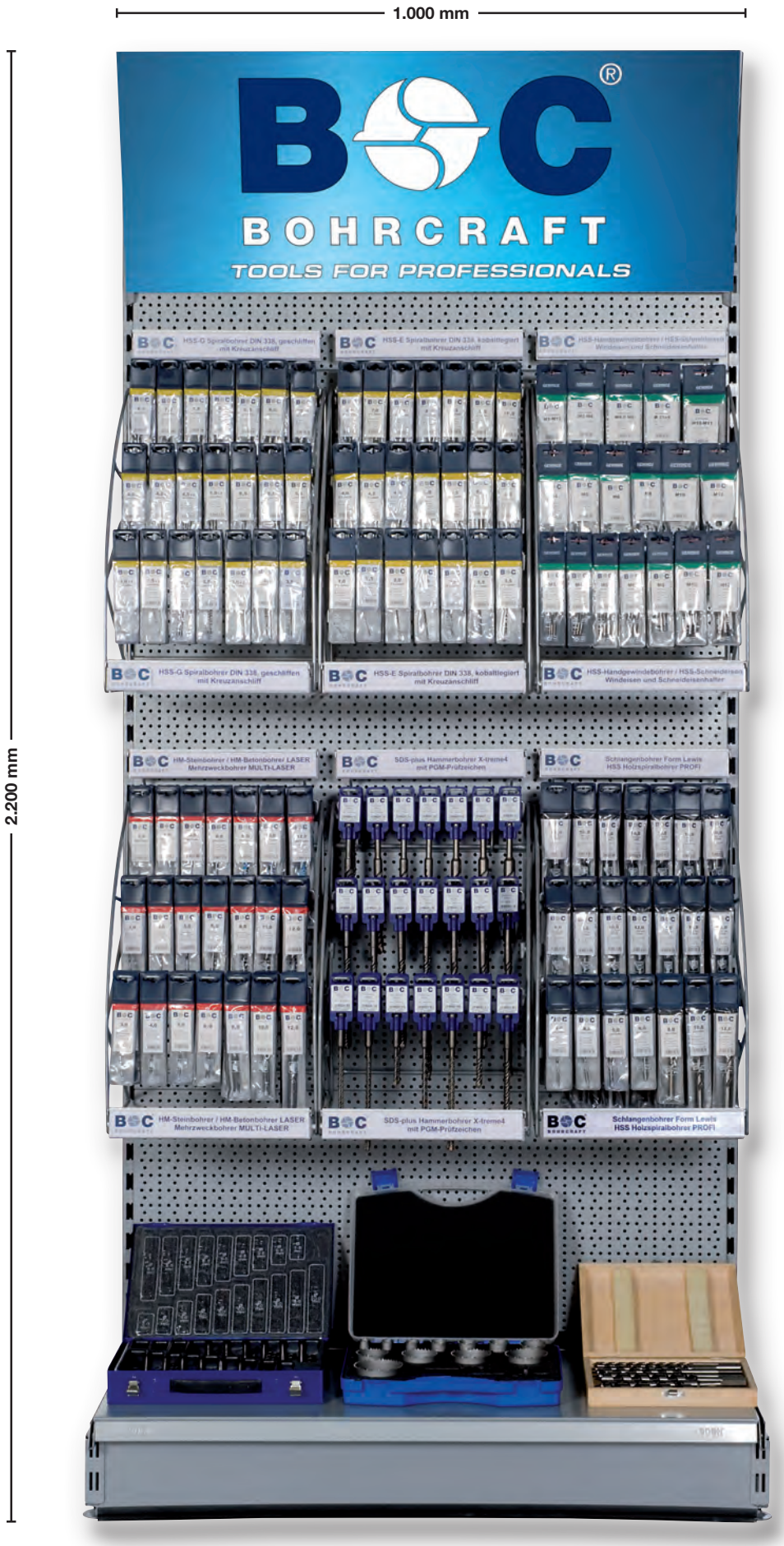
Misura Size	Quantità Quantity	Misura Size	Quantità Quantity
1,0 mm	20	7,5 mm	20
1,5 mm	20	8,0 mm	20
2,0 mm	20	8,5 mm	10
2,5 mm	20	9,0 mm	10
3,0 mm	40	9,5 mm	10
3,5 mm	20	10,0 mm	10
4,0 mm	20	10,5 mm	10
4,5 mm	20	11,0 mm	5
5,0 mm	40	11,5 mm	5
5,5 mm	20	12,0 mm	5
6,0 mm	40	12,5 mm	5
6,5 mm	20	13,0 mm	5
7,0 mm	20		

BD 980 Proposta di contenuto / Proposal of content

Misura Size	Quantità Quantity
1,0 – 2,9 x 0,1 mm	10
3,1 – 3,9 x 0,1 mm	10
4,1 – 4,9 x 0,1 mm	10
5,1 – 5,9 x 0,1 mm	10
6,1 – 10,0 x 0,1 mm	10
10,5 – 11,0 x 0,5 mm	10
3,0 mm	20
4,0 mm	20
5,0 mm	20
6,0 mm	20
11,5 – 13,0 x 0,5 mm	5

Senza punte / Without drills

Deascrizione Description	Pezzi Pieces	Contenuto Content	Dimensioni Dimension		Art.-Nr. Part-No.
BD 435 leer	435	Ø 1,0 – 13,0 mm x 0,5 mm	375 x 235 x 205 mm	1	0130 15 00003
BD 980 leer	980	Ø 1,0 – 10,0 mm x 0,1 mm Ø 10,5 – 13,0 mm x 0,5 mm	380 x 460 x 220 mm	1	0130 15 00004


1.000 mm
2.200 mm
BOHRCRAFT
TOOLS FOR PROFESSIONALS

Il sistema espositivo modulare BOHRCRAFT vi permette di creare il vostro "Centro di foratura" personalizzato, adattandolo alle vostre esigenze e ai vostri clienti.

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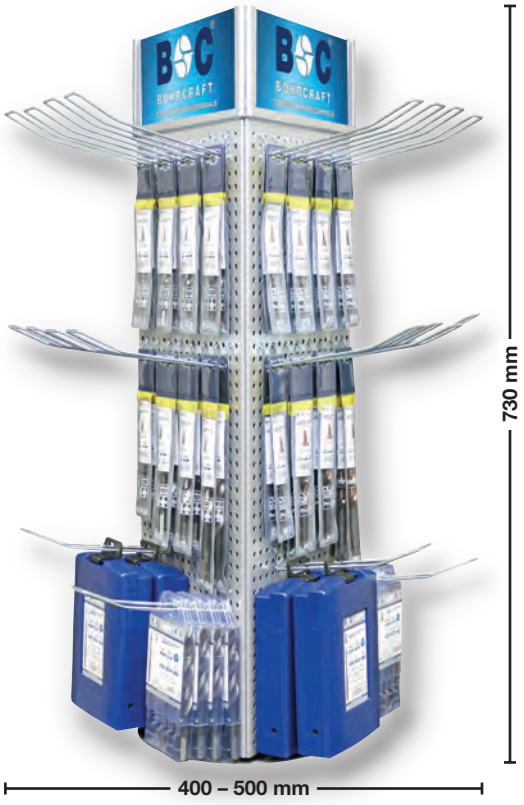
Our BOHRCRAFT modular display system allows you to put together your own ”Drill-Centre“ tailored to your personal wishes in the allocated displayspace and to suit your particular customers.

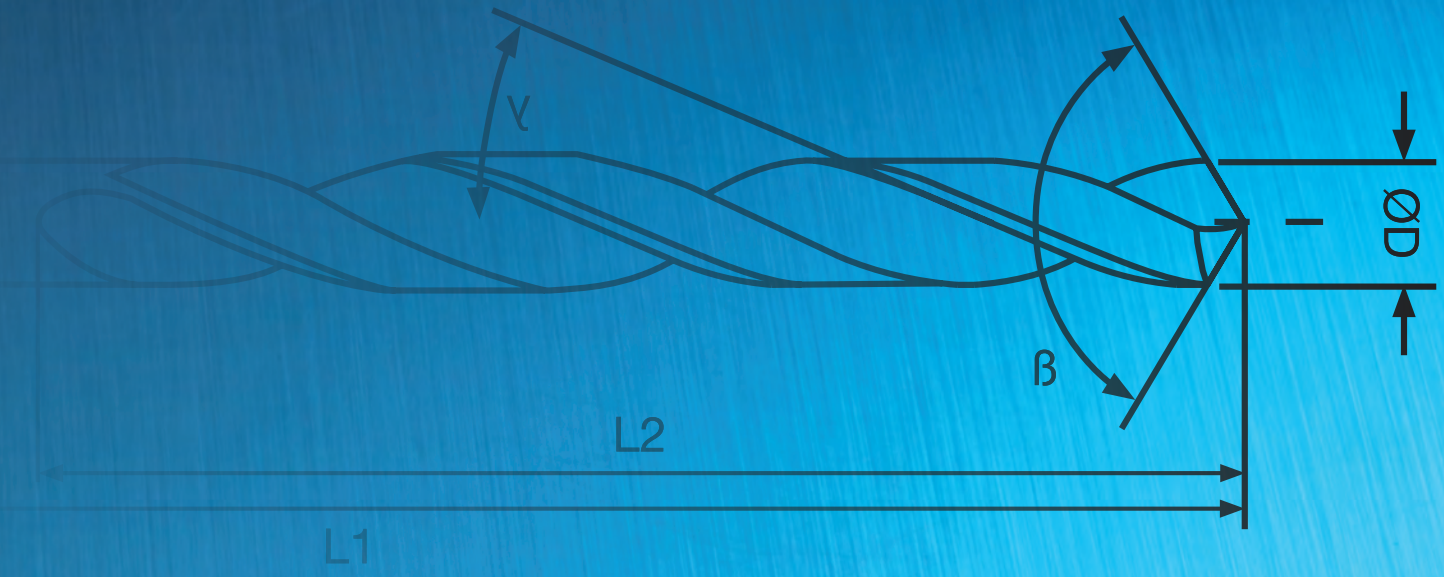
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γ
ØD
β
L2
L1



