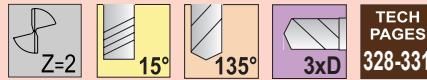


**TOLERANCES**

<i>d</i>	+.0000" - .0005" (+.0000 - .0127mm)	
<i>l1</i>	≤ 1/8"	+.125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+.125" - .125" (+3.175 - 3.175mm)
<i>l2</i>	≤ 1/8"	+.125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+.125" - .125" (+3.175 - 3.175mm)

**Series 1510**

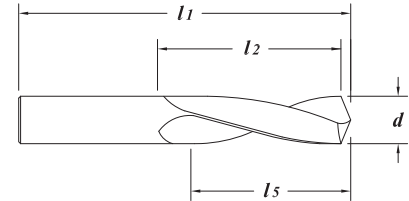
.0625" - .1575"  
(1.588mm - 4.000mm)



Recommended for titanium, inconel, hastelloy, waspaly, and stainless steel

**Slow Helix**

- Solid submicron grain carbide drill
- Heavy web for extra rigidity and added strength
- Thinned point
- Live tooling recommended on lathe processes
- Durana Coating - page 68



EDP#	<i>d</i> †		<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>l5</i> Max Drill Depth	LIST PRICE	
	Decimal	Diameter Metric					
19070	.0625	1/16"	1.588	1-3/4"	5/8"	.200"	7.40
19075	.0635	#52	1.613	1-3/4"	11/16"	.204"	7.52
19080	.0670	#51	1.702	1-3/4"	11/16"	.215"	7.63
19085	.0700	#50	1.778	1-3/4"	11/16"	.224"	7.83
19090	.0730	#49	1.854	1-3/4"	11/16"	.234"	8.00
19095	.0760	#48	1.930	1-3/4"	11/16"	.244"	8.27
19100	.0781	5/64"	1.984	1-3/4"	11/16"	.250"	8.58
19105	.0785	#47	1.994	1-3/4"	3/4"	.252"	8.86
19115	.0787	2.000	45	19	6		9.01
19120	.0810	#46	2.057	1-3/4"	3/4"	.260"	9.15
19125	.0820	#45	2.083	1-3/4"	3/4"	.263"	9.42
19130	.0860	#44	2.184	1-3/4"	3/4"	.276"	9.73
19135	.0890	#43	2.261	1-3/4"	3/4"	.285"	10.02
19140	.0935	#42	2.375	1-3/4"	3/4"	.300"	10.16
19145	.0938	3/32"	2.383	1-3/4"	3/4"	.301"	10.40
19150	.0960	#41	2.438	1-13/16"	13/16"	.308"	10.47
19155	.0980	#40	2.489	1-13/16"	13/16"	.314"	10.62
19160	.0984	2.500	46	21	8		10.69
19165	.0995	#39	2.527	1-13/16"	13/16"	.319"	10.74
19170	.1015	#38	2.578	1-13/16"	13/16"	.326"	10.83
19175	.1040	#37	2.642	1-13/16"	13/16"	.334"	10.93
19180	.1065	#36	2.705	1-13/16"	13/16"	.342"	11.01
19185	.1094	7/64"	2.779	1-13/16"	13/16"	.351"	11.05
19190	.1100	#35	2.794	1-7/8"	7/8"	.353"	11.13
19195	.1110	#34	2.819	1-7/8"	7/8"	.356"	11.26
19200	.1130	#33	2.870	1-7/8"	7/8"	.362"	11.35
19205	.1160	#32	2.946	1-7/8"	7/8"	.372"	11.42
19210	.1181	3.000	48	22	10		11.53
19215	.1200	#31	3.048	1-7/8"	7/8"	.385"	11.65
19220	.1250	1/8"	3.175	1-7/8"	7/8"	.401"	11.77
19225	.1285	#30	3.264	1-15/16"	15/16"	.412"	12.09
19230	.1360	#29	3.454	1-15/16"	15/16"	.436"	12.40
19235	.1378	3.500	49	24	11		12.80
19240	.1405	#28	3.569	1-15/16"	15/16"	.451"	12.96
19245	.1406	9/64"	3.571	1-15/16"	15/16"	.451"	13.10
19250	.1440	#27	3.658	2-1/16"	1"	.462"	14.26
19255	.1470	#26	3.734	2-1/16"	1"	.471"	14.41
19260	.1495	#25	3.797	2-1/16"	1"	.479"	14.58
19265	.1520	#24	3.861	2-1/16"	1"	.487"	14.62
19270	.1540	#23	3.912	2-1/16"	1"	.494"	14.72
19275	.1562	5/32"	3.967	2-1/16"	1"	.501"	14.80
19280	.1570	#22	3.988	2-1/8"	1-1/16"	.504"	15.72
19285	.1575	4.000	54	27	13		15.94

continued →

Series 1510 (continued)

