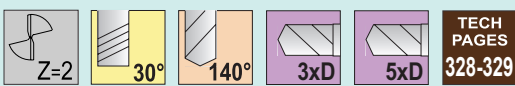


Series 1580H, 1280H

.1181" - .1719"
(3.000mm - 4.366mm)

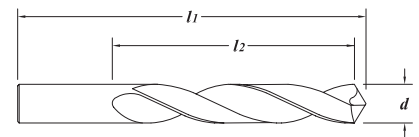


TOLERANCES		
d	+.0000" - .0005" (+.0000 - .0127mm)	
l_1	$\leq 1/8"$	+.125" - .062" (+3.175 - 1.588mm)
	$> 1/8"$	+.125" - .125" (+3.175 - 3.175mm)
l_2	$\leq 1/8"$	+.125" - .062" (+3.175 - 1.588mm)
	$> 1/8"$	+.125" - .125" (+3.175 - 3.175mm)

Recommended for high nickel, high temperature alloys, cobalt-based alloys, stainless steels, and tool steels >40 Rc

AlTiN-based Coating

- High performance - high penetration solid submicron grain carbide drill
- Extended tool life and greater surface finish through faster SFM rates
- Up to 50% faster than standard carbide drills
- 30° helix for better chip evacuation
- Honed cutting edge
- Live tooling recommended on lathe processes



3xD (1580H) EDP#	5xD (1280H) EDP#	d † Diameter		l_1 Overall Length	l_2 Flute Length
		Decimal	Metric		
20301		.1181	3.000	46	16
	21301	.1181	3.000	50	19
20306		.1200	#31 3.048	1-13/16"	5/8"
	21306	.1200	#31 3.048	2"	3/4"
20311		.1250	1/8" 3.175	1-15/16"	11/16"
	21311	.1250	1/8" 3.175	2"	3/4"
20316		.1285	#30 3.264	1-15/16"	11/16"
	21316	.1285	#30 3.264	2-1/4"	3/4"
20321		.1360	#29 3.454	2-1/16"	3/4"
	21321	.1360	#29 3.454	2-1/4"	7/8"
20326		.1378	3.500	52	19
	21326	.1378	3.500	57	22
20331		.1405	#28 3.569	2-1/16"	3/4"
	21331	.1405	#28 3.569	2-1/4"	7/8"
20336		.1406	9/64" 3.571	2-1/16"	3/4"
	21336	.1406	9/64" 3.571	2-1/4"	7/8"
20341		.1440	#27 3.658	2-1/16"	3/4"
	21341	.1440	#27 3.658	2-1/4"	7/8"
20346		.1470	#26 3.734	2-3/16"	13/16"
	21346	.1470	#26 3.734	2-1/4"	7/8"
20351		.1495	#25 3.797	2-3/16"	13/16"
	21351	.1495	#25 3.797	2-1/4"	15/16"
20356		.1520	#24 3.861	2-3/16"	13/16"
	21356	.1520	#24 3.861	2-1/4"	15/16"
20361		.1540	#23 3.912	2-3/16"	13/16"
	21361	.1540	#23 3.912	2-1/4"	15/16"
20366		.1562	5/32" 3.967	2-3/16"	13/16"
	21366	.1562	5/32" 3.967	2-1/2"	15/16"
20371		.1570	#22 3.988	2-3/16"	13/16"
	21371	.1570	#22 3.988	2-1/2"	15/16"
20376		.1575	4.000	56	21
	21376	.1575	4.000	65	24
20381		.1590	#21 4.039	2-3/16"	13/16"
	21381	.1590	#21 4.039	2-1/2"	15/16"
20386		.1610	#20 4.089	2-3/16"	13/16"
	21386	.1610	#20 4.089	2-1/2"	15/16"
20391		.1660	#19 4.216	2-9/32"	15/16"
	21391	.1660	#19 4.216	2-1/2"	1"
20396		.1695	#18 4.305	2-9/32"	15/16"
	21396	.1695	#18 4.305	2-1/2"	1"
20401		.1719	11/64" 4.366	2-9/32"	15/16"
	21401	.1719	11/64" 4.366	2-1/2"	1"

