



PATRIOT
HIGH ★ PERFORMANCE

DRILLS





The patriot who was fearless in the quest to preserve America and is the backbone for the foundation of the cutting tool portfolio. ARCH Cutting Tools is leveraging its American spirit to offer; Patriot High Performance®.

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PATRIOT HIGH PERFORMANCE DRILLS

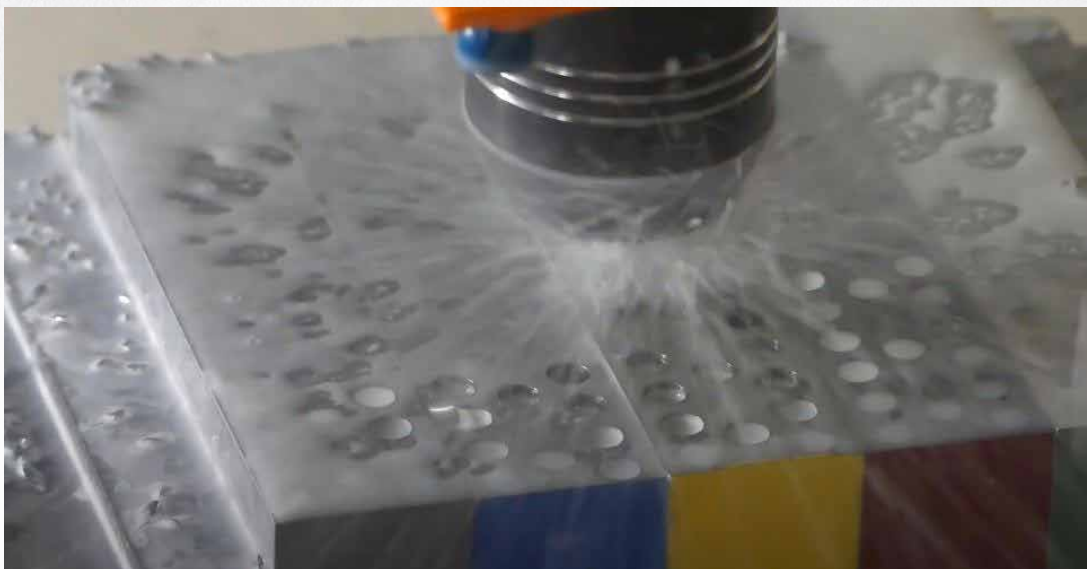
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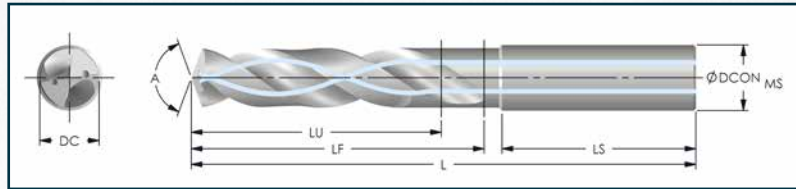
SOLID CARBIDE DRILL

Incorporating a wide range of drill lengths and diameters, ARCH® Cutting Tools Patriot High Performance® portfolio of solid carbide drills excels across the broad spectrum of all ISO class workpiece materials, from general steels, cast irons, HSRA, and many more. With diameters as small as 0.8 mm (0.0314 inches) and up to 20.0mm (0.7874 inches), single or double margin offering based on cutting diameter. Our range covers a comprehensive application base, providing a universal geometry suitable for most applications across all industry segments that focus on hole quality. These include die and mold, automotive, medical, and aerospace.

- Precision through coolant and low friction coating for excellent chip evacuation
- Low thrust force design with 140° point angle suited for multi-application drilling
- Longer tool life providing increased machine utilization and process security
- DIN 6535 HA cylindrical shank to support precision tool holding capabilities
- Close hole tolerances with a geometry suitable for all workpiece materials
- MQL (Minimum Quantity Lubrication) shank as standard on all sizes
- Available in 3xD, 5xD, and 8xD coolant through offering



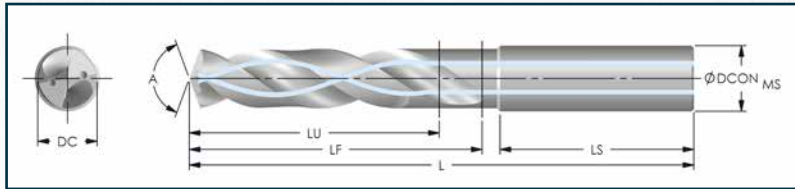
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
#67	0.0320	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-002
#67	0.0320	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-240
#67	0.0320	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-478
#66	0.0330	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-003
#66	0.0330	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-241
#66	0.0330	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-479
#65	0.0350	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-004
#65	0.0350	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-242
#65	0.0350	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-480
#64	0.0360	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-006
#64	0.0360	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-244
#64	0.0360	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-482
#63	0.0370	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-007
#63	0.0370	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-245
#63	0.0370	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-483
#62	0.0380	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-008
#62	0.0380	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-246
#62	0.0380	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-484
#61	0.0390	0.1575 (4mm)	140	0.1181	0.1969	1.1024	2.2835	3XD	928-000-009
#61	0.0390	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	5XD	928-000-247
#61	0.0390	0.1575 (4mm)	140	0.2756	0.3543	1.1024	2.2835	8XD	928-000-485
#60	0.0400	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-011
#60	0.0400	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-249
#60	0.0400	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-487
#59	0.0410	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-012
#59	0.0410	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-250
#59	0.0410	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-488
#58	0.0420	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-013
#58	0.0420	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-251
#58	0.0420	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-489
#57	0.0430	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-014
#57	0.0430	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-252
#57	0.0430	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-490
#56	0.0465	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-017
#56	0.0465	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-255
#56	0.0465	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-493
3/64	0.0469	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-018
3/64	0.0469	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-256
3/64	0.0469	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-494
#55	0.0520	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-023
#55	0.0520	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-261
#55	0.0520	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-499
#54	0.0550	0.1575 (4mm)	140	0.1969	0.2756	1.1024	2.2835	3XD	928-000-025
#54	0.0550	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	5XD	928-000-263
#54	0.0550	0.1575 (4mm)	140	0.3937	0.4724	1.1024	2.2835	8XD	928-000-501



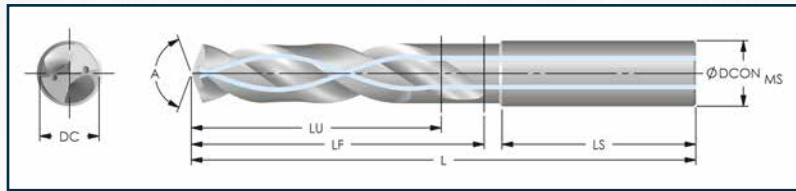
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
#53	0.0595	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-028
#53	0.0595	0.1575 (4mm)	140	0.3543	0.4724	1.1024	2.2835	5XD	928-000-266
#53	0.0595	0.1575 (4mm)	140	0.5906	0.7087	1.1024	2.2835	8XD	928-000-504
1/16	0.0625	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-030
1/16	0.0625	0.1575 (4mm)	140	0.3543	0.4724	1.1024	2.2835	5XD	928-000-268
1/16	0.0625	0.1575 (4mm)	140	0.5906	0.7087	1.1024	2.2835	8XD	928-000-506
#52	0.0635	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-032
#52	0.0635	0.1575 (4mm)	140	0.3543	0.4724	1.1024	2.2835	5XD	928-000-270
#52	0.0635	0.1575 (4mm)	140	0.5906	0.7087	1.1024	2.2835	8XD	928-000-508
#51	0.0670	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-033
#51	0.0670	0.1575 (4mm)	140	0.3543	0.4724	1.1024	2.2835	5XD	928-000-271
#51	0.0670	0.1575 (4mm)	140	0.5906	0.7087	1.1024	2.2835	8XD	928-000-509
#50	0.0700	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-034
#50	0.0700	0.1575 (4mm)	140	0.3543	0.4724	1.1024	2.2835	5XD	928-000-272
#50	0.0700	0.1575 (4mm)	140	0.5906	0.7087	1.1024	2.2835	8XD	928-000-510
#49	0.0730	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-035
#49	0.0730	0.1575 (4mm)	140	0.3543	0.4724	1.1024	2.2835	5XD	928-000-273
#49	0.0730	0.1575 (4mm)	140	0.5906	0.7087	1.1024	2.2835	8XD	928-000-511
#48	0.0760	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-036
#48	0.0760	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-274
#48	0.0760	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-512
5/64	0.0781	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-037
5/64	0.0781	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-275
5/64	0.0781	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-513
#47	0.0785	0.1575 (4mm)	140	0.2362	0.3543	1.1024	2.2835	3XD	928-000-038
#47	0.0785	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-276
#47	0.0785	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-514
#46	0.0810	0.1575 (4mm)	140	0.3543	0.5118	1.1024	2.2835	3XD	928-000-040
#46	0.0810	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-278
#46	0.0810	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-516
#45	0.0820	0.1575 (4mm)	140	0.3543	0.5118	1.1024	2.2835	3XD	928-000-041
#45	0.0820	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-279
#45	0.0820	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-517
#44	0.0860	0.1575 (4mm)	140	0.3543	0.5118	1.1024	2.2835	3XD	928-000-042
#44	0.0860	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-280
#44	0.0860	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-518
#43	0.0890	0.1575 (4mm)	140	0.3543	0.5118	1.1024	2.2835	3XD	928-000-043
#43	0.0890	0.1575 (4mm)	140	0.5512	0.7087	1.1024	2.2835	5XD	928-000-281
#43	0.0890	0.1575 (4mm)	140	0.8661	1.0236	1.1024	2.5984	8XD	928-000-519
#42	0.0935	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-044
#42	0.0935	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-282
#42	0.0935	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-520
3/32	0.0938	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-045
3/32	0.0938	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-283
3/32	0.0938	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-521



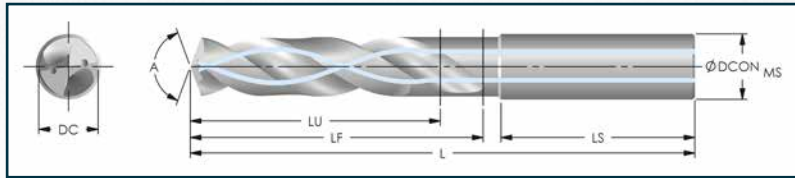
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
#41	0.0960	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-046
#41	0.0960	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-284
#41	0.0960	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-522
#40	0.0980	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-047
#40	0.0980	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-285
#40	0.0980	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-523
#39	0.0995	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-049
#39	0.0995	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-287
#39	0.0995	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-525
#38	0.1015	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-050
#38	0.1015	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-288
#38	0.1015	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-526
#37	0.1040	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-051
#37	0.1040	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-289
#37	0.1040	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-527
#36	0.1065	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-052
#36	0.1065	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-290
#36	0.1065	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-528
7/64	0.1094	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-053
7/64	0.1094	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-291
7/64	0.1094	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-529
#35	0.1100	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-054
#35	0.1100	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-292
#35	0.1100	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-530
#34	0.1110	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-055
#34	0.1110	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-293
#34	0.1110	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-531
#33	0.1130	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-056
#33	0.1130	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-294
#33	0.1130	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-532
#32	0.1160	0.1575 (4mm)	140	0.4724	0.6693	1.1024	2.2835	3XD	928-000-057
#32	0.1160	0.1575 (4mm)	140	0.6693	0.8661	1.1024	2.2835	5XD	928-000-295
#32	0.1160	0.1575 (4mm)	140	0.9843	1.1811	1.1024	2.5984	8XD	928-000-533
#31	0.1200	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-059
#31	0.1200	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-297
#31	0.1200	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-535
1/8	0.1250	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-060
1/8	0.1250	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-298
1/8	0.1250	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-536
#30	0.1285	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-062
#30	0.1285	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-300
#30	0.1285	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-538
#29	0.1360	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-063
#29	0.1360	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-301
#29	0.1360	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-539



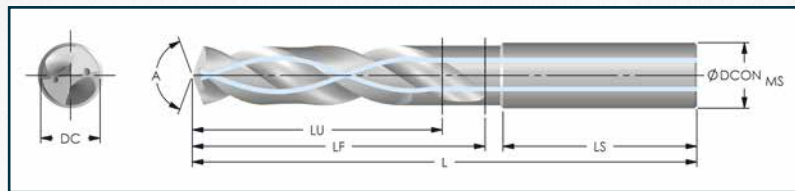
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
#28	0.1405	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-065
#28	0.1405	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-303
#28	0.1405	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-541
9/64	0.1406	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-066
9/64	0.1406	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-304
9/64	0.1406	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-542
#27	0.1440	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-068
#27	0.1440	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-306
#27	0.1440	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-544
#26	0.1470	0.2362 (6mm)	140	0.5512	0.7874	1.4173	2.4409	3XD	928-000-069
#26	0.1470	0.2362 (6mm)	140	0.9055	1.1024	1.4173	2.5984	5XD	928-000-307
#26	0.1470	0.2362 (6mm)	140	1.2992	1.5748	1.4173	3.0709	8XD	928-000-545
#25	0.1495	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-070
#25	0.1495	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-308
#25	0.1495	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-546
#24	0.1520	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-071
#24	0.1520	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-309
#24	0.1520	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-547
#23	0.1540	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-073
#23	0.1540	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-311
#23	0.1540	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-549
5/32	0.1562	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-074
5/32	0.1562	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-312
5/32	0.1562	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-550
#22	0.1570	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-075
#22	0.1570	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-313
#22	0.1570	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-551
#21	0.1590	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-077
#21	0.1590	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-315
#21	0.1590	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-553
#20	0.1610	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-078
#20	0.1610	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-316
#20	0.1610	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-554
#19	0.1660	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-080
#19	0.1660	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-318
#19	0.1660	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-556
#18	0.1695	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-081
#18	0.1695	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-319
#18	0.1695	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-557
11/64	0.1719	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-082
11/64	0.1719	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-320
11/64	0.1719	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-558
#17	0.1730	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-083
#17	0.1730	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-321
#17	0.1730	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-559



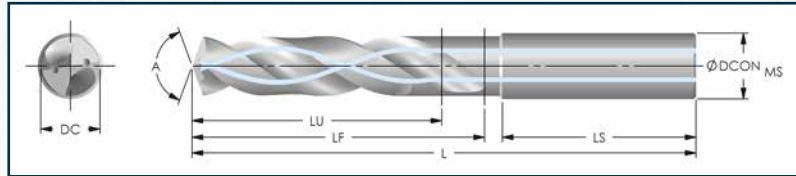
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
#16	0.1770	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-085
#16	0.1770	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-323
#16	0.1770	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-561
#15	0.1800	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-087
#15	0.1800	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-325
#15	0.1800	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-563
#14	0.1820	0.2362 (6mm)	140	0.6693	0.9449	1.4173	2.5984	3XD	928-000-089
#14	0.1820	0.2362 (6mm)	140	1.1417	1.4173	1.4173	2.9134	5XD	928-000-327
#14	0.1820	0.2362 (6mm)	140	1.6142	1.9291	1.4173	3.4252	8XD	928-000-565
3/16	0.1875	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-091
3/16	0.1875	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-329
3/16	0.1875	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-567
#11	0.1910	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-093
#11	0.1910	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-331
#11	0.1910	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-569
#10	0.1935	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-095
#10	0.1935	0.2362 (6mm)	140	1.378	1.7323	1.4173	3.2283	5XD	928-000-333
#10	0.1935	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-571
#9	0.1960	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-096
#9	0.1960	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-334
#9	0.1960	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-572
#8	0.1990	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-098
#8	0.1990	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-336
#8	0.1990	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-574
#7	0.2010	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-100
#7	0.2010	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-338
#7	0.2010	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-576
13/64	0.2031	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-101
13/64	0.2031	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-339
13/64	0.2031	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-577
#6	0.2040	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-102
#6	0.2040	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-340
#6	0.2040	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-578
#5	0.2055	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-104
#5	0.2055	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-342
#5	0.2055	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-580
#4	0.2090	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-106
#4	0.2090	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-344
#4	0.2090	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-582
#3	0.2130	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-108
#3	0.2130	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-346
#3	0.2130	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-584
7/32	0.2188	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-110
7/32	0.2188	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-348
7/32	0.2188	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-586