.1590" - .3346"  
(4.039mm - 8.500mm)

EDP#	$d^{\dagger}$ Diameter		$l_1$ Overall Length	$l_2$ Flute Length	$l_5$ Max Drill Depth	LIST PRICE	
	Decimal	Metric					
19290	.1590	#21	4.039	2-1/8"	1-1/16"	.510"	16.13
19295	.1610	#20	4.089	2-1/8"	1-1/16"	.516"	16.25
19300	.1660	#19	4.216	2-1/8"	1-1/16"	.532"	16.92
19305	.1695	#18	4.305	2-1/8"	1-1/16"	.544"	17.11
19310	.1719	11/64"	4.366	2-1/8"	1-1/16"	.551"	17.45
19315	.1730	#17	4.394	2-3/16"	1-1/8"	.555"	17.70
19320	.1770	#16	4.496	2-3/16"	1-1/8"	.568"	17.90
19325	.1772		4.500	56	29	14	18.01
19330	.1800	#15	4.572	2-3/16"	1-1/8"	.577"	18.08
19335	.1820	#14	4.623	2-3/16"	1-1/8"	.584"	18.49
19340	.1850	#13	4.700	2-3/16"	1-1/8"	.593"	18.63
19345	.1875	3/16"	4.763	2-3/16"	1-1/8"	.601"	18.70
19350	.1890	#12	4.801	2-1/4"	1-3/16"	.606"	19.31
19355	.1910	#11	4.851	2-1/4"	1-3/16"	.613"	19.54
19360	.1935	#10	4.915	2-1/4"	1-3/16"	.621"	20.44
19365	.1960	#9	4.978	2-1/4"	1-3/16"	.629"	20.97
19370	.1969		5.000	57	30	16	21.08
19375	.1990	#8	5.055	2-1/4"	1-3/16"	.638"	21.24
19380	.2010	#7	5.105	2-1/4"	1-3/16"	.645"	21.87
19385	.2031	13/64"	5.159	2-1/4"	1-3/16"	.651"	22.03
19390	.2040	#6	5.182	2-3/8"	1-1/4"	.654"	22.46
19395	.2055	#5	5.220	2-3/8"	1-1/4"	.659"	22.92
19400	.2090	#4	5.309	2-3/8"	1-1/4"	.670"	23.35
19405	.2130	#3	5.410	2-3/8"	1-1/4"	.683"	23.76
19410	.2165		5.500	60	32	18	23.93
19415	.2188	7/32"	5.558	2-3/8"	1-1/4"	.702"	24.11
19420	.2210	#2	5.613	2-7/16"	1-5/16"	.709"	24.68
19425	.2280	#1	5.791	2-7/16"	1-5/16"	.731"	24.85
19430	.2340	A	5.944	2-7/16"	1-5/16"	.750"	24.91
19435	.2344	15/64"	5.954	2-7/16"	1-5/16"	.752"	24.95
19440	.2362		6.000	64	35	19	25.02
19445	.2380	B	6.045	2-1/2"	1-3/8"	.763"	25.14
19450	.2420	C	6.147	2-1/2"	1-3/8"	.776"	25.30
19455	.2460	D	6.248	2-1/2"	1-3/8"	.789"	25.52
19460	.2500	1/4" / E	6.350	2-1/2"	1-3/8"	.802"	25.67
19465	.2559		6.500	67	37	21	26.29
19470	.2570	F	6.528	2-5/8"	1-7/16"	.824"	26.85
19475	.2610	G	6.629	2-5/8"	1-7/16"	.837"	27.39
19480	.2656	17/64"	6.746	2-5/8"	1-7/16"	.852"	27.95
19485	.2660	H	6.756	2-11/16"	1-1/2"	.853"	28.74
19490	.2720	I	6.909	2-11/16"	1-1/2"	.872"	29.08
19495	.2756		7.000	68	38	22	29.31
19500	.2770	J	7.036	2-11/16"	1-1/2"	.888"	29.57
19505	.2810	K	7.137	2-11/16"	1-1/2"	.901"	29.83
19510	.2812	9/32"	7.142	2-11/16"	1-1/2"	.902"	30.00
19515	.2900	L	7.366	2-3/4"	1-9/16"	.930"	31.11
19520	.2950	M	7.493	2-3/4"	1-9/16"	.946"	33.29
19525	.2953		7.500	70	40	24	33.29
19530	.2969	19/64"	7.541	2-3/4"	1-9/16"	.952"	33.47
19535	.3020	N	7.671	2-15/16"	1-5/8"	.969"	35.25
19540	.3125	5/16"	7.938	2-15/16"	1-5/8"	1.002"	35.39
19545	.3150		8.000	75	43	26	37.98
19550	.3160	O	8.026	2-15/16"	1-11/16"	1.013"	37.98
19555	.3230	P	8.204	2-15/16"	1-11/16"	1.036"	38.30
19560	.3281	21/64"	8.334	2-15/16"	1-11/16"	1.052"	38.53
19565	.3320	Q	8.433	3"	1-11/16"	1.065"	39.43
19570	.3346		8.500	76	43	27	39.80

