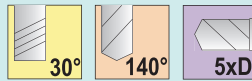


d	+0.000" -0.005" (+0.000 -0.127mm)
l_1	+0.125" -0.125" (+3.175 -3.175mm)
l_2	+0.125" -0.125" (+3.175 -3.175mm)

.1575" - .3150"
(4.00mm - 8.00mm)



ALUMASTAR Coated

High performance solid submicron grain carbide drill

Designed for drilling aluminum and other soft materials

No spot drilling required

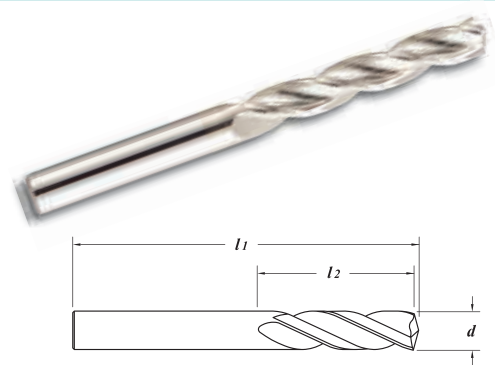
Unique point geometry and coating for higher speeds and feeds

Up to 5x longer tool life than Zrn coated drills

High performance drill point

Live tooling recommended on lathe processes

Shank tolerance: -.0001" -.0004" (-.0025 / -.0100mm)



EDP#	d † Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal	Metric						
70166	.1575	4.00	65	24	39.25	37.54	35.84	34.13
70191	.1772	4.50	65	25	41.46	39.67	37.86	36.06
70211	.1875	3/16"	4.76	2-3/4"	42.57	40.72	38.86	37.01
70216	.1890	#12	4.80	2-3/4"	44.14	42.21	40.30	38.38
70221	.1910	#11	4.85	2-3/4"	44.41	42.47	40.55	38.62
70226	.1935	#10	4.91	2-3/4"	44.70	42.75	40.81	38.86
70231	.1969	5.00	75	32	45.24	43.27	41.31	39.34
70236	.1990	#8	5.05	3"	45.46	43.48	41.51	39.53
70241	.2010	#7	5.10	3"	45.64	43.65	41.66	39.69
70246	.2031	13/64"	5.16	3"	45.96	43.96	41.96	39.97
70251	.2040	#6	5.18	3"	46.27	44.26	42.24	40.24
70256	.2055	#5	5.22	3"	46.57	44.54	42.53	40.50
70261	.2090	#4	5.31	3"	46.85	44.81	42.78	40.74
70266	.2130	#3	5.41	3"	47.14	45.09	43.05	41.00
70271	.2165	5.50	75	35	47.42	45.36	43.30	41.24
70276	.2188	7/32"	5.56	3"	47.70	45.64	43.56	41.49
70281	.2210	#2	5.61	3"	48.66	46.55	44.43	42.32
70286	.2280	#1	5.79	3"	48.89	46.77	44.64	42.52
70296	.2344	15/64"	5.95	3-1/4"	49.89	47.72	45.55	43.38
70301	.2362	6.00	82	38	50.02	47.85	45.68	43.50
70306	.2380	B	6.04	3-1/4"	50.16	47.98	45.80	43.62
70311	.2420	C	6.15	3-1/4"	50.48	48.29	46.09	43.90
70316	.2460	D	6.25	3-1/4"	50.79	48.59	46.37	44.17
70321	.2500	1/4" / E	6.35	3-1/4"	51.05	48.84	46.61	44.40
70326	.2559	6.50	82	41	54.48	52.10	49.74	47.37
70331	.2570	F	6.53	3-1/4"	55.31	52.90	50.50	48.09
70336	.2610	G	6.63	3-1/2"	56.15	53.71	51.27	48.83
70341	.2656	17/64"	6.75	3-1/2"	56.98	54.51	52.03	49.55
70346	.2660	H	6.76	3-1/2"	57.86	55.34	52.82	50.30
70351	.2720	I	6.91	3-1/2"	58.68	56.13	53.57	51.02
70356	.2756	7.00	88	43	59.50	56.91	54.33	51.74
70361	.2770	J	7.03	3-1/2"	60.35	57.73	55.10	52.48
70371	.2812	9/32"	7.14	3-1/2"	62.05	59.35	56.65	53.96
70376	.2900	L	7.37	3-1/2"	62.83	60.09	57.37	54.63
70381	.2953	7.50	95	44	63.65	60.88	58.12	55.35
70386	.2969	19/64"	7.54	3-3/4"	64.20	61.41	58.61	55.83
70391	.3020	N	7.67	3-3/4"	66.53	63.64	60.75	57.86
70396	.3125	5/16"	7.94	3-3/4"	66.72	63.81	60.91	58.01
70401	.3150	8.00	95	48	70.41	67.35	64.28	61.22

1180 - 3 Flute (continued)

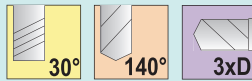
.3160" - .6299"
(8.03mm - 16.00mm)

HIGH PERFORMANCE
DRILLS

EDP#	d^+ Diameter			l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal		Metric						
70406	.3160	O	8.03	3-3/4"	1-7/8"	70.41	67.35	64.28	61.22
70411	.3230	P	8.20	3-3/4"	2-3/32"	70.64	67.57	64.49	61.42
70416	.3281	21/64"	8.33	4"	2-3/32"	71.23	68.13	65.03	61.94
70421	.3320	Q	8.43	4"	2-3/32"	72.54	69.39	66.23	63.08
70426	.3346		8.50	100	53	73.03	69.86	66.67	63.50
70431	.3390	R	8.61	4"	2-3/32"	74.86	71.60	68.35	65.09
70436	.3438	11/32"	8.73	4"	2-3/16"	77.29	73.93	70.57	67.22
70441	.3480	S	8.84	4"	2-3/16"	81.75	78.20	74.64	71.09
70446	.3543		9.00	100	55	82.20	78.62	75.06	71.48
70451	.3580	T	9.09	4-1/4"	2-9/32"	86.60	82.84	79.07	75.31
70456	.3594	23/64"	9.13	4-1/4"	2-9/32"	87.07	83.28	79.50	75.71
70461	.3680	U	9.35	4-1/4"	2-9/32"	95.15	91.01	86.87	82.74
70466	.3740		9.50	108	58	95.99	91.82	87.64	83.47
70471	.3750	3/8"	9.52	4-1/4"	2-3/8"	96.87	92.65	88.44	84.23
70476	.3770	V	9.57	4-1/4"	2-3/8"	99.42	95.10	90.78	86.46
70481	.3860	W	9.80	4-1/2"	2-3/8"	101.02	96.63	92.23	87.84
70486	.3906	25/64"	9.92	4-1/2"	2-3/8"	102.14	97.70	93.26	88.82
70491	.3937		10.00	114	60	104.92	100.35	95.79	91.23
70496	.3970	X	10.08	4-1/2"	2-1/2"	107.11	102.45	97.79	93.14
70501	.4040	Y	10.26	4-1/2"	2-9/16"	110.06	105.28	100.50	95.71
70506	.4062	13/32"	10.32	4-1/2"	2-9/16"	110.93	106.10	101.28	96.46
70511	.4134		10.50	114	67	111.86	107.00	102.14	97.27
70516	.4219	27/64"	10.72	4-1/2"	2-11/16"	112.80	107.89	102.99	98.08
70521	.4331		11.00	114	68	120.34	115.11	109.88	104.64
70526	.4375	7/16"	11.11	4-3/4"	2-13/16"	120.79	115.53	110.28	105.03
70531	.4528		11.50	120	70	128.44	122.86	117.27	111.69
70536	.4531	29/64"	11.51	4-3/4"	2-7/8"	128.44	122.86	117.27	111.69
70541	.4688	15/32"	11.91	4-3/4"	2-7/8"	134.43	128.59	122.74	116.90
70546	.4724		12.00	120	73	134.79	128.93	123.07	117.21
70551	.4844	31/64"	12.30	5-5/16"	3"	137.19	131.22	125.26	119.29
70556	.4921		12.50	135	75	138.70	132.67	126.64	120.61
70561	.5000	1/2"	12.70	5-3/8"	3-1/16"	138.96	132.92	126.88	120.84
70566	.5118		13.00	136	78	156.41	149.60	142.80	136.00
70571	.5156	33/64"	13.10	5-3/8"	3-1/8"	159.75	152.81	145.86	138.91
70576	.5312	17/32"	13.49	5-11/16"	3-5/16"	163.20	156.10	149.00	141.91
70581	.5469	35/64"	13.89	5-13/16"	3-3/8"	169.84	162.46	155.07	147.69
70586	.5512		14.00	148	86	173.21	165.68	158.15	150.62
70591	.5625	9/16"	14.29	5-15/16"	3-1/2"	186.19	178.10	170.00	161.91
70596	.5781	37/64"	14.68	6"	3-1/2"	192.54	184.16	175.79	167.42
70601	.5906		15.00	152	90	195.88	187.37	178.85	170.33
70606	.5938	19/32"	15.08	6"	3-9/16"	196.83	188.27	179.71	171.15
70611	.6094	39/64"	15.48	6-3/16"	3-11/16"	213.36	204.08	194.80	185.53
70616	.6250	5/8"	15.87	6-5/16"	3-3/4"	215.22	205.86	196.50	187.15
70621	.6299		16.00	160	95	219.72	210.16	200.62	191.06

d	+0.000" -0.005" (+0.000 -0.127mm)	
l ₁	≤ 1/8"	+0.125" -0.062" (+3.175 -1.588mm)
	> 1/8"	+0.125" -0.125" (+3.175 -3.175mm)
l ₂	≤ 1/8"	+0.125" -0.062" (+3.175 -1.588mm)
	> 1/8"	+0.125" -0.125" (+3.175 -3.175mm)

