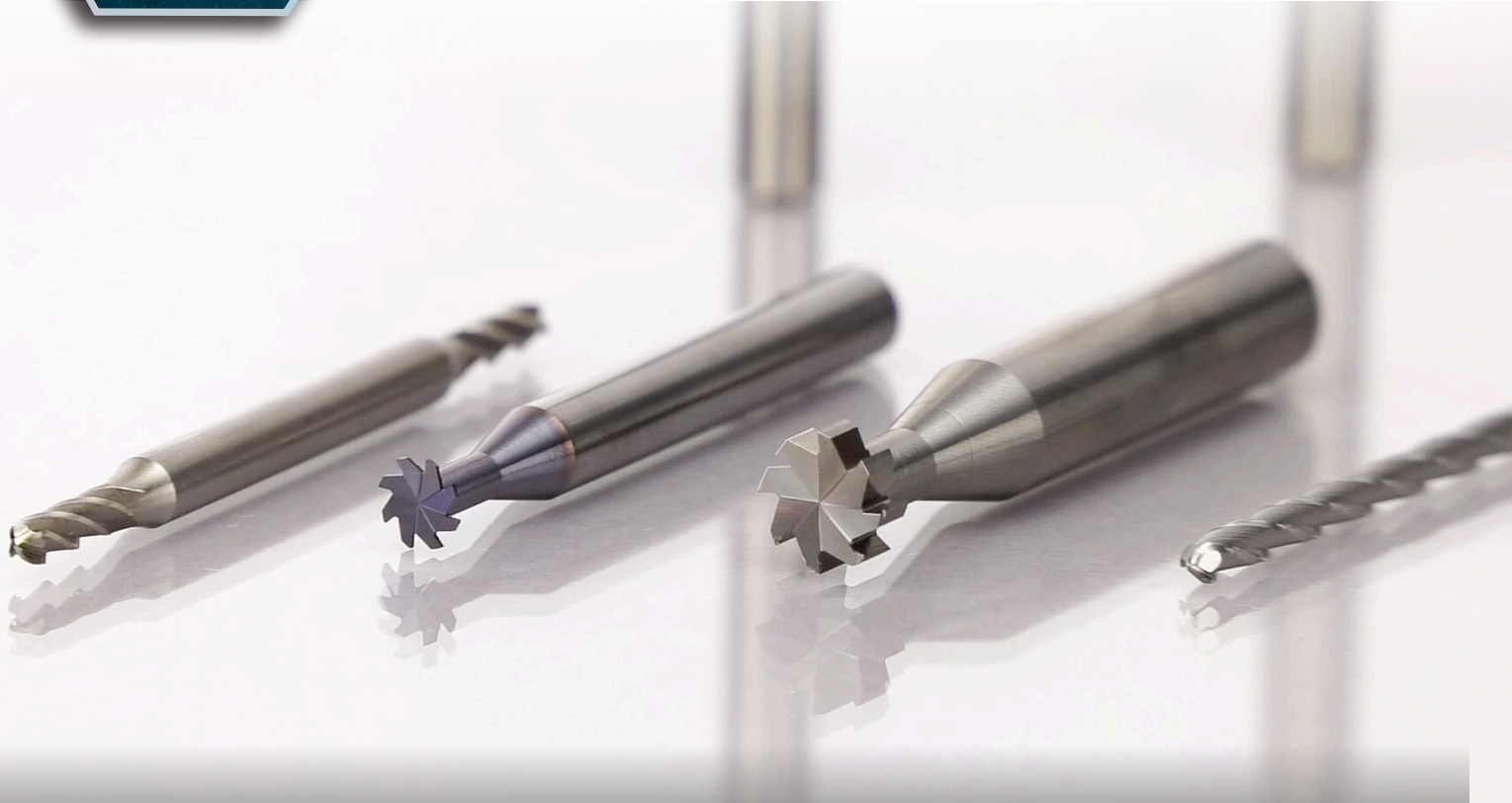




MICRO
TOOLS



ARCH[®] Cutting Tools

No part or feature is too small. KEO[®] Micro Tools are ready to meet your needs. Learn more about ARCH's broad milling, drilling, slotting, engraving and finishing solutions.



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**For more information or to view other products,
visit archcuttingtools.com**

Contact information:

ARCH® Cutting Tools - Centralized Distribution Center

Phone: 888-390-2050

Email: ARCHCTSales@archgp.com

ARCH Specials

Phone: 844-321-ARCH

Email: ARCHCTSpecials@archgp.com



Meet Our Centralized Distribution Center. It's a Convenient, Single-Source Warehouse Stocking the Full Portfolio of ARCH Products.

Our consolidated, state-of-the-art distribution center allows customers to quickly and easily order standard catalog items from our KEO® solid round tools and Ultra-Dex® indexable portfolios.

Our standard catalog, known as “The Collection,” includes solid and indexable milling and drilling tools, spotting and center drills, countersinks and bores, drill and chamfer mills, engraving tools, corner rounding tools, dovetail and t-slot cutters, slotting and plain/shell mills, slitting/jeweler saws, tool holders, inserts, and OD and ID turning tools. Customers can also order our recently rebranded KEO® Micro Tools line, as well as the Patriot High Performance by KEO® solid carbide and end mill line, from our Centralized Distribution Center.

Plus, The Collection was designed with the customer in mind. Products are organized in groups by tool setup, and all dimensions meet ISO 13399 standards to ensure digital capability.

“First, we invested in building an industry-leading, comprehensive catalog. And now, we’ve invested in making those products available to our customers quickly and conveniently through our centralized Distribution Center,” said Jeff Cederstrom, President of ARCH Cutting Tools. “This new, single-point-of-contact ordering approach saves our customers valuable time.”

Access the best general machining and high-performance cutting tools on the market quickly and easily by contacting our Centralized Distribution Center at 888-390-2050 or ARCHCTSales@archgp.com.

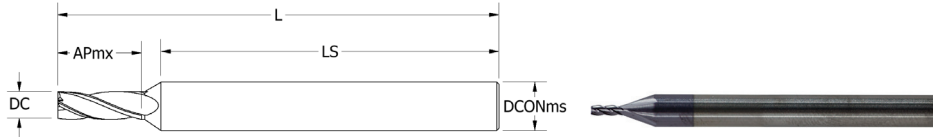
Ø .005" - .045"



DC	DCONms	APmx	LS	L	UNCOATED			ALTiN COATED	
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0050	0.1250	0.0150	1.1342	1.5000	930-000-243	N/A	N/A	930-000-527	N/A
0.0060	0.1250	0.0180	1.1342	1.5000	930-000-245	N/A	N/A	930-000-528	N/A
0.0070	0.1250	0.0210	1.1342	1.5000	930-000-246	N/A	N/A	930-000-529	N/A
0.0080	0.1250	0.0240	1.1342	1.5000	930-000-247	N/A	N/A	930-000-530	N/A
0.0090	0.1250	0.0270	1.1342	1.5000	930-000-248	N/A	N/A	930-000-531	N/A
0.0100	0.1250	0.0300	1.1742	1.5000	930-000-249	930-002-678	930-000-635	930-000-532	930-001-031
0.0100	0.1250	0.0330	1.1738	1.5000	930-000-251	930-002-679	930-000-637	930-000-533	930-001-032
0.0110	0.1250	0.0360	1.1733	1.5000	930-000-252	930-002-680	930-000-638	930-000-534	930-001-033
0.0120	0.1250	0.0390	1.1729	1.5000	930-000-253	930-002-681	930-000-639	930-000-535	930-001-034
0.0130	0.1250	0.0420	1.1725	1.5000	930-000-254	930-002-682	930-000-640	930-000-536	930-001-035
0.0140	0.1250	0.0450	1.1720	1.5000	930-000-255	930-002-683	930-000-641	930-000-537	930-001-036
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0.0180	0.1250	0.0540	1.1708	1.5000	930-000-259	930-002-684	930-000-645	930-000-540	930-001-039
0.0190	0.1250	0.0570	1.1703	1.5000	930-000-260	N/A	930-000-646	930-000-541	930-001-040
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0.0210	0.1250	0.0630	1.1695	1.5000	930-000-264	N/A	930-000-650	930-000-544	930-001-043
0.0220	0.1250	0.0660	1.1691	1.5000	930-000-265	930-002-686	930-000-651	930-000-545	930-001-044
0.0230	0.1250	0.0690	1.1686	1.5000	930-000-266	930-002-687	930-000-652	930-000-546	930-001-045
0.0240	0.1250	0.0720	1.1682	1.5000	930-000-267	930-002-688	930-000-653	930-000-547	930-001-046
0.0250	0.1250	0.0750	1.1678	1.5000	930-000-269	930-002-689	930-000-655	930-000-548	930-001-047
0.0270	0.1250	0.0810	1.1669	1.5000	930-000-270	N/A	930-000-656	930-000-549	930-001-048
0.0280	0.1250	0.0840	1.1665	1.5000	930-000-271	N/A	930-000-657	930-000-550	930-001-049
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0.0310	0.1250	0.0930	1.1652	1.5000	930-000-275	930-002-692	930-000-661	930-000-553	930-001-052
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0.0430	0.1250	0.1290	1.1601	1.5000	930-000-289	N/A	930-000-675	930-000-565	930-001-064
0.0440	0.1250	0.1320	1.1596	1.5000	930-000-290	N/A	930-000-676	930-000-566	930-001-065
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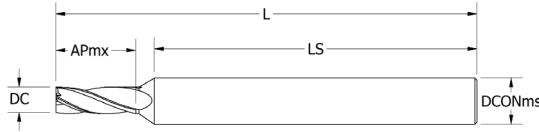
CARBIDE

Ø .005" - .045"



DC	DCONms	APmx	LS	L	TIAIN COATED			AMORPHOUS DIAMOND COATED		
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	3 FLUTE	4 FLUTE
0.0050	0.1250	0.0150	1.1342	1.5000	930-000-439	N/A	N/A	930-000-364	N/A	N/A
0.0060	0.1250	0.0180	1.1342	1.5000	930-000-440	N/A	N/A	930-000-365	N/A	N/A
0.0070	0.1250	0.0210	1.1342	1.5000	930-000-441	N/A	N/A	930-000-366	N/A	N/A
0.0080	0.1250	0.0240	1.1342	1.5000	930-000-442	N/A	N/A	930-000-367	N/A	N/A
0.0090	0.1250	0.0270	1.1342	1.5000	930-000-443	N/A	N/A	930-000-368	N/A	N/A
0.0100	0.1250	0.0300	1.1742	1.5000	930-000-444	930-002-750	930-000-880	930-000-369	930-002-729	930-000-750
0.0110	0.1250	0.0330	1.1738	1.5000	930-000-445	930-002-751	930-000-881	930-000-370	N/A	930-000-751
0.0120	0.1250	0.0360	1.1733	1.5000	930-000-446	930-002-752	930-000-882	930-000-371	N/A	930-000-752
0.0130	0.1250	0.0390	1.1729	1.5000	930-000-447	930-002-753	930-000-883	930-000-372	N/A	930-000-753
0.0140	0.1250	0.0420	1.1725	1.5000	930-000-448	930-002-754	930-000-884	930-000-373	N/A	930-000-754
0.0150	0.1250	0.0450	1.1720	1.5000	930-000-449	930-002-755	930-000-885	930-000-374	930-002-730	930-000-755
0.0156	0.1250	0.0468	1.1718	1.5000	930-000-525	930-002-795	930-000-961	N/A	N/A	N/A
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0.0170	0.1250	0.0510	1.1712	1.5000	930-000-451	N/A	930-000-887	930-000-376	N/A	930-000-757
0.0180	0.1250	0.0540	1.1708	1.5000	930-000-452	930-002-756	930-000-888	930-000-377	N/A	930-000-758
0.0190	0.1250	0.0570	1.1703	1.5000	930-000-453	N/A	930-000-889	930-000-378	N/A	930-000-759
0.0197	0.1250	0.0591	1.1700	1.5000	930-000-513	930-002-783	930-000-949	N/A	N/A	N/A
0.0200	0.1250	0.0600	1.1699	1.5000	930-000-454	930-002-757	930-000-890	930-000-379	930-002-731	930-000-760
0.0210	0.1250	0.0630	1.1695	1.5000	930-000-455	N/A	930-000-891	930-000-380	N/A	930-000-761
0.0220	0.1250	0.0660	1.1691	1.5000	930-000-456	N/A	930-000-892	930-000-381	N/A	930-000-762
0.0230	0.1250	0.0690	1.1686	1.5000	930-000-457	930-002-758	930-000-893	930-000-382	N/A	930-000-763
0.0240	0.1250	0.0720	1.1682	1.5000	930-000-458	930-002-759	930-000-894	930-000-383	N/A	930-000-764
0.0250	0.1250	0.0750	1.1678	1.5000	930-000-459	930-002-760	930-000-895	930-000-384	930-002-732	930-000-765
0.0260	0.1250	0.0780	1.1673	1.5000	930-000-460	N/A	930-000-896	930-000-385	N/A	930-000-766
0.0270	0.1250	0.0810	1.1669	1.5000	930-000-461	N/A	930-000-897	930-000-386	N/A	930-000-767
0.0280	0.1250	0.0840	1.1665	1.5000	930-000-462	N/A	930-000-898	930-000-387	N/A	930-000-768
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0.0320	0.1250	0.0960	1.1648	1.5000	930-000-466	N/A	930-000-902	930-000-391	N/A	930-000-772
0.0330	0.1250	0.0990	1.1644	1.5000	930-000-467	N/A	930-000-903	930-000-392	N/A	930-000-773
0.0340	0.1250	0.1020	1.1639	1.5000	930-000-468	N/A	930-000-904	930-000-393	N/A	930-000-774
0.0350	0.1250	0.1050	1.1635	1.5000	930-000-469	930-002-764	930-000-905	930-000-394	930-002-735	930-000-775
0.0360	0.1250	0.1080	1.1631	1.5000	930-000-470	N/A	930-000-906	930-000-395	N/A	930-000-776
0.0370	0.1250	0.1110	1.1626	1.5000	930-000-471	N/A	930-000-907	930-000-396	N/A	930-000-777
0.0380	0.1250	0.1140	1.1622	1.5000	930-000-472	N/A	930-000-908	930-000-397	N/A	930-000-778
0.0390	0.1250	0.1170	1.1618	1.5000	930-000-473	N/A	930-000-909	930-000-398	N/A	930-000-779
0.0394	0.1250	0.1182	1.1616	1.5000	930-000-514	930-002-784	930-000-950	930-000-434	N/A	930-000-815
0.0400	0.1250	0.1200	1.1614	1.5000	930-000-474	930-002-765	930-000-910	930-000-399	930-002-736	930-000-780
0.0410	0.1250	0.1230	1.1609	1.5000	930-000-475	N/A	930-000-911	930-000-400	N/A	930-000-781
0.0420	0.1250	0.1260	1.1605	1.5000	930-000-476	N/A	930-000-912	930-000-401	N/A	930-000-782
0.0430	0.1250	0.1290	1.1601	1.5000	930-000-477	N/A	930-000-913	930-000-402	N/A	930-000-783
0.0440	0.1250	0.1320	1.1596	1.5000	930-000-478	N/A	930-000-914	930-000-403	N/A	930-000-784
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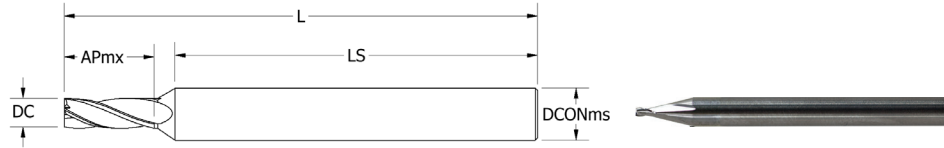
Ø .046" - .1772"



DC	DCONms	APmx	LS	L	UNCOATED			ALTiN COATED	
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0460	0.1250	0.1380	1.1588	1.5000	930-000-293	N/A	930-000-679	N/A	N/A
0.0470	0.1250	0.1410	1.1584	1.5000	930-000-294	930-000-697	930-000-680	N/A	N/A
0.0480	0.1250	0.1440	1.1579	1.5000	930-000-295	N/A	930-000-681	N/A	N/A
0.0490	0.1250	0.1470	1.1575	1.5000	930-000-296	N/A	930-000-682	N/A	N/A
0.0492	0.1250	0.1476	1.1574	1.5000	930-000-351	930-002-717	930-000-737	N/A	N/A
0.0500	0.1250	0.1500	1.1571	1.5000	930-000-297	930-000-698	930-000-683	N/A	N/A
0.0510	0.1250	0.1530	1.1567	1.5000	930-000-299	N/A	930-000-685	930-000-573	930-001-072
0.0520	0.1250	0.1560	1.1562	1.5000	930-000-300	N/A	930-000-686	930-000-574	930-001-073
0.0530	0.1250	0.1590	1.1558	1.5000	930-000-301	N/A	930-000-687	930-000-575	930-001-074
0.0540	0.1250	0.1620	1.1554	1.5000	930-000-302	N/A	930-000-688	930-000-576	930-001-075
0.0550	0.1250	0.1650	1.1549	1.5000	930-000-303	930-002-699	930-000-689	930-000-577	930-001-076
0.0560	0.1250	0.1680	1.1545	1.5000	930-000-305	N/A	930-000-691	930-000-578	930-001-077
0.0570	0.1250	0.1710	1.1541	1.5000	930-000-306	N/A	930-000-692	930-000-579	930-001-078
0.0580	0.1250	0.1740	1.1537	1.5000	930-000-307	N/A	930-000-693	930-000-580	930-001-079
0.0590	0.1250	0.1770	1.1532	1.5000	930-000-308	N/A	930-000-694	930-000-581	930-001-080
0.0591	0.1250	0.1773	1.1532	1.5000	930-000-353	930-002-718	930-000-739	930-000-603	930-001-105
0.0600	0.1250	0.1800	1.1528	1.5000	930-000-309	930-002-700	930-000-695	930-000-582	930-001-081
0.0620	0.1250	0.1860	1.1519	1.5000	930-000-311	930-002-701	930-000-697	930-000-583	930-001-082
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0.0640	0.1250	0.1920	1.1511	1.5000	930-000-312	930-002-702	930-000-698	N/A	N/A
0.0650	0.1250	0.1950	1.1507	1.5000	930-000-313	930-002-703	930-000-699	930-000-584	930-001-083
0.0700	0.1250	0.2100	1.1485	1.5000	930-000-315	930-002-704	930-000-701	930-000-585	930-001-084
0.0709	0.1250	0.2127	1.1481	1.5000	930-000-355	930-002-720	930-000-741	N/A	N/A
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0.0850	0.1250	0.2550	1.1421	1.5000	930-000-321	930-002-708	930-000-707	930-000-589	930-001-088
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0.0930	0.1250	0.2790	1.1387	1.5000	930-000-324	930-002-710	930-000-710	930-000-591	930-001-090
0.0950	0.1250	0.2850	1.1378	1.5000	930-000-325	930-002-711	930-000-711	930-000-592	930-001-091
0.0984	0.1250	0.2952	1.1364	1.5000	930-000-358	930-002-723	930-000-744	N/A	N/A
0.1000	0.1250	0.3000	1.1357	1.5000	930-000-326	930-002-712	930-000-712	930-000-593	930-001-092
0.1030	0.1250	0.3090	1.1344	1.5000	930-000-328	930-002-713	930-000-714	N/A	N/A
0.1050	0.1250	0.3150	1.1336	1.5000	930-000-329	N/A	930-000-715	930-000-594	930-001-093
0.1102	0.1250	0.3306	1.1313	1.5000	930-000-359	930-002-724	930-000-745	930-000-604	930-001-106
0.1150	0.1250	0.3450	1.1293	1.5000	930-000-330	N/A	930-000-716	930-000-595	930-001-094
0.1181	0.1250	0.3543	1.1280	1.5000	930-000-360	930-002-725	930-000-746	930-000-605	930-001-107
0.1200	0.1250	0.3600	1.1271	1.5000	930-000-331	930-002-714	930-000-717	930-000-596	930-001-095
0.1378	0.1875	0.4134	1.4588	2.0000	930-000-361	930-002-726	930-000-747	N/A	N/A
0.1772	0.1875	0.5316	1.4419	2.0000	930-000-363	930-002-728	930-000-749	N/A	N/A

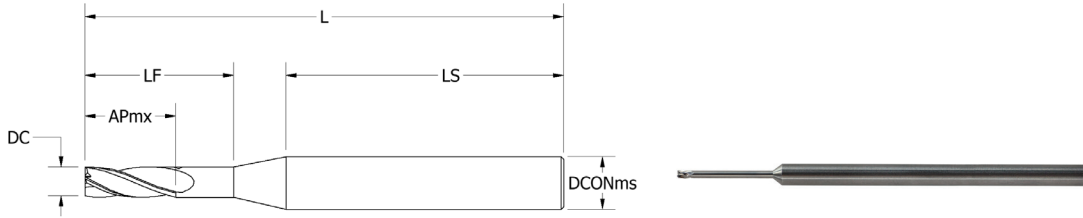
CARBIDE

Ø .005" - .040"



