



REAMING & COUNTERSINKING



Application recommendations for reamers

		Feed column no.						Feed f (mm/rev)
Code letter		E	F	G	H	I	J	
reamer-Ø mm	3.15	0.080	0.100	0.125	0.300	0.500	0.800	
	4.00	0.100	0.125	0.160	0.300	0.500	1.000	
	5.00	0.100	0.125	0.160	0.400	0.600	1.000	
	6.30	0.125	0.160	0.200	0.400	0.700	1.200	
	8.00	0.160	0.200	0.250	0.600	1.000	1.800	
	10.00	0.200	0.250	0.315	0.600	1.200	1.800	
	12.50	0.200	0.250	0.315	0.800	1.200	2.000	
	16.00	0.250	0.315	0.400	0.800	1.400	2.200	
	20.00	0.315	0.400	0.500	0.800	1.400	2.200	

Tools with feed column no. in bold are preferred choices for listed material group.

Diameter	Allowance of undersizes (recommended values)
< 6 mm	0.1 - 0.2 mm
< 10 mm	0.2 mm
< 16 mm	0.2 - 0.3 mm
< 25 mm	0.3 - 0.4 mm
> 25 mm	0.4 mm

- Lubricants:**
- cutting oil, highly activated, surface active lubricant with effective additives which chemically react and result in a special adhesive and abrasion reducing lubricant film.
 - soluble oil (emulsion)
 - without lubricant
 - air only