.1181" - .2280"
(3.00mm - 5.79mm)



Balinit® HARDLUBE Coated

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

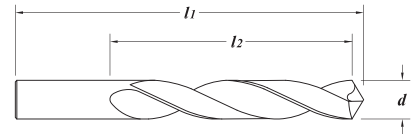
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys, cobalt-based alloys, stainless steels and tool steels

Live tooling recommended on lathe processes

Shank tolerance: -.0001" -.0004" (-.0025 / -.0100mm)



EDP#	d †		l ₁ Overall Length	l ₂ Flute Length	1-11	12-24	25-49	50-100
	Decimal	Diameter Metric						
20301	.1181		3.00	46	16	28.76	27.51	26.26
20306	.1200	#31	3.05	1-13/16"	5/8"	29.04	27.78	26.51
20311	.1250	1/8"	3.17	1-15/16"	11/16"	29.31	28.03	26.76
20316	.1285	#30	3.26	1-15/16"	11/16"	29.56	28.27	26.99
20321	.1360	#29	3.45	2-1/16"	3/4"	29.85	28.55	27.25
20326	.1378		3.50	52	19	30.14	28.83	27.52
20331	.1405	#28	3.57	2-1/16"	3/4"	30.41	29.09	27.77
20336	.1406	9/64"	3.57	2-1/16"	3/4"	30.68	29.35	28.01
20341	.1440	#27	3.67	2-1/16"	3/4"	30.95	29.61	28.26
20346	.1470	#26	3.73	2-3/16"	13/16"	31.20	29.85	28.49
20351	.1495	#25	3.80	2-3/16"	13/16"	31.52	30.15	28.78
20356	.1520	#24	3.86	2-3/16"	13/16"	31.78	30.40	29.02
20361	.1540	#23	3.91	2-3/16"	13/16"	32.05	30.66	29.27
20366	.1562	5/32"	3.97	2-3/16"	13/16"	32.30	30.90	29.49
20371	.1570	#22	3.99	2-3/16"	13/16"	32.60	31.19	29.76
20376	.1575		4.00	56	21	32.85	31.43	29.99
20381	.1590	#21	4.04	2-3/16"	13/16"	33.16	31.71	30.27
20386	.1610	#20	4.09	2-3/16"	13/16"	33.43	31.97	30.52
20391	.1660	#19	4.22	2-9/32"	15/16"	33.72	32.25	30.78
20396	.1695	#18	4.30	2-9/32"	15/16"	33.98	32.50	31.02
20401	.1719	11/64"	4.37	2-9/32"	15/16"	34.27	32.78	31.28
20406	.1730	#17	4.39	2-9/32"	15/16"	34.54	33.04	31.53
20411	.1770	#16	4.49	2-9/32"	15/16"	34.78	33.27	31.75
20416	.1772		4.50	58	24	35.08	33.55	32.03
20421	.1800	#15	4.57	2-9/32"	15/16"	35.32	33.78	32.25
20426	.1820	#14	4.62	2-9/32"	15/16"	35.65	34.10	32.55
20431	.1850	#13	4.70	2-9/32"	15/16"	35.90	34.34	32.78
20436	.1875	3/16"	4.76	2-13/32"	1"	36.19	34.62	33.04
20441	.1890	#12	4.80	2-13/32"	1"	36.45	34.87	33.28
20446	.1910	#11	4.85	2-13/32"	1"	36.78	35.18	33.58
20451	.1935	#10	4.91	2-13/32"	1"	37.00	35.39	33.79
20456	.1960	#9	4.98	2-13/32"	1"	37.28	35.66	34.04
20461	.1969		5.00	61	25	37.48	35.85	34.23
20466	.1990	#8	5.05	2-13/32"	1"	37.82	36.18	34.54
20471	.2010	#7	5.10	2-13/32"	1"	37.94	36.29	34.64
20476	.2031	13/64"	5.16	2-13/32"	1"	38.20	36.54	34.88
20481	.2040	#6	5.18	2-13/32"	1"	38.45	36.77	35.11
20486	.2055	#5	5.22	2-13/32"	1"	38.73	37.04	35.36
20491	.2090	#4	5.31	2-13/32"	1"	38.98	37.28	35.59
20496	.2130	#3	5.41	2-5/8"	1-3/32"	39.23	37.52	35.82
20501	.2165		5.50	67	28	39.48	37.76	36.05
20506	.2188	7/32"	5.56	2-5/8"	1-3/32"	39.81	38.08	36.35
20511	.2210	#2	5.61	2-5/8"	1-3/32"	40.10	38.36	36.62
20516	.2280	#1	5.79	2-5/8"	1-3/32"	40.40	38.65	36.89

1580H - 2 Flute (continued)

.2340" - .5000"
(5.94mm - 12.70mm)

HIGH PERFORMANCE
DRILLS

EDP#	$d^{\dagger}$		Metric	l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal	Diameter							
20521	.2340	A	5.94	2-5/8"	1-3/32"	40.67	38.91	37.14	35.37
20526	.2344	15/64"	5.95	2-5/8"	1-3/32"	40.99	39.21	37.42	35.64
20531	.2362		6.00	67	28	41.28	39.48	37.69	35.89
20536	.2380	B	6.04	2-3/4"	1-7/32"	41.55	39.74	37.94	36.13
20541	.2420	C	6.15	2-3/4"	1-7/32"	41.88	40.06	38.24	36.42
20546	.2460	D	6.25	2-3/4"	1-7/32"	42.12	40.29	38.46	36.63
20551	.2500	1/4" / E	6.35	2-3/4"	1-7/32"	42.48	40.63	38.79	36.94
20556	.2559		6.50	70	31	43.16	41.29	39.41	37.53
20561	.2570	F	6.53	2-3/4"	1-7/32"	43.84	41.93	40.02	38.12
20566	.2610	G	6.63	2-3/4"	1-7/32"	44.50	42.57	40.63	38.70
20571	.2656	17/64"	6.75	2-15/16"	1-11/32"	45.19	43.22	41.26	39.29
20576	.2660	H	6.76	2-15/16"	1-11/32"	45.85	43.86	41.87	39.87
20581	.2720	I	6.91	2-15/16"	1-11/32"	46.53	44.50	42.48	40.46
20586	.2756		7.00	75	34	47.21	45.16	43.10	41.05
20591	.2770	J	7.03	2-15/16"	1-11/32"	47.86	45.78	43.70	41.62
20596	.2810	K	7.14	2-15/16"	1-11/32"	48.56	46.45	44.34	42.22
20601	.2812	9/32"	7.14	2-15/16"	1-11/32"	49.22	47.08	44.94	42.81
20606	.2900	L	7.37	2-15/16"	1-11/32"	49.90	47.73	45.56	43.39
20611	.2950	M	7.49	2-15/16"	1-11/32"	50.87	48.65	46.45	44.23
20616	.2953		7.50	75	34	50.87	48.65	46.45	44.23
20621	.2969	19/64"	7.54	3-3/32"	1-15/32"	51.31	49.08	46.85	44.62
20626	.3020	N	7.67	3-3/32"	1-15/32"	53.61	51.28	48.95	46.62
20631	.3125	5/16"	7.94	3-3/32"	1-15/32"	53.80	51.46	49.12	46.78
20636	.3150		8.00	79	37	57.10	54.61	52.14	49.65
20641	.3160	O	8.03	3-3/32"	1-15/32"	57.10	54.61	52.14	49.65
20646	.3230	P	8.20	3-3/32"	1-15/32"	57.51	55.02	52.51	50.01
20651	.3281	21/64"	8.33	3-3/32"	1-15/32"	58.58	56.04	53.49	50.94
20656	.3320	Q	8.43	3-3/32"	1-15/32"	59.63	57.04	54.44	51.85
20661	.3346		8.50	79	37	59.88	57.28	54.67	52.07
20666	.3390	R	8.61	3-5/16"	1-9/16"	61.48	58.81	56.14	53.47
20671	.3438	11/32"	8.73	3-5/16"	1-9/16"	62.84	60.10	57.38	54.64
20676	.3480	S	8.84	3-5/16"	1-9/16"	64.92	62.10	59.27	56.45
20681	.3543		9.00	84	40	66.57	63.68	60.78	57.89
20686	.3580	T	9.09	3-5/16"	1-9/16"	69.19	66.19	63.17	60.16
20691	.3594	23/64"	9.13	3-5/16"	1-9/16"	69.61	66.58	63.55	60.53
20696	.3680	U	9.35	3-5/16"	1-9/16"	73.23	70.04	66.86	63.68
20701	.3740		9.50	84	40	73.83	70.62	67.41	64.20
20706	.3750	3/8"	9.52	3-1/2"	1-11/16"	74.29	71.05	67.83	64.59
20711	.3770	V	9.57	3-1/2"	1-11/16"	77.13	73.78	70.42	67.07
20716	.3860	W	9.80	3-1/2"	1-11/16"	78.48	75.07	71.66	68.24
20721	.3906	25/64"	9.92	3-1/2"	1-11/16"	79.47	76.01	72.56	69.10
20726	.3937		10.00	89	43	81.87	78.31	74.74	71.19
20731	.3970	X	10.08	3-1/2"	1-11/16"	83.88	80.23	76.59	72.94
20736	.4040	Y	10.26	3-1/2"	1-11/16"	84.45	80.78	77.11	73.43
20741	.4062	13/32"	10.32	3-1/2"	1-11/16"	87.05	83.26	79.48	75.69
20746	.4130	Z	10.49	3-1/2"	1-11/16"	87.85	84.03	80.20	76.39
20751	.4134		10.50	89	43	87.85	84.03	80.20	76.39
20756	.4219	27/64"	10.72	3-3/4"	1-13/16"	88.67	84.81	80.96	77.11
20761	.4331		11.00	95	46	95.19	91.05	86.91	82.77
20766	.4375	7/16"	11.11	3-3/4"	1-13/16"	95.19	91.05	86.91	82.77
20771	.4528		11.50	95	46	102.17	97.73	93.29	88.85
20776	.4531	29/64"	11.51	3-3/4"	1-13/16"	102.17	97.73	93.29	88.85
20781	.4688	15/32"	11.91	4"	1-15/16"	107.35	102.68	98.01	93.35
20786	.4724		12.00	102	49	107.67	102.99	98.31	93.63
20791	.4844	31/64"	12.30	4"	1-15/16"	108.41	103.70	98.99	94.27
20796	.4921		12.50	102	49	109.49	104.73	99.96	95.21
20801	.5000	1/2"	12.70	4"	1-15/16"	110.19	105.39	100.61	95.82