DC	DCONms	APmx	LS	L	UNCOATED		ALTiN COATED
					2 FLUTE	4 FLUTE	2 FLUTE
0.0050	0.1250	0.0075	1.1342	1.5000	930-001-391	N/A	930-001-564
0.0060	0.1250	0.0090	1.1342	1.5000	930-001-392	N/A	930-001-565
0.0070	0.1250	0.0105	1.1342	1.5000	930-001-393	N/A	930-001-566
0.0080	0.1250	0.0120	1.1342	1.5000	930-001-394	N/A	930-001-567
0.0090	0.1250	0.0135	1.1342	1.5000	930-001-395	N/A	930-001-568
0.0100	0.1250	0.0150	1.1892	1.5000	930-001-396	930-001-622	930-001-569
0.0110	0.1250	0.0165	1.1903	1.5000	930-001-397	930-001-623	930-001-570
0.0120	0.1250	0.0180	1.1913	1.5000	930-001-398	930-001-624	930-001-571
0.0130	0.1250	0.0195	1.1924	1.5000	930-001-399	930-001-625	930-001-572
0.0140	0.1250	0.0210	1.1935	1.5000	930-001-400	930-001-626	930-001-573
0.0150	0.1250	0.0225	1.1945	1.5000	930-001-401	930-001-627	930-001-574
0.0156	0.1250	0.0234	1.1952	1.5000	930-001-467	930-001-685	N/A
0.0160	0.1250	0.0240	1.1956	1.5000	930-001-402	930-001-628	930-001-575
0.0170	0.1250	0.0255	1.1967	1.5000	930-001-403	930-001-629	930-001-576
0.0180	0.1250	0.0270	1.1978	1.5000	930-001-404	930-001-630	930-001-577
0.0190	0.1250	0.0285	1.1988	1.5000	930-001-405	930-001-631	930-001-578
0.0197	0.1250	0.0296	1.1996	1.5000	930-001-454	930-001-673	N/A
0.0200	0.1250	0.0300	1.1999	1.5000	930-001-406	930-001-632	930-001-579
0.0210	0.1250	0.0315	1.2010	1.5000	930-001-407	930-001-633	930-001-580
0.0220	0.1250	0.0330	1.2021	1.5000	930-001-408	930-001-634	930-001-581
0.0230	0.1250	0.0345	1.2031	1.5000	930-001-409	930-001-635	930-001-582
0.0240	0.1250	0.0360	1.2042	1.5000	930-001-410	930-001-636	930-001-583
0.0250	0.1250	0.0375	1.2053	1.5000	930-001-411	930-001-637	930-001-584
0.0260	0.1250	0.0390	1.2063	1.5000	930-001-412	930-001-638	930-001-585
0.0270	0.1250	0.0405	1.2074	1.5000	930-001-413	930-001-639	930-001-586
0.0280	0.1250	0.0420	1.2085	1.5000	930-001-414	930-001-640	930-001-587
0.0290	0.1250	0.0435	1.2096	1.5000	930-001-415	930-001-641	930-001-588
0.0300	0.1250	0.0450	1.2106	1.5000	930-001-416	930-001-642	930-001-589
0.0310	0.1250	0.0465	1.2117	1.5000	930-001-417	930-001-643	930-001-590
0.0320	0.1250	0.0480	1.2128	1.5000	930-001-418	930-001-644	930-001-591
0.0330	0.1250	0.0495	1.2139	1.5000	930-001-419	930-001-645	930-001-592
0.0340	0.1250	0.0510	1.2149	1.5000	930-001-420	930-001-646	930-001-593
0.0350	0.1250	0.0525	1.2160	1.5000	930-001-421	930-001-647	930-001-594
0.0360	0.1250	0.0540	1.2171	1.5000	930-001-422	930-001-648	930-001-595
0.0370	0.1250	0.0555	1.2181	1.5000	930-001-423	930-001-649	930-001-596
0.0380	0.1250	0.0570	1.2192	1.5000	930-001-424	930-001-650	930-001-597
0.0390	0.1250	0.0585	1.2203	1.5000	930-001-425	930-001-651	930-001-598
0.0394	0.1250	0.0591	1.2207	1.5000	930-001-456	930-001-674	930-001-619
0.0400	0.1250	0.0600	1.2214	1.5000	930-001-426	930-001-652	930-001-599

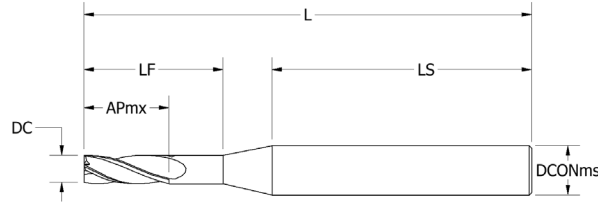
Ø .010" - .035"



DC	DCONms	APmx	LS	L	LF	UNCOATED	ALTiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0150	2.3925	2.5000	0.0500	930-003-794	930-003-658	930-003-114
0.0100	0.1250	0.0150	2.3625	2.5000	0.0800	930-003-821	930-003-685	930-003-138
0.0100	0.1250	0.0150	2.3175	2.5000	0.1250	930-003-730	930-003-594	930-003-057
0.0100	0.1250	0.0150	2.2925	2.5000	0.1500	930-003-757	930-003-621	930-003-081
0.0150	0.1250	0.0225	2.4000	2.5000	0.0450	930-003-788	930-003-652	930-003-108
0.0150	0.1250	0.0225	2.3670	2.5000	0.0780	930-003-795	930-003-659	930-003-115
0.0150	0.1250	0.0225	2.3200	2.5000	0.1250	930-003-822	930-003-686	930-003-139
0.0150	0.1250	0.0225	2.2575	2.5000	0.1875	930-003-731	930-003-595	930-003-058
0.0150	0.1250	0.0225	2.2200	2.5000	0.2250	930-003-758	930-003-622	930-003-082
0.0150	0.1250	0.0225	2.1450	2.5000	0.3000	930-003-776	930-003-640	930-003-097
0.0200	0.1250	0.0300	2.3475	2.5000	0.1000	930-003-796	930-003-660	930-003-116
0.0200	0.1250	0.0300	2.2875	2.5000	0.1600	930-003-823	930-003-687	930-003-140
0.0200	0.1250	0.0300	2.1975	2.5000	0.2500	930-003-732	930-003-596	930-003-059
0.0200	0.1250	0.0300	2.1475	2.5000	0.3000	930-003-759	930-003-623	930-003-083
0.0200	0.1250	0.0300	2.0475	2.5000	0.4000	930-003-777	930-003-642	930-003-098
0.0250	0.1250	0.0375	2.3250	2.5000	0.1250	930-003-797	930-003-661	930-003-117
0.0250	0.1250	0.0375	2.2500	2.5000	0.2000	930-003-824	930-003-688	930-003-141
0.0250	0.1250	0.0375	2.1375	2.5000	0.3125	930-003-733	930-003-597	930-003-060
0.0250	0.1250	0.0375	2.0750	2.5000	0.3750	930-003-760	930-003-624	930-003-084
0.0250	0.1250	0.0375	1.9500	2.5000	0.5000	930-003-778	930-003-642	930-003-099
0.0300	0.1250	0.0450	2.3025	2.5000	0.1500	930-003-798	930-003-662	930-003-118
0.0300	0.1250	0.0450	2.2025	2.5000	0.2500	930-003-825	930-003-689	930-003-142
0.0300	0.1250	0.0450	2.0775	2.5000	0.3750	930-003-734	930-003-598	930-003-061
0.0300	0.1250	0.0450	2.0025	2.5000	0.4500	930-003-761	930-003-625	930-003-085
0.0310	0.1250	0.0465	2.3600	2.5000	0.0930	930-003-789	930-003-653	930-003-109
0.0310	0.1250	0.0465	2.2980	2.5000	0.1550	930-003-799	930-003-663	930-003-119
0.0310	0.1250	0.0465	2.2030	2.5000	0.2500	930-003-826	930-003-690	930-003-143
0.0310	0.1250	0.0465	2.0780	2.5000	0.3750	930-003-735	930-003-599	930-003-062
0.0310	0.1250	0.0465	1.9830	2.5000	0.4700	930-003-762	930-003-626	930-003-086
0.0310	0.1250	0.0465	1.8280	2.5000	0.6250	930-003-779	930-003-643	930-003-100
0.0350	0.1250	0.0525	2.2680	2.5000	0.1870	930-003-800	930-003-664	930-003-120
0.0350	0.1250	0.0525	2.1750	2.5000	0.2800	930-003-827	930-003-691	930-003-144
0.0350	0.1250	0.0525	2.0300	2.5000	0.4250	930-003-736	930-003-600	930-003-063
0.0350	0.1250	0.0525	1.9300	2.5000	0.5250	930-003-763	930-003-627	930-003-087
0.0350	0.1250	0.0525	1.7550	2.5000	0.7000	930-003-780	930-003-644	930-003-101

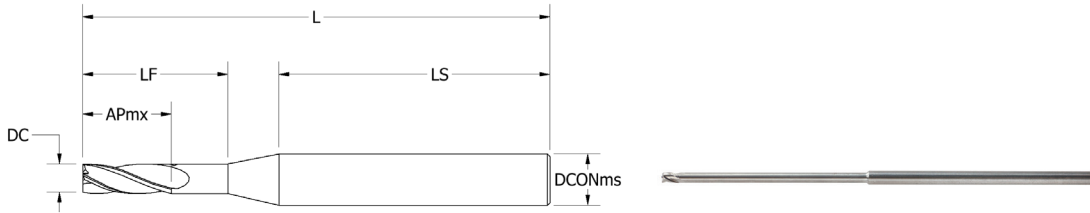
CARBIDE

Ø .040" - .075"



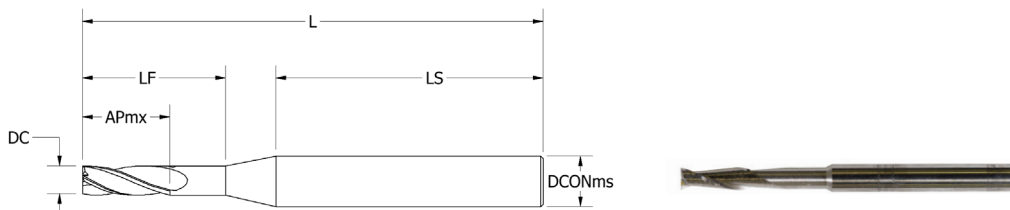
DC	DCONms	APmx	LS	L	LF	UNCOATED	ALTiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0400	0.1250	0.0600	2.2575	2.5000	0.2000	930-003-801	930-003-665	930-003-121
0.0400	0.1250	0.0600	2.1325	2.5000	0.3250	930-003-692	930-003-692	930-003-145
0.0400	0.1250	0.0600	1.9775	2.5000	0.4800	930-003-737	930-003-601	930-003-064
0.0400	0.1250	0.0600	1.8575	2.5000	0.6000	930-003-764	930-003-628	930-003-088
0.0400	0.1250	0.0600	1.6575	2.5000	0.8000	930-003-781	930-003-645	930-003-102
0.0450	0.1250	0.0675	2.2350	2.5000	0.2250	930-003-802	930-003-666	930-003-122
0.0450	0.1250	0.0675	2.0850	2.5000	0.3750	930-003-829	930-003-693	930-003-146
0.0450	0.1250	0.0675	1.9100	2.5000	0.5500	930-003-738	930-003-602	930-003-065
0.0450	0.1250	0.0675	1.7800	2.5000	0.6800	930-003-765	930-003-629	930-003-089
0.0450	0.1250	0.0675	1.5600	2.5000	0.9000	930-003-782	930-003-646	930-003-103
0.0470	0.1250	0.0705	2.3200	2.5000	0.1410	930-003-790	930-003-654	930-003-110
0.0470	0.1250	0.0705	2.2110	2.5000	0.2500	930-003-803	930-003-667	930-003-123
0.0470	0.1250	0.0705	2.0860	2.5000	0.3750	930-003-830	930-003-694	930-003-147
0.0470	0.1250	0.0705	1.8910	2.5000	0.5700	930-003-739	930-003-603	930-003-066
0.0470	0.1250	0.0705	1.7510	2.5000	0.7100	930-003-766	930-003-630	930-003-090
0.0470	0.1250	0.0705	1.5110	2.5000	0.9500	930-003-783	930-003-647	930-003-104
0.0500	0.1250	0.0750	2.2125	2.5000	0.2500	930-003-804	930-003-668	930-003-124
0.0500	0.1250	0.0750	2.0625	2.5000	0.4000	930-003-831	930-003-695	930-003-148
0.0500	0.1250	0.0750	1.8625	2.5000	0.6000	930-003-740	930-003-604	930-003-067
0.0500	0.1250	0.0750	1.7125	2.5000	0.7500	930-003-767	930-003-631	930-003-091
0.0550	0.1250	0.0825	2.1900	2.5000	0.2750	930-003-805	930-003-669	930-003-125
0.0550	0.1250	0.0825	2.0150	2.5000	0.4500	930-003-832	930-003-696	930-003-149
0.0550	0.1250	0.0825	1.8050	2.5000	0.6600	930-003-741	930-003-605	930-003-068
0.0550	0.1250	0.0825	1.6400	2.5000	0.8250	930-003-768	930-003-632	930-003-092
0.0600	0.1250	0.0900	2.1555	2.5000	0.3120	930-003-806	930-003-670	930-003-126
0.0600	0.1250	0.0900	1.9675	2.5000	0.5000	930-003-833	930-003-697	930-003-150
0.0600	0.1250	0.0900	1.7475	2.5000	0.7200	930-003-742	930-003-606	930-003-069
0.0600	0.1250	0.0900	1.5675	2.5000	0.9000	930-003-769	930-003-633	930-003-093
0.0620	0.1250	0.0930	2.2825	2.5000	0.1860	930-003-791	930-003-655	930-003-111
0.0620	0.1250	0.0930	2.1565	2.5000	0.3120	930-003-807	930-003-671	930-003-127
0.0620	0.1250	0.0930	1.9685	2.5000	0.5000	930-003-834	930-003-698	930-003-151
0.0620	0.1250	0.0930	1.7185	2.5000	0.7500	930-003-743	930-003-607	930-003-070
0.0620	0.1250	0.0930	1.5185	2.5000	0.9500	930-003-770	930-003-634	930-003-094
0.0620	0.1250	0.0930	1.2185	2.5000	1.2500	930-003-784	930-003-648	930-003-105
0.0650	0.1250	0.0975	2.1450	2.5000	0.3250	930-003-808	930-003-672	930-003-128
0.0650	0.1250	0.0975	1.9450	2.5000	0.5250	930-003-835	930-003-699	930-003-152
0.0650	0.1250	0.0975	1.6700	2.5000	0.8000	930-003-744	930-003-608	930-003-071
0.0700	0.1250	0.1050	2.0975	2.5000	0.3750	930-003-809	930-003-673	930-003-129
0.0700	0.1250	0.1050	1.9025	2.5000	0.5700	930-003-836	930-003-700	930-003-153
0.0700	0.1250	0.1050	1.6225	2.5000	0.8500	930-003-745	930-003-609	930-003-072
0.0750	0.1250	0.1125	2.1000	2.5000	0.3750	930-003-810	930-003-674	930-003-130
0.0750	0.1250	0.1125	1.8500	2.5000	0.6250	930-003-837	930-003-701	930-003-154
0.0750	0.1250	0.1125	1.5750	2.5000	0.9000	930-003-746	930-003-610	930-003-073

Ø .078" - .250"



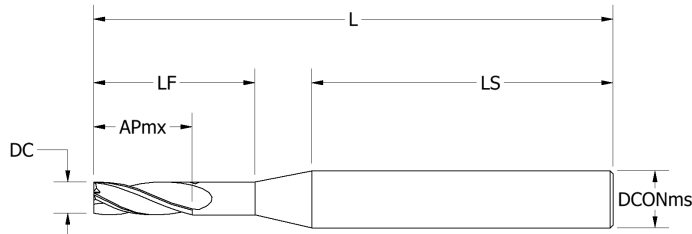
DC	DCONms	APmx	LS	L	LF	UNCOATED	ALTiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0780	0.1250	0.1170	2.2425	2.5000	0.2340	930-003-792	930-003-656	930-003-112
0.0780	0.1250	0.1170	2.0765	2.5000	0.4000	930-003-811	930-003-675	930-003-131
0.0780	0.1250	0.1170	1.8515	2.5000	0.6250	930-003-838	930-003-702	930-003-155
0.0780	0.1250	0.1170	1.5365	2.5000	0.9400	930-003-747	930-003-611	930-003-074
0.0780	0.1250	0.1170	1.2895	2.5000	1.1870	930-003-771	930-003-635	930-003-095
0.0780	0.1250	0.1170	1.4145	3.0000	1.5620	930-003-785	930-003-649	930-003-106
0.0800	0.1250	0.1200	2.0775	2.5000	0.4000	930-003-812	930-003-676	930-003-132
0.0800	0.1250	0.1200	1.8275	2.5000	0.6500	930-003-839	930-003-703	930-003-156
0.0800	0.1250	0.1200	1.5175	2.5000	0.9600	930-003-748	930-003-612	930-003-075
0.0850	0.1250	0.1275	2.0550	2.5000	0.4250	930-003-813	930-003-677	930-003-133
0.0850	0.1250	0.1275	1.7800	2.5000	0.7000	930-003-840	930-003-704	930-003-157
0.0850	0.1250	0.1275	1.4600	2.5000	1.0200	930-003-749	930-003-613	930-003-076
0.0900	0.1250	0.1350	2.0325	2.5000	0.4500	930-003-814	930-003-678	930-003-134
0.0900	0.1250	0.1350	1.7325	2.5000	0.7500	930-003-841	930-003-705	930-003-158
0.0900	0.1250	0.1350	1.4025	2.5000	1.0800	930-003-750	930-003-614	930-003-077
0.0930	0.1250	0.1395	2.2140	2.5000	0.2700	930-003-793	930-003-657	930-003-113
0.0930	0.1250	0.1395	1.9840	2.5000	0.5000	930-003-815	930-003-679	930-003-135
0.0930	0.1250	0.1395	1.7340	2.5000	0.7500	930-003-842	930-003-706	930-003-159
0.0930	0.1250	0.1395	1.3590	2.5000	1.1250	930-003-751	930-003-615	930-003-078
0.0930	0.1250	0.1395	1.5840	3.0000	1.4000	930-003-772	930-003-636	930-003-096
0.0930	0.1250	0.1395	2.1090	4.0000	1.8750	930-003-786	930-003-650	930-003-107
0.0950	0.1250	0.1425	1.9850	2.5000	0.5000	930-003-816	930-003-680	930-003-136
0.0950	0.1250	0.1425	1.7350	2.5000	0.7500	930-003-843	930-003-707	930-003-160
0.0950	0.1250	0.1425	1.3350	2.5000	1.1500	930-003-752	930-003-616	930-003-079
0.1000	0.1250	0.1500	1.9875	2.5000	0.5000	930-003-817	930-003-681	930-003-137
0.1000	0.1250	0.1500	1.6875	2.5000	0.8000	930-003-844	930-003-708	930-003-161
0.1000	0.1250	0.1500	1.2875	2.5000	1.2000	930-003-753	930-003-617	930-003-080
0.1250	0.1250	0.1875	1.8750	2.5000	0.6250	930-003-818	930-003-682	931-000-355
0.1250	0.1250	0.1875	1.5000	2.5000	1.0000	930-003-845	930-003-709	931-000-358
0.1250	0.1250	0.1875	1.5000	3.0000	1.5000	930-003-754	930-003-618	931-000-348
0.1250	0.1250	0.1875	1.1250	3.0000	1.8750	930-003-773	930-003-637	931-000-351
0.1250	0.1250	0.1875	1.5000	4.0000	2.5000	930-003-787	930-003-651	931-000-354
0.1875	0.1875	0.2813	2.0000	3.0000	1.0000	930-003-819	930-003-683	931-000-356
0.1875	0.1875	0.2813	1.5000	3.0000	1.5000	930-003-846	930-003-710	931-000-359
0.1875	0.1875	0.2813	1.7500	4.0000	2.2500	930-003-755	930-003-619	931-000-349
0.1875	0.1875	0.2813	1.1880	4.0000	2.8120	930-003-774	930-003-638	931-000-352
0.2500	0.2500	0.3750	2.7500	4.0000	1.2500	930-003-820	930-003-684	931-000-357
0.2500	0.2500	0.3750	2.0000	4.0000	2.0000	930-003-847	930-003-711	931-000-360
0.2500	0.2500	0.3750	0.3750	3.0000	6.0000	930-003-756	930-003-620	931-000-350
0.2500	0.2500	0.3750	2.2500	6.0000	3.7500	930-003-775	930-003-639	931-000-353

Ø .005" - .100"



DC	DCONms	APmx	LS	L	LF	UNCOATED	
						2 FLUTE	4 FLUTE
0.0050	0.1250	0.0150	1.1342	1.5000	0.0470	930-000-244	N/A
0.0100	0.1250	0.0300	1.3625	1.5000	0.0800	930-000-620	930-001-140
0.0100	0.1250	0.0300	1.3488	1.5000	0.0937	930-000-250	930-000-636
0.0150	0.1250	0.0450	1.3200	1.5000	0.1250	930-000-256	930-000-642
0.0200	0.1250	0.0600	1.2775	1.5000	0.1700	930-000-621	930-001-141
0.0200	0.1250	0.0600	1.2600	1.5000	0.1875	930-000-262	930-000-648
0.0250	0.1250	0.0750	1.2370	1.5000	0.2130	930-000-622	930-001-142
0.0250	0.1250	0.0750	1.2000	1.5000	0.2500	930-000-268	930-000-654
0.0300	0.1250	0.0900	1.2025	1.5000	0.2500	930-000-274	930-000-660
0.0300	0.1250	0.0900	1.1825	1.5000	0.2700	930-000-623	930-001-143
0.0310	0.1250	0.0930	1.1740	1.5000	0.2790	930-000-624	930-001-144
0.0350	0.1250	0.1050	1.2050	1.5000	0.2500	930-000-280	930-000-666
0.0350	0.1250	0.1050	1.1400	1.5000	0.3150 (8mm)	930-000-625	930-001-145
0.0400	0.1250	0.1200	1.2075	1.5000	0.2500	930-000-286	930-000-672
0.0400	0.1250	0.1200	1.0975	1.5000	0.3600	930-000-626	930-001-146
0.0450	0.1250	0.1350	1.0550	1.5000	0.4050	930-000-627	930-001-147
0.0450	0.1250	0.1350	0.9600	1.5000	0.5000	930-000-292	930-000-678
0.0470	0.1250	0.1410	1.0380	1.5000	0.4230	930-000-628	930-001-148
0.0500	0.1250	0.1500	0.9625	1.5000	0.5000	930-000-298	930-000-684
0.0550	0.1250	0.1650	0.9650	1.5000	0.5000	930-000-304	930-000-690
0.0600	0.1250	0.1800	0.9675	1.5000	0.5000	930-000-310	930-000-696
0.0620	0.1250	0.1860	0.9685	1.5000	0.5000	930-000-629	930-001-149
0.0650	0.1250	0.1950	0.9700	1.5000	0.5000	930-000-314	930-000-700
0.0700	0.1250	0.2100	0.9725	1.5000	0.5000	930-000-316	930-000-702
0.0780	0.1250	0.2340	0.9765	1.5000	0.5000	930-000-630	930-001-150
0.0800	0.1250	0.2400	0.9775	1.5000	0.5000	930-000-320	930-000-706
0.0900	0.1250	0.2700	0.9825	1.5000	0.5000	930-000-323	930-000-709
0.0900	0.1250	0.2700	0.8575	1.5000	0.6250	930-000-631	930-001-151
0.0930	0.1250	0.2790	0.8590	1.5000	0.6250	930-000-632	930-001-152
0.0950	0.1250	0.2850	0.8600	1.5000	0.6250	930-000-633	930-001-153
0.1000	0.1250	0.3000	0.9875	1.5000	0.5000	930-000-327	930-000-713
0.1000	0.1250	0.3000	0.8625	1.5000	0.6250	930-000-634	930-001-154

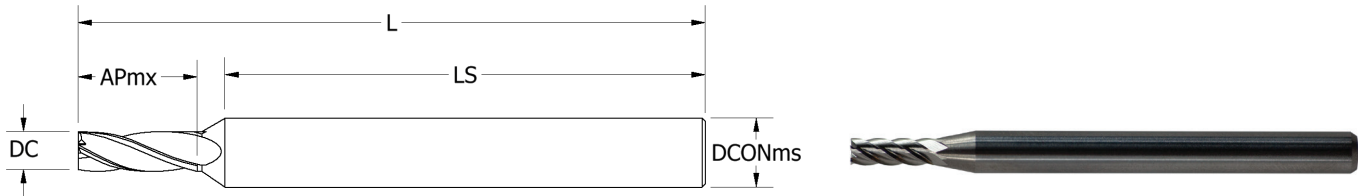
Ø .010" - .250"