Material group	Materials examples, new designations (old designation in brackets) Figures in bold = material no. to DIN EN	Tensile strength MPa (N/mm ²)	Hardness	Coolant
General purpose steels	1.0035 S185(St33), 1.0486 P275N(StE285), 1.0345 P235GH(H1), 1.0425 P265GH(H2)	≤500		<input checked="" type="checkbox"/>
	1.0050 E295 (St50-2), 1.0070 E360 (St70-2), 1.8937 P500NH (WStE500)	>500-850		<input checked="" type="checkbox"/>
Free-cutting steels	1.0718 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		<input checked="" type="checkbox"/>
	1.0727 46S20 (45S20), 1.0728 (60S20), 1.0757 46SPb20 (45SPb20)	850-1000		<input checked="" type="checkbox"/>
Unalloyed tempering steels	1.0402 C22, 1.1178 C30E (Ck30)	≤ 700		<input checked="" type="checkbox"/>
	1.0503 C45, 1.1191 C45E (Ck45)	700-850		<input checked="" type="checkbox"/>
	1.0601 C60, 1.1221 C60E (Ck60)	850-1000		<input checked="" type="checkbox"/>
Alloyed tempering steels	1.5131 50MnSi4, 1.7003 38Cr2, 1.7030 28Cr4	850-≤1000		<input checked="" type="checkbox"/>
	1.5710 36NiCr6, 1.7035 41Cr4, 1.7225 42CrMo4	1000-1200		<input checked="" type="checkbox"/>
Unalloyed case hardened steels	1.0301 (C10), 1.1121 C10E (Ck10)	≤750		<input checked="" type="checkbox"/>
Alloyed case hardened steels	1.7043 38Cr4	850-≤1000		<input checked="" type="checkbox"/>
	1.5752 15NiCr13 (15NiCr13), 1.7131 16MnCr5, 1.7264 20CrMo5	1000-1200		<input checked="" type="checkbox"/>
Nitriding steels	1.8504 34CrAl6	≥850-≤1000		<input checked="" type="checkbox"/>
	1.8519 31CrMoV9, 1.8550 34CrAlNi7	>1000-1200		<input checked="" type="checkbox"/>
Tool steels	1.1750 C75W, 1.2067 102Cr6, 1.2307 29CrMoV9	≤850		<input checked="" type="checkbox"/>
	1.2080 X210Cr12, 1.2083 X42Cr13, 1.2419 105WCr6, 1.2767 X45NiCrMo4	>850-1000		<input checked="" type="checkbox"/>
High speed steels	1.3243 S 6-5-2-5, 1.3343 S 6-5-2, 1.3344 S 6-5-3	≥650-1000		<input checked="" type="checkbox"/>
Spring steels	1.5026 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤330 HB	<input checked="" type="checkbox"/>
Stainless steels, sulphured	1.4005 X12CrS13, 1.4104 X14CrMoS17, 1.4105 X6CrMoS17, 1.4305 X8CrNiS18-9	≤850		<input checked="" type="checkbox"/>
austenitic	1.4301 X5CrNi18-10 (V2A), 1.4541 X6CrNiTi18-10, 1.4571 X6CrNiMoTi 17-12-2 (V4A)	≤850		<input checked="" type="checkbox"/>
martensitic	1.4057 X20CrNi 17.2 (X17CrNi16-2), 1.4122 X39CrMo17-1, 1.4521 X2CrMoTi18-2	≤850		<input checked="" type="checkbox"/>
Hardened steels	-		≤40-48 HRC >48-60 HRC	<input checked="" type="checkbox"/>
Special alloys	Nimonic, Inconel, Monel, Hastelloy	≤1200		<input checked="" type="checkbox"/>
Cast iron	0.6010 EN-GJL-100(GG10), 0.6020 EN-GJL-200(GG20)		≤240 HB	<input type="checkbox"/>
	0.6025 EN-GJL-250(GG25), 0.6035 EN-GJL-350(GG35)		<300 HB	<input type="checkbox"/>
Spheroidal graphite iron and maleable cast iron	0.7050 EN-GJS-500-7(GGG50), 0.8035 EN-GJMW-350-4(GTW35)		≤240 HB	<input checked="" type="checkbox"/>
Chilled cast iron	0.7070 EN-GJS-700-2(GGG70), 0.8170 EN-GJMB-700-2(GTS70)		<300 HB	<input checked="" type="checkbox"/>
Ti and Ti-alloys	-		≤350 HB	<input checked="" type="checkbox"/>
	3.7024 Ti99,5, 3.7114 TiAl5Sn2,5, 3.7124 TiCu2	≤850		<input checked="" type="checkbox"/>
	3.7154 TiAl6Zr5, 3.7165 TiAl6V4, 3.7184 TiAl4Mo4Sn2,5, - TiAl8Mo1V1	>850-1200		<input checked="" type="checkbox"/>
Aluminium and Al-alloys	3.0255 Al99,5, 3.2315 AlMgSi1, 3.3515 AlMg1	≤400		<input checked="" type="checkbox"/>
Al wrought alloys	3.0615 AlMgSiPb, 3.1325 AlCuMg1, 3.3245 AlMg3Si, 3.4365 AlZnMgCu1,5	≤450		<input checked="" type="checkbox"/>
Al cast alloys ≤ 10 % Si	3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9	≤600		<input checked="" type="checkbox"/>
> 10 % Si	3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		<input checked="" type="checkbox"/>
Magnesium alloys	3.5200 MgMn2, 3.5812.05 G-MgAl8Zn1, 3.5612.05 G-MgAl6Zn1	≤450		<input type="checkbox"/>
Copper, low alloyed	2.0070 SE-Cu, 2.1020 CuSn6, 2.1096 G-CuSn5ZnPb	≤400		<input checked="" type="checkbox"/>
Brass, short-chipping	2.0380 CuZn39Pb2, 2.0401 CuZn39Pb3, 2.0410 CuZn43Pb2	≤600		<input checked="" type="checkbox"/>
long-chipping	2.0250 CuZn20, 2.0280 CuZn33, 2.0332 CuZn37Pb0,5	≤600		<input checked="" type="checkbox"/>
Bronze, short-chipping	2.1090 CuSn7ZnPb, 2.1170 CuPb5Sn5, 2.1176 CuPb10Sn	≤600		<input checked="" type="checkbox"/>
	2.0790 CuNi18Zn19Pb	>600-850		<input checked="" type="checkbox"/>
Bronze, long-chipping	2.0916 CuAl5, 2.0960 CuAl9Mn, 2.1050 CuSn10	≤850		<input checked="" type="checkbox"/>
	2.0980 CuAl11Ni, 2.1247 CuBe2	>850-1000		<input checked="" type="checkbox"/>
Duroplastics	Epoxy resin, Resopal, Pertinax, Moltopren		-	<input type="checkbox"/>
Thermoplastics	Plexiglass, Hostalen, Novodur, Makralon		-	<input checked="" type="checkbox"/>
Kevlar	Kevlar		-	<input type="checkbox"/>
Glass/carbon-concentr. plastics	GFK/CFK		-	<input type="checkbox"/>