continued →

1580H - 2 Flute (continued)

.5118" - .6299"
(13.00mm - 16.00mm)

EDP#	$d^{\dagger}$ Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal	Metric						
20806	.5118	13.00	107	53	122.31	117.00	111.68	106.36
20811	.5156	33/64"	13.10	4-7/32"	125.18	119.75	114.30	108.86
20816	.5312	17/32"	13.49	4-7/32"	128.08	122.51	116.94	111.37
20821	.5315	13.50	110	56	130.97	125.27	119.58	113.88
20826	.5469	35/64"	13.89	4-5/16"	133.84	128.01	122.20	116.38
20831	.5512	14.00	110	56	136.74	130.79	124.85	118.90
20836	.5625	9/16"	14.29	4-9/16"	147.75	141.33	134.91	128.48
20841	.5709	14.50	116	63	150.53	143.99	137.44	130.89
20846	.5781	37/64"	14.68	4-15/16"	153.22	146.56	139.90	133.23
20851	.5906	15.00	125	65	156.04	149.26	142.47	135.69
20856	.5938	19/32"	15.08	4-15/16"	156.89	150.07	143.25	136.43
20861	.6094	39/64"	15.48	5-1/16"	157.68	150.83	143.98	137.11
20866	.6102	15.50	129	71	158.51	151.61	144.73	137.83
20871	.6250	5/8"	15.87	5-1/4"	159.29	152.36	145.43	138.51
20876	.6299	16.00	133	79	163.13	156.04	148.95	141.86

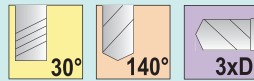


1580HD - 2 Flute

Technical information: page 208-209

3.00mm - 6.35mm
(.1181" - .2500")

**NEW
SERIES**



TOLERANCES

d_1	3mm - 6mm	+0.016 +0.004mm (+.00063" +.00015")
	> 6mm - 10mm	+0.021 +0.006mm (+.00082" +.00023")
	> 10mm - 18mm	+0.025 +0.007mm (+.00098" +.00027")
	> 18mm - 20mm	+0.029 +0.008mm (+.00114" +.00031")
	6mm	+0.000 -0.008mm (+.00000" -0.00030")
d_2	8mm - 10mm	+0.000 -0.009mm (+.00000" -0.00035")
	12mm - 18mm	+0.000 -0.011mm (+.00000" -0.00040")
	20mm	+0.000 -0.013mm (+.00000" -0.00050")

Balinit® HELICA Coated

High performance solid submicron grain carbide drill with reinforced shank

Utilizes DIN standard 6537

Up to 50% faster than standard carbide drills

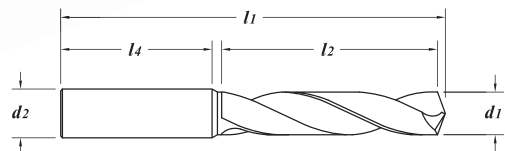
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys, cobalt-based alloys, stainless steels and tool steels

Balinit® HELICA is a multi-layer AlCr-based coating designed exclusively for high performance drilling

Live tooling recommended on lathe processes



EDP#	d_1 Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	l_4 Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
20085	.1181"	3.00	6.0	62	20	36	50.86	48.64	46.44	44.22
20095	.1220"	3.10	6.0	62	20	36	50.86	48.64	46.44	44.22
20105	.1248"	3.17	6.0	62	20	36	50.86	48.64	46.44	44.22
20115	.1260"	3.20	6.0	62	20	36	50.86	48.64	46.44	44.22
20125	.1280"	3.25	6.0	62	20	36	50.86	48.64	46.44	44.22
20135	.1299"	3.30	6.0	62	20	36	50.86	48.64	46.44	44.22
20145	.1339"	3.40	6.0	62	20	36	50.86	48.64	46.44	44.22
20155	.1378"	3.50	6.0	62	20	36	50.21	48.03	45.84	43.66
20165	.1417"	3.60	6.0	62	20	36	50.21	48.03	45.84	43.66
20175	.1457"	3.70	6.0	62	20	36	50.21	48.03	45.84	43.66
20185	.1476"	3.75	6.0	62	20	36	50.21	48.03	45.84	43.66
20195	.1496"	3.80	6.0	66	24	36	50.21	48.03	45.84	43.66
20205	.1535"	3.90	6.0	66	24	36	50.21	48.03	45.84	43.66
20215	.1575"	4.00	6.0	66	24	36	49.58	47.42	45.26	43.11
20225	.1614"	4.10	6.0	66	24	36	49.58	47.42	45.26	43.11
20235	.1654"	4.20	6.0	66	24	36	49.58	47.42	45.26	43.11
20245	.1673"	4.25	6.0	66	24	36	49.58	47.42	45.26	43.11
20255	.1693"	4.30	6.0	66	24	36	49.58	47.42	45.26	43.11
20265	.1732"	4.40	6.0	66	24	36	49.58	47.42	45.26	43.11
20275	.1772"	4.50	6.0	66	24	36	48.93	46.80	44.68	42.55
20285	.1811"	4.60	6.0	66	24	36	48.93	46.80	44.68	42.55
20295	.1831"	4.65	6.0	66	24	36	48.93	46.80	44.68	42.55
20305	.1850"	4.70	6.0	66	24	36	48.93	46.80	44.68	42.55
20315	.1870"	4.75	6.0	66	24	36	48.93	46.80	44.68	42.55
20325	.1890"	4.80	6.0	66	28	36	48.93	46.80	44.68	42.55
20335	.1929"	4.90	6.0	66	28	36	48.93	46.80	44.68	42.55
20345	.1969"	5.00	6.0	66	28	36	48.30	46.20	44.10	42.00
20355	.2008"	5.10	6.0	66	28	36	48.30	46.20	44.10	42.00
20365	.2027"	5.15	6.0	66	28	36	48.30	46.20	44.10	42.00
20375	.2047"	5.20	6.0	66	28	36	48.30	46.20	44.10	42.00
20385	.2087"	5.30	6.0	66	28	36	48.30	46.20	44.10	42.00
20395	.2165"	5.50	6.0	66	28	36	47.65	45.58	43.51	41.43
20405	.2185"	5.55	6.0	66	28	36	47.65	45.58	43.51	41.43
20408	.2205"	5.60	6.0	66	28	36	47.65	45.58	43.51	41.43
20412	.2244"	5.70	6.0	66	28	36	47.65	45.58	43.51	41.43
20415	.2283"	5.80	6.0	66	28	36	47.65	45.58	43.51	41.43
20425	.2323"	5.90	6.0	66	28	36	47.65	45.58	43.51	41.43
20435	.2342"	5.95	6.0	66	28	36	47.65	45.58	43.51	41.43
20445	.2362"	6.00	6.0	66	28	36	47.02	44.97	42.93	40.88
20448	.2402"	6.10	8.0	79	34	36	67.25	64.32	61.40	58.48
20452	.2441"	6.20	8.0	79	34	36	67.25	64.32	61.40	58.48
20454	.2480"	6.30	8.0	79	34	36	67.25	64.32	61.40	58.48
20455	.2500"	6.35	8.0	79	34	36	67.25	64.32	61.40	58.48

continued →

1580HD - 2 Flute (continued)

6.40mm - 12.00mm
(.2520" - .4724")

