

DISCOVER OUR

DRILLING



Drilling

NOMENCLATURE

CROMSON «DRILL»

CUTTING FLUID

0 - External
1 - Internal

CRDR-HP-C2105-0300-Cr85

APPLICATIONS

G- General
HP- High Performance
AC- Accuracy
SF- Surface Finish
SP- Spot Drill

TOOL TYPE

C1000- EFFICIENCY
C2100- CROMINOX
C3100- MINIATURE
C4100- CROMSTEEL
C5100- CONCENTRICITY (Double margin)
C6100- HIGH PRECISION QUALITY
C7100- DRILL & REAM (Triple margin)
C8100- CROMALU
C9100- HIGH PERFORMANCE

COATING

Cr10- Uncoated
Cr15- AlTiN
Cr65- TiAlN
Cr85- TiAlN+

Summary application chart-Drilling

Work Material	Hardness Rockwell (HRc) Hardness Brinnel (BHN) Tensile Strength (N/mm2)			Series #		
	HRc	BHN	N/mm2	EFFICIENCY C1100 C1000	CROMINOX C2100	MINIATURE C3100
	Non-alloy steel, cast steel 1018, 1108, 1161, 12L14, 1522, 1572	up to 8 up to 15 over 15	up to 178 up to 205 over 205	up to 600 up to 700 over 700		
Alloyed steel 5132, 4130, 8620, 4340, 5140, 6150 Stainless steel 410, 416	up to 27 up to 31 over 31	up to 266 up to 297 over 297	up to 900 up to 1000 over 1000			
Stainless steel moderate 17-4PH, 15-5PH, 316L						
Stainless and acid resistant steel (Cr-Ni-Alloys) 304, 316, 17CrNi16-2						
Cast iron, grey cast iron alloy GG10-GG40, A48	up to 14 up to 24 over 24	up to 200 up to 250 over 2050	up to 680 up to 850 over 850			
Spheroidal graphite cast iron, cast iron with vermicular graphite, malleable iron GGG40. GGG80	up to 8 over 8	up to 178 over 178	up to 600 over 650			
Aluminum (Si content >10%) 6061, 2025, 208, 360						
Aluminum (Si content <10%) 413, 385, A390						
Copper, brass, bronze beryllium copper, naval brass, AMPCO						
Titanium alloy TiAl4V						
High temperature alloy Inconel, haynes, waspaloy, hastelloy						
Chilled cast iron	38-48	350-450	1173-1527			
Hardened steel 50-60 HRc	50-55 56-60 61-65		1614-1870			



Highly recommended

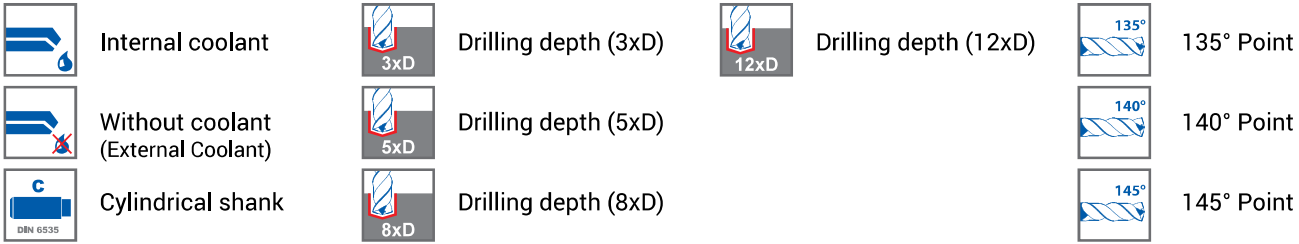


Suitable for some applications



Series #					
CROMSTEEL C4100	CONCENTRICITY C5100	HIGH PRECISION C6100	DRILLREAM C7100	CROMALU C8100	HIGH PERFORMANCE C9100

Explanation of Drilling symbols



GENERAL INFORMATION REGARDING THE CATALOG

d1 = Tool diameter (metric / imperial)

l1 = Overall length

l3 = Cutting length (maximum drilling)

d2 = Shank diameter

l2 = Groove length

l4 = Shank length

Grades chart & Drilling application

CROMSON offers a variety of coatings upon special request to meet the demands of every customer's needs and application. Through extensive testing, research and real world applications, CROMSON has worked to develop a full range of high performance coatings, available to our customers. These coating options allow us to address a multitude of situations with optimal results.







Please refer to the chart below for the various coatings available.

CROMSON GRADE

	Cr10	Cr15	Cr65	Cr85	CrXX
Proprietary	Uncoated	AlTiN	TiAlN	TiAlN+	DLC
Coating process		PVD	PVD	PVD	
Layer structure		Nano structure	Nano structure	Nano structure	
Hardness (HV)		3300	3300	3300	
Coefficient of friction (fetting)		0.30-0.35	0.20	0.25	
Thermal stability (C)		900	600	900	
General Information		Excellent thermal and chemical resistance allows for dry cutting and improvements in performance of carbide drills. High hardness of the coating gives great protection against abrasive wear and erosion.	CROMSON Cr65 coating processed further to help reduce the coefficient of friction even further. For extremely difficult drilling applications with a high tendency for material adhesion and built-up edge.	Offers all the advantages of TiAlN with a reduced coefficient of friction. Therefore ideal coating for drills: excellent chip removal and reduced cutting forces.	Available on request (SPECIAL)

HIGH PERFORMANCE C9000 SERIES

- ⊙ Our new HIGH PERFORMANCE carbide drill bits are offered in a revolutionary new cutting edge geometry including three (3) variable pitch guide chamfers
- ⊙ This technology significantly prevents vibration and friction
- ⊙ The chip evacuation tip is highly polished and guarantees optimal drainage
- ⊙ These features paired with our new guide geometry and a grade of extra strong carbide are the perfect match for cutting steel, stainless steel and cast iron to produce a drilling operation with improvements of more than 30% compared to conventional geometries
- ⊙ This new HIGH PERFORMANCE product line can drill steel, stainless steel and cast iron with outstanding performance in diameters ranging from 3.00-20.00 mm, and depths of 3xD, 5xD and 8xD standard

Work Material	Hardness Rockwell (HRc) Hardness Brinnel (BHN) Tensile Strength (N/mm2)			C9100
	HRc	BHN	N/mm2	
Non-alloy steel, cast steel 1018, 1108, 1161, 12L14, 1522, 1572	up to 8 up to 15 - over 15	up to 178 up to 205 - over 205	up to 600 up to 700 - over 700	
Alloyed steel 5132, 4130, 8620, 4340, 5140, 6150 Stainless steel 410, 416	up to 27 up to 31 - over 31	up to 266 up to 297 - over 297	up to 900 up to 1000 - over 1000	
Stainless steel moderate 17-4PH, 15-5PH, 316L				
Stainless and acid resistant steel (Cr-Ni-Alloys) 304, 316, 17CrNi16-2				
Titanium alloy TiAl4V				
High temperature alloy inconel, haynes, waspaloy, hastelloy				



Highly recommended



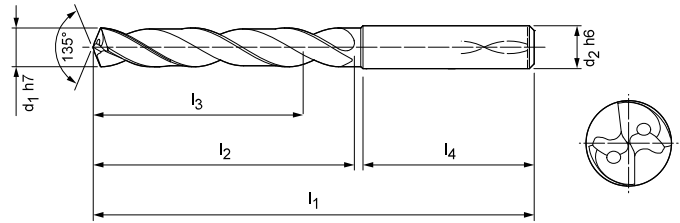
Suitable for some applications.