DC	DCONms	APmx	LS	L	LF	UNCOATED	ALTiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0500	2.3425	2.5000	0.1000	930-002-966	N/A	930-002-797
0.0150	0.1250	0.0750	2.2950	2.5000	0.1500	930-002-967	N/A	930-002-798
0.0200	0.1250	0.1000	2.2475	2.5000	0.2000	930-002-968	930-002-933	930-002-799
0.0250	0.1250	0.1250	2.2000	2.5000	0.2500	930-002-969	930-002-934	930-002-800
0.0300	0.1250	0.1500	2.1525	2.5000	0.3000	930-002-970	930-002-935	930-002-801
0.0310	0.1250	0.1550	2.1530	2.5000	0.3000	930-002-971	930-002-936	930-002-802
0.0350	0.1250	0.1750	2.1050	2.5000	0.3500	930-002-972	930-002-937	930-002-803
0.0400	0.1250	0.2000	2.0575	2.5000	0.4000	930-002-973	930-002-938	930-002-804
0.0450	0.1250	0.2250	2.0100	2.5000	0.4500	930-002-974	930-002-939	930-002-805
0.0470	0.1250	0.2500	1.9610	2.5000	0.5000	930-002-975	930-002-940	930-002-806
0.0500	0.1250	0.3000	1.8625	2.5000	0.6000	930-002-976	930-002-941	930-002-807
0.0550	0.1250	0.3850	1.6950	2.5000	0.7700	930-002-977	930-002-942	930-002-808
0.0600	0.1250	0.5000	1.4675	2.5000	1.0000	930-002-978	930-002-943	930-002-809
0.0620	0.1250	0.5000	1.4685	2.5000	1.0000	930-002-979	N/A	930-002-810
0.0650	0.1250	0.5000	1.4700	2.5000	1.0000	930-002-980	930-002-944	930-002-811
0.0700	0.1250	0.5000	1.4725	2.5000	1.0000	930-002-981	930-002-945	930-002-812
0.0750	0.1250	0.5000	1.4750	2.5000	1.0000	930-002-982	930-002-946	930-002-813
0.0780	0.1250	0.5000	1.4765	2.5000	1.0000	930-002-983	930-002-947	930-002-814
0.0800	0.1250	0.7500	1.2275	2.5000	1.2500	930-002-984	930-002-948	930-002-815
0.0850	0.1250	0.7500	1.2300	2.5000	1.2500	930-002-985	930-002-949	930-002-816
0.0900	0.1250	0.7500	1.2325	2.5000	1.2500	930-002-986	930-002-950	930-002-817
0.0930	0.1250	0.7500	1.2340	2.5000	1.2500	930-002-987	930-002-951	930-002-818
0.0950	0.1250	0.7500	1.2350	2.5000	1.2500	930-002-988	930-002-952	930-002-819
0.1000	0.1250	0.7500	1.2375	2.5000	1.2500	930-002-989	930-002-953	930-002-820
0.1250	0.1250	1.0000	2.5000	2.5000	N/A	930-002-990	930-002-954	931-000-333
0.1875	0.1875	1.1250	3.0000	3.0000	N/A	930-002-991	930-002-955	931-000-334
0.2500	0.2500	1.5000	2.0000	4.0000	N/A	930-002-992	N/A	931-000-335

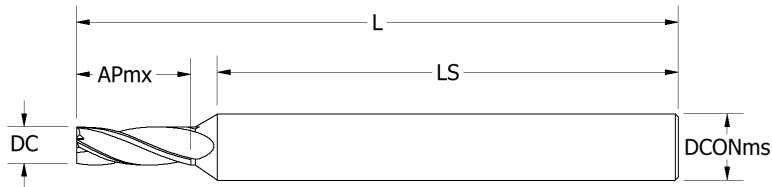
CARBIDE

Ø .031" - .100"



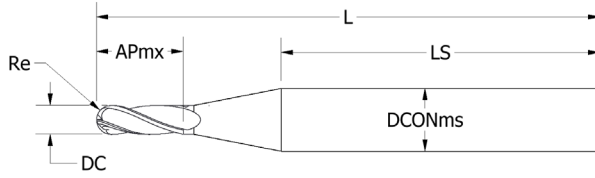
DC	DCONms	APmx	LS	L	UNCOATED	ALTiN COATED
					5 FLUTE	5 FLUTE
0.0310	0.1250	0.0930	1.1652	1.5000	930-003-848	930-003-867
0.0400	0.1250	0.1200	1.1614	1.5000	930-003-849	930-003-868
0.0470	0.1250	0.1410	1.1584	1.5000	930-003-850	930-003-869
0.0500	0.1250	0.1500	1.1571	1.5000	930-003-851	930-003-870
0.0600	0.1250	0.1800	1.1528	1.5000	930-003-852	930-003-871
0.0620	0.1250	0.1860	1.1519	1.5000	930-003-853	930-003-872
0.0700	0.1250	0.2100	1.1485	1.5000	930-003-854	930-003-873
0.0780	0.1250	0.2340	1.1451	1.5000	930-003-855	930-003-874
0.0800	0.1250	0.2400	1.1442	1.5000	930-003-856	930-003-875
0.0930	0.1250	0.2790	1.1387	1.5000	930-003-857	930-003-876
0.1000	0.1250	0.3000	1.1357	1.5000	930-003-858	930-003-877

Ø .0156" - .1250"



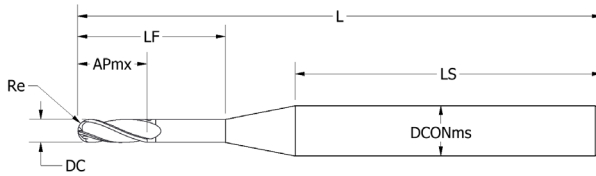
DC	DCONms	APmx	LS	L	UNCOATED	ALTiN COATED	AMORPHOUS DIAMOND
					3 FLUTE	3 FLUTE	3 FLUTE
0.0156	0.1250	0.0781	2.1405	2.5000	931-000-193	930-000-126	931-000-456
0.0313	0.1250	0.1563	2.1026	2.5000	931-000-195	930-000-127	931-000-462
0.0469	0.1250	0.2500	2.0490	2.5000	931-000-200	930-000-129	931-000-474
0.0625	0.1250	0.5000	1.8392	2.5000	931-000-202	930-000-131	931-000-480
0.0781	0.1250	0.5000	1.8794	2.5000	931-000-206	930-000-132	931-000-492
0.0938	0.1250	0.7500	1.6696	2.5000	931-000-209	930-000-133	931-000-498
0.1250	0.1250	1.0000	1.6250	3.0000	931-000-214	930-000-134	931-000-510

Ø .005" - .044"



DC	DCONms	Re	APmx	LS	L	UNCOATED		ALTiN COATED
						2 FLUTE	4 FLUTE	2 FLUTE
0.0050	0.1250	0.0025	0.0150	1.1342	1.5000	930-001-965	N/A	930-002-249
0.0060	0.1250	0.0030	0.0180	1.1342	1.5000	930-001-967	N/A	930-002-250
0.0070	0.1250	0.0035	0.0210	1.1342	1.5000	930-001-968	N/A	930-002-251
0.0080	0.1250	0.0040	0.0240	1.1342	1.5000	930-001-969	N/A	930-002-252
0.0090	0.1250	0.0045	0.0270	1.1342	1.5000	930-001-970	N/A	930-002-253
0.0100	0.1250	0.0050	0.0300	1.1742	1.5000	930-001-971	930-002-341	930-002-254
0.0110	0.1250	0.0055	0.0330	1.1738	1.5000	930-001-973	930-002-343	930-002-255
0.0120	0.1250	0.0060	0.0360	1.1733	1.5000	930-001-974	930-002-344	930-002-256
0.0130	0.1250	0.0065	0.0390	1.1729	1.5000	930-001-975	930-002-345	930-002-257
0.0140	0.1250	0.0070	0.0420	1.1725	1.5000	930-001-976	930-002-346	930-002-258
0.0150	0.1250	0.0075	0.0450	1.1720	1.5000	930-001-977	930-002-347	930-002-259
0.0156	0.1250	0.0078	0.0468	1.1718	1.5000	930-002-084	930-002-453	N/A
0.0160	0.1250	0.0080	0.0480	1.1716	1.5000	930-001-979	930-002-349	930-002-260
0.0170	0.1250	0.0085	0.0510	1.1712	1.5000	930-001-980	930-002-350	930-002-261
0.0180	0.1250	0.0090	0.0540	1.1708	1.5000	930-001-981	930-002-351	930-002-262
0.0190	0.1250	0.0095	0.0570	1.1703	1.5000	930-001-982	930-002-352	930-002-263
0.0197	0.1250	0.0099	0.0591	1.1700	1.5000	930-002-065	930-002-434	N/A
0.0200	0.1250	0.0100	0.0600	1.1699	1.5000	930-001-983	930-002-353	930-002-264
0.0210	0.1250	0.0105	0.0630	1.1695	1.5000	930-001-985	930-002-355	930-002-265
0.0220	0.1250	0.0110	0.0660	1.1691	1.5000	930-001-986	930-002-356	930-002-266
0.0230	0.1250	0.0115	0.0690	1.1686	1.5000	930-001-987	930-002-357	930-002-267
0.0240	0.1250	0.0120	0.0720	1.1682	1.5000	930-001-988	930-002-358	930-002-268
0.0250	0.1250	0.0125	0.0750	1.1678	1.5000	930-001-989	930-002-359	930-002-269
0.0260	0.1250	0.0130	0.0780	1.1673	1.5000	930-001-991	930-002-361	930-002-270
0.0270	0.1250	0.0135	0.0810	1.1669	1.5000	930-001-992	930-002-362	930-002-271
0.0280	0.1250	0.0140	0.0840	1.1665	1.5000	930-001-993	930-002-363	930-002-272
0.0290	0.1250	0.0145	0.0870	1.1661	1.5000	930-001-994	930-002-364	930-002-273
0.0300	0.1250	0.0150	0.0900	1.1656	1.5000	930-001-995	930-002-365	930-002-274
0.0312	0.1250	0.0156	0.0936	1.1651	1.5000	930-001-997	930-002-367	930-002-275
0.0320	0.1250	0.0160	0.0960	1.1648	1.5000	930-001-998	930-002-368	930-002-276
0.0330	0.1250	0.0165	0.0990	1.1644	1.5000	930-001-999	930-002-369	930-002-277
0.0340	0.1250	0.0170	0.1020	1.1639	1.5000	930-002-001	930-002-370	930-002-278
0.0350	0.1250	0.0175	0.1050	1.1635	1.5000	930-002-002	930-002-371	930-002-279
0.0360	0.1250	0.0180	0.1080	1.1631	1.5000	930-002-004	930-002-373	930-002-280
0.0370	0.1250	0.0185	0.1110	1.1626	1.5000	930-002-005	930-002-374	930-002-281
0.0380	0.1250	0.0190	0.1140	1.1622	1.5000	930-002-006	930-002-375	930-002-282
0.0390	0.1250	0.0195	0.1170	1.1618	1.5000	930-002-007	930-002-376	930-002-283
0.0394	0.1250	0.0197	0.1182	1.1616	1.5000	930-002-072	930-002-441	882-E-0394
0.0400	0.1250	0.0200	0.1200	1.1614	1.5000	930-002-008	930-002-377	930-002-284
0.0410	0.1250	0.0205	0.1230	1.1609	1.5000	930-002-010	930-002-379	930-002-285
0.0420	0.1250	0.0210	0.1260	1.1605	1.5000	930-002-011	930-002-380	930-002-286
0.0430	0.1250	0.0215	0.1290	1.1601	1.5000	930-002-012	930-002-381	930-002-287
0.0440	0.1250	0.0220	0.1320	1.1596	1.5000	930-002-013	930-002-382	930-002-288

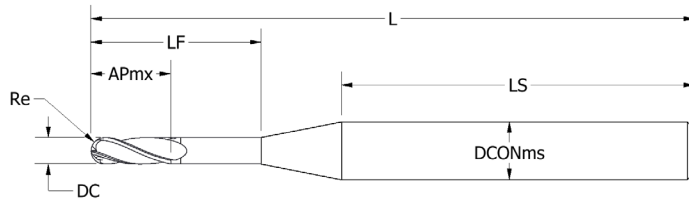
Ø .005" - .100"



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	
							2 FLUTE	4 FLUTE
0.0050	0.1250	0.0025	0.0150	1.3930	1.5000	0.0470	930-001-966	N/A
0.0100	0.1250	0.0050	0.0300	1.3625	1.5000	0.0800	930-002-326	930-002-624
0.0100	0.1250	0.0050	0.0300	1.3488	1.5000	0.0937	930-001-972	930-002-342
0.0150	0.1250	0.0075	0.0450	1.3200	1.5000	0.1250	930-001-978	930-002-348
0.0200	0.1250	0.0100	0.0600	1.2775	1.5000	0.1700	930-002-327	930-002-625
0.0200	0.1250	0.0100	0.0600	1.2600	1.5000	0.1875	930-001-984	930-002-354
0.0250	0.1250	0.0125	0.0750	1.2370	1.5000	0.2130	930-002-328	930-002-626
0.0250	0.1250	0.0125	0.0750	1.2000	1.5000	0.2500	930-001-990	930-002-360
0.0300	0.1250	0.0150	0.0900	1.2025	1.5000	0.2500	930-001-996	930-002-366
0.0300	0.1250	0.0150	0.0900	1.1825	1.5000	0.2700	930-002-329	930-002-627
0.0310	0.1250	0.0155	0.0930	1.1740	1.5000	0.2790	930-002-330	930-002-628
0.0350	0.1250	0.0175	0.1050	1.2050	1.5000	0.2500	930-002-003	930-002-372
0.0350	0.1250	0.0175	0.1050	1.1400	1.5000	0.3150	930-002-331	930-002-629
0.0400	0.1250	0.0200	0.1200	1.2075	1.5000	0.2500	930-002-009	930-002-378
0.0400	0.1250	0.0200	0.1200	1.0975	1.5000	0.3600	930-002-332	930-002-630
0.0450	0.1250	0.0225	0.1350	1.0550	1.5000	0.4050	930-002-333	930-002-631
0.0450	0.1250	0.0225	0.1350	0.9600	1.5000	0.5000	930-002-015	930-002-384
0.0470	0.1250	0.0235	0.1410	1.0380	1.5000	0.4230	930-002-334	930-002-632
0.0500	0.1250	0.0250	0.1500	0.9625	1.5000	0.5000	930-002-021	930-002-390
0.0550	0.1250	0.0275	0.1650	0.9650	1.5000	0.5000	930-002-027	930-002-396
0.0600	0.1250	0.0300	0.1800	0.9675	1.5000	0.5000	930-002-033	930-002-402
0.0620	0.1250	0.0310	0.1860	0.9685	1.5000	0.5000	930-002-335	930-002-633
0.0650	0.1250	0.0325	0.1950	0.9700	1.5000	0.5000	930-002-037	930-002-406
0.0700	0.1250	0.0350	0.2100	0.9725	1.5000	0.5000	930-002-039	930-002-408
0.0780	0.1250	0.0390	0.2340	0.9765	1.5000	0.5000	930-002-336	930-002-634
0.0800	0.1250	0.0400	0.2400	0.9775	1.5000	0.5000	930-002-043	930-002-412
0.0900	0.1250	0.0450	0.2700	0.9825	1.5000	0.5000	930-002-046	930-002-415
0.0900	0.1250	0.0450	0.2700	0.8575	1.5000	0.6250	930-002-337	930-002-635
0.0930	0.1250	0.0465	0.2790	0.8590	1.5000	0.6250	930-002-338	930-002-636
0.0950	0.1250	0.0475	0.2850	0.8600	1.5000	0.6250	930-002-339	930-002-637
0.1000	0.1250	0.0500	0.3000	0.9875	1.5000	0.5000	930-002-050	930-002-419
0.1000	0.1250	0.0500	0.3000	0.8625	1.5000	0.6250	930-002-340	930-002-638

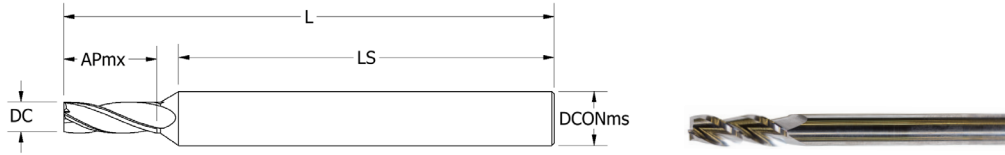
CARBIDE

Ø .010" - .250"



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	ALTiN COATED	AMORPHOUS DIAMOND
							3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0050	0.0500	2.3425	2.5000	0.1000	930-002-896	930-002-862	930-002-830
0.0150	0.1250	0.0075	0.0750	2.2950	2.5000	0.1500	930-002-897	930-002-863	930-002-831
0.0200	0.1250	0.0100	0.1000	2.2475	2.5000	0.2000	930-002-898	930-002-864	930-002-832
0.0250	0.1250	0.0125	0.1250	2.2000	2.5000	0.2500	930-002-899	930-002-865	930-002-833
0.0300	0.1250	0.0150	0.1500	2.1525	2.5000	0.3000	930-002-900	930-002-866	930-002-834
0.0310	0.1250	0.0155	0.1550	2.1530	2.5000	0.3000	930-002-901	930-002-867	930-002-835
0.0350	0.1250	0.0175	0.1750	2.1050	2.5000	0.3500	930-002-902	930-002-868	930-002-836
0.0400	0.1250	0.0200	0.2000	2.0575	2.5000	0.4000	930-002-903	930-002-869	930-002-837
0.0450	0.1250	0.0225	0.2250	2.0100	2.5000	0.4500	930-002-904	930-002-870	930-002-838
0.0470	0.1250	0.0235	0.2500	1.9610	2.5000	0.5000	930-002-905	930-002-871	930-002-839
0.0500	0.1250	0.0250	0.3000	1.8625	2.5000	0.6000	930-002-906	930-002-872	930-002-840
0.0550	0.1250	0.0275	0.3850	1.6950	2.5000	0.7700	930-002-907	930-002-873	930-002-841
0.0600	0.1250	0.0300	0.5000	1.4675	2.5000	1.0000	930-002-908	930-002-874	930-002-842
0.0620	0.1250	0.0310	0.5000	1.4685	2.5000	1.0000	930-002-909	930-002-875	930-002-843
0.0650	0.1250	0.0325	0.5000	1.4700	2.5000	1.0000	930-002-910	930-002-876	930-002-844
0.0700	0.1250	0.0350	0.5000	1.4725	2.5000	1.0000	930-002-911	930-002-877	930-002-845
0.0750	0.1250	0.0375	0.5000	1.4750	2.5000	1.0000	930-002-912	930-002-878	930-002-846
0.0780	0.1250	0.0390	0.5000	1.4765	2.5000	1.0000	930-002-913	930-002-879	930-002-847
0.0800	0.1250	0.0400	0.7500	1.2275	2.5000	1.2500	930-002-914	930-002-880	930-002-848
0.0850	0.1250	0.0425	0.7500	1.2300	2.5000	1.2500	930-002-915	930-002-881	930-002-849
0.0900	0.1250	0.0450	0.7500	1.2325	2.5000	1.2500	930-002-916	930-002-882	930-002-850
0.0930	0.1250	0.0465	0.7500	1.2340	2.5000	1.2500	930-002-917	930-002-883	930-002-851
0.0950	0.1250	0.0475	0.7500	1.2350	2.5000	1.2500	930-002-918	930-002-884	930-002-852
0.1000	0.1250	0.0500	0.7500	1.2375	2.5000	1.2500	930-002-919	930-002-885	930-002-853
0.1250	0.1250	0.0625	1.0000	1.0000	2.5000	1.5000	930-002-920	930-002-886	931-000-337
0.1875	0.1875	0.0938	1.1250	1.3750	3.0000	1.6250	930-002-921	931-000-342	931-000-338
0.2500	0.2500	0.1250	1.5000	2.0000	4.0000	2.0000	930-002-922	931-000-343	931-000-339

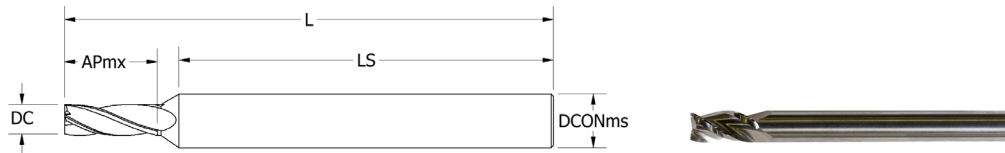
Ø .0313" - .250"



STANDARD



DC	DCONms	APmx	LS	L	UNCOATED	TiCN COATED
					3 FLUTE	3 FLUTE
0.0313	0.2500	0.0938	1.8436	2.5000	930-002-667	931-000-322
0.0469	0.2500	0.1406	1.8369	2.5000	930-002-668	931-000-323
0.0625	0.2500	0.1875	1.8302	2.5000	930-002-669	931-000-324
0.0781	0.2500	0.1875	1.8704	2.5000	930-002-670	931-000-325
0.0938	0.2500	0.3750	1.7231	2.5000	930-002-671	931-000-326
0.1094	0.2500	0.4375	1.7008	2.5000	930-002-672	931-000-327
0.1250	0.2500	0.5000	1.6785	2.5000	930-002-673	931-000-328
0.1563	0.2500	0.5625	1.6963	2.5000	930-002-674	931-000-329
0.1875	0.2500	0.6250	1.7142	2.5000	930-002-675	931-000-330
0.2188	0.2500	0.6250	1.7946	2.5000	930-002-676	931-000-331
0.2500	0.2500	0.7500	1.3750	2.5000	930-002-677	931-000-332



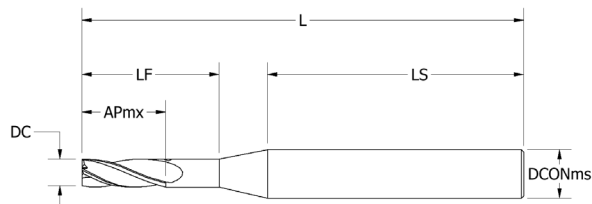
STUB



DC	DCONms	APmx	LS	L	UNCOATED	TiCN COATED
					3 FLUTE	3 FLUTE
0.0313	0.2500	0.0625	1.8748	2.5000	930-002-639	931-000-294
0.0469	0.2500	0.0938	1.8838	2.5000	930-002-641	931-000-296
0.0625	0.2500	0.1250	1.8927	2.5000	930-002-643	931-000-298
0.0781	0.2500	0.1250	1.9329	2.5000	930-002-645	931-000-300
0.0938	0.2500	0.1875	1.9106	2.5000	930-002-647	931-000-302
0.1094	0.2500	0.1875	1.9508	2.5000	930-002-649	931-000-304
0.1250	0.2500	0.2500	1.9285	2.5000	930-002-651	931-000-306
0.1563	0.2500	0.3750	1.8838	2.5000	930-002-653	931-000-308
0.1875	0.2500	0.3750	1.9642	2.5000	930-002-655	931-000-310
0.2188	0.2500	0.3750	2.0446	2.5000	930-002-657	931-000-312
0.2500	0.2500	0.5000	1.6250	2.5000	930-002-659	931-000-314

