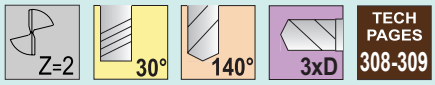
TOLERANCES

d_1*	3mm - 6mm	+.016mm +.004mm (+.00063" +.00015")
	> 6mm - 10mm	+.021mm +.006mm (+.00082" +.00023")
	> 10mm - 18mm	+.025mm +.007mm (+.00098" +.00027")
	> 18mm - 20mm	+.029mm +.008mm (+.00114" +.00031")
d_2	h6	
l_1	+3.175mm -3.175mm (+.125" -.125")	
l_2	+3.175mm -3.175mm (+.125" -.125")	
l_4	+1.980mm -.000mm (+.078" -.000")	



TECH PAGES 308-309

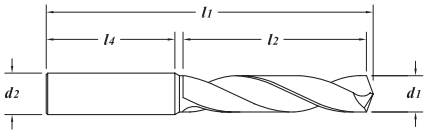
Series 1580HD

.1181" - .2342"
(3.000mm - 5.950mm)

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

AlTiN-based Coating

High performance solid submicron grain carbide drill with reinforced shank
Up to 50% faster than standard carbide drills
30° helix for better chip evacuation
Honed cutting edge
Can be used as a pilot drill
Live tooling recommended on lathe processes



Note - These drills are made to a plus/plus tolerance on the drill diameter. If you are in need of a minus tolerance drill, please refer to our other high performance drills.

EDP#	d_1 † Diameter Decimal	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	l_4 Shank Length	1-11	12-24	25-49	50-100
20085	.1181	3.000	6.0	62	20	36	45.41	43.44	41.46	39.49
20095	.1220	3.100	6.0	62	20	36	45.41	43.44	41.46	39.49
20105	.1248	3.170	6.0	62	20	36	45.41	43.44	41.46	39.49
20115	.1260	3.200	6.0	62	20	36	45.41	43.44	41.46	39.49
20125	.1280	3.250	6.0	62	20	36	45.41	43.44	41.46	39.49
20135	.1299	3.300	6.0	62	20	36	45.41	43.44	41.46	39.49
20145	.1339	3.400	6.0	62	20	36	45.41	43.44	41.46	39.49
20155	.1378	3.500	6.0	62	20	36	45.41	43.44	41.46	39.49
20165	.1417	3.600	6.0	62	20	36	45.41	43.44	41.46	39.49
20175	.1457	3.700	6.0	62	20	36	45.41	43.44	41.46	39.49
20185	.1476	3.750	6.0	62	20	36	45.41	43.44	41.46	39.49
20195	.1496	3.800	6.0	66	24	36	45.41	43.44	41.46	39.49
20205	.1535	3.900	6.0	66	24	36	45.41	43.44	41.46	39.49
20215	.1575	4.000	6.0	66	24	36	45.41	43.44	41.46	39.49
20225	.1614	4.100	6.0	66	24	36	45.41	43.44	41.46	39.49
20235	.1654	4.200	6.0	66	24	36	45.41	43.44	41.46	39.49
20245	.1673	4.250	6.0	66	24	36	45.41	43.44	41.46	39.49
20255	.1693	4.300	6.0	66	24	36	45.41	43.44	41.46	39.49
20265	.1732	4.400	6.0	66	24	36	45.41	43.44	41.46	39.49
20275	.1772	4.500	6.0	66	24	36	45.41	43.44	41.46	39.49
20285	.1811	4.600	6.0	66	24	36	45.41	43.44	41.46	39.49
20295	.1831	4.650	6.0	66	24	36	45.41	43.44	41.46	39.49
20305	.1850	4.700	6.0	66	24	36	45.41	43.44	41.46	39.49
20315	.1870	4.750	6.0	66	24	36	45.41	43.44	41.46	39.49
20325	.1890	4.800	6.0	66	28	36	45.41	43.44	41.46	39.49
20335	.1929	4.900	6.0	66	28	36	45.41	43.44	41.46	39.49
20345	.1969	5.000	6.0	66	28	36	45.41	43.44	41.46	39.49
20355	.2008	5.100	6.0	66	28	36	45.41	43.44	41.46	39.49
20365	.2027	5.150	6.0	66	28	36	45.41	43.44	41.46	39.49
20375	.2047	5.200	6.0	66	28	36	45.41	43.44	41.46	39.49
20385	.2087	5.300	6.0	66	28	36	45.41	43.44	41.46	39.49
20395	.2165	5.500	6.0	66	28	36	45.41	43.44	41.46	39.49
20405	.2185	5.550	6.0	66	28	36	45.41	43.44	41.46	39.49
20408	.2205	5.600	6.0	66	28	36	45.41	43.44	41.46	39.49
20412	.2244	5.700	6.0	66	28	36	45.41	43.44	41.46	39.49
20415	.2283	5.800	6.0	66	28	36	45.41	43.44	41.46	39.49
20425	.2323	5.900	6.0	66	28	36	45.41	43.44	41.46	39.49
20435	.2342	5.950	6.0	66	28	36	45.41	43.44	41.46	39.49