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Gruppi di materiali
Material groups

				RM	Descrizione Description	Materiale-Nr. Material-No.
		Materiali in acciaio	**Steel materials**			
P	1.1	Acciai estrusi a freddo Acciai per costruzioni Acciai a lavorabilità migliorata	Cold-extrusion steels Construction steels Free-cutting steels	≤ 600.N/mm²	Cq15 S235JR (St37-2) 10SPb20	1.1132 1.0037 1.0722
	2.1	Acciai per costruzioni Acciai per cementazione Fusioni di acciaio, ecc.	Construction steels Cementation steels Steel casting, etc.	≤ 800 N/mm²	E360 (St 70 -2) 16MnCr5 GS-25CrMo4	1.0070 1.7131 1.7218
	3.1	Acciai per cementazione Acciai trattabili termicamente Acciai per lavorazione a freddo	Cementation steels Heat-treatable steels Cold work steels	≤ 1000 N/mm²	20MoCr3 42CrMo4 102Cr6	1.7320 1.7225 1.2067
	4.1	Acciai trattabili termicamente Acciai per lavorazione a freddo Acciai per nitrurazione, ecc.	Heat-treatable steels Cold work steels Nitriding steels, etc.	≤ 1200 N/mm²	50CrMo4 X45NiCrMo4 31CrMo12	1.7228 1.2767 1.8515
	5.1	Acciai altolegati Acciai per lavorazioni a freddo Acciai per lavorazioni a caldo	High-alloyed steels Cold work steels Hot work steels	≤ 1400 N/mm²	X38CrMoV5-3 X100CrMoV8-1-1 X40CrMoV5-1	1.2367 1.2990 1.2344
		Materiali in acciaio inox	**Stainless steel materials**			
M	1.1	Ferritico, martensitico	Ferritic, martensitic	≤ 950 N/mm²	X2CrTi12	1.4512
	2.1	Austenitico	Austenitic	≤ 950 N/mm²	X6CrNiMoTi17-12-2	1.4571
	3.1	Austenitico-ferritico (Duplex)	Austenitic-ferritic (Duplex)	≤ 1100 N/mm²	X2CrNiMoN22-5-3	1.4462
	4.1	Austenitico-ferritico resistente al calore (Super Duplex)	Austenitic-ferritic heat-resistant (Super Duplex)	≤ 1250 N/mm²	X2CrNiMoN25-7-4	1.4410
		Materiali di fusione	**Cast materials**			
K	1.1 1.2	Ghisa con grafite lamellare (GJL)	Cast iron with lamellar graphite (GJL)	100-250 N/mm² 250-450 N/mm²	EN-GJL-200 (GG20) EN-GJL-300 (GG30)	EN-JL-1030 EN-JL-1050
	2.1 2.2	Ghisa con grafite nodulare (GJS)	Cast iron with nodular graphite (GJS)	350-500 N/mm² 500-900 N/mm²	EN-GJS-400-15 (GGG40) EN-GJS-700-2 (GGG70)	EN-JS-1030 EN-JS-1070
	3.1 3.2	Ghisa con grafite vermicolare (GJV)	Cast iron with vermicular graphite (GJV)	300-400 N/mm² 400-500 N/mm²	GJV 300 GJV 450	- -
	4.1 4.2	Ghisa malleabile (GTMW, GTMB)	Malleable cast iron (GTMW, GTMB)	250-500 N/mm² 500-800 N/mm²	EN-GJMW-350-4 (GTW-35) EN-GJMB-450-6 (GTS-45)	EN-JM-1010 EN-JM-1140
		Materiali non ferrosi	**Non ferrous materials**			
		Leghe di alluminio	Aluminium alloys			
N	1.1 1.2 1.3	Leghe di alluminio lavorate	Aluminium wrought alloys	≤ 200 N/mm² ≤ 350 N/mm² ≤ 550 N/mm²	EN AW-AlMn1 EN AW-AlMgSi EN AW-AlZn5Mg3Cu	EN AW-3103 EN AW-6060 EN AW-7022
	1.4 1.5 1.6	Leghe di alluminio fuse	Aluminium cast alloys	Si ≤ 7% 7% < Si ≤ 12% 12% < Si ≤ 17%	EN AC-AlMg5 EN AC-AlSi9Cu3 GD-AlSi17Cu4FeMg	EN AC-51300 EN AC-46500 -
		Leghe di rame	Copper alloys			
	2.1	Rame puro, rame a bassa lega	Pure copper, low-alloyed copper	≤ 400 N/mm²	E-Cu 57	EN CW 004 A
	2.2	Leghe di rame e zinco (Ottone, a truciolo lungo)	Copper-zinc alloys (brass, long-chipping)	≤ 550 N/mm²	CuZn37 (Ms63)	EN CW 508 L
	2.3	Leghe di rame e zinco (Ottone, a truciolo corto)	Copper-zinc alloys (brass, short-chipping)	≤ 550 N/mm²	CuZn36Pb3 (Ms58)	EN CW 603 N
	2.4	Leghe di rame e alluminio (Bronzo all'alluminio, a truciolo lungo)	Copper-aluminium alloys (alu bronze, long-chipping)	≤ 800 N/mm²	CuAl10Ni5Fe4	EN CW 307 G
	2.5	Leghe di rame e stagno (Bronzo di stagno, a truciolo lungo)	Copper-tin alloys (tin bronze, long-chipping)	≤ 700 N/mm²	CuSn8P	EN CW 307 G
	2.6	Leghe di rame e stagno (Bronzo di stagno, a truciolo corto)	Copper-tin alloys (tin bronze, short-chipping)	≤ 400 N/mm²	CuSn7 ZnPb (Rg7)	2.1090
	2.7 2.8	Leghe speciali di rame	Special copper alloys	≤ 600 N/mm² ≤ 1400 N/mm²	(AMPCO® 8) (AMPCO® 45	- -

				RM	Descrizione Description	Materiale-Nr. Material-No.
		Leghe di magnesio	Magnesium alloys			
	3.1	Leghe di magnesio lavorate	Magnesium wrought alloys	≤ 500 N/mm²	MgAl6Zn	3.5612
	3.2	Leghe di magnesio fuse	Magnesium cast alloys	≤ 500 N/mm²	EN-MCMgAl9Zn1	EN-MC21120
		Sintetici	Synthetics			
N	4.1	Duroplastiche (truciolo corto)	Duroplastics (short-chipping)	-	Bakelit, Pertinax	-
N	4.2	Thermoplastiche (truciolo lungo)	Thermoplastics (long-chipping)	-	PMMA, POM, PVC	-
N	4.3	Tessuti sintetici rinforzati con fibre (Contenuto di fibre ≤ 30%)	Fibre-reinforced synthetics (fibre content ≤ 30%)	-	GFK, CFK, AFK	-
N	4.4	Tessuti sintetici rinforzati con fibre (Contenuto di fibre > 30%)	Fibre-reinforced synthetics (fibre content > 30%)	-	GFK, CFK, AFK	-
		Materiali speciali	Special materials			
	5.1	Grafite	Graphite	-	C 8000	-
	5.2	Leghe di tungsteno-rame	Tungsten-copper alloys	-	W-Cu 80/20	-
	5.3	Materiali compositi	Composite materials	-	Hylite, Alucobond	-
		Materiali speciali	**Special materials**			
		Leghe di Titanio	Titanium alloys			
S	1.1	Titanio puro	Pure titanium	≤ 450 N/mm²	Ti1	3.7025
S	1.2	Leghe di titanio	Titanium alloys	≤ 900 N/mm²	TiAl6V4	3.7165
S	1.3			≤ 1250 N/mm²	TiAl4Mo4Sn2	3.7185
S		Leghe di nichel, leghe di cobalto e leghe di ferro	Nickel alloys, cobalt alloys and iron alloys			
S	2.1	Nichel puro	Pure nickel	≤ 600 N/mm²	Ni 99,6	2.4060
S	2.2	Leghe a base di nichel	Nickel-base alloys	≤ 1000 N/mm²	Monel 400	2.4360
S	2.3			≤ 1600 N/mm²	Inconel 718	2.4668
S	2.4	Leghe a base di cobalto	Cobalt-base alloys	≤ 1000 N/mm²	Udimet 605	-
S	2.5			≤ 1600 N/mm²	Haynes 25	2.4964
S	2.6	Leghe a base di ferro	Iron-base alloys	≤ 1500 N/mm²	Incoloy 800	1.4958
		Materiali duri	**Hard materials**			
H	1.1	Acciai ad alta resistenza, acciai temprati, fusioni dure	High strength steels, hardened steels, hard castings	44 – 50 HRC	Weldox 1100	-
H	1.2			50 – 55 HRC	Hardox 550	-
H	1.3			55 – 60 HRC	Armox 600T	-
H	1.4			60 – 63 HRC	Ferro-Titanit	-
H	1.5			63 – 66 HRC	HSSE	-

