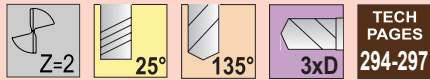


Series 1520H

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



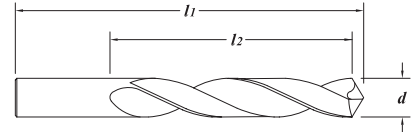
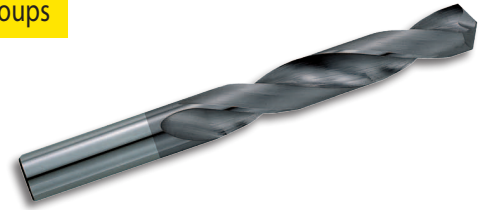
TOLERANCES		
d	+.0000" - .0005" (+.0000 - .0127mm)	
l_1	$\leq 1/8"$	+.125" - .062" (+3.175 - 1.588mm)
	$> 1/8"$	+.125" - .125" (+3.175 - 3.175mm)
l_2	$\leq 1/8"$	+.125" - .062" (+3.175 - 1.588mm)
	$> 1/8"$	+.125" - .125" (+3.175 - 3.175mm)

DRILLS

General purpose for all material groups

Hardlube Coating

- Solid submicron grain carbide drill
- Excellent heat resistance and lubricity
- No spotting required in most applications
- 4-facet self-centering point
- Live tooling recommended on lathe processes
- Uncoated - page 61



EDP#	d † Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
77166	.0625	1/16"	1.588	1-3/4"	5/8"	8.71	8.33	7.95	7.57
77171	.0635	#52	1.613	1-3/4"	11/16"	8.82	8.44	8.05	7.67
77176	.0670	#51	1.702	1-3/4"	11/16"	8.92	8.54	8.15	7.76
77181	.0700	#50	1.778	1-3/4"	11/16"	9.07	8.68	8.28	7.89
77186	.0730	#49	1.854	1-3/4"	11/16"	9.27	8.87	8.46	8.06
77191	.0760	#48	1.930	1-3/4"	11/16"	9.51	9.10	8.68	8.27
77196	.0781	5/64"	1.984	1-3/4"	11/16"	9.79	9.36	8.94	8.51
77201	.0785	#47	1.994	1-3/4"	3/4"	10.05	9.61	9.18	8.74
77206	.0787		2.000	45	19	10.20	9.76	9.31	8.87
77211	.0810	#46	2.057	1-3/4"	3/4"	10.32	9.87	9.42	8.97
77216	.0820	#45	2.083	1-3/4"	3/4"	10.57	10.11	9.65	9.19
77221	.0860	#44	2.184	1-3/4"	3/4"	10.86	10.38	9.91	9.44
77226	.0890	#43	2.261	1-3/4"	3/4"	11.10	10.62	10.13	9.65
77231	.0935	#42	2.375	1-3/4"	3/4"	11.25	10.76	10.27	9.78
77236	.0938	3/32"	2.383	1-3/4"	3/4"	11.45	10.96	10.46	9.96
77241	.0960	#41	2.438	1-13/16"	13/16"	11.53	11.03	10.53	10.03
77246	.0980	#40	2.489	1-13/16"	13/16"	11.67	11.17	10.66	10.15
77251	.0984		2.500	46	21	11.72	11.21	10.70	10.19
77256	.0995	#39	2.527	1-13/16"	13/16"	11.78	11.26	10.75	10.24
77261	.1015	#38	2.578	1-13/16"	13/16"	11.88	11.36	10.85	10.33
77266	.1040	#37	2.642	1-13/16"	13/16"	11.93	11.41	10.89	10.37
77271	.1065	#36	2.705	1-13/16"	13/16"	12.01	11.48	10.96	10.44
77276	.1094	7/64"	2.779	1-13/16"	13/16"	12.06	11.54	11.01	10.49
77281	.1100	#35	2.794	1-7/8"	7/8"	12.13	11.61	11.08	10.55
77286	.1110	#34	2.819	1-7/8"	7/8"	12.26	11.73	11.19	10.66
77291	.1130	#33	2.870	1-7/8"	7/8"	12.33	11.79	11.26	10.72
77296	.1160	#32	2.946	1-7/8"	7/8"	12.41	11.87	11.33	10.79
77301	.1181		3.000	48	22	12.51	11.97	11.42	10.88
77306	.1200	#31	3.048	1-7/8"	7/8"	12.59	12.05	11.50	10.95
77311	.1250	1/8"	3.175	1-7/8"	7/8"	12.72	12.17	11.61	11.06
77316	.1285	#30	3.264	1-15/16"	15/16"	13.00	12.43	11.87	11.30
77321	.1360	#29	3.454	1-15/16"	15/16"	13.29	12.72	12.14	11.56
77326	.1378		3.500	49	24	13.67	13.08	12.48	11.89
77331	.1405	#28	3.569	1-15/16"	15/16"	13.81	13.21	12.61	12.01
77336	.1406	9/64"	3.571	1-15/16"	15/16"	13.94	13.33	12.73	12.12
77341	.1440	#27	3.658	2-1/16"	1"	15.00	14.34	13.69	13.04
77346	.1470	#26	3.734	2-1/16"	1"	15.15	14.49	13.83	13.17
77351	.1495	#25	3.797	2-1/16"	1"	15.28	14.62	13.95	13.29
77356	.1520	#24	3.861	2-1/16"	1"	15.33	14.66	14.00	13.33
77361	.1540	#23	3.912	2-1/16"	1"	15.42	14.75	14.08	13.41
77366	.1562	5/32"	3.967	2-1/16"	1"	15.50	14.83	14.15	13.48
77371	.1570	#22	3.988	2-1/8"	1-1/16"	16.36	15.65	14.94	14.23
77376	.1575		4.000	54	27	16.54	15.82	15.10	14.38