SuperR-HS Reamers

Catalog no.	72870	72871
Tool material	Carbide	
Surface finish	AlTiN nano	
DIN	Stock	Stock
Form		
Page	708	708

72872	72873
Carbide	
AlTiN nano	
Stock	Stock
710	710

NC Reamers

72920	72930
Carbide	
bright	bright
Stock	Stock
712	712

Machine Reamers

72868	72867	72860	72859	72880	72881
Carbide					
bright	bright	bright	bright	bright	bright
8050	8050	8051	8051	8093	8093
A	B	A	B	A	B
716	716	720	720	718	718



V _c m/min	Feed column no.		V _c m/min	Feed column no.		V _c m/min	Feed column no.		V _c m/min	Feed column no.						
185	I-J	I-J	185	I-J	I-J	18	F	F	18	F	F	F	F	F	F	F
185	I-J	I-J	185	I-J	I-J	16	F	F	16	F	F	F	F	F	F	F
185	I-J	I-J	185	I-J	I-J	18	F	F	18	F	F	F	F	F	F	F
185	I-J	I-J	185	I-J	I-J	16	F	F	16	F	F	F	F	F	F	F
185	I-J	I-J	185	I-J	I-J	18	E	E	18	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	16	F	F	16	F	F	F	F	F	F	F
185	I-J	I-J	185	I-J	I-J	14	E	E	14	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	14	E	E	14	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	12	E	E	12	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	18	E	E	18	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	14	E	E	14	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	12	E	E	12	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	14	E	E	14	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	12	E	E	12	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	10	E	E	10	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	10	E	E	10	E	E	E	E	E	E	E
90	I-J	I-J	90	I-J	I-J											
45	G-H	G-H	45	G-H	G-H											
90	H-I	H-I	90	H-I	H-I	8	E	E	8	E	E	E	E	E	E	E
60	H-I	H-I	60	H-I	H-I	6	E	E	6	E	E	E	E	E	E	E
90	H-I	H-I	90	H-I	H-I	6	E	E	6	E	E	E	E	E	E	E
50	G-H	G-H	50	G-H	G-H											
45	G-H	G-H	45	G-H	G-H											
100	I-J	I-J	100	I-J	I-J	20	E	E	20	E	E	E	E	E	E	E
100	I-J	I-J	100	I-J	I-J	18	E	E	18	E	E	E	E	E	E	E
185	I-J	I-J	185	I-J	I-J	20	E	E	20	E	E	E	E	E	E	E
90	I-J	I-J	90	I-J	I-J	18	E	E	18	E	E	E	E	E	E	E
40	H-I	H-I	40	H-I	H-I											
60	H-I	H-I	60	H-I	H-I	10	E	E	10	E	E	E	E	E	E	E
60	H-I	H-I	60	H-I	H-I	10	E	E	10	E	E	E	E	E	E	E
						30	G	G	30	G	G	G	G	G	G	G
						30	G	G	30	G	G	G	G	G	G	G
						40	F	F	40	F	F	F	F	F	F	F
						30	F	F	30	F	F	F	F	F	F	F
120	I-J	I-J	120	I-J	I-J	25	F	F	25	F	F	F	F	F	F	F
						25	F	F	25	F	F	F	F	F	F	F
175	I-J	I-J	175	I-J	I-J	35	F	F	35	F	F	F	F	F	F	F
						30	F	F	30	F	F	F	F	F	F	F
175	I-J	I-J	175	I-J	I-J	35	F	F	35	F	F	F	F	F	F	F
175	I-J	I-J	175	I-J	I-J	30	F	F	30	F	F	F	F	F	F	F
						30	F	F	30	F	F	F	F	F	F	F
						25	F	F	25	F	F	F	F	F	F	F
140	I-J	I-J	140	I-J	I-J	20	G	G	20	G	G	G	G	G	G	G
140	I-J	I-J	140	I-J	I-J	20	G	G	20	G	G	G	G	G	G	G

