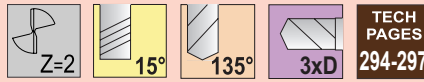


Series 1510H

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



TOLERANCES

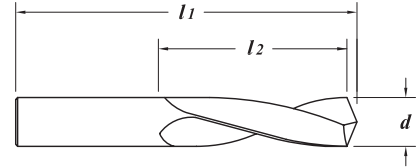
<i>d</i>	+.0000" - .0005" (+.0000 - .0127mm)	
<i>l₁</i>	≤ 1/8"	+.125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+.125" - .125" (+3.175 - 3.175mm)
<i>l₂</i>	≤ 1/8"	+.125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+.125" - .125" (+3.175 - 3.175mm)

Recommended for titanium, inconel, hastalloy, waspalloy, and stainless steel

Slow Helix

Hardlube Coating

- Solid submicron grain carbide drill
- Excellent heat resistance and lubricity
- Heavy web for extra rigidity and added strength
- Thinned point
- Live tooling recommended on lathe processes
- Uncoated - page 55



EDP#	<i>d</i> † Diameter		<i>l₁</i> Overall Length	<i>l₂</i> Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
19071	.0625	1/16"	1.588	1-3/4"	5/8"	9.06	8.67	8.27	7.88
19076	.0635	#52	1.613	1-3/4"	11/16"	9.18	8.78	8.38	7.98
19081	.0670	#51	1.702	1-3/4"	11/16"	9.28	8.88	8.47	8.07
19086	.0700	#50	1.778	1-3/4"	11/16"	9.46	9.05	8.64	8.23
19091	.0730	#49	1.854	1-3/4"	11/16"	9.66	9.24	8.82	8.40
19096	.0760	#48	1.930	1-3/4"	11/16"	9.90	9.47	9.04	8.61
19101	.0781	5/64"	1.984	1-3/4"	11/16"	10.21	9.77	9.32	8.88
19106	.0785	#47	1.994	1-3/4"	3/4"	10.48	10.02	9.57	9.11
19116	.0787		2.000	45	19	10.61	10.15	9.69	9.23
19121	.0810	#46	2.057	1-3/4"	3/4"	10.75	10.29	9.82	9.35
19126	.0820	#45	2.083	1-3/4"	3/4"	11.03	10.55	10.07	9.59
19131	.0860	#44	2.184	1-3/4"	3/4"	11.32	10.82	10.33	9.84
19136	.0890	#43	2.261	1-3/4"	3/4"	11.60	11.10	10.59	10.09
19141	.0935	#42	2.375	1-3/4"	3/4"	11.72	11.21	10.70	10.19
19146	.0938	3/32"	2.383	1-3/4"	3/4"	11.96	11.44	10.92	10.40
19151	.0960	#41	2.438	1-13/16"	13/16"	12.04	11.52	10.99	10.47
19156	.0980	#40	2.489	1-13/16"	13/16"	12.18	11.65	11.12	10.59
19161	.0984		2.500	46	21	12.25	11.72	11.18	10.65
19166	.0995	#39	2.527	1-13/16"	13/16"	12.31	11.77	11.24	10.70
19171	.1015	#38	2.578	1-13/16"	13/16"	12.37	11.84	11.30	10.76
19176	.1040	#37	2.642	1-13/16"	13/16"	12.45	11.91	11.37	10.83
19181	.1065	#36	2.705	1-13/16"	13/16"	12.54	11.99	11.45	10.90
19186	.1094	7/64"	2.779	1-13/16"	13/16"	12.62	12.07	11.52	10.97
19191	.1100	#35	2.794	1-7/8"	7/8"	12.67	12.12	11.57	11.02
19196	.1110	#34	2.819	1-7/8"	7/8"	12.79	12.23	11.68	11.12
19201	.1130	#33	2.870	1-7/8"	7/8"	12.87	12.31	11.75	11.19
19206	.1160	#32	2.946	1-7/8"	7/8"	12.96	12.40	11.83	11.27
19211	.1181		3.000	48	22	13.06	12.50	11.93	11.36
19216	.1200	#31	3.048	1-7/8"	7/8"	13.16	12.58	12.01	11.44
19221	.1250	1/8"	3.175	1-7/8"	7/8"	13.29	12.72	12.14	11.56
19226	.1285	#30	3.264	1-15/16"	15/16"	13.59	13.00	12.41	11.82
19231	.1360	#29	3.454	1-15/16"	15/16"	13.89	13.29	12.68	12.08
19236	.1378		3.500	49	24	14.28	13.66	13.04	12.42
19241	.1405	#28	3.569	1-15/16"	15/16"	14.44	13.82	13.19	12.56
19246	.1406	9/64"	3.571	1-15/16"	15/16"	14.56	13.93	13.29	12.66
19251	.1440	#27	3.658	2-1/16"	1"	15.70	15.02	14.33	13.65
19256	.1470	#26	3.734	2-1/16"	1"	15.84	15.15	14.46	13.77
19261	.1495	#25	3.797	2-1/16"	1"	16.02	15.32	14.63	13.93
19266	.1520	#24	3.861	2-1/16"	1"	16.04	15.35	14.65	13.95
19271	.1540	#23	3.912	2-1/16"	1"	16.13	15.43	14.73	14.03
19276	.1562	5/32"	3.967	2-1/16"	1"	16.22	15.51	14.81	14.10
19281	.1570	#22	3.988	2-1/8"	1-1/16"	17.11	16.37	15.62	14.88
19286	.1575		4.000	54	27	17.30	16.54	15.79	15.04