CARBIDE

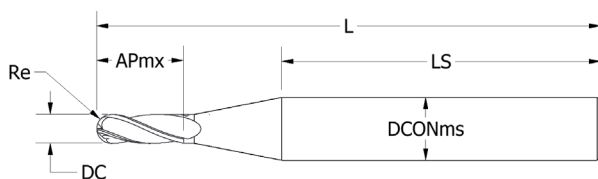
Ø .0313" - .250"



STUB, REACHED



DC	DCONms	APmx	LS	L	LF	UNCOATED	TICN COATED
						3 FLUTE	3 FLUTE
0.0313	0.2500	0.0625	2.2356	2.5000	0.1550	930-002-640	931-000-295
0.0469	0.2500	0.0938	2.1684	2.5000	0.2300	930-002-642	931-000-297
0.0625	0.2500	0.1250	2.0943	2.5000	0.3120	930-002-644	931-000-299
0.0781	0.2500	0.1563	2.0241	2.5000	0.3900	930-002-646	931-000-301
0.0938	0.2500	0.1875	1.9569	2.5000	0.4650	930-002-648	931-000-303
0.1094	0.2500	0.2188	1.8847	2.5000	0.5450	930-002-650	931-000-305
0.1250	0.2500	0.2500	1.8125	2.5000	0.6250	930-002-652	931-000-307
0.1563	0.2500	0.3750	1.6731	2.5000	0.7800	930-002-654	931-000-309
0.1875	0.2500	0.3750	1.5313	2.5000	0.9375	930-002-656	931-000-311
0.2188	0.2500	0.3750	1.3914	2.5000	1.0930	930-002-658	931-000-313
0.2500	0.2500	0.5000	1.2500	2.5000	1.2500	930-002-660	931-000-315

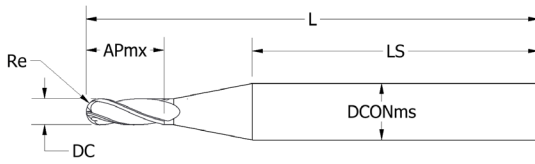


BALL, STANDARD



DC	DCONms	Re	APmx	LS	L	UNCOATED	TICN COATED
						3 FLUTE	3 FLUTE
0.0313	0.2500	0.0156	0.0938	1.8436	2.5000	930-002-661	931-000-316
0.0625	0.2500	0.0313	0.1875	1.8302	2.5000	930-002-662	931-000-317
0.0938	0.2500	0.0469	0.3750	1.7231	2.5000	930-002-663	931-000-318
0.1250	0.2500	0.0625	0.5000	1.6785	2.5000	930-002-664	931-000-319
0.1875	0.2500	0.0938	0.6250	1.7142	2.5000	930-002-665	931-000-320
0.2500	0.2500	0.1250	0.7500	1.3750	2.5000	930-002-666	931-000-321

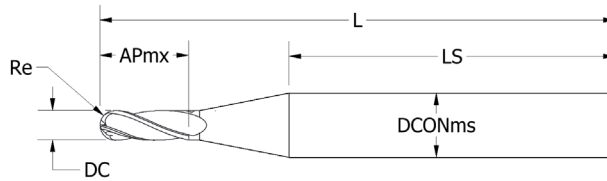
Ø .020" - .060"



LONG FLUTE



DC	DCONms	Re	APmx	LS	L	A	UNCOATED	TIALN NANO COATED
							4 FLUTE	4 FLUTE
0.0200	0.1875	0.0100	0.1400	2.4291	3.0000	N/A	930-000-151	930-000-161
0.0300	0.1875	0.0150	0.2100	2.3849	3.0000	N/A	930-000-152	930-000-162
0.0400	0.1875	0.0200	0.2800	2.3406	3.0000	N/A	930-000-153	930-000-163
0.0500	0.1875	0.0250	0.3500	2.2963	3.0000	N/A	930-000-154	930-000-164
0.0600	0.1875	0.0300	0.4200	2.2520	3.0000	N/A	930-000-155	930-000-165
0.0200	0.1875	0.0100	0.1400	2.4350	3.0000	1.0	930-000-203	930-000-223
0.0300	0.1875	0.0150	0.2100	2.3936	3.0000	1.0	930-000-204	930-000-224
0.0400	0.1875	0.0200	0.2800	2.3523	3.0000	1.0	930-000-205	930-000-225
0.0500	0.1875	0.0250	0.3500	2.3109	3.0000	1.0	930-000-206	930-000-226
0.0600	0.1875	0.0300	0.4200	2.2695	3.0000	1.0	930-000-207	930-000-227
0.0200	0.1875	0.0100	0.1400	2.4408	3.0000	2.0	930-000-213	930-000-233
0.0300	0.1875	0.0150	0.2100	2.4024	3.0000	2.0	930-000-214	930-000-234
0.0400	0.1875	0.0200	0.2800	2.3639	3.0000	2.0	930-000-215	930-000-235
0.0500	0.1875	0.0250	0.3500	2.3255	3.0000	2.0	930-000-216	930-000-236
0.0600	0.1875	0.0300	0.4200	2.2871	3.0000	2.0	930-000-217	930-000-237



EXTRA LONG FLUTE



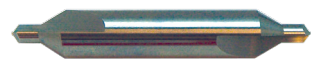
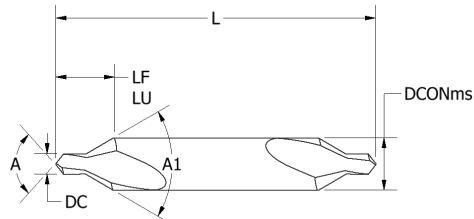
DC	DCONms	Re	APmx	LS	L	A	UNCOATED	TIALN NANO COATED
							4 FLUTE	4 FLUTE
0.0200	0.1875	0.0100	0.2800	2.2891	3.0000	N/A	930-000-156	930-000-166
0.0300	0.1875	0.0150	0.4100	2.1849	3.0000	N/A	930-000-157	930-000-167
0.0400	0.1875	0.0200	0.5600	2.0606	3.0000	N/A	930-000-158	930-000-168
0.0500	0.1875	0.0250	0.7000	1.9463	3.0000	N/A	930-000-159	930-000-169
0.0600	0.1875	0.0300	0.8400	1.8320	3.0000	N/A	930-000-160	930-000-170
0.0200	0.1875	0.0100	0.2800	2.3013	3.0000	1.0	930-000-208	930-000-228
0.0300	0.1875	0.0150	0.4100	2.2026	3.0000	1.0	930-000-209	930-000-229
0.0400	0.1875	0.0200	0.5600	2.0848	3.0000	1.0	930-000-210	930-000-230
0.0500	0.1875	0.0250	0.7000	1.9766	3.0000	1.0	930-000-211	930-000-231
0.0600	0.1875	0.0300	0.8400	1.8684	3.0000	1.0	930-000-212	930-000-232
0.0200	0.1875	0.0100	0.2800	2.3134	3.0000	2.0	930-000-218	930-000-238
0.0300	0.1875	0.0150	0.4100	2.2203	3.0000	2.0	930-000-219	930-000-239
0.0400	0.1875	0.0200	0.5600	2.1091	3.0000	2.0	930-000-220	930-000-240
0.0500	0.1875	0.0250	0.7000	2.0069	3.0000	2.0	930-000-221	930-000-241
0.0600	0.1875	0.0300	0.8400	1.9048	3.0000	2.0	930-000-222	930-000-242

CARBIDE

HSS

COBALT

T-15



SIZE	DC	DCONms	LF/LU	L	A	A1	Material	Hand of Cut	UNCOATED 2 FLUTE	TIN COATED 2 FLUTE	TIAIN COATED 2 FLUTE
#3-0 - 3/32	0.0200	0.0938	1.1250	0.0888	118.0	60.0	HSS	R	906-000-590	N/A	N/A
#2-0 - 3/32	0.0250	0.0938	1.1250	0.0907	118.0	60.0	HSS	R	906-000-591	N/A	N/A
#0 - 3/32	0.0310	0.0938	1.1250	0.0930	118.0	60.0	HSS	R	906-000-592	N/A	N/A
#5-0 SE	0.0100	0.1250	1.5000	0.1121	118.0	60.0	Carbide	R	906-000-409	906-001-568	906-001-566
#5-0 x 82° SE	0.0100	0.1250	1.5000	0.0786	118.0	82.0	Carbide	R	906-000-410	906-001-571	906-001-569
#5-0 x 90° SE	0.0100	0.1250	1.5000	0.0700	118.0	90.0	Carbide	R	906-000-411	906-001-574	906-001-572
#5-0	0.0100	0.1250	1.2500	0.1121	118.0	60.0	HSS	R	906-000-005	906-000-006	906-000-597
#5-0	0.0100	0.1250	1.2500	0.1121	118.0	60.0	HSS	L	906-000-009	906-000-610	906-000-608
#5-0 x 82°	0.0100	0.1250	1.2500	0.0786	118.0	82.0	HSS	R	906-000-044	906-000-045	906-000-693
#5-0 x 90°	0.0100	0.1250	1.2500	0.0700	118.0	90.0	HSS	R	906-000-010	906-000-011	906-000-612
#5-0	0.0100	0.1250	1.2500	0.1121	118.0	60.0	HSS-Co	R	906-000-008	906-000-606	906-000-604
#5-0	0.0100	0.1250	1.2500	0.1121	118.0	60.0	T-15	R	906-000-007	906-000-602	906-000-600
#4-0 SE	0.0150	0.1250	1.5000	0.1140	118.0	60.0	Carbide	R	906-000-412	906-001-577	906-001-575
#4-0 x 82° SE	0.0150	0.1250	1.5000	0.0820	118.0	82.0	Carbide	R	906-000-413	906-001-580	906-001-578
#4-0 x 90° SE	0.0150	0.1250	1.5000	0.0737	118.0	90.0	Carbide	R	906-000-414	906-001-583	906-001-581
#4-0	0.0150	0.1250	1.2500	0.1140	118.0	60.0	HSS	R	906-000-012	906-000-013	906-000-615
#4-0	0.0150	0.1250	1.2500	0.1140	118.0	60.0	HSS	L	906-000-016	906-000-628	906-000-626
#4-0 x 82°	0.0150	0.1250	1.2500	0.0820	118.0	82.0	HSS	R	906-000-046	906-000-047	906-000-696
#4-0 x 90°	0.0150	0.1250	1.2500	0.0737	118.0	90.0	HSS	R	906-000-017	906-000-018	906-000-630
#4-0	0.0150	0.1250	1.2500	0.1140	118.0	60.0	HSS-Co	R	906-000-015	906-000-624	906-000-622
#4-0	0.0150	0.1250	1.2500	0.1140	118.0	60.0	T-15	R	906-000-014	906-000-620	906-000-618
#3-0 SE	0.0200	0.1250	1.5000	0.1159	118.0	60.0	Carbide	R	906-000-415	906-001-586	906-001-584
#3-0 x 82° SE	0.0200	0.1250	1.5000	0.0854	118.0	82.0	Carbide	R	906-000-416	906-001-589	906-001-587
#3-0 x 90° SE	0.0200	0.1250	1.5000	0.0775	118.0	90.0	Carbide	R	906-000-417	906-001-592	906-001-590
#3-0	0.0200	0.1250	1.2500	0.1159	118.0	60.0	HSS	R	906-000-019	906-000-020	906-000-633
#3-0	0.0200	0.1250	1.2500	0.1159	118.0	60.0	HSS	L	906-000-023	906-000-646	906-000-644
#3-0 x 82°	0.0200	0.1250	1.2500	0.0854	118.0	82.0	HSS	R	906-000-048	906-000-049	906-000-699
#3-0 x 90°	0.0200	0.1250	1.2500	0.0775	118.0	90.0	HSS	R	906-000-024	906-000-025	906-000-648
#3-0	0.0200	0.1250	1.2500	0.1159	118.0	60.0	HSS-Co	R	906-000-022	906-000-642	906-000-640
#3-0	0.0200	0.1250	1.2500	0.1159	118.0	60.0	T-15	R	906-000-021	906-000-638	906-000-636
#2-0	0.0250	0.1250	1.5000	0.1178	118.0	60.0	Carbide	R	906-000-418	906-001-595	906-001-593
#2-0 x 82°	0.0250	0.1250	1.5000	0.0887	118.0	82.0	Carbide	R	906-000-419	906-001-598	906-001-596
#2-0 x 90°	0.0250	0.1250	1.5000	0.0812	118.0	90.0	Carbide	R	906-000-420	906-001-601	906-001-599
#2-0 x 4	0.0250	0.1250	4.0000	0.1178	118.0	60.0	Carbide	R	907-000-185	907-000-655	907-000-653
#2-0 x 6	0.0250	0.1250	6.0000	0.1178	118.0	60.0	Carbide	R	907-000-186	907-000-658	907-000-656
#2-0	0.0250	0.1250	1.2500	0.1178	118.0	60.0	HSS	R	906-000-026	906-000-027	906-000-651
#2-0	0.0250	0.1250	1.2500	0.1178	118.0	60.0	HSS	L	906-000-030	906-000-664	906-000-662
#2-0 x 82°	0.0250	0.1250	1.2500	0.0887	118.0	82.0	HSS	R	906-000-031	906-000-032	906-000-666
#2-0 x 90°	0.0250	0.1250	1.2500	0.0812	118.0	90.0	HSS	R	906-000-033	906-000-034	906-000-669
#2-0	0.0250	0.1250	1.2500	0.1178	118.0	60.0	HSS-Co	R	906-000-029	906-000-660	906-000-658
#2-0	0.0250	0.1250	1.2500	0.1178	118.0	60.0	T-15	R	906-000-028	906-000-656	906-000-654
#0	0.0313	0.1250	1.5000	0.1202	118.0	60.0	Carbide	R	906-000-421	906-001-604	906-001-602
#0 x 82°	0.0313	0.1250	1.5000	0.0929	118.0	82.0	Carbide	R	906-000-422	906-001-607	906-001-605
#0 x 90°	0.0313	0.1250	1.5000	0.0859	118.0	90.0	Carbide	R	906-000-423	906-001-610	906-001-608
#0 x 4	0.0313	0.1250	4.0000	0.1202	118.0	60.0	Carbide	R	907-000-187	907-000-661	907-000-659
#0 x 6	0.0313	0.1250	6.0000	0.1202	118.0	60.0	Carbide	R	907-000-188	907-000-664	907-000-662
#0	0.0313	0.1250	1.2500	0.1202	118.0	60.0	HSS	R	906-000-035	906-000-036	906-000-672
#0	0.0313	0.1250	1.2500	0.1202	118.0	60.0	HSS	L	906-000-039	906-000-685	906-000-683
#0 x 82°	0.0313	0.1250	1.2500	0.0929	118.0	82.0	HSS	R	906-000-040	906-000-041	906-000-687
#0 x 90°	0.0313	0.1250	1.2500	0.0859	118.0	90.0	HSS	R	906-000-042	906-000-043	906-000-690
#0	0.0313	0.1250	1.2500	0.1202	118.0	60.0	HSS-Co	R	906-000-038	906-000-681	906-000-679
#0	0.0313	0.1250	1.2500	0.1202	118.0	60.0	T-15	R	906-000-037	906-000-677	906-000-675
#1	0.0469	0.1250	1.5000	0.1262	118.0	60.0	Carbide	R	906-000-424	906-001-613	906-001-611
#1 x 82°	0.0469	0.1250	1.5000	0.1034	118.0	82.0	Carbide	R	906-000-425	906-001-616	906-001-614
#1 x 90°	0.0469	0.1250	1.5000	0.0976	118.0	90.0	Carbide	R	906-000-426	906-001-619	906-001-617
#1 x 4	0.0469	0.1250	4.0000	0.1262	118.0	60.0	Carbide	R	907-000-189	907-000-668	907-000-666
#1 x 6	0.0469	0.1250	6.0000	0.1262	118.0	60.0	Carbide	R	907-000-190	907-000-671	907-000-669

ARCH Cutting Tools: A Distinct Culture, The Complete Tool Making Authority®

ARCH® Cutting Tools (ARCH) has a distinct culture within the industry, and it's reflected in the company's strategy and broad product portfolio.



In the tooling industry, it's not just about finding solutions; it's about creating the right solutions for each customer, application by application. ARCH has a robust portfolio of standard tools but also is positioned by design to quickly deliver custom tooling solutions. Being a mid-sized domestic company, ARCH has the ability to be nimble and responsive to unique application needs.

"We believe that having manufacturing capabilities in the U.S. presents both technical and productivity advantages," said Jeff Cederstrom, President – ARCH Cutting tools. "Domestically produced custom tools have shorter lead times and avoid import-related shipping costs."

He noted that customers demand shorter lead times, closer partnerships, top quality, and high performance. All these demands are met by ARCH through its unique broad customer-centric approach and its American-made advantage.

"At ARCH CT, we've done a great job seeking out successful organizations with a strong entrepreneurial /technical bias," Cederstrom added. "Bringing these unique skill sets together within one organization means we can offer customers diverse technical capabilities, and a very broad portfolio of both standard and custom tooling capabilities."

ARCH Cutting Tools aims to be viewed as a highly reliable mid-size full-service tooling company.

ARCH Cutting Tools product portfolio

What is different about ARCH Cutting Tools? What makes its products different from its competitors? It begins with a mastery of custom tools.

ARCH competes through its value creation and creativity in custom tooling. The company excels in this space because it's small enough to field focused special requests but large enough to deliver. They bring the necessary industry-leading experience and innovation and combine it with the nimbleness and responsiveness that customers demand through its ARCH Specials brand.

ARCH is strong in standards too.

Its standards portfolio, offered through the KEO® and Ultra-Dex® brands, is one of the broadest and most diverse in the industry. How is that possible? Because ARCH extends its standards portfolio in two ways – through the design and manufacture of new high-performance tools and through strategic acquisitions that bring new products into the ARCH portfolio.

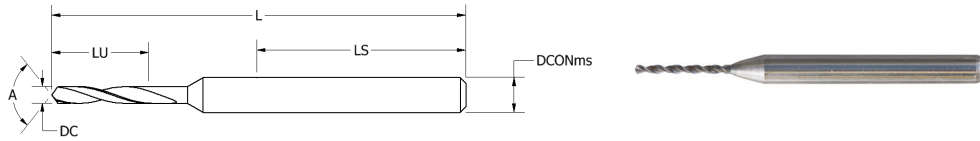
A broad, robust portfolio is about more than the current products, as ARCH has also invested in an experienced, industry-leading product management team to lead the advancement/evolution of our portfolio. These professionals have the critical role of building on our capabilities and driving the expansion of the portfolio to meet the evolving needs of ARCH customers.

The ARCH portfolio targets machinists who want to know what the company can do to advance their aptitude and improve their productivity.

To answer that, ARCH brings an innovative, technically advanced, tailored approach to the industry. All this combines to make ARCH Cutting Tools, The Complete Tool Making Authority®.

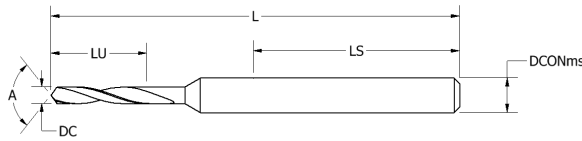
CARBIDE

Ø .004"- .025" (.10MM - .64MM)



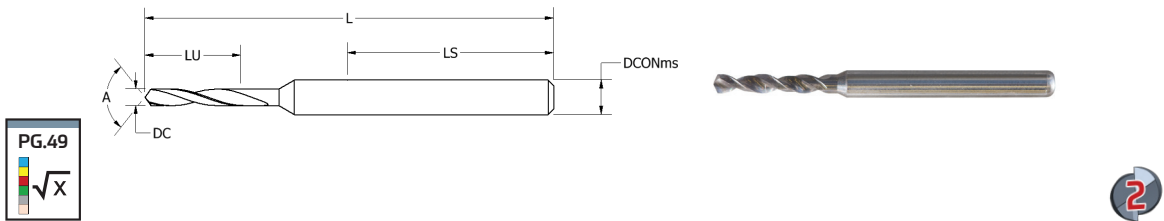
SIZE	DC	DC (mm)	DCONms	LU	A	LS	L	UNCOATED
								2 FLUTE
# 102	0.0040	.10mm	0.1250	0.0700	118.0	0.7500	1.5000	925-000-001
# 99	0.0050	.13mm	0.1250	0.0700	118.0	0.7500	1.5000	925-000-002
# 97	0.0059	.15mm	0.1250	0.1200	118.0	0.7500	1.5000	925-000-003
# 96	0.0063	.16mm	0.1250	0.1200	118.0	0.7500	1.5000	925-000-004
# 95	0.0067	.17mm	0.1250	0.1200	118.0	0.7500	1.5000	925-000-005
# 94	0.0071	.18mm	0.1250	0.1500	118.0	0.7500	1.5000	925-000-006
# 93	0.0075	.19mm	0.1250	0.1500	118.0	0.7500	1.5000	925-000-007
# 92	0.0079	.20mm	0.1250	0.1500	118.0	0.7500	1.5000	925-000-008
# 91	0.0083	.21mm	0.1250	0.1500	118.0	0.7500	1.5000	925-000-009
# 90	0.0087	.22mm	0.1250	0.1500	118.0	0.7500	1.5000	925-000-010
# 89	0.0091	.23mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-011
# 88	0.0095	.24mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-012
.25mm	0.0098	.25mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-013
# 87	0.0100	.25mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-014
# 86	0.0105	.27mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-015
# 85	0.0110	.28mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-016
# 84	0.0115	.29mm	0.1250	0.2200	118.0	0.7500	1.5000	925-000-017
.30mm	0.0118	.30mm	0.1250	0.2800	118.0	0.7500	1.5000	925-000-018
# 83	0.0120	.305mm	0.1250	0.2800	118.0	0.7500	1.5000	925-000-019
# 82	0.0125	.32mm	0.1250	0.2800	118.0	0.7500	1.5000	925-000-020
# 81	0.0130	.33mm	0.1250	0.2800	130.0	0.7500	1.5000	925-000-021
# 80	0.0135	.34mm	0.1250	0.2800	130.0	0.7500	1.5000	925-000-022
.35mm	0.0138	.35mm	0.1250	0.2800	130.0	0.7500	1.5000	925-000-023
# 79	0.0145	.37mm	0.1250	0.2800	130.0	0.7500	1.5000	925-000-024
1/64"	0.0156	.396mm	0.1250	0.2950	130.0	0.7500	1.5000	925-000-025
.40mm	0.0157	.40mm	0.1250	0.2950	130.0	0.7500	1.5000	925-000-026
# 78	0.0160	.41mm	0.1250	0.2950	130.0	0.7500	1.5000	925-000-027
.45mm	0.0177	.45mm	0.1250	0.2950	130.0	0.7500	1.5000	925-000-028
# 77	0.0180	.46mm	0.1250	0.2950	130.0	0.7500	1.5000	925-000-029
.50mm	0.0197	.50mm	0.1250	0.3100	130.0	0.7500	1.5000	925-000-030
# 76	0.0200	.51mm	0.1250	0.3100	130.0	0.7500	1.5000	925-000-031
# 75	0.0210	.53mm	0.1250	0.3100	130.0	0.7500	1.5000	925-000-032
.55mm	0.0217	.55mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-033
# 74	0.0225	.57mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-034
.60mm	0.0236	.60mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-035
# 73	0.0240	.61mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-036
# 72	0.0250	.64mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-037