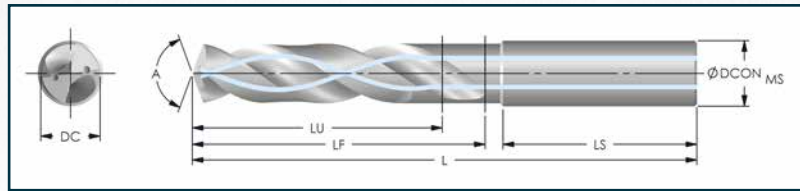


SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
#2	0.2210	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-112
#2	0.2210	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-350
#2	0.2210	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-588
#1	0.2280	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-114
#1	0.2280	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-352
#1	0.2280	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-590
A	0.2340	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-117
A	0.2340	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-355
A	0.2340	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-593
15/64	0.2344	0.2362 (6mm)	140	0.7874	1.1024	1.4173	2.5984	3XD	928-000-118
15/64	0.2344	0.2362 (6mm)	140	1.3780	1.7323	1.4173	3.2283	5XD	928-000-356
15/64	0.2344	0.2362 (6mm)	140	1.8898	2.2047	1.4173	3.7008	8XD	928-000-594
B	0.2380	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-120
B	0.2380	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-358
B	0.2380	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-596
C	0.2420	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-122
C	0.2420	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-360
C	0.2420	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-598
D	0.2460	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-124
D	0.2460	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-362
D	0.2460	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-600
E(1/4)	0.2500	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-126
E(1/4)	0.2500	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-364
E(1/4)	0.2500	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-602
F	0.2570	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-129
F	0.2570	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-367
F	0.2570	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-605
G	0.2610	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-131
G	0.2610	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-369
G	0.2610	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-607
17/64	0.2656	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-133
17/64	0.2656	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-371
17/64	0.2656	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-609
H	0.2660	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-134
H	0.2660	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-372
H	0.2660	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-610
I	0.2720	0.3150 (8mm)	140	0.9449	1.3386	1.4173	3.1102	3XD	928-000-137
I	0.2720	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-375
I	0.2720	0.3150 (8mm)	140	2.2441	2.6378	1.4173	4.1339	8XD	928-000-613
J	0.2770	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-139
J	0.2770	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-377
J	0.2770	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-615
K	0.2810	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-141
K	0.2810	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-379
K	0.2810	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-617
9/32	0.2812	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-142
9/32	0.2812	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-380
9/32	0.2812	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-618

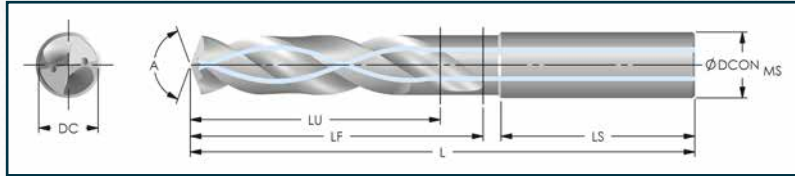
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
L	0.2900	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-145
L	0.2900	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-383
L	0.2900	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-621
M	0.2950	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-147
M	0.2950	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-385
M	0.2950	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-623
19/64	0.2969	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-149
19/64	0.2969	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-387
19/64	0.2969	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-625
N	0.3020	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-151
N	0.3020	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-389
N	0.3020	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-627
5/16	0.3125	0.3150 (8mm)	140	1.1417	1.6142	1.4173	3.1102	3XD	928-000-155
5/16	0.3125	0.3150 (8mm)	140	1.6929	2.0866	1.4173	3.5827	5XD	928-000-393
5/16	0.3125	0.3150 (8mm)	140	2.5197	3.0315	1.4173	4.5276	8XD	928-000-631
O	0.3160	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-157
O	0.3160	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-395
O	0.3160	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-633
P	0.3230	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-160
P	0.3230	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-398
P	0.3230	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-636
21/64	0.3281	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-162
21/64	0.3281	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-400
21/64	0.3281	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-638
Q	0.3320	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-164
Q	0.3320	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-402
Q	0.3320	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-640
R	0.3390	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-167
R	0.3390	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-405
R	0.3390	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-643
11/32	0.3438	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-169
11/32	0.3438	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-407
11/32	0.3438	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-645
S	0.3480	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-171
S	0.3480	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-409
S	0.3480	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-647
T	0.3580	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-174
T	0.3580	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-412
T	0.3580	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-650
23/64	0.3594	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-176
23/64	0.3594	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-414
23/64	0.3594	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-652
U	0.3680	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-179
U	0.3680	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-417
U	0.3680	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-655



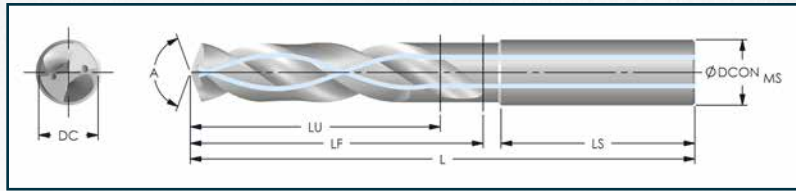
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
3/8	0.3750	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-182
3/8	0.3750	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-420
3/8	0.3750	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-658
V	0.3770	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-183
V	0.3770	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-421
V	0.3770	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-659
W	0.3860	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-187
W	0.3860	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-425
W	0.3860	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-663
25/64	0.3906	0.3937 (10mm)	140	1.3780	1.8504	1.5748	3.5039	3XD	928-000-189
25/64	0.3906	0.3937 (10mm)	140	1.9291	2.4016	1.5748	4.0551	5XD	928-000-427
25/64	0.3906	0.3937 (10mm)	140	2.9528	3.5039	1.5748	5.1575	8XD	928-000-665
X	0.3970	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-191
X	0.3970	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-429
X	0.3970	0.4724 (12mm)	140	3.6220	4.2520	1.7717	6.1024	8XD	928-000-667
Y	0.4040	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-192
Y	0.4040	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-430
Y	0.4040	0.4724 (12mm)	140	3.6220	4.252	1.7717	6.1024	8XD	928-000-668
13/32	0.4062	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-193
13/32	0.4062	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-431
13/32	0.4062	0.4724 (12mm)	140	3.6220	4.2520	1.7717	6.1024	8XD	928-000-669
Z	0.4130	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-194
Z	0.4130	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-432
Z	0.4130	0.4724 (12mm)	140	3.6220	4.2520	1.7717	6.1024	8XD	928-000-670
27/64	0.4219	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-196
27/64	0.4219	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-434
27/64	0.4219	0.4724 (12mm)	140	3.6220	4.2520	1.7717	6.1024	8XD	928-000-672
7/16	0.4375	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-198
7/16	0.4375	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-436
7/16	0.4375	0.4724 (12mm)	140	3.622	4.252	1.7717	6.1024	8XD	928-000-674
29/64	0.4531	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-200
29/64	0.4531	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-438
29/64	0.4531	0.4724 (12mm)	140	3.6220	4.2520	1.7717	6.1024	8XD	928-000-676
15/32	0.4688	0.4724 (12mm)	140	1.5748	2.1654	1.7717	4.0157	3XD	928-000-201
15/32	0.4688	0.4724 (12mm)	140	2.2047	2.7953	1.7717	4.6457	5XD	928-000-439
15/32	0.4688	0.4724 (12mm)	140	3.6220	4.2520	1.7717	6.1024	8XD	928-000-677
31/64	0.4844	0.5512 (14mm)	140	1.6929	2.3622	1.7717	4.2126	3XD	928-000-203
31/64	0.4844	0.5512 (14mm)	140	2.3622	3.0315	1.7717	4.8819	5XD	928-000-441
31/64	0.4844	0.5512 (14mm)	140	4.3307	5.3150	1.7717	7.1654	8XD	928-000-679
1/2	0.5000	0.5512 (14mm)	140	1.6929	2.3622	1.7717	4.2126	3XD	928-000-205
1/2	0.5000	0.5512 (14mm)	140	2.3622	3.0315	1.7717	4.8819	5XD	928-000-443
1/2	0.5000	0.5512 (14mm)	140	4.3307	5.3150	1.7717	7.1654	8XD	928-000-681
33/64	0.5156	0.5512 (14mm)	140	1.6929	2.3622	1.7717	4.2126	3XD	928-000-207
33/64	0.5156	0.5512 (14mm)	140	2.3622	3.0315	1.7717	4.8819	5XD	928-000-445
33/64	0.5156	0.5512 (14mm)	140	4.3307	5.3150	1.7717	7.1654	8XD	928-000-683



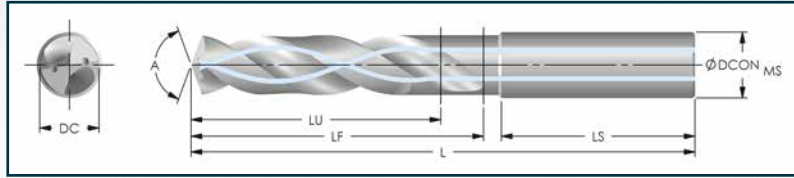
SOLID CARBIDE COOLANT THROUGH IMPERIAL SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
17/32	0.5312	0.5512 (14mm)	140	1.6929	2.3622	1.7717	4.2126	3XD	928-000-208
17/32	0.5312	0.5512 (14mm)	140	2.3622	3.0315	1.7717	4.8819	5XD	928-000-446
17/32	0.5312	0.5512 (14mm)	140	4.3307	5.315	1.7717	7.1654	8XD	928-000-684
35/64	0.5469	0.5512 (14mm)	140	1.6929	2.3622	1.7717	4.2126	3XD	928-000-210
35/64	0.5469	0.5512 (14mm)	140	2.3622	3.0315	1.7717	4.8819	5XD	928-000-448
35/64	0.5469	0.5512 (14mm)	140	4.3307	5.315	1.7717	7.1654	8XD	928-000-686
9/16	0.5625	0.6299 (16mm)	140	1.7717	2.5591	1.8898	4.5276	3XD	928-000-212
9/16	0.5625	0.6299 (16mm)	140	2.4803	3.2677	1.8898	5.2362	5XD	928-000-450
9/16	0.5625	0.6299 (16mm)	140	5.0394	6.1024	1.8898	8.0315	8XD	928-000-688
37/64	0.5781	0.6299 (16mm)	140	1.7717	2.5591	1.8898	4.5276	3XD	928-000-214
37/64	0.5781	0.6299 (16mm)	140	2.4803	3.2677	1.8898	5.2362	5XD	928-000-452
37/64	0.5781	0.6299 (16mm)	140	5.0394	6.1024	1.8898	8.0315	8XD	928-000-690
19/32	0.5938	0.6299 (16mm)	140	1.7717	2.5591	1.8898	4.5276	3XD	928-000-216
19/32	0.5938	0.6299 (16mm)	140	2.4803	3.2677	1.8898	5.2362	5XD	928-000-454
19/32	0.5938	0.6299 (16mm)	140	5.0394	6.1024	1.8898	8.0315	8XD	928-000-692
39/64	0.6094	0.6299 (16mm)	140	1.7717	2.5591	1.8898	4.5276	3XD	928-000-217
39/64	0.6094	0.6299 (16mm)	140	2.4803	3.2677	1.8898	5.2362	5XD	928-000-455
39/64	0.6094	0.6299 (16mm)	140	5.0394	6.1024	1.8898	8.0315	8XD	928-000-693
5/8	0.6250	0.6299 (16mm)	140	1.7717	2.5591	1.8898	4.5276	3XD	928-000-219
5/8	0.6250	0.6299 (16mm)	140	2.4803	3.2677	1.8898	5.2362	5XD	928-000-457
5/8	0.6250	0.6299 (16mm)	140	5.0394	6.1024	1.8898	8.0315	8XD	928-000-695
41/64	0.6406	0.7087 (18mm)	140	2.0079	2.874	1.8898	4.8425	3XD	928-000-221
41/64	0.6406	0.7087 (18mm)	140	2.7953	3.6614	1.8898	5.6299	5XD	928-000-459
41/64	0.6406	0.7087 (18mm)	140	5.6693	6.6929	1.8898	8.7795	8XD	928-000-697
21/32	0.6562	0.7087 (18mm)	140	2.0079	2.874	1.8898	4.8425	3XD	928-000-223
21/32	0.6562	0.7087 (18mm)	140	2.7953	3.6614	1.8898	5.6299	5XD	928-000-461
21/32	0.6562	0.7087 (18mm)	140	5.6693	6.6929	1.8898	8.7795	8XD	928-000-699
43/64	0.6719	0.7087 (18mm)	140	2.0079	2.8740	1.8898	4.8425	3XD	928-000-225
43/64	0.6719	0.7087 (18mm)	140	2.7953	3.6614	1.8898	5.6299	5XD	928-000-463
43/64	0.6719	0.7087 (18mm)	140	5.6693	6.6929	1.8898	8.7795	8XD	928-000-701
11/16	0.6875	0.7087 (18mm)	140	2.0079	2.8740	1.8898	4.8425	3XD	928-000-226
11/16	0.6875	0.7087 (18mm)	140	2.7953	3.6614	1.8898	5.6299	5XD	928-000-464
11/16	0.6875	0.7087 (18mm)	140	5.6693	6.6929	1.8898	8.7795	8XD	928-000-702
45/64	0.7031	0.7087 (18mm)	140	2.0079	2.8740	1.8898	4.8425	3XD	928-000-228
45/64	0.7031	0.7087 (18mm)	140	2.7953	3.6614	1.8898	5.6299	5XD	928-000-466
45/64	0.7031	0.7087 (18mm)	140	5.6693	6.6929	1.8898	8.7795	8XD	928-000-704
23/32	0.7188	0.7874 (20.00mm)	140	2.1654	3.1102	1.9685	5.1969	3XD	928-000-230
23/32	0.7188	0.7874 (20.00mm)	140	3.0315	3.9764	1.9685	6.063	5XD	928-000-468
23/32	0.7188	0.7874 (20.00mm)	140	6.2992	7.2835	1.9685	9.6457	8XD	928-000-706
47/64	0.7344	0.7874 (20.00mm)	140	2.1654	3.1102	1.9685	5.1969	3XD	928-000-232
47/64	0.7344	0.7874 (20.00mm)	140	3.0315	3.9764	1.9685	6.063	5XD	928-000-470
47/64	0.7344	0.7874 (20.00mm)	140	6.2992	7.2835	1.9685	9.6457	8XD	928-000-708
3/4	0.7500	0.7874 (20.00mm)	140	2.1654	3.1102	1.9685	5.1969	3XD	928-000-234
3/4	0.7500	0.7874 (20.00mm)	140	3.0315	3.9764	1.9685	6.063	5XD	928-000-472
3/4	0.7500	0.7874 (20.00mm)	140	6.2992	7.2835	1.9685	9.6457	8XD	928-000-710
49/64	0.7656	0.7874 (20.00mm)	140	2.1654	3.1102	1.9685	5.1969	3XD	928-000-235
49/64	0.7656	0.7874 (20.00mm)	140	3.0315	3.9764	1.9685	6.063	5XD	928-000-473
49/64	0.7656	0.7874 (20.00mm)	140	6.2992	7.2835	1.9685	9.6457	8XD	928-000-711
25/32	0.7812	0.7874 (20.00mm)	140	2.1654	3.1102	1.9685	5.1969	3XD	928-000-237
25/32	0.7812	0.7874 (20.00mm)	140	3.0315	3.9764	1.9685	6.063	5XD	928-000-475
25/32	0.7812	0.7874 (20.00mm)	140	6.2992	7.2835	1.9685	9.6457	8XD	928-000-713