CARBIDE DRILL

TECHNICAL DETAILS

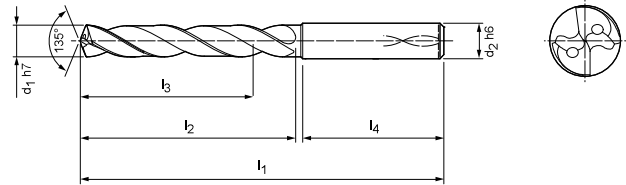
Tool Diameter Range 0.1181-0.7874 in
3.00-20.00 mm

Bore tolerance IT9 (achievable)
Shank form Cyl.
Number of flutes 2
Number of margins 3
Point geometry Special point
Point angle 135°
Helix angle 30°
Coolant Internal



EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75106930	CRDR G-C9103-0300 Cr65	3.000	0.1181	6	20	62	36	Cr65	2
75106935	CRDR G-C9103-0310 Cr65	3.100	0.1220	6	20	62	36	Cr65	2
75106940	CRDR G-C9103-0320 Cr65	3.200	0.1260	6	20	62	36	Cr65	2
75106945	CRDR G-C9103-0330 Cr65	3.300	0.1299	6	20	62	36	Cr65	2
75106950	CRDR G-C9103-0340 Cr65	3.400	0.1339	6	20	62	36	Cr65	2
75106955	CRDR G-C9103-0350 Cr65	3.500	0.1378	6	20	62	36	Cr65	2
75106960	CRDR G-C9103-0360 Cr65	3.600	0.1417	6	20	62	36	Cr65	2
75106965	CRDR G-C9103-0370 Cr65	3.700	0.1457	6	20	62	36	Cr65	2
75106970	CRDR G-C9103-0380 Cr65	3.800	0.1496	6	24	66	36	Cr65	2
75106975	CRDR G-C9103-0390 Cr65	3.900	0.1535	6	24	66	36	Cr65	2
75106980	CRDR G-C9103-0400 Cr65	4.000	0.1575	6	24	66	36	Cr65	2
75106985	CRDR G-C9103-0410 Cr65	4.100	0.1614	6	24	66	36	Cr65	2
75106990	CRDR G-C9103-0420 Cr65	4.200	0.1654	6	24	66	36	Cr65	2
75106995	CRDR G-C9103-0430 Cr65	4.300	0.1693	6	24	66	36	Cr65	2
75107000	CRDR G-C9103-0440 Cr65	4.400	0.1732	6	24	66	36	Cr65	2
75107005	CRDR G-C9103-0450 Cr65	4.500	0.1772	6	24	66	36	Cr65	2
75107010	CRDR G-C9103-0460 Cr65	4.600	0.1811	6	24	66	36	Cr65	2
75107015	CRDR G-C9103-0465 Cr65	4.650	0.1831	6	24	66	36	Cr65	2
75107020	CRDR G-C9103-0470 Cr65	4.700	0.1850	6	24	66	36	Cr65	2
75107025	CRDR G-C9103-0480 Cr65	4.800	0.1890	6	28	66	36	Cr65	2
75107030	CRDR G-C9103-0490 Cr65	4.900	0.1929	6	28	66	36	Cr65	2
75107035	CRDR G-C9103-0500 Cr65	5.000	0.1969	6	28	66	36	Cr65	2
75107040	CRDR G-C9103-0510 Cr65	5.100	0.2008	6	28	66	36	Cr65	2
75107045	CRDR G-C9103-0520 Cr65	5.200	0.2047	6	28	66	36	Cr65	2
75107050	CRDR G-C9103-0530 Cr65	5.300	0.2087	6	28	66	36	Cr65	2
75107055	CRDR G-C9103-0540 Cr65	5.400	0.2126	6	28	66	36	Cr65	2
75107060	CRDR G-C9103-0550 Cr65	5.500	0.2165	6	28	66	36	Cr65	2
75107065	CRDR G-C9103-0555 Cr65	5.550	0.2185	6	28	66	36	Cr65	2
75107070	CRDR G-C9103-0560 Cr65	5.600	0.2205	6	28	66	36	Cr65	2
75107075	CRDR G-C9103-0570 Cr65	5.700	0.2244	6	28	66	36	Cr65	2
75107080	CRDR G-C9103-0580 Cr65	5.800	0.2283	6	28	66	36	Cr65	2

EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75107085	CRDR G-C9103-0590 Cr65	5.900	0.2323	6	28	66	36	Cr65	2
75107090	CRDR G-C9103-0600 Cr65	6.000	0.2362	6	28	66	36	Cr65	2
75107095	CRDR G-C9103-0610 Cr65	6.100	0.2402	8	34	79	36	Cr65	2
75107100	CRDR G-C9103-0620 Cr65	6.200	0.2441	8	34	79	36	Cr65	2
75107105	CRDR G-C9103-0630 Cr65	6.300	0.2480	8	34	79	36	Cr65	2
75107110	CRDR G-C9103-0640 Cr65	6.400	0.2520	8	34	79	36	Cr65	2
75107115	CRDR G-C9103-0650 Cr65	6.500	0.2559	8	34	79	36	Cr65	2
75107120	CRDR G-C9103-0660 Cr65	6.600	0.2598	8	34	79	36	Cr65	2
75107125	CRDR G-C9103-0670 Cr65	6.700	0.2638	8	34	79	36	Cr65	2
75107130	CRDR G-C9103-0680 Cr65	6.800	0.2677	8	34	79	36	Cr65	2
75107135	CRDR G-C9103-0690 Cr65	6.900	0.2717	8	34	79	36	Cr65	2
75107140	CRDR G-C9103-0700 Cr65	7.000	0.2756	8	34	79	36	Cr65	2
75107145	CRDR G-C9103-0710 Cr65	7.100	0.2795	8	41	79	36	Cr65	2
75107150	CRDR G-C9103-0720 Cr65	7.200	0.2835	8	41	79	36	Cr65	2
75107155	CRDR G-C9103-0730 Cr65	7.300	0.2874	8	41	79	36	Cr65	2
75107160	CRDR G-C9103-0740 Cr65	7.400	0.2913	8	41	79	36	Cr65	2
75107165	CRDR G-C9103-0750 Cr65	7.500	0.2953	8	41	79	36	Cr65	2
75107170	CRDR G-C9103-0760 Cr65	7.600	0.2992	8	41	79	36	Cr65	2
75107175	CRDR G-C9103-0770 Cr65	7.700	0.3031	8	41	79	36	Cr65	2
75107180	CRDR G-C9103-0780 Cr65	7.800	0.3071	8	41	79	36	Cr65	2
75107185	CRDR G-C9103-0790 Cr65	7.900	0.3110	8	41	79	36	Cr65	2
75107190	CRDR G-C9103-0800 Cr65	8.000	0.3150	8	41	79	36	Cr65	2
75107195	CRDR G-C9103-0810 Cr65	8.100	0.3189	10	47	89	40	Cr65	2
75107200	CRDR G-C9103-0820 Cr65	8.200	0.3228	10	47	89	40	Cr65	2
75107205	CRDR G-C9103-0830 Cr65	8.300	0.3268	10	47	89	40	Cr65	2
75107210	CRDR G-C9103-0840 Cr65	8.400	0.3307	10	47	89	40	Cr65	2
75107215	CRDR G-C9103-0850 Cr65	8.500	0.3346	10	47	89	40	Cr65	2
75107220	CRDR G-C9103-0860 Cr65	8.600	0.3386	10	47	89	40	Cr65	2
75107225	CRDR G-C9103-0870 Cr65	8.700	0.3425	10	47	89	40	Cr65	2
75107230	CRDR G-C9103-0880 Cr65	8.800	0.3465	10	47	89	40	Cr65	2
75107235	CRDR G-C9103-0890 Cr65	8.900	0.3504	10	47	89	40	Cr65	2
75107240	CRDR G-C9103-0900 Cr65	9.000	0.3543	10	47	89	40	Cr65	2
75107245	CRDR G-C9103-0910 Cr65	9.100	0.3583	10	47	89	40	Cr65	2
75107250	CRDR G-C9103-0920 Cr65	9.200	0.3622	10	47	89	40	Cr65	2
75107255	CRDR G-C9103-0930 Cr65	9.300	0.3661	10	47	89	40	Cr65	2
75107260	CRDR G-C9103-0940 Cr65	9.400	0.3701	10	47	89	40	Cr65	2
75107265	CRDR G-C9103-0950 Cr65	9.500	0.3740	10	47	89	40	Cr65	2
75107270	CRDR G-C9103-0960 Cr65	9.600	0.3780	10	47	89	40	Cr65	2
75107275	CRDR G-C9103-0970 Cr65	9.700	0.3819	10	47	89	40	Cr65	2
75107280	CRDR G-C9103-0980 Cr65	9.800	0.3858	10	47	89	40	Cr65	2
75107285	CRDR G-C9103-0990 Cr65	9.900	0.3898	10	47	89	40	Cr65	2
75107290	CRDR G-C9103-1000 Cr65	10.000	0.3937	10	47	89	40	Cr65	2
75107295	CRDR G-C9103-1010 Cr65	10.100	0.3976	12	55	102	45	Cr65	2
75107300	CRDR G-C9103-1020 Cr65	10.200	0.4016	12	55	102	45	Cr65	2
75107305	CRDR G-C9103-1030 Cr65	10.300	0.4055	12	55	102	45	Cr65	2
75107310	CRDR G-C9103-1040 Cr65	10.400	0.4094	12	55	102	45	Cr65	2
75107315	CRDR G-C9103-1050 Cr65	10.500	0.4134	12	55	102	45	Cr65	2
75107320	CRDR G-C9103-1060 Cr65	10.600	0.4173	12	55	102	45	Cr65	2
75107325	CRDR G-C9103-1070 Cr65	10.700	0.4213	12	55	102	45	Cr65	2



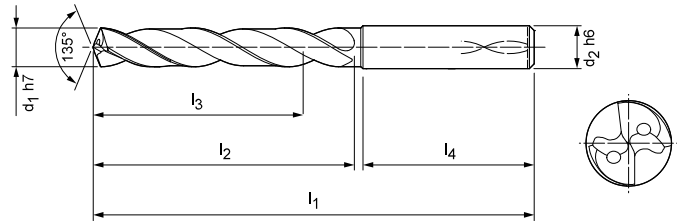
EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75107330	CRDR G-C9103-1080 Cr65	10.800	0.4252	12	55	102	45	Cr65	2
75107335	CRDR G-C9103-1090 Cr65	10.900	0.4291	12	55	102	45	Cr65	2
75107340	CRDR G-C9103-1100 Cr65	11.000	0.4331	12	55	102	45	Cr65	2
75107345	CRDR G-C9103-1110 Cr65	11.100	0.4370	12	55	102	45	Cr65	2
75107350	CRDR G-C9103-1120 Cr65	11.200	0.4409	12	55	102	45	Cr65	2
75107355	CRDR G-C9103-1130 Cr65	11.300	0.4449	12	55	102	45	Cr65	2
75107360	CRDR G-C9103-1140 Cr65	11.400	0.4488	12	55	102	45	Cr65	2
75107365	CRDR G-C9103-1150 Cr65	11.500	0.4528	12	55	102	45	Cr65	2
75107370	CRDR G-C9103-1160 Cr65	11.600	0.4567	12	55	102	45	Cr65	2
75107375	CRDR G-C9103-1170 Cr65	11.700	0.4606	12	55	102	45	Cr65	2
75107380	CRDR G-C9103-1180 Cr65	11.800	0.4646	12	55	102	45	Cr65	2
75107385	CRDR G-C9103-1190 Cr65	11.900	0.4685	12	55	102	45	Cr65	2
75107390	CRDR G-C9103-1200 Cr65	12.000	0.4724	12	55	102	45	Cr65	2
75107395	CRDR G-C9103-1250 Cr65	12.500	0.4921	14	60	107	45	Cr65	2
75107400	CRDR G-C9103-1280 Cr65	12.800	0.5039	14	60	107	45	Cr65	2
75107405	CRDR G-C9103-1300 Cr65	13.000	0.5118	14	60	107	45	Cr65	2
75107410	CRDR G-C9103-1350 Cr65	13.500	0.5315	14	60	107	45	Cr65	2
75107415	CRDR G-C9103-1380 Cr65	13.800	0.5433	14	60	107	45	Cr65	2
75107420	CRDR G-C9103-1400 Cr65	14.000	0.5512	14	60	107	45	Cr65	2
75107425	CRDR G-C9103-1450 Cr65	14.500	0.5709	16	65	115	48	Cr65	2
75107430	CRDR G-C9103-1480 Cr65	14.800	0.5827	16	65	115	48	Cr65	2
75107435	CRDR G-C9103-1500 Cr65	15.000	0.5906	16	65	115	48	Cr65	2
75107440	CRDR G-C9103-1550 Cr65	15.500	0.6102	16	65	115	48	Cr65	2
75107445	CRDR G-C9103-1580 Cr65	15.800	0.6220	16	65	115	48	Cr65	2
75107450	CRDR G-C9103-1600 Cr65	16.000	0.6299	16	65	115	48	Cr65	2
75107455	CRDR G-C9103-1650 Cr65	16.500	0.6496	18	73	123	48	Cr65	2
75107460	CRDR G-C9103-1680 Cr65	16.800	0.6614	18	73	123	48	Cr65	2
75107465	CRDR G-C9103-1700 Cr65	17.000	0.6693	18	73	123	48	Cr65	2
75107470	CRDR G-C9103-1750 Cr65	17.500	0.6890	18	73	123	48	Cr65	2
75107475	CRDR G-C9103-1780 Cr65	17.800	0.7008	18	73	123	48	Cr65	2
75107480	CRDR G-C9103-1800 Cr65	18.000	0.7087	18	73	123	48	Cr65	2
75107485	CRDR G-C9103-1850 Cr65	18.500	0.7283	20	79	131	50	Cr65	2
75107490	CRDR G-C9103-1880 Cr65	18.800	0.7402	20	79	131	50	Cr65	2
75107495	CRDR G-C9103-1900 Cr65	19.000	0.7480	20	79	131	50	Cr65	2
75107500	CRDR G-C9103-1950 Cr65	19.500	0.7677	20	79	131	50	Cr65	2
75107505	CRDR G-C9103-1980 Cr65	19.800	0.7795	20	79	131	50	Cr65	2
75107510	CRDR G-C9103-2000 Cr65	20.000	0.7874	20	79	131	50	Cr65	2