Ø .0256" - .0571" (.65MM - 1.45MM)



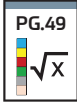
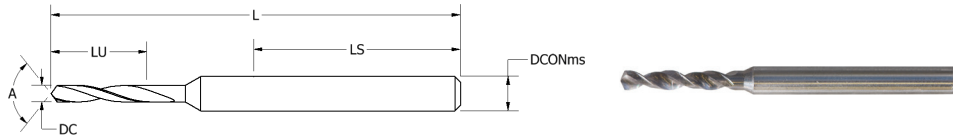
SIZE	DC	DC (mm)	DCONms	LU	A	LS	L	UNCOATED
								2 FLUTE
.65mm	0.0256	.65mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-038
# 71	0.0260	.66mm	0.1250	0.3400	130.0	0.7500	1.5000	925-000-039
.70mm	0.0276	.70mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-040
# 70	0.0280	.71mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-041
# 69	0.0292	.74mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-042
.75mm	0.0295	.75mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-043
# 68	0.0310	.787mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-044
1/32"	0.0312	.79mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-045
.80mm	0.0315	.80mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-046
# 67	0.0320	.81mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-047
# 66	0.0330	.84mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-048
.85mm	0.0335	.85mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-049
# 65	0.0350	.89mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-050
.90mm	0.0354	.90mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-051
# 64	0.0360	.91mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-052
# 63	0.0370	.94mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-053
.95mm	0.0374	.95mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-054
# 62	0.0380	.97mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-055
# 61	0.0390	.99mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-056
1.0mm	0.0394	1.00mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-057
# 60	0.0400	1.02mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-058
# 59	0.0410	1.04mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-059
1.05mm	0.0413	1.05mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-060
# 58	0.0420	1.07mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-061
# 57	0.0420	1.09mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-062
1.10mm	0.0433	1.10mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-063
1.12mm	0.0440	1.12mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-064
1.15mm	0.0453	1.15mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-065
# 56	0.0465	1.18mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-066
3/64"	0.0469	1.19mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-067
1.20mm	0.0472	1.20mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-068
1.25mm	0.0492	1.25mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-069
1.30mm	0.0512	1.30mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-070
# 55	0.0520	1.32mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-071
1.35mm	0.0531	1.35mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-072
# 54	0.0550	1.397mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-073
1.40mm	0.0551	1.40mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-074
1.45mm	0.0571	1.45mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-075

Ø .0591"- .0925" (1.50MM -2.35MM)



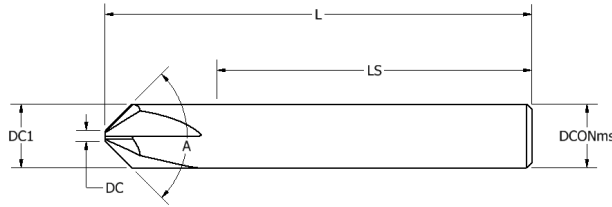
SIZE	DC	DC (mm)	DCONms	LU	A	LS	L	UNCOATED
								2 FLUTE
1.50mm	0.0591	1.50mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-076
# 53	0.0595	1.51mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-077
1.55mm	0.0610	1.55mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-078
1/16"	0.0625	1.59mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-079
1.60mm	0.0630	1.60mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-080
# 52	0.0635	1.61mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-081
1.65mm	0.0650	1.65mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-082
1.70mm	0.0669	1.699mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-083
# 51	0.0670	1.70mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-084
1.75mm	0.0689	1.75mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-085
# 50	0.0700	1.78mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-086
1.80mm	0.0709	1.80mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-087
1.85mm	0.0728	1.85mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-088
# 49	0.0730	1.85mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-089
1.90mm	0.0748	1.90mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-090
# 48	0.0760	1.93mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-091
1.95mm	0.0768	1.95mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-092
5/64"	0.0781	1.98mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-093
# 47	0.0785	1.99mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-094
2.0mm	0.0787	2.00mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-095
2.05mm	0.0807	2.05mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-096
# 46	0.0810	2.06mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-097
# 45	0.0820	2.08mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-098
2.10mm	0.0827	2.10mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-099
2.15mm	0.0846	2.15mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-100
# 44	0.0860	2.18mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-101
2.20mm	0.0866	2.20mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-102
2.25mm	0.0886	2.25mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-103
# 43	0.0890	2.26mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-104
2.30mm	0.0906	2.30mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-105
2.35mm	0.0925	2.35mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-106

Ø.0935" - .1250" (2.37MM - 3.18MM)

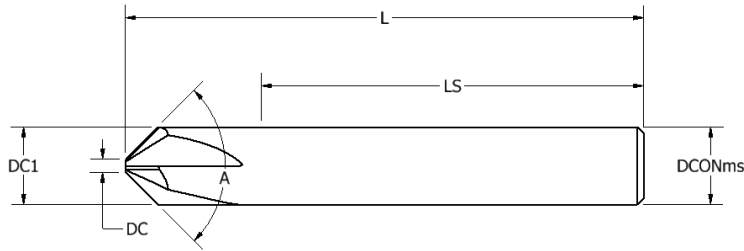


SIZE	DC	DC (mm)	DCONms	LU	A	LS	L	UNCOATED
								2 FLUTE
# 42	0.0935	2.37mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-107
3/32"	0.0938	2.38mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-108
2.40mm	0.0945	2.40mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-109
# 41	0.0960	2.44mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-110
2.45mm	0.0965	2.45mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-111
# 40	0.0980	2.49mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-112
2.50mm	0.0984	2.50mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-113
# 39	0.0995	2.53mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-114
2.55mm	0.1004	2.55mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-115
# 38	0.1015	2.58mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-116
2.60mm	0.1024	2.60mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-117
# 37	0.1040	2.64mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-118
2.65mm	0.1043	2.65mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-119
2.70mm	0.1063	2.70mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-120
# 36	0.1065	2.71mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-121
2.75mm	0.1083	2.75mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-122
7/64"	0.1094	2.78mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-123
# 35	0.1100	2.79mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-124
2.80mm	0.1102	2.80mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-125
# 34	0.1110	2.82mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-126
2.85mm	0.1122	2.85mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-127
# 33	0.1130	2.87mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-128
2.90mm	0.1142	2.90mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-129
# 32	0.1160	2.946mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-130
2.95mm	0.1161	2.95mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-131
3.00mm	0.1181	3.00mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-132
# 31	0.1200	3.05mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-133
3.05mm	0.1201	3.05mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-134
3.10mm	0.1220	3.10mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-135
3.15mm	0.1240	3.15mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-136
1/8"	0.1250	3.18mm	0.1250	0.4000	130.0	0.7500	1.5000	925-000-137

CARBIDE



DC	DCONms	DC1	LS	L	A	UNCOATED	ALTiN COATED	TiAIN COATED
						2 FLUTE	2 FLUTE	2 FLUTE
0.0060	0.1250	0.1250	0.7500	1.5000	30.0	909-000-198	909-000-342	909-000-249
0.0060	0.1250	0.1250	0.7500	1.5000	40.0	909-000-203	909-000-347	909-000-254
0.0060	0.1250	0.1250	0.7500	1.5000	45.0	909-000-207	909-000-351	909-000-258
0.0060	0.1250	0.1250	0.7500	1.5000	50.0	909-000-209	909-000-353	909-000-260
0.0060	0.1250	0.1250	0.7500	1.5000	60.0	909-000-035	909-000-355	909-000-262
0.0060	0.1250	0.1250	0.7500	1.5000	70.0	909-000-214	909-000-360	909-000-267
0.0060	0.1250	0.1250	0.7500	1.5000	80.0	909-000-215	909-000-361	909-000-268
0.0060	0.1250	0.1250	0.7500	1.5000	82.0	909-000-036	909-000-362	909-000-269
0.0060	0.1250	0.1250	0.7500	1.5000	90.0	909-000-037	909-000-367	909-000-274
0.0060	0.1250	0.1250	0.7500	1.5000	100.0	909-000-033	909-000-326	909-000-233
0.0060	0.1250	0.1250	0.7500	1.5000	110.0	909-000-188	909-000-330	909-000-237
0.0060	0.1250	0.1250	0.7500	1.5000	120.0	909-000-034	909-000-331	909-000-238
0.0060	0.1250	0.1250	0.7500	1.5000	130.0	909-000-192	909-000-336	909-000-243
0.0060	0.1250	0.1250	0.7500	1.5000	140.0	909-000-193	909-000-337	909-000-244
0.0060	0.1250	0.1250	0.7500	1.5000	150.0	909-000-194	909-000-338	909-000-245
0.0060	0.1875	0.1875	1.0000	2.0000	30.0	909-000-199	909-000-343	909-000-250
0.0060	0.1875	0.1875	1.0000	2.0000	40.0	909-000-204	909-000-348	909-000-255
0.0060	0.1875	0.1875	1.0000	2.0000	45.0	909-000-208	909-000-352	909-000-259
0.0060	0.1875	0.1875	1.0000	2.0000	50.0	909-000-210	909-000-354	909-000-261
0.0060	0.1875	0.1875	1.0000	2.0000	60.0	909-000-211	909-000-356	909-000-263
0.0060	0.1875	0.1875	1.0000	2.0000	82.0	909-000-216	909-000-363	909-000-270
0.0060	0.1875	0.1875	1.0000	2.0000	90.0	909-000-219	909-000-368	909-000-275
0.0060	0.1875	0.1875	1.0000	2.0000	120.0	909-000-189	909-000-332	909-000-239
0.0060	0.1875	0.1875	1.2500	2.5000	150.0	909-000-195	909-000-339	909-000-246

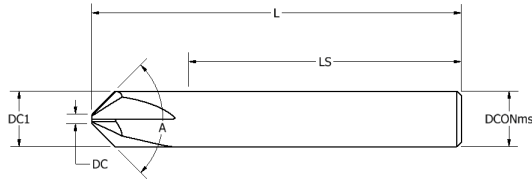


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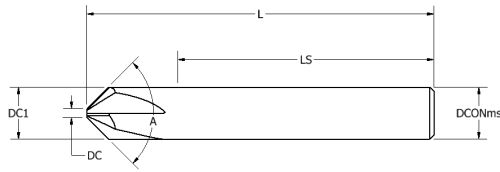


DC	DCONms	DC1	LS	L	A	UNCOATED	ALTiN COATED	TiAIN COATED
						2 FLUTE	2 FLUTE	2 FLUTE
0.0400	0.2500	0.2500	1.2500	2.5000	30.0	909-000-200	909-000-344	909-000-251
0.0400	0.2500	0.2500	1.2500	2.5000	40.0	909-000-205	909-000-349	909-000-256
0.0400	0.2500	0.2500	1.2500	2.5000	60.0	909-000-046	909-000-357	909-000-264
0.0400	0.2500	0.2500	1.2500	2.5000	82.0	909-000-050	909-000-364	909-000-271
0.0400	0.2500	0.2500	1.2500	2.5000	90.0	909-000-054	909-000-369	909-000-276
0.0400	0.2500	0.2500	1.2500	2.5000	100.0	909-000-038	909-000-327	909-000-234
0.0400	0.2500	0.2500	1.2500	2.5000	120.0	909-000-042	909-000-333	909-000-240
0.0600	0.3750	0.3750	1.2500	2.5000	30.0	909-000-201	909-000-345	909-000-252
0.0600	0.3750	0.3750	1.2500	2.5000	40.0	909-000-206	909-000-350	909-000-257
0.0600	0.3750	0.3750	1.2500	2.5000	60.0	909-000-061	909-000-358	909-000-265
0.0600	0.3750	0.3750	1.2500	2.5000	82.0	909-000-062	909-000-365	909-000-272
0.0600	0.3750	0.3750	1.2500	2.5000	90.0	909-000-063	909-000-300	909-000-277
0.0600	0.3750	0.3750	1.2500	2.5000	100.0	909-000-059	909-000-328	909-000-235
0.0600	0.3750	0.3750	1.2500	2.5000	120.0	909-000-060	909-000-334	909-000-241
0.0600	0.3750	0.3750	1.2500	2.5000	150.0	909-000-196	909-000-340	909-000-247
0.0800	0.5000	0.5000	1.5000	3.0000	30.0	909-000-202	909-000-346	909-000-253
0.0800	0.5000	0.5000	1.5000	3.0000	60.0	909-000-066	909-000-359	909-000-266
0.0800	0.5000	0.5000	1.5000	3.0000	82.0	909-000-067	909-000-366	909-000-273
0.0800	0.5000	0.5000	1.5000	3.0000	90.0	909-000-068	909-000-371	909-000-278
0.0800	0.5000	0.5000	1.5000	3.0000	100.0	909-000-064	909-000-329	909-000-236
0.0800	0.5000	0.5000	1.5000	3.0000	120.0	909-000-065	909-000-335	909-000-242

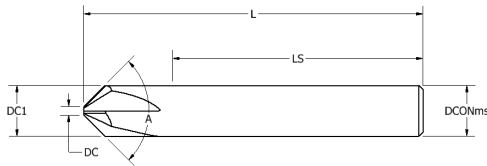
CARBIDE



DC	DCONms	DC1	LS	L	A	UNCOATED	TiAIN COATED
						2 FLUTE	2 FLUTE
0.0250	0.1250	0.1250	0.7500	1.5000	60.0	909-000-071	909-000-286
0.0250	0.1250	0.1250	0.7500	1.5000	82.0	909-000-072	909-000-290
0.0250	0.1250	0.1250	0.7500	1.5000	90.0	909-000-073	909-000-294
0.0250	0.1250	0.1250	0.7500	1.5000	100.0	909-000-069	909-000-279
0.0250	0.1250	0.1250	0.7500	1.5000	120.0	909-000-070	909-000-283
0.0400	0.2500	0.2500	1.2500	2.5000	60.0	909-000-082	909-000-287
0.0400	0.2500	0.2500	1.2500	2.5000	82.0	909-000-086	909-000-291
0.0400	0.2500	0.2500	1.2500	2.5000	90.0	909-000-090	909-000-295
0.0400	0.2500	0.2500	1.2500	2.5000	100.0	909-000-074	909-000-280
0.0400	0.2500	0.2500	1.2500	2.5000	120.0	909-000-078	909-000-079
0.0600	0.3750	0.3750	1.2500	2.5000	60.0	909-000-097	909-000-288
0.0600	0.3750	0.3750	1.2500	2.5000	82.0	909-000-098	909-000-292
0.0600	0.3750	0.3750	1.2500	2.5000	90.0	909-000-099	909-000-296
0.0600	0.3750	0.3750	1.2500	2.5000	100.0	909-000-095	909-000-281
0.0600	0.3750	0.3750	1.2500	2.5000	120.0	909-000-096	909-000-284
0.0800	0.5000	0.5000	1.5000	3.0000	60.0	909-000-108	909-000-109
0.0800	0.5000	0.5000	1.5000	3.0000	82.0	909-000-112	909-000-113
0.0800	0.5000	0.5000	1.5000	3.0000	90.0	909-000-116	909-000-297
0.0800	0.5000	0.5000	1.5000	3.0000	100.0	909-000-100	909-000-282
0.0800	0.5000	0.5000	1.5000	3.0000	120.0	909-000-104	909-000-285

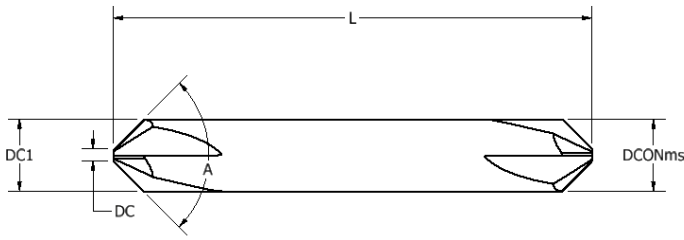


DC	DCONms	DC1	LS	L	A	UNCOATED	ALTiN COATED	TiAIN COATED
						3 FLUTE	3 FLUTE	3 FLUTE
0.0600	0.2500	0.2500	1.2500	2.5000	30.0	909-000-404	909-000-376	909-000-302
0.0600	0.3750	0.3750	1.2500	2.5000	30.0	909-000-405	909-000-377	909-000-303
0.0600	0.2500	0.2500	1.2500	2.5000	40.0	909-000-406	909-000-378	909-000-304
0.0600	0.3750	0.3750	1.2500	2.5000	40.0	909-000-407	909-000-379	909-000-305
0.0600	0.2500	0.2500	1.2500	2.5000	45.0	909-000-408	909-000-380	909-000-306
0.0600	0.3750	0.3750	1.2500	2.5000	45.0	909-000-409	909-000-381	909-000-307
0.0600	0.2500	0.2500	1.2500	2.5000	50.0	909-000-410	909-000-382	909-000-308
0.0600	0.3750	0.3750	1.2500	2.5000	50.0	909-000-411	909-000-383	909-000-309
0.0600	0.2500	0.2500	1.2500	2.5000	60.0	909-000-412	909-000-384	909-000-310
0.0600	0.3750	0.3750	1.2500	2.5000	60.0	909-000-413	909-000-385	909-000-311
0.0600	0.2500	0.2500	1.2500	2.5000	82.0	909-000-414	909-000-386	909-000-312
0.0600	0.3750	0.3750	1.2500	2.5000	82.0	909-000-415	909-000-387	909-000-313
0.0600	0.2500	0.2500	1.2500	2.5000	90.0	909-000-416	909-000-388	909-000-314
0.0600	0.3750	0.3750	1.2500	2.5000	90.0	909-000-417	909-000-389	909-000-315
0.0600	0.2500	0.2500	1.2500	2.5000	100.0	909-000-400	909-000-372	909-000-298
0.0600	0.2500	0.2500	1.2500	2.5000	120.0	909-000-401	909-000-373	909-000-299
0.0600	0.3750	0.3750	1.2500	2.5000	120.0	909-000-402	909-000-374	909-000-300
0.0600	0.2500	0.2500	1.2500	2.5000	150.0	909-000-403	909-000-375	909-000-301

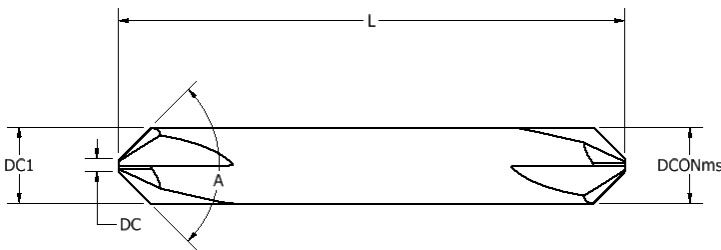


DC	DCONms	DC1	LS	L	A	UNCOATED	ALTiN COATED	TiAIN COATED
						4 FLUTE	4 FLUTE	4 FLUTE
0.0800	0.5000	0.5000	1.5000	3.0000	30.0	909-000-421	909-000-393	909-000-319
0.0800	0.5000	0.5000	1.5000	3.0000	40.0	909-000-422	909-000-394	909-000-320
0.0800	0.5000	0.5000	1.5000	3.0000	45.0	909-000-423	909-000-395	909-000-321
0.0800	0.5000	0.5000	1.5000	3.0000	50.0	909-000-424	909-000-396	909-000-322
0.0800	0.5000	0.5000	1.5000	3.0000	60.0	909-000-425	909-000-397	909-000-323
0.0800	0.5000	0.5000	1.5000	3.0000	82.0	909-000-426	909-000-398	909-000-324
0.0800	0.5000	0.5000	1.5000	3.0000	90.0	909-000-427	909-000-399	909-000-325
0.0800	0.5000	0.5000	1.5000	3.0000	100.0	909-000-418	909-000-390	909-000-316
0.0800	0.5000	0.5000	1.5000	3.0000	120.0	909-000-419	909-000-391	909-000-317
0.0800	0.5000	0.5000	1.5000	3.0000	150.0	909-000-420	909-000-392	909-000-318

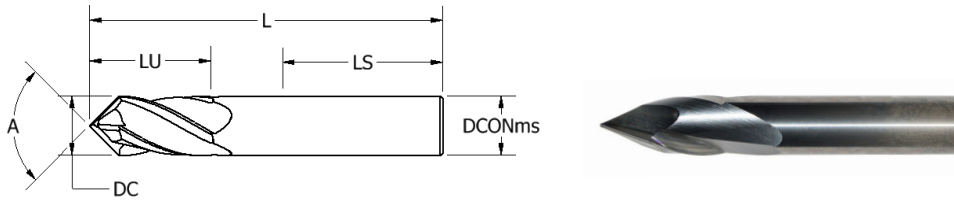
CARBIDE



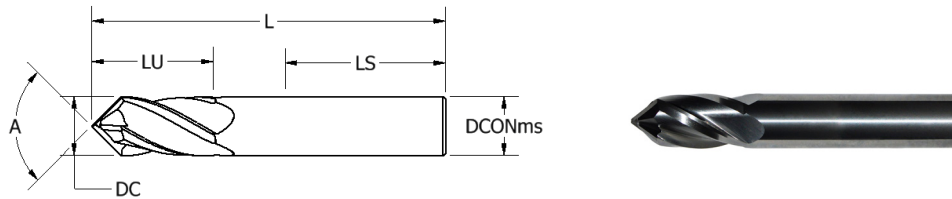
DC	DCONms	DC1	LS	L	60°	82°	90°	100°	120°
0.0060	0.1250	0.1250	1.0000	2.0000	909-000-119	909-000-120	909-000-121	909-000-117	909-000-118
0.0060	0.1875	0.1875	1.2500	2.5000	909-000-124	909-000-125	909-000-126	909-000-122	909-000-123
0.0400	0.2500	0.2500	1.2500	2.5000	909-000-135	909-000-139	909-000-140	909-000-127	909-000-131
0.0600	0.3125	0.3125	1.2500	2.5000	909-000-143	909-000-144	909-000-145	909-000-141	909-000-142
0.0600	0.3750	0.3750	1.2500	2.5000	909-000-148	909-000-149	909-000-150	909-000-146	909-000-147
0.0800	0.5000	0.5000	1.5000	3.0000	909-000-153	909-000-154	909-000-155	909-000-151	909-000-152