EDP#	d^+ Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
19291	.1590	#21	4.039	2-1/8"	1-1/16"	17.49	16.73	15.97	15.21
19296	.1610	#20	4.089	2-1/8"	1-1/16"	17.62	16.85	16.09	15.32
19301	.1660	#19	4.216	2-1/8"	1-1/16"	18.25	17.46	16.66	15.87
19306	.1695	#18	4.305	2-1/8"	1-1/16"	18.45	17.64	16.84	16.04
19311	.1719	11/64"	4.366	2-1/8"	1-1/16"	18.78	17.96	17.15	16.33
19316	.1730	#17	4.394	2-3/16"	1-1/8"	19.02	18.19	17.37	16.54
19321	.1770	#16	4.496	2-3/16"	1-1/8"	19.22	18.38	17.55	16.71
19326	.1772		4.500	56	29	19.30	18.46	17.62	16.78
19331	.1800	#15	4.572	2-3/16"	1-1/8"	19.38	18.54	17.69	16.85
19336	.1820	#14	4.623	2-3/16"	1-1/8"	19.78	18.92	18.06	17.20
19341	.1850	#13	4.700	2-3/16"	1-1/8"	19.92	19.05	18.19	17.32
19346	.1875	3/16"	4.763	2-3/16"	1-1/8"	19.98	19.11	18.24	17.37
19351	.1890	#12	4.801	2-1/4"	1-3/16"	21.97	21.01	20.06	19.10
19356	.1910	#11	4.851	2-1/4"	1-3/16"	22.20	21.23	20.27	19.30
19361	.1935	#10	4.915	2-1/4"	1-3/16"	23.07	22.07	21.06	20.06
19366	.1960	#9	4.978	2-1/4"	1-3/16"	23.58	22.55	21.53	20.50
19371	.1969		5.000	57	30	23.69	22.66	21.63	20.60
19376	.1990	#8	5.055	2-1/4"	1-3/16"	23.82	22.78	21.75	20.71
19381	.2010	#7	5.105	2-1/4"	1-3/16"	24.44	23.38	22.31	21.25
19386	.2031	13/64"	5.159	2-1/4"	1-3/16"	24.58	23.51	22.44	21.37
19391	.2040	#6	5.182	2-3/8"	1-1/4"	25.02	23.94	22.85	21.76
19396	.2055	#5	5.220	2-3/8"	1-1/4"	25.47	24.37	23.26	22.15
19401	.2090	#4	5.309	2-3/8"	1-1/4"	25.85	24.73	23.60	22.48
19406	.2130	#3	5.410	2-3/8"	1-1/4"	26.25	25.11	23.97	22.83
19411	.2165		5.500	60	32	26.44	25.29	24.14	22.99
19416	.2188	7/32"	5.558	2-3/8"	1-1/4"	26.60	25.44	24.29	23.13
19421	.2210	#2	5.613	2-7/16"	1-5/16"	27.16	25.98	24.80	23.62
19426	.2280	#1	5.791	2-7/16"	1-5/16"	27.31	26.13	24.94	23.75
