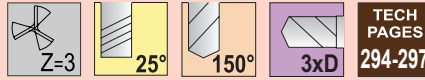


**TOLERANCES**

<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 1120H**

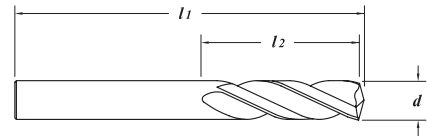
.1094" - .2090"  
(2.779mm - 5.309mm)

Recommended for cast iron, tungsten, and materials with high silicon content

**Hardlube Coating**

- Solid submicron grain carbide drill
- Self-centering drill point
- Near reamer finishes
- Can be used as a core drill
- Excellent heat resistance and lubricity
- Stub length reduces deflection and vibration
- Tighter tolerance holes
- Improved roundness and straightness
- Live tooling recommended on lathe processes

Uncoated - page 67



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							
78276	.1094	7/64"	2.779	1-13/16"	13/16"	14.09	13.48	12.86	12.25
78281	.1100	#35	2.794	1-7/8"	7/8"	14.20	13.59	12.97	12.35
78286	.1110	#34	2.819	1-7/8"	7/8"	14.36	13.74	13.11	12.49
78291	.1130	#33	2.870	1-7/8"	7/8"	14.57	13.94	13.30	12.67
78296	.1160	#32	2.946	1-7/8"	7/8"	14.75	14.11	13.47	12.83
78301	.1181		3.000	48	22	14.87	14.22	13.58	12.93
78306	.1200	#31	3.048	1-7/8"	7/8"	14.97	14.32	13.67	13.02
78311	.1250	1/8"	3.175	1-7/8"	7/8"	15.15	14.49	13.83	13.17
78316	.1285	#30	3.264	1-15/16"	15/16"	15.48	14.81	14.13	13.46
78321	.1360	#29	3.454	1-15/16"	15/16"	15.84	15.15	14.46	13.77
78326	.1378		3.500	49	24	16.30	15.59	14.88	14.17
78331	.1405	#28	3.569	1-15/16"	15/16"	16.47	15.75	15.04	14.32
78336	.1406	9/64"	3.571	1-15/16"	15/16"	16.64	15.92	15.19	14.47
78341	.1440	#27	3.658	2-1/16"	1"	17.80	17.03	16.25	15.48
78346	.1470	#26	3.734	2-1/16"	1"	18.00	17.22	16.43	15.65
78351	.1495	#25	3.797	2-1/16"	1"	18.16	17.37	16.58	15.79
78356	.1520	#24	3.861	2-1/16"	1"	18.19	17.40	16.61	15.82
78361	.1540	#23	3.912	2-1/16"	1"	18.33	17.53	16.74	15.94
78366	.1562	5/32"	3.967	2-1/16"	1"	18.42	17.62	16.82	16.02
78371	.1570	#22	3.988	2-1/8"	1-1/16"	19.47	18.62	17.78	16.93
78376	.1575		4.000	54	27	19.47	18.62	17.78	16.93
78381	.1590	#21	4.039	2-1/8"	1-1/16"	19.86	19.00	18.13	17.27
78386	.1610	#20	4.089	2-1/8"	1-1/16"	19.86	19.00	18.13	17.27
78391	.1660	#19	4.216	2-1/8"	1-1/16"	20.01	19.14	18.27	17.40
78396	.1695	#18	4.305	2-1/8"	1-1/16"	20.13	19.25	18.38	17.50
78401	.1719	11/64"	4.366	2-1/8"	1-1/16"	20.25	19.37	18.49	17.61
78406	.1730	#17	4.394	2-3/16"	1-1/8"	21.08	20.16	19.25	18.33
78411	.1770	#16	4.496	2-3/16"	1-1/8"	21.30	20.37	19.45	18.52
78416	.1772		4.500	56	29	21.39	20.46	19.53	18.60
78421	.1800	#15	4.572	2-3/16"	1-1/8"	21.48	20.55	19.61	18.68
78426	.1820	#14	4.623	2-3/16"	1-1/8"	21.93	20.98	20.02	19.07
78431	.1850	#13	4.700	2-3/16"	1-1/8"	22.03	21.08	20.12	19.16
78436	.1875	3/16"	4.763	2-3/16"	1-1/8"	22.03	21.08	20.12	19.16
78441	.1890	#12	4.801	2-1/4"	1-3/16"	23.60	22.57	21.55	20.52
78446	.1910	#11	4.851	2-1/4"	1-3/16"	23.81	22.77	21.74	20.70
78451	.1935	#10	4.915	2-1/4"	1-3/16"	24.77	23.69	22.62	21.54
78456	.1960	#9	4.978	2-1/4"	1-3/16"	25.30	24.20	23.10	22.00
78461	.1969		5.000	57	30	25.43	24.32	23.22	22.11
78466	.1990	#8	5.055	2-1/4"	1-3/16"	25.59	24.48	23.36	22.25
78471	.2010	#7	5.105	2-1/4"	1-3/16"	26.25	25.11	23.97	22.83
78476	.2031	13/64"	5.159	2-1/4"	1-3/16"	27.13	25.95	24.77	23.59
78486	.2055	#5	5.220	2-3/8"	1-1/4"	27.39	26.20	25.01	23.82
78491	.2090	#4	5.309	2-3/8"	1-1/4"	27.80	26.59	25.38	24.17