EDP#	d1		d2	l1	l2	l4	1-11	12-24	25-49	50-100
	Decimal	Diameter Metric	Shank Diameter	Overall Length	Flute Length	Shank Length				
20462	.2520"	6.40	8.0	79	34	36	67.25	64.32	61.40	58.48
20465	.2559"	6.50	8.0	79	34	36	66.60	63.71	60.81	57.92
20468	.2571"	6.53	8.0	79	34	36	66.60	63.71	60.81	57.92
20472	.2598"	6.60	8.0	79	34	36	66.60	63.71	60.81	57.92
20473	.2638"	6.70	8.0	79	34	36	66.60	63.71	60.81	57.92
20475	.2657"	6.75	8.0	79	34	36	66.60	63.71	60.81	57.92
20485	.2677"	6.80	8.0	79	34	36	66.60	63.71	60.81	57.92
20495	.2717"	6.90	8.0	79	34	36	66.60	63.71	60.81	57.92
20505	.2756"	7.00	8.0	79	34	36	65.99	63.12	60.25	57.38
20515	.2795"	7.10	8.0	79	41	36	65.99	63.12	60.25	57.38
20525	.2815"	7.15	8.0	79	41	36	65.99	63.12	60.25	57.38
20535	.2835"	7.20	8.0	79	41	36	65.99	63.12	60.25	57.38
20542	.2874"	7.30	8.0	79	41	36	65.99	63.12	60.25	57.38
20545	.2913"	7.40	8.0	79	41	36	65.99	63.12	60.25	57.38
20555	.2953"	7.50	8.0	79	41	36	65.31	62.47	59.63	56.79
20565	.2972"	7.55	8.0	79	41	36	65.31	62.47	59.63	56.79
20575	.2992"	7.60	8.0	79	41	36	65.31	62.47	59.63	56.79
20585	.3031"	7.70	8.0	79	41	36	65.31	62.47	59.63	56.79
20595	.3071"	7.80	8.0	79	41	36	65.31	62.47	59.63	56.79
20605	.3130"	7.95	8.0	79	41	36	65.31	62.47	59.63	56.79
20615	.3150"	8.00	8.0	79	41	36	64.68	61.87	59.05	56.24
20622	.3189"	8.10	10.0	89	47	40	93.83	89.75	85.66	81.59
20625	.3228"	8.20	10.0	89	47	40	93.83	89.75	85.66	81.59
20635	.3268"	8.30	10.0	89	47	40	93.83	89.75	85.66	81.59
20645	.3287"	8.35	10.0	89	47	40	93.83	89.75	85.66	81.59
20652	.3307"	8.40	10.0	89	47	40	93.83	89.75	85.66	81.59
20655	.3346"	8.50	10.0	89	47	40	92.87	88.84	84.79	80.76
20665	.3386"	8.60	10.0	89	47	40	92.87	88.84	84.79	80.76
20675	.3425"	8.70	10.0	89	47	40	92.87	88.84	84.79	80.76
20685	.3445"	8.75	10.0	89	47	40	92.87	88.84	84.79	80.76
20695	.3465"	8.80	10.0	89	47	40	92.87	88.84	84.79	80.76
20705	.3504"	8.90	10.0	89	47	40	92.87	88.84	84.79	80.76
20715	.3543"	9.00	10.0	89	47	40	91.92	87.92	83.92	79.92
20725	.3583"	9.10	10.0	89	47	40	91.92	87.92	83.92	79.92
20735	.3602"	9.15	10.0	89	47	40	91.92	87.92	83.92	79.92
20745	.3622"	9.20	10.0	89	47	40	91.92	87.92	83.92	79.92
20755	.3661"	9.30	10.0	89	47	40	91.92	87.92	83.92	79.92
20762	.3701"	9.40	10.0	89	47	40	91.92	87.92	83.92	79.92
20765	.3740"	9.50	10.0	89	47	40	90.95	87.00	83.04	79.08
20775	.3760"	9.55	10.0	89	47	40	90.95	87.00	83.04	79.08
20778	.3780"	9.60	10.0	89	47	40	90.95	87.00	83.04	79.08
20782	.3819"	9.70	10.0	89	47	40	90.95	87.00	83.04	79.08
20785	.3858"	9.80	10.0	89	47	40	90.95	87.00	83.04	79.08
20795	.3898"	9.90	10.0	89	47	40	90.95	87.00	83.04	79.08
20805	.3937"	10.00	10.0	89	47	40	89.99	86.08	82.17	78.25
20812	.3976"	10.10	12.0	102	55	45	122.24	116.93	111.61	106.30
20815	.4016"	10.20	12.0	102	55	45	122.24	116.93	111.61	106.30
20825	.4055"	10.30	12.0	102	55	45	122.24	116.93	111.61	106.30
20835	.4134"	10.50	12.0	102	55	45	120.96	115.70	110.45	105.19
20842	.4173"	10.60	12.0	102	55	45	120.96	115.70	110.45	105.19
20845	.4213"	10.70	12.0	102	55	45	120.96	115.70	110.45	105.19
20855	.4252"	10.80	12.0	102	55	45	120.96	115.70	110.45	105.19
20865	.4331"	11.00	12.0	102	55	45	119.66	114.46	109.25	104.05
20875	.4370"	11.10	12.0	102	55	45	119.66	114.46	109.25	104.05
20885	.4409"	11.20	12.0	102	55	45	119.66	114.46	109.25	104.05
20892	.4488"	11.40	12.0	102	55	45	119.66	114.46	109.25	104.05
20895	.4528"	11.50	12.0	102	55	45	118.39	113.25	108.10	102.95
20905	.4606"	11.70	12.0	102	55	45	118.39	113.25	108.10	102.95
20915	.4685"	11.90	12.0	102	55	45	118.39	113.25	108.10	102.95
20925	.4724"	12.00	12.0	102	55	45	117.07	111.99	106.89	101.81

1580HD - 2 Flute (continued)

12.10mm - 20.00mm
(.4764" - .7874")

HIGH PERFORMANCE
DRILLS

EDP#	d1 Diameter		d2 Shank Diameter	l1 Overall Length	l2 Flute Length	l4 Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
20935	.4764"	12.10	14.0	107	60	45	151.98	145.37	138.76	132.15
20941	.4803"	12.20	14.0	107	60	45	151.98	145.37	138.76	132.15
20945	.4842"	12.30	14.0	107	60	45	151.98	145.37	138.76	132.15
20951	.4882"	12.40	14.0	107	60	45	151.98	145.37	138.76	132.15
20955	.4921"	12.50	14.0	107	60	45	150.68	144.12	137.57	131.02
20961	.4961"	12.60	14.0	107	60	45	150.68	144.12	137.57	131.02
20965	.5000"	12.70	14.0	107	60	45	150.68	144.12	137.57	131.02
20975	.5039"	12.80	14.0	107	60	45	150.68	144.12	137.57	131.02
20978	.5051"	12.83	14.0	107	60	45	150.68	144.12	137.57	131.02
20981	.5079"	12.90	14.0	107	60	45	150.68	144.12	137.57	131.02
20982	.5098"	12.95	14.0	107	60	45	150.68	144.12	137.57	131.02
20985	.5118"	13.00	14.0	107	60	45	149.40	142.90	136.41	129.91
20995	.5157"	13.10	14.0	107	60	45	149.40	142.90	136.41	129.91
20998	.5236"	13.30	14.0	107	60	45	149.40	142.90	136.41	129.91
21005	.5315"	13.50	14.0	107	60	45	148.10	141.66	135.22	128.78
21015	.5394"	13.70	14.0	107	60	45	148.10	141.66	135.22	128.78
21025	.5433"	13.80	14.0	107	60	45	148.10	141.66	135.22	128.78
21035	.5512"	14.00	14.0	107	60	45	146.82	140.43	134.05	127.67
21045	.5551"	14.10	16.0	115	65	48	179.64	171.83	164.02	156.21
21053	.5591"	14.20	16.0	115	65	48	179.64	171.83	164.02	156.21
21055	.5610"	14.25	16.0	115	65	48	179.64	171.83	164.02	156.21
21065	.5630"	14.30	16.0	115	65	48	179.64	171.83	164.02	156.21
21075	.5709"	14.50	16.0	115	65	48	178.34	170.58	162.83	155.07
21085	.5787"	14.70	16.0	115	65	48	178.34	170.58	162.83	155.07
21095	.5827"	14.80	16.0	115	65	48	178.34	170.58	162.83	155.07
21105	.5906"	15.00	16.0	115	65	48	177.06	169.36	161.67	153.96
21115	.5945"	15.10	16.0	115	65	48	177.06	169.36	161.67	153.96
21125	.6102"	15.50	16.0	115	65	48	175.79	168.15	160.50	152.86
21135	.6181"	15.70	16.0	115	65	48	175.79	168.15	160.50	152.86
21145	.6220"	15.80	16.0	115	65	48	175.79	168.15	160.50	152.86
21155	.6299"	16.00	16.0	115	65	48	174.50	166.91	159.33	151.75
21159	.6331"	16.08	18.0	123	73	48	241.88	231.37	220.84	210.33
21161	.6339"	16.10	18.0	123	73	48	241.88	231.37	220.84	210.33
21163	.6378"	16.20	18.0	123	73	48	241.88	231.37	220.84	210.33
21165	.6398"	16.25	18.0	123	73	48	241.88	231.37	220.84	210.33
21175	.6496"	16.50	18.0	123	73	48	239.34	228.92	218.52	208.11
21185	.6555"	16.65	18.0	123	73	48	239.34	228.92	218.52	208.11
21195	.6693"	17.00	18.0	123	73	48	236.71	226.42	216.13	205.84
21205	.6713"	17.05	18.0	123	73	48	236.71	226.42	216.13	205.84
21215	.6870"	17.45	18.0	123	73	48	236.71	226.42	216.13	205.84
21225	.6890"	17.50	18.0	123	73	48	234.20	224.02	213.83	203.65
21235	.7027"	17.85	18.0	123	73	48	234.20	224.02	213.83	203.65
21245	.7087"	18.00	18.0	123	73	48	231.63	221.56	211.48	201.42
21255	.7185"	18.25	20.0	131	79	50	327.45	313.22	298.98	284.74
21265	.7283"	18.50	20.0	131	79	50	324.91	310.78	296.65	282.53
21275	.7342"	18.65	20.0	131	79	50	324.91	310.78	296.65	282.53
21285	.7480"	19.00	20.0	131	79	50	322.34	308.32	294.31	280.29
21295	.7500"	19.05	20.0	131	79	50	322.34	308.32	294.31	280.29
21297	.7520"	19.10	20.0	131	79	50	322.34	308.32	294.31	280.29
21298	.7539"	19.15	20.0	131	79	50	322.34	308.32	294.31	280.29
21299	.7559"	19.20	20.0	131	79	50	322.34	308.32	294.31	280.29
21300	.7579"	19.25	20.0	131	79	50	322.34	308.32	294.31	280.29
21303	.7590"	19.28	20.0	131	79	50	322.34	308.32	294.31	280.29
21304	.7598"	19.30	20.0	131	79	50	322.34	308.32	294.31	280.29
21305	.7638"	19.40	20.0	131	79	50	322.34	308.32	294.31	280.29
21315	.7677"	19.50	20.0	131	79	50	319.79	305.88	291.98	278.08
21323	.7795"	19.80	20.0	131	79	50	319.79	305.88	291.98	278.08
21325	.7815"	19.85	20.0	131	79	50	319.79	305.88	291.98	278.08
21335	.7874"	20.00	20.0	131	79	50	317.20	303.41	289.62	275.83