Parametri d'impiego consigliati per punte elicoidali HSS e HSS-E
Application recommendation for twist drills HSS and HSS-E

Velocità di foratura · Avanzamento · Angolo del tagliente
Cutting speeds · Feed motion · Point angles

			Tipo Type	Qualità Quality	Angolo del tagliente Point angles	Lubrificazione Lubrication	Vc m/min	Velocità rotazione media (RPM) Average rotation speed (RPM)								
								Ø 2	Ø 5	Ø 8	Ø 12	Ø 16	Ø 25	Ø 40	Ø 63	Ø 80
Materiale in acciaio / Steel material																
P	1.1	Acciaio a taglio libero fino a Free cutting steels up to 500 N/mm²	N	HSS	118°	Emulsion	30 – 50	5600 0,05	2250 0,12	1400 0,20	930 0,25	700 0,30	450 0,40	280 0,40	180 0,50	160 0,50
	1.1	Acciaio strutturale non legato Unalloyed structural steel up to 500 N/mm²	N	HSS	118°	Emulsion	30 – 40	5600 0,05	2250 0,12	1400 0,20	930 0,25	700 0,30	450 0,40	280 0,40	180 0,50	140 0,60
	2.1	Acciaio strutturale non legato fino a Unalloyed structural steel 500 – 700 N/mm²	N	HSS	118°	Emulsion	25 – 35	4750 0,05	1900 0,12	1200 0,20	800 0,25	600 0,30	400 0,35	240 0,40	150 0,50	120 0,60
	2.1	Acciaio strutturale non legato fino a Unalloyed structural steel up to 700 – 900 N/mm²	N	HSS	118°	Emulsion	10 – 15	2100 0,03	860 0,07	540 0,10	360 0,16	270 0,20	170 0,25	110 0,32	68 0,40	50 0,50
	2.1	Acciaio fuso non legato fino a/ Unalloyed cast steel up to 700 N/mm²	N	HSS	118°	Emulsion	20 – 30	3980 0,03	1580 0,07	995 0,10	665 0,16	495 0,20	320 0,25	200 0,32	125 0,40	100 0,5
	3.1	Acciaio legato fuso Alloyed cast steel	N	HSS	118°	Emulsion (Olio / Oil)	10 – 20	2380 0,02	950 0,05	595 0,08	400 0,12	300 0,14	190 0,18	120 0,23	75 0,27	60 0,2
	3.1	Acciaio legato Alloyed steel 700 – 900 N/mm²	N	HSS	118°	Emulsion	10 – 15	2100 0,02	860 0,05	540 0,08	360 0,12	270 0,14	170 0,18	110 0,23	68 0,27	50 0,32
	4.1	Acciaio legato Cr-Ni Alloyed Cr-Ni steel 900 – 1100 N/mm²	N Ti	HSS HSS-E	118° 130°	Emulsion (Olio / Oil)	8 – 12	1590 0,02	635 0,05	400 0,08	265 0,12	200 0,14	125 0,18	80 0,23	50 0,27	40 0,32
	4.1	Acciaio per molle, non rinvenuto Spring steel, untempered	N MN	HSS-E	130°	Emulsion (Olio / Oil)	5 – 10	1590 0,02	635 0,05	400 0,08	265 0,12	200 0,14	125 0,18	80 0,23	50 0,27	40 0,32
	5.1	Acciaio legato Cr-Ni-Mo Alloyed Cr-Ni-Mo steel 1100 – 1400 N/mm²	N	HSS-E	130°	Emulsion (Olio / Oil)	6 – 10	1275 0,02	505 0,05	320 0,08	210 0,12	160 0,14	100 0,18	65 0,23	40 0,27	32 0,32
	5.1	Acciaio austenitico al Mn Austenitic manganese steel > 10% Mn	N MN	HSS-E Co8	130°	Riscaldamento a secco Dry heated 200° – 300°	3 – 5	635 0,02	255 0,05	160 0,08	105 0,12	80 0,14	50 0,18	30 0,23	20 0,27	16 0,32
Materiali in acciaio inox / Stainless steel materials																
M	1.1 – 3.1	Acciaio inox Stainless steel	N	HSS-E	130°	Emulsion (Olio / Oil)	6 – 10	1275 0,02	505 0,05	320 0,08	210 0,12	160 0,14	100 0,18	65 0,23	40 0,27	32 0,32
	4.1	Acciaio resistente al calore Heat-resistant steel	N	HSS-E	130°	Emulsion (Olio / Oil)	6 – 10	1275 0,02	505 0,05	320 0,08	210 0,12	160 0,14	100 0,18	65 0,23	40 0,27	32 0,32
Materiali per fusione / Cast materials																
K	1.1	Ghisa grigia fino a Grey cast iron up to 200 HB	N	HSS	118°	Aria compressa essicata Dry com-pressed air	15 – 25	3185 0,05	1265 0,12	795 0,20	530 0,25	400 0,30	255 0,40	160 0,40	100 0,50	80 0,60
	1.2	Ghisa grigia 350 HB (ghisa in conchiglia) Grey cast iron Iron 350 HB (chilled casting)	N	HSS HSS-E	118° 130°	Aria compressa essicata Dry com-pressed air	5 – 15	1590 003	635 0,07	400 0,10	265 0,16	200 0,20	165 0,25	80 0,32	50 0,40	40 0,50
Materiali non ferrosi / Non ferrous materials																
N	1.1	Aluminium	W	HSS	130°	Emulsion	40–100	11140 0,05	4435 0,14	2785 0,18	1855 0,22	1395 0,30	890 0,40	555 0,45	350 0,50	280 0,60
	1.2 – 1.3	Leghe di Alu, truciolo lungo Aluminium alloys, long chipping	W	HSS	130°	Emulsion	30 – 65	7600 0,05	3030 0,14	1900 0,18	1260 0,22	950 0,30	600 0,40	380 0,45	240 0,50	190 0,60
	1.4 – 1.5	Leghe di Alu, truciolo corto Aluminium alloys, short chipping	N (W)	HSS	118° (130°)	Emulsion	30 – 60	7200 0,05	2900 0,14	1800 0,18	1200 0,22	900 0,30	580 0,40	360 0,45	230 0,50	180 0,60
	1.6	Leghe di Alu-Si, Silumin Al-Si alloy, silumin	W (N)	HSS	130° (118°)	Emulsion	30 – 50	6365 0,05	2535 0,08	1590 0,14	1060 0,20	795 0,25	510 0,30	320 0,40	200 0,50	160 0,60
	2.1	Rame raffinato Refined copper	W (N)	HSS	130° (118°)	Emulsion (Olio / Oil)	35 – 65	7960 0,05	3170 0,14	1990 0,18	1325 0,22	995 0,30	635 0,40	400 0,45	250 0,50	200 0,60

Velocità di foratura • Avanzamento • Angolo del tagliente
Cutting speeds · Feed motion · Point angles