19431	.2340	A	5.944	2-7/16"	1-5/16"	27.38	26.19	25.00	23.81
19436	.2344	15/64"	5.954	2-7/16"	1-5/16"	27.42	26.22	25.03	23.84
19441	.2362		6.000	64	35	27.50	26.30	25.11	23.91
19446	.2380	B	6.045	2-1/2"	1-3/8"	27.59	26.39	25.19	23.99
19451	.2420	C	6.147	2-1/2"	1-3/8"	27.76	26.55	25.35	24.14
19456	.2460	D	6.248	2-1/2"	1-3/8"	27.95	26.73	25.52	24.30
19461	.2500	1/4" / E	6.350	2-1/2"	1-3/8"	28.12	26.90	25.67	24.45
19466	.2559		6.500	67	37	31.28	29.92	28.56	27.20
19471	.2570	F	6.528	2-5/8"	1-7/16"	31.82	30.44	29.05	27.67
19476	.2610	G	6.629	2-5/8"	1-7/16"	32.34	30.93	29.53	28.12
19481	.2656	17/64"	6.746	2-5/8"	1-7/16"	32.88	31.45	30.02	28.59
19486	.2660	H	6.756	2-11/16"	1-1/2"	33.65	32.19	30.72	29.26
19491	.2720	I	6.909	2-11/16"	1-1/2"	33.96	32.48	31.01	29.53
19496	.2756		7.000	68	38	34.19	32.70	31.22	29.73
19501	.2770	J	7.036	2-11/16"	1-1/2"	34.45	32.96	31.46	29.96
19506	.2810	K	7.137	2-11/16"	1-1/2"	34.71	33.20	31.69	30.18
19511	.2812	9/32"	7.142	2-11/16"	1-1/2"	34.83	33.32	31.80	30.29
19516	.2900	L	7.366	2-3/4"	1-9/16"	35.91	34.35	32.79	31.23
19521	.2950	M	7.493	2-3/4"	1-9/16"	38.03	36.38	34.72	33.07
19526	.2953		7.500	70	40	38.03	36.38	34.72	33.07
19531	.2969	19/64"	7.541	2-3/4"	1-9/16"	38.19	36.53	34.87	33.21
19536	.3020	N	7.671	2-15/16"	1-5/8"	39.94	38.20	36.47	34.73
19541	.3125	5/16"	7.938	2-15/16"	1-5/8"	40.08	38.34	36.59	34.85
19546	.3150		8.000	75	43	42.56	40.71	38.86	37.01
19551	.3160	O	8.026	2-15/16"	1-11/16"	42.56	40.71	38.86	37.01
19556	.3230	P	8.204	2-15/16"	1-11/16"	42.87	41.01	39.14	37.28
19561	.3281	21/64"	8.334	2-15/16"	1-11/16"	43.10	41.23	39.35	37.48
19566	.3320	Q	8.433	3"	1-11/16"	43.96	42.05	40.14	38.23
19571	.3346		8.500	76	43	44.32	42.39	40.47	38.54