DC	DCONms	DC1	LS	L	60°	82°	90°	100°	120°
0.0250	0.1250	0.1250	1.0000	2.0000	909-000-158	909-000-159	909-000-160	909-000-156	909-000-157
0.0400	0.1875	0.1875	1.2500	2.5000	909-000-163	909-000-164	909-000-165	909-000-161	909-000-162
0.0400	0.2500	0.2500	1.2500	2.5000	909-000-168	909-000-169	909-000-170	909-000-166	909-000-167
0.0600	0.3125	0.3125	1.2500	2.5000	909-000-173	909-000-174	909-000-175	909-000-171	909-000-172
0.0600	0.3750	0.3750	1.2500	2.5000	909-000-178	909-000-179	909-000-180	909-000-176	909-000-177
0.0800	0.5000	0.5000	1.5000	3.0000	909-000-183	909-000-184	909-000-185	909-000-181	909-000-182

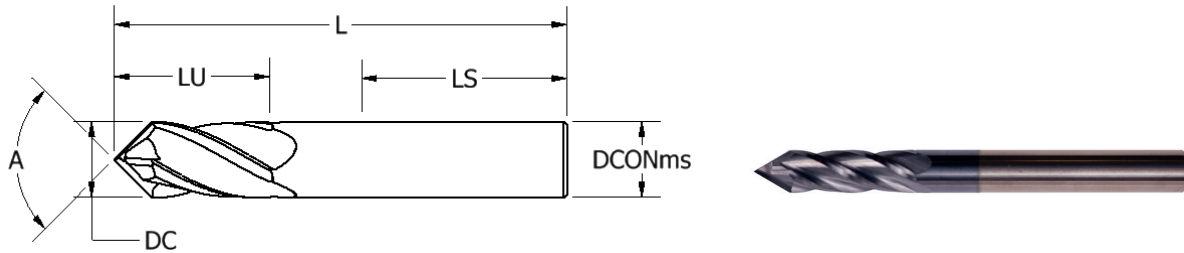


DC	DCONms	LS	L	LU	60°	90°
0.0313	0.1250	1.1338	1.5000	0.1250	933-000-001	933-000-002
0.0625	0.1250	1.1517	1.5000	0.1875	933-000-003	933-000-004
0.0938	0.1250	1.0446	1.5000	0.3750	933-000-005	933-000-006
0.1250	0.1250	0.6250	1.5000	0.5000	933-000-007	933-000-008
0.1875	0.1875	1.0000	2.0000	0.6250	933-000-009	933-000-010
0.2500	0.2500	1.3750	2.5000	0.7500	933-000-011	933-000-012
0.2500	0.2500	1.3750	2.5000	0.7500	933-000-013	933-000-014
0.3750	0.3750	1.1250	2.5000	1.0000	933-000-015	933-000-016
0.4375	0.4375	1.3750	2.7500	1.0000	933-000-017	933-000-018
0.5000	0.5000	1.6250	3.0000	1.0000	933-000-019	933-000-020
0.6250	0.6250	1.8750	3.5000	1.2500	933-000-021	933-000-022
0.7500	0.7500	2.1250	4.0000	1.5000	933-000-023	933-000-024

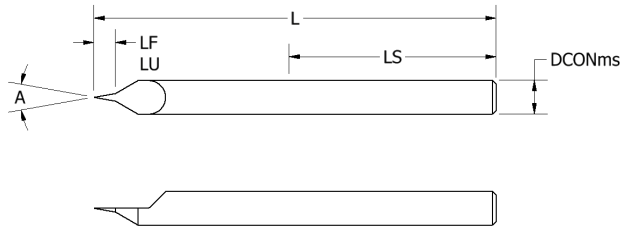


DC	DCONms	LS	L	LU	60°	90°
0.0313	0.1250	1.1338	1.5000	0.1250	933-000-025	933-000-026
0.0625	0.1250	1.1517	1.5000	0.1875	933-000-027	933-000-028
0.0938	0.1250	1.0446	1.5000	0.3750	933-000-029	933-000-030
0.1250	0.1250	0.6250	1.5000	0.5000	933-000-031	933-000-032
0.1875	0.1875	1.0000	2.0000	0.6250	933-000-033	933-000-034
0.2500	0.2500	1.3750	2.5000	0.7500	933-000-035	933-000-036
0.3125	0.3125	1.3125	2.5000	0.8125	933-000-040	933-000-041
0.3750	0.3750	1.1250	2.5000	1.0000	933-000-042	933-000-043
0.4375	0.4375	1.3750	2.7500	1.0000	933-000-044	933-000-045
0.5000	0.5000	1.6250	3.0000	1.0000	933-000-046	933-000-047
0.6250	0.6250	1.8750	3.5000	1.2500	933-000-048	933-000-049
0.7500	0.7500	2.1250	4.0000	1.5000	933-000-050	933-000-051

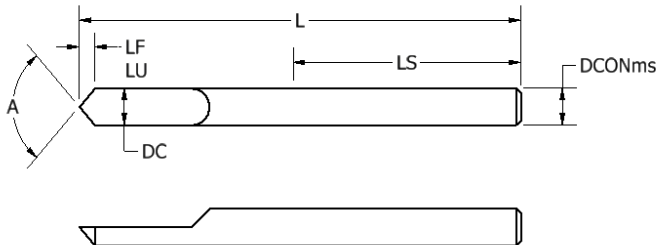
CARBIDE



DC	DCONms	LS	L	LU	A	ALTiN COATED	
						2 FLUTE	4 FLUTE
0.0313	0.1250	1.1338	1.5000	0.1250	60.0	933-000-066	933-000-104
0.0625	0.1250	1.1517	1.5000	0.1875	60.0	933-000-067	933-000-105
0.0938	0.1250	1.0446	1.5000	0.3750	60.0	933-000-068	933-000-106
0.1250	0.1250	0.6250	1.5000	0.5000	60.0	933-000-069	933-000-107
0.1875	0.1875	1.0000	2.0000	0.6250	60.0	933-000-070	933-000-108
0.2500	0.2500	1.3750	2.5000	0.7500	60.0	933-000-071	933-000-109
0.3125	0.3125	1.3125	2.5000	0.8125	60.0	933-000-072	933-000-110
0.3750	0.3750	1.1250	2.5000	1.0000	60.0	933-000-073	933-000-111
0.4375	0.4375	1.3750	2.7500	1.0000	60.0	933-000-074	933-000-112
0.5000	0.5000	1.6250	3.0000	1.0000	60.0	933-000-075	933-000-113
0.6250	0.6250	1.8750	3.5000	1.2500	60.0	933-000-076	933-000-114
0.7500	0.7500	2.1250	4.0000	1.5000	60.0	933-000-077	933-000-115
0.0313	0.1250	1.1338	1.5000	0.1250	90.0	933-000-078	933-000-116
0.0625	0.1250	1.1517	1.5000	0.1875	90.0	933-000-079	933-000-117
0.0938	0.1250	1.0446	1.5000	0.3750	90.0	933-000-080	933-000-118
0.1250	0.1250	0.6250	1.5000	0.5000	90.0	933-000-081	933-000-119
0.1875	0.1875	1.0000	2.0000	0.6250	90.0	933-000-082	933-000-120
0.2500	0.2500	1.3750	2.5000	0.7500	90.0	933-000-083	933-000-121
0.3125	0.3125	1.3125	2.5000	0.8125	90.0	933-000-084	933-000-122
0.3750	0.3750	1.1250	2.5000	1.0000	90.0	933-000-085	933-000-123
0.4375	0.4375	1.3750	2.7500	1.0000	90.0	933-000-086	933-000-124
0.5000	0.5000	1.6250	3.0000	1.0000	90.0	933-000-087	933-000-125
0.6250	0.6250	1.8750	3.5000	1.2500	90.0	933-000-088	933-000-126
0.7500	0.7500	2.1250	4.0000	1.5000	90.0	933-000-089	933-000-127

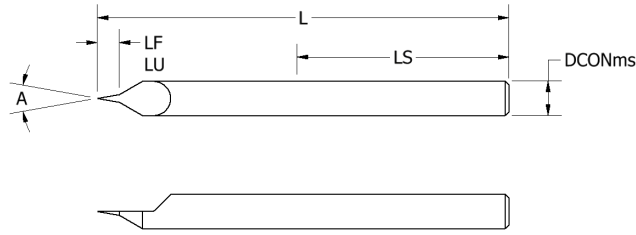


DCONms	LU	LS	L	LF	A	UNCOATED	ALTiN COATED
						1 FLUTE	1 FLUTE
0.1250	0.0800	0.7500	1.5000	0.0800	10.0	937-000-002	937-000-135
0.1250	0.0800	0.7500	1.5000	0.0800	15.0	937-000-004	937-000-137
0.1250	0.0800	0.7500	1.5000	0.0800	20.0	937-000-005	937-000-138



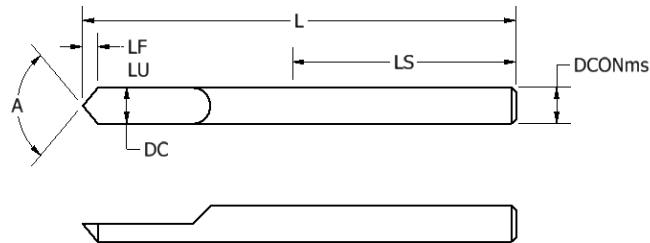
DC	DCONms	LU	LS	L	LF	A	UNCOATED	ALTiN COATED
							1 FLUTE	1 FLUTE
0.1250	0.1250	0.2330	0.7500	1.5000	0.2330	30.0	937-000-010	937-000-143
0.1250	0.1250	0.1720	0.7500	1.5000	0.1720	40.0	937-000-020	937-000-153
0.1250	0.1250	0.1510	0.7500	1.5000	0.1510	45.0	937-000-026	937-000-159
0.1250	0.1250	0.1340	0.7500	1.5000	0.1340	50.0	937-000-027	937-000-160
0.1250	0.1250	0.1080	0.7500	1.5000	0.1080	60.0	937-000-032	937-000-165
0.1250	0.1250	0.0720	0.7500	1.5000	0.0720	82.0	937-000-038	937-000-171
0.1250	0.1250	0.0630	0.7500	1.5000	0.0630	90.0	937-000-043	937-000-176
0.1250	0.1250	0.0520	0.7500	1.5000	0.0520	100.0	937-000-001	937-000-134
0.1250	0.1250	0.0360	0.7500	1.5000	0.0360	120.0	937-000-003	937-000-136

CARBIDE



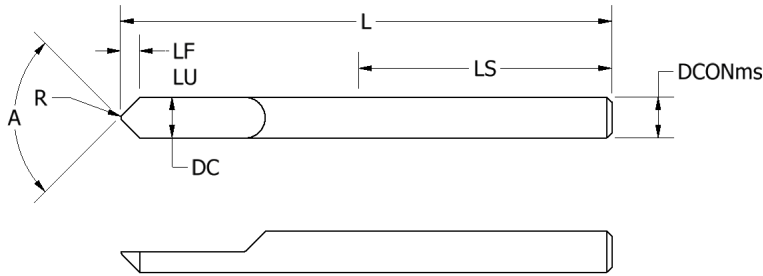
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DCONms	LU	LS	L	LF	A	TiAIN COATED	AMORPHOUS DIAMOND
						1 FLUTE	1 FLUTE
0.1250	0.0800	0.7500	1.5000	0.0800	10.0	937-000-062	937-000-050
0.1250	0.0800	0.7500	1.5000	0.0800	15.0	937-000-064	937-000-052
0.1250	0.0800	0.7500	1.5000	0.0800	20.0	937-000-065	937-000-053



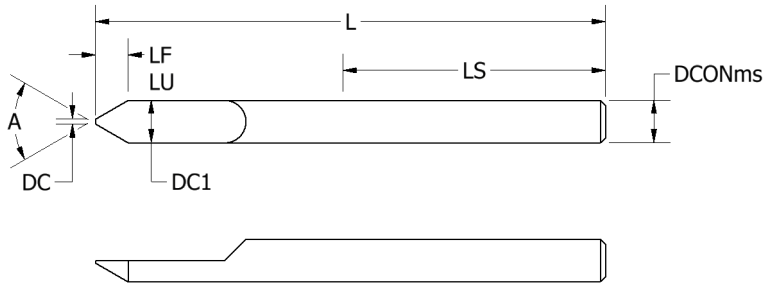
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DC	DCONms	LU	LS	L	LF	A	TiAIN COATED	AMORPHOUS DIAMOND
							1 FLUTE	1 FLUTE
0.1250	0.1250	0.2330	0.7500	1.5000	0.2330	30.0	937-000-070	937-000-054
0.1250	0.1250	0.1720	0.7500	1.5000	0.1720	40.0	937-000-080	937-000-055
0.1250	0.1250	0.1510	0.7500	1.5000	0.1510	45.0	937-000-086	937-000-056
0.1250	0.1250	0.1340	0.7500	1.5000	0.1340	50.0	937-000-087	937-000-057
0.1250	0.1250	0.1080	0.7500	1.5000	0.1080	60.0	937-000-092	937-000-058
0.1250	0.1250	0.0720	0.7500	1.5000	0.0720	82.0	937-000-098	937-000-059
0.1250	0.1250	0.0630	0.7500	1.5000	0.0630	90.0	937-000-103	937-000-060
0.1250	0.1250	0.0520	0.7500	1.5000	0.0520	100.0	937-000-061	937-000-049
0.1250	0.1250	0.0360	0.7500	1.5000	0.0360	120.0	937-000-063	937-000-051

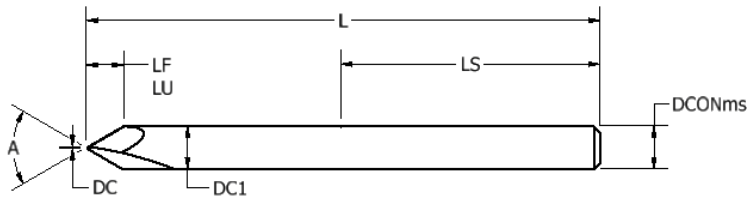


DC	DCONms	LU	LS	L	LF	R	A	UNCOATED	ALTIN COATED	TiAIN COATED
								1 FLUTE	1 FLUTE	1 FLUTE
0.1250	0.1250	0.2260	0.7500	1.5000	0.2260	0.0025	30.0	937-000-011	937-000-144	937-000-071
0.1250	0.1250	0.1670	0.7500	1.5000	0.1670	0.0025	40.0	937-000-021	937-000-154	937-000-081
0.1250	0.1250	0.1060	0.7500	1.5000	0.1060	0.0025	60.0	937-000-033	937-000-166	937-000-093
0.1250	0.1250	0.0610	0.7500	1.5000	0.0610	0.0025	90.0	937-000-044	937-000-177	937-000-104
0.1250	0.1250	0.2190	0.7500	1.5000	0.2190	0.0050	30.0	937-000-012	937-000-145	937-000-072
0.1250	0.1250	0.1620	0.7500	1.5000	0.1620	0.0050	40.0	937-000-022	937-000-155	937-000-082
0.1250	0.1250	0.1030	0.7500	1.5000	0.1030	0.0050	60.0	937-000-034	937-000-167	937-000-094
0.1250	0.1250	0.0600	0.7500	1.5000	0.0600	0.0050	90.0	937-000-045	937-000-178	937-000-105
0.1250	0.1250	0.2050	0.7500	1.5000	0.2050	0.0100	30.0	937-000-013	937-000-146	937-000-073
0.1250	0.1250	0.1520	0.7500	1.5000	0.1520	0.0100	40.0	937-000-023	937-000-156	937-000-083
0.1250	0.1250	0.0980	0.7500	1.5000	0.0980	0.0100	60.0	937-000-035	937-000-168	937-000-095
0.1250	0.1250	0.0580	0.7500	1.5000	0.0580	0.0100	90.0	937-000-046	937-000-179	937-000-106
0.1250	0.1250	0.1900	0.7500	1.5000	0.1900	0.0150	30.0	937-000-014	937-000-147	937-000-074
0.1250	0.1250	0.1430	0.7500	1.5000	0.1430	0.0150	40.0	937-000-024	937-000-157	937-000-084
0.1250	0.1250	0.0930	0.7500	1.5000	0.0930	0.0150	60.0	937-000-036	937-000-169	937-000-096
0.1250	0.1250	0.0560	0.7500	1.5000	0.0560	0.0150	90.0	937-000-047	937-000-180	937-000-107
0.1250	0.1250	0.1760	0.7500	1.5000	0.1760	0.0200	30.0	937-000-015	937-000-148	937-000-075
0.1250	0.1250	0.1280	0.7500	1.5000	0.1280	0.0200	40.0	937-000-025	937-000-158	937-000-085
0.1250	0.1250	0.0880	0.7500	1.5000	0.0880	0.0200	60.0	937-000-037	937-000-170	937-000-097
0.1250	0.1250	0.0540	0.7500	1.5000	0.0540	0.0200	90.0	937-000-048	937-000-181	937-000-108

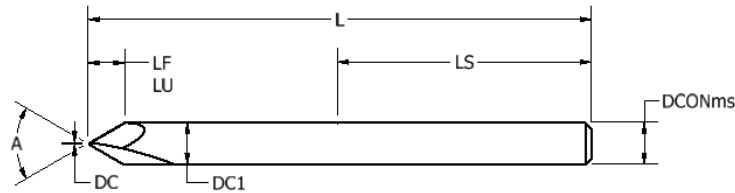
CARBIDE



DC	DCONms	DC1	LU	LS	L	LF	A	UNCOATED	ALTIN COATED	TiAIN COATED
								1 FLUTE	1 FLUTE	1 FLUTE
0.0050	0.1250	0.1250	0.2240	0.7500	1.5000	0.2240	30.0	937-000-006	937-000-139	937-000-066
0.0050	0.1250	0.1250	0.1650	0.7500	1.5000	0.1650	40.0	937-000-016	937-000-149	937-000-076
0.0050	0.1250	0.1250	0.1040	0.7500	1.5000	0.1040	60.0	937-000-028	937-000-161	937-000-088
0.0050	0.1250	0.1250	0.0600	0.7500	1.5000	0.0600	90.0	937-000-039	937-000-172	937-000-099
0.0100	0.1250	0.1250	0.2150	0.7500	1.5000	0.2150	30.0	937-000-007	937-000-140	937-000-067
0.0100	0.1250	0.1250	0.1580	0.7500	1.5000	0.1580	40.0	937-000-017	937-000-150	937-000-077
0.0100	0.1250	0.1250	0.1000	0.7500	1.5000	0.1000	60.0	937-000-029	937-000-162	937-000-089
0.0100	0.1250	0.1250	0.0580	0.7500	1.5000	0.0580	90.0	937-000-040	937-000-173	937-000-100
0.0150	0.1250	0.1250	0.2050	0.7500	1.5000	0.2050	30.0	937-000-008	937-000-141	937-000-068
0.0150	0.1250	0.1250	0.1510	0.7500	1.5000	0.1510	40.0	937-000-018	937-000-151	937-000-078
0.0150	0.1250	0.1250	0.0950	0.7500	1.5000	0.0950	60.0	937-000-030	937-000-163	937-000-090
0.0150	0.1250	0.1250	0.0550	0.7500	1.5000	0.0550	90.0	937-000-041	937-000-174	937-000-101
0.0200	0.1250	0.1250	0.1960	0.7500	1.5000	0.1960	30.0	937-000-009	937-000-142	937-000-069
0.0200	0.1250	0.1250	0.1440	0.7500	1.5000	0.1440	40.0	937-000-019	937-000-152	937-000-079
0.0200	0.1250	0.1250	0.0910	0.7500	1.5000	0.0910	60.0	937-000-031	937-000-164	937-000-091
0.0200	0.1250	0.1250	0.0530	0.7500	1.5000	0.0530	90.0	937-000-042	937-000-175	937-000-102



DC	DCONms	DC1	LU	LS	L	LF	A	UNCOATED	ALTIN COATED	TiAIN COATED
								2 FLUTE	1 FLUTE	1 FLUTE
0.0050	0.1250	0.1250	0.2240	0.7500	1.5000	0.2240	30.0	947-000-006	947-000-030	937-000-113
0.0050	0.1250	0.1250	0.1650	0.7500	1.5000	0.1650	40.0	947-000-011	947-000-034	937-000-117
0.0050	0.1250	0.1250	0.1040	0.7500	1.5000	0.1040	60.0	947-000-016	947-000-038	937-000-121
0.0050	0.1250	0.1250	0.0600	0.7500	1.5000	0.0600	90.0	947-000-021	947-000-042	937-000-125
0.0050	0.1250	0.1250	0.0350	0.7500	1.5000	0.0350	120.0	947-000-001	947-000-026	937-000-109
0.0100	0.1250	0.1250	0.2150	0.7500	1.5000	0.2150	30.0	947-000-008	947-000-031	937-000-114
0.0100	0.1250	0.1250	0.1580	0.7500	1.5000	0.1580	40.0	947-000-013	947-000-035	937-000-118
0.0100	0.1250	0.1250	0.1000	0.7500	1.5000	0.1000	60.0	947-000-018	947-000-039	937-000-122
0.0100	0.1250	0.1250	0.0580	0.7500	1.5000	0.0580	90.0	947-000-023	947-000-043	937-000-126
0.0100	0.1250	0.1250	0.0330	0.7500	1.5000	0.0330	120.0	947-000-003	947-000-027	937-000-110

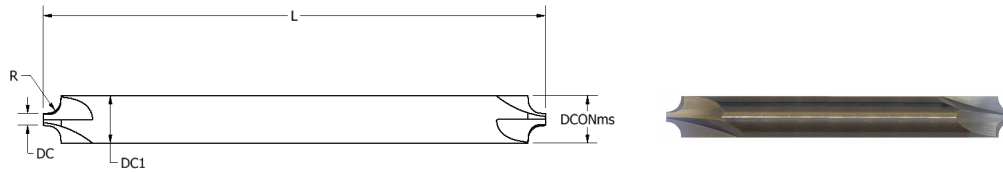


Non-Ferrous Applications

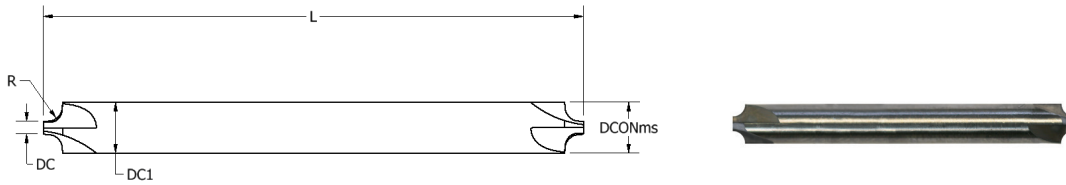


DC	DCONms	DC1	LU	LS	L	LF	A	UNCOATED	DLC COATED
								2 FLUTE	2 FLUTE
0.0050	0.1250	0.1250	0.2240	0.7500	1.5000	0.2240	30.0	947-000-007	937-000-130
0.0050	0.1250	0.1250	0.1650	0.7500	1.5000	0.1650	40.0	947-000-012	937-000-131
0.0050	0.1250	0.1250	0.1040	0.7500	1.5000	0.1040	60.0	947-000-017	937-000-132
0.0050	0.1250	0.1250	0.0600	0.7500	1.5000	0.0600	90.0	947-000-022	937-000-133
0.0050	0.1250	0.1250	0.0350	0.7500	1.5000	0.0350	120.0	947-000-002	937-000-129