			Tipo Type	Qualità Quality	Angolo del tagliente Point angles	Lubrificazione Lubrication	Vc m/min	Velocità rotazione media (RPM) Average rotation speed (RPM)								
								Ø 2	Ø 5	Ø 8	Ø 12	Ø 16	Ø 25	Ø 40	Ø 63	Ø 80
Materiali non ferrosi / Non ferrous materials																
N	2.1	Rame catodico Electrolytic copper	N	HSS	118°	Emulsion (Olio / Oil)	20 – 35	4400 0,05	1750 0,14	1100 0,18	730 0,22	550 0,30	350 0,40	220 0,45	140 0,50	110 0,60
N	2.2 – 2.3	Zinco, Leghe di Zinco Zinc, zinc alloys	N (W)	HSS	118° (130°)	Emulsion	35 – 50	6800 0,05	2700 0,14	1700 0,18	1130 0,20	850 0,25	540 0,30	340 0,40	215 0,50	170 0,60
N	2.2	Ottone resistente Brass tough Ms 60, Ms 63	H (N)	HSS	118° (118°)	Emulsion (Olio / Oil)	35 – 60	7560 0,05	3020 0,15	2000 0,20	1260 0,25	950 0,35	600 0,40	380 0,5	240 0,60	200 0,70
N	2.3	Ottone fragile Brass brittle Ms 58	H	HSS	118°	Secco / Dry Olio / Oil Emulsion	60 – 100	12740 0,08	5100 0,18	3200 0,25	2100 0,30	1600 0,35	1020 0,40	640 0,50	400 0,60	320 0,70
N	2.4	Alu-Bronzo (semiduro, duro) Aluminium bronze (semihard, hard)	N	HSS	118°	Emulsion (Olio / Oil)	15 – 35	3980 0,05	1585 0,08	995 0,14	665 0,20	495 0,25	320 0,30	200 0,40	125 0,50	100 0,60
N	2.6	Ottone rosso, Bronzo (morbido) Red brass, bronze (soft)	N	HSS	118°	Emulsion (Olio / Oil)	20 – 40	4745 0,05	1900 0,08	1195 0,14	795 0,20	595 0,25	380 0,30	240 0,40	150 0,50	120 0,60
N	2.6	Argento nichel Nickel silver	N	HSS	118°	Emulsion (Olio / Oil)	25 – 50	6000 0,05	2400 0,08	1500 0,14	995 0,20	750 0,25	480 0,30	300 0,40	190 0,50	150 0,60
N	3.1 – 3.2	Leghe di magnesio, elettrone Magnesium alloy, electron	H	HSS	118°	Secco senza acqua Dry without water	60 – 100	12740 0,08	5100 0,18	3200 0,25	2100 0,30	1600 0,35	1020 0,40	640 0,50	400 0,60	320 0,70
N	4.1	Plastica dura (termoindurete) Plastics hard (thermoset)	HK	HSS	80°	Aria compressa essicata Dry com-pressed air	10 – 20	2380 0,05	950 0,14	595 0,18	400 0,20	300 0,25	190 0,30	120 0,40	75 0,50	60 0,60
N	4.1	Laminato, carta, tessuto, legno Laminate, paper, fabric, wood	W H	HSS	130° 80°	Aria compressa essicata Dry com-pressed air	15 – 25	3185 0,05	1265 0,14	795 0,18	530 0,20	400 0,25	255 0,30	160 0,40	100 0,50	80 0,60
N	4.2	Plastica morbida (Termoplastiche) Plastics soft (thermoplastics)	W	HSS	130°	Condensa Water com-pressed air	20 – 40	4745 0,05	1900 0,14	1195 0,18	795 0,20	595 0,25	380 0,30	240 0,40	150 0,50	120 0,60
N	4.2	Plexiglas Acrylic glass	HK	HSS	80°	Acqua Water	15 – 25	3185 0,05	1265 0,14	795 0,18	530 0,20	400 0,25	255 0,30	160 0,40	100 0,50	80 0,60
N	5.1	Grafite Graphite	HK	HSS	80°	Aria compressa essicata Dry com-pressed air	3 – 6	Hand	Hand	Hand	Hand	Hand	Hand	Hand	Hand	Hand
Materiali speciali / Special materials																
S	1.1 – 1.2	Titanio e leghe di titanio Titanium & titanium alloys	N	HSS-E	130°	Olio Oil	3 – 6	715 0,02	285 0,05	180 0,08	120 0,12	90 0,14	60 0,18	35 0,23	20 0,27	16 0,32
S	2.1 – 2.2	Nickel Monel	N	HSS HSS-E	118° 130°	Emulsion (Olio / Oil)	10 – 15	2100 0,02	860 0,05	540 0,08	360 0,12	270 0,14	170 0,18	110 0,23	68 0,27	50 0,32
S	2.2 – 2.2	Nimonic, Hastelloy Inconel	N	HSS-E	130°	Olio Oil	3 – 8	875 0,02	350 0,05	220 0,08	145 0,12	110 0,14	70 0,18	44 0,23	25 0,27	20 0,32
Materiali duri / Hard materials																
H	1.2	Hardox HiTuf	HDX	HSS-E Co8	130°	Olio / Oil	~ 11	1400 0,035	700 0,06	440 0,09	270 0,14	-	-	-	-	-
H	1.2	Hardox 400 / XAR 400	HDX	HSS-E Co8	130°	Olio / Oil	~ 8	1000 0,025	510 0,05	320 0,08	200 0,13	-	-	-	-	-
H	1.2	Hardox 450 / XAR 450	HDX	HSS-E Co8	130°	Olio / Oil	~ 6	770 0,015	400 0,04	240 0,07	150 0,12	-	-	-	-	-
H	1.2	Hardox 500 / XAR 500	HDX	HSS-E Co8	130°	Olio / Oil	~ 4	500 0,005	255 0,03	160 0,06	100 0,1	-	-	-	-	-
H	1.4	Ferro-Titanit (Ferro-Tic)	V	HSS-E	130°	Aria compressa essicata Dry com-pressed air	3 – 6	715 0,02	285 0,05	180 0,08	120 0,12	90 0,14	60 0,18	35 0,23	20 0,27	16 0,32

Tabella di conversione della durezza
Hardness comparison table

N/mm²	HRC	Rockwell HRA	HRB	HRF	Vickers HV (≥ 98N)	Brinell HB 30
255	-	-	-	-	80	76
285	-	-	48	83	90	86
320	-	-	56	87	100	95
350	-	-	62	91	110	105
385	-	-	67	94	120	114
415	-	-	71	96	130	124
450	-	-	75	99	140	133
480	-	-	79	101	150	143
510	-	-	82	104	160	152
545	-	-	85	106	170	162
575	-	-	87	107	180	171
610	-	-	90	109	190	181
640	-	-	92	110	200	190
675	-	-	94	111	210	199
705	-	-	95	112	220	209
740	-	-	97	113	230	219
770	20	61	98	114	240	228
800	22	62	100	115	250	238
835	24	62	101	-	260	247
865	26	63	102	-	270	257
900	27	64	104	-	280	266
930	29	65	105	-	290	276
965	30	65	-	-	300	285
1030	32	66	-	-	320	304
1095	34	68	-	-	340	323
1155	37	69	-	-	360	342
1220	39	70	-	-	380	361
1290	41	71	-	-	400	380
1350	43	72	-	-	420	399
1420	45	73	-	-	440	418
1485	46	74	-	-	460	437
1555	48	75	-	-	480	456
1595	48	75	-	-	490	466
1665	50	76	-	-	510	485
1740	51	76	-	-	530	504
1810	52	77	-	-	550	523
1880	54	78	-	-	570	542
1955	55	78	-	-	590	561
2030	56	79	-	-	610	580
2105	57	80	-	-	630	599
2180	58	80	-	-	650	618
-	59	81	-	-	670	636
-	60	81	-	-	690	-
-	61	82	-	-	720	-
-	63	83	-	-	760	-
-	64	84	-	-	800	-
-	65	84	-	-	840	-
-	66	85	-	-	880	-



Tabella di conversione / Filetti per pollice in mm
Conversion table / Threads per inch in mm

P (Gg / 1)	mm
100	0,254000
96	0,264583
80	0,317500
72	0,352778
64	0,396875
60	0,423333
56	0,453571
48	0,529167
44	0,577273
40	0,635000
36	0,705556
32	0,793750

P (Gg / 1)	mm
28	0,907143
27	0,940741
26	0,976923
25	1,016000
24	1,058333
22	1,154545
20	1,270000
19	1,336842
19	1,336842
18	1,411111
16	1,587500
14	1,814286

P (Gg / 1)	mm
13	1,953846
12	2,116667
11,5	2,208696
11	2,309091
10	2,540000
9	2,822222
8	3,175000
7	3,628571
6	4,233333
5	5,080000
4.1/2	5,644444
4	6,350000

P (Gg / 1)	mm
3.1/2	7,257143
3.1/4	7,815385
3	8,466667
2.7/8	8,834783
2.3/4	9,236364
2.5/8	9,676190
2.1/2	10,160000
2.1/4	11,288889
2	12,700000

Inch / Inch	mm
1/32	0,794
1/16	1,588
1/8	3,175
3/16	4,763
1/4	6,350
5/16	7,938
3/8	9,525
7/16	11,113
1/2	12,700
9/16	14,288
5/8	15,875
11/16	17,463
3/4	19,050
13/16	20,638
7/8	22,225
15/16	23,813
1	25,400
1.1/16	26,988
1.1/8	28,575
1.3/16	30,163
1.1/4	31,750
1.5/16	33,338
1.3/8	34,925
1.7/16	36,513
1.1/2	38,100
1.9/16	39,688
1.5/8	41,275
1.11/16	42,863
1.3/4	44,450
1.13/16	46,038
1.7/8	47,625
1.15/16	49,213
2	50,800
2.1/16	52,388
2.1/8	53,975
2.3/16	55,563
2.1/4	57,150

Inch / Inch	mm
2.5/16	58,738
2.3/8	60,325
2.7/16	61,913
2.1/2	63,500
2.9/16	65,088
2.5/8	66,675
2.11/16	68,263
2.3/4	68,850
2.13/16	71,438
2.7/8	73,025
2.15/16	74,613
3	76,200
3.1/16	77,788
3.1/8	79,375
3.3/16	80,963
3.1/4	82,550
3.5/16	84,138
3.3/8	85,725
3.7/16	87,313
3.1/2	88,900
3.9/16	90,488
3.5/8	92,075
3.11/16	93,663
3.3/4	95,250
3.13/16	96,838
3.7/8	98,425
3.15/16	100,130
4	101,600
4.1/16	103,188
4.1/8	104,775
4.3/16	106,363
4.1/4	107,950
4.5/16	109,538
4.3/8	111,125
4.7/16	112,713
4.1/2	114,300
4.9/16	115,888

Inch / Inch	mm
4.5/8	117,475
4.11/16	119,063
4.3/4	120,650
4.13/16	122,238
4.7/8	123,825
4.15/16	125,413
5	127,000
5.1/16	128,588
5.1/8	130,175
5.3/16	131,763
5.1/4	133,350
5.5/16	134,938
5.3/8	136,525
5.7/16	138,113
5.1/2	139,700
5.9/16	141,288
5.5/8	142,875
5.11/16	144,463
5.3/4	146,050
5.13/16	147,638
5.7/8	149,225
5.15/16	150,813

G/BSP Inch / Inch	mm
G 1/8	9,728
G 1/4	13,157
G 3/8	16,662
G 1/2	20,955
G 5/8	22,911
G 3/4	26,441
G 7/8	30,201
G 1	33,249
G 1.1/8	37,897
G 1.1/4	41,910
G 1.3/8	44,323
G 1.1/2	47,803
G 1.3/4	53,746
G 2	59,614
G 2.1/4	65,710
G 2.1/2	75,184
G 2.3/4	81,534
G 3	87,884
G 3.1/4	93,980
G 3.1/2	100,330
G 3.3/4	106,680
G 4	113,030