Application recommendations for reamers

		Feed column no.						Feed f (mm/rev)
Code letter		E	F	G	H	I	J	
reamer-Ø mm	3.15	0.080	0.100	0.125	0.300	0.500	0.800	
	4.00	0.100	0.125	0.160	0.300	0.500	1.000	
	5.00	0.100	0.125	0.160	0.400	0.600	1.000	
	6.30	0.125	0.160	0.200	0.400	0.700	1.200	
	8.00	0.160	0.200	0.250	0.600	1.000	1.800	
	10.00	0.200	0.250	0.315	0.600	1.200	1.800	
	12.50	0.200	0.250	0.315	0.800	1.200	2.000	
	16.00	0.250	0.315	0.400	0.800	1.400	2.200	
	20.00	0.315	0.400	0.500	0.800	1.400	2.200	

Tools with feed column no. in bold are preferred choices for listed material group.

Diameter	Allowance of undersizes (recommended values)
< 6 mm	0.1 - 0.2 mm
< 10 mm	0.2 mm
< 16 mm	0.2 - 0.3 mm
< 25 mm	0.3 - 0.4 mm
> 25 mm	0.4 mm

- Lubricants:**
- cutting oil, highly activated, surface active lubricant with effective additives which chemically react and result in a special adhesive and abrasion reducing lubricant film.
 - soluble oil (emulsion)
 - without lubricant
 - air only