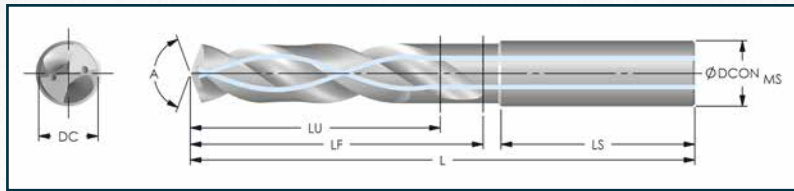


SOLID CARBIDE COOLANT THROUGH METRIC SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
0.80MM	0.80	4.00	140	3.00	5.00	28.00	58.00	3XD	928-000-001
0.80MM	0.80	4.00	140	5.00	7.00	28.00	58.00	5XD	928-000-239
0.80MM	0.80	4.00	140	7.00	9.00	28.00	58.00	8XD	928-000-477
0.90MM	0.90	4.00	140	3.00	5.00	28.00	58.00	3XD	928-000-005
0.90MM	0.90	4.00	140	5.00	7.00	28.00	58.00	5XD	928-000-243
0.90MM	0.90	4.00	140	7.00	9.00	28.00	58.00	8XD	928-000-481
1.00MM	1.00	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-010
1.00MM	1.00	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-248
1.00MM	1.00	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-486
1.10MM	1.10	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-015
1.10MM	1.10	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-253
1.10MM	1.10	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-491
1.12MM	1.12	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-016
1.12MM	1.12	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-254
1.12MM	1.12	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-492
1.20MM	1.20	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-019
1.20MM	1.20	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-257
1.20MM	1.20	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-495
1.25MM	1.25	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-020
1.25MM	1.25	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-258
1.25MM	1.25	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-496
1.27MM	1.27	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-021
1.27MM	1.27	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-259
1.27MM	1.27	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-497
1.30MM	1.30	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-022
1.30MM	1.30	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-260
1.30MM	1.30	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-498
1.35MM	1.35	4.00	140	5.00	7.00	28.00	58.00	3XD	928-000-024
1.35MM	1.35	4.00	140	6.00	9.00	28.00	58.00	5XD	928-000-262
1.35MM	1.35	4.00	140	10.00	12.00	28.00	58.00	8XD	928-000-500
1.45MM	1.45	4.00	140	6.00	9.00	28.00	58.00	3XD	928-000-026
1.45MM	1.45	4.00	140	9.00	12.00	28.00	58.00	5XD	928-000-264
1.45MM	1.45	4.00	140	15.00	18.00	28.00	58.00	8XD	928-000-502
1.50MM	1.50	4.00	140	6.00	9.00	28.00	58.00	3XD	928-000-027
1.50MM	1.50	4.00	140	9.00	12.00	28.00	58.00	5XD	928-000-265
1.50MM	1.50	4.00	140	15.00	18.00	28.00	58.00	8XD	928-000-503
1.55MM	1.55	4.00	140	6.00	9.00	28.00	58.00	3XD	928-000-029
1.55MM	1.55	4.00	140	9.00	12.00	28.00	58.00	5XD	928-000-267
1.55MM	1.55	4.00	140	15.00	18.00	28.00	58.00	8XD	928-000-505
1.60MM	1.60	4.00	140	6.00	9.00	28.00	58.00	3XD	928-000-031
1.60MM	1.60	4.00	140	9.00	12.00	28.00	58.00	5XD	928-000-269
1.60MM	1.60	4.00	140	15.00	18.00	28.00	58.00	8XD	928-000-507
2.00MM	2.00	4.00	140	9.00	13.00	28.00	58.00	3XD	928-000-039
2.00MM	2.00	4.00	140	14.00	18.00	28.00	58.00	5XD	928-000-277
2.00MM	2.00	4.00	140	22.00	26.00	28.00	66.00	8XD	928-000-515

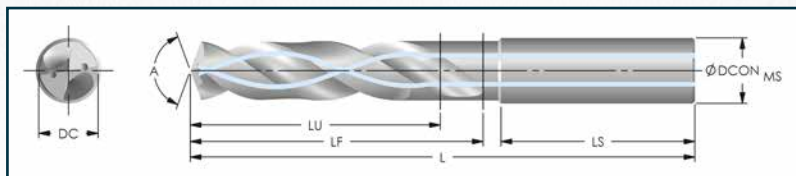
SOLID CARBIDE COOLANT THROUGH METRIC SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
2.50MM	2.50	4.00	140	12.00	17.00	28.00	58.00	3XD	928-000-048
2.50MM	2.50	4.00	140	17.00	22.00	28.00	58.00	5XD	928-000-286
2.50MM	2.50	4.00	140	25.00	30.00	28.00	66.00	8XD	928-000-524
3.00MM	3.00	6.00	140	14.00	20.00	36.00	62.00	3XD	928-000-058
3.00MM	3.00	6.00	140	23.00	28.00	36.00	66.00	5XD	928-000-296
3.00MM	3.00	6.00	140	33.00	40.00	36.00	78.00	8XD	928-000-534
3.20MM	3.20	6.00	140	14.00	20.00	36.00	62.00	3XD	928-000-061
3.20MM	3.20	6.00	140	23.00	28.00	36.00	66.00	5XD	928-000-299
3.20MM	3.20	6.00	140	33.00	40.00	36.00	78.00	8XD	928-000-537
3.50MM	3.50	6.00	140	14.00	20.00	36.00	62.00	3XD	928-000-064
3.50MM	3.50	6.00	140	23.00	28.00	36.00	66.00	5XD	928-000-302
3.50MM	3.50	6.00	140	33.00	40.00	36.00	78.00	8XD	928-000-540
3.60MM	3.60	6.00	140	14.00	20.00	36.00	62.00	3XD	928-000-067
3.60MM	3.60	6.00	140	23.00	28.00	36.00	66.00	5XD	928-000-305
3.60MM	3.60	6.00	140	33.00	40.00	36.00	78.00	8XD	928-000-543
3.90MM	3.90	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-072
3.90MM	3.90	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-310
3.90MM	3.90	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-548
4.00MM	4.00	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-076
4.00MM	4.00	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-314
4.00MM	4.00	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-552
4.10MM	4.10	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-079
4.10MM	4.10	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-317
4.10MM	4.10	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-555
4.40MM	4.40	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-084
4.40MM	4.40	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-322
4.40MM	4.40	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-560
4.50MM	4.50	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-086
4.50MM	4.50	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-324
4.50MM	4.50	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-562
4.60MM	4.60	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-088
4.60MM	4.60	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-326
4.60MM	4.60	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-564
4.70MM	4.70	6.00	140	17.00	24.00	36.00	66.00	3XD	928-000-090
4.70MM	4.70	6.00	140	29.00	36.00	36.00	74.00	5XD	928-000-328
4.70MM	4.70	6.00	140	41.00	49.00	36.00	87.00	8XD	928-000-566
4.80MM	4.80	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-092
4.80MM	4.80	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-330
4.80MM	4.80	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-568
4.90MM	4.90	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-094
4.90MM	4.90	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-332
4.90MM	4.90	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-570
5.00MM	5.00	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-097
5.00MM	5.00	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-335
5.00MM	5.00	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-573



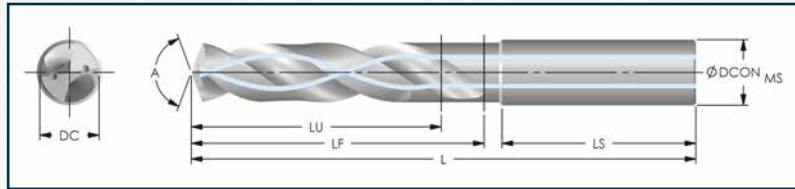
SOLID CARBIDE COOLANT THROUGH METRIC SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
5.10MM	5.10	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-099
5.10MM	5.10	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-337
5.10MM	5.10	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-575
5.20MM	5.20	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-103
5.20MM	5.20	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-341
5.20MM	5.20	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-579
5.30MM	5.30	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-105
5.30MM	5.30	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-343
5.30MM	5.30	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-581
5.40MM	5.40	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-107
5.40MM	5.40	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-345
5.40MM	5.40	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-583
5.50MM	5.50	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-109
5.50MM	5.50	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-347
5.50MM	5.50	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-585
5.60MM	5.60	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-111
5.60MM	5.60	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-349
5.60MM	5.60	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-587
5.70MM	5.70	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-113
5.70MM	5.70	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-351
5.70MM	5.70	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-589
5.80MM	5.80	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-115
5.80MM	5.80	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-353
5.80MM	5.80	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-591
5.90MM	5.90	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-116
5.90MM	5.90	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-354
5.90MM	5.90	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-592
6.00MM	6.00	6.00	140	20.00	28.00	36.00	66.00	3XD	928-000-119
6.00MM	6.00	6.00	140	35.00	44.00	36.00	82.00	5XD	928-000-357
6.00MM	6.00	6.00	140	48.00	56.00	36.00	94.00	8XD	928-000-595
6.10MM	6.10	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-121
6.10MM	6.10	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-359
6.10MM	6.10	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-597
6.20MM	6.20	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-123
6.20MM	6.20	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-361
6.20MM	6.20	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-599
6.30MM	6.30	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-125
6.30MM	6.30	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-363
6.30MM	6.30	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-601
6.40MM	6.40	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-127
6.40MM	6.40	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-365
6.40MM	6.40	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-603
6.50MM	6.50	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-128
6.50MM	6.50	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-366
6.50MM	6.50	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-604



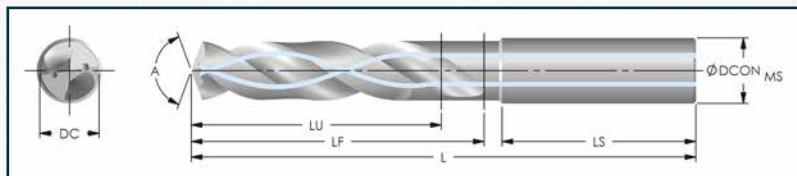
SOLID CARBIDE COOLANT THROUGH METRIC SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
6.60MM	6.60	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-130
6.60MM	6.60	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-368
6.60MM	6.60	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-606
6.70MM	6.70	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-132
6.70MM	6.70	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-370
6.70MM	6.70	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-608
6.80MM	6.80	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-135
6.80MM	6.80	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-373
6.80MM	6.80	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-611
6.90MM	6.90	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-136
6.90MM	6.90	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-374
6.90MM	6.90	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-612
7.00MM	7.00	8.00	140	24.00	34.00	36.00	79.00	3XD	928-000-138
7.00MM	7.00	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-376
7.00MM	7.00	8.00	140	57.00	67.00	36.00	105.00	8XD	928-000-614
7.10MM	7.10	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-140
7.10MM	7.10	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-378
7.10MM	7.10	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-616
7.20MM	7.20	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-143
7.20MM	7.20	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-381
7.20MM	7.20	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-619
7.30MM	7.30	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-144
7.30MM	7.30	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-382
7.30MM	7.30	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-620
7.40MM	7.40	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-146
7.40MM	7.40	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-384
7.40MM	7.40	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-622
7.50MM	7.50	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-148
7.50MM	7.50	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-386
7.50MM	7.50	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-624
7.60MM	7.60	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-150
7.60MM	7.60	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-388
7.60MM	7.60	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-626
7.70MM	7.70	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-152
7.70MM	7.70	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-390
7.70MM	7.70	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-628
7.80MM	7.80	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-153
7.80MM	7.80	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-391
7.80MM	7.80	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-629
7.90MM	7.90	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-154
7.90MM	7.90	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-392
7.90MM	7.90	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-630
8.00MM	8.00	8.00	140	29.00	41.00	36.00	79.00	3XD	928-000-156
8.00MM	8.00	8.00	140	43.00	53.00	36.00	91.00	5XD	928-000-394
8.00MM	8.00	8.00	140	64.00	77.00	36.00	115.00	8XD	928-000-632
8.10MM	8.10	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-158
8.10MM	8.10	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-396
8.10MM	8.10	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-634



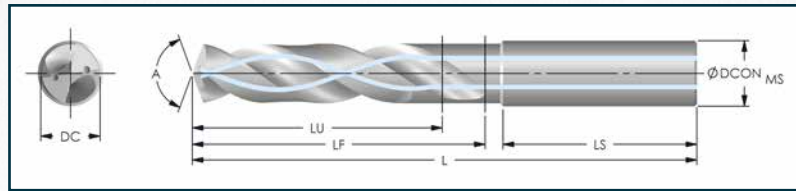
SOLID CARBIDE COOLANT THROUGH METRIC SIZE



DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
8.20MM	8.20	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-159
8.20MM	8.20	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-397
8.20MM	8.20	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-635
8.30MM	8.30	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-161
8.30MM	8.30	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-399
8.30MM	8.30	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-637
8.40MM	8.40	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-163
8.40MM	8.40	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-401
8.40MM	8.40	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-639
8.50MM	8.50	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-165
8.50MM	8.50	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-403
8.50MM	8.50	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-641
8.60MM	8.60	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-166
8.60MM	8.60	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-404
8.60MM	8.60	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-642
8.70MM	8.70	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-168
8.70MM	8.70	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-406
8.70MM	8.70	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-644
8.80MM	8.80	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-170
8.80MM	8.80	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-408
8.80MM	8.80	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-646
8.90MM	8.90	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-172
8.90MM	8.90	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-410
8.90MM	8.90	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-648
9.00MM	9.00	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-173
9.00MM	9.00	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-411
9.00MM	9.00	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-649
9.10MM	9.10	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-175
9.10MM	9.10	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-413
9.10MM	9.10	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-651
9.20MM	9.20	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-177
9.20MM	9.20	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-415
9.20MM	9.20	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-653
9.30MM	9.30	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-178
9.30MM	9.30	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-416
9.30MM	9.30	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-654
9.40MM	9.40	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-180
9.40MM	9.40	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-418
9.40MM	9.40	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-656
9.50MM	9.50	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-181
9.50MM	9.50	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-419
9.50MM	9.50	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-657
9.60MM	9.60	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-184
9.60MM	9.60	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-422
9.60MM	9.60	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-660