Numero Number	mm
0	1,520
1	1,850
2	2,180
3	2,520
4	2,850
5	3,180
6	3,510
8	4,170
10	4,830
12	5,490



Panorama filettatura americana (UNC, UNF, UNEF, UN) ANSI B 1.1
Overview Unified threads (UNC, UNF, UNEF, UN) ANSI B 1.1

Filetto / Thread			Passo della filettatura, numero di filetti per pollice (Inch) Pitch, threads per inch (TPI)										
Misura Size	Nominale-Ø / Nominal-Ø		UNC	UNF	UNEF	Serie con passo costante / Constant pitch series							
	Inch (Inch)	mm				4-UN	6-UN	8-UN	12-UN	16-UN	20-UN	28-UN	32-UN
Nr. 0	0,0600	1,524	-	-	-	-	-	-	-	-	-	-	-
Nr. 1	0,0730	1,854	64	72	-	-	-	-	-	-	-	-	-
Nr. 2	0,0860	2,184	56	64	-	-	-	-	-	-	-	-	-
Nr. 3	0,0990	2,515	48	56	-	-	-	-	-	-	-	-	-
Nr. 4	0,1120	2,845	40	48	-	-	-	-	-	-	-	-	-
Nr. 5	0,1250	3,175	40	44	-	-	-	-	-	-	-	-	-
Nr. 6	0,1380	3,505	32	40	-	-	-	-	-	-	-	-	UNC
Nr. 8	0,1640	4,166	32	36	-	-	-	-	-	-	-	-	UNC
Nr. 10	0,1900	4,828	24	32	-	-	-	-	-	-	-	-	UNF
Nr. 12	0,2160	5,486	24	28	32	-	-	-	-	-	-	UNF	UNEF
1/4	0,2500	6,350	20	28	32	-	-	-	-	-	UNC	UNF	UNEF
5/16	0,3125	7,938	18	24	32	-	-	-	-	-	20	28	UNEF
3/8	0,7500	9,525	16	24	32	-	-	-	-	UNC	20	28	UNEF
7/16	0,4350	11,112	14	20	28	-	-	-	-	16	UNF	UNEF	32
1/2	0,5000	12,700	13	20	28	-	-	-	-	16	UNF	UNEF	32
9/16	0,5625	14,288	12	18	24	-	-	-	UNC	16	20	28	32
5/8	0,6250	15,875	11	18	24	-	-	-	12	16	20	28	32
11/16	0,6875	17,463	-		24	-	-	-	12	16	20	28	32
3/4	0,7500	19,050	10	16	20	-	-	-	12	UNF	UNEF	28	32
13/16	0,8125	20,638	-		20	-	-	-	12	16	UNEF	28	32
7/8	0,8750	22,225	9	14	20	-	-	-	12	16	UNEF	28	32
15/16	0,9375	23,813	-		20	-	-	-	12	16	UNEF	28	32
1	1,0000	25,400	8	12	20	-	-	UNC	UNF	16	UNEF	28	32
1.1/16	1,0625	26,988	-		18	-	-	8	12	16	20	28	-
1.1/8	1,1250	28,575	7	12	18	-	-	8	UNF	16	20	28	-
1.3/16	1,1870	30,162	-		18	-	-	8	12	16	20	28	-
1.1/4	1,2500	31,750	7	12	18	-	-	8	UNF	16	20	28	-
1.5/16	1,3125	33,338	-		18	-	-	8	12	16	20	28	-
1.3/8	1,3750	34,925	6	12	18	-	UNC	8	UNF	16	20	28	-
1.7/16	1,4375	36,512	-		18	-	6	8	12	16	20	28	-
1.1/2	1,5000	38,100	6	12	18	-	UNC	8	UNF	16	20	28	-
1.9/16	1,5620	39,688	-	-	18	-	6	8	12	16	20	-	-
1.5/8	1,6250	41,275	-	-	18	-	6	8	12	16	20	-	-
1.11/16	1,6875	42,862	-	-	18	-	6	8	12	16	20	-	-
1.3/4	1,7500	44,450	5	-	-	-	6	8	12	16	20	-	-
1.13/16	1,8125	46,038	-	-	-	-	6	8	12	16	20	-	-
1.7/8	1,8750	47,625	-	-	-	-	6	8	12	16	20	-	-
1.15/16	1,9375	49,212	-	-	-	-	6	8	12	16	20	-	-
2	2,0000	50,800	4.1/2	-	-	-	6	8	12	16	20	-	-
2.1/8	2,1250	53,975	-	-	-	-	6	8	12	16	20	-	-
2.1/4	2,2500	57,150	4.1/2	-	-	-	6	8	12	16	20	-	-
2.3/8	2,3750	60,325	-	-	-	-	6	8	12	16	20	-	-
2.1/2	2,5000	63,500	4	-	-	UNC	6	8	12	16	20	-	-
2.5/8	2,6250	66,675	-	-	-	4	6	8	12	16	20	-	-
2.3/4	2,7500	69,850	4	-	-	UNC	6	8	12	16	20	-	-
2.7/8	2,8750	73,025	-	-	-	4	6	8	12	16	20	-	-
3	3,0000	76,200	4	-	-	UNC	6	8	12	16	20	-	-
3.1/8	3,1250	79,375	-	-	-	4	6	8	12	16	-	-	-
3.1/4	3,2500	82,550	4	-	-	UNC	6	8	12	16	-	-	-
3.3/8	3,3750	85,725	-	-	-	4	6	8	12	16	-	-	-
3.1/2	3,5000	88,900	4	-	-	UNC	6	8	12	16	-	-	-
3.5/8	3,6250	92,075	-	-	-	4	6	8	12	16	-	-	-
3.3/4	3,7500	95,250	4	-	-	UNC	6	8	12	16	-	-	-
3.7/8	3,8750	98,425	-	-	-	4	6	8	12	16	-	-	-
4	4,0000	101,600	4	-	-	UNC	6	8	12	16	-	-	-

Panoramica filettatura Standard britannica BSW, BSF, BSB-Brass, BSC, WHIT
Overview British standard-threads BSW, BSF, BSB-brass, BSC, WHIT

Angolo del filetto 55° / Flank angle 55°
Designazione della dimensione nominale (0 esterno} e passo / Allocation of nominal size (outer diameter) and pitch

Filetto / Thread			Passo della filettatura, numero di filetti per pollice (Inch} Pitch, threads per inch (TPI)							
Misura Size	Nominale-Ø / Nominal-Ø		BSW	BSF	BSC	Serie con passo costante / Constant pitch series				
	Inch (Inch)	mm				BRASS BSB	12-WHIT	16-WHIT	20-WHIT	32-WHIT
1/16	0,06250	1,5875	60	-	-	-	-	-	-	-
3/32	0,09375	2,3810	48	-	-	-	-	-	-	-
1/8	0,12500	3,1750	40	-	-	-	-	-	-	-
5/32	0,15625	3,9690	32	-	-	-	-	-	-	-
3/16	0,18750	4,7630	24	32	-	-	-	-	-	-
7/32	0,21875	5,5560	24	28	-	-	-	-	-	-
1/4	0,25000	6,3500	20	26	26	-	-	-	-	32
9/32	0,28125	7,1440	20	26	-	-	-	-	-	32
5/16	0,31250	7,9380	18	22	26	26	-	-	-	32
3/8	0,37500	9,5250	16	20	26	26	-	-	-	32
7/16	0,43750	11,1120	14	18	26	26	-	-	-	-
1/2	0,50000	12,7000	12	16	(18)	26	-	-	20	-
9/16	0,56250	14,2880	12	16	20	26	-	-	20	-
5/8	0,62500	15,8750	11	14	(18)	26	-	-	20	-
11/16	0,68750	17,4630	11	14	26	26	-	16	20	-
3/4	0,75000	19,0500	10	12	(16)	26	-	16	20	-
13/16	0,81250	20,6380	10	12	-	26	-	16	20	-
7/8	0,87500	22,2250	9	11	-	26	-	16	20	-
15/16	0,93750	23,8130	9	11	-	-	12	-	20	-
1	1,00000	25,4000	8	10	24 (16)	26	12	16	20	-
1.1/16	1,06250	26,9880	-	-	-	-	12	-	20	-
1.1/8	1,12500	28,5750	7	9	-	26	12	16	20	-
1.3/16	1,18750	30,1620	-	-	-	-	12	-	20	-
1.1/4	1,25000	31,7500	7	9	-	26	12	16	20	-
1.5/16	1,31250	33,3380	-	-	-	-	12	-	20	-
1.3/8	1,37500	34,9250	6	8	-	26	12	16	20	-
1.7/16	1,43750	36,5120	-	-	-	-	12	-	20	-
1.1/2	1,50000	38,1000	6	8	14	26	12	16	20	-
1.9/16	1,56200	39,6880	-	-	-	-	-	-	-	-
1.5/8	1,62500	41,2750	5	8	-	26	12	16	20	-
1.11/16	1,68700	42,8620	-	-	-	-	-	-	-	-
1.3/4	1,75000	44,4500	5	7	-	26	12	16	20	-
1.13/16	1,81250	46,0380	-	-	-	-	-	-	-	-
1.7/8	1,87500	47,6250	4.1/2	-	-	26	12	16	20	-
1.15/16	1,93750	49,2120	-	-	-	-	-	-	-	-
2	2,93750	50,8000	4.1/2	7	14	26	12	16	20	-
2.1/8	2,12500	53,9750	-	-	-	-	-	-	-	-
2.1/4	2,25000	57,1500	4	6	-	-	-	-	-	-
2.3/8	2,37500	60,3250	-	-	-	-	-	-	-	-
2.1/2	2,50000	63,5000	4	6	-	-	-	-	-	-
2.5/8	2,62500	66,6750	-	-	-	-	-	-	-	-
2.3/4	2,75000	69,8500	3.1/2	6	-	-	-	-	-	-
2.7/8	2,87500	73,0250	-	-	-	-	-	-	-	-
3	3,00000	76,2000	3.1/2	6	-	-	-	-	-	-

