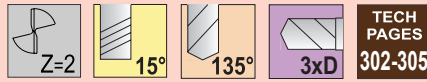


Series 1510H

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

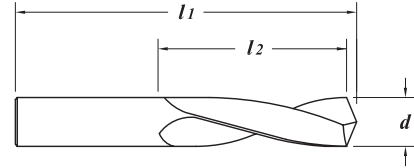


TOLERANCES		
<i>d</i>	+.0000" - .0005" (+.0000 - .0127mm)	
<i>l₁</i>	≤ 1/8"	+.125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+.125" - .125" (+3.175 - 3.175mm)
<i>l₂</i>	≤ 1/8"	+.125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+.125" - .125" (+3.175 - 3.175mm)

Recommended for titanium, inconel, hastelloy, waspaloy, 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 59



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"	9.51	9.10	8.68	8.27
19076	.0635	#52	1.613	1-3/4"	11/16"	9.64	9.22	8.80	8.38
19081	.0670	#51	1.702	1-3/4"	11/16"	9.74	9.32	8.89	8.47
19086	.0700	#50	1.778	1-3/4"	11/16"	9.94	9.50	9.07	8.64
19091	.0730	#49	1.854	1-3/4"	11/16"	10.14	9.70	9.26	8.82
19096	.0760	#48	1.930	1-3/4"	11/16"	10.40	9.94	9.49	9.04
19101	.0781	5/64"	1.984	1-3/4"	11/16"	10.72	10.25	9.79	9.32
19106	.0785	#47	1.994	1-3/4"	3/4"	11.01	10.53	10.05	9.57
19116	.0787		2.000	45	19	11.14	10.66	10.17	9.69
19121	.0810	#46	2.057	1-3/4"	3/4"	11.29	10.80	10.31	9.82
19126	.0820	#45	2.083	1-3/4"	3/4"	11.58	11.08	10.57	10.07
19131	.0860	#44	2.184	1-3/4"	3/4"	11.88	11.36	10.85	10.33
19136	.0890	#43	2.261	1-3/4"	3/4"	12.18	11.65	11.12	10.59
19141	.0935	#42	2.375	1-3/4"	3/4"	12.31	11.77	11.24	10.70
19146	.0938	3/32"	2.383	1-3/4"	3/4"	12.56	12.01	11.47	10.92
19151	.0960	#41	2.438	1-13/16"	13/16"	12.64	12.09	11.54	10.99
19156	.0980	#40	2.489	1-13/16"	13/16"	12.79	12.23	11.68	11.12
19161	.0984		2.500	46	21	12.86	12.30	11.74	11.18
19166	.0995	#39	2.527	1-13/16"	13/16"	12.93	12.36	11.80	11.24
19171	.1015	#38	2.578	1-13/16"	13/16"	13.00	12.43	11.87	11.30
19176	.1040	#37	2.642	1-13/16"	13/16"	13.08	12.51	11.94	11.37
19181	.1065	#36	2.705	1-13/16"	13/16"	13.17	12.60	12.02	11.45
19186	.1094	7/64"	2.779	1-13/16"	13/16"	13.25	12.67	12.10	11.52
19191	.1100	#35	2.794	1-7/8"	7/8"	13.31	12.73	12.15	11.57
19196	.1110	#34	2.819	1-7/8"	7/8"	13.43	12.85	12.26	11.68
19201	.1130	#33	2.870	1-7/8"	7/8"	13.51	12.93	12.34	11.75
19206	.1160	#32	2.946	1-7/8"	7/8"	13.60	13.01	12.42	11.83
19211	.1181		3.000	48	22	13.72	13.12	12.53	11.93
19216	.1200	#31	3.048	1-7/8"	7/8"	13.81	13.21	12.61	12.01
19221	.1250	1/8"	3.175	1-7/8"	7/8"	13.96	13.35	12.75	12.14
19226	.1285	#30	3.264	1-15/16"	15/16"	14.27	13.65	13.03	12.41
19231	.1360	#29	3.454	1-15/16"	15/16"	14.58	13.95	13.31	12.68
19236	.1378		3.500	49	24	15.00	14.34	13.69	13.04
19241	.1405	#28	3.569	1-15/16"	15/16"	15.17	14.51	13.85	13.19
19246	.1406	9/64"	3.571	1-15/16"	15/16"	15.28	14.62	13.95	13.29
19251	.1440	#27	3.658	2-1/16"	1"	16.48	15.76	15.05	14.33
19256	.1470	#26	3.734	2-1/16"	1"	16.63	15.91	15.18	14.46
19261	.1495	#25	3.797	2-1/16"	1"	16.82	16.09	15.36	14.63
19266	.1520	#24	3.861	2-1/16"	1"	16.85	16.12	15.38	14.65
19271	.1540	#23	3.912	2-1/16"	1"	16.94	16.20	15.47	14.73
19276	.1562	5/32"	3.967	2-1/16"	1"	17.03	16.29	15.55	14.81
19281	.1570	#22	3.988	2-1/8"	1-1/16"	17.96	17.18	16.40	15.62
19286	.1575		4.000	54	27	18.16	17.37	16.58	15.79

