

TOLERANCES

<i>d1</i> *	3mm - 6mm	+0.16mm +.004mm (+.00063" +.00015")
	> 6mm - 10mm	+0.21mm +.006mm (+.00082" +.00023")
	> 10mm - 18mm	+0.25mm +.007mm (+.00098" +.00027")
	> 18mm - 20mm	+0.29mm +.008mm (+.00114" +.00031")
<i>d2</i>	h6	
<i>l1</i>	+3.175mm -3.175mm (+.125" -.125")	
<i>l2</i>	+3.175mm -3.175mm (+.125" -.125")	
<i>l4</i>	+1.980mm -.000mm (+.078" -.000")	



Series 1580HD

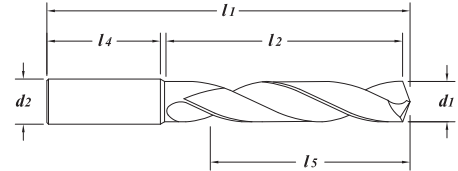
.1181" - .2342"
(3.000mm - 5.950mm)

HIGH PERFORMANCE DRILLS

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

BALIQ® ALTINOS Coating (AlTiN-based)

- 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#	<i>d1</i> † Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>l5</i> Max Drill Depth	<i>l4</i> Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric									
20085	.1181	3.000	6.0	62	20	16	36	47.23	45.18	43.12	41.07
20095	.1220	3.100	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20105	.1248	3.170	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20115	.1260	3.200	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20125	.1280	3.250	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20135	.1299	3.300	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20145	.1339	3.400	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20155	.1378	3.500	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20165	.1417	3.600	6.0	62	20	15	36	47.23	45.18	43.12	41.07
20175	.1457	3.700	6.0	62	20	14	36	47.23	45.18	43.12	41.07
20185	.1476	3.750	6.0	62	20	14	36	47.23	45.18	43.12	41.07
20195	.1496	3.800	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20205	.1535	3.900	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20215	.1575	4.000	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20225	.1614	4.100	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20235	.1654	4.200	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20245	.1673	4.250	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20255	.1693	4.300	6.0	66	24	18	36	47.23	45.18	43.12	41.07
20265	.1732	4.400	6.0	66	24	17	36	47.23	45.18	43.12	41.07
20275	.1772	4.500	6.0	66	24	17	36	47.23	45.18	43.12	41.07
20285	.1811	4.600	6.0	66	24	17	36	47.23	45.18	43.12	41.07
20295	.1831	4.650	6.0	66	24	17	36	47.23	45.18	43.12	41.07
20305	.1850	4.700	6.0	66	24	17	36	47.23	45.18	43.12	41.07
20315	.1870	4.750	6.0	66	24	17	36	47.23	45.18	43.12	41.07
20325	.1890	4.800	6.0	66	28	21	36	47.23	45.18	43.12	41.07
20335	.1929	4.900	6.0	66	28	21	36	47.23	45.18	43.12	41.07
20345	.1969	5.000	6.0	66	28	21	36	47.23	45.18	43.12	41.07
20355	.2008	5.100	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20365	.2027	5.150	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20375	.2047	5.200	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20385	.2087	5.300	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20395	.2165	5.500	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20405	.2185	5.550	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20408	.2205	5.600	6.0	66	28	20	36	47.23	45.18	43.12	41.07
20412	.2244	5.700	6.0	66	28	19	36	47.23	45.18	43.12	41.07
20415	.2283	5.800	6.0	66	28	19	36	47.23	45.18	43.12	41.07
20425	.2323	5.900	6.0	66	28	19	36	47.23	45.18	43.12	41.07
20435	.2342	5.950	6.0	66	28	19	36	47.23	45.18	43.12	41.07

continued →

Series 1580HD (continued)