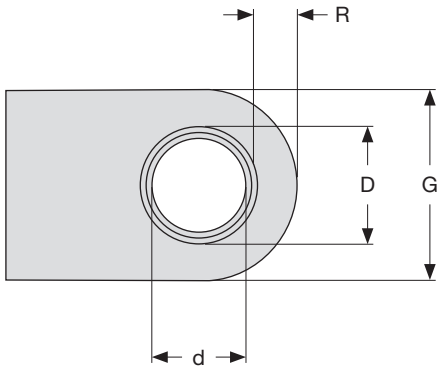


Tabella di applicazione dei filetti riportati per riparazioni
Table of application thread repair

M MF	Ø mm	Min. profondità pre-foro Min. drilling depth core hole					Lunghezza maschiatura (incl. scanalature) Tapping length (incl. chamfer)					Lunghezza inserto filettato (dopo l'installazione) Length of thread insert (installed condition)				
		1,0 x D mm	1,5 x D mm	2,0 x D mm	2,5 x D mm	3,0 x D mm	1,0 x D mm	1,5 x D mm	2,0 x D mm	2,5 x D mm	3,0 x D mm	1,0 x D mm	1,5 x D mm	2,0 x D mm	2,5 x D mm	3,0 x D mm
M 2 x 0,4	2,10	3,80	4,80	5,80	6,80	7,80	3,40	4,40	5,40	6,40	7,40	2,00	3,00	4,00	5,00	6,00
M 2,5 x 0,45	2,60	4,52	5,77	7,02	8,27	9,52	4,07	5,32	6,57	7,82	9,07	2,50	3,75	5,00	6,25	7,50
M 3 x 0,5	3,20	5,25	6,75	8,25	9,75	11,25	4,75	6,25	7,75	9,25	10,75	3,00	4,50	6,00	7,50	9,00
M 3,5 x 0,6	3,70	6,20	7,95	9,70	11,45	13,20	5,60	7,35	9,10	10,85	12,60	3,50	5,25	7,00	8,75	10,50
M 4 x 0,7	4,20	7,15	9,15	11,15	13,15	15,15	6,45	8,45	10,45	12,45	14,45	4,00	6,00	8,00	10,00	12,00
M 5 x 0,8	5,20	8,60	11,10	13,60	16,10	18,60	7,80	10,30	12,80	15,30	17,80	5,00	7,50	10,00	12,50	15,00
M 6 x 1	6,30	10,50	13,50	16,50	19,50	22,50	9,50	12,50	15,50	18,50	21,50	6,00	9,00	12,00	15,00	18,00
M 7 x 1	7,30	11,50	15,00	18,50	22,00	25,50	10,50	14,00	17,50	21,00	24,50	7,00	10,50	14,00	17,50	21,00
M 8 x 1	8,30	12,50	16,50	20,50	24,50	28,50	11,50	15,50	19,50	23,50	27,50	8,00	12,00	16,00	20,00	24,00
M 8 x 1,25	8,30	13,62	17,62	21,62	25,62	29,62	12,37	16,37	20,37	24,37	28,37	8,00	12,00	16,00	20,00	24,00
M 9 x 1,25	9,30	14,62	19,12	23,62	28,13	32,62	13,37	17,87	22,37	26,87	31,37	9,00	13,50	18,00	22,50	27,00
M 10 x 1	10,30	14,50	19,50	24,50	29,50	34,50	13,50	18,50	23,50	28,50	33,50	10,00	15,00	20,00	25,00	30,00
M 10 x 1,25	10,30	15,62	20,62	25,62	30,62	35,62	14,37	19,37	24,37	29,37	34,37	10,00	15,00	20,00	25,00	30,00
M 10 x 1,5	10,40	16,75	21,75	26,75	31,75	36,75	15,25	20,25	25,25	30,25	35,25	10,00	15,00	20,00	25,00	30,00
M 11 x 1,5	11,40	17,75	23,25	28,75	34,25	39,75	16,25	21,75	27,25	32,75	38,25	11,00	16,50	22,00	27,50	33,00
M 12 x 1,25	12,30	17,62	23,62	29,62	35,62	41,62	16,37	22,37	27,37	34,37	40,37	12,00	18,00	24,00	30,00	36,00
M 12 x 1,5	12,40	18,75	24,75	30,75	36,75	42,75	17,25	23,25	29,25	35,25	41,25	12,00	18,00	24,00	30,00	36,00
M 12 x 1,75	12,40	19,87	25,87	31,87	37,87	43,87	18,12	24,12	30,12	36,12	42,12	12,00	18,00	24,00	30,00	36,00
M 14 x 1,25	14,40	19,62	26,62	33,62	40,62	47,62	18,37	25,37	32,37	39,37	46,37	14,00	21,00	28,00	35,00	42,00
M 14 x 1,5	14,40	20,75	27,75	34,75	41,75	48,75	19,25	26,25	33,25	40,25	47,25	14,00	21,00	28,00	35,00	42,00
M 14 x 2	14,50	23,00	30,00	37,00	44,00	51,00	21,00	28,00	35,00	42,00	49,00	14,00	21,00	28,00	35,00	42,00
M 16 x 1,5	16,40	22,75	30,75	38,75	46,75	54,75	21,25	29,25	37,25	45,25	53,25	16,00	24,00	32,00	40,00	48,00
M 16 x 2	16,50	25,00	33,00	41,00	49,00	57,00	23,00	31,00	39,00	47,00	55,00	16,00	24,00	32,00	40,00	48,00
M 18 x 2	18,50	27,00	36,00	45,00	54,00	63,00	25,00	34,00	43,00	52,00	61,00	18,00	27,00	36,00	45,00	54,00
M 18 x 2,5	18,60	29,25	38,25	47,25	56,25	65,25	26,75	35,75	44,75	53,75	62,75	18,00	27,00	36,00	45,00	54,00
M 20 x 1,5	20,50	26,75	36,75	46,75	56,75	66,75	25,25	35,25	45,25	55,25	65,25	20,00	30,00	40,00	50,00	60,00
M 20 x 2	20,50	29,00	39,00	49,00	59,00	69,00	27,00	37,00	47,00	57,00	67,00	20,00	30,00	40,00	50,00	60,00
M 20 x 2,5	20,60	31,25	41,25	51,25	61,25	71,25	28,75	38,75	48,75	58,75	68,75	20,00	30,00	40,00	50,00	60,00
M 22 x 1,5	22,50	28,75	39,75	50,75	61,75	72,75	27,25	38,25	49,25	60,25	71,25	22,00	33,00	44,00	55,00	66,00
M 22 x 2	22,50	31,00	42,00	53,00	64,00	75,00	29,00	40,00	51,00	62,00	73,00	22,00	33,00	44,00	55,00	66,00
M 22 x 2,5	22,60	33,25	44,25	55,25	66,25	77,25	30,75	41,75	52,75	63,75	74,75	22,00	33,00	44,00	55,00	66,00
M 24 x 2	24,50	33,00	45,00	57,00	69,00	81,00	31,00	43,00	55,00	67,00	79,00	24,00	36,00	48,00	60,00	72,00
M 24 x 3	24,75	37,50	49,50	61,50	73,50	85,50	34,50	46,50	58,50	70,50	82,50	24,00	36,00	48,00	60,00	72,00

Spessore minimo della parete per filetti riportati secondo DIN 8140
Minimum wall thickness for wire thread inserts according DIN 8140

d = Diametro nominale del filetto di alloggiamento /
Nominal diameter of the holding thread
D = Diametro esterno del filetto ricevente /
Outside diameter of the receiving thread
R = Spessore residuo della parete / Remaining wall thickness
R (min) = 0,375 x D
G (min) = 1,75 x D



Gli spessori minimi delle pareti sono determinati esclusivamente utilizzando i rispettivi parametri. I dati operativi forniti si riferiscono a leghe fuse, di alluminio o forgiate e a una lunghezza dell'inserto filettato BOHRCRAFT pari a 1,5 x D.
The minimum wall thicknesses are determined exclusively using the respective parameters. The given operation data refer to cast, aluminum or wrought alloys and a length of the BOHRCRAFT wire thread insert of 1.5 x D.