EDP#	$d^+$ Diameter		$l_1$ Overall Length	$l_2$ Flute Length	$l_5$ Max Drill Depth	LIST PRICE	
	Decimal	Metric					
19575	.3390	R	8.611	3"	1-11/16"	1.087"	41.04
19580	.3438	11/32"	8.733	3"	1-11/16"	1.103"	42.71
19585	.3480	S	8.839	3-1/16"	1-3/4"	1.116"	43.29
19590	.3543		9.000	78	44	29	43.56
19595	.3580	T	9.093	3-1/16"	1-3/4"	1.148"	43.72
19600	.3594	23/64"	9.129	3-1/16"	1-3/4"	1.153"	44.01
19605	.3680	U	9.347	3-1/8"	1-13/16"	1.180"	48.21
19615	.3750	3/8"	9.525	3-1/8"	1-13/16"	1.203"	49.04
19620	.3770	V	9.576	3-1/4"	1-7/8"	1.209"	49.99
19625	.3860	W	9.804	3-1/4"	1-7/8"	1.238"	51.03
19630	.3906	25/64"	9.921	3-1/4"	1-7/8"	1.253"	51.82
19635	.3937		10.000	84	49	32	53.66
19640	.3970	X	10.084	3-5/16"	1-15/16"	1.273"	55.23
19645	.4040	Y	10.262	3-5/16"	1-15/16"	1.296"	55.67
19650	.4062	13/32"	10.317	3-5/16"	1-15/16"	1.303"	57.69
19655	.4130	Z	10.490	3-3/8"	2"	1.325"	58.32
19660	.4134		10.500	86	51	34	58.32
19665	.4219	27/64"	10.716	3-3/8"	2"	1.353"	58.96
19670	.4331		11.000	87	52	35	64.04
19675	.4375	7/16"	11.113	3-7/16"	2-1/16"	1.403"	64.04
19685	.4531	29/64"	11.509	3-9/16"	2-1/8"	1.453"	69.44
19690	.4688	15/32"	11.908	3-5/8"	2-1/8"	1.503"	73.46
19695	.4724		12.000	94	56	38	73.72
19700	.4844	31/64"	12.304	3-11/16"	2-3/16"	1.554"	74.29
19705	.4921		12.500	95	56	40	75.12
19710	.5000	1/2"	12.700	3-3/4"	2-1/4"	1.604"	75.67
19720	.5156	33/64"	13.096	4-1/4"	2-3/8"	1.654"	101.69
19725	.5312	17/32"	13.492	4-1/4"	2-3/8"	1.704"	104.32
19735	.5469	35/64"	13.891	4-1/4"	2-3/8"	1.754"	109.65
19740	.5512		14.000	107	60	45	112.32
19745	.5625	9/16"	14.287	4-1/2"	2-1/2"	1.804"	122.48
19755	.5781	37/64"	14.683	4-1/2"	2-1/2"	1.854"	127.60
19765	.5938	19/32"	15.082	4-1/2"	2-1/2"	1.904"	130.94
19770	.6094	39/64"	15.478	4-1/2"	2-1/2"	1.954"	131.67
19780	.6250	5/8"	15.875	4-1/2"	2-1/2"	2.004"	133.15
19785	.6299		16.000	115	65	51	136.70