1580KD - 2 Flute

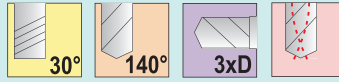
Technical information: page 208-209

TOLERANCES

d1	3mm - 6mm	+016 +004mm (+.00063" +.00015")
	> 6mm - 10mm	+021 +006mm (+.00082" +.00023")
	> 10mm - 18mm	+025 +007mm (+.00098" +.00027")
	> 18mm - 20mm	+029 +008mm (+.00114" +.00031")
	6mm	+000 -008mm (+.00000" -00030")
d2	8mm - 10mm	+000 -009mm (+.00000" -00035")
	12mm - 18mm	+000 -011mm (+.00000" -00040")
	20mm	+000 -013mm (+.00000" -00050")

4.00mm - 7.50mm
(.1575" - .2953")

**NEW
SERIES**



Balinit® HELICA Coated

High performance solid submicron grain carbide drill with reinforced shank

Utilizes DIN standard 6537

Up to 70% faster than standard carbide drills

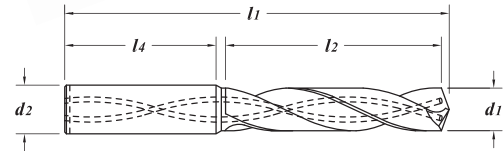
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys, cobalt-based alloys, stainless steels and tool steels

Balinit® HELICA is a multi-layer AlCr-based coating designed exclusively for high performance drilling

Live tooling recommended on lathe processes



EDP#	d1 Diameter		d2 Shank Diameter	l1 Overall Length	l2 Flute Length	l4 Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
28135	.1575"	4.00	6.0	66	24	36	62.85	60.11	57.39	54.65
28145	.1614"	4.10	6.0	66	24	36	62.85	60.11	57.39	54.65
28155	.1654"	4.20	6.0	66	24	36	62.85	60.11	57.39	54.65
28165	.1673"	4.25	6.0	66	24	36	62.85	60.11	57.39	54.65
28175	.1693"	4.30	6.0	66	24	36	62.85	60.11	57.39	54.65
28185	.1732"	4.40	6.0	66	24	36	62.85	60.11	57.39	54.65
28195	.1772"	4.50	6.0	66	24	36	62.20	59.50	56.79	54.09
28205	.1811"	4.60	6.0	66	24	36	62.20	59.50	56.79	54.09
28215	.1831"	4.65	6.0	66	24	36	62.20	59.50	56.79	54.09
28225	.1850"	4.70	6.0	66	24	36	62.20	59.50	56.79	54.09
28235	.1870"	4.75	6.0	66	24	36	62.20	59.50	56.79	54.09
28245	.1890"	4.80	6.0	66	28	36	62.20	59.50	56.79	54.09
28255	.1929"	4.90	6.0	66	28	36	62.20	59.50	56.79	54.09
28265	.1969"	5.00	6.0	66	28	36	61.57	58.90	56.21	53.54
28275	.2008"	5.10	6.0	66	28	36	61.57	58.90	56.21	53.54
28285	.2027"	5.15	6.0	66	28	36	61.57	58.90	56.21	53.54
28295	.2047"	5.20	6.0	66	28	36	61.57	58.90	56.21	53.54
28305	.2087"	5.30	6.0	66	28	36	61.57	58.90	56.21	53.54
28315	.2165"	5.50	6.0	66	28	36	60.92	58.27	55.63	52.98
28325	.2185"	5.55	6.0	66	28	36	60.92	58.27	55.63	52.98
28335	.2205"	5.60	6.0	66	28	36	60.92	58.27	55.63	52.98
28345	.2243"	5.70	6.0	66	28	36	60.92	58.27	55.63	52.98
28355	.2283"	5.80	6.0	66	28	36	60.92	58.27	55.63	52.98
28365	.2323"	5.90	6.0	66	28	36	60.92	58.27	55.63	52.98
28375	.2342"	5.95	6.0	66	28	36	60.92	58.27	55.63	52.98
28385	.2362"	6.00	6.0	66	28	36	60.29	57.67	55.05	52.43
28395	.2402"	6.10	8.0	79	34	36	86.57	82.80	79.04	75.28
28405	.2441"	6.20	8.0	79	34	36	86.57	82.80	79.04	75.28
28415	.2480"	6.30	8.0	79	34	36	86.57	82.80	79.04	75.28
28425	.2500"	6.35	8.0	79	34	36	86.57	82.80	79.04	75.28
28435	.2520"	6.40	8.0	79	34	36	86.57	82.80	79.04	75.28
28445	.2559"	6.50	8.0	79	34	36	85.92	82.19	78.46	74.71
28446	.2571"	6.53	8.0	79	34	36	85.92	82.19	78.46	74.71
28455	.2598"	6.60	8.0	79	34	36	85.92	82.19	78.46	74.71
28461	.2638"	6.70	8.0	79	34	36	85.92	82.19	78.46	74.71
28465	.2657"	6.75	8.0	79	34	36	85.92	82.19	78.46	74.71
28475	.2677"	6.80	8.0	79	34	36	85.92	82.19	78.46	74.71
28485	.2717"	6.90	8.0	79	34	36	85.92	82.19	78.46	74.71
28495	.2756"	7.00	8.0	79	34	36	85.30	81.59	77.89	74.17
28505	.2795"	7.10	8.0	79	41	36	85.30	81.59	77.89	74.17
28515	.2815"	7.15	8.0	79	41	36	85.30	81.59	77.89	74.17
28525	.2835"	7.20	8.0	79	41	36	85.30	81.59	77.89	74.17
28535	.2874"	7.30	8.0	79	41	36	85.30	81.59	77.89	74.17
28545	.2913"	7.40	8.0	79	41	36	85.30	81.59	77.89	74.17
28555	.2953"	7.50	8.0	79	41	36	84.62	80.94	77.26	73.59

1580KD - 2 Flute (continued)

7.55mm - 12.95mm
(.2972" - .5098")