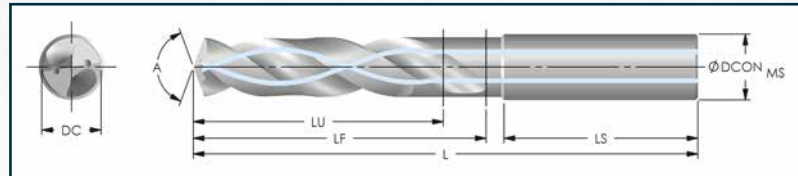
SOLID CARBIDE COOLANT THROUGH METRIC SIZE



DC	DC	DCNMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
9.70MM	9.70	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-185
9.70MM	9.70	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-423
9.70MM	9.70	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-661
9.80MM	9.80	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-186
9.80MM	9.80	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-424
9.80MM	9.80	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-662
9.90MM	9.90	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-188
9.90MM	9.90	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-426
9.90MM	9.90	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-664
10.00MM	10.00	10.00	140	35.00	47.00	40.00	89.00	3XD	928-000-190
10.00MM	10.00	10.00	140	49.00	61.00	40.00	103.00	5XD	928-000-428
10.00MM	10.00	10.00	140	75.00	89.00	40.00	131.00	8XD	928-000-666
10.50MM	10.50	12.00	140	40.00	55.00	45.00	102.00	3XD	928-000-195
10.50MM	10.50	12.00	140	56.00	71.00	45.00	118.00	5XD	928-000-433
10.50MM	10.50	12.00	140	92.00	108.00	45.00	155.00	8XD	928-000-671
11.00MM	11.00	12.00	140	40.00	55.00	45.00	102.00	3XD	928-000-197
11.00MM	11.00	12.00	140	56.00	71.00	45.00	118.00	5XD	928-000-435
11.00MM	11.00	12.00	140	92.00	108.00	45.00	155.00	8XD	928-000-673
11.50MM	11.50	12.00	140	40.00	55.00	45.00	102.00	3XD	928-000-199
11.50MM	11.50	12.00	140	56.00	71.00	45.00	118.00	5XD	928-000-437
11.50MM	11.50	12.00	140	92.00	108.00	45.00	155.00	8XD	928-000-675
12.00MM	12.00	12.00	140	40.00	55.00	45.00	102.00	3XD	928-000-202
12.00MM	12.00	12.00	140	56.00	71.00	45.00	118.00	5XD	928-000-440
12.00MM	12.00	12.00	140	92.00	108.00	45.00	155.00	8XD	928-000-678
12.50MM	12.50	14.00	140	43.00	60.00	45.00	107.00	3XD	928-000-204
12.50MM	12.50	14.00	140	60.00	77.00	45.00	124.00	5XD	928-000-442
12.50MM	12.50	14.00	140	110.00	135.00	45.00	182.00	8XD	928-000-680
13.00MM	13.00	14.00	140	43.00	60.00	45.00	107.00	3XD	928-000-206
13.00MM	13.00	14.00	140	60.00	77.00	45.00	124.00	5XD	928-000-444
13.00MM	13.00	14.00	140	110.00	135.00	45.00	182.00	8XD	928-000-682
13.50MM	13.50	14.00	140	43.00	60.00	45.00	107.00	3XD	928-000-209
13.50MM	13.50	14.00	140	60.00	77.00	45.00	124.00	5XD	928-000-447
13.50MM	13.50	14.00	140	110.00	135.00	45.00	182.00	8XD	928-000-685
14.00MM	14.00	14.00	140	43.00	60.00	45.00	107.00	3XD	928-000-211
14.00MM	14.00	14.00	140	60.00	77.00	45.00	124.00	5XD	928-000-449
14.00MM	14.00	14.00	140	110.00	135.00	45.00	182.00	8XD	928-000-687
14.50MM	14.50	16.00	140	45.00	65.00	48.00	115.00	3XD	928-000-213
14.50MM	14.50	16.00	140	63.00	83.00	48.00	133.00	5XD	928-000-451
14.50MM	14.50	16.00	140	128.00	155.00	48.00	204.00	8XD	928-000-689
15.00MM	15.00	16.00	140	45.00	65.00	48.00	115.00	3XD	928-000-215
15.00MM	15.00	16.00	140	63.00	83.00	48.00	133.00	5XD	928-000-453
15.00MM	15.00	16.00	140	128.00	155.00	48.00	204.00	8XD	928-000-691
15.50MM	15.50	16.00	140	45.00	65.00	48.00	115.00	3XD	928-000-218
15.50MM	15.50	16.00	140	63.00	83.00	48.00	133.00	5XD	928-000-456
15.50MM	15.50	16.00	140	128.00	155.00	48.00	204.00	8XD	928-000-694



SOLID CARBIDE COOLANT THROUGH METRIC SIZE



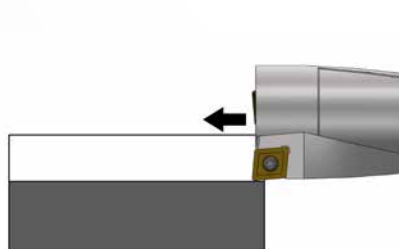
DC	DC	DCONMS	A	LU	LF	LS	L	LD Ratio	PRODUCT #
16.00MM	16.00	16.00	140	45.00	65.00	48.00	115.00	3XD	928-000-220
16.00MM	16.00	16.00	140	63.00	83.00	48.00	133.00	5XD	928-000-458
16.00MM	16.00	16.00	140	128.00	155.00	48.00	204.00	8XD	928-000-696
16.50MM	16.50	18.00	140	51.00	73.00	48.00	123.00	3XD	928-000-222
16.50MM	16.50	18.00	140	71.00	93.00	48.00	143.00	5XD	928-000-460
16.50MM	16.50	18.00	140	144.00	170.00	48.00	223.00	8XD	928-000-698
17.00MM	17.00	18.00	140	51.00	73.00	48.00	123.00	3XD	928-000-224
17.00MM	17.00	18.00	140	71.00	93.00	48.00	143.00	5XD	928-000-462
17.00MM	17.00	18.00	140	144.00	170.00	48.00	223.00	8XD	928-000-700
17.50MM	17.50	18.00	140	51.00	73.00	48.00	123.00	3XD	928-000-227
17.50MM	17.50	18.00	140	71.00	93.00	48.00	143.00	5XD	928-000-465
17.50MM	17.50	18.00	140	144.00	170.00	48.00	223.00	8XD	928-000-703
18.00MM	18.00	18.00	140	51.00	73.00	48.00	123.00	3XD	928-000-229
18.00MM	18.00	18.00	140	71.00	93.00	48.00	143.00	5XD	928-000-467
18.00MM	18.00	18.00	140	144.00	170.00	48.00	223.00	8XD	928-000-705
18.50MM	18.50	20.00	140	55.00	79.00	50.00	132.00	3XD	928-000-231
18.50MM	18.50	20.00	140	77.00	101.00	50.00	154.00	5XD	928-000-469
18.50MM	18.50	20.00	140	160.00	185.00	50.00	245.00	8XD	928-000-707
19.00MM	19.00	20.00	140	55.00	79.00	50.00	132.00	3XD	928-000-233
19.00MM	19.00	20.00	140	77.00	101.00	50.00	154.00	5XD	928-000-471
19.00MM	19.00	20.00	140	160.00	185.00	50.00	245.00	8XD	928-000-709
19.50MM	19.50	20.00	140	55.00	79.00	50.00	132.00	3XD	928-000-236
19.50MM	19.50	20.00	140	77.00	101.00	50.00	154.00	5XD	928-000-474
19.50MM	19.50	20.00	140	160.00	185.00	50.00	245.00	8XD	928-000-712
20.00MM	20.00	20.00	140	55.00	79.00	50.00	132.00	3XD	928-000-238
20.00MM	20.00	20.00	140	77.00	101.00	50.00	154.00	5XD	928-000-476
20.00MM	20.00	20.00	140	160.00	185.00	50.00	245.00	8XD	928-000-714



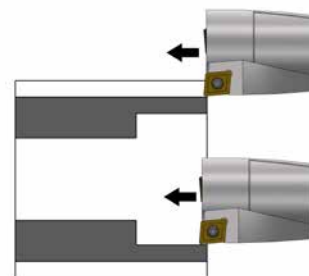
PD1 Indexable Drills

ARCH® Cutting Tools Patriot High Performance® PD1 portfolio of indexable drills excels across a broad spectrum of ISO class workpiece materials. From general steels, cast irons, HSRA, and many more, when there is a high demand to reduce cost per feature in hole making applications. With diameters from 0.5625" (15mm) to 2.125" (54mm) offered in both imperial and metric sizes. Our range covers a comprehensive application base providing universal insert geometries and grades, suitable for most applications across all industry segments that focus on hole quality. These include general engineering, die and mold, automotive, and aerospace & defense.

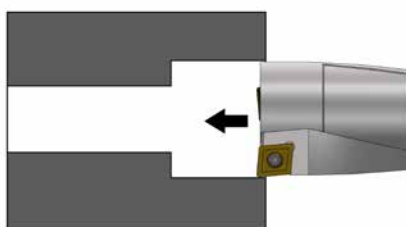
- Available in diameters 0.562" (15mm) - 2.125" (54mm), 2xD, 3xD, and 4xD
- 2-ported precision through coolant for excellent chip evacuation
- Versatility - Facing, boring, O.D. and I.D. turning capabilities
- Capable of drilling into slanted workpieces without pre-drilling
- Radial offset capability to adjust diameter size in non-rotating applications
- Economical 4-edge insert design providing excellent chip formation and lower spindle loads
- High quality tool steel bodies for added rigidity, wear resistance and reduced chip wash



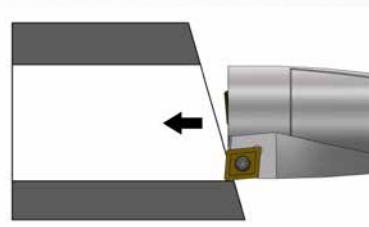
Half Cylindrical



ID & OD Boring



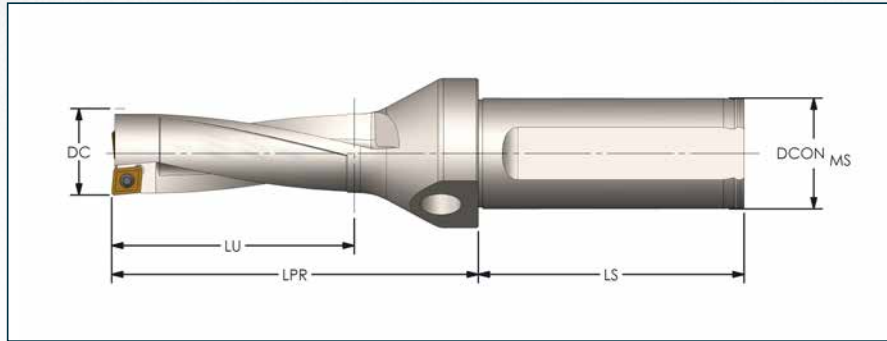
Pre-Drilling



Slanted Surface



2XD INDEXABLE DRILLS



PD1

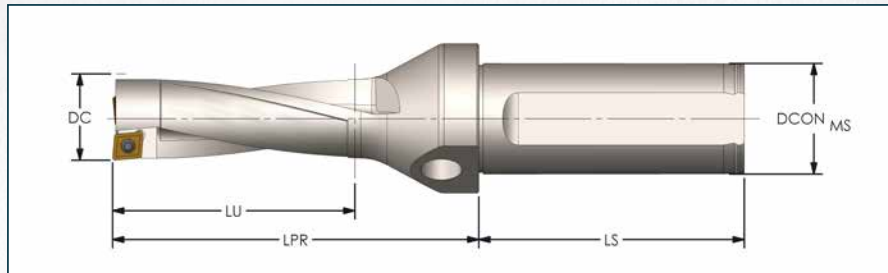
PRODUCT #	Designation	HP600	HK356	HN300
914-000-085		•		
914-000-083	PD1 042004		•	
914-000-084				•
914-000-088		•		
914-000-086	PD1 052804		•	
914-000-087				•
914-000-091		•		
914-000-089	PD1 063306		•	
914-000-090				•
914-000-094		•		
914-000-092	PD1 074006		•	
914-000-093				•
914-000-097		•		
914-000-095	PD1 094508		•	
914-000-096				•
914-000-100		•		
914-000-098	PD1 125812		•	
914-000-99				•
914-000-103		•		
914-000-101	PD1 156812		•	
914-000-102				•

PRODUCT #	Insert Screw
968-000-112	PD1-16
968-000-113	PD1-2
968-000-114	PD1-22
968-000-115	PD1-25
968-000-116	PD1-35
968-000-117	PD1-5
968-000-118	PD1-6

PACKAGE SIZE OF 5

PACKAGE SIZE OF 10

PRODUCT #	Designation	DC	DCON MS	LS	LPR	LU	INSERT	SCREW	WRENCH
970-000-034	PD1-0562-2D-075	0.562	0.750	1.900	2.042	1.242	PD1 042004	PD1-16	T-6-S
970-000-038	PD1-0625-2D-075	0.625	0.750	1.900	2.168	1.368	PD1 052804	PD1-2	
970-000-042	PD1-0687-2D-075	0.687	0.750	1.900	2.292	1.492			
970-000-047	PD1-0750-2D-100	0.750	1.000	2.400	2.561	1.618	PD1 063306	PD1-22	T-7-S
970-000-051	PD1-0812-2D-100	0.812	1.000	2.400	2.686	1.743			
970-000-055	PD1-0875-2D-100	0.875	1.000	2.400	2.811	1.868			
970-000-058	PD1-0937-2D-125	0.937	1.250	2.900	2.936	1.993	PD1 074006	PD1-25	
970-000-062	PD1-1000-2D-125	1.000	1.250	2.900	3.061	2.118			
970-000-066	PD1-1125-2D-125	1.125	1.250	2.900	3.311	2.368	PD1 094508	PD1-35	
970-000-070	PD1-1250-2D-125	1.250	1.250	2.900	3.600	2.657			
970-000-074	PD1-1375-2D-125	1.375	1.250	2.900	3.850	2.907			
970-000-078	PD1-1500-2D-150	1.500	1.500	2.900	4.100	3.157	PD1 125812	PD1-5	T-15-S
970-000-081	PD1-1625-2D-150	1.625	1.500	2.900	4.390	3.447			
970-000-084	PD1-1750-2D-150	1.750	1.500	2.900	4.600	3.657			
970-000-088	PD1-2000-2D-150	2.000	1.500	2.900	5.100	4.157	PD1 156812	PD1-6	T-20-S
970-000-131	PD1-2125-2D-150	2.125	1.500	2.900	5.350	4.407			


3XD INDEXABLE DRILLS IMPERIAL


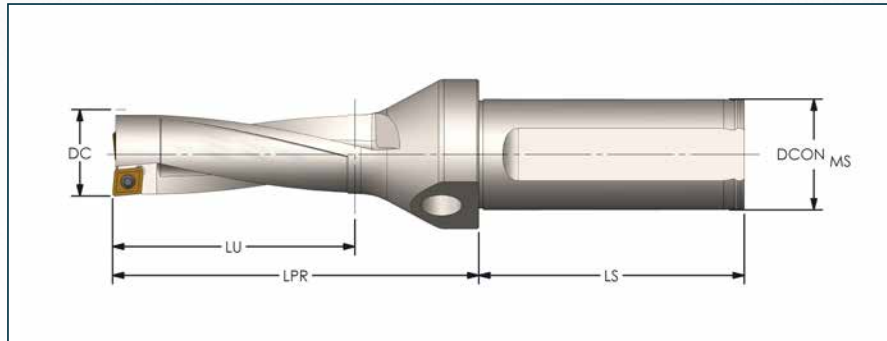
PRODUCT #	Designation	DC	DCON MS	LS	LPR	LU	Insert	Screw	Wrench
970-000-035	PD1-0562-3D-075	0.562	0.750	1.900	2.747	1.804	PD1 042004	PD1-16	T-6-S
970-000-036	PD1-0594-3D-075	0.594	0.750	1.900	2.843	1.900			
970-000-037	PD1-0609-3D-075	0.609	0.750	1.900	2.888	1.945			
970-000-039	PD1-0625-3D-075	0.625	0.750	1.900	2.936	1.993	PD1 052804	PD1-2	
970-000-041	PD1-0669-3D-075	0.669 (17mm)	0.750	1.900	3.069	2.126			
970-000-043	PD1-0687-3D-075	0.687	0.750	1.900	3.122	2.179			
970-000-045	PD1-0709-3D-075	0.709 (18mm)	0.750	1.900	3.187	2.244	PD1 063306	PD1-22	T-7-S
970-000-046	PD1-0734-3D-100	0.734	1.000	2.400	3.263	2.320			
970-000-048	PD1-0750-3D-100	0.750	1.000	2.400	3.311	2.368			
970-000-050	PD1-0787-3D-100	0.787 (20mm)	1.000	2.400	3.422	2.479			
970-000-052	PD1-0812-3D-100	0.812	1.000	2.400	3.499	2.556			
970-000-054	PD1-0844-3D-100	0.844	1.000	2.400	3.637	2.694			
970-000-056	PD1-0875-3D-100	0.875	1.000	2.400	3.686	2.743	PD1 074006	PD1-25	
970-000-059	PD1-0937-3D-125	0.937	1.250	2.900	3.874	2.931			
970-000-061	PD1-0984-3D-125	0.984 (25mm)	1.250	2.900	4.014	3.071			
970-000-063	PD1-1000-3D-125	1.000	1.250	2.900	4.061	3.118			
970-000-065	PD1-1062-3D-125	1.062	1.250	2.900	4.249	3.306			
970-000-067	PD1-1125-3D-125	1.125	1.250	2.900	4.436	3.493			
970-000-069	PD1-1181-3D-125	1.181 (30mm)	1.250	2.900	4.645	3.702	PD1 094508	PD1-35	T-15-S
970-000-071	PD1-1250-3D-125	1.250	1.250	2.900	4.850	3.907			
970-000-073	PD1-1312-3D-125	1.312	1.250	2.900	5.039	4.095			
970-000-075	PD1-1375-3D-125	1.375	1.250	2.900	5.225	4.282			
970-000-077	PD1-1437-3D-125	1.437	1.250	2.900	5.413	4.470			
970-000-079	PD1-1500-3D-150	1.500	1.500	2.900	5.640	4.697			
970-000-082	PD1-1625-3D-150	1.625	1.500	2.900	6.015	5.072	PD1 125812	PD1-5	T-20-S
970-000-085	PD1-1750-3D-150	1.750	1.500	2.900	6.390	5.447			
970-000-087	PD1-1875-3D-150	1.875	1.500	2.900	6.825	5.882			
970-000-089	PD1-2000-3D-150	2.000	1.500	2.900	7.140	6.197	PD1 156812	PD1-6	T-25-S
970-000-091	PD1-2125-3D-150	2.125	1.500	2.900	7.515	6.572			