continued →

Series 1510H (continued)

.3390" - .6299"
(8.611mm - 16.000mm)

EDP#	d^{\dagger} Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
19576	.3390	R	8.611	3"	1-11/16"	45.52	43.54	41.56	39.58
19581	.3438	11/32"	8.733	3"	1-11/16"	47.14	45.09	43.04	40.99
19586	.3480	S	8.839	3-1/16"	1-3/4"	49.78	47.62	45.45	43.29
19591	.3543		9.000	78	44	50.06	47.88	45.71	43.53
19596	.3580	T	9.093	3-1/16"	1-3/4"	50.19	48.00	45.82	43.64
19601	.3594	23/64"	9.129	3-1/16"	1-3/4"	50.50	48.30	46.11	43.91
19606	.3680	U	9.347	3-1/8"	1-13/16"	54.54	52.17	49.80	47.43
19611	.3740		9.500	79	46	54.98	52.59	50.20	47.81
19616	.3750	3/8"	9.525	3-1/8"	1-13/16"	55.35	52.94	50.54	48.13
19621	.3770	V	9.576	3-1/4"	1-7/8"	57.42	54.92	52.43	49.93
19626	.3860	W	9.804	3-1/4"	1-7/8"	58.43	55.89	53.35	50.81
19631	.3906	25/64"	9.921	3-1/4"	1-7/8"	59.16	56.58	54.01	51.44
19636	.3937		10.000	84	49	60.95	58.30	55.65	53.00
19641	.3970	X	10.084	3-5/16"	1-15/16"	62.49	59.77	57.06	54.34
19646	.4040	Y	10.262	3-5/16"	1-15/16"	62.92	60.18	57.45	54.71
19651	.4062	13/32"	10.317	3-5/16"	1-15/16"	64.84	62.02	59.20	56.38
19656	.4130	Z	10.490	3-3/8"	2"	65.45	62.60	59.76	56.91
19661	.4134		10.500	86	51	65.45	62.60	59.76	56.91
19666	.4219	27/64"	10.716	3-3/8"	2"	66.07	63.20	60.32	57.45
19671	.4331		11.000	87	52	70.97	67.88	64.80	61.71
19676	.4375	7/16"	11.113	3-7/16"	2-1/16"	70.97	67.88	64.80	61.71
19681	.4528		11.500	91	54	76.21	72.90	69.58	66.27
19686	.4531	29/64"	11.509	3-9/16"	2-1/8"	76.21	72.90	69.58	66.27
19691	.4688	15/32"	11.908	3-5/8"	2-1/8"	80.07	76.59	73.11	69.63
19696	.4724		12.000	94	56	80.34	76.85	73.35	69.86
19701	.4844	31/64"	12.304	3-11/16"	2-3/16"	80.88	77.36	73.85	70.33
19706	.4921		12.500	95	56	81.71	78.16	74.60	71.05
19711	.5000	1/2"	12.700	3-3/4"	2-1/4"	82.23	78.65	75.08	71.50
19716	.5118		13.000	107	60	108.89	104.16	99.42	94.69
19721	.5156	33/64"	13.096	4-1/4"	2-3/8"	111.45	106.60	101.76	96.91
19726	.5312	17/32"	13.492	4-1/4"	2-3/8"	114.01	109.05	104.10	99.14
19731	.5315		13.500	107	60	116.58	111.51	106.44	101.37
19736	.5469	35/64"	13.891	4-1/4"	2-3/8"	119.13	113.95	108.77	103.59
19741	.5512		14.000	107	60	121.73	116.44	111.14	105.85
19746	.5625	9/16"	14.287	4-1/2"	2-1/2"	131.55	125.83	120.11	114.39
19751	.5709		14.500	115	65	134.01	128.18	122.36	116.53
19756	.5781	37/64"	14.683	4-1/2"	2-1/2"	136.48	130.55	124.61	118.68
19761	.5906		15.000	115	65	138.98	132.94	126.89	120.85
19766	.5938	19/32"	15.082	4-1/2"	2-1/2"	139.71	133.64	127.56	121.49
19771	.6094	39/64"	15.478	4-1/2"	2-1/2"	140.42	134.31	128.21	122.10
19776	.6102		15.500	115	65	141.14	135.00	128.87	122.73
19781	.6250	5/8"	15.875	4-1/2"	2-1/2"	141.86	135.70	129.53	123.36
19786	.6299		16.000	115	65	145.29	138.97	132.66	126.34