Material group	Materials examples, new designations (old designation in brackets) Figures in bold = material no. to DIN EN	Tensile strength MPa (N/mm ²)	Hard- ness	Coolant
General purpose steels	1.0035 S185(St33), 1.0486 P275N(StE285), 1.0345 P235GH(H1), 1.0425 P265GH(H2)	≤500		<input checked="" type="checkbox"/>
	1.0050 E295 (St50-2), 1.0070 E360 (St70-2), 1.8937 P500NH (WStE500)	>500-850		<input checked="" type="checkbox"/>
Free-cutting steels	1.0718 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		<input checked="" type="checkbox"/>
	1.0727 46S20 (45S20), 1.0728 (60S20), 1.0757 46SPb20 (45SPb20)	850-1000		<input checked="" type="checkbox"/>
Unalloyed tempering steels	1.0402 C22, 1.1178 C30E (Ck30)	≤ 700		<input checked="" type="checkbox"/>
	1.0503 C45, 1.1191 C45E (Ck45)	700-850		<input checked="" type="checkbox"/>
	1.0601 C60, 1.1221 C60E (Ck60)	850-1000		<input checked="" type="checkbox"/>
Alloyed tempering steels	1.5131 50MnSi4, 1.7003 38Cr2, 1.7030 28Cr4	850-≤1000		<input checked="" type="checkbox"/>
	1.5710 36NiCr6, 1.7035 41Cr4, 1.7225 42CrMo4	1000-1200		<input checked="" type="checkbox"/>
Unalloyed case hardened steels	1.0301 (C10), 1.1121 C10E (Ck10)	≤750		<input checked="" type="checkbox"/>
Alloyed case hardened steels	1.7043 38Cr4	850-≤1000		<input checked="" type="checkbox"/>
	1.5752 15NiCr13 (15NiCr13), 1.7131 16MnCr5, 1.7264 20CrMo5	1000-1200		<input checked="" type="checkbox"/>
Nitriding steels	1.8504 34CrAl6	≥850-≤1000		<input checked="" type="checkbox"/>
	1.8519 31CrMoV9, 1.8550 34CrAlNi7	>1000-1200		<input checked="" type="checkbox"/>
Tool steels	1.1750 C75W, 1.2067 102Cr6, 1.2307 29CrMoV9	≤850		<input checked="" type="checkbox"/>
	1.2080 X210Cr12, 1.2083 X42Cr13, 1.2419 105WCr6, 1.2767 X45NiCrMo4	>850-1000		<input checked="" type="checkbox"/>
High speed steels	1.3243 S 6-5-2-5, 1.3343 S 6-5-2, 1.3344 S 6-5-3	≥650-1000		<input checked="" type="checkbox"/>
Spring steels	1.5026 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤330 HB	<input checked="" type="checkbox"/>
Stainless steels, sulphured	1.4005 X12CrS13, 1.4104 X14CrMoS17, 1.4105 X6CrMoS17, 1.4305 X8CrNiS18-9	≤850		<input checked="" type="checkbox"/>
austenitic	1.4301 X5CrNi18-10 (V2A), 1.4541 X6CrNiTi18-10, 1.4571 X6CrNiMoTi 17-12-2 (V4A)	≤850		<input checked="" type="checkbox"/>
martensitic	1.4057 X20CrNi 17.2 (X17CrNi16-2), 1.4122 X39CrMo17-1, 1.4521 X2CrMoTi18-2	≤850		<input checked="" type="checkbox"/>
Hardened steels	-		≤40-48 HRC >48-60 HRC	<input checked="" type="checkbox"/>
Special alloys	Nimonic, Inconel, Monel, Hastelloy	≤1200		<input checked="" type="checkbox"/>
Cast iron	0.6010 EN-GJL-100(GG10), 0.6020 EN-GJL-200(GG20)		≤240 HB	<input checked="" type="checkbox"/>
	0.6025 EN-GJL-250(GG25), 0.6035 EN-GJL-350(GG35)		<300 HB	<input checked="" type="checkbox"/>
Spheroidal graphite iron and maleable cast iron	0.7050 EN-GJS-500-7(GGG50), 0.8035 EN-GJMW-350-4(GTW35)		≤240 HB	<input checked="" type="checkbox"/>
Chilled cast iron	0.7070 EN-GJS-700-2(GGG70), 0.8170 EN-GJMB-700-2(GTS70)		<300 HB	<input checked="" type="checkbox"/>
Ti and Ti-alloys	-		≤350 HB	<input checked="" type="checkbox"/>
	3.7024 Ti99,5, 3.7114 TiAl5Sn2,5, 3.7124 TiCu2	≤850		<input checked="" type="checkbox"/>
	3.7154 TiAl6Zr5, 3.7165 TiAl6V4, 3.7184 TiAl4Mo4Sn2,5, - TiAl8Mo1V1	>850-1200		<input checked="" type="checkbox"/>
Aluminium and Al-alloys	3.0255 Al99,5, 3.2315 AlMgSi1, 3.3515 AlMg1	≤400		<input checked="" type="checkbox"/>
Al wrought alloys	3.0615 AlMgSiPb, 3.1325 AlCuMg1, 3.3245 AlMg3Si, 3.4365 AlZnMgCu1,5	≤450		<input checked="" type="checkbox"/>
Al cast alloys ≤ 10 % Si	3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9	≤600		<input checked="" type="checkbox"/>
> 10 % Si	3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		<input checked="" type="checkbox"/>
Magnesium alloys	3.5200 MgMn2, 3.5812.05 G-MgAl8Zn1, 3.5612.05 G-MgAl6Zn1	≤450		<input checked="" type="checkbox"/>
Copper, low alloyed	2.0070 SE-Cu, 2.1020 CuSn6, 2.1096 G-CuSn5ZnPb	≤400		<input checked="" type="checkbox"/>
Brass, short-chipping	2.0380 CuZn39Pb2, 2.0401 CuZn39Pb3, 2.0410 CuZn43Pb2	≤600		<input checked="" type="checkbox"/>
long-chipping	2.0250 CuZn20, 2.0280 CuZn33, 2.0332 CuZn37Pb0,5	≤600		<input checked="" type="checkbox"/>
Bronze, short-chipping	2.1090 CuSn7ZnPb, 2.1170 CuPb5Sn5, 2.1176 CuPb10Sn	≤600		<input checked="" type="checkbox"/>
	2.0790 CuNi18Zn19Pb	>600-850		<input checked="" type="checkbox"/>
Bronze, long-chipping	2.0916 CuAl5, 2.0960 CuAl9Mn, 2.1050 CuSn10	≤850		<input checked="" type="checkbox"/>
	2.0980 CuAl11Ni, 2.1247 CuBe2	>850-1000		<input checked="" type="checkbox"/>
Duroplastics	Epoxy resin, Resopal, Pertinax, Moltopren		-	<input type="checkbox"/>
Thermoplastics	Plexiglass, Hostalen, Novodur, Makralon		-	<input checked="" type="checkbox"/>
Kevlar	Kevlar		-	<input type="checkbox"/>
Glass/carbon-concentr. plastics	GFK/CFK		-	<input type="checkbox"/>

Machine bridge ream. Reamers

NC Machine Reamers

Taper pin Reamers

Machine Reamers

Quick spiral Reamers

Catalog no.	72680
Tool material	HSS
Surface finish	nitrided
DIN	311
Form	
Page	736