Resistenza alla trazione del materiale Tensile strength of the parent material	Classe di proprietà della vite / Screw property class							
	4,6	5,6	6,6	6,9	9,8	10,9	12,9	14,9
< 100 N/mm²	1,5 x D	1,5 x D	2,0 x D	2,5 x D	3,0 x D	-	-	-
100 – 150 N/mm²	1,5 x D	1,5 x D	2,0 x D	2,0 x D	2,5 x D	2,5 x D	2,5 x D	3,0 x D
150 – 200 N/mm²	1,0 x D	1,5 x D	1,5 x D	1,5 x D	2,0 x D	2,0 x D	2,5 x D	2,5 x D
200 – 250 N/mm²	1,0 x D	1,0 x D	1,5 x D	1,5 x D	1,5 x D	2,0 x D	2,5 x D	2,5 x D
250 – 300 N/mm²	1,0 x D	1,0 x D	1,0 x D	1,0 x D	1,5 x D	1,5 x D	2,0 x D	2,0 x D
300 – 350 N/mm²	1,0 x D	1,0 x D	1,0 x D	1,0 x D	1,5 x D	1,5 x D	1,5 x D	2,0 x D
350 – 400 N/mm²	1,0 x D	1,0 x D	1,0 x D	1,0 x D	1,0 x D	1,5 x D	1,5 x D	1,5 x D
> 400 N/mm²	1,0 x D	1,0 x D	1,0 x D	1,0 x D	1,0 x D	1,5 x D	1,5 x D	1,5 x D

I valori indicati si riferiscono alla temperatura interna di materiali (ad esempio alluminio) con un rapporto (tensione di taglio)/ (tensione di trazione)= 0,6 - 0,7. I valori indicativi devono essere valutati in modo che la vite sia sempre la parte più debole del collegamento.
Lunghezza della filettatura: 1,5 x D = 1,5 volte il diametro nominale

The values apply at internal temperature for materials (e.g. aluminum) with a ratio of (shear stress) / (tensile stress) = 0.6 – 0.7.

The guideline values must be assessed so that the screw is always the weakest part of the connection.

Thread lenght: 1,5 x D = 1,5 times nominal diameter

Parametri d'impiego consigliati per punte a gradino
Application recommendation for step drills

Ø mm	Acciaio / Steel		Ghisa Cast iron	Leghe-CuZN CuZN-alloys		Leghe-ALU ALU-alloys	Termoplastici Thermoplastics	Termoindurenti Thermoset plastics
	non legato unalloyed	legato alloyed		resistente tough	fragile brittle			
	≤ 700 N/mm²	≤ 1.000 N/mm²	≤ 250 N/mm²			≤ 11 % Si		
	RPM • RPM							
4,0 – 12,0	800 – 2400	500 – 1600	300 – 800	1600 – 4800	900 – 2800	800 – 2400	500 – 1600	400 – 1200
4,0 – 20,0	500 – 2400	300 – 1600	200 – 800	1000 – 4800	600 – 2800	500 – 2400	300 – 1600	200 – 1200
4,0 – 30,0	300 – 2400	200 – 1600	100 – 800	600 – 4800	400 – 2800	300 – 2400	200 – 1600	200 – 1200
4,0 – 39,0	300 – 1600	200 – 1100	100 – 500	500 – 3200	300 – 1900	300 – 1600	200 – 1100	100 – 800
6,0 – 26,75	400 – 1600	200 – 1100	100 – 500	700 – 3200	400 – 1900	400 – 1600	200 – 1100	200 – 800
4,0 – 32,0	300 – 2400	200 – 1600	100 – 800	600 – 4800	300 – 2800	300 – 2400	200 – 1600	100 – 1200
6,0 – 32,0	300 – 1600	200 – 1100	100 – 500	600 – 3200	300 – 1900	300 – 1600	200 – 1100	100 – 800
5,0 – 28,0	300 – 1900	200 – 1300	100 – 600	700 – 3800	400 – 2200	300 – 1900	200 – 1300	200 – 1000
6,0 – 37,0	300 – 1600	200 – 1100	100 – 500	500 – 3200	300 – 1900	300 – 1600	200 – 1100	100 – 800
6,0 – 25,0	400 – 1600	300 – 1100	100 – 500	800 – 3200	400 – 1900	400 – 1600	300 – 1100	200 – 800
5,3 – 30,5	300 – 1800	200 – 1200	100 – 600	600 – 3600	400 – 2100	300 – 1800	200 – 1200	200 – 900
6,5 – 32,5	300 – 1500	200 – 1000	100 – 500	600 – 2900	300 – 700	300 – 1500	200 – 1000	100 – 700
5,3 – 38,5	200 – 1800	200 – 1200	100 – 600	500 – 3600	300 – 2100	200 – 1800	200 – 1200	100 – 900
6,5 – 40,5	200 – 1500	200 – 1000	100 – 500	500 – 2900	300 – 1700	200 – 1500	200 – 1000	100 – 700
6,5 – 32,5	300 – 1500	200 – 1000	100 – 500	600 – 2900	300 – 1700	300 – 1500	200 – 1000	100 – 700
12,0 – 20,0	500 – 800	300 – 500	200 – 300	600 – 1600	600 – 900	500 – 800	300 – 500	200 – 400
20,0 – 30,0	300 – 500	200 – 300	100 – 200	600 – 1000	400 – 600	300 – 500	200 – 300	200 – 200



Parametri d'impiego consigliati per svasatori per lamiera
Application recommendation for sheet metal drills

Ø mm	Acciaio / Steel		Ghisa Cast iron	Leghe CuZn CuZN-alloys		Leghe-ALU ALU-alloys	Termoplastici Thermoplastics	Termoindurenti Thermoset plastics
	non legato unalloyed	legato alloyed		resistente tough	fragile brittle			
	≤ 700 N/mm²	≤ 1.000 N/mm²	≤ 250 N/mm²			≤ 11 % Si		
	RPM • RPM							
3,0 – 14,0	3185 – 682	2123 – 455	1592 – 341	6369 – 1365	3715 – 796	3185 – 682	2123 – 455	1592 – 341
4,0 – 20,0	1911 – 478	1274 – 318	955 – 239	3822 – 955	2229 – 557	1911 – 478	1274 – 318	955 – 239
16,0 – 30,5	597 – 313	398 – 209	299 – 157	1194 – 627	697 – 365	597 – 313	398 – 209	299 – 157
24,0 – 40,0	398 – 239	265 – 159	199 – 119	796 – 478	464 – 279	398 – 239	265 – 159	199 – 119
36,0 – 50,0	265 – 191	177 – 127	133 – 96	531 – 382	310 – 223	265 – 191	177 – 127	133 – 96
40,0 – 61,0	239 – 157	159 – 104	119 – 78	478 – 313	279 – 183	239 – 157	159 – 104	119 – 78
5,0 – 25,4	1911 – 376	1274 – 251	955 – 188	3822 – 752	2229 – 439	1911 – 376	1274 – 251	955 – 188
5,0 – 31,0	1911 – 308	1274 – 205	955 – 154	3822 – 616	2229 – 360	1911 – 308	1274 – 205	955 – 154
5,0 – 22,5	1911 – 425	1274 – 283	955 – 212	3822 – 849	2229 – 495	1911 – 425	1274 – 283	955 – 212

Parametri d'impiego consigliati per svasatori
Application recommendation for countersinks

Ø mm	Acciaio / Steel		Ghisa Cast iron	Leghe-CuZN CuZN-alloys		Leghe-ALU ALU-alloys	Termoplastici Thermoplastics	Termoindurenti Thermoset plastics
	non legato unalloyed	legato alloyed		resistente tough	fragile brittle			
	≤ 700 N/mm²	≤ 1.000 N/mm²	≤ 250 N/mm²			≤ 11 % Si		
	RPM • RPM							
4,3	1296	741	667	2963	1481	1481	1111	741
5,0	1115	637	574	2548	1274	1274	955	637
5,3	1052	601	541	2404	1202	1202	901	601
5,8	961	549	494	2196	1098	1098	824	549
6,0	929	531	478	2123	1062	1062	796	531
6,3	885	506	455	2022	1011	1011	758	506
7,0	796	455	410	1820	910	910	682	455
7,3	764	436	393	1745	873	873	654	436
8,0	697	398	358	1592	796	796	597	398
8,3	672	384	346	1535	767	767	576	384
9,4	593	339	305	1355	678	678	508	339
10,0	558	318	287	1274	637	637	478	318
10,4	536	306	276	1225	612	612	459	306
11,5	485	277	250	1108	554	554	415	277
12,0	465	265	239	1062	531	531	398	265
12,4	450	257	231	1027	514	514	385	257
12,5	446	255	230	1019	510	510	382	255
13,4	416	238	214	951	475	475	356	238
15,0	372	212	191	849	425	425	318	212
16,0	349	199	179	796	398	398	299	199
16,5	338	193	174	772	386	386	290	193
19,0	293	168	151	670	335	335	251	168
20,0	279	159	143	637	318	318	239	159
20,5	272	155	140	621	311	311	233	155
23,0	243	138	125	554	277	277	208	138
25,0	223	127	115	510	255	255	191	127
26,0	215	122	110	490	245	245	184	122
28,0	199	114	103	455	227	227	171	114
30,0	186	106	96	425	212	212	159	106
31,0	180	103	93	411	205	205	154	103
31,5	177	101	91	404	202	202	152	101
34,0	164	94	85	375	187	187	141	94
37,0	151	86	78	344	172	172	129	86
40,0	139	80	72	318	159	159	119	80
50,0	112	64	58	255	127	127	96	64
63,0	89	51	46	202	101	101	76	51
80,0	70	40	36	159	80	80	60	40

Parametri d'impiego consigliati per frese rotative in MD
Application recommendation for carbide rotary burrs