HIGH PERFORMANCE
DRILLS

EDP#	<i>d1</i> Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>l4</i> Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
28565	.2972"	7.55	8.0	79	41	36	84.62	80.94	77.26	73.59
28575	.2992"	7.60	8.0	79	41	36	84.62	80.94	77.26	73.59
28585	.3031"	7.70	8.0	79	41	36	84.62	80.94	77.26	73.59
28595	.3071"	7.80	8.0	79	41	36	84.62	80.94	77.26	73.59
28605	.3130"	7.95	8.0	79	41	36	84.62	80.94	77.26	73.59
28615	.3150"	8.00	8.0	79	41	36	83.99	80.34	76.69	73.04
28625	.3189"	8.10	10.0	89	47	40	117.03	111.95	106.85	101.76
28635	.3228"	8.20	10.0	89	47	40	117.03	111.95	106.85	101.76
28645	.3268"	8.30	10.0	89	47	40	117.03	111.95	106.85	101.76
28655	.3287"	8.35	10.0	89	47	40	117.03	111.95	106.85	101.76
28665	.3307"	8.40	10.0	89	47	40	117.03	111.95	106.85	101.76
28675	.3346"	8.50	10.0	89	47	40	116.07	111.03	105.98	100.93
28685	.3386"	8.60	10.0	89	47	40	116.07	111.03	105.98	100.93
28695	.3425"	8.70	10.0	89	47	40	116.07	111.03	105.98	100.93
28725	.3445"	8.75	10.0	89	47	40	116.07	111.03	105.98	100.93
28735	.3465"	8.80	10.0	89	47	40	116.07	111.03	105.98	100.93
28745	.3504"	8.90	10.0	89	47	40	116.07	111.03	105.98	100.93
28755	.3543"	9.00	10.0	89	47	40	115.12	110.12	105.10	100.10
28765	.3583"	9.10	10.0	89	47	40	115.12	110.12	105.10	100.10
28775	.3602"	9.15	10.0	89	47	40	115.12	110.12	105.10	100.10
28815	.3622"	9.20	10.0	89	47	40	115.12	110.12	105.10	100.10
28825	.3661"	9.30	10.0	89	47	40	115.12	110.12	105.10	100.10
28845	.3701"	9.40	10.0	89	47	40	115.12	110.12	105.10	100.10
28855	.3740"	9.50	10.0	89	47	40	114.15	109.19	104.23	99.26
28875	.3760"	9.55	10.0	89	47	40	114.15	109.19	104.23	99.26
28878	.3780"	9.60	10.0	89	47	40	114.15	109.19	104.23	99.26
28882	.3819"	9.70	10.0	89	47	40	114.15	109.19	104.23	99.26
28885	.3858"	9.80	10.0	89	47	40	114.15	109.19	104.23	99.26
28895	.3898"	9.90	10.0	89	47	40	114.15	109.19	104.23	99.26
28905	.3937"	10.00	10.0	89	47	40	113.19	108.27	103.36	98.43
28925	.3976"	10.10	12.0	102	55	45	151.73	145.13	138.53	131.93
28935	.4016"	10.20	12.0	102	55	45	151.73	145.13	138.53	131.93
28945	.4055"	10.30	12.0	102	55	45	151.73	145.13	138.53	131.93
28955	.4134"	10.50	12.0	102	55	45	150.45	143.90	137.36	130.82
28965	.4173"	10.60	12.0	102	55	45	150.45	143.90	137.36	130.82
28975	.4213"	10.70	12.0	102	55	45	150.45	143.90	137.36	130.82
28985	.4252"	10.80	12.0	102	55	45	150.45	143.90	137.36	130.82
28995	.4331"	11.00	12.0	102	55	45	149.15	142.66	136.18	129.70
29005	.4370"	11.10	12.0	102	55	45	149.15	142.66	136.18	129.70
29015	.4409"	11.20	12.0	102	55	45	149.15	142.66	136.18	129.70
29025	.4488"	11.40	12.0	102	55	45	149.15	142.66	136.18	129.70
29035	.4528"	11.50	12.0	102	55	45	147.88	141.45	135.02	128.59
29045	.4606"	11.70	12.0	102	55	45	147.88	141.45	135.02	128.59
29055	.4685"	11.90	12.0	102	55	45	147.88	141.45	135.02	128.59
29065	.4724"	12.00	12.0	102	55	45	146.56	140.18	133.82	127.44
29075	.4764"	12.10	14.0	107	60	45	209.86	200.74	191.61	182.49
29085	.4803"	12.20	14.0	107	60	45	209.86	200.74	191.61	182.49
29095	.4842"	12.30	14.0	107	60	45	209.86	200.74	191.61	182.49
29105	.4882"	12.40	14.0	107	60	45	209.86	200.74	191.61	182.49
29115	.4921"	12.50	14.0	107	60	45	208.56	199.49	190.42	181.36
29125	.4961"	12.60	14.0	107	60	45	208.56	199.49	190.42	181.36
29135	.5000"	12.70	14.0	107	60	45	208.56	199.49	190.42	181.36
29145	.5039"	12.80	14.0	107	60	45	208.56	199.49	190.42	181.36
29148	.5051"	12.83	14.0	107	60	45	208.56	199.49	190.42	181.36
29155	.5079"	12.90	14.0	107	60	45	208.56	199.49	190.42	181.36
29161	.5098"	12.95	14.0	107	60	45	208.56	199.49	190.42	181.36

continued →

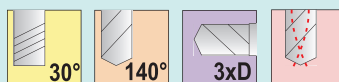
1580KD - 2 Flute (continued)

13.00mm - 20.00mm
(.5118" - .7874")

EDP#	<i>d1</i> Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>l4</i> Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
29165	.5118"	13.00	14.0	107	60	45	207.28	198.27	189.26	180.24
29175	.5157"	13.10	14.0	107	60	45	207.28	198.27	189.26	180.24
29181	.5236"	13.30	14.0	107	60	45	207.28	198.27	189.26	180.24
29185	.5315"	13.50	14.0	107	60	45	205.98	197.03	188.07	179.12
29195	.5394"	13.70	14.0	107	60	45	205.98	197.03	188.07	179.12
29205	.5433"	13.80	14.0	107	60	45	205.98	197.03	188.07	179.12
29215	.5512"	14.00	14.0	107	60	45	204.70	195.80	186.90	178.01
29225	.5551"	14.10	16.0	115	65	48	255.36	244.25	233.16	222.05
29235	.5591"	14.20	16.0	115	65	48	255.36	244.25	233.16	222.05
29245	.5610"	14.25	16.0	115	65	48	255.36	244.25	233.16	222.05
29255	.5630"	14.30	16.0	115	65	48	255.36	244.25	233.16	222.05
29265	.5709"	14.50	16.0	115	65	48	254.04	243.00	231.95	220.91
29275	.5787"	14.70	16.0	115	65	48	254.04	243.00	231.95	220.91
29285	.5827"	14.80	16.0	115	65	48	254.04	243.00	231.95	220.91
29305	.5906"	15.00	16.0	115	65	48	252.76	241.77	230.79	219.79
29315	.5945"	15.10	16.0	115	65	48	252.76	241.77	230.79	219.79
29325	.6102"	15.50	16.0	115	65	48	251.49	240.56	229.62	218.69
29335	.6181"	15.70	16.0	115	65	48	251.49	240.56	229.62	218.69
29345	.6220"	15.80	16.0	115	65	48	251.49	240.56	229.62	218.69
29355	.6299"	16.00	16.0	115	65	48	250.21	239.34	228.46	217.58
29363	.6331"	16.08	18.0	123	73	48	326.61	312.42	298.21	284.01
29365	.6339"	16.10	18.0	123	73	48	326.61	312.42	298.21	284.01
29371	.6378"	16.20	18.0	123	73	48	326.61	312.42	298.21	284.01
29375	.6398"	16.25	18.0	123	73	48	326.61	312.42	298.21	284.01
29385	.6496"	16.50	18.0	123	73	48	324.06	309.97	295.88	281.80
29395	.6555"	16.65	18.0	123	73	48	324.06	309.97	295.88	281.80
29405	.6693"	17.00	18.0	123	73	48	321.46	307.49	293.51	279.53
29415	.6713"	17.05	18.0	123	73	48	321.46	307.49	293.51	279.53
29425	.6870"	17.45	18.0	123	73	48	321.46	307.49	293.51	279.53
29435	.6890"	17.50	18.0	123	73	48	318.94	305.07	291.20	277.34
29445	.7027"	17.85	18.0	123	73	48	318.94	305.07	291.20	277.34
29455	.7087"	18.00	18.0	123	73	48	316.37	302.61	288.86	275.10
29465	.7185"	18.25	20.0	131	79	50	428.22	409.60	390.98	372.37
29475	.7283"	18.50	20.0	131	79	50	425.67	407.16	388.66	370.16
29485	.7342"	18.65	20.0	131	79	50	425.67	407.16	388.66	370.16
29495	.7480"	19.00	20.0	131	79	50	423.09	404.70	386.30	367.91
29505	.7500"	19.05	20.0	131	79	50	423.09	404.70	386.30	367.91
29515	.7520"	19.10	20.0	131	79	50	423.09	404.70	386.30	367.91
29525	.7539"	19.15	20.0	131	79	50	423.09	404.70	386.30	367.91
29535	.7559"	19.20	20.0	131	79	50	423.09	404.70	386.30	367.91
29545	.7579"	19.25	20.0	131	79	50	423.09	404.70	386.30	367.91
29546	.7590"	19.28	20.0	131	79	50	423.09	404.70	386.30	367.91
29551	.7598"	19.30	20.0	131	79	50	423.09	404.70	386.30	367.91
29555	.7638"	19.40	20.0	131	79	50	423.09	404.70	386.30	367.91
29565	.7677"	19.50	20.0	131	79	50	420.54	402.26	383.98	365.70
29585	.7795"	19.80	20.0	131	79	50	420.54	402.26	383.98	365.70
29595	.7815"	19.85	20.0	131	79	50	420.54	402.26	383.98	365.70
29605	.7874"	20.00	20.0	131	79	50	417.97	399.80	381.62	363.45

.1575" - .2720"
(4.00mm - 6.91mm)

**NEW
SERIES**



TOLERANCES

d	+0.000" -0.005" (+0.000 -0.127mm)
h	≤ 1/8" +.125" -0.062" (+3.175 -1.588mm)
	> 1/8" +.125" -0.125" (+3.175 -3.175mm)
l ₂	≤ 1/8" +.125" -0.062" (+3.175 -1.588mm)
	> 1/8" +.125" -0.125" (+3.175 -3.175mm)