72900	72910
HSS-E	
bright	bright
Stock std.	Stock std.
A	A
722	722

72741	72742
HSS-E	
bright	bright
Stock std.	Stock std.
A	A
737	738

72640	72654	72650	72660	72670
HSS-E				
bright	bright	bright	bright	bright
212	212	212	208	208
C	B/D	D	A	B
729	726	731	733	733

72690
HSS-E
bright
212
E
735



V _c m/min	Feed col. no.	V _c m/min	Feed column no.		V _c m/min	Feed column no.			V _c m/min	Feed column no.					V _c m/min	Feed col. no.
14	F	16	F	F	8	F	F		16	F	F	F	F	F	16	G
12	F	12	F	F	8	F	F		12	F	F	F	F	F	12	G
10	F	10	E	E	8	F	F		10	E	E	E	E	E	12	G
10	E	14	F	F	8	E	E		14	F	F	F	F	F	14	G
8	E	12	E	E	8	E	E		12	E	E	E	E	E	12	G
6	E	10	E	E	8	E	E		10	E	E	E	E	E		
12	F	8	E	E	8	E	E		8	E	E	E	E	E	16	G
6	E	16	F	F	8	E	E		16	F	F	F	F	F		
8	E	10	E	E	6	E	E		10	E	E	E	E	E		
12	E	8	E	E	6	E	E		8	E	E	E	E	E		
8	E	10	E	E	6	E	E		10	E	E	E	E	E		
		8	E	E					8	E	E	E	E	E	10	G
		14	F	F	6	E	E		14	F	F	F	F	F		
		10	E	E	6	E	E		10	E	E	E	E	E		
		10	E	E					10	E	E	E	E	E		
5	E	6	F	F	6	E	E		6	F	F	F	F	F		
4	E	6	F	F	6	E	E		6	F	F	F	F	F		
		4	F	F	6	E	E		4	F	F	F	F	F		
12	E	14	E	E	6	E	E		14	E	E	E	E	E		
12	E	12	E	E	6	E	E		12	E	E	E	E	E		
10	E	12	E	E	6	E	E		12	E	E	E	E	E		
		10	E	E	6	E	E		10	E	E	E	E	E		
4	E	6	E	E	6	E	E		6	E	E	E	E	E	5	E
3	E	4	E	E	6	E	E		4	E	E	E	E	E		
		18	G	G	6	E	E		18	G	G	G	G	G	22	G
18	G	18	G	G	8	G	G		18	G	G	G	G	G	22	G
18	G	20	F	F	8	G	G		20	F	F	F	F	F	20	G
		18	F	F	8	G	G		18	F	F	F	F	F		
18	G	20	F	F	8	G	G		20	F	F	F	F	F	16	G
16	F	18	F	F	8	F	F		18	F	F	F	F	F		
		18	F	F	8	F	F		18	F	F	F	F	F		
16	F	16	F	F	8	F	F		16	F	F	F	F	F	18	G
20	E	20	F	F	8	F	F		20	F	F	F	F	F		
		18	F	F	8	F	F		18	F	F	F	F	F		
16	F	18	F	F	8	F	F		18	F	F	F	F	F		
14	F	14	F	F	8	F	F		14	F	F	F	F	F		
10	F	12	G	G	8	F	F		12	G	G	G	G	G	12	G
		14	G	G	8	F	F		14	G	G	G	G	G	14	G

Carbide reamers

Solid carbide high performance reamers

Catalog no. 72870



STC high-performance reamers with axial coolant for operating in blind holes. The straight fluted SuperR-HS-S with extreme unequal pitch can be used in nearly all materials also with interrupted cut or with instabile machine-conditions.

The STC high-performance reamers SuperR-HS-S allows highest cutting-parameters and gains high-quality holes. Therefore considerable savings of the processing-costs are possible. Ensures also high process-security.

With cylindrical shank tol. h6 for clamping in hydraulic or shrink fit chucks.

Stock std.