continued →

# Series 1120H (continued)

.2130" - .5000"  
(5.410mm - 12.700mm)

DRILLS

EDP#	$d^{\dagger}$ Diameter		$l_1$ Overall Length	$l_2$ Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric							
78496	.2130	#3	5.410	2-3/8"	1-1/4"	28.22	26.99	25.77	24.54
78501	.2165		5.500	60	32	28.41	27.17	25.94	24.70
78506	.2188	7/32"	5.558	2-3/8"	1-1/4"	28.60	27.36	26.11	24.87
78511	.2210	#2	5.613	2-7/16"	1-5/16"	29.23	27.96	26.69	25.42
78516	.2280	#1	5.791	2-7/16"	1-5/16"	29.35	28.07	26.80	25.52
78521	.2340	A	5.944	2-7/16"	1-5/16"	29.51	28.23	26.94	25.66
78526	.2344	15/64"	5.954	2-7/16"	1-5/16"	29.62	28.34	27.05	25.76
78531	.2362		6.000	64	35	29.70	28.41	27.12	25.83
78536	.2380	B	6.045	2-1/2"	1-3/8"	29.81	28.51	27.22	25.92
78541	.2420	C	6.147	2-1/2"	1-3/8"	30.00	28.70	27.39	26.09
78546	.2460	D	6.248	2-1/2"	1-3/8"	30.18	28.86	27.55	26.24
78551	.2500	1/4" / E	6.350	2-1/2"	1-3/8"	30.36	29.04	27.72	26.40
78556	.2559		6.500	67	37	33.61	32.15	30.69	29.23
78561	.2570	F	6.528	2-5/8"	1-7/16"	34.18	32.69	31.21	29.72
78566	.2610	G	6.629	2-5/8"	1-7/16"	34.62	33.11	31.61	30.10
78571	.2656	17/64"	6.746	2-5/8"	1-7/16"	35.18	33.65	32.12	30.59
78576	.2660	H	6.756	2-11/16"	1-1/2"	36.04	34.47	32.91	31.34
78581	.2720	I	6.909	2-11/16"	1-1/2"	36.40	34.82	33.23	31.65
78586	.2756		7.000	68	38	36.60	35.01	33.42	31.83
78591	.2770	J	7.036	2-11/16"	1-1/2"	36.88	35.28	33.67	32.07
78596	.2810	K	7.137	2-11/16"	1-1/2"	37.18	35.56	33.95	32.33
78601	.2812	9/32"	7.142	2-11/16"	1-1/2"	38.27	36.61	34.94	33.28
78606	.2900	L	7.366	2-3/4"	1-9/16"	39.48	37.76	36.05	34.33
78611	.2950	M	7.493	2-3/4"	1-9/16"	40.46	38.70	36.94	35.18
78616	.2953		7.500	70	40	40.46	38.70	36.94	35.18
78621	.2969	19/64"	7.541	2-3/4"	1-9/16"	40.46	38.70	36.94	35.18
78626	.3020	N	7.671	2-15/16"	1-5/8"	41.83	40.01	38.19	36.37
78631	.3125	5/16"	7.938	2-15/16"	1-5/8"	41.98	40.15	38.33	36.50