Balinit® HELICA Coated

High performance - high penetration solid submicron grain carbide drill

Extended tool life and greater surface finish through faster SFM rates

Up to 70% faster than standard carbide drills

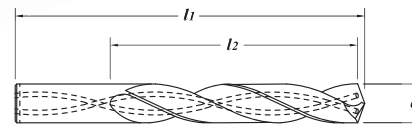
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys, cobalt-based alloys, stainless steels and tool steels

Live tooling recommended on lathe processes

Shank tolerance: -.0001" -.0004" (-.0025 / -.0100mm)



EDP#	d † Diameter			l ₁ Overall Length	l ₂ Flute Length	1-11	12-24	25-49	50-100
	Decimal		Metric						
22085	.1575		4.00	56	21	45.62	43.64	41.66	39.68
22090	.1590	#21	4.04	2-3/16"	13/16"	46.05	44.04	42.05	40.04
22095	.1610	#20	4.09	2-3/16"	13/16"	46.43	44.41	42.39	40.37
22100	.1660	#19	4.22	2-9/32"	15/16"	46.82	44.78	42.75	40.72
22105	.1695	#18	4.30	2-9/32"	15/16"	47.20	45.15	43.09	41.04
22110	.1719	11/64"	4.37	2-9/32"	15/16"	47.59	45.52	43.45	41.38
22115	.1730	#17	4.39	2-9/32"	15/16"	47.98	45.88	43.80	41.71
22120	.1770	#16	4.49	2-9/32"	15/16"	48.31	46.21	44.11	42.01
22125	.1772		4.50	58	24	48.72	46.60	44.49	42.37
22130	.1800	#15	4.57	2-9/32"	15/16"	49.05	46.91	44.78	42.65
22135	.1820	#14	4.62	2-9/32"	15/16"	49.51	47.36	45.21	43.06
22140	.1850	#13	4.70	2-9/32"	15/16"	49.86	47.69	45.52	43.36
22145	.1875	3/16"	4.76	2-13/32"	1"	50.26	48.08	45.90	43.71
22150	.1890	#12	4.80	2-13/32"	1"	50.63	48.42	46.23	44.02
22155	.1910	#11	4.85	2-13/32"	1"	51.10	48.87	46.65	44.43
22160	.1935	#10	4.91	2-13/32"	1"	51.40	49.16	46.92	44.69
22165	.1960	#9	4.98	2-13/32"	1"	51.77	49.52	47.27	45.02
22170	.1969		5.00	61	25	52.06	49.80	47.54	45.27
22175	.1990	#8	5.05	2-13/32"	1"	52.54	50.25	47.98	45.69
22180	.2010	#7	5.10	2-13/32"	1"	52.70	50.41	48.11	45.82
22185	.2031	13/64"	5.16	2-13/32"	1"	53.05	50.74	48.43	46.13
22190	.2040	#6	5.18	2-13/32"	1"	53.40	51.08	48.76	46.44
22195	.2055	#5	5.22	2-13/32"	1"	53.79	51.45	49.11	46.77
22200	.2090	#4	5.31	2-13/32"	1"	54.13	51.78	49.42	47.07
22205	.2130	#3	5.41	2-5/8"	1-3/32"	54.49	52.11	49.74	47.38
22210	.2165		5.50	67	28	54.84	52.46	50.07	47.68
22215	.2188	7/32"	5.56	2-5/8"	1-3/32"	55.31	52.90	50.50	48.09
22220	.2210	#2	5.61	2-5/8"	1-3/32"	55.70	53.28	50.86	48.43
22225	.2280	#1	5.79	2-5/8"	1-3/32"	56.11	53.66	51.23	48.79
22230	.2340	A	5.94	2-5/8"	1-3/32"	56.50	54.05	51.59	49.13
22235	.2344	15/64"	5.95	2-5/8"	1-3/32"	56.93	54.45	51.98	49.50
22240	.2362		6.00	67	28	57.32	54.83	52.34	49.85
22245	.2380	B	6.04	2-3/4"	1-7/32"	57.71	55.20	52.69	50.18
22250	.2420	C	6.15	2-3/4"	1-7/32"	58.18	55.65	53.12	50.59
22255	.2460	D	6.25	2-3/4"	1-7/32"	58.51	55.96	53.42	50.88
22260	.2500	1/4" / E	6.35	2-3/4"	1-7/32"	59.00	56.43	53.87	51.30
22265	.2559		6.50	70	31	59.96	57.35	54.75	52.14
22270	.2570	F	6.53	2-3/4"	1-7/32"	60.88	58.23	55.59	52.94
22275	.2610	G	6.63	2-3/4"	1-7/32"	61.81	59.12	56.43	53.75
22280	.2656	17/64"	6.75	2-15/16"	1-11/32"	62.75	60.03	57.29	54.57
22285	.2660	H	6.76	2-15/16"	1-11/32"	63.69	60.92	58.15	55.38
22290	.2720	I	6.91	2-15/16"	1-11/32"	64.62	61.81	59.00	56.19

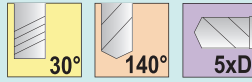
continued →

1580KH - 2 Flute (continued)

.2756" - .6299"
(7.00mm - 16.00mm)

EDP#	$d^{\dagger}$ Diameter			l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal		Metric						
22295	.2756		7.00	75	34	65.56	62.71	59.86	57.01
22300	.2770	J	7.03	2-15/16"	1-11/32"	66.48	63.59	60.69	57.80
22305	.2810	K	7.14	2-15/16"	1-11/32"	67.44	64.51	61.58	58.65
22310	.2812	9/32"	7.14	2-15/16"	1-11/32"	68.38	65.41	62.43	59.46
22315	.2900	L	7.37	2-15/16"	1-11/32"	69.30	66.28	63.27	60.26
22320	.2950	M	7.49	2-15/16"	1-11/32"	70.65	67.58	64.50	61.43
22325	.2953		7.50	75	34	70.65	67.58	64.50	61.43
22330	.2969	19/64"	7.54	3-3/32"	1-15/32"	71.26	68.16	65.06	61.96
22335	.3020	N	7.67	3-3/32"	1-15/32"	74.46	71.23	67.98	64.75
22340	.3125	5/16"	7.94	3-3/32"	1-15/32"	74.71	71.47	68.21	64.97
22345	.3150		8.00	79	37	76.13	72.82	69.50	66.20
22350	.3160	O	8.03	3-3/32"	1-15/32"	76.13	72.82	69.50	66.20
22355	.3230	P	8.20	3-3/32"	1-15/32"	76.69	73.35	70.02	66.68
22360	.3281	21/64"	8.33	3-3/32"	1-15/32"	78.11	74.71	71.32	67.92
22365	.3320	Q	8.43	3-3/32"	1-15/32"	79.51	76.06	72.59	69.14
22370	.3346		8.50	79	37	79.84	76.37	72.89	69.43
22375	.3390	R	8.61	3-5/16"	1-9/16"	81.98	78.42	74.85	71.29
22380	.3438	11/32"	8.73	3-5/16"	1-9/16"	83.78	80.14	76.49	72.85
22385	.3480	S	8.84	3-5/16"	1-9/16"	86.56	82.79	79.03	75.26
22390	.3543		9.00	84	40	88.75	84.90	81.04	77.18
22395	.3580	T	9.09	3-5/16"	1-9/16"	92.25	88.23	84.23	80.22
22400	.3594	23/64"	9.13	3-5/16"	1-9/16"	92.81	88.77	84.74	80.70
22405	.3680	U	9.35	3-5/16"	1-9/16"	97.65	93.40	89.16	84.91
22410	.3740		9.50	84	40	98.45	94.16	89.89	85.60
22415	.3750	3/8"	9.52	3-1/2"	1-11/16"	99.04	94.73	90.43	86.12
22420	.3770	V	9.57	3-1/2"	1-11/16"	102.85	98.37	93.90	89.43
22425	.3860	W	9.80	3-1/2"	1-11/16"	104.63	100.09	95.53	90.99
22430	.3906	25/64"	9.92	3-1/2"	1-11/16"	105.96	101.35	96.74	92.13
22435	.3937		10.00	89	43	106.33	101.70	97.08	92.46
22440	.3970	X	10.08	3-1/2"	1-11/16"	108.93	104.20	99.46	94.72
22445	.4040	Y	10.26	3-1/2"	1-11/16"	109.68	104.90	100.14	95.37
22450	.4062	13/32"	10.32	3-1/2"	1-11/16"	113.05	108.13	103.22	98.30
22455	.4130	Z	10.49	3-1/2"	1-11/16"	114.09	109.13	104.17	99.21
22460	.4134		10.50	89	43	114.09	109.13	104.17	99.21
22465	.4219	27/64"	10.72	3-3/4"	1-13/16"	115.16	110.16	105.14	100.14
22470	.4331		11.00	95	46	123.61	118.24	112.86	107.49
22475	.4375	7/16"	11.11	3-3/4"	1-13/16"	123.61	118.24	112.86	107.49
22480	.4528		11.50	95	46	132.69	126.92	121.15	115.39
22485	.4531	29/64"	11.51	3-3/4"	1-13/16"	132.69	126.92	121.15	115.39
22490	.4688	15/32"	11.91	4"	1-15/16"	139.42	133.36	127.30	121.23
22495	.4724		12.00	102	49	139.84	133.75	127.68	121.60
22500	.4844	31/64"	12.30	4"	1-15/16"	150.55	144.01	137.46	130.92
22505	.4921		12.50	102	49	158.68	151.79	144.88	137.99
22510	.5000	1/2"	12.70	4"	1-15/16"	159.69	152.74	145.81	138.86
22515	.5118		13.00	107	53	177.27	169.56	161.86	154.15
22520	.5156	33/64"	13.10	4-7/32"	2-3/32"	181.44	173.54	165.66	157.78
22525	.5312	17/32"	13.49	4-7/32"	2-3/32"	185.62	177.55	169.48	161.41
22530	.5315		13.50	110	56	189.81	181.55	173.31	165.06
22535	.5469	35/64"	13.89	4-5/16"	2-7/32"	193.96	185.53	177.09	168.66
22540	.5512		14.00	110	56	198.16	189.55	180.93	172.32
22545	.5625	9/16"	14.29	4-9/16"	2-15/32"	214.14	204.83	195.51	186.20
22550	.5709		14.50	116	63	218.16	208.68	199.19	189.71
22555	.5781	37/64"	14.68	4-15/16"	2-9/16"	222.06	212.41	202.75	193.10
22560	.5906		15.00	125	65	226.15	216.32	206.48	196.65
22565	.5938	19/32"	15.08	4-15/16"	2-9/16"	227.39	217.50	207.62	197.72
22570	.6094	39/64"	15.48	5-1/16"	2-13/16"	228.52	218.59	208.64	198.71
22575	.6102		15.50	129	71	229.72	219.73	209.74	199.75
22580	.6250	5/8"	15.87	5-1/4"	3-1/8"	230.84	220.80	210.77	200.73
22585	.6299		16.00	133	79	236.42	226.15	215.86	205.59