3xD (1580H) EDP#	5xD (1280H) EDP#	d †		l_1 Overall Length	l_2 Flute Length	
		Decimal	Diameter			Metric
20406		.1730	#17	4.394	2-9/32"	15/16"
	21406	.1730	#17	4.394	2-1/2"	1"
20411		.1770	#16	4.496	2-9/32"	15/16"
	21411	.1770	#16	4.496	2-1/2"	1"
20416		.1772		4.500	58	24
	21416	.1772		4.500	65	25
20421		.1800	#15	4.572	2-9/32"	15/16"
	21421	.1800	#15	4.572	2-3/4"	1"
20426		.1820	#14	4.623	2-9/32"	15/16"
	21426	.1820	#14	4.623	2-3/4"	1"
20431		.1850	#13	4.700	2-9/32"	15/16"
	21431	.1850	#13	4.700	2-3/4"	1-1/4"
20436		.1875	3/16"	4.763	2-13/32"	1"
	21436	.1875	3/16"	4.763	2-3/4"	1-1/4"
20441		.1890	#12	4.801	2-13/32"	1"
	21441	.1890	#12	4.801	2-3/4"	1-1/4"
20446		.1910	#11	4.851	2-13/32"	1"
	21446	.1910	#11	4.851	2-3/4"	1-1/4"
20451		.1935	#10	4.915	2-13/32"	1"
	21451	.1935	#10	4.915	2-3/4"	1-1/4"
20456		.1960	#9	4.978	2-13/32"	1"
	21456	.1960	#9	4.978	3"	1-5/16"
20461		.1969		5.000	61	25
	21461	.1969		5.000	75	33
20466		.1990	#8	5.055	2-13/32"	1"
	21466	.1990	#8	5.055	3"	1-5/16"
20471		.2010	#7	5.105	2-13/32"	1"
	21471	.2010	#7	5.105	3"	1-5/16"
20476		.2031	13/64"	5.159	2-13/32"	1"
	21476	.2031	13/64"	5.159	3"	1-5/16"
20481		.2040	#6	5.182	2-13/32"	1"
	21481	.2040	#6	5.182	3"	1-3/8"
20486		.2055	#5	5.220	2-13/32"	1"
	21486	.2055	#5	5.220	3"	1-3/8"
20491		.2090	#4	5.309	2-13/32"	1"
	21491	.2090	#4	5.309	3"	1-3/8"
20496		.2130	#3	5.410	2-5/8"	1-3/32"
	21496	.2130	#3	5.410	3"	1-3/8"
20501		.2165		5.500	67	28
	21501	.2165		5.500	75	35
20506		.2188	7/32"	5.558	2-5/8"	1-3/32"
	21506	.2188	7/32"	5.558	3"	1-3/8"
20511		.2210	#2	5.613	2-5/8"	1-3/32"
	21511	.2210	#2	5.613	3"	1-3/8"
20516		.2280	#1	5.791	2-5/8"	1-3/32"
	21516	.2280	#1	5.791	3"	1-3/8"
20521		.2340	A	5.944	2-5/8"	1-3/32"
	21521	.2340	A	5.944	3-1/4"	1-1/2"
20526		.2344	15/64"	5.954	2-5/8"	1-3/32"
	21526	.2344	15/64"	5.954	3-1/4"	1-1/2"
20531		.2362		6.000	67	28
	21531	.2362		6.000	80	38
20536		.2380	B	6.045	2-3/4"	1-7/32"
	21536	.2380	B	6.045	3-1/4"	1-5/8"

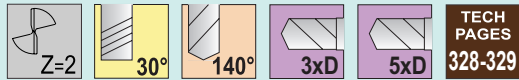
Series 1580H, 1280H (continued)

.2420" - .3438"
(6.147mm - 8.733mm)