78636	.3150		8.000	75	43	44.60	42.66	40.72	38.78
78641	.3160	O	8.026	2-15/16"	1-11/16"	44.60	42.66	40.72	38.78
78646	.3230	P	8.204	2-15/16"	1-11/16"	44.60	42.66	40.72	38.78
78651	.3281	21/64"	8.334	2-15/16"	1-11/16"	46.29	44.28	42.26	40.25
78656	.3320	Q	8.433	3"	1-11/16"	47.23	45.18	43.12	41.07
78661	.3346		8.500	76	43	47.61	45.54	43.47	41.40
78666	.3390	R	8.611	3"	1-11/16"	48.90	46.77	44.65	42.52
78671	.3438	11/32"	8.733	3"	1-11/16"	50.68	48.48	46.27	44.07
78676	.3480	S	8.839	3-1/16"	1-3/4"	57.36	54.87	52.37	49.88
78681	.3543		9.000	78	44	57.67	55.17	52.66	50.15
78686	.3580	T	9.093	3-1/16"	1-3/4"	57.82	55.31	52.79	50.28
78691	.3594	23/64"	9.129	3-1/16"	1-3/4"	58.21	55.68	53.15	50.62
78696	.3680	U	9.347	3-1/8"	1-13/16"	61.55	58.87	56.20	53.52
78701	.3740		9.500	79	46	62.45	59.73	57.02	54.30
78706	.3750	3/8"	9.525	3-1/8"	1-13/16"	62.45	59.73	57.02	54.30
78711	.3770	V	9.576	3-1/4"	1-7/8"	63.07	60.32	57.58	54.84
78716	.3860	W	9.804	3-1/4"	1-7/8"	66.60	63.70	60.81	57.91
78721	.3906	25/64"	9.921	3-1/4"	1-7/8"	67.42	64.49	61.56	58.63
78726	.3937		10.000	84	49	69.53	66.51	63.48	60.46
78736	.4040	Y	10.262	3-5/16"	1-15/16"	71.82	68.70	65.57	62.45
78741	.4062	13/32"	10.317	3-5/16"	1-15/16"	74.08	70.86	67.64	64.42
78746	.4130	Z	10.490	3-3/8"	2"	74.75	71.50	68.25	65.00
78751	.4134		10.500	86	51	74.75	71.50	68.25	65.00
78756	.4219	27/64"	10.716	3-3/8"	2"	75.52	72.24	68.95	65.67
78761	.4331		11.000	87	52	80.47	76.97	73.47	69.97
78766	.4375	7/16"	11.113	3-7/16"	2-1/16"	80.47	76.97	73.47	69.97
78776	.4531	29/64"	11.509	3-9/16"	2-1/8"	86.53	82.76	79.00	75.24
78781	.4688	15/32"	11.908	3-5/8"	2-1/8"	91.01	87.05	83.10	79.14
78786	.4724		12.000	94	56	91.26	87.30	83.33	79.36
78791	.4844	31/64"	12.304	3-11/16"	2-3/16"	91.54	87.56	83.58	79.60
78796	.4921		12.500	95	56	92.95	88.91	84.87	80.83
78801	.5000	1/2"	12.700	3-3/4"	2-1/4"	93.44	89.38	85.31	81.25