CARBIDE DRILL

TECHNICAL DETAILS

Tool Diameter Range 0.1181-0.7874 in
3.00-20.00 mm

Bore tolerance IT10 (achievable)
Shank form Cyl.
Number of flute 2
Number of margins 3
Point geometry Special point
Point angle 135°
Helix angle 30°
Coolant Internal



EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75107515	CRDR G-C9105-0300 Cr65	3.000	0.1181	6	28	66	36	Cr65	2
75107520	CRDR G-C9105-0310 Cr65	3.100	0.1220	6	28	66	36	Cr65	2
75107525	CRDR G-C9105-0320 Cr65	3.200	0.1260	6	28	66	36	Cr65	2
75107530	CRDR G-C9105-0330 Cr65	3.300	0.1299	6	28	66	36	Cr65	2
75107535	CRDR G-C9105-0340 Cr65	3.400	0.1339	6	28	66	36	Cr65	2
75107540	CRDR G-C9105-0350 Cr65	3.500	0.1378	6	28	66	36	Cr65	2
75107545	CRDR G-C9105-0360 Cr65	3.600	0.1417	6	28	66	36	Cr65	2
75107550	CRDR G-C9105-0370 Cr65	3.700	0.1457	6	28	66	36	Cr65	2
75107555	CRDR G-C9105-0380 Cr65	3.800	0.1496	6	36	74	36	Cr65	2
75107560	CRDR G-C9105-0390 Cr65	3.900	0.1535	6	36	74	36	Cr65	2
75107565	CRDR G-C9105-0400 Cr65	4.000	0.1575	6	36	74	36	Cr65	2
75107570	CRDR G-C9105-0410 Cr65	4.100	0.1614	6	36	74	36	Cr65	2
75107575	CRDR G-C9105-0420 Cr65	4.200	0.1654	6	36	74	36	Cr65	2
75107580	CRDR G-C9105-0430 Cr65	4.300	0.1693	6	36	74	36	Cr65	2
75107585	CRDR G-C9105-0440 Cr65	4.400	0.1732	6	36	74	36	Cr65	2
75107590	CRDR G-C9105-0450 Cr65	4.500	0.1772	6	36	74	36	Cr65	2
75107595	CRDR G-C9105-0460 Cr65	4.600	0.1811	6	36	74	36	Cr65	2
75107600	CRDR G-C9105-0465 Cr65	4.650	0.1831	6	36	74	36	Cr65	2
75107605	CRDR G-C9105-0470 Cr65	4.700	0.1850	6	36	74	36	Cr65	2
75107610	CRDR G-C9105-0480 Cr65	4.800	0.1890	6	44	82	36	Cr65	2
75107615	CRDR G-C9105-0490 Cr65	4.900	0.1929	6	44	82	36	Cr65	2
75107620	CRDR G-C9105-0500 Cr65	5.000	0.1969	6	44	82	36	Cr65	2
75107625	CRDR G-C9105-0510 Cr65	5.100	0.2008	6	44	82	36	Cr65	2
75107630	CRDR G-C9105-0520 Cr65	5.200	0.2047	6	44	82	36	Cr65	2
75107635	CRDR G-C9105-0530 Cr65	5.300	0.2087	6	44	82	36	Cr65	2
75107640	CRDR G-C9105-0540 Cr65	5.400	0.2126	6	44	82	36	Cr65	2
75107645	CRDR G-C9105-0550 Cr65	5.500	0.2165	6	44	82	36	Cr65	2
75107650	CRDR G-C9105-0555 Cr65	5.550	0.2185	6	44	82	36	Cr65	2
75107655	CRDR G-C9105-0560 Cr65	5.600	0.2205	6	44	82	36	Cr65	2
75107660	CRDR G-C9105-0570 Cr65	5.700	0.2244	6	44	82	36	Cr65	2
75107665	CRDR G-C9105-0580 Cr65	5.800	0.2283	6	44	82	36	Cr65	2

EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75107670	CRDR G-C9105-0590 Cr65	5.900	0.2323	6	44	82	36	Cr65	2
75107675	CRDR G-C9105-0600 Cr65	6.000	0.2362	6	44	82	36	Cr65	2
75107680	CRDR G-C9105-0610 Cr65	6.100	0.2402	8	53	91	36	Cr65	2
75107685	CRDR G-C9105-0620 Cr65	6.200	0.2441	8	53	91	36	Cr65	2
75107690	CRDR G-C9105-0630 Cr65	6.300	0.2480	8	53	91	36	Cr65	2
75107695	CRDR G-C9105-0640 Cr65	6.400	0.2520	8	53	91	36	Cr65	2
75107700	CRDR G-C9105-0650 Cr65	6.500	0.2559	8	53	91	36	Cr65	2
75107705	CRDR G-C9105-0660 Cr65	6.600	0.2598	8	53	91	36	Cr65	2
75107710	CRDR G-C9105-0670 Cr65	6.700	0.2638	8	53	91	36	Cr65	2
75107715	CRDR G-C9105-0680 Cr65	6.800	0.2677	8	53	91	36	Cr65	2
75107720	CRDR G-C9105-0690 Cr65	6.900	0.2717	8	53	91	36	Cr65	2
75107725	CRDR G-C9105-0700 Cr65	7.000	0.2756	8	53	91	36	Cr65	2
75107730	CRDR G-C9105-0710 Cr65	7.100	0.2795	8	53	91	36	Cr65	2
75107735	CRDR G-C9105-0720 Cr65	7.200	0.2835	8	53	91	36	Cr65	2
75107740	CRDR G-C9105-0730 Cr65	7.300	0.2874	8	53	91	36	Cr65	2
75107745	CRDR G-C9105-0740 Cr65	7.400	0.2913	8	53	91	36	Cr65	2
75107750	CRDR G-C9105-0750 Cr65	7.500	0.2953	8	53	91	36	Cr65	2
75107755	CRDR G-C9105-0760 Cr65	7.600	0.2992	8	53	91	36	Cr65	2
75107760	CRDR G-C9105-0770 Cr65	7.700	0.3031	8	53	91	36	Cr65	2
75107765	CRDR G-C9105-0780 Cr65	7.800	0.3071	8	53	91	36	Cr65	2
75107770	CRDR G-C9105-0790 Cr65	7.900	0.3110	8	53	91	36	Cr65	2
75107775	CRDR G-C9105-0800 Cr65	8.000	0.3150	8	53	91	36	Cr65	2
75107780	CRDR G-C9105-0810 Cr65	8.100	0.3189	10	61	103	40	Cr65	2
75107785	CRDR G-C9105-0820 Cr65	8.200	0.3228	10	61	103	40	Cr65	2
75107790	CRDR G-C9105-0830 Cr65	8.300	0.3268	10	61	103	40	Cr65	2
75107795	CRDR G-C9105-0840 Cr65	8.400	0.3307	10	61	103	40	Cr65	2
75107800	CRDR G-C9105-0850 Cr65	8.500	0.3346	10	61	103	40	Cr65	2
75107805	CRDR G-C9105-0860 Cr65	8.600	0.3386	10	61	103	40	Cr65	2
75107810	CRDR G-C9105-0870 Cr65	8.700	0.3425	10	61	103	40	Cr65	2
75107815	CRDR G-C9105-0880 Cr65	8.800	0.3465	10	61	103	40	Cr65	2
75107820	CRDR G-C9105-0890 Cr65	8.900	0.3504	10	61	103	40	Cr65	2
75107825	CRDR G-C9105-0900 Cr65	9.000	0.3543	10	61	103	40	Cr65	2
75107830	CRDR G-C9105-0910 Cr65	9.100	0.3583	10	61	103	40	Cr65	2
75107835	CRDR G-C9105-0920 Cr65	9.200	0.3622	10	61	103	40	Cr65	2
75107840	CRDR G-C9105-0930 Cr65	9.300	0.3661	10	61	103	40	Cr65	2
75107845	CRDR G-C9105-0940 Cr65	9.400	0.3701	10	61	103	40	Cr65	2
75107850	CRDR G-C9105-0950 Cr65	9.500	0.3740	10	61	103	40	Cr65	2
75107855	CRDR G-C9105-0960 Cr65	9.600	0.3780	10	61	103	40	Cr65	2
75107860	CRDR G-C9105-0970 Cr65	9.700	0.3819	10	61	103	40	Cr65	2
75107865	CRDR G-C9105-0980 Cr65	9.800	0.3858	10	61	103	40	Cr65	2
75107870	CRDR G-C9105-0990 Cr65	9.900	0.3898	10	61	103	40	Cr65	2
75107875	CRDR G-C9105-1000 Cr65	10.000	0.3937	10	61	103	40	Cr65	2
75107880	CRDR G-C9105-1010 Cr65	10.100	0.3976	12	71	118	45	Cr65	2
75107885	CRDR G-C9105-1020 Cr65	10.200	0.4016	12	71	118	45	Cr65	2
75107890	CRDR G-C9105-1030 Cr65	10.300	0.4055	12	71	118	45	Cr65	2
75107895	CRDR G-C9105-1040 Cr65	10.400	0.4094	12	71	118	45	Cr65	2
75107900	CRDR G-C9105-1050 Cr65	10.500	0.4134	12	71	118	45	Cr65	2
75107905	CRDR G-C9105-1060 Cr65	10.600	0.4173	12	71	118	45	Cr65	2
75107910	CRDR G-C9105-1070 Cr65	10.700	0.4213	12	71	118	45	Cr65	2

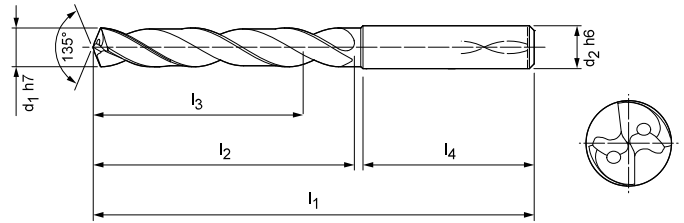
EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75107915	CRDR G-C9105-1080 Cr65	10.800	0.4252	12	71	118	45	Cr65	2
75107920	CRDR G-C9105-1090 Cr65	10.900	0.4291	12	71	118	45	Cr65	2
75107925	CRDR G-C9105-1100 Cr65	11.000	0.4331	12	71	118	45	Cr65	2
75107930	CRDR G-C9105-1110 Cr65	11.100	0.4370	12	71	118	45	Cr65	2
75107935	CRDR G-C9105-1120 Cr65	11.200	0.4409	12	71	118	45	Cr65	2
75107940	CRDR G-C9105-1130 Cr65	11.300	0.4449	12	71	118	45	Cr65	2
75107945	CRDR G-C9105-1140 Cr65	11.400	0.4488	12	71	118	45	Cr65	2
75107950	CRDR G-C9105-1150 Cr65	11.500	0.4528	12	71	118	45	Cr65	2
75107955	CRDR G-C9105-1160 Cr65	11.600	0.4567	12	71	118	45	Cr65	2
75107960	CRDR G-C9105-1170 Cr65	11.700	0.4606	12	71	118	45	Cr65	2
75107965	CRDR G-C9105-1180 Cr65	11.800	0.4646	12	71	118	45	Cr65	2
75107970	CRDR G-C9105-1190 Cr65	11.900	0.4685	12	71	118	45	Cr65	2
75107975	CRDR G-C9105-1200 Cr65	12.000	0.4724	12	71	118	45	Cr65	2
75107980	CRDR G-C9105-1250 Cr65	12.500	0.4921	14	77	124	45	Cr65	2
75107985	CRDR G-C9105-1280 Cr65	12.800	0.5039	14	77	124	45	Cr65	2
75107990	CRDR G-C9105-1300 Cr65	13.000	0.5118	14	77	124	45	Cr65	2
75107995	CRDR G-C9105-1350 Cr65	13.500	0.5315	14	77	124	45	Cr65	2
75108000	CRDR G-C9105-1380 Cr65	13.800	0.5433	14	77	124	45	Cr65	2
75108005	CRDR G-C9105-1400 Cr65	14.000	0.5512	14	77	124	45	Cr65	2
75108010	CRDR G-C9105-1450 Cr65	14.500	0.5709	16	83	133	48	Cr65	2
75108015	CRDR G-C9105-1480 Cr65	14.800	0.5827	16	83	133	48	Cr65	2
75108020	CRDR G-C9105-1500 Cr65	15.000	0.5906	16	83	133	48	Cr65	2
75108025	CRDR G-C9105-1550 Cr65	15.500	0.6102	16	83	133	48	Cr65	2
75108030	CRDR G-C9105-1580 Cr65	15.800	0.6220	16	83	133	48	Cr65	2
75108035	CRDR G-C9105-1600 Cr65	16.000	0.6299	16	83	133	48	Cr65	2
75108040	CRDR G-C9105-1650 Cr65	16.500	0.6496	18	93	143	48	Cr65	2
75108045	CRDR G-C9105-1680 Cr65	16.800	0.6614	18	93	143	48	Cr65	2
75108050	CRDR G-C9105-1700 Cr65	17.000	0.6693	18	93	143	48	Cr65	2
75108055	CRDR G-C9105-1750 Cr65	17.500	0.6890	18	93	143	48	Cr65	2
75108060	CRDR G-C9105-1780 Cr65	17.800	0.7008	18	93	143	48	Cr65	2
75108065	CRDR G-C9105-1800 Cr65	18.000	0.7087	18	93	143	48	Cr65	2
75108070	CRDR G-C9105-1850 Cr65	18.500	0.7283	20	101	153	50	Cr65	2
75108075	CRDR G-C9105-1880 Cr65	18.800	0.7402	20	101	153	50	Cr65	2
75108080	CRDR G-C9105-1900 Cr65	19.000	0.7480	20	101	153	50	Cr65	2
75108085	CRDR G-C9105-1950 Cr65	19.500	0.7677	20	101	153	50	Cr65	2
75108090	CRDR G-C9105-1980 Cr65	19.800	0.7795	20	101	153	50	Cr65	2
75108095	CRDR G-C9105-2000 Cr65	20.000	0.7874	20	101	153	50	Cr65	2