3xD (1580H) EDP#	5xD (1280H) EDP#	d^{\dagger}		l_1 Overall Length	l_2 Flute Length	
		Decimal	Diameter			Metric
20541		.2420	C	6.147	2-3/4"	1-7/32"
	21541	.2420	C	6.147	3-1/4"	1-5/8"
20546		.2460	D	6.248	2-3/4"	1-7/32"
	21546	.2460	D	6.248	3-1/4"	1-5/8"
20551		.2500	1/4" / E	6.350	2-3/4"	1-7/32"
	21551	.2500	1/4" / E	6.350	3-1/4"	1-5/8"
20556		.2559		6.500	70	31
	21556	.2559		6.500	80	41
20561		.2570	F	6.528	2-3/4"	1-7/32"
	21561	.2570	F	6.528	3-1/4"	1-11/16"
20566		.2610	G	6.629	2-3/4"	1-7/32"
	21566	.2610	G	6.629	3-1/2"	1-11/16"
20571		.2656	17/64"	6.746	2-15/16"	1-11/32"
	21571	.2656	17/64"	6.746	3-1/2"	1-11/16"
20576		.2660	H	6.756	2-15/16"	1-11/32"
	21576	.2660	H	6.756	3-1/2"	1-11/16"
20581		.2720	I	6.909	2-15/16"	1-11/32"
	21581	.2720	I	6.909	3-1/2"	1-11/16"
20586		.2756		7.000	75	34
	21586	.2756		7.000	88	43
20591		.2770	J	7.036	2-15/16"	1-11/32"
	21591	.2770	J	7.036	3-1/2"	1-11/16"
20596		.2810	K	7.137	2-15/16"	1-11/32"
	21596	.2810	K	7.137	3-1/2"	1-3/4"
20601		.2812	9/32"	7.142	2-15/16"	1-11/32"
	21601	.2812	9/32"	7.142	3-1/2"	1-3/4"
20606		.2900	L	7.366	2-15/16"	1-11/32"
	21606	.2900	L	7.366	3-1/2"	1-3/4"
20611		.2950	M	7.493	2-15/16"	1-11/32"
	21611	.2950	M	7.493	3-3/4"	1-3/4"
20616		.2953		7.500	75	34
	21616	.2953		7.500	95	44
20621		.2969	19/64"	7.541	3-3/32"	1-15/32"
	21621	.2969	19/64"	7.541	3-3/4"	1-7/8"
20626		.3020	N	7.671	3-3/32"	1-15/32"
	21626	.3020	N	7.671	3-3/4"	1-7/8"
20631		.3125	5/16"	7.938	3-3/32"	1-15/32"
	21631	.3125	5/16"	7.938	3-3/4"	1-7/8"
20636		.3150		8.000	79	37
	21636	.3150		8.000	95	48
20641		.3160	O	8.026	3-3/32"	1-15/32"
	21641	.3160	O	8.026	3-3/4"	1-7/8"
20646		.3230	P	8.204	3-3/32"	1-15/32"
	21646	.3230	P	8.204	3-3/4"	2-3/32"
20651		.3281	21/64"	8.334	3-3/32"	1-15/32"
	21651	.3281	21/64"	8.334	4"	2-3/32"
20656		.3320	Q	8.433	3-3/32"	1-15/32"
	21656	.3320	Q	8.433	4"	2-3/32"
20661		.3346		8.500	79	37
	21661	.3346		8.500	100	53
20666		.3390	R	8.611	3-5/16"	1-9/16"
	21666	.3390	R	8.611	4"	2-3/32"
20671		.3438	11/32"	8.733	3-5/16"	1-9/16"
	21671	.3438	11/32"	8.733	4"	2-3/16"

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 1580H, 1280H (continued)

.3480" - .4531"
(8.839mm - 11.509mm)

Recommended for high nickel, high temperature alloys, cobalt-based alloys, stainless steels, and tool steels >40 Rc