CARBIDE

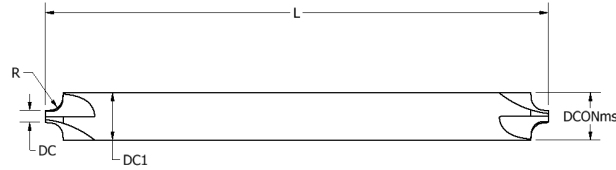


DC	DCONms	DC1	L	R	UNCOATED	ALTiN COATED	TiAIN COATED
					2 FLUTE	2 FLUTE	2 FLUTE
0.0200	0.1250	0.1250	1.5000	0.0310	932-000-670	932-000-781	932-000-499
0.0460	0.1250	0.1250	1.5000	0.0310	932-000-671	932-000-782	932-000-500
0.0460	0.1875	0.1875	4.0000	0.0310	932-000-863	932-000-881	932-000-581
0.0460	0.1250	0.1250	1.5000	0.0320	932-000-672	932-000-783	932-000-501
0.0200	0.1250	0.1250	1.5000	0.0350	932-000-673	932-000-784	932-000-502
0.0460	0.1250	0.1250	1.5000	0.0350	932-000-674	932-000-785	932-000-503
0.0460	0.1875	0.1875	4.0000	0.0350	932-000-864	932-000-882	932-000-582
0.0200	0.1250	0.1250	1.5000	0.0390	932-000-675	932-000-786	932-000-504
0.0460	0.1250	0.1250	1.5000	0.0390	932-000-676	932-000-787	932-000-505
0.0460	0.1875	0.1875	4.0000	0.0390	932-000-865	932-000-883	932-000-583
0.1000	0.1875	0.1875	2.0000	0.0390	932-000-677	932-000-788	932-000-506
0.0460	0.1875	0.1875	2.0000	0.0430	932-000-678	932-000-789	932-000-507
0.0200	0.1250	0.1250	1.5000	0.0470	932-000-679	932-000-790	932-000-508
0.0460	0.1875	0.1875	2.0000	0.0470	932-000-680	932-000-791	932-000-509
0.0460	0.1875	0.1875	4.0000	0.0470	932-000-866	932-000-884	932-000-584
0.1250	0.2500	0.2500	2.0000	0.0470	932-000-681	932-000-792	932-000-510
0.0200	0.1250	0.1250	1.5000	0.0500	932-000-682	932-000-793	932-000-511
0.0460	0.1875	0.1875	2.0000	0.0500	932-000-683	932-000-794	932-000-512
0.0460	0.2500	0.2500	4.0000	0.0500	932-000-867	932-000-885	932-000-585
0.1250	0.2500	0.2500	2.0000	0.0500	932-000-684	932-000-795	932-000-513
0.0460	0.1875	0.1875	2.0000	0.0550	932-000-685	932-000-796	932-000-514
0.0200	0.1875	0.1875	2.0000	0.0600	932-000-686	932-000-797	932-000-515
0.0460	0.1875	0.1875	2.0000	0.0600	932-000-687	932-000-798	932-000-516
0.0460	0.2500	0.2500	4.0000	0.0600	932-000-868	8932-000-886	932-000-586
0.0200	0.1875	0.2500	2.0000	0.0600	932-000-689	932-000-799	932-000-517
0.0460	0.1875	0.1875	2.0000	0.0620	932-000-690	932-000-800	932-000-518
0.1250	0.2500	0.1875	2.0000	0.0620	932-000-691	932-000-801	932-000-519
0.0460	0.2500	0.2500	4.0000	0.0620	932-000-869	932-000-887	932-000-587
0.1250	0.2500	0.2500	2.0000	0.0620	932-000-691	932-000-802	932-000-520
0.0460	0.2500	0.2500	2.0000	0.0720	932-000-692	932-000-803	932-000-521
0.0460	0.2500	0.2500	2.0000	0.0780	932-000-693	932-000-804	932-000-522
0.0460	0.2500	0.2500	4.0000	0.0780	932-000-870	932-000-888	932-000-588
0.0450	0.2500	0.2500	2.0000	0.0890	932-000-694	932-000-805	932-000-523
0.0450	0.2500	0.2500	2.0000	0.0930	932-000-695	932-000-806	932-000-524
0.0450	0.3125	0.3125	4.0000	0.0930	932-000-871	932-000-889	932-000-589
0.0450	0.2500	0.2500	2.0000	0.1000	932-000-696	932-000-807	932-000-525
0.0450	0.3125	0.3125	4.0000	0.1000	932-000-872	932-000-890	932-000-590
0.0580	0.3125	0.3125	2.5000	0.1090	932-000-697	932-000-808	932-000-526
0.0580	0.3125	0.3125	2.5000	0.1180	932-000-698	932-000-809	932-000-527
0.0580	0.3125	0.3125	2.5000	0.1250	932-000-699	932-000-810	932-000-528
0.0580	0.3750	0.3750	4.0000	0.1250	932-000-873	932-000-891	932-000-591
0.0580	0.3750	0.3750	2.5000	0.1400	932-000-700	932-000-811	932-000-529
0.0580	0.3750	0.3750	2.5000	0.1560	932-000-701	932-000-812	932-000-530



DC	DCONms	DC1	L	R	UNCOATED	ALTiN COATED	TiAlN COATED
					4 FLUTE	4 FLUTE	4 FLUTE
0.0580	0.1250	0.1250	1.5000	0.0050	932-000-702	932-000-813	932-000-531
0.2490	0.3750	0.3750	2.5000	0.0050	932-000-703	932-000-814	932-000-532
0.0580	0.1250	0.1250	1.5000	0.0080	932-000-704	932-000-815	932-000-533
0.2490	0.3750	0.3750	2.5000	0.0080	932-000-705	932-000-816	932-000-534
0.0580	0.1250	0.1250	1.5000	0.0100	932-000-706	932-000-817	932-000-535
0.2490	0.3750	0.3750	2.5000	0.0100	932-000-707	932-000-818	932-000-536
0.0580	0.1250	0.1250	1.5000	0.0150	932-000-708	932-000-819	932-000-537
0.1070	0.1875	0.1875	2.0000	0.0150	932-000-709	932-000-820	932-000-538
0.2490	0.3750	0.3750	2.5000	0.0150	932-000-710	932-000-821	932-000-539
0.0580	0.1250	0.1250	1.5000	0.0200	932-000-711	932-000-822	932-000-540
0.1070	0.1875	0.1875	2.0000	0.0200	932-000-712	932-000-823	932-000-541
0.2490	0.3750	0.3750	2.5000	0.0200	932-000-713	932-000-824	932-000-542
0.0580	0.1250	0.1250	1.5000	0.0250	932-000-714	932-000-825	932-000-543
0.1070	0.1875	0.1875	2.0000	0.0250	932-000-715	932-000-826	932-000-544
0.2490	0.3750	0.3750	2.5000	0.0250	932-000-716	932-000-827	932-000-545
0.0580	0.1250	0.1250	1.5000	0.0300	932-000-717	932-000-828	932-000-546
0.1070	0.1875	0.1875	2.0000	0.0300	932-000-718	932-000-829	932-000-547
0.2490	0.3750	0.3750	2.5000	0.0300	932-000-719	932-000-830	932-000-548
0.0580	0.1250	0.1250	1.5000	0.0310	932-000-720	932-000-831	932-000-549
0.1070	0.1875	0.1875	2.0000	0.0310	932-000-721	932-000-832	932-000-550
0.2490	0.3750	0.3750	2.5000	0.0310	932-000-722	932-000-833	932-000-551
0.2490	0.3750	0.3750	2.5000	0.0320	932-000-723	932-000-834	932-000-552
0.2490	0.3750	0.3750	2.5000	0.0350	932-000-724	932-000-835	932-000-553
0.0580	0.1875	0.1875	2.0000	0.0390	932-000-725	932-000-836	932-000-554
0.2490	0.3750	0.3750	2.5000	0.0390	932-000-726	932-000-837	932-000-555
0.2490	0.3750	0.3750	2.5000	0.0430	932-000-727	932-000-838	932-000-556
0.0580	0.1875	0.1875	2.0000	0.0470	932-000-728	932-000-839	932-000-557
0.1070	0.2500	0.2500	2.0000	0.0470	932-000-729	932-000-840	932-000-558
0.2490	0.3750	0.3750	2.5000	0.0470	932-000-730	932-000-841	932-000-559
0.0580	0.1875	0.1875	2.0000	0.0500	932-000-731	932-000-842	932-000-560
0.1070	0.2500	0.2500	2.0000	0.0500	932-000-732	932-000-843	932-000-561
0.2490	0.3750	0.3750	2.5000	0.0500	932-000-733	932-000-844	932-000-562
0.0580	0.1875	0.1875	2.0000	0.0600	932-000-734	932-000-845	932-000-563
0.1070	0.2500	0.2500	2.0000	0.0600	932-000-735	932-000-846	932-000-564
0.0580	0.1875	0.1875	2.0000	0.0620	932-000-736	932-000-847	932-000-565
0.1070	0.2500	0.2500	2.0000	0.0620	932-000-737	932-000-848	932-000-566
0.0580	0.2500	0.2500	2.0000	0.0780	932-000-738	932-000-849	932-000-567
0.1070	0.3125	0.3125	2.5000	0.0780	932-000-739	932-000-850	932-000-568
0.0580	0.2500	0.2500	2.0000	0.0930	932-000-740	932-000-851	932-000-569
0.1070	0.3125	0.3125	2.5000	0.0930	932-000-741	932-000-852	932-000-570
0.1070	0.3125	0.3125	2.5000	0.1000	932-000-742	932-000-853	932-000-571
0.1070	0.3750	0.3750	2.5000	0.1180	932-000-743	932-000-854	932-000-572
0.1070	0.3750	0.3750	2.5000	0.1250	932-000-744	932-000-855	932-000-573

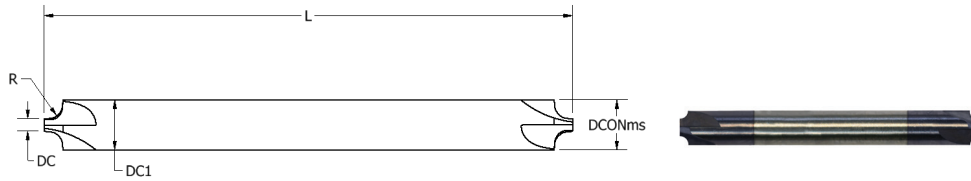
CARBIDE



DC	DCONms	DC1	L	R	UNCOATED	TIN COATED	ALTIN COATED
					2 FLUTE	2 FLUTE	2 FLUTE
0.0470	0.1250	0.1250	1.5000	0.0050	932-000-337	932-000-892	932-000-592
0.0470	0.1250	0.1250	1.5000	0.0080	932-000-338	932-000-893	932-000-593
0.0470	0.1250	0.1250	1.5000	0.0100	932-000-339	932-000-894	932-000-594
0.0470	0.1250	0.1250	1.5000	0.0120	932-000-340	932-000-895	932-000-595
0.0470	0.1250	0.1250	1.5000	0.0150	932-000-341	932-000-896	932-000-596
0.0470	0.1250	0.1250	1.5000	0.0180	932-000-342	932-000-897	932-000-597
0.0470	0.1250	0.1250	1.5000	0.0200	932-000-343	932-000-898	932-000-598
0.0470	0.1250	0.1250	1.5000	0.0220	932-000-344	932-000-899	932-000-599
0.0470	0.1250	0.1250	1.5000	0.0250	932-000-345	932-000-900	932-000-600
0.0470	0.1250	0.1250	1.5000	0.0270	932-000-346	932-000-901	932-000-601
0.0470	0.1250	0.1250	1.5000	0.0300	932-000-347	932-000-902	932-000-602
0.0470	0.1250	0.1250	1.5000	0.0310	932-000-348	932-000-903	932-000-603
0.0470	0.1250	0.1250	1.5000	0.0320	932-000-349	932-000-904	932-000-604
0.0470	0.1250	0.1250	1.5000	0.0350	932-000-350	932-000-905	932-000-605
0.0470	0.1250	0.1250	1.5000	0.0390	932-000-351	932-000-906	932-000-606
0.0470	0.1875	0.1875	2.0000	0.0430	932-000-352	932-000-907	932-000-607
0.0470	0.1875	0.1875	2.0000	0.0470	932-000-353	932-000-908	932-000-608
0.0470	0.1875	0.1875	2.0000	0.0500	932-000-354	932-000-909	932-000-609
0.0470	0.1875	0.1875	2.0000	0.0550	932-000-355	932-000-910	932-000-610
0.0470	0.1875	0.1875	2.0000	0.0600	932-000-356	932-000-911	932-000-611
0.0470	0.1875	0.1875	2.0000	0.0620	932-000-357	932-000-912	932-000-612
0.0470	0.1875	0.1875	2.0000	0.0670	932-000-358	932-000-913	932-000-613
0.0470	0.2500	0.2500	2.0000	0.0720	932-000-359	932-000-914	932-000-614
0.0470	0.2500	0.2500	2.0000	0.0780	932-000-360	932-000-915	932-000-615
0.0470	0.2500	0.2500	2.0000	0.0890	932-000-361	932-000-916	932-000-616
0.0470	0.2500	0.2500	2.0000	0.0930	932-000-362	932-000-917	932-000-617
0.0470	0.2500	0.2500	2.0000	0.1000	932-000-363	932-000-918	932-000-618
0.0600	0.3125	0.3125	2.5000	0.1040	932-000-364	932-000-919	932-000-619
0.0600	0.3125	0.3125	2.5000	0.1090	932-000-365	932-000-920	932-000-620
0.0600	0.3125	0.3125	2.5000	0.1180	932-000-366	932-000-921	932-000-621
0.0600	0.3125	0.3125	2.5000	0.1250	932-000-367	932-000-922	932-000-622
0.0600	0.3750	0.3750	2.5000	0.1400	932-000-368	932-000-923	932-000-623
0.0600	0.3750	0.3750	2.5000	0.1560	932-000-369	932-000-924	932-000-624



DC	DCONms	DC1	L	R	UNCOATED	TIN COATED	ALTIN COATED
					4 FLUTE	4 FLUTE	4 FLUTE
0.2500	0.3750	0.3750	2.5000	0.0100	932-000-370	932-000-925	932-000-625
0.2500	0.3750	0.3750	2.5000	0.0150	932-000-371	932-000-926	932-000-626
0.2500	0.3750	0.3750	2.5000	0.0200	932-000-372	932-000-927	932-000-627
0.2500	0.3750	0.3750	2.5000	0.0250	932-000-373	932-000-928	932-000-628
0.2500	0.3750	0.3750	2.5000	0.0300	932-000-374	932-000-929	932-000-629
0.2500	0.3750	0.3750	2.5000	0.0310	932-000-375	932-000-930	932-000-630
0.2500	0.3750	0.3750	2.5000	0.0390	932-000-376	932-000-931	932-000-631
0.2500	0.3750	0.3750	2.5000	0.0470	932-000-377	932-000-932	932-000-632
0.2500	0.3750	0.3750	2.5000	0.0500	932-000-378	932-000-933	932-000-633



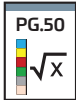
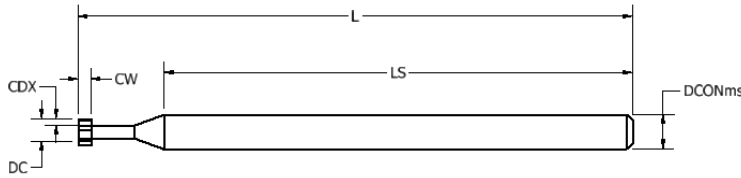
DC	DCONms	DC1	L	R	TiAIN COATED	AMORPHOUS DIAMOND
					2 FLUTE	2 FLUTE
0.0470	0.1250	0.1250	1.5000	0.0050	932-000-421	932-000-379
0.0470	0.1250	0.1250	1.5000	0.0080	932-000-422	932-000-380
0.0470	0.1250	0.1250	1.5000	0.0100	932-000-423	932-000-381
0.0470	0.1250	0.1250	1.5000	0.0120	932-000-424	932-000-382
0.0470	0.1250	0.1250	1.5000	0.0150	932-000-425	932-000-383
0.0470	0.1250	0.1250	1.5000	0.0180	932-000-426	932-000-384
0.0470	0.1250	0.1250	1.5000	0.0200	932-000-427	932-000-385
0.0470	0.1250	0.1250	1.5000	0.0220	932-000-428	932-000-386
0.0470	0.1250	0.1250	1.5000	0.0270	932-000-429	932-000-387
0.0470	0.1250	0.1250	1.5000	0.0270	932-000-430	932-000-388
0.0470	0.1250	0.1250	1.5000	0.0300	932-000-431	932-000-389
0.0470	0.1250	0.1250	1.5000	0.0310	932-000-432	932-000-390
0.0470	0.1250	0.1250	1.5000	0.0320	932-000-433	932-000-391
0.0470	0.1250	0.1250	1.5000	0.0350	932-000-434	932-000-392
0.0470	0.1250	0.1250	1.5000	0.0390	932-000-435	932-000-393
0.0470	0.1875	0.1875	2.0000	0.0430	932-000-436	932-000-394
0.0470	0.1875	0.1875	2.0000	0.0470	932-000-437	932-000-395
0.0470	0.1875	0.1875	2.0000	0.0500	932-000-438	932-000-396
0.0470	0.1875	0.1875	2.0000	0.0550	932-000-439	932-000-397
0.0470	0.1875	0.1875	2.0000	0.0600	932-000-440	932-000-398
0.0470	0.1875	0.1875	2.0000	0.0620	932-000-441	932-000-399
0.0470	0.1875	0.1875	2.0000	0.0670	932-000-442	932-000-400
0.0470	0.2500	0.2500	2.0000	0.0720	932-000-443	932-000-401
0.0470	0.2500	0.2500	2.0000	0.0780	932-000-444	932-000-402
0.0470	0.2500	0.2500	2.0000	0.0890	932-000-445	932-000-403
0.0470	0.2500	0.2500	2.0000	0.0930	932-000-446	932-000-404
0.0470	0.2500	0.2500	2.0000	0.1000	932-000-447	932-000-405
0.0600	0.3125	0.3125	2.5000	0.1040	932-000-448	932-000-406
0.0600	0.3125	0.3125	2.5000	0.1090	932-000-449	932-000-407
0.0600	0.3125	0.3125	2.5000	0.1180	932-000-450	932-000-408
0.0600	0.3125	0.3125	2.5000	0.1250	932-000-451	932-000-409
0.0600	0.3750	0.3750	2.5000	0.1400	932-000-452	932-000-410
0.0600	0.3750	0.3750	2.5000	0.1560	932-000-453	932-000-411



DC	DCONms	DC1	L	R	TiAIN COATED	AMORPHOUS DIAMOND
					4 FLUTE	4 FLUTE
0.2500	0.3750	0.3750	2.5000	0.0100	932-000-454	932-000-412
0.2500	0.3750	0.3750	2.5000	0.0150	932-000-455	932-000-413
0.2500	0.3750	0.3750	2.5000	0.0200	932-000-456	932-000-414
0.2500	0.3750	0.3750	2.5000	0.0250	932-000-457	932-000-415
0.2500	0.3750	0.3750	2.5000	0.0300	932-000-458	932-000-416
0.2500	0.3750	0.3750	2.5000	0.0310	932-000-459	932-000-417
0.2500	0.3750	0.3750	2.5000	0.0390	932-000-460	932-000-418
0.2500	0.3750	0.3750	2.5000	0.0470	932-000-461	932-000-419
0.2500	0.3750	0.3750	2.5000	0.0500	932-000-462	932-000-420

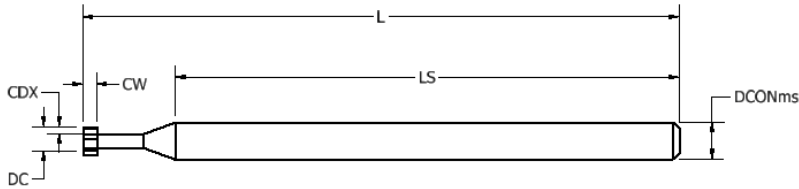
CARBIDE

Ø .0625"-.1875"



DC	DCONms	LS	L	CDX	CW	UNCOATED	ALTiN COATED	TiAlN COATED
						6 FLUTE	6 FLUTE	6 FLUTE
0.0625	0.1250	1.7138	2.0000	0.0153	0.0156	943-000-811	943-000-941	943-000-873
0.0625	0.1250	1.6982	2.0000	0.0153	0.0313	943-000-812	943-000-942	943-000-874
0.0625	0.1250	1.6901	2.0000	0.0153	0.0394	943-000-813	943-000-943	943-000-875
0.0625	0.1250	1.6826	2.0000	0.0153	0.0469	943-000-814	943-000-944	943-000-876
0.0625	0.1250	1.6669	2.0000	0.0153	0.0625	943-000-815	943-000-945	943-000-877
0.0781	0.1250	1.7371	2.0000	0.0191	0.0156	943-000-816	943-000-946	943-000-878
0.0781	0.1250	1.7215	2.0000	0.0191	0.0313	943-000-817	943-000-947	943-000-879
0.0781	0.1250	1.7134	2.0000	0.0191	0.0394	943-000-818	943-000-948	943-000-880
0.0781	0.1250	1.7059	2.0000	0.0191	0.0469	943-000-819	943-000-949	943-000-881
0.0781	0.1250	1.6903	2.0000	0.0191	0.0625	943-000-820	943-000-950	943-000-882
0.0937	0.1250	1.7148	2.0000	0.0234	0.0156	943-000-821	943-000-951	943-000-883
0.0937	0.1250	1.6991	2.0000	0.0234	0.0313	943-000-822	943-000-952	943-000-884
0.0937	0.1250	1.6910	2.0000	0.0234	0.0394	943-000-823	943-000-953	943-000-885
0.0937	0.1250	1.6835	2.0000	0.0234	0.0469	943-000-824	943-000-954	943-000-886
0.0937	0.1250	1.6679	2.0000	0.0234	0.0625	943-000-825	943-000-955	943-000-887
0.1250	0.1250	1.6772	2.0000	0.0310	0.0156	943-000-826	943-000-956	943-000-888
0.1250	0.1250	1.6615	2.0000	0.0310	0.0313	943-000-827	943-000-957	943-000-889
0.1250	0.1250	1.6534	2.0000	0.0310	0.0394	943-000-828	943-000-958	943-000-890
0.1250	0.1250	1.6459	2.0000	0.0310	0.0469	943-000-829	943-000-959	943-000-891
0.1250	0.1250	1.6303	2.0000	0.0310	0.0625	943-000-830	943-000-960	943-000-892
0.1250	0.1250	1.5990	2.0000	0.0310	0.0938	943-000-831	943-000-961	943-000-893
0.1250	0.1250	1.5678	2.0000	0.0310	0.1250	943-000-832	943-000-962	943-000-894
0.1875	0.1875	1.5249	2.0000	0.0468	0.0156	943-000-833	943-000-963	943-000-895
0.1875	0.1875	1.5093	2.0000	0.0468	0.0313	943-000-834	943-000-964	943-000-896
0.1875	0.1875	1.5011	2.0000	0.0468	0.0394	943-000-835	943-000-965	943-000-897
0.1875	0.1875	1.4936	2.0000	0.0468	0.0469	943-000-836	943-000-966	943-000-898
0.1875	0.1875	1.4780	2.0000	0.0468	0.0625	943-000-837	943-000-967	943-000-899
0.1875	0.1875	1.4468	2.0000	0.0468	0.0938	943-000-838	943-000-968	943-000-900
0.1875	0.1875	1.4155	2.0000	0.0468	0.1250	943-000-839	943-000-969	943-000-901
0.1875	0.1875	1.3530	2.0000	0.0468	0.1875	943-000-840	943-000-970	943-000-902