3XD INDEXABLE DRILLS METRIC

PRODUCT #	Designation	DC (metric)	DCONMS (metric)	LS	LPR	LU	Insert	Screw	Wrench	
970-000-115	PD1-0170-3D-20MM	17mm	20mm	44mm	74mm	54mm	PD1 052804	PD1-2	T-6-S	
970-000-116	PD1-0180-3D-25MM	18mm	25mm	56mm	81mm	57mm				
970-000-117	PD1-0190-3D-25MM	19mm	25mm	56mm	84mm	60mm				
970-000-118	PD1-0200-3D-25MM	20mm	25mm	56mm	84mm	60mm	PD1 063306	PD1-22		
970-000-119	PD1-0210-3D-25MM	21mm	25mm	56mm	90mm	66mm				
970-000-120	PD1-0220-3D-25MM	22mm	25mm	56mm	93mm	69mm				
970-000-121	PD1-0230-3D-25MM	23mm	25mm	56mm	96mm	72mm				
970-000-122	PD1-0240-3D-25MM	24mm	25mm	56mm	98mm	75mm	PD1 074006	PD1-25	T-7-S	
970-000-123	PD1-0250-3D-25MM	25mm	25mm	56mm	102mm	78mm				
970-000-124	PD1-0260-3D-32MM	26mm	32mm	60mm	105mm	81mm				
970-000-125	PD1-0270-3D-32MM	27mm	32mm	60mm	108mm	84mm				
970-000-126	PD1-0280-3D-32MM	28mm	32mm	60mm	111mm	87mm				
970-000-127	PD1-0290-3D-32MM	29mm	32mm	60mm	115mm	91mm				
970-000-128	PD1-0300-3D-32MM	30mm	32mm	60mm	118mm	94mm	PD1 094508	PD1-35		T-15-S

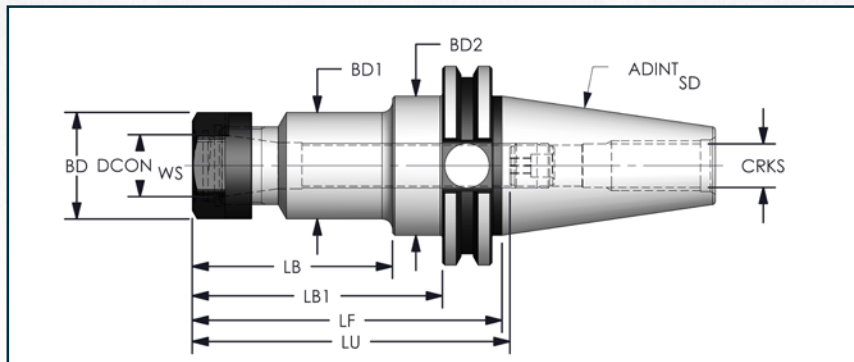


4XD INDEXABLE DRILLS



PRODUCT #	Designation	DC	DCON MS	LS	LPR	LU	Insert	Screw	Wrench
970-000-129	PD1-0562-4D-075	0.562	0.750	1.900	3.166	2.366	PD1 042004	PD1-16	T-6-S
970-000-040	PD1-0625-4D-075	0.625	0.750	1.900	3.418	2.618	PD1 052804	PD1-2	T-6-S
970-000-044	PD1-0687-4D-075	0.687	0.750	1.900	3.667	2.867			
970-000-049	PD1-0750-4D-100	0.750	1.000	2.400	4.061	3.118			
970-000-053	PD1-0812-4D-100	0.812	1.000	2.400	4.312	3.369	PD1 063306	PD1-22	T-7-S
970-000-057	PD1-0875-4D-100	0.875	1.000	2.400	4.561	3.618			
970-000-060	PD1-0937-4D-125	0.937	1.250	2.900	4.812	3.869	PD1 074006	PD1-25	
970-000-064	PD1-1000-4D-125	1.000	1.250	2.900	5.061	4.118			
970-000-068	PD1-1125-4D-125	1.125	1.250	2.900	5.561	4.618			
970-000-072	PD1-1250-4D-125	1.250	1.250	2.900	6.100	5.157	PD1 094508	PD1-35	T-15-S
970-000-076	PD1-1375-4D-125	1.375	1.250	2.900	6.600	5.627			
970-000-080	PD1-1500-4D-150	1.500	1.500	2.900	7.140	6.197	PD1 125812	PD1-5	T-20-S
970-000-083	PD1-1625-4D-150	1.625	1.500	2.900	7.640	6.697			
970-000-086	PD1-1750-4D-150	1.750	1.500	2.900	8.140	7.197			
970-000-090	PD1-2000-4D-150	2.000	1.500	2.900	9.140	8.197	PD1 156812	PD1-6	T-25-S
970-000-130	PD1-2125-4D-150	2.125	1.500	2.900	9.640	8.697			

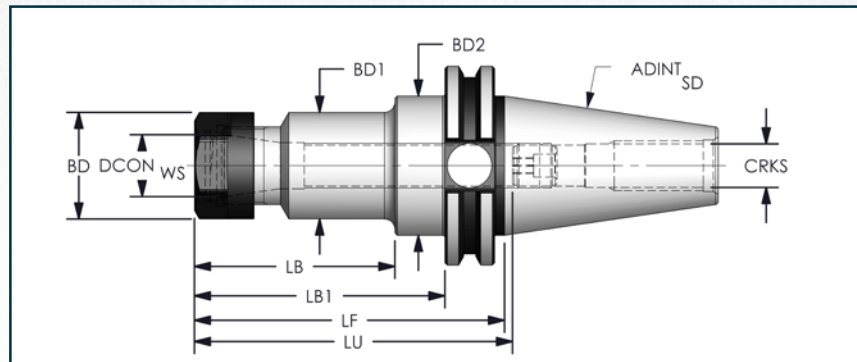
ER COLLET TOOL HOLDERS



Balanced to:
G2.5 (20,000 rpm)

PRODUCT #	Designation	ADINTSD	DCONWS	BD	BD1	BD2	LB	LB1	LF	LU	CRKS	Collet Nut	Stop Screw	Wrench
966-000-065	CT40-ER11-250-G2	CAT40	ER11	0.750	N/A	N/A	1.750	N/A	2.500	1.940	5/8-11	ER-11HN	ER-11S	ER-11W
966-000-067	CT40-ER11-400-G2	CAT40	ER11	0.750	N/A	1.750	2.620	3.250	4.000	1.940	5/8-11	ER-11HN	ER-11S	ER-11W
966-000-069	CT40-ER11-600-G2	CAT40	ER11	0.750	N/A	1.750	4.620	5.250	6.000	1.940	5/8-11	ER-11HN	ER-11S	ER-11W
966-000-071	CT40-ER16-250-G2	CAT40	ER16	1.100	N/A	N/A	1.750	N/A	2.500	3.000	5/8-11	ER-16HN	ER-16S	ER-16W
966-000-073	CT40-ER16-300-G2	CAT40	ER16	1.100	N/A	N/A	2.250	N/A	3.000	3.000	5/8-11	ER-16HN	ER-16S	ER-16W
966-000-075	CT40-ER16-400-G2	CAT40	ER16	1.100	N/A	N/A	3.250	N/A	4.000	3.000	5/8-11	ER-16HN	ER-16S	ER-16W
966-000-077	CT40-ER16-500-G2	CAT40	ER16	1.100	N/A	1.750	3.620	4.250	5.000	3.000	5/8-11	ER-16HN	ER-16S	ER-16W
966-000-079	CT40-ER16-600-G2	CAT40	ER16	1.100	N/A	1.750	4.620	5.250	6.000	3.000	5/8-11	ER-16HN	ER-16S	ER-16W
966-000-081	CT40-ER20-300-G2	CAT40	ER20	1.340	N/A	N/A	2.250	N/A	3.000	3.500	5/8-11	ER-20HN	ER-20S	ER-20W
966-000-083	CT40-ER20-400-G2	CAT40	ER20	1.340	N/A	1.750	2.620	3.250	4.000	3.950	5/8-11	ER-20HN	ER-20S	ER-20W
966-000-085	CT40-ER20-600-G2	CAT40	ER20	1.340	N/A	1.750	4.620	5.250	6.000	3.950	5/8-11	ER-20HN	ER-20S	ER-20W
966-000-087	CT40-ER20-800-G2	CAT40	ER20	1.340	N/A	1.750	6.620	7.250	8.000	3.950	5/8-11	ER-20HN	ER-20S	ER-20W
966-000-089	CT40-ER25-250-G2	CAT40	ER25	1.660	1.590	N/A	1.750	N/A	2.500	2.800	5/8-11	ER-25SN	ER-25S	ER-25W
966-000-091	CT40-ER25-400-G2	CAT40	ER25	1.660	1.590	1.750	2.620	3.250	4.000	4.300	5/8-11	ER-25SN	ER-25S	ER-25W
966-000-093	CT40-ER25-600-G2	CAT40	ER25	1.660	1.590	1.750	4.620	5.250	6.000	4.400	5/8-11	ER-25SN	ER-25S	ER-25W
966-000-095	CT40-ER32-300-G2	CAT40	ER32	1.980	1.750	N/A	2.250	N/A	3.000	3.450	5/8-11	ER-32SN	ER-32S	ER-32W
966-000-097	CT40-ER32-400-G2	CAT40	ER32	1.980	1.750	N/A	N/A	3.250	4.000	4.300	5/8-11	ER-32SN	ER-32S	ER-32W
966-000-099	CT40-ER32-600-G2	CAT40	ER32	1.980	1.750	N/A	N/A	5.250	6.000	4.600	5/8-11	ER-32SN	ER-32S	ER-32W
966-000-101	CT40-ER32-800-G2	CAT40	ER32	1.980	1.750	N/A	N/A	7.250	8.000	4.600	5/8-11	ER-32SN	ER-32S	ER-32W
966-000-103	CT40-ER40-300-G2	CAT40	ER40	2.250	N/A	N/A	N/A	2.250	3.000	3.300	5/8-11	ER-40SN	ER-40S	ER-40W
966-000-105	CT40-ER40-400-G2	CAT40	ER40	2.250	N/A	N/A	N/A	3.250	4.000	4.000	5/8-11	ER-40SN	ER-40S	ER-40W
966-000-107	CT40-ER40-600-G2	CAT40	ER40	2.250	N/A	N/A	N/A	5.250	6.000	4.500	5/8-11	ER-40SN	ER-40S	ER-40W
966-000-109	CT40-ER40-800-G2	CAT40	ER40	2.250	N/A	N/A	N/A	7.250	8.000	4.500	5/8-11	ER-40SN	ER-40S	ER-40W
966-000-216	CT50-ER11-600-G2	CAT50	ER11	0.750	N/A	N/A	N/A	N/A	6.000	1.940	1-8	ER-11HN	ER-11S	ER-11W
966-000-218	CT50-ER16-400-G2	CAT50	ER16	1.100	1.100	2.750	2.620	3.250	4.000	4.500	1-8	ER-16HN	ER-16S	ER-16W
966-000-220	CT50-ER16-600-G2	CAT50	ER16	1.100	1.100	2.750	4.620	5.250	6.000	4.500	1-8	ER-16HN	ER-16S	ER-16W
966-000-222	CT50-ER16-800-G2	CAT50	ER16	1.100	1.100	2.750	6.620	7.250	8.000	4.500	1-8	ER-16HN	ER-16S	ER-16W
966-000-224	CT50-ER20-250-G2	CAT50	ER20	1.340	1.340	1.340	1.750	N/A	2.500	3.380	1-8	ER-20HN	ER-20S	ER-20W
966-000-226	CT50-ER20-400-G2	CAT50	ER20	1.340	1.340	2.750	2.620	3.250	4.000	4.000	1-8	ER-20HN	ER-20S	ER-20W

ER COLLET TOOL HOLDERS



Balanced to:
G2.5 (20,000 rpm)

PRODUCT #	Designation	ADINTSD	DCONWS	BD	BD1	BD2	LB	LB1	LF	LU	CRKS	Collet Nut	Stop Screw	Wrench
966-000-228	CT50-ER20-600-G2	CAT50	ER20	1.340	1.340	2.750	4.620	5.250	6.000	4.000	1-8	ER-20HN	ER-20S	ER-20W
966-000-230	CT50-ER20-800-G2	CAT50	ER20	1.340	1.340	2.750	6.620	7.250	8.000	4.000	1-8	ER-20HN	ER-20S	ER-20W
966-000-232	CT50-ER25-250-G2	CAT50	ER25	1.660	1.590	2.750	1.120	1.750	2.500	4.500	1-8	ER-25SN	ER-25S	ER-25W
966-000-234	CT50-ER25-400-G2	CAT50	ER25	1.660	1.590	2.750	2.620	3.250	4.000	4.500	1-8	ER-25SN	ER-25S	ER-25W
966-000-236	CT50-ER25-600-G2	CAT50	ER25	1.660	1.590	2.750	4.620	5.250	6.000	4.500	1-8	ER-25SN	ER-25S	ER-25W
966-000-238	CT50-ER25-800-G2	CAT50	ER25	1.660	1.590	2.750	6.620	7.250	8.000	4.500	1-8	ER-25SN	ER-25S	ER-25W
966-000-240	CT50-ER32-300-G2	CAT50	ER32	1.980	2.000	2.750	1.620	2.250	3.000	3.500	1-8	ER-32SN	ER-32S	ER-32W
966-000-242	CT50-ER32-400-G2	CAT50	ER32	1.980	2.000	2.750	2.620	3.250	4.000	4.000	1-8	ER-32SN	ER-32S	ER-32W
966-000-244	CT50-ER32-500-G2	CAT50	ER32	1.980	2.000	2.750	3.620	4.250	5.000	4.000	1-8	ER-32SN	ER-32S	ER-32W
966-000-246	CT50-ER32-600-G2	CAT50	ER32	1.980	2.000	2.750	4.620	5.250	6.000	4.000	1-8	ER-32SN	ER-32S	ER-32W
966-000-248	CT50-ER32-800-G2	CAT50	ER32	1.980	2.000	2.750	6.620	7.250	8.000	4.000	1-8	ER-32SN	ER-32S	ER-32W
966-000-250	CT50-ER40-300-G2	CAT50	ER40	2.500	2.500	2.750	1.620	2.250	3.000	4.000	1-8	ER-40SN	ER-40S	ER-40W
966-000-252	CT50-ER40-400-G2	CAT50	ER40	2.500	2.500	2.750	2.620	3.250	4.000	4.500	1-8	ER-40SN	ER-40S	ER-40W
966-000-254	CT50-ER40-500-G2	CAT50	ER40	2.500	2.500	2.750	3.620	4.250	5.000	4.500	1-8	ER-40SN	ER-40S	ER-40W
966-000-256	CT50-ER40-600-G2	CAT50	ER40	2.500	2.500	2.750	4.620	5.250	6.000	4.500	1-8	ER-40SN	ER-40S	ER-40W
966-000-258	CT50-ER40-800-G2	CAT50	ER40	2.500	2.500	2.750	6.620	7.250	8.000	4.500	1-8	ER-40SN	ER-40S	ER-40W

*All Hardware Included. Wrenches Sold Separately.