Tool material	Solid Carbide
Surface	AlTiN nano
Type	SuperR-HS-S
Form	
Cutting direction	right-hand
Tolerance on Ø	H7
Flutes	straight

straight shank-tol. h6 for usage in hydraulic chucks or shrinking chucks

Solid carbide high performance reamers

Catalog no. 72871



STC high-performance reamers with axial coolant for operating in through holes. The straight fluted SuperR-HS-D with extreme unequal pitch can be used in nearly all materials also with interrupted cut or with instabile machine-conditions.

The STC high-performance reamers SuperR-HS-D allows highest cutting-parameters and gains high-quality holes. Therefore considerable savings of the processing-costs are possible. Ensures also high process-security.

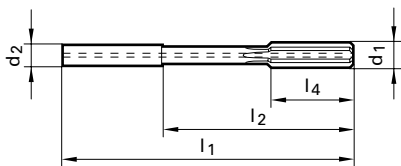
With cylindrical shank tol. h6 for clamping in hydraulic or shrink fit chucks.

Stock std.

Tool material	Solid Carbide
Surface	AlTiN nano
Type	SuperR-HS-D
Form	
Cutting direction	right-hand
Tolerance on Ø	H7
Flutes	straight

straight shank-tol. h6 for usage in hydraulic chucks or shrinking chucks

Solid carbide high performance reamers



Catalog no.	72870	72871
Tool material	Solid Carbide	
Discount group	166	166
Surface	AlTiN nano	AlTiN nano
Form		

d1	d2	l1	l2	l4	Z	price per piece	
mm	mm	mm	mm	mm			
3.000	4.000	68.00	40.00	12.00	4	●	●
3.500	4.000	68.00	40.00	12.00	4	●	●
4.000	4.000	68.00	40.00	12.00	4	●	●
4.500	6.000	76.00	40.00	12.00	4	●	●
5.000	6.000	76.00	40.00	12.00	4	●	●
5.500	6.000	76.00	40.00	12.00	4	●	●
6.000	6.000	76.00	40.00	12.00	4	●	●
6.500	8.000	101.00	65.00	16.00	6	●	●
7.000	8.000	101.00	65.00	16.00	6	●	●
7.500	8.000	101.00	65.00	16.00	6	●	●
8.000	8.000	101.00	65.00	16.00	6	●	●
8.500	10.000	101.00	61.00	19.00	6	●	●
9.000	10.000	101.00	61.00	19.00	6	●	●
9.500	10.000	101.00	61.00	19.00	6	●	●
10.000	10.000	101.00	61.00	19.00	6	●	●
10.500	12.000	130.00	85.00	19.00	6	●	●
11.000	12.000	130.00	85.00	19.00	6	●	●
11.500	12.000	130.00	85.00	19.00	6	●	●
12.000	12.000	130.00	85.00	19.00	6	●	●
13.000	14.000	130.00	85.00	22.00	6	●	●
14.000	14.000	130.00	85.00	22.00	6	●	●
15.000	16.000	150.00	102.00	22.00	6	●	●
16.000	16.000	150.00	102.00	22.00	6	●	●
17.000	18.000	150.00	102.00	25.00	6	●	●
18.000	18.000	150.00	102.00	25.00	6	●	●
19.000	20.000	150.00	100.00	25.00	6	●	●
20.000	20.000	150.00	100.00	25.00	6	●	●

Carbide reamers

Solid carbide high performance reamers

Catalog no. 72872



STC high-performance reamers with axial coolant for operating in blind holes. The straight fluted SuperR-HS-S with extreme unequal pitch can be used in nearly all materials also with interrupted cut or with instabile machine-conditions.

The STC high-performance reamers SuperR-HS-S allows highest cutting-parameters and gains high-quality holes. Therefore considerable savings of the processing-costs are possible. Ensures also high process-security.

With cylindrical shank tol. h6 for clamping in hydraulic or shrink fit chucks.

Stock std.

Tool material	Solid Carbide
Surface	AlTiN nano
Type	SuperR-HS-S
Form	
Cutting direction	right-hand
Tolerance on Ø	+0,005
Flutes	straight

Solid carbide high performance reamers

Catalog no. 72873



STC high-performance reamers with axial coolant for operating in through holes. The straight fluted SuperR-HS-D with extreme unequal pitch can be used in nearly all materials also with interrupted cut or with instabile machine-conditions.