continued ⟶

Series 1580HD *(continued)*

.2362" - .4252"
(6.000mm - 10.800mm)

EDP#	d_1 † Diameter Decimal	Diameter Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	l_4 Shank Length	1-11	12-24	25-49	50-100
20445	.2362	6.000	6.0	66	28	36	45.41	43.44	41.46	39.49
20448	.2402	6.100	8.0	79	34	36	62.48	59.76	57.05	54.33
20452	.2441	6.200	8.0	79	34	36	62.48	59.76	57.05	54.33
20454	.2480	6.300	8.0	79	34	36	62.48	59.76	57.05	54.33
20455	.2500	6.350	8.0	79	34	36	62.48	59.76	57.05	54.33
20462	.2520	6.400	8.0	79	34	36	62.48	59.76	57.05	54.33
20465	.2559	6.500	8.0	79	34	36	62.48	59.76	57.05	54.33
20468	.2571	6.530	8.0	79	34	36	62.48	59.76	57.05	54.33
20472	.2598	6.600	8.0	79	34	36	62.48	59.76	57.05	54.33
20473	.2638	6.700	8.0	79	34	36	62.48	59.76	57.05	54.33
20475	.2657	6.750	8.0	79	34	36	62.48	59.76	57.05	54.33
20485	.2677	6.800	8.0	79	34	36	62.48	59.76	57.05	54.33
20495	.2717	6.900	8.0	79	34	36	62.48	59.76	57.05	54.33
20505	.2756	7.000	8.0	79	34	36	62.48	59.76	57.05	54.33
20515	.2795	7.100	8.0	79	41	36	62.48	59.76	57.05	54.33
20525	.2815	7.150	8.0	79	41	36	62.48	59.76	57.05	54.33
20535	.2835	7.200	8.0	79	41	36	62.48	59.76	57.05	54.33
20542	.2874	7.300	8.0	79	41	36	62.48	59.76	57.05	54.33
20545	.2913	7.400	8.0	79	41	36	62.48	59.76	57.05	54.33
20555	.2953	7.500	8.0	79	41	36	62.48	59.76	57.05	54.33
20565	.2972	7.550	8.0	79	41	36	62.48	59.76	57.05	54.33
20575	.2992	7.600	8.0	79	41	36	62.48	59.76	57.05	54.33
20585	.3031	7.700	8.0	79	41	36	62.48	59.76	57.05	54.33
20595	.3071	7.800	8.0	79	41	36	62.48	59.76	57.05	54.33
20605	.3130	7.950	8.0	79	41	36	62.48	59.76	57.05	54.33
20615	.3150	8.000	8.0	79	41	36	62.48	59.76	57.05	54.33
20622	.3189	8.100	10.0	89	47	40	86.93	83.15	79.37	75.59