PRODUCT #	Nut
968-000-029	ER-11HN
968-000-033	ER-16HN
968-000-038	ER-20HN
968-000-044	ER-25SN
968-000-047	ER-32SN
968-000-050	ER-40SN
968-000-030	ER-11MN
968-000-034	ER-16MN
968-000-039	ER-20MN

PACKAGE SIZE OF 1

PRODUCT #	Adj. Screw
968-000-032	ER-11S
968-000-036	ER-16S
968-000-041	ER-20S
968-000-043	ER-25S
968-000-046	ER-32S
968-000-049	ER-40S

PACKAGE SIZE OF 1

PRODUCT #	Wrench
968-000-189	ER-11W
968-000-031	ER-11MW
968-000-035	ER-16MW
968-000-037	ER-16W
968-000-040	ER-20MW
968-000-042	ER-20W
968-000-045	ER-25W
968-000-048	ER-32W
968-000-051	ER-40W

PACKAGE SIZE OF 1


IMPERIAL SEALED COLLETS

	Ø	PRODUCT #	Designation
ER16	1/8	916-000-041	ER16C-SS-1250
	5/32	916-000-042	ER16C-SS-1562
	3/16	916-000-043	ER16C-SS-1875
	7/32	916-000-044	ER16C-SS-2187
	1/4	916-000-045	ER16C-SS-2500
	9/32	916-000-046	ER16C-SS-2812
	5/16	916-000-047	ER16C-SS-3125
	11/32	916-000-048	ER16C-SS-3437
	3/8	916-000-049	ER16C-SS-3750
	13/32	916-000-050	ER16C-SS-4062
ER20	1/8	916-000-089	ER20C-SS-1250
	5/32	916-000-092	ER20C-SS-1562
	3/16	916-000-093	ER20C-SS-1875
	7/32	916-000-094	ER20C-SS-2187
	1/4	916-000-095	ER20C-SS-2500
	9/32	916-000-096	ER20C-SS-2812
	5/16	916-000-097	ER20C-SS-3125
	11/32	916-000-098	ER20C-SS-3437
	3/8	916-000-099	ER20C-SS-3750
	13/32	916-000-100	ER20C-SS-4062
	7/16	916-000-101	ER20C-SS-4375
	15/32	916-000-102	ER20C-SS-4687
	1/2	916-000-104	ER20C-SS-5000
	ER25	1/8	916-000-147
5/32		916-000-151	ER25C-SS-1562
3/16		916-000-154	ER25C-SS-1875
7/32		916-000-155	ER25C-SS-2187
1/4		916-000-156	ER25C-SS-2500
9/32		916-000-157	ER25C-SS-2812
5/16		916-000-158	ER25C-SS-3125
11/32		916-000-159	ER25C-SS-3437
3/8		916-000-160	ER25C-SS-3750
13/32		916-000-161	ER25C-SS-4062
7/16		916-000-162	ER25C-SS-4375
15/32		916-000-163	ER25C-SS-4687
1/2		916-000-165	ER25C-SS-5000
17/32		916-000-166	ER25C-SS-5312
9/16		916-000-167	ER25C-SS-5625
19/32		916-000-168	ER25C-SS-5937
5/8		916-000-170	ER25C-SS-6250

	Ø	PRODUCT #	Designation
ER32	1/8	916-000-220	ER32C-SS-1250
	5/32	916-000-224	ER32C-SS-1562
	3/16	916-000-228	ER32C-SS-1875
	7/32	916-000-232	ER32C-SS-2187
	1/4	916-000-233	ER32C-SS-2500
	9/32	916-000-234	ER32C-SS-2812
	5/16	916-000-235	ER32C-SS-3125
	11/32	916-000-236	ER32C-SS-3437
	3/8	916-000-237	ER32C-SS-3750
	13/32	916-000-238	ER32C-SS-4062
	7/16	916-000-239	ER32C-SS-4375
	15/32	916-000-240	ER32C-SS-4687
	1/2	916-000-242	ER32C-SS-5000
	17/32	916-000-243	ER32C-SS-5312
	9/16	916-000-244	ER32C-SS-5625
	19/32	916-000-245	ER32C-SS-5937
	5/8	916-000-247	ER32C-SS-6250
	21/32	916-000-248	ER32C-SS-6562
	11/16	916-000-249	ER32C-SS-6875
	23/32	916-000-251	ER32C-SS-7187
ER40	3/4	916-000-252	ER32C-SS-7500
	1/8	916-000-309	ER40C-SS-1250
	5/32	916-000-313	ER40C-SS-1562
	3/16	916-000-317	ER40C-SS-1875
	7/32	916-000-321	ER40C-SS-2187
	1/4	916-000-326	ER40C-SS-2500
	9/32	916-000-329	ER40C-SS-2812
	5/16	916-000-330	ER40C-SS-3125
	11/32	916-000-331	ER40C-SS-3437
	3/8	916-000-332	ER40C-SS-3750
	13/32	916-000-333	ER40C-SS-4062
	7/16	916-000-334	ER40C-SS-4375
	15/32	916-000-335	ER40C-SS-4687
	1/2	916-000-336	ER40C-SS-5000
	17/32	916-000-337	ER40C-SS-5312
	9/16	916-000-338	ER40C-SS-5625
	19/32	916-000-339	ER405C-SS-5937
	5/8	916-000-340	ER40C-SS-6250
	21/32	916-000-341	ER40C-SS-6562
	11/16	916-000-342	ER40C-SS-6875
23/32	916-000-298	ER40C-SS-7187	
3/4	916-000-299	ER40C-SS-7500	
13/16	916-000-347	ER40C-SS-8125	
7/8	916-000-348	ER40C-SS-8750	
1	916-000-257	ER40C-SS-1000	

METRIC SEALED COLLETS



	Ø	PRODUCT #	Designation
ER16	4mm	916-000-051	ER16C-SS-4MM
	5mm	916-000-052	ER16C-SS-5MM
	6mm	916-000-053	ER16C-SS-6MM
	7mm	916-000-054	ER16C-SS-7MM
	8mm	916-000-055	ER16C-SS-8MM
	9mm	916-000-056	ER16C-SS-9MM
	10mm	916-000-040	ER16C-SS-10MM
ER20	4mm	916-000-105	ER20C-SS-4MM
	5mm	916-000-106	ER20C-SS-5MM
	6mm	916-000-107	ER20C-SS-6MM
	7mm	916-000-108	ER20C-SS-7MM
	8mm	916-000-109	ER20C-SS-8MM
	9mm	916-000-085	ER20C-SS-9MM
	10mm	916-000-087	ER20C-SS-10MM
	11mm	916-000-088	ER20C-SS-11MM
	12mm	916-000-090	ER20C-SS-12MM
	13mm	916-000-091	ER20C-SS-13MM
ER25	4mm	916-000-164	ER25C-SS-4MM
	5mm	916-000-169	ER25C-SS-5MM
	6mm	916-000-171	ER25C-SS-6MM
	7mm	916-000-172	ER25C-SS-7MM
	8mm	916-000-173	ER25C-SS-8MM
	9mm	916-000-174	ER25C-SS-9MM
	10mm	916-000-145	ER25C-SS-10MM
	11mm	916-000-146	ER25C-SS-11MM
	12mm	916-000-148	ER25C-SS-12MM
	13mm	916-000-149	ER25C-SS-13MM
	14mm	916-000-150	ER25C-SS-14MM
	15mm	916-000-152	ER25C-SS-15MM
	16mm	916-000-153	ER25C-SS-16MM
	17mm	916-000-120	ER25C-SS-17MM

	Ø	PRODUCT #	Designation
ER32	4mm	916-000-241	ER32C-SS-4MM
	5mm	916-000-246	ER32C-SS-5MM
	6mm	916-000-250	ER32C-SS-6MM
	7mm	916-000-253	ER32C-SS-7MM
	8mm	916-000-254	ER32C-SS-8MM
	9mm	916-000-255	ER32C-SS-9MM
	10mm	916-000-218	ER32C-SS-10MM
	11mm	916-000-219	ER32C-SS-11MM
	12mm	916-000-221	ER32C-SS-12MM
	13mm	916-000-222	ER32C-SS-13MM
	14mm	916-000-223	ER32C-SS-14MM
	15mm	916-000-225	ER32C-SS-15MM
	16mm	916-000-226	ER32C-SS-16MM
	17mm	916-000-227	ER32C-SS-17MM
	18mm	916-000-229	ER32C-SS-18MM
	19mm	916-000-230	ER32C-SS-19MM
	ER40	20mm	916-000-231
6mm		916-000-343	ER40C-SS-6MM
7mm		916-000-346	ER40C-SS-7MM
8mm		916-000-349	ER40C-SS-8MM
9mm		916-000-350	ER40C-SS-9MM
10mm		916-000-307	ER40C-SS-10MM
11mm		916-000-308	ER40C-SS-11MM
12mm		916-000-310	ER40C-SS-12MM
13mm		916-000-311	ER40C-SS-13MM
14mm		916-000-312	ER40C-SS-14MM
15mm		916-000-314	ER40C-SS-15MM
16mm		916-000-315	ER40C-SS-16MM
17mm		916-000-316	ER40C-SS-17MM
18mm		916-000-318	ER40C-SS-18MM
19mm		916-000-319	ER40C-SS-19MM
20mm		916-000-320	ER40C-SS-20MM
21mm		916-000-322	ER40C-SS-21MM
22mm	916-000-323	ER40C-SS-22MM	
23mm	916-000-324	ER40C-SS-23MM	
24mm	916-000-325	ER40C-SS-24MM	
25mm	916-000-327	ER40C-SS-25MM	
26mm	916-000-328	ER40C-SS-26MM	

IMPERIAL COLLETS


	Ø	PRODUCT #	Designation
ER11	1/16	916-000-001	ER11C-0625*
	3/32	916-000-002	ER11C-0937*
	1/8	916-000-003	ER11C-1250*
	5/32	916-000-004	ER11C-1562*
	3/16	916-000-005	ER11C-1875*
	7/32	916-000-007	ER11C-2187*
	1/4	916-000-008	ER11C-2500*
ER16	1/16	916-000-017	ER16C-0625
	3/32	916-000-018	ER16C-0937*
	1/8	916-000-020	ER16C-1250*
	5/32	916-000-021	ER16C-1562*
	3/16	916-000-022	ER16C-1875*
	7/32	916-000-024	ER16C-2187*
	1/4	916-000-025	ER16C-2500*
	9/32	916-000-026	ER16C-2812*
	5/16	916-000-028	ER16C-3125*
	11/32	916-000-029	ER16C-3437*
	3/8	916-000-030	ER16C-3750*
	13/32	916-000-032	ER16C-4062

	Ø	PRODUCT #	Designation	
ER20	3/32	916-000-058	ER20C-0937	
	1/8	916-000-061	ER20C-1250*	
	5/32	916-000-065	ER20C-1562*	
	3/16	916-000-066	ER20C-1875*	
	7/32	916-000-068	ER20C-2187*	
	1/4	916-000-069	ER20C-2500*	
	9/32	916-000-070	ER20C-2812*	
	5/16	916-000-072	ER20C-3125*	
	11/32	916-000-073	ER20C-3437	
	3/8	916-000-074	ER20C-3750*	
	13/32	916-000-076	ER20C-4062	
	7/16	916-000-077	ER20C-4375*	
	15/32	916-000-078	ER20C-4687	
	1/2	916-000-080	ER20C-5000*	
	ER25	1/8	916-000-113	ER25C-1250
		5/32	916-000-117	ER25C-1562*
		3/16	916-000-121	ER25C-1875*
7/32		916-000-122	ER25C-2187*	
1/4		916-000-123	ER25C-2500*	
9/32		916-000-124	ER25C-2812	
5/16		916-000-126	ER25C-3125*	
11/32		916-000-127	ER25C-3437	
3/8		916-000-128	ER25C-3750*	
13/32		916-000-130	ER25C-4062	
7/16		916-000-131	ER25C-4375*	
15/32		916-000-132	ER25C-4687	
1/2		916-000-134	ER25C-5000*	
17/32	916-000-135	ER25C-5312		
9/16	916-000-136	ER25C-5625*		
19/32	916-000-137	ER25C-5937		
5/8	916-000-139	ER25C-6250*		

IMPERIAL COLLETS SETS

Product #	Designation	Description
916-000-015	ER11CS	7 pcs (items with "*" in ER11 section included)
916-000-039	ER16CS	10 pcs (items with "*" in ER16 section included)
916-000-086	ER20CS	10 pcs (items with "*" in ER20 section included)
916-000-144	ER25CS	10 pcs (items with "*" in ER25 section included)
916-000-217	ER32CS	10 pcs (items with "*" in ER32 section included)
916-000-305	ER40CS	10 pcs (items with "*" in ER40 section included)

IMPERIAL COLLETS



	Ø	PRODUCT #	Designation
ER32	3/32	916-000-176	ER32C-0937
	1/8	916-000-179	ER32C-1250*
	5/32	916-000-183	ER32C-1562
	3/16	916-000-187	ER32C-1875*
	7/32	916-000-191	ER32C-2187
	1/4	916-000-193	ER32C-2500*
	9/32	916-000-194	ER32C-2812
	5/16	916-000-195	ER32C-3125*
	11/32	916-000-196	ER32C-3437
	3/8	916-000-197	ER32C-3750*
	13/32	916-000-199	ER32C-4062
	7/16	916-000-200	ER32C-4375*
	15/32	916-000-201	ER32C-4687
	1/2	916-000-203	ER32C-5000*
	17/32	916-000-204	ER32C-5312
	9/16	916-000-205	ER32C-5625*
	19/32	916-000-206	ER32C-5937
	5/8	916-000-208	ER32C-6250*
	21/32	916-000-209	ER32C-6562
11/16	916-000-210	ER32C-6875	
23/32	916-000-212	ER32C-7187	
3/4	916-000-213	ER32C-7500*	

	Ø	PRODUCT #	Designation
ER40	1/8	916-000-260	ER40C-1250*
	5/32	916-000-264	ER40C-1562
	3/16	916-000-268	ER40C-1875*
	7/32	916-000-272	ER40C-2187
	1/4	916-000-277	ER40C-2500*
	9/32	916-000-280	ER40C-2812
	5/16	916-000-281	ER40C-3125*
	11/32	916-000-282	ER40C-3437
	3/8	916-000-283	ER40C-3750*
	13/32	916-000-285	ER40C-4062
	7/16	916-000-286	ER40C-4375
	15/32	916-000-287	ER40C-4687
	1/2	916-000-289	ER40C-5000*
	17/32	916-000-290	ER40C-5312
	9/16	916-000-291	ER40C-5625
	19/32	916-000-292	ER405C-5937
	5/8	916-000-294	ER40C-6250*
	21/32	916-000-295	ER40C-6562
	11/16	916-000-296	ER40C-6875
	23/32	916-000-298	ER40C-7187
	3/4	916-000-299	ER40C-7500*
	13/16	916-000-301	ER40C-8125
	7/8	916-000-302	ER40C-8750*
	1	916-000-257	ER40C-1000*

IMPERIAL COLLETS SETS

Product #	Designation	Description
916-000-015	ER11CS	7 pcs (items with "*" in ER11 section included)
916-000-039	ER16CS	10 pcs (items with "*" in ER16 section included)
916-000-086	ER20CS	10 pcs (items with "*" in ER20 section included)
916-000-144	ER25CS	10 pcs (items with "*" in ER25 section included)
916-000-217	ER32CS	10 pcs (items with "*" in ER32 section included)
916-000-305	ER40CS	10 pcs (items with "*" in ER40 section included)