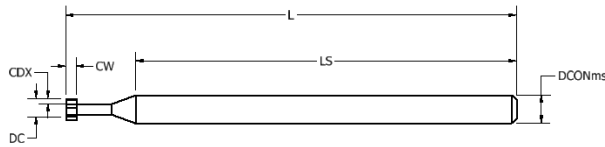
Ø .125"-.375"



DC	DCONms	LS	L	CDX	CW	Zc	Product #
0.1250	0.2500	1.4744	2.0000	0.0310	0.0156	6	943-000-378
0.1250	0.2500	1.4588	2.0000	0.0310	0.0313	6	943-000-379
0.1250	0.2500	1.4507	2.0000	0.0310	0.0394	6	943-000-380
0.1250	0.2500	1.4432	2.0000	0.0310	0.0469	6	943-000-381
0.1250	0.2500	1.4275	2.0000	0.0310	0.0625	6	943-000-382
0.1875	0.2500	1.4393	2.0000	0.0468	0.0156	6	943-000-383
0.1875	0.2500	1.4236	2.0000	0.0468	0.0313	6	943-000-384
0.1875	0.2500	1.4155	2.0000	0.0468	0.0394	6	943-000-385
0.1875	0.2500	1.4080	2.0000	0.0468	0.0469	6	943-000-386
0.1875	0.2500	1.3924	2.0000	0.0468	0.0625	6	943-000-387
0.2500	0.2500	1.4971	2.0000	0.0625	0.0156	8	943-000-388
0.2500	0.2500	1.4815	2.0000	0.0625	0.0313	8	943-000-389
0.2500	0.2500	1.4734	2.0000	0.0625	0.0394	8	943-000-390
0.2500	0.2500	1.4659	2.0000	0.0625	0.0469	8	943-000-391
0.2500	0.2500	1.4502	2.0000	0.0625	0.0625	8	943-000-392
0.3125	0.3750	1.3236	2.0000	0.0778	0.0156	8	943-000-393
0.3125	0.3750	1.3079	2.0000	0.0778	0.0313	8	943-000-394
0.3125	0.3750	1.2998	2.0000	0.0778	0.0394	8	943-000-395
0.3125	0.3750	1.2923	2.0000	0.0778	0.0469	8	943-000-396
0.3125	0.3750	1.2767	2.0000	0.0778	0.0625	8	943-000-397
0.3125	0.3750	1.2604	2.0000	0.0778	0.0787	8	943-000-398
0.3125	0.3750	1.2454	2.0000	0.0778	0.0938	8	943-000-399
0.3750	0.3750	1.3814	2.0000	0.0935	0.0156	8	943-000-400
0.3750	0.3750	1.3658	2.0000	0.0935	0.0313	8	943-000-401
0.3750	0.3750	1.3577	2.0000	0.0935	0.0394	8	943-000-402
0.3750	0.3750	1.3502	2.0000	0.0935	0.0469	8	943-000-403
0.3750	0.3750	1.3345	2.0000	0.0935	0.0625	8	943-000-404
0.3750	0.3750	1.3183	2.0000	0.0935	0.0787	8	943-000-405
0.3750	0.3750	1.3033	2.0000	0.0935	0.0938	8	943-000-406
0.3750	0.3750	1.2720	2.0000	0.0935	0.1250	8	943-000-407

CARBIDE

Ø .125"-.375"



DC	DCONms	LS	L	CDX	CW	UNCOATED	TiAIN COATED
						6 FLUTE	6 FLUTE
0.1250	0.2500	1.4744	2.0000	0.0310	0.0156	943-000-378	943-001-143
0.1250	0.2500	1.4588	2.0000	0.0310	0.0313	943-000-379	943-001-146
0.1250	0.2500	1.4507	2.0000	0.0310	0.0394	943-000-380	943-001-149
0.1250	0.2500	1.4432	2.0000	0.0310	0.0469	943-000-381	943-001-152
0.1250	0.2500	1.4275	2.0000	0.0310	0.0625	943-000-382	943-001-155
0.1250	0.2500	1.3963	2.0000	0.0310	0.0938	943-000-845	943-000-908
0.1250	0.2500	1.3650	2.0000	0.0310	0.1250	943-000-846	943-000-909
0.1875	0.2500	1.4393	2.0000	0.0468	0.0156	943-000-383	943-001-158
0.1875	0.2500	1.4236	2.0000	0.0468	0.0313	943-000-384	943-001-161
0.1875	0.2500	1.4155	2.0000	0.0468	0.0394	943-000-385	943-001-164
0.1875	0.2500	1.4080	2.0000	0.0468	0.0469	943-000-386	943-001-167
0.1875	0.2500	1.3924	2.0000	0.0468	0.0625	943-000-387	943-001-170
0.1875	0.2500	1.3611	2.0000	0.0468	0.0938	943-000-851	943-000-915
0.1875	0.2500	1.3299	2.0000	0.0468	0.1250	943-000-852	943-000-916
0.1875	0.2500	1.2674	2.0000	0.0468	0.1875	943-000-853	943-000-917



DC	DCONms	LS	L	CDX	CW	UNCOATED	ALTiN COATED	TiAIN COATED
						8 FLUTE	8 FLUTE	8 FLUTE
0.2500	0.2500	1.4971	2.0000	0.0625	0.0156	943-000-388	943-000-971	943-001-173
0.2500	0.2500	1.4815	2.0000	0.0625	0.0313	943-000-389	943-000-972	943-001-176
0.2500	0.2500	1.4734	2.0000	0.0625	0.0394	943-000-390	943-000-973	943-001-179
0.2500	0.2500	1.4502	2.0000	0.0625	0.0625	943-000-392	943-000-974	943-001-182
0.2500	0.2500	1.4502	2.0000	0.0625	0.0625	943-000-854	943-000-975	943-001-185
0.2500	0.2500	1.3877	2.0000	0.0625	0.1250	943-000-855	943-000-976	943-000-923
0.2500	0.2500	1.3252	2.0000	0.0625	0.1875	943-000-856	943-000-977	943-000-924
0.2500	0.2500	1.2627	2.0000	0.0625	0.2500	943-000-857	943-000-978	943-000-925
0.3125	0.3750	1.3236	2.0000	0.0778	0.0156	943-000-393	943-000-979	943-001-188
0.3125	0.3750	1.3079	2.0000	0.0778	0.0313	943-000-394	943-000-980	943-001-191
0.3125	0.3750	1.2998	2.0000	0.0778	0.0394	943-000-395	943-000-981	943-001-194
0.3125	0.3750	1.2923	2.0000	0.0778	0.0469	943-000-396	943-000-982	943-001-197
0.3125	0.3750	1.2767	2.0000	0.0778	0.0625	943-000-397	943-000-983	943-001-200
0.3125	0.3750	1.2604	2.0000	0.0778	0.0787	943-000-398	943-000-984	943-001-203
0.3125	0.3750	1.2454	2.0000	0.0778	0.0938	943-000-399	943-000-985	943-001-206
0.3750	0.3750	1.3814	2.0000	0.0935	0.0156	943-000-400	943-000-986	943-001-209
0.3750	0.3750	1.3658	2.0000	0.0935	0.0313	943-000-401	943-000-987	943-001-212
0.3750	0.3750	1.3577	2.0000	0.0935	0.0394	943-000-402	943-000-988	943-001-215
0.3750	0.3750	1.3502	2.0000	0.0935	0.0469	943-000-403	943-000-989	943-001-218
0.3750	0.3750	1.3345	2.0000	0.0935	0.0625	943-000-404	943-000-990	943-001-221
0.3750	0.3750	1.3183	2.0000	0.0935	0.0787	943-000-405	943-000-991	943-001-224
0.3750	0.3750	1.3033	2.0000	0.0935	0.0938	943-000-406	943-000-992	943-001-227
0.3750	0.3750	1.2720	2.0000	0.0935	0.1250	943-000-407	943-000-993	943-001-231

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.

COATINGS GUIDE

TiN

(TITANIUM NITRIDE)

- General Purpose coating for machining ferrous materials.
- Thickness: 2 - 5 microns
- Hardness HV .05: 2,300

TiCN

(TITANIUM CARBON NITRIDE)

- Coating with hard, smooth finish. Offers improved wear and built up edge resistance.
- Durability for interrupted cuts
 - Low to medium cutting speeds
 - Thickness: 2 - 4 microns
 - Hardness HV .05: 3,000

TiAlN

(TITANIUM ALUMINUM NITRIDE)

- High performance coating in ferrous materials.
- Heat resistance and medium hardness
- Good results in dry milling applications
- Medium to high cutting speeds
- Thickness: 2 - 4 microns
- Hardness HV .05: 2,800

AlTiN

(ALUMINUM TITANIUM NITRIDE)

- High performance coating for ferrous materials.
- High heat resistance and hardness
- Best results in dry milling applications
- Excellent at high speeds and feeds
- Thickness: 2 – 4 microns
- Hardness HV .05: 4,500

TiAlN NANO

(TITANIUM ALUMINUM NITRIDE NANO)

- Extended tool life in difficult to machine steels and super alloys.
- Dry or MQL machining
- Improved chip flow due to lubricity factor.
- Reduced built up edge (BUE)
- Hardness HV .05: 3,300

HARD MILL

(HARDMILL)

- Proprietary coating blend designed specifically for extended life machining hardened materials
- Hardness HV .05: 3,300

AMORPHOUS DIAMOND

AD(AMORPHOUS DIAMOND)

- Amorphous Diamond is a smooth, hard, flexible, thin film coating
- Maintains sharper edge than CVD
- Excellent for machining graphite, carbon fiber and non-ferrous materials where machining forms a grit rather than a chip.
- Thickness: .5 - 2 microns
- Hardness HV .05: 5,000

CVD

(CRYSTALLINE DIAMOND)

- Crystalline Diamond grown directly on the cutting tool
- Excellent for machining graphite, carbon fiber, green ceramics and non-ferrous materials where machining forms a grit rather than a chip.
- Up to 50x the tool life as AD
- Thickness: 6 - 10 microns
- Hardness HV .05: 10,000

DLC

(DIAMOND LIKE COATING)

- Thin carbon based amorphous coating, best for non-ferrous materials.
- Increases tool life and ensures a more controlled wear process, while being resistant to edge build-up (BUE).
- Hardness HV .05: 2,800

PCD

PCD (POLYCRYSTALLINE DIAMOND)

- Non-ferrous applications
- Resists abrasion wear and dramatically extends the cutters tool life.
- PCD end mills run faster than conventional carbide end mills and provide better surface finish and longer tool life.
- Hardness HV .05: 10,000



ISO	MATERIAL	HARDNESS	Vc (SFM)*		EFFECTIVE CUTTER 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 (INCH PER TOOTH)*						
			HSS/Cobalt	Carbide							
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	80-200	220-650	.0004 - .0009	.0006 - .0015	.0010 - .0028	.0020 - .0030	.0023 - .0040	.0028 - .0060	.0032 - .0080
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	60-120	180-500	.0006 - .0012	.0008 - .0019	.0009 - .0022	.0010 - .0027	.0020 - .0038	.0026 - .0050	.0030 - .0065
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	50-100	200-450	.0004 - .0019	.0008 - .0025	.0012 - .0030	.0016 - .0035	.0019 - .0040	.0023 - .0050	.0026 - .0065
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	30-75	120-350	.0005 - .0013	.0009 - .0017	.0013 - .0021	.0015 - .0040	.0017 - .0048	.0021 - .0060	.0025 - .0075
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	60-150	250-700	.0005 - .0014	.0009 - .0023	.0012 - .0032	.0016 - .0041	.0022 - .0053	.0028 - .0090	.0030 - .0100
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	50-90	150-450	.0003 - .0010	.0006 - .0019	.0010 - .0028	.0014 - .0038	.0020 - .0048	.0025 - .0080	.0030 - .0092
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	100-400	250-950	.0003 - .0010	.0006 - .0021	.0010 - .0028	.0025 - .0040	.0028 - .0065	.0030 - .0080	.0050 - .0130
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 555 BHN or ≤ 55 HRC	40-65	80-250	.0003 - .0010	.0006 - .0015	.0012 - .0021	.0015 - .0030	.0023 - .0045	.0028 - .0050	.0030 - .0065
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	30-50	50-160	.0003 - .0007	.0005 - .0012	.0008 - .0018	.0012 - .0022	.0018 - .0035	.0020 - .0045	.0025 - .0060
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	40-65	90-250	.0006 - .0014	.0008 - .0017	.0013 - .0018	.0015 - .0026	.0020 - .0035	.0025 - .0060	.0025 - .0075
* LOWER Vc AND Fz APPLY TO HEAVY/ROUGHING ENGAGEMENT					*HIGHER Vc AND Fz APPLY TO LIGHT/PROFILING ENGAGEMENT						

*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.

h_{ex}	(Ae) Radial Depth of cut to % of (Dc) Cutter Diameter	Increase Feed Multiplier
	≥ 40%	1.00
	30%	1.10
	25%	1.18
	20%	1.20
	15%	1.40
	10%	1.75
	7%	2.00
	5%	2.30
	1%	5.00



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"
			HSS/ Cobalt	Carbide	Fz = IPR (INCH PER REVOLUTION)*						
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	70-200	150-350	.0005 - .0030	.0010 - .0050	.0020 - .0075	.0030 - .0100	.0060 - .0120	.0080 - .0140	.0100 - .0170
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	60-150	100-280	.0007 - .0030	.0012 - .0040	.0020 - .0060	.0040 - .0080	.0060 - .0110	.0070 - .0135	.0070 - .0155
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	60-120	110-190	.0006 - .0025	.0008 - .0030	.0012 - .0060	.0025 - .0085	.0040 - .0110	.0060 - .0140	.0080 - .0170
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	40-110	90-140	.0004 - .0018	.0006 - .0020	.0009 - .0040	.0010 - .0060	.0030 - .0080	.0040 - .0110	.0050 - .0140
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	60-180	140-400	.0006 - .0025	.0008 - .0030	.0012 - .0060	.0025 - .0085	.0040 - .0110	.0060 - .0140	.0080 - .0190
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	50-90	110-280	.0006 - .0025	.0008 - .0030	.0012 - .0060	.0025 - .0085	.0040 - .0110	.0060 - .0140	.0080 - .0170
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	90-300	180-500	.0003 - .0010	.0006 - .0021	.0010 - .0030	.0025 - .0040	.0028 - .0065	.0030 - .0090	.0050 - .0150
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 555 BHN or ≤ 55 HRC	40-80	70-160	.0005 - .0030	.0010 - .0040	.0020 - .0055	.0040 - .0080	.0060 - .0100	.0080 - .0120	.0100 - .0140
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	15-55	50-110	.0007 - .0020	.00012 - .0025	.0018 - .0040	.0025 - .0060	.0030 - .0075	.0040 - .0085	.0050 - .0100
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	30-75	70-160	.0006 - .0025	.0008 - .0035	.0012 - .0060	.0025 - .0085	.0040 - .0100	.0060 - .0120	.0080 - .0140

Factors affecting optimized drill speeds and feeds:

- Depth of Hole
- Machinability of Material
- Coolant delivery method

Drill depths > 4X diameter require 15%-30% reduction in suggested drill feed rates.

*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.

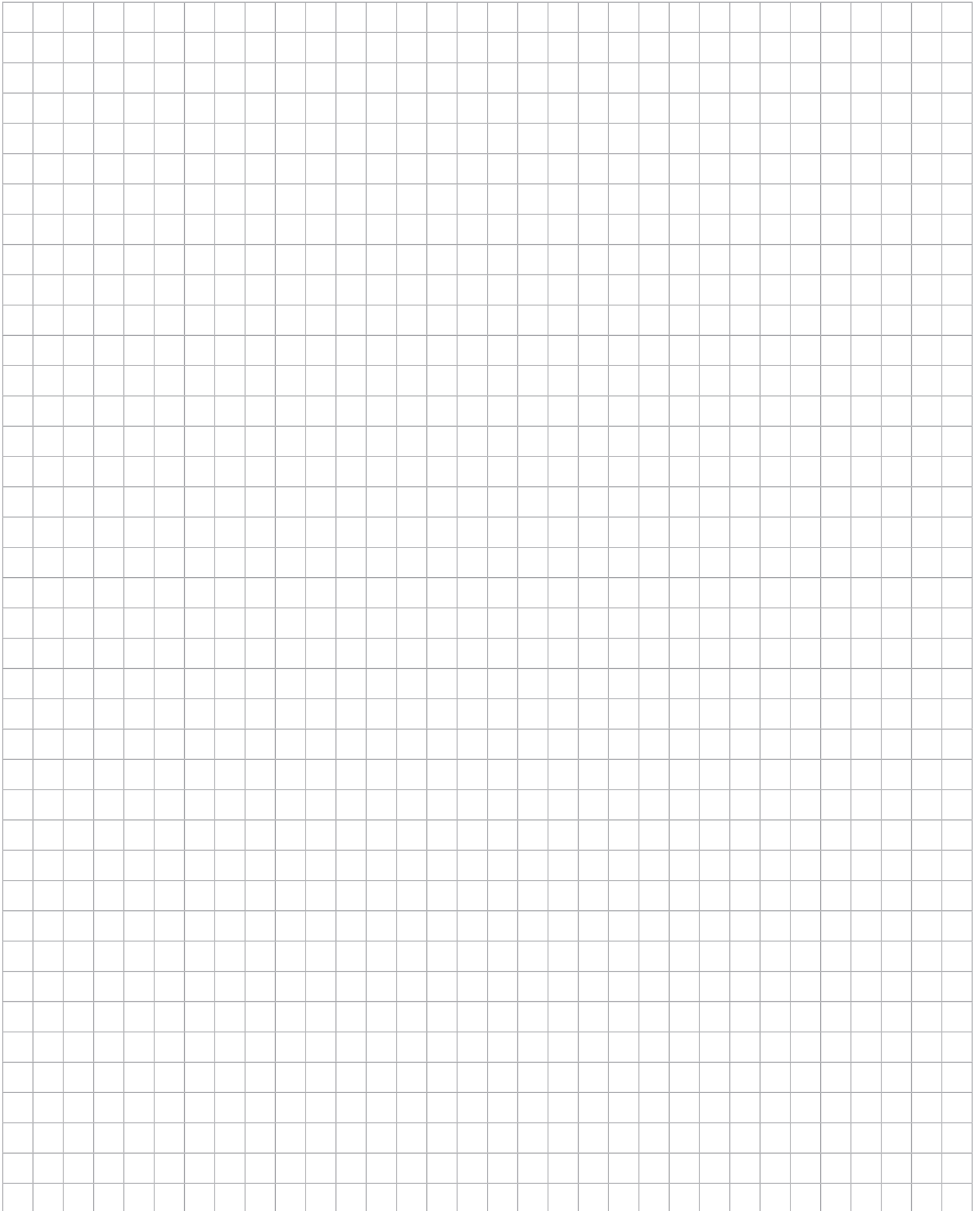


ISO	MATERIAL	HARDNESS	Vc (SFM)*		EFFECTIVE CUTTER DIAMETER (INCH)						
					≤ 1/16"	1/16"- 1/8"	1/8"- 1/4"	1/4"- 3/8"	3/8"- 1/2"	1/2"- 3/4"	3/4"- 1"
					HSS/ Cobalt		Carbide		Fz (INCH PER TOOTH)*		
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	80-200	200-500	.0003 - .0009	.0003 - .0009	.0004 - .0011	.0005 - .0012	.0006 - .0013	.0009 - .0015	.0010 - .0030
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	60-150	150-400	.0003 - .0009	.0003 - .0009	.0004 - .0011	.0005 - .0012	.0006 - .0013	.0009 - .0015	.0010 - .0030
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	50-100	130-400	.0002 - .0009	.0003 - .0009	.0004 - .0012	.0005 - .0014	.0006 - .0016	.0009 - .0018	.0010 - .0022
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	30-75	100-300	.0003 - .0008	.0003 - .0009	.0004 - .0012	.0005 - .0014	.0006 - .0016	.0009 - .0018	.0010 - .0020
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	60-180	200-650	.0002 - .0009	.0003 - .0010	.0004 - .0012	.0005 - .0014	.0007 - .0016	.0009 - .0018	.0010 - .0025
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	50-120	150-450	.0003 - .0009	.0003 - .0009	.0004 - .0011	.0005 - .0012	.0006 - .0013	.0009 - .0015	.0010 - .0030
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	70-300	200-700	.0003 - .0009	.0003 - .0011	.0004 - .0013	.0005 - .0015	.0006 - .0017	.0009 - .0020	.0010 - .0035
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	30-65	80-250	.0002 - .0009	.0003 - .0009	.0004 - .0012	.0005 - .0014	.0007 - .0016	.0009 - .0018	.0010 - .0025
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	20-50	50-90	.0002 - .0005	.0003 - .0007	.0004 - .0010	.0005 - .0011	.0006 - .0011	.0007 - .0011	.0007 - .0013
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	30-65	70-160	.0002 - .0007	.0003 - .0009	.0004 - .0010	.0005 - .0011	.0006 - .0012	.0007 - .0012	.0007 - .0016

Keyseat Cutter Considerations:

- Select a tool with the shortest allowable overall length to ensure the strongest tool setup possible.
- The keyseat cutter's neck diameter greatly affects its performance.
- Choose thickest neck allowable for the most optimized performance.

*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.



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