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

EDP#	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	l_5 Max Drill Depth	l_4 Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric									
20445	.2362	6.000	6.0	66	28	19	36	47.23	45.18	43.12	41.07
20448	.2402	6.100	8.0	79	34	25	36	64.98	62.15	59.33	56.50
20452	.2441	6.200	8.0	79	34	25	36	64.98	62.15	59.33	56.50
20454	.2480	6.300	8.0	79	34	25	36	64.98	62.15	59.33	56.50
20455	.2500	6.350	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20462	.2520	6.400	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20465	.2559	6.500	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20468	.2571	6.530	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20472	.2598	6.600	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20473	.2638	6.700	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20475	.2657	6.750	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20485	.2677	6.800	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20495	.2717	6.900	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20505	.2756	7.000	8.0	79	34	24	36	64.98	62.15	59.33	56.50
20515	.2795	7.100	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20525	.2815	7.150	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20535	.2835	7.200	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20542	.2874	7.300	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20545	.2913	7.400	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20555	.2953	7.500	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20565	.2972	7.550	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20575	.2992	7.600	8.0	79	41	30	36	64.98	62.15	59.33	56.50
20585	.3031	7.700	8.0	79	41	29	36	64.98	62.15	59.33	56.50
20595	.3071	7.800	8.0	79	41	29	36	64.98	62.15	59.33	56.50
20605	.3130	7.950	8.0	79	41	29	36	64.98	62.15	59.33	56.50
20615	.3150	8.000	8.0	79	41	29	36	64.98	62.15	59.33	56.50
20622	.3189	8.100	10.0	89	47	35	40	90.40	86.47	82.54	78.61
20625	.3228	8.200	10.0	89	47	35	40	90.40	86.47	82.54	78.61
20635	.3268	8.300	10.0	89	47	35	40	90.40	86.47	82.54	78.61
20645	.3287	8.350	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20652	.3307	8.400	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20655	.3346	8.500	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20665	.3386	8.600	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20675	.3425	8.700	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20685	.3445	8.750	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20695	.3465	8.800	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20705	.3504	8.900	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20715	.3543	9.000	10.0	89	47	34	40	90.40	86.47	82.54	78.61
20725	.3583	9.100	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20735	.3602	9.150	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20745	.3622	9.200	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20755	.3661	9.300	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20762	.3701	9.400	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20765	.3740	9.500	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20775	.3760	9.550	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20778	.3780	9.600	10.0	89	47	33	40	90.40	86.47	82.54	78.61
20782	.3819	9.700	10.0	89	47	32	40	90.40	86.47	82.54	78.61
20785	.3858	9.800	10.0	89	47	32	40	90.40	86.47	82.54	78.61
20795	.3898	9.900	10.0	89	47	32	40	90.40	86.47	82.54	78.61
20805	.3937	10.000	10.0	89	47	32	40	90.40	86.47	82.54	78.61
20812	.3976	10.100	12.0	102	55	40	45	117.61	112.50	107.38	102.27
20815	.4016	10.200	12.0	102	55	40	45	117.61	112.50	107.38	102.27
20825	.4055	10.300	12.0	102	55	40	45	117.61	112.50	107.38	102.27
20835	.4134	10.500	12.0	102	55	39	45	117.61	112.50	107.38	102.27
20842	.4173	10.600	12.0	102	55	39	45	117.61	112.50	107.38	102.27
20845	.4213	10.700	12.0	102	55	39	45	117.61	112.50	107.38	102.27
20855	.4252	10.800	12.0	102	55	39	45	117.61	112.50	107.38	102.27