METRIC COLLETS



	Ø	PRODUCT #	Designation
ER11	1mm	916-000-006	ER11C-1MM*
	2mm	916-000-009	ER11C-2MM*
	3mm	916-000-010	ER11C-3MM*
	4mm	916-000-011	ER11C-4MM*
	5mm	916-000-012	ER11C-5MM*
	6mm	916-000-013	ER11C-6MM*
	7mm	916-000-014	ER11C-7MM
ER16	1mm	916-000-023	ER16C-1MM*
	2mm	916-000-027	ER16C-2MM*
	3mm	916-000-031	ER16C-3MM*
	4mm	916-000-033	ER16C-4MM*
	5mm	916-000-034	ER16C-5MM*
	6mm	916-000-035	ER16C-6MM*
	7mm	916-000-036	ER16C-7MM
	8mm	916-000-037	ER16C-8MM*
	9mm	916-000-038	ER16C-9MM
	10mm	916-000-019	ER16C-10MM*

	Ø	PRODUCT #	Designation
ER20	1mm	916-000-067	ER20C-1MM
	2mm	916-000-071	ER20C-2MM*
	3mm	916-000-075	ER20C-3MM*
	4mm	916-000-079	ER20C-4MM*
	5mm	916-000-081	ER20C-5MM*
	6mm	916-000-082	ER20C-6MM*
	7mm	916-000-083	ER20C-7MM
	8mm	916-000-084	ER20C-8MM*
	9mm	916-000-085	ER20C-9MM
	10mm	916-000-059	ER20C-10MM*
	11mm	916-000-060	ER20C-11MM
	12mm	916-000-062	ER20C-12MM*
	13mm	916-000-063	ER20C-13MM
	14mm	916-000-064	ER20C-14MM*
ER25	2mm	916-000-125	ER25C-2MM*
	3mm	916-000-129	ER25C-3MM*
	4mm	916-000-133	ER25C-4MM*
	5mm	916-000-138	ER25C-5MM*
	6mm	916-000-140	ER25C-6MM*
	7mm	916-000-141	ER25C-7MM
	8mm	916-000-142	ER25C-8MM*
	9mm	916-000-143	ER25C-9MM
	10mm	916-000-111	ER25C-10MM*
	11mm	916-000-112	ER25C-11MM
	12mm	916-000-114	ER25C-12MM*
	13mm	916-000-115	ER25C-13MM
	14mm	916-000-116	ER25C-14MM*
	15mm	916-000-118	ER25C-15MM
16mm	916-000-119	ER25C-16MM*	
17mm	916-000-120	ER25C-17MM	

METRIC COLLETS SETS

Product #	Designation	Description
916-000-016	ER11MCS	6 pcs (items with "*" in ER11 section included)
916-000-057	ER16MCS	8 pcs (items with "*" in ER16 section included)
916-000-110	ER20MCS	9 pcs (items with "*" in ER20 section included)
916-000-175	ER25MCS	10 pcs (items with "*" in ER25 section included)
916-000-256	ER32MCS	11 pcs (items with "*" in ER32 section included)
916-000-351	ER40MCS	14 pcs (items with "*" in ER40 section included)



METRIC COLLETS



	Ø	PRODUCT #	Designation
ER32	3mm	916-000-198	ER32C-3MM*
	4mm	916-000-202	ER32C-4MM*
	5mm	916-000-207	ER32C-5MM*
	6mm	916-000-211	ER32C-6MM*
	7mm	916-000-214	ER32C-7MM
	8mm	916-000-215	ER32C-8MM*
	9mm	916-000-216	ER32C-9MM
	10mm	916-000-177	ER32C-10MM*
	11mm	916-000-178	ER32C-11MM
	12mm	916-000-180	ER32C-12MM*
	13mm	916-000-181	ER32C-13MM
	14mm	916-000-182	ER32C-14MM*
	15mm	916-000-184	ER32C-15MM
	16mm	916-000-185	ER32C-16MM*
	17mm	916-000-186	ER32C-17MM
18mm	916-000-188	ER32C-18MM*	
19mm	916-000-189	ER32C-19MM	
20mm	916-000-190	ER32C-20MM*	
21mm	916-000-192	ER32C-21MM	

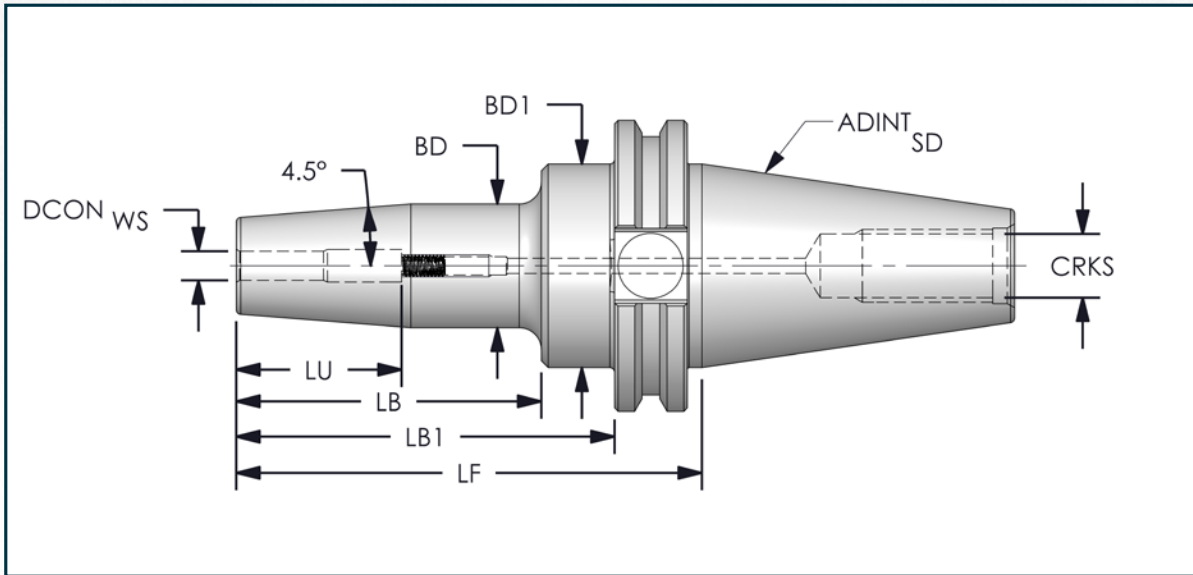
	Ø	PRODUCT #	Designation
ER40	3mm	916-000-284	ER40C-3MM*
	4mm	916-000-288	ER40C-4MM*
	5mm	916-000-293	ER40C-5MM*
	6mm	916-000-297	ER40C-6MM*
	7mm	916-000-300	ER40C-7MM
	8mm	916-000-303	ER40C-8MM*
	9mm	916-000-304	ER40C-9MM
	10mm	916-000-258	ER40C-10MM*
	11mm	916-000-259	ER40C-11MM
	12mm	916-000-261	ER40C-12MM*
	13mm	916-000-262	ER40C-13MM
	14mm	916-000-263	ER40C-14MM*
	15mm	916-000-265	ER40C-15MM
	16mm	916-000-266	ER40C-16MM*
	17mm	916-000-267	ER40C-17MM
	18mm	916-000-269	ER40C-18MM*
	19mm	916-000-270	ER40C-19MM
	20mm	916-000-271	ER40C-20MM*
	21mm	916-000-273	ER40C-21MM
	22mm	916-000-274	ER40C-22MM*
23mm	916-000-275	ER40C-23MM	
24mm	916-000-276	ER40C-24MM*	
25mm	916-000-278	ER40C-25MM	
26mm	916-000-279	ER40C-26MM*	

METRIC COLLETS SETS

Product #	Designation	Description
916-000-016	ER11MCS	6 pcs (items with "*" in ER11 section included)
916-000-057	ER16MCS	8 pcs (items with "*" in ER16 section included)
916-000-110	ER20MCS	9 pcs (items with "*" in ER20 section included)
916-000-175	ER25MCS	10 pcs (items with "*" in ER25 section included)
916-000-256	ER32MCS	11 pcs (items with "*" in ER32 section included)
916-000-351	ER40MCS	14 pcs (items with "*" in ER40 section included)



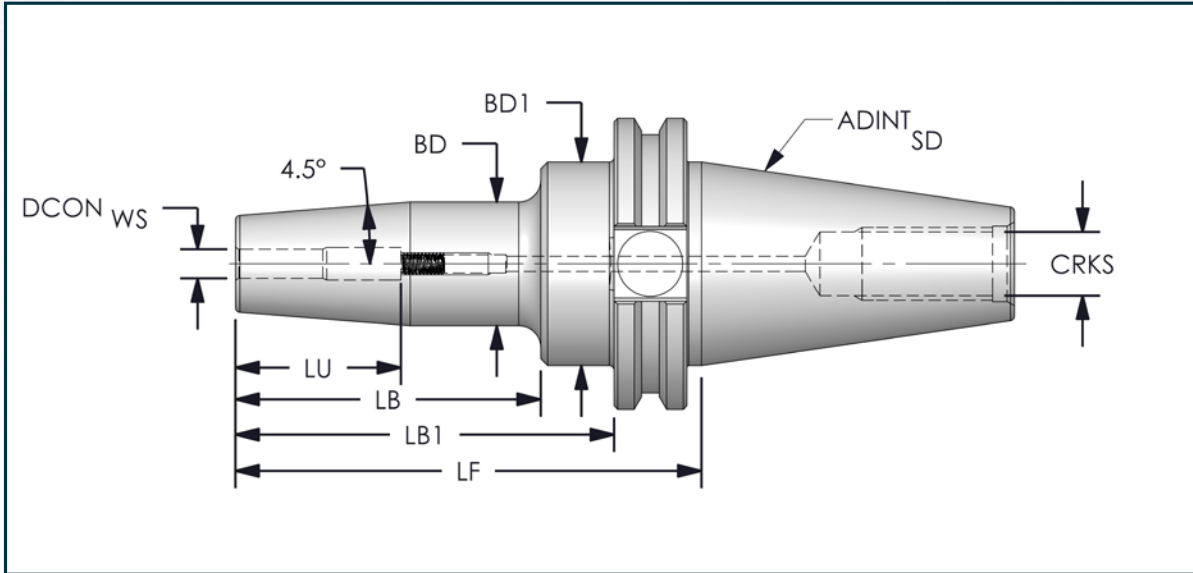
IMPERIAL SHRINK FIT TOOL HOLDERS



**Balanced to:
G2.5 (20,000 rpm)**

PRODUCT #	Designation	ADINTSD	DCON WS	BD	BD1	LB	LB1	LF	LU	CRKS	THREAD
966-000-116	CT40-SF012-400-G2	CAT40	0.125	0.500	1.750	2.620	3.250	4.000	0.790	5/8-11	N/A
966-000-121	CT40-SF188-400-G2	CAT40	0.188	0.500	1.750	2.620	3.250	4.000	0.790	5/8-11	N/A
966-000-123	CT40-SF250-400-G2	CAT40	0.250	0.750	1.750	2.620	3.250	4.000	1.420	5/8-11	10-32
966-000-126	CT40-SF375-400-G2	CAT40	0.375	0.750	1.750	2.620	3.250	4.000	1.530	5/8-11	1/4-28
966-000-128	CT40-SF500-400-G2	CAT40	0.500	1.000	1.750	2.620	3.250	4.000	1.850	5/8-11	7/16-20
966-000-130	CT40-SF625-400-G2	CAT40	0.625	1.000	1.750	2.625	3.250	4.000	1.970	5/8-11	9/16-18
966-000-132	CT40-SF750-400-G2	CAT40	0.750	1.250	1.750	2.625	3.250	4.000	2.040	5/8-11	5/8-18
966-000-118	CT40-SF100-400-G2	CAT40	1.000	2.090	1.750	2.625	3.250	4.000	2.280	5/8-11	3/4-16
966-000-120	CT40-SF125-400-G2	CAT40	1.250	2.090	1.750	2.625	3.250	4.000	2.280	5/8-11	3/4-16

IMPERIAL SHRINK FIT TOOL HOLDERS

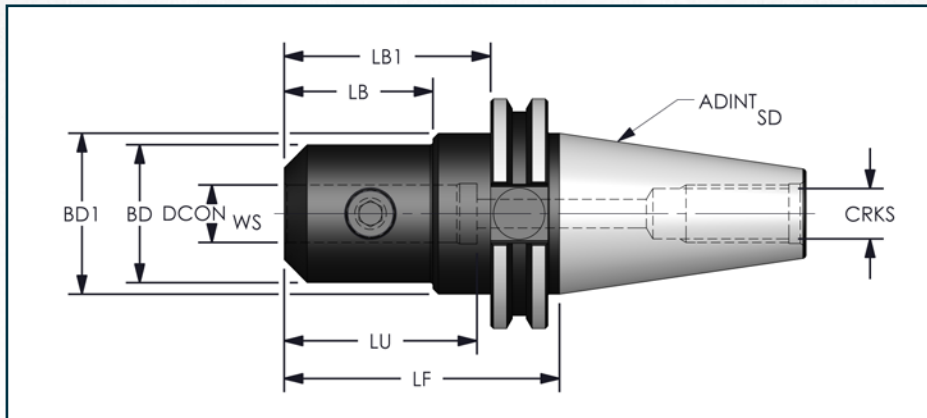


Balanced to:
G2.5 (20,000 rpm)

PRODUCT #	Designation	ADINTSD	DCON WS	BD	BD1	LB	LB1	LF	LU	CRKS	Thread
966-000-265	CT50-SF012-400-G2	CAT50	0.125	0.787	2.750	2.620	3.250	4.000	0.375	1-8	N/A
966-000-268	CT50-SF188-400-G2	CAT50	0.188	0.750	2.750	2.620	3.250	4.000	0.563	1-8	N/A
966-000-269	CT50-SF250-400-G2	CAT50	0.250	0.750	2.750	2.620	3.250	4.000	1.420	1-8	10-32
966-000-272	CT50-SF375-400-G2	CAT50	0.375	0.750	2.750	2.620	3.250	4.000	1.530	1-8	1/4-28
966-000-275	CT50-SF500-400-G2	CAT50	0.500	1.000	2.750	2.620	3.250	4.000	1.850	1-8	7/16-20
966-000-278	CT50-SF625-400-G2	CAT50	0.625	1.000	2.750	2.620	3.250	4.000	1.970	1-8	9/16-18
966-000-280	CT50-SF750-400-G2	CAT50	0.750	1.250	2.750	2.620	3.250	4.000	2.040	1-8	5/8-18
966-000-266	CT50-SF100-400-G2	CAT50	1.000	2.090	2.750	2.620	3.250	4.000	2.280	1-8	3/4-16
966-000-267	CT50-SF125-400-G2	CAT50	1.250	2.090	2.750	2.620	3.250	4.000	2.280	1-8	3/4-16