EDP#	d^+ Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
77381	.1590	#21	4.039	2-1/8"	1-1/16"	16.73	16.01	15.28	14.55
77386	.1610	#20	4.089	2-1/8"	1-1/16"	16.84	16.10	15.37	14.64
77391	.1660	#19	4.216	2-1/8"	1-1/16"	17.43	16.68	15.92	15.16
77396	.1695	#18	4.305	2-1/8"	1-1/16"	17.62	16.85	16.09	15.32
77401	.1719	11/64"	4.366	2-1/8"	1-1/16"	17.93	17.15	16.37	15.59
77406	.1730	#17	4.394	2-3/16"	1-1/8"	18.17	17.38	16.59	15.80
77411	.1770	#16	4.496	2-3/16"	1-1/8"	18.34	17.55	16.75	15.95
77416	.1772		4.500	56	29	18.43	17.63	16.83	16.03
77421	.1800	#15	4.572	2-3/16"	1-1/8"	18.52	17.71	16.91	16.10
77426	.1820	#14	4.623	2-3/16"	1-1/8"	18.88	18.06	17.24	16.42
77431	.1850	#13	4.700	2-3/16"	1-1/8"	19.01	18.18	17.36	16.53
77436	.1875	3/16"	4.763	2-3/16"	1-1/8"	19.07	18.24	17.41	16.58
77441	.1890	#12	4.801	2-1/4"	1-3/16"	21.05	20.13	19.22	18.30
77446	.1910	#11	4.851	2-1/4"	1-3/16"	21.24	20.32	19.39	18.47
77451	.1935	#10	4.915	2-1/4"	1-3/16"	22.07	21.11	20.15	19.19
77456	.1960	#9	4.978	2-1/4"	1-3/16"	22.56	21.58	20.60	19.62
77461	.1969		5.000	57	30	22.67	21.68	20.70	19.71
77466	.1990	#8	5.055	2-1/4"	1-3/16"	22.78	21.79	20.80	19.81
77471	.2010	#7	5.105	2-1/4"	1-3/16"	23.38	22.36	21.35	20.33
77476	.2031	13/64"	5.159	2-1/4"	1-3/16"	23.52	22.50	21.47	20.45
77481	.2040	#6	5.182	2-3/8"	1-1/4"	23.94	22.90	21.86	20.82
77486	.2055	#5	5.220	2-3/8"	1-1/4"	24.36	23.30	22.24	21.18
77491	.2090	#4	5.309	2-3/8"	1-1/4"	24.75	23.67	22.60	21.52
77496	.2130	#3	5.410	2-3/8"	1-1/4"	25.10	24.01	22.92	21.83
77501	.2165		5.500	60	32	25.29	24.19	23.09	21.99
77506	.2188	7/32"	5.558	2-3/8"	1-1/4"	25.43	24.32	23.22	22.11
77511	.2210	#2	5.613	2-7/16"	1-5/16"	25.98	24.85	23.72	22.59
77516	.2280	#1	5.791	2-7/16"	1-5/16"	26.12	24.98	23.85	22.71
77521	.2340	A	5.944	2-7/16"	1-5/16"	26.16	25.03	23.89	22.75
77526	.2344	15/64"	5.954	2-7/16"	1-5/16"	26.21	25.07	23.93	22.79
77531	.2362		6.000	64	35	26.28	25.14	23.99	22.85
77536	.2380	B	6.045	2-1/2"	1-3/8"	26.37	25.22	24.08	22.93
77541	.2420	C	6.147	2-1/2"	1-3/8"	26.54	25.39	24.23	23.08
77546	.2460	D	6.248	2-1/2"	1-3/8"	26.71	25.55	24.39	23.23
77551	.2500	1/4" / E	6.350	2-1/2"	1-3/8"	26.88	25.71	24.54	23.37
77556	.2559		6.500	67	37	30.00	28.70	27.39	26.09
77561	.2570	F	6.528	2-5/8"	1-7/16"	30.51	29.18	27.86	26.53
77566	.2610	G	6.629	2-5/8"	1-7/16"	31.00	29.66	28.31	26.96
77571	.2656	17/64"	6.746	2-5/8"	1-7/16"	31.53	30.16	28.79	27.42
77576	.2660	H	6.756	2-11/16"	1-1/2"	32.26	30.86	29.45	28.05
77581	.2720	I	6.909	2-11/16"	1-1/2"	32.56	31.14	29.73	28.31
77586	.2756		7.000	68	38	32.78	31.35	29.93	28.50
77591	.2770	J	7.036	2-11/16"	1-1/2"	33.03	31.59	30.16	28.72
77596	.2810	K	7.137	2-11/16"	1-1/2"	33.26	31.81	30.37	28.92
77601	.2812	9/32"	7.142	2-11/16"	1-1/2"	33.41	31.96	30.50	29.05
77606	.2900	L	7.366	2-3/4"	1-9/16"	34.41	32.91	31.42	29.92
77611	.2950	M	7.493	2-3/4"	1-9/16"	36.41	34.83	33.24	31.66
77616	.2953		7.500	70	40	36.41	34.83	33.24	31.66
77621	.2969	19/64"	7.541	2-3/4"	1-9/16"	36.58	34.99	33.40	31.81
77626	.3020	N	7.671	2-15/16"	1-5/8"	38.24	36.58	34.91	33.25
77631	.3125	5/16"	7.938	2-15/16"	1-5/8"	38.36	36.70	35.03	33.36
77636	.3150		8.000	75	43	40.71	38.94	37.17	35.40
77641	.3160	O	8.026	2-15/16"	1-11/16"	40.71	38.94	37.17	35.40
77646	.3230	P	8.204	2-15/16"	1-11/16"	41.01	39.23	37.44	35.66
77651	.3281	21/64"	8.334	2-15/16"	1-11/16"	41.24	39.45	37.65	35.86
77656	.3320	Q	8.433	3"	1-11/16"	42.06	40.23	38.40	36.57
77661	.3346		8.500	76	43	42.39	40.55	38.70	36.86