EDP#	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	l_5 Max Drill Depth	l_4 Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric									
20865	.4331	11.000	12.0	102	55	38	45	117.61	112.50	107.38	102.27
20875	.4370	11.100	12.0	102	55	38	45	117.61	112.50	107.38	102.27
20885	.4409	11.200	12.0	102	55	38	45	117.61	112.50	107.38	102.27
20892	.4488	11.400	12.0	102	55	38	45	117.61	112.50	107.38	102.27
20895	.4528	11.500	12.0	102	55	38	45	117.61	112.50	107.38	102.27
20905	.4606	11.700	12.0	102	55	37	45	117.61	112.50	107.38	102.27
20915	.4685	11.900	12.0	102	55	37	45	117.61	112.50	107.38	102.27
20925	.4724	12.000	12.0	102	55	37	45	117.61	112.50	107.38	102.27
20935	.4764	12.100	14.0	107	60	42	45	147.50	141.09	134.67	128.26
20941	.4803	12.200	14.0	107	60	42	45	147.50	141.09	134.67	128.26
20945	.4842	12.300	14.0	107	60	42	45	147.50	141.09	134.67	128.26
20955	.4921	12.500	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20961	.4961	12.600	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20965	.5000	12.700	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20975	.5039	12.800	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20978	.5051	12.830	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20981	.5079	12.900	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20982	.5098	12.950	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20985	.5118	13.000	14.0	107	60	41	45	147.50	141.09	134.67	128.26
20995	.5157	13.100	14.0	107	60	40	45	147.50	141.09	134.67	128.26
20998	.5236	13.300	14.0	107	60	40	45	147.50	141.09	134.67	128.26
21005	.5315	13.500	14.0	107	60	40	45	147.50	141.09	134.67	128.26
21015	.5394	13.700	14.0	107	60	39	45	147.50	141.09	134.67	128.26
21025	.5433	13.800	14.0	107	60	39	45	147.50	141.09	134.67	128.26
21035	.5512	14.000	14.0	107	60	39	45	147.50	141.09	134.67	128.26
21045	.5551	14.100	16.0	115	65	44	48	175.32	167.70	160.07	152.45
21053	.5591	14.200	16.0	115	65	44	48	175.32	167.70	160.07	152.45
21055	.5610	14.250	16.0	115	65	44	48	175.32	167.70	160.07	152.45
21065	.5630	14.300	16.0	115	65	44	48	175.32	167.70	160.07	152.45
21075	.5709	14.500	16.0	115	65	43	48	175.32	167.70	160.07	152.45
21085	.5787	14.700	16.0	115	65	43	48	175.32	167.70	160.07	152.45
21105	.5906	15.000	16.0	115	65	43	48	175.32	167.70	160.07	152.45
21115	.5945	15.100	16.0	115	65	42	48	175.32	167.70	160.07	152.45
21125	.6102	15.500	16.0	115	65	42	48	175.32	167.70	160.07	152.45
21135	.6181	15.700	16.0	115	65	41	48	175.32	167.70	160.07	152.45
21145	.6220	15.800	16.0	115	65	41	48	175.32	167.70	160.07	152.45
21155	.6299	16.000	16.0	115	65	41	48	175.32	167.70	160.07	152.45
21159	.6331	16.080	18.0	123	73	49	48	232.70	222.59	212.47	202.35
21175	.6496	16.500	18.0	123	73	48	48	232.70	222.59	212.47	202.35
21185	.6555	16.650	18.0	123	73	48	48	232.70	222.59	212.47	202.35
21195	.6693	17.000	18.0	123	73	48	48	232.70	222.59	212.47	202.35
21215	.6870	17.450	18.0	123	73	47	48	232.70	222.59	212.47	202.35
21225	.6890	17.500	18.0	123	73	47	48	232.70	222.59	212.47	202.35
21235	.7027	17.850	18.0	123	73	46	48	232.70	222.59	212.47	202.35
21245	.7087	18.000	18.0	123	73	46	48	232.70	222.59	212.47	202.35
21255	.7185	18.250	20.0	131	79	52	50	318.68	304.82	290.97	277.11
21265	.7283	18.500	20.0	131	79	51	50	318.68	304.82	290.97	277.11
21275	.7342	18.650	20.0	131	79	51	50	318.68	304.82	290.97	277.11
21295	.7500	19.050	20.0	131	79	50	50	318.68	304.82	290.97	277.11
21304	.7598	19.300	20.0	131	79	50	50	318.68	304.82	290.97	277.11
21315	.7677	19.500	20.0	131	79	50	50	318.68	304.82	290.97	277.11
21325	.7815	19.850	20.0	131	79	49	50	318.68	304.82	290.97	277.11
21335	.7874	20.000	20.0	131	79	49	50	318.68	304.82	290.97	277.11