WELDON SIDE LOCK TOOL HOLDERS



**Balanced to:
G2.5 (20,000 rpm)**

PRODUCT #	Designation	ADINTSD	DCONWS	BD	BD1	LB	LB1	LF	LU	CRKS	Set Screw
966-000-001	CT40-EM012-250-G2	CAT40	0.125	0.690	1.750	1.120	1.750	2.500	N/A	5/8-11	SS10-250
966-000-017	CT40-EM188-250-G2	CAT40	0.188	0.750	1.750	1.120	1.750	2.500	N/A	5/8-11	SS10-250
966-000-019	CT40-EM188-400-G2	CAT40	0.188	0.750	1.750	2.620	3.250	4.000	N/A	5/8-11	SS10-250
966-000-021	CT40-EM250-250-G2	CAT40	0.250	0.880	1.750	1.125	1.750	2.500	N/A	5/8-11	SS1/4-250
966-000-023	CT40-EM250-400-G2	CAT40	0.250	0.880	1.750	2.620	3.250	4.000	N/A	5/8-11	SS1/4-250
966-000-025	CT40-EM250-600-G2	CAT40	0.250	0.880	1.750	4.625	5.250	6.000	N/A	5/8-11	SS1/4-250
966-000-027	CT40-EM312-250-G2	CAT40	0.312	0.880	1.750	1.120	1.750	2.500	N/A	5/8-11	SS1/4-250
966-000-029	CT40-EM312-400-G2	CAT40	0.312	0.880	1.750	2.625	3.250	4.000	N/A	5/8-11	SS1/4-250
966-000-031	CT40-EM312-600-G2	CAT40	0.312	0.880	1.750	4.625	5.250	6.000	N/A	5/8-11	SS1/4-250
966-000-033	CT40-EM375-250-G2	CAT40	0.375	1.000	1.750	1.120	1.750	2.500	N/A	5/8-11	SS3/8-375
966-000-035	CT40-EM375-400-G2	CAT40	0.375	1.000	1.750	2.620	3.250	4.000	N/A	5/8-11	SS3/8-375
966-000-037	CT40-EM375-600-G2	CAT40	0.375	1.000	1.750	4.620	5.250	6.000	N/A	5/8-11	SS3/8-375
966-000-039	CT40-EM437-250-G2	CAT40	0.437	1.000	1.750	1.125	1.750	2.500	N/A	5/8-11	SS3/8-375
966-000-041	CT40-EM437-400-G2	CAT40	0.437	1.000	1.750	2.620	3.250	4.000	N/A	5/8-11	SS3/8-375
966-000-043	CT40-EM500-262-G2	CAT40	0.500	1.375	1.750	1.245	1.870	2.620	N/A	5/8-11	SS7/16-500
966-000-045	CT40-EM500-400-G2	CAT40	0.500	1.375	1.750	2.620	3.250	4.000	N/A	5/8-11	SS7/16-500
966-000-047	CT40-EM500-600-G2	CAT40	0.500	1.375	1.750	4.620	5.250	6.000	N/A	5/8-11	SS7/16-500

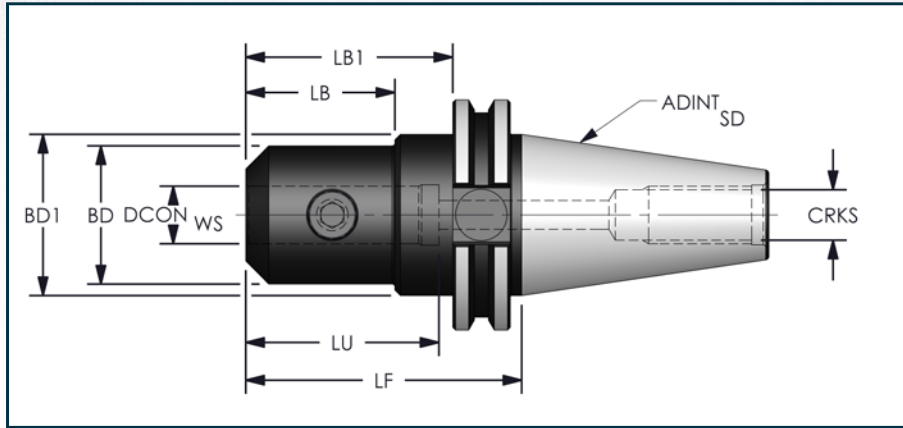
All Hardware Included

PRODUCT #	Set Screws
968-000-137	SS10-250
968-000-136	SS1/4-250
968-000-142	SS3/8-375
968-000-144	SS7/16-500
968-000-145	SS9/16-500
968-000-143	SS5/8-500
968-000-139	SS3/4-375
968-000-140	SS3/4-500
968-000-138	SS1-750

PACKAGE SIZE OF 5



WELDON SIDE LOCK TOOL HOLDERS



Balanced to:
G2.5 (15,000 rpm)

PRODUCT #	Designation	ADINTSD	DCON WS	BD	BD1	LB	LB1	LF	LU	CRKS	Set Screw
966-000-162	CT50-EM188-250-G2	CAT50	0.188	0.680	2.750	1.125	1.750	2.500	N/A	1-8	SS10-250
966-000-164	CT50-EM188-400-G2	CAT50	0.188	0.680	2.750	2.625	3.250	4.000	N/A	1-8	SS10-250
966-000-170	CT50-EM250-250-G2	CAT50	0.250	0.880	2.750	1.125	1.750	2.500	N/A	1-8	SS1/4-250
966-000-172	CT50-EM250-400-G2	CAT50	0.250	0.880	2.750	2.625	3.250	4.000	N/A	1-8	SS1/4-250
966-000-174	CT50-EM250-600-G2	CAT50	0.250	0.880	2.750	4.625	5.250	6.000	N/A	1-8	SS1/4-250
966-000-176	CT50-EM312-250-G2	CAT50	0.312	1.000	2.750	1.125	1.750	2.500	N/A	1-8	SS1/4-250
966-000-178	CT50-EM312-400-G2	CAT50	0.312	1.000	2.750	2.625	3.250	4.000	N/A	1-8	SS1/4-250
966-000-180	CT50-EM312-600-G2	CAT50	0.312	1.000	2.750	4.625	5.250	6.000	N/A	1-8	SS1/4-250
966-000-182	CT50-EM375-250-G2	CAT50	0.375	1.000	2.750	1.125	1.750	2.500	N/A	1-8	SS3/8-375
966-000-184	CT50-EM375-400-G2	CAT50	0.375	1.000	2.750	2.625	3.250	4.000	N/A	1-8	SS3/8-375
966-000-186	CT50-EM375-600-G2	CAT50	0.375	1.000	2.750	4.625	5.250	6.000	N/A	1-8	SS3/8-375
966-000-188	CT50-EM437-250-G2	CAT50	0.437	1.000	2.750	1.125	1.750	2.500	N/A	1-8	SS3/8-375
966-000-190	CT50-EM437-400-G2	CAT50	0.437	1.000	2.750	2.625	3.250	4.000	N/A	1-8	SS3/8-375
966-000-192	CT50-EM437-600-G2	CAT50	0.437	1.000	2.750	4.625	5.250	6.000	N/A	1-8	SS3/8-375
966-000-194	CT50-EM500-262-G2	CAT50	0.500	1.375	2.750	1.245	1.870	2.620	N/A	1-8	SS7/16-500
966-000-196	CT50-EM500-400-G2	CAT50	0.500	1.375	2.750	2.620	3.250	4.000	N/A	1-8	SS7/16-500
966-000-198	CT50-EM500-600-G2	CAT50	0.500	1.375	2.750	4.625	5.250	6.000	N/A	1-8	SS7/16-500

All Hardware Included

PRODUCT #	Set Screws
968-000-137	SS10-250
968-000-136	SS1/4-250
968-000-142	SS3/8-375
968-000-144	SS7/16-500
968-000-145	SS9/16-500
968-000-143	SS5/8-500
968-000-139	SS3/4-375
968-000-140	SS3/4-500
968-000-138	SS1-750

PACKAGE SIZE OF 5
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SOLID DRILL RECOMMENDED STARTING SPEEDS & FEEDS



ISO	MATERIAL	HARDNESS	Vc (SFM)*	DRILL DIAMETER (INCH)						
				≤ 1/16"	1/16"- 1/8"	1/8"- 1/4"	1/4"- 3/8"	3/8" - 1/2"	1/2" - 3/4"	3/4" - 1"
				Fz = IPR(INCH PER REVOLUTION)*						
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	210-510	.0008- .0030	.0030- .0055	.0040 - .0085	.0050 - .012	.0070 - .015	.0090 - .0175	.0100 - .0200
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	170-390	.0006- .0025	.0020- .0045	.0030- .0060	.0045 - .0080	.0060- .0120	.0070- .0145	.0080- .0175
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	95-165	.0005 - .0025	.0020- .0045	.0035- .0060	.0040- .0085	.0055 - .0125	.0070- .0150	.0080- .0170
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	80-140	.0004 - .0018	.0018- .0035	.0022 - .0045	.0033 - .0060	.0055 - .0090	.0060- .0140	.0070 - .0150
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	190-475	.0008 - .0040	.0030 - .0060	.0045- .0080	.0060- .0135	.0070 - .0140	.0010- .0160	.0120- .0200
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	"≤ 260 BHN or ≤ 26 HRC"	160-310	.0006 - .0030	.0028 - .0035	.0040- .0070	.0055- .010	.0070 - .0120	.0090- .0140	.0110- .0170
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	"≤ 271 BHN or ≤ 28 HRC"	350-950	.0010 - .0040	.0030- .0060	.0040- .0070	.0060 - .0115	.0075 - .0135	.0090 - .0150	.0100 - .0210
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	"≤ 375 BHN or ≤ 55 HRC"	55-145	.0008- .0030	.0010- .0040	.0017 - .0055	.0030 - .0073	.0055 - .0095	.0060 - .0100	.0070 - .0115
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	"≤ 275 BHN or ≤ 28 HRC"	95 -215	.0007 - .0020	.00012 - .0025	.0018- .0040	.0027- .0075	.0030 - .0075	.0050- .0090	.0060- .0110
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	"≤ 275 BHN or ≤ 28 HRC"	70-160	.0009 - .0030	.0015 - .0035	.0020- .00550	.0045 - .0100	.0075 - .0120	.0080- .0150	.0095- .0160

Recommendations

Productivity and tooling performance is not only influenced by grade and geometry, but also by clamping the tool securely and accurately as possible.

- It is recommended to use precision holders i.e. hydraulic, shrink fit
- It is recommended to use internal coolant – minimum recommended pressure 145 psi

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

INDEXABLE DRILL RECOMMENDED STARTING SPEEDS & FEEDS



ISO	MATERIAL	HARDNESS	GRADE	Vc (SFM)*	INDEXABLE DRILL DIAMETER (INCH)		
					0.5620"-0.7499"	0.7500" - 1.4999"	1.5000" - 2.2500"
					Fz = IPR (INCH PER REVOLUTION)*		
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	HP 600	350-900	.0015-.0060	.0020-.0075	.0030-.0120
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC		260-750	.0020-.0070	.0020-.0085	.0030-.0095
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	HP 600	230-700	.0018-.0040	.0030-.0065	.0030-.0085
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC		260-750	.0018-.0040	.0030-.0065	.0030-.0085
K	GRAY IRONS Class 20, 30, 40 ,50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	HK 356	285-1000	.0025-.0055	.0035-.0070	.0040-.0085
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC		230-740	.0020-.0050	.0028-.0065	.0030-.0070
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	HN 300	600-1150	.0020-.0075	.0030-.0090	.0045-.0115
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2"	≤ 375 BHN or ≤ 55 HRC	HP 600	80-275	.0018-.0065	.0020-.0075	.0030-.0080
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	HP 600	55-270	.0016-.0032	.0020-.0055	.0025-.0060
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC		95-460	.0019-.0055	.0020-.0065	.0025-.008

Recommendations

Productivity and tooling performance is not only influenced by grade and geometry, but also by clamping the tool securely and accurately as possible.

- It is recommended to use precision holders i.e. hydraulic, shrink fit
- It is recommended to use internal coolant – minimum recommended pressure 145 psi

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

HOW TO GET THE BEST OUT OF A DRILL



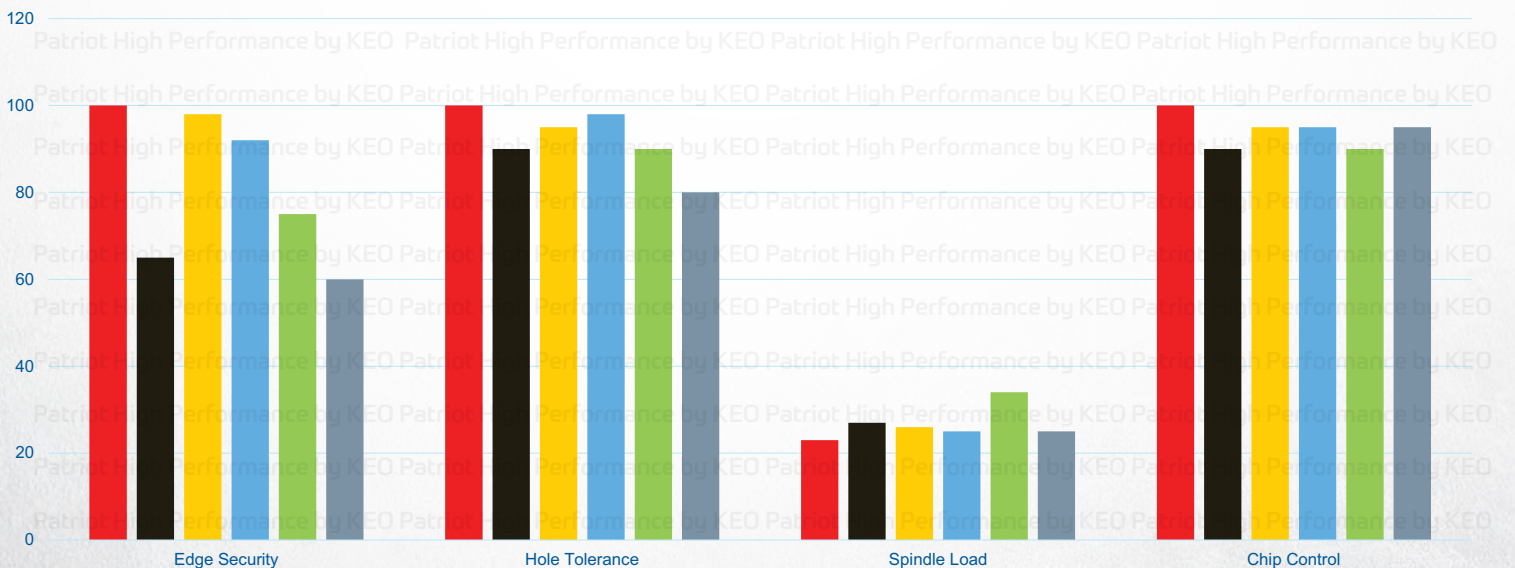
1040 HOLES

Over 11,000 holes produced in both 316 Stainless and 4140PHT

Material:	4140 PHT 33Rc
Drill Size:	6mm Drill
Coolant:	Through
RPM:	3560
IPM:	28.4

HERE'S HOW WE STAND UP IN FOUR KEY COMPONENTS

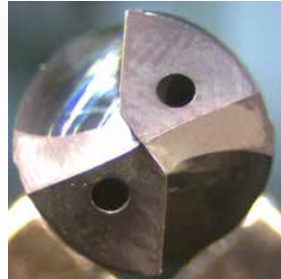
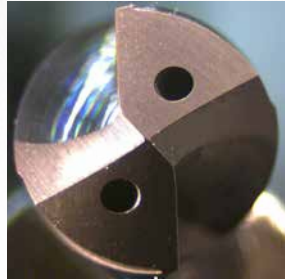
= PATRIOT
 = Competitor K
 = Competitor S
 = Competitor O
 = Competitor W
 = Competitor T



CASE STUDY



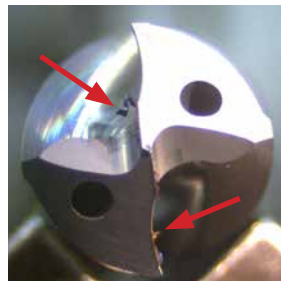
Pre-4140 steel



Post-4140 steel

Competitor K

Pre-4140 steel

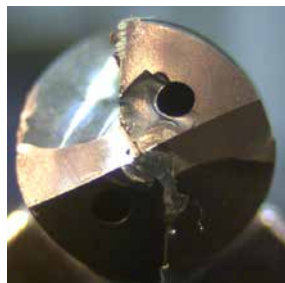


Competitor K

Post-4140 steel



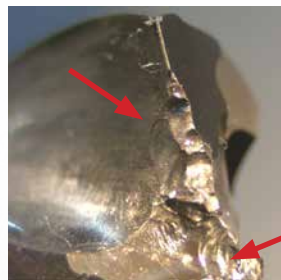
Post:
Multi-material
application of 316
stainless and 4140
PHT steel



Post:
Multi-material
application of 316
stainless and 4140
PHT steel

Competitor S

Post:
Multi-material
application of 316
stainless and 4140
PHT steel



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