AlTiN-based Coating

High performance - high penetration solid submicron grain carbide drill



HIGH PERFORMANCE DRILLS

3xD (1580H) EDP#	5xD (1280H) EDP#	<i>d</i> † Diameter		<i>l1</i> Overall Length	<i>l2</i> Flute Length
		Decimal	Metric		
20676		.3480	S	8.839	3-5/16"
	21676	.3480	S	8.839	4"
20681		.3543		9.000	84
	21681	.3543		9.000	100
20686		.3580	T	9.093	3-5/16"
	21686	.3580	T	9.093	4-1/4"
20691		.3594	23/64"	9.129	3-5/16"
	21691	.3594	23/64"	9.129	4-1/4"
20696		.3680	U	9.347	3-5/16"
	21696	.3680	U	9.347	4-1/4"
20701		.3740		9.500	84
	21701	.3740		9.500	105
20706		.3750	3/8"	9.525	3-1/2"
	21706	.3750	3/8"	9.525	4-1/4"
20711		.3770	V	9.576	3-1/2"
	21711	.3770	V	9.576	4-1/4"
20716		.3860	W	9.804	3-1/2"
	21716	.3860	W	9.804	4-1/2"
20721		.3906	25/64"	9.921	3-1/2"
	21721	.3906	25/64"	9.921	4-1/2"
20726		.3937		10.000	89
	21726	.3937		10.000	115
20731		.3970	X	10.084	3-1/2"
	21731	.3970	X	10.084	4-1/2"
20736		.4040	Y	10.262	3-1/2"
	21736	.4040	Y	10.262	4-1/2"
20741		.4062	13/32"	10.317	3-1/2"
	21741	.4062	13/32"	10.317	4-1/2"
20746		.4130	Z	10.490	3-1/2"
	21746	.4130	Z	10.490	4-1/2"
20751		.4134		10.500	89
	21751	.4134		10.500	115
20756		.4219	27/64"	10.716	3-3/4"
	21756	.4219	27/64"	10.716	4-1/2"
20761		.4331		11.000	95
	21761	.4331		11.000	115
20766		.4375	7/16"	11.113	3-3/4"
	21766	.4375	7/16"	11.113	4-3/4"
20771		.4528		11.500	95
	21771	.4528		11.500	120
20776		.4531	29/64"	11.509	3-3/4"
	21776	.4531	29/64"	11.509	4-3/4"

Series 1580H, 1280H (continued)

.4688" - .6299"
(11.908mm - 16.000mm)

3xD (1580H) EDP#	5xD (1280H) EDP#	d † Diameter		l_1 Overall Length	l_2 Flute Length	
		Decimal	Metric			
20781		.4688	15/32"	11.908	4"	1-15/16"
	21781	.4688	15/32"	11.908	4-3/4"	2-7/8"
20786		.4724		12.000	102	49
	21786	.4724		12.000	120	73
20791		.4844	31/64"	12.304	4"	1-15/16"
	21791	.4844	31/64"	12.304	5-5/16"	3"
20796		.4921		12.500	102	49
	21796	.4921		12.500	135	76
20801		.5000	1/2"	12.700	4"	1-15/16"
	21801	.5000	1/2"	12.700	5-3/8"	3-1/16"
20806		.5118		13.000	107	53
	21806	.5118		13.000	135	78
20811		.5156	33/64"	13.096	4-7/32"	2-3/32"
	21811	.5156	33/64"	13.096	5-3/8"	3-1/8"
20816		.5312	17/32"	13.492	4-7/32"	2-3/32"
	21816	.5312	17/32"	13.492	5-11/16"	3-5/16"
20821		.5315		13.500	110	56
	21821	.5315		13.500	145	84
20826		.5469	35/64"	13.891	4-5/16"	2-7/32"
	21826	.5469	35/64"	13.891	5-13/16"	3-3/8"
20831		.5512		14.000	110	56
	21831	.5512		14.000	145	86
20836		.5625	9/16"	14.288	4-9/16"	2-15/32"
	21836	.5625	9/16"	14.288	5-15/16"	3-1/2"
20841		.5709		14.500	116	63
	21841	.5709		14.500	150	89
20846		.5781	37/64"	14.684	4-15/16"	2-9/16"
	21846	.5781	37/64"	14.684	6"	3-1/2"
20851		.5906		15.000	125	65
	21851	.5906		15.000	150	90
20856		.5938	19/32"	15.083	4-15/16"	2-9/16"
	21856	.5938	19/32"	15.083	6"	3-9/16"
20861		.6094	39/64"	15.479	5-1/16"	2-13/16"
	21861	.6094	39/64"	15.479	6-3/16"	3-11/16"
20866		.6102		15.500	129	71
	21866	.6102		15.500	160	94
20871		.6250	5/8"	15.875	5-1/4"	3-1/8"
	21871	.6250	5/8"	15.875	6-5/16"	3-3/4"
20876		.6299		16.000	133	79
	21876	.6299		16.000	160	95