continued →

Series 1520H (continued)

.3390" - .5000"
(8.611mm - 12.700mm)

EDP#	d^{\dagger} Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
77666	.3390	R	8.611	3"	1-11/16"	43.55	41.66	39.76	37.87
77671	.3438	11/32"	8.733	3"	1-11/16"	45.08	43.12	41.16	39.20
77676	.3480	S	8.839	3-1/16"	1-3/4"	47.69	45.62	43.54	41.47
77681	.3543		9.000	78	44	47.93	45.85	43.76	41.68
77686	.3580	T	9.093	3-1/16"	1-3/4"	48.08	45.99	43.90	41.81
77691	.3594	23/64"	9.129	3-1/16"	1-3/4"	48.38	46.28	44.17	42.07
77696	.3680	U	9.347	3-1/8"	1-13/16"	52.21	49.94	47.67	45.40
77701	.3740		9.500	79	46	52.62	50.34	48.05	45.76
77706	.3750	3/8"	9.525	3-1/8"	1-13/16"	52.97	50.67	48.36	46.06
77711	.3770	V	9.576	3-1/4"	1-7/8"	55.00	52.61	50.22	47.83
77716	.3860	W	9.804	3-1/4"	1-7/8"	55.97	53.54	51.10	48.67
77721	.3906	25/64"	9.921	3-1/4"	1-7/8"	56.66	54.20	51.73	49.27
77726	.3937		10.000	84	49	58.37	55.84	53.30	50.76
77731	.3970	X	10.084	3-5/16"	1-15/16"	59.80	57.20	54.60	52.00
77736	.4040	Y	10.262	3-5/16"	1-15/16"	60.21	57.60	54.98	52.36
77741	.4062	13/32"	10.317	3-5/16"	1-15/16"	62.08	59.38	56.68	53.98
77746	.4130	Z	10.490	3-3/8"	2"	62.63	59.91	57.18	54.46
77751	.4134		10.500	86	51	62.63	59.91	57.18	54.46
77756	.4219	27/64"	10.716	3-3/8"	2"	63.23	60.48	57.73	54.98
77761	.4331		11.000	87	52	67.87	64.92	61.97	59.02
77766	.4375	7/16"	11.113	3-7/16"	2-1/16"	67.87	64.92	61.97	59.02
77771	.4528		11.500	91	54	72.85	69.69	66.52	63.35
77776	.4531	29/64"	11.509	3-9/16"	2-1/8"	72.85	69.69	66.52	63.35
77781	.4688	15/32"	11.908	3-5/8"	2-1/8"	76.54	73.22	69.89	66.56
77786	.4724		12.000	94	56	76.77	73.44	70.10	66.76
77791	.4844	31/64"	12.304	3-11/16"	2-3/16"	77.30	73.94	70.58	67.22
77796	.4921		12.500	95	56	78.06	74.67	71.27	67.88
77801	.5000	1/2"	12.700	3-3/4"	2-1/4"	78.56	75.14	71.73	68.31