CARBIDE DRILL

TECHNICAL DETAILS

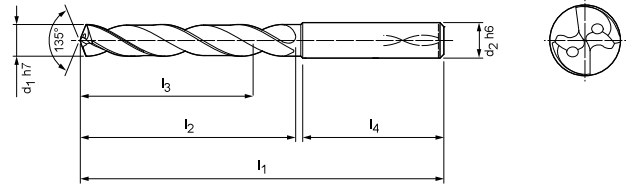
Tool Diameter Range 0.1181-0.7874 in
3.00-20.00 mm

Bore tolerance IT10 (achievable)
Shank form Cyl.
Number of flutes 2
Number of margins 3
Point geometry Special point
Point angle 135°
Helix angle 30°
Coolant Internal



EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75108100	CRDR G-C9108-0300 Cr65	3.000	0.1181	6	34	72	36	Cr65	2
75108105	CRDR G-C9108-0310 Cr65	3.100	0.1220	6	34	72	36	Cr65	2
75108110	CRDR G-C9108-0320 Cr65	3.200	0.1260	6	34	72	36	Cr65	2
75108115	CRDR G-C9108-0330 Cr65	3.300	0.1299	6	34	72	36	Cr65	2
75108120	CRDR G-C9108-0340 Cr65	3.400	0.1339	6	34	72	36	Cr65	2
75108125	CRDR G-C9108-0350 Cr65	3.500	0.1378	6	34	72	36	Cr65	2
75108130	CRDR G-C9108-0360 Cr65	3.600	0.1417	6	34	72	36	Cr65	2
75108135	CRDR G-C9108-0370 Cr65	3.700	0.1457	6	34	72	36	Cr65	2
75108140	CRDR G-C9108-0380 Cr65	3.800	0.1496	6	43	81	36	Cr65	2
75108145	CRDR G-C9108-0390 Cr65	3.900	0.1535	6	43	81	36	Cr65	2
75108150	CRDR G-C9108-0400 Cr65	4.000	0.1575	6	43	81	36	Cr65	2
75108155	CRDR G-C9108-0410 Cr65	4.100	0.1614	6	43	81	36	Cr65	2
75108160	CRDR G-C9108-0420 Cr65	4.200	0.1654	6	43	81	36	Cr65	2
75108165	CRDR G-C9108-0430 Cr65	4.300	0.1693	6	43	81	36	Cr65	2
75108170	CRDR G-C9108-0440 Cr65	4.400	0.1732	6	43	81	36	Cr65	2
75108175	CRDR G-C9108-0450 Cr65	4.500	0.1772	6	43	81	36	Cr65	2
75108180	CRDR G-C9108-0460 Cr65	4.600	0.1811	6	43	81	36	Cr65	2
75108185	CRDR G-C9108-0465 Cr65	4.650	0.1831	6	43	81	36	Cr65	2
75108190	CRDR G-C9108-0470 Cr65	4.700	0.1850	6	43	81	36	Cr65	2
75108195	CRDR G-C9108-0480 Cr65	4.800	0.1890	6	57	95	36	Cr65	2
75108200	CRDR G-C9108-0490 Cr65	4.900	0.1929	6	57	95	36	Cr65	2
75108205	CRDR G-C9108-0500 Cr65	5.000	0.1969	6	57	95	36	Cr65	2
75108210	CRDR G-C9108-0510 Cr65	5.100	0.2008	6	57	95	36	Cr65	2
75108215	CRDR G-C9108-0520 Cr65	5.200	0.2047	6	57	95	36	Cr65	2
75108220	CRDR G-C9108-0530 Cr65	5.300	0.2087	6	57	95	36	Cr65	2
75108225	CRDR G-C9108-0540 Cr65	5.400	0.2126	6	57	95	36	Cr65	2
75108230	CRDR G-C9108-0550 Cr65	5.500	0.2165	6	57	95	36	Cr65	2
75108235	CRDR G-C9108-0555 Cr65	5.550	0.2185	6	57	95	36	Cr65	2
75108240	CRDR G-C9108-0560 Cr65	5.600	0.2205	6	57	95	36	Cr65	2
75108245	CRDR G-C9108-0570 Cr65	5.700	0.2244	6	57	95	36	Cr65	2
75108250	CRDR G-C9108-0580 Cr65	5.800	0.2283	6	57	95	36	Cr65	2

EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75108255	CRDR G-C9108-0590 Cr65	5.900	0.2323	6	57	95	36	Cr65	2
75108260	CRDR G-C9108-0600 Cr65	6.000	0.2362	6	57	95	36	Cr65	2
75108265	CRDR G-C9108-0610 Cr65	6.100	0.2402	8	76	114	36	Cr65	2
75108270	CRDR G-C9108-0620 Cr65	6.200	0.2441	8	76	114	36	Cr65	2
75108275	CRDR G-C9108-0630 Cr65	6.300	0.2480	8	76	114	36	Cr65	2
75108280	CRDR G-C9108-0640 Cr65	6.400	0.2520	8	76	114	36	Cr65	2
75108285	CRDR G-C9108-0650 Cr65	6.500	0.2559	8	76	114	36	Cr65	2
75108290	CRDR G-C9108-0660 Cr65	6.600	0.2598	8	76	114	36	Cr65	2
75108295	CRDR G-C9108-0670 Cr65	6.700	0.2638	8	76	114	36	Cr65	2
75108300	CRDR G-C9108-0680 Cr65	6.800	0.2677	8	76	114	36	Cr65	2
75108305	CRDR G-C9108-0690 Cr65	6.900	0.2717	8	76	114	36	Cr65	2
75108310	CRDR G-C9108-0700 Cr65	7.000	0.2756	8	76	114	36	Cr65	2
75108315	CRDR G-C9108-0710 Cr65	7.100	0.2795	8	76	114	36	Cr65	2
75108320	CRDR G-C9108-0720 Cr65	7.200	0.2835	8	76	114	36	Cr65	2
75108325	CRDR G-C9108-0730 Cr65	7.300	0.2874	8	76	114	36	Cr65	2
75108330	CRDR G-C9108-0740 Cr65	7.400	0.2913	8	76	114	36	Cr65	2
75108335	CRDR G-C9108-0750 Cr65	7.500	0.2953	8	76	114	36	Cr65	2
75108340	CRDR G-C9108-0760 Cr65	7.600	0.2992	8	76	114	36	Cr65	2
75108345	CRDR G-C9108-0770 Cr65	7.700	0.3031	8	76	114	36	Cr65	2
75108350	CRDR G-C9108-0780 Cr65	7.800	0.3071	8	76	114	36	Cr65	2
75108355	CRDR G-C9108-0790 Cr65	7.900	0.3110	8	76	114	36	Cr65	2
75108360	CRDR G-C9108-0800 Cr65	8.000	0.3150	8	76	114	36	Cr65	2
75108365	CRDR G-C9108-0810 Cr65	8.100	0.3189	10	95	142	40	Cr65	2
75108370	CRDR G-C9108-0820 Cr65	8.200	0.3228	10	95	142	40	Cr65	2
75108375	CRDR G-C9108-0830 Cr65	8.300	0.3268	10	95	142	40	Cr65	2
75108380	CRDR G-C9108-0840 Cr65	8.400	0.3307	10	95	142	40	Cr65	2
75108385	CRDR G-C9108-0850 Cr65	8.500	0.3346	10	95	142	40	Cr65	2
75108390	CRDR G-C9108-0860 Cr65	8.600	0.3386	10	95	142	40	Cr65	2
75108395	CRDR G-C9108-0870 Cr65	8.700	0.3425	10	95	142	40	Cr65	2
75108400	CRDR G-C9108-0880 Cr65	8.800	0.3465	10	95	142	40	Cr65	2
75108405	CRDR G-C9108-0890 Cr65	8.900	0.3504	10	95	142	40	Cr65	2
75108410	CRDR G-C9108-0900 Cr65	9.000	0.3543	10	95	142	40	Cr65	2
75108415	CRDR G-C9108-0910 Cr65	9.100	0.3583	10	95	142	40	Cr65	2
75108420	CRDR G-C9108-0920 Cr65	9.200	0.3622	10	95	142	40	Cr65	2
75108425	CRDR G-C9108-0930 Cr65	9.300	0.3661	10	95	142	40	Cr65	2
75108430	CRDR G-C9108-0940 Cr65	9.400	0.3701	10	95	142	40	Cr65	2
75108435	CRDR G-C9108-0950 Cr65	9.500	0.3740	10	95	142	40	Cr65	2
75108440	CRDR G-C9108-0960 Cr65	9.600	0.3780	10	95	142	40	Cr65	2
75108445	CRDR G-C9108-0970 Cr65	9.700	0.3819	10	95	142	40	Cr65	2
75108450	CRDR G-C9108-0980 Cr65	9.800	0.3858	10	95	142	40	Cr65	2
75108455	CRDR G-C9108-0990 Cr65	9.900	0.3898	10	95	142	40	Cr65	2
75108460	CRDR G-C9108-1000 Cr65	10.000	0.3937	10	95	142	40	Cr65	2
75108465	CRDR G-C9108-1010 Cr65	10.100	0.3976	12	114	162	45	Cr65	2
75108470	CRDR G-C9108-1020 Cr65	10.200	0.4016	12	114	162	45	Cr65	2
75108475	CRDR G-C9108-1030 Cr65	10.300	0.4055	12	114	162	45	Cr65	2
75108480	CRDR G-C9108-1040 Cr65	10.400	0.4094	12	114	162	45	Cr65	2
75108485	CRDR G-C9108-1050 Cr65	10.500	0.4134	12	114	162	45	Cr65	2
75108490	CRDR G-C9108-1060 Cr65	10.600	0.4173	12	114	162	45	Cr65	2
75108495	CRDR G-C9108-1070 Cr65	10.700	0.4213	12	114	162	45	Cr65	2