Gruppi di materiali Materials group			Dentatura Toothing	Velocità di taglio Cutting speeds
Acciaio, fusioni d'acciaio Steel, cast steel	Acciaio fino a 1200 N/mm² (≤ 38 HRC) Steels up to 1,200 N/mm² (≤ 38 HRC)	Acciai da costruzione, acciai al carbonio, acciai per utensili, acciai non legati, acciai da cementazione, fusioni d'acciaio Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steel, alloyed steels	Z3-X	450 – 600 m/min
	Acciai temprati, bonificati oltre 1200 N/mm² (> 38 HRC) Hardened, heattreated steels over 1,200 N/mm² (> 38 HRC)	Acciai per utensili, acciai bonificati, acciai legati, fusioni d'acciaio Tool steels, tempering steels, alloyed steels, cast steel	Z3-X Z4 Z5	250 – 350 m/min
Acciaio inossidabile (INOX) Stainless steel	Acciai resistenti alla corrosione e agli acidi Rust and acid-resistant steels	Acciai austenitici e ferritici Austenitic and ferritic stainless steels	Z3-X Z4 Z5	250 – 350 m/min
Metalli non ferrosi Nonferrous metals	Metalli teneri non ferrosi Soft non-ferrous metals	Leghe di alluminio, ottone, rame, zinco Aluminium alloys, Brass, copper, zinc	Z-ALU	600 – 900 m/min
	Metalli duri non ferrosi Hard non-ferrous metals	Bronzo, titanio/leghe di titanio, leghe di alluminio dure (elevato contenuto in silicio) Bronze, titanium/titanium alloys, hard aluminium alloys (high Si content)	Z3-X Z4	250 – 350 m/min
	Metalli termoresistenti High-temperatureresistant materials	Leghe a base di nichel e cobalto (costruzione di propulsori e turbine) Nickel-based and cobalt-based alloys (engine and turbine construction)	Z3-X Z4 Z5	300 – 450 m/min
Ghisa Cast iron	Ghisa grigia, ghisa bianca Grey cast iron, white cast iron	Ghisa con grafite lamellare EN-GJL (GG), con grafite sferica/ghisa sfroidale EN-GJS (GGG), ghisa bianca temprata EN-GJMW (GTW), ghisa grigia temprata EN-GJMB (GTS) Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	Z3-X	450 – 600 m/min



INFORMAZIONI TECNICHE
TECHNICAL INFORMATION

Velocità di taglio per frese rotative in MD
Cutting speeds for carbide rotary burrs

Frese rotative Rotary burr Ø mm	Velocità di taglio / Cutting Speeds Vc = m/min							
	250	300	350	400	450	500	600	900
	RPM / RPM							
2	40.000	48.000	56.000	64.000	72.000	80.000	95.000	143.000
4	20.000	24.000	28.000	32.000	36.000	40.000	48.000	72.000
6	13.000	16.000	19.000	21.000	24.000	27.000	32.000	48.000
8	10.000	12.000	14.000	16.000	18.000	20.000	24.000	36.000
10	8.000	10.000	11.000	13.000	14.000	16.000	19.000	29.000
12	7.000	8.000	9.000	11.000	12.000	13.000	16.000	24.000
16	5.000	6.000	7.000	8.000	9.000	10.000	12.000	18.000
19	4.000	5.000	6.000	6.000	7.000	8.000	10.000	14.000

Nota: I numeri di giri indicati nella tabella sono validi per le frese con gambo normale. Il numero massimo di giri per le **frese con gambo lungo** vedere colonna Vc = 250 m/min.

Note: The above indicated speeds are valid for the normal shank-length. You can find the maximum recommended speed for **burrs with long shank** under column Vc = 250 m/min.

Velocità di taglio per frese rotative HSS
Cutting speeds for HSS rotary burrs

Frese rotative Rotary burr Ø mm	Vlocità di taglio / Cutting speed Vc = m/min					
	50	100	150	200	250	300
	RPM / RPM					
2	8.000	16.000	24.000	32.000	40.000	48.000
4	4.000	8.000	12.000	16.000	20.000	24.000
6	3.000	5.000	8.000	11.000	13.000	16.000
8	2.000	4.000	6.000	8.000	10.000	12.000
10	2.000	3.000	5.000	6.000	8.000	10.000
12	1.000	3.000	4.000	5.000	7.000	8.000
16	1.000	2.000	3.000	4.000	5.000	6.000

Rivestimenti disponibili
Available coatings

	Colore Colour	Multistrato Multilayer	Durezza Hardness	Spessore rivestimento Coating thickness	Temperatura di applicazione Application temperature	Attrito contro l'acciaio Friction against Steel	Raffreddamento consigliato Cooling recommended	Taglio a secco Dry cutting
TiN	giallo oro golden yellow		ca. 2.300 HV	2 – 5 µm	~ 700°	0,67	●	
TiALN	viola violet	●	ca. 3.300 HV	2 – 5 µm	~ 900°	0,37		●
TiCN	blu argento blue silver	●	ca. 3.000 HV	2 – 5 µm	~ 500°	0,38	●	
AlTiN	viola scuro dark purple		ca. 3.300 HV	2 – 5 µm	~ 800°	0,50		●
AlCro	grigio blu blue grey		ca. 3.200 HV	2 – 5 µm	~ 1.100°	0,35		●
Blue+	blu multicolore blu multicolored	●	ca. 3.000HV	2 – 5 µm	~ 700°	0,50		●
ZRN+	oro pallido pale gold	●	ca. 2.600HV	2 – 5 µm	~ 800°	0,40		●
Hardlube	grigio scuro dark grey	●	ca. 3.300 HV	3 – 5 µm	~ 800°	0,15		●
VAP	nero black		-	-	-	-	●	

Parametrid'impiego consigliati per seghe a tazza bimetalliche in HSS / HSS-E (Co8)
Application recommendation for Bi-Metal hole saws HSS / HSS-E (Co8)

Ø mm	Ø Inch / Inch	Acciaio Milled steel	Acciaio Inox Stainless steel	Fuso Cast	Ottone / rame Brass / Copper	ALU	Termo-plastiche Thermo-plastics	Termo-indurenti Thermoset plastics	Legno Wood
		RPM • RPM							
14	9/16"	580	300	400	790	900	455	341	910
16	5/8"	550	275	365	730	825	398	299	796
17	11/16"	500	250	330	665	750	375	281	749
19	3/4"	460	230	300	600	690	335	251	670
21	13/16"	425	210	280	560	630	303	227	607
22	7/8"	390	195	260	520	585	290	217	579
24	15/16"	370	185	245	495	555	265	199	531
25	1"	350	175	235	470	525	255	191	510
27	1.1/16"	325	160	215	435	480	236	177	472
29	11/8"	300	150	200	400	450	220	165	439
30	1.3/16"	285	145	190	380	425	212	159	425
32	1.1/4"	275	140	180	360	410	199	149	398
33	1.5/16"	268	135	175	345	390	193	145	386
35	1.3/8"	250	125	165	330	375	182	136	364
37	1.7/16"	240	120	160	315	360	172	129	344
38	1.1/2"	240	120	160	315	360	168	126	335
40	1.9/16"	220	110	145	290	330	159	119	318
41	1.5/8"	210	105	140	280	315	155	117	311
43	1.11/16"	205	100	135	270	305	148	111	296
44	1.3/4"	195	95	130	250	295	145	109	290
46	1.13/16"	190	95	125	250	285	138	104	277
48	1.7/8"	180	90	120	240	270	133	100	265
51	2"	170	85	115	230	255	125	94	250
52	2.1/16"	165	80	110	220	245	122	92	245
54	2.1/8"	160	80	105	210	240	118	88	236
57	2.1/4"	150	75	100	200	225	112	84	223
59	2.5/16"	145	75	100	195	225	108	81	216
60	2.3/8"	140	70	95	190	220	106	80	212
64	2.1/2"	135	65	90	180	205	100	75	199
65	2.9/16"	130	65	85	175	200	98	73	196
67	2.5/8"	130	65	85	170	195	95	71	190
68	2.11/16"	130	65	85	170	195	94	70	187
70	2.3/4"	125	60	80	160	185	91	68	182
73	2.7/8"	120	60	80	160	180	87	65	175
76	3"	115	55	75	150	170	84	63	168
79	3.1/8"	110	55	70	140	165	81	60	161
83	3.1/4"	105	50	70	140	155	77	58	153
86	3.3/8"	100	50	65	130	150	74	56	148
89	3.1/2"	95	45	65	130	145	72	54	143
92	3.5/8"	95	45	60	120	140	69	52	138
95	3.3/4"	90	45	60	120	135	67	50	134
98	3.7/8"	90	45	60	120	135	65	49	130
102	4"	85	40	55	110	130	62	47	125
105	4.1/8"	80	40	55	110	120	61	45	121
108	4.1/4"	80	40	55	110	120	59	44	118
111	4.3/8"	80	40	50	100	120	57	43	115
114	4.1/2"	75	35	50	100	105	56	42	112
121	4.3/4"	70	35	45	90	95	53	39	105
127	5"	65	30	40	85	90	50	38	100
140	5.1/2"	65	30	35	80	85	45	34	91
152	6"	55	25	35	75	85	42	31	84
160	6.1/3"	55	25	35	75	85	40	30	80
168	6.5/8"	55	25	35	75	85	38	28	76
177	7"	50	20	30	70	80	36	27	72
210	8.1/4"	45	20	30	70	80	30	23	61



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