20625	.3228	8.200	10.0	89	47	40	86.93	83.15	79.37	75.59
20635	.3268	8.300	10.0	89	47	40	86.93	83.15	79.37	75.59
20645	.3287	8.350	10.0	89	47	40	86.93	83.15	79.37	75.59
20652	.3307	8.400	10.0	89	47	40	86.93	83.15	79.37	75.59
20655	.3346	8.500	10.0	89	47	40	86.93	83.15	79.37	75.59
20665	.3386	8.600	10.0	89	47	40	86.93	83.15	79.37	75.59
20675	.3425	8.700	10.0	89	47	40	86.93	83.15	79.37	75.59
20685	.3445	8.750	10.0	89	47	40	86.93	83.15	79.37	75.59
20695	.3465	8.800	10.0	89	47	40	86.93	83.15	79.37	75.59
20705	.3504	8.900	10.0	89	47	40	86.93	83.15	79.37	75.59
20715	.3543	9.000	10.0	89	47	40	86.93	83.15	79.37	75.59
20725	.3583	9.100	10.0	89	47	40	86.93	83.15	79.37	75.59
20735	.3602	9.150	10.0	89	47	40	86.93	83.15	79.37	75.59
20745	.3622	9.200	10.0	89	47	40	86.93	83.15	79.37	75.59
20755	.3661	9.300	10.0	89	47	40	86.93	83.15	79.37	75.59
20762	.3701	9.400	10.0	89	47	40	86.93	83.15	79.37	75.59
20765	.3740	9.500	10.0	89	47	40	86.93	83.15	79.37	75.59
20775	.3760	9.550	10.0	89	47	40	86.93	83.15	79.37	75.59
20778	.3780	9.600	10.0	89	47	40	86.93	83.15	79.37	75.59
20782	.3819	9.700	10.0	89	47	40	86.93	83.15	79.37	75.59
20785	.3858	9.800	10.0	89	47	40	86.93	83.15	79.37	75.59
20795	.3898	9.900	10.0	89	47	40	86.93	83.15	79.37	75.59
20805	.3937	10.000	10.0	89	47	40	86.93	83.15	79.37	75.59
20812	.3976	10.100	12.0	102	55	45	113.09	108.17	103.26	98.34
20815	.4016	10.200	12.0	102	55	45	113.09	108.17	103.26	98.34
20825	.4055	10.300	12.0	102	55	45	113.09	108.17	103.26	98.34
20835	.4134	10.500	12.0	102	55	45	113.09	108.17	103.26	98.34
20842	.4173	10.600	12.0	102	55	45	113.09	108.17	103.26	98.34
20845	.4213	10.700	12.0	102	55	45	113.09	108.17	103.26	98.34
20855	.4252	10.800	12.0	102	55	45	113.09	108.17	103.26	98.34