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"	18.37	17.57	16.77	15.97
19296	.1610	#20	4.089	2-1/8"	1-1/16"	18.50	17.70	16.89	16.09
19301	.1660	#19	4.216	2-1/8"	1-1/16"	19.16	18.33	17.49	16.66
19306	.1695	#18	4.305	2-1/8"	1-1/16"	19.37	18.52	17.68	16.84
19311	.1719	11/64"	4.366	2-1/8"	1-1/16"	19.72	18.87	18.01	17.15
19316	.1730	#17	4.394	2-3/16"	1-1/8"	19.98	19.11	18.24	17.37
19321	.1770	#16	4.496	2-3/16"	1-1/8"	20.18	19.31	18.43	17.55
19326	.1772		4.500	56	29	20.26	19.38	18.50	17.62
19331	.1800	#15	4.572	2-3/16"	1-1/8"	20.34	19.46	18.57	17.69
19336	.1820	#14	4.623	2-3/16"	1-1/8"	20.77	19.87	18.96	18.06
19341	.1850	#13	4.700	2-3/16"	1-1/8"	20.92	20.01	19.10	18.19
19346	.1875	3/16"	4.763	2-3/16"	1-1/8"	20.98	20.06	19.15	18.24
19351	.1890	#12	4.801	2-1/4"	1-3/16"	23.07	22.07	21.06	20.06
19356	.1910	#11	4.851	2-1/4"	1-3/16"	23.31	22.30	21.28	20.27
19361	.1935	#10	4.915	2-1/4"	1-3/16"	24.22	23.17	22.11	21.06
19366	.1960	#9	4.978	2-1/4"	1-3/16"	24.76	23.68	22.61	21.53
19371	.1969		5.000	57	30	24.87	23.79	22.71	21.63
19376	.1990	#8	5.055	2-1/4"	1-3/16"	25.01	23.93	22.84	21.75
19381	.2010	#7	5.105	2-1/4"	1-3/16"	25.66	24.54	23.43	22.31
19386	.2031	13/64"	5.159	2-1/4"	1-3/16"	25.81	24.68	23.56	22.44
19391	.2040	#6	5.182	2-3/8"	1-1/4"	26.28	25.14	23.99	22.85
19396	.2055	#5	5.220	2-3/8"	1-1/4"	26.75	25.59	24.42	23.26
19401	.2090	#4	5.309	2-3/8"	1-1/4"	27.14	25.96	24.78	23.60
19406	.2130	#3	5.410	2-3/8"	1-1/4"	27.57	26.37	25.17	23.97
19411	.2165		5.500	60	32	27.76	26.55	25.35	24.14
19416	.2188	7/32"	5.558	2-3/8"	1-1/4"	27.93	26.72	25.50	24.29
19421	.2210	#2	5.613	2-7/16"	1-5/16"	28.52	27.28	26.04	24.80
19426	.2280	#1	5.791	2-7/16"	1-5/16"	28.68	27.43	26.19	24.94
19431	.2340	A	5.944	2-7/16"	1-5/16"	28.75	27.50	26.25	25.00
19436	.2344	15/64"	5.954	2-7/16"	1-5/16"	28.78	27.53	26.28	25.03
19441	.2362		6.000	64	35	28.88	27.62	26.37	25.11
19446	.2380	B	6.045	2-1/2"	1-3/8"	28.97	27.71	26.45	25.19
19451	.2420	C	6.147	2-1/2"	1-3/8"	29.15	27.89	26.62	25.35
19456	.2460	D	6.248	2-1/2"	1-3/8"	29.35	28.07	26.80	25.52
19461	.2500	1/4" / E	6.350	2-1/2"	1-3/8"	29.52	28.24	26.95	25.67
19466	.2559		6.500	67	37	32.84	31.42	29.99	28.56
19471	.2570	F	6.528	2-5/8"	1-7/16"	33.41	31.96	30.50	29.05
19476	.2610	G	6.629	2-5/8"	1-7/16"	33.96	32.48	31.01	29.53
19481	.2656	17/64"	6.746	2-5/8"	1-7/16"	34.52	33.02	31.52	30.02
19486	.2660	H	6.756	2-11/16"	1-1/2"	35.33	33.79	32.26	30.72
19491	.2720	I	6.909	2-11/16"	1-1/2"	35.66	34.11	32.56	31.01
19496	.2756		7.000	68	38	35.90	34.34	32.78	31.22
19501	.2770	J	7.036	2-11/16"	1-1/2"	36.18	34.61	33.03	31.46
19506	.2810	K	7.137	2-11/16"	1-1/2"	36.44	34.86	33.27	31.69
19511	.2812	9/32"	7.142	2-11/16"	1-1/2"	36.57	34.98	33.39	31.80
19516	.2900	L	7.366	2-3/4"	1-9/16"	37.71	36.07	34.43	32.79
19521	.2950	M	7.493	2-3/4"	1-9/16"	39.93	38.19	36.46	34.72
19526	.2953		7.500	70	40	39.93	38.19	36.46	34.72
19531	.2969	19/64"	7.541	2-3/4"	1-9/16"	40.10	38.36	36.61	34.87
19536	.3020	N	7.671	2-15/16"	1-5/8"	41.94	40.12	38.29	36.47
19541	.3125	5/16"	7.938	2-15/16"	1-5/8"	42.08	40.25	38.42	36.59
19546	.3150		8.000	75	43	44.69	42.75	40.80	38.86
19551	.3160	O	8.026	2-15/16"	1-11/16"	44.69	42.75	40.80	38.86
19556	.3230	P	8.204	2-15/16"	1-11/16"	45.01	43.05	41.10	39.14
19561	.3281	21/64"	8.334	2-15/16"	1-11/16"	45.25	43.29	41.32	39.35
19566	.3320	Q	8.433	3"	1-11/16"	46.16	44.15	42.15	40.14
19571	.3346		8.500	76	43	46.54	44.52	42.49	40.47