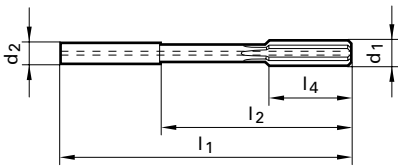
The STC high-performance reamers SuperR-HS-D allows highest cutting-parameters and gains high-quality holes. Therefore considerable savings of the processing-costs are possible. Ensures also high process-security.

With cylindrical shank tol. h6 for clamping in hydraulic or shrink fit chucks.

Stock std.

Tool material	Solid Carbide
Surface	AlTiN nano
Type	SuperR-HS-D
Form	
Cutting direction	right-hand
Tolerance on Ø	+0,005
Flutes	straight

Solid carbide high performance reamers



Catalog no.	72872	72873
Tool material	Solid Carbide	
Discount group	166	166
Surface	AlTiN nano	AlTiN nano
Form		

d1	d2	l1	l2	l4	Z	price per piece	
mm	mm	mm	mm	mm			
2.970	4.000	68.00	40.00	12.00	4	●	●
2.980	4.000	68.00	40.00	12.00	4	●	●
2.990	4.000	68.00	40.00	12.00	4	●	●
3.000	4.000	68.00	40.00	12.00	4	●	●
3.010	4.000	68.00	40.00	12.00	4	●	●
3.020	4.000	68.00	40.00	12.00	4	●	●
3.030	4.000	68.00	40.00	12.00	4	●	●
3.970	4.000	68.00	40.00	12.00	4	●	●
3.980	4.000	68.00	40.00	12.00	4	●	●
3.990	4.000	68.00	40.00	12.00	4	●	●
4.000	4.000	68.00	40.00	12.00	4	●	●
4.010	4.000	68.00	40.00	12.00	4	●	●
4.020	4.000	68.00	40.00	12.00	4	●	●
4.030	4.000	68.00	40.00	12.00	4	●	●
4.970	6.000	76.00	40.00	12.00	4	●	●
4.980	6.000	76.00	40.00	12.00	4	●	●
4.990	6.000	76.00	40.00	12.00	4	●	●
5.000	6.000	76.00	40.00	12.00	4	●	●
5.010	6.000	76.00	40.00	12.00	4	●	●
5.020	6.000	76.00	40.00	12.00	4	●	●
5.030	6.000	76.00	40.00	12.00	4	●	●
5.970	6.000	76.00	40.00	12.00	4	●	●
5.980	6.000	76.00	40.00	12.00	4	●	●
5.990	6.000	76.00	40.00	12.00	4	●	●
6.000	6.000	76.00	40.00	12.00	4	●	●
6.010	6.000	76.00	40.00	12.00	4	●	●
6.020	6.000	76.00	40.00	12.00	4	●	●
6.030	6.000	76.00	40.00	12.00	4	●	●
7.000	8.000	101.00	65.00	16.00	6	●	●
7.970	8.000	101.00	65.00	16.00	6	●	●
7.980	8.000	101.00	65.00	16.00	6	●	●
7.990	8.000	101.00	65.00	16.00	6	●	●
8.000	8.000	101.00	65.00	16.00	6	●	●
8.010	8.000	101.00	65.00	16.00	6	●	●
8.020	8.000	101.00	65.00	16.00	6	●	●
8.030	8.000	101.00	65.00	16.00	6	●	●
9.000	10.000	101.00	61.00	19.00	6	●	●
9.970	10.000	101.00	61.00	19.00	6	●	●
9.980	10.000	101.00	61.00	19.00	6	●	●
9.990	10.000	101.00	61.00	19.00	6	●	●
10.000	10.000	101.00	61.00	19.00	6	●	●
10.010	10.000	101.00	61.00	19.00	6	●	●
10.020	10.000	101.00	61.00	19.00	6	●	●
10.030	10.000	101.00	61.00	19.00	6	●	●
11.000	12.000	130.00	85.00	19.00	6	●	●
11.970	12.000	130.00	85.00	19.00	6	●	●
11.980	12.000	130.00	85.00	19.00	6	●	●
11.990	12.000	130.00	85.00	19.00	6	●	●
12.000	12.000	130.00	85.00	19.00	6	●	●
12.010	12.000	130.00	85.00	19.00	6	●	●
12.020	12.000	130.00	85.00	19.00	6	●	●
12.030	12.000	130.00	85.00	19.00	6	●	●