† *Metric equivalents are for reference only*

EDP#	d_1 † Diameter Decimal	Diameter Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	l_4 Shank Length	1-11	12-24	25-49	50-100
20865	.4331	11.000	12.0	102	55	45	113.09	108.17	103.26	98.34
20875	.4370	11.100	12.0	102	55	45	113.09	108.17	103.26	98.34
20885	.4409	11.200	12.0	102	55	45	113.09	108.17	103.26	98.34
20892	.4488	11.400	12.0	102	55	45	113.09	108.17	103.26	98.34
20895	.4528	11.500	12.0	102	55	45	113.09	108.17	103.26	98.34
20905	.4606	11.700	12.0	102	55	45	113.09	108.17	103.26	98.34
20915	.4685	11.900	12.0	102	55	45	113.09	108.17	103.26	98.34
20925	.4724	12.000	12.0	102	55	45	113.09	108.17	103.26	98.34
20935	.4764	12.100	14.0	107	60	45	141.83	135.66	129.50	123.33
20941	.4803	12.200	14.0	107	60	45	141.83	135.66	129.50	123.33
20945	.4842	12.300	14.0	107	60	45	141.83	135.66	129.50	123.33
20955	.4921	12.500	14.0	107	60	45	141.83	135.66	129.50	123.33
20961	.4961	12.600	14.0	107	60	45	141.83	135.66	129.50	123.33
20965	.5000	12.700	14.0	107	60	45	141.83	135.66	129.50	123.33
20975	.5039	12.800	14.0	107	60	45	141.83	135.66	129.50	123.33
20978	.5051	12.830	14.0	107	60	45	141.83	135.66	129.50	123.33
20981	.5079	12.900	14.0	107	60	45	141.83	135.66	129.50	123.33
20982	.5098	12.950	14.0	107	60	45	141.83	135.66	129.50	123.33
20985	.5118	13.000	14.0	107	60	45	141.83	135.66	129.50	123.33
20998	.5236	13.300	14.0	107	60	45	141.83	135.66	129.50	123.33
21005	.5315	13.500	14.0	107	60	45	141.83	135.66	129.50	123.33
21015	.5394	13.700	14.0	107	60	45	141.83	135.66	129.50	123.33
21025	.5433	13.800	14.0	107	60	45	141.83	135.66	129.50	123.33
21035	.5512	14.000	14.0	107	60	45	141.83	135.66	129.50	123.33
21045	.5551	14.100	16.0	115	65	48	168.58	161.25	153.92	146.59
21053	.5591	14.200	16.0	115	65	48	168.58	161.25	153.92	146.59
21055	.5610	14.250	16.0	115	65	48	168.58	161.25	153.92	146.59
21065	.5630	14.300	16.0	115	65	48	168.58	161.25	153.92	146.59
21075	.5709	14.500	16.0	115	65	48	168.58	161.25	153.92	146.59
21085	.5787	14.700	16.0	115	65	48	168.58	161.25	153.92	146.59
21105	.5906	15.000	16.0	115	65	48	168.58	161.25	153.92	146.59
21115	.5945	15.100	16.0	115	65	48	168.58	161.25	153.92	146.59
21125	.6102	15.500	16.0	115	65	48	168.58	161.25	153.92	146.59
21135	.6181	15.700	16.0	115	65	48	168.58	161.25	153.92	146.59
21145	.6220	15.800	16.0	115	65	48	168.58	161.25	153.92	146.59
21155	.6299	16.000	16.0	115	65	48	168.58	161.25	153.92	146.59
21159	.6331	16.080	18.0	123	73	48	223.76	214.03	204.30	194.57
21175	.6496	16.500	18.0	123	73	48	223.76	214.03	204.30	194.57
21185	.6555	16.650	18.0	123	73	48	223.76	214.03	204.30	194.57
21195	.6693	17.000	18.0	123	73	48	223.76	214.03	204.30	194.57
21215	.6870	17.450	18.0	123	73	48	223.76	214.03	204.30	194.57
21225	.6890	17.500	18.0	123	73	48	223.76	214.03	204.30	194.57
21235	.7027	17.850	18.0	123	73	48	223.76	214.03	204.30	194.57
21245	.7087	18.000	18.0	123	73	48	223.76	214.03	204.30	194.57
21255	.7185	18.250	20.0	131	79	50	306.42	293.10	279.77	266.45
21265	.7283	18.500	20.0	131	79	50	306.42	293.10	279.77	266.45
21275	.7342	18.650	20.0	131	79	50	306.42	293.10	279.77	266.45
21295	.7500	19.050	20.0	131	79	50	306.42	293.10	279.77	266.45
21304	.7598	19.300	20.0	131	79	50	306.42	293.10	279.77	266.45
21315	.7677	19.500	20.0	131	79	50	306.42	293.10	279.77	266.45
21325	.7815	19.850	20.0	131	79	50	306.42	293.10	279.77	266.45
21335	.7874	20.000	20.0	131	79	50	306.42	293.10	279.77	266.45