continued →

Series 1510H (continued)

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

DRILLS

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"	47.79	45.72	43.64	41.56
19581	.3438	11/32"	8.733	3"	1-11/16"	49.50	47.34	45.19	43.04
19586	.3480	S	8.839	3-1/16"	1-3/4"	52.27	50.00	47.72	45.45
19591	.3543		9.000	78	44	52.57	50.28	48.00	45.71
19596	.3580	T	9.093	3-1/16"	1-3/4"	52.69	50.40	48.11	45.82
19601	.3594	23/64"	9.129	3-1/16"	1-3/4"	53.03	50.72	48.42	46.11
19606	.3680	U	9.347	3-1/8"	1-13/16"	57.27	54.78	52.29	49.80
19611	.3740		9.500	79	46	57.73	55.22	52.71	50.20
19616	.3750	3/8"	9.525	3-1/8"	1-13/16"	58.12	55.59	53.07	50.54
19621	.3770	V	9.576	3-1/4"	1-7/8"	60.29	57.67	55.05	52.43
19626	.3860	W	9.804	3-1/4"	1-7/8"	61.35	58.69	56.02	53.35
19631	.3906	25/64"	9.921	3-1/4"	1-7/8"	62.11	59.41	56.71	54.01
19636	.3937		10.000	84	49	64.00	61.22	58.43	55.65
19641	.3970	X	10.084	3-5/16"	1-15/16"	65.62	62.77	59.91	57.06
19646	.4040	Y	10.262	3-5/16"	1-15/16"	66.07	63.20	60.32	57.45
19651	.4062	13/32"	10.317	3-5/16"	1-15/16"	68.08	65.12	62.16	59.20
19656	.4130	Z	10.490	3-3/8"	2"	68.72	65.74	62.75	59.76
19661	.4134		10.500	86	51	68.72	65.74	62.75	59.76
19666	.4219	27/64"	10.716	3-3/8"	2"	69.37	66.35	63.34	60.32
19671	.4331		11.000	87	52	74.52	71.28	68.04	64.80
19676	.4375	7/16"	11.113	3-7/16"	2-1/16"	74.52	71.28	68.04	64.80
19681	.4528		11.500	91	54	80.02	76.54	73.06	69.58
19686	.4531	29/64"	11.509	3-9/16"	2-1/8"	80.02	76.54	73.06	69.58
19691	.4688	15/32"	11.908	3-5/8"	2-1/8"	84.08	80.42	76.77	73.11
19696	.4724		12.000	94	56	84.35	80.69	77.02	73.35
19701	.4844	31/64"	12.304	3-11/16"	2-3/16"	84.93	81.24	77.54	73.85
19706	.4921		12.500	95	56	85.79	82.06	78.33	74.60
19711	.5000	1/2"	12.700	3-3/4"	2-1/4"	86.34	82.59	78.83	75.08
19716	.5118		13.000	107	60	114.33	109.36	104.39	99.42
19721	.5156	33/64"	13.096	4-1/4"	2-3/8"	117.02	111.94	106.85	101.76
19726	.5312	17/32"	13.492	4-1/4"	2-3/8"	119.72	114.51	109.31	104.10
19731	.5315		13.500	107	60	122.41	117.08	111.76	106.44
19736	.5469	35/64"	13.891	4-1/4"	2-3/8"	125.09	119.65	114.21	108.77
19741	.5512		14.000	107	60	127.81	122.25	116.70	111.14
19746	.5625	9/16"	14.287	4-1/2"	2-1/2"	138.13	132.12	126.12	120.11
19751	.5709		14.500	115	65	140.71	134.60	128.48	122.36
19756	.5781	37/64"	14.683	4-1/2"	2-1/2"	143.30	137.07	130.84	124.61
19761	.5906		15.000	115	65	145.92	139.58	133.23	126.89
19766	.5938	19/32"	15.082	4-1/2"	2-1/2"	146.69	140.32	133.94	127.56
19771	.6094	39/64"	15.478	4-1/2"	2-1/2"	147.44	141.03	134.62	128.21
19776	.6102		15.500	115	65	148.20	141.76	135.31	128.87
19781	.6250	5/8"	15.875	4-1/2"	2-1/2"	148.96	142.48	136.01	129.53
19786	.6299		16.000	115	65	152.56	145.93	139.29	132.66