EDP Cromson	Cromson Description	Diam (d1) mm	Diam (d1) in	Diam (d2)	Margin length (l2)	OAL (l1)	Shank length (l4)	Cromson Grade	# Flutes
75108500	CRDR G-C9108-1080 Cr65	10.800	0.4252	12	114	162	45	Cr65	2
75108505	CRDR G-C9108-1090 Cr65	10.900	0.4291	12	114	162	45	Cr65	2
75108510	CRDR G-C9108-1100 Cr65	11.000	0.4331	12	114	162	45	Cr65	2
75108515	CRDR G-C9108-1110 Cr65	11.100	0.4370	12	114	162	45	Cr65	2
75108520	CRDR G-C9108-1120 Cr65	11.200	0.4409	12	114	162	45	Cr65	2
75108525	CRDR G-C9108-1130 Cr65	11.300	0.4449	12	114	162	45	Cr65	2
75108530	CRDR G-C9108-1140 Cr65	11.400	0.4488	12	114	162	45	Cr65	2
75108535	CRDR G-C9108-1150 Cr65	11.500	0.4528	12	114	162	45	Cr65	2
75108540	CRDR G-C9108-1160 Cr65	11.600	0.4567	12	114	162	45	Cr65	2
75108545	CRDR G-C9108-1170 Cr65	11.700	0.4606	12	114	162	45	Cr65	2
75108550	CRDR G-C9108-1180 Cr65	11.800	0.4646	12	114	162	45	Cr65	2
75108555	CRDR G-C9108-1190 Cr65	11.900	0.4685	12	114	162	45	Cr65	2
75108560	CRDR G-C9108-1200 Cr65	12.000	0.4724	12	114	162	45	Cr65	2
75108565	CRDR G-C9108-1250 Cr65	12.500	0.4921	14	133	178	45	Cr65	2
75108570	CRDR G-C9108-1280 Cr65	12.800	0.5039	14	133	178	45	Cr65	2
75108575	CRDR G-C9108-1300 Cr65	13.000	0.5118	14	133	178	45	Cr65	2
75108580	CRDR G-C9108-1350 Cr65	13.500	0.5315	14	133	178	45	Cr65	2
75108585	CRDR G-C9108-1380 Cr65	13.800	0.5433	14	133	178	45	Cr65	2
75108590	CRDR G-C9108-1400 Cr65	14.000	0.5512	14	133	178	45	Cr65	2
75108595	CRDR G-C9108-1450 Cr65	14.500	0.5709	16	152	203	48	Cr65	2
75108600	CRDR G-C9108-1480 Cr65	14.800	0.5827	16	152	203	48	Cr65	2
75108605	CRDR G-C9108-1500 Cr65	15.000	0.5906	16	152	203	48	Cr65	2
75108610	CRDR G-C9108-1550 Cr65	15.500	0.6102	16	152	203	48	Cr65	2
75108615	CRDR G-C9108-1580 Cr65	15.800	0.6220	16	152	203	48	Cr65	2
75108620	CRDR G-C9108-1600 Cr65	16.000	0.6299	16	152	203	48	Cr65	2
75108625	CRDR G-C9108-1650 Cr65	16.500	0.6496	18	171	222	48	Cr65	2
75108630	CRDR G-C9108-1680 Cr65	16.800	0.6614	18	171	222	48	Cr65	2
75108635	CRDR G-C9108-1700 Cr65	17.000	0.6693	18	171	222	48	Cr65	2
75108640	CRDR G-C9108-1750 Cr65	17.500	0.6890	18	171	222	48	Cr65	2
75108645	CRDR G-C9108-1780 Cr65	17.800	0.7008	18	171	222	48	Cr65	2
75108650	CRDR G-C9108-1800 Cr65	18.000	0.7087	18	171	222	48	Cr65	2
75108655	CRDR G-C9108-1850 Cr65	18.500	0.7283	20	190	243	50	Cr65	2
75108660	CRDR G-C9108-1880 Cr65	18.800	0.7402	20	190	243	50	Cr65	2
75108665	CRDR G-C9108-1900 Cr65	19.000	0.7480	20	190	243	50	Cr65	2
75108670	CRDR G-C9108-1950 Cr65	19.500	0.7677	20	190	243	50	Cr65	2
75108675	CRDR G-C9108-1980 Cr65	19.800	0.7795	20	190	243	50	Cr65	2
75108680	CRDR G-C9108-2000 Cr65	20.000	0.7874	20	190	243	50	Cr65	2

APPLICATION RANGE

HIGH PERFORMANCE-C9000		Hardness Rockwell (HRC) Hardness Brinell (BHN) Tensile Strength (N/mm2)		Product model description						Recommended feed (f) for diameter ranges												
				C9103 (3 x d)			C9105 (5 x d)			C9108 (8 x d)			0.118-0.197 in 3 to 5 mm		0.197-0.316 in 5 to 8 mm		0.316-0.472 in 8 to 12 mm		0.472-0.630 in 12 to 16 mm		0.630-0.787 in 16 to 20 mm	
				SFM	m/min	SFM	m/min	SFM	m/min	SFM	m/min	IPR	mm/rev	IPR	mm/rev	IPR	mm/rev	IPR	mm/rev	IPR	mm/rev	IPR
Work Material	Hrc	BHN	N/mm2	591-722	180-220	591-722	180-220	591-722	180-220	0.004-.007	.006-.010	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.020	0.35-.050					
				525-656	160-200	525-656	160-200	525-656	160-200	.004-.007	.006-.010	.009-.014	0.15-0.25	.012-.018	0.30-0.45	.014-.020	0.35-.050					
Non-alloy steel, cast steel 1018, 1108, 1161, 12L14, 1522, 1572 410, 416	up to 8	up to 178	up to 600	459-591	140-180	459-591	140-180	459-591	140-180	.004-.007	.006-.010	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.020	0.35-.050					
	up to 15 over 15	up to 205 over 205	up to 700 over 700	459-591	140-180	459-591	140-180	459-591	140-180	.004-.007	.006-.010	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.020	0.35-.050					
Alloyed steel 5132, 4130, 8620, 4340, 5140, 6150 Stainless steel 410, 416	up to 27	up to 266	up to 900	427-558	130-170	427-558	130-170	427-558	130-170	.004-.007	.006-.010	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.020	0.35-.050					
	up to 31 over 31	up to 297 over 297	up to 1000 over 1000	427-558	130-170	427-558	130-170	427-558	130-170	.004-.007	.006-.010	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.020	0.35-.050					
Stainless steel inox moderate 17-4PH, 15-5PH, 316L																						
Stainless and acid resistant steel (C-Ni-Alloys) 304, 316, 17CrNiTi6-2																						
Cast iron, grey cast iron alloy GG10-GG40, A48	up to 14	up to 200	up to 680	525-656	160-200	525-656	160-200	525-656	160-200	.006-.009	.008-.014	.010-.016	0.25-0.40	.014-.020	0.35-0.50	.016-.025	0.40-.063					
	up to 24 over 24	up to 250 over 2050	up to 850 over 850	394-525 262-394	120-160 80-120	394-525 262-394	120-160 80-120	394-525 262-394	120-160 80-120	.005-.009	.007-.011	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.022	0.35-.056					
Spheroidal graphite cast iron, cast iron with vermicular graphite, malleable iron GGG40, GGG80	up to 8	up to 178	up to 600	459-591	140-180	459-591	140-180	459-591	140-180	.006-.009	.008-.014	.010-.016	0.25-0.40	.014-.020	0.35-0.50	.016-.025	0.40-.070					
	over 8	over 178	over 650	328-492	100-150	328-492	100-150	328-492	100-150	.005-.009	.007-.011	.009-.014	0.22-0.35	.012-.018	0.30-0.45	.014-.024	0.35-.060					
Aluminum (Si content >10%) 6061, 2025, 2008, 360																						
Aluminum (Si content <10%) 413, 385, A390																						
Copper, brass, bronze beryllium copper, naval brass, AMPCO																						
Titanium alloy Ti6Al4V																						
High temperature alloy Inconel, haynes, waspaloy, hastelloy																						
Chilled cast iron	38-48	350-450	1173-1527																			
Hardened steel 50-60 HRC	50-55 56-60 61-65		1614-1870																			

** The machining values shown are guidelines. The optimum data for a particular machining process should be determined in trials or during machining.

* For diameter < 3.00mm reduce cutting speed by 20-30%