.1181" - .2165"
(3.00mm - 5.50mm)



TOLERANCES		
d	+.0000" - .0005" (+.0000 - .0127mm)	
h	≤ 1/8"	+ .125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+ .125" - .125" (+3.175 - 3.175mm)
l ₂	≤ 1/8"	+ .125" - .062" (+3.175 - 1.588mm)
	> 1/8"	+ .125" - .125" (+3.175 - 3.175mm)

Balinit® HARDLUBE Coated

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

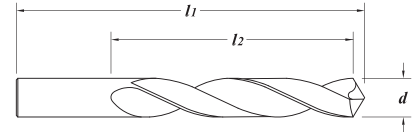
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys, cobalt-based alloys, stainless steels and tool steels

Live tooling recommended on lathe processes

Shank tolerance: -.0001" - .0004" (-.0025 / -.0100mm)



EDP#	d †		l ₁ Overall Length	l ₂ Flute Length	1-11	12-24	25-49	50-100
	Decimal	Metric						
21301	.1181	3.00	51	19	30.05	28.74	27.44	26.12
21306	.1200	#31	2"	3/4"	30.28	28.96	27.65	26.33
21311	.1250	1/8"	2"	3/4"	30.52	29.19	27.87	26.54
21316	.1285	#30	2-1/4"	3/4"	30.79	29.45	28.12	26.78
21321	.1360	#29	2-1/4"	7/8"	31.02	29.67	28.33	26.98
21326	.1378	3.50	57	22	31.26	29.90	28.55	27.19
21331	.1405	#28	2-1/4"	7/8"	31.52	30.15	28.78	27.41
21336	.1406	9/64"	2-1/4"	7/8"	31.79	30.41	29.03	27.64
21341	.1440	#27	2-1/4"	7/8"	32.00	30.61	29.21	27.83
21346	.1470	#26	2-1/4"	7/8"	32.27	30.87	29.46	28.06
21351	.1495	#25	2-1/4"	15/16"	32.52	31.11	29.69	28.28
21356	.1520	#24	2-1/4"	15/16"	32.75	31.32	29.90	28.48
21361	.1540	#23	2-1/4"	15/16"	33.02	31.58	30.15	28.71
21366	.1562	5/32"	2-1/2"	15/16"	33.26	31.81	30.37	28.92
21371	.1570	#22	2-1/2"	15/16"	33.50	32.04	30.59	29.13
21376	.1575	4.00	64	24	33.75	32.28	30.82	29.35
21381	.1590	#21	2-1/2"	15/16"	33.99	32.51	31.03	29.56
21386	.1610	#20	2-1/2"	15/16"	34.26	32.77	31.28	29.79
21391	.1660	#19	2-1/2"	1"	34.51	33.01	31.50	30.00
21396	.1695	#18	2-1/2"	1"	34.75	33.24	31.72	30.21
21401	.1719	11/64"	2-1/2"	1"	35.00	33.48	31.95	30.43
21406	.1730	#17	2-1/2"	1"	35.22	33.70	32.16	30.63
21411	.1770	#16	2-1/2"	1"	35.48	33.95	32.40	30.86
21416	.1772	4.50	65	25	35.74	34.20	32.64	31.09
21421	.1800	#15	2-3/4"	1"	35.97	34.41	32.84	31.28
21426	.1820	#14	2-3/4"	1"	36.21	34.64	33.06	31.49
21431	.1850	#13	2-3/4"	1-1/4"	36.48	34.89	33.31	31.72
21436	.1875	3/16"	2-3/4"	1-1/4"	36.74	35.14	33.55	31.95
21441	.1890	#12	2-3/4"	1-1/4"	36.97	35.36	33.76	32.15
21446	.1910	#11	2-3/4"	1-1/4"	37.21	35.59	33.98	32.35
21451	.1935	#10	2-3/4"	1-1/4"	37.47	35.84	34.22	32.58
21456	.1960	#9	3"	1-5/16"	37.70	36.06	34.42	32.78
21461	.1969	5.00	76	33	37.96	36.31	34.66	33.01
21466	.1990	#8	3"	1-5/16"	38.16	36.49	34.84	33.18
21471	.2010	#7	3"	1-5/16"	38.32	36.66	35.00	33.32
21476	.2031	13/64"	3"	1-5/16"	38.60	36.93	35.25	33.57
21481	.2040	#6	3"	1-3/8"	38.90	37.20	35.52	33.82
21486	.2055	#5	3"	1-3/8"	39.16	37.45	35.76	34.05
21491	.2090	#4	3"	1-3/8"	39.41	37.69	35.98	34.27
21496	.2130	#3	3"	1-3/8"	39.68	37.95	36.22	34.50
21501	.2165	5.50	76	35	39.93	38.19	36.45	34.72

continued →

1280H - 2 Flute (continued)

.2188" - .4528"
(5.56mm - 11.50mm)

EDP#	$d^{\dagger}$ Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal	Metric						
21506	.2188	7/32"	5.56	3"	1-3/8"	40.19	38.44	36.69
21511	.2210	#2	5.61	3"	1-3/8"	41.05	39.26	37.48
21516	.2280	#1	5.79	3"	1-3/8"	41.25	39.46	37.66
21521	.2340	A	5.94	3-1/4"	1-1/2"	41.87	40.05	38.23
21526	.2344	15/64"	5.95	3-1/4"	1-1/2"	41.98	40.15	38.33
21531	.2362		6.00	83	38	42.11	40.28	38.45
21536	.2380	B	6.04	3-1/4"	1-5/8"	42.23	40.39	38.56
21541	.2420	C	6.15	3-1/4"	1-5/8"	42.52	40.66	38.82
21546	.2460	D	6.25	3-1/4"	1-5/8"	42.80	40.93	39.07
21551	.2500	1/4" / E	6.35	3-1/4"	1-5/8"	43.04	41.16	39.29
21556	.2559		6.50	83	41	43.79	41.89	39.99
21561	.2570	F	6.53	3-1/4"	1-11/16"	44.54	42.61	40.67
21566	.2610	G	6.63	3-1/2"	1-11/16"	45.30	43.34	41.36
21571	.2656	17/64"	6.75	3-1/2"	1-11/16"	46.05	44.04	42.05
21576	.2660	H	6.76	3-1/2"	1-11/16"	46.83	44.79	42.75
21581	.2720	I	6.91	3-1/2"	1-11/16"	47.58	45.51	43.44
21586	.2756		7.00	89	43	48.32	46.22	44.12
21591	.2770	J	7.03	3-1/2"	1-11/16"	49.09	46.96	44.82
21596	.2810	K	7.14	3-1/2"	1-3/4"	49.86	47.69	45.52
21601	.2812	9/32"	7.14	3-1/2"	1-3/4"	50.62	48.41	46.22
21606	.2900	L	7.37	3-1/2"	1-3/4"	51.31	49.08	46.85
21611	.2950	M	7.49	3-3/4"	1-3/4"	52.05	49.78	47.53
21616	.2953		7.50	95	44	52.05	49.78	47.53
21621	.2969	19/64"	7.54	3-3/4"	1-7/8"	52.55	50.26	47.99
21626	.3020	N	7.67	3-3/4"	1-7/8"	54.64	52.27	49.89
21631	.3125	5/16"	7.94	3-3/4"	1-7/8"	54.81	52.43	50.04
21636	.3150		8.00	95	48	58.14	55.61	53.08
21641	.3160	O	8.03	3-3/4"	1-7/8"	58.14	55.61	53.08
21646	.3230	P	8.20	3-3/4"	2-3/32"	58.34	55.81	53.27
21651	.3281	21/64"	8.33	4"	2-3/32"	58.87	56.32	53.76
21656	.3320	Q	8.43	4"	2-3/32"	60.05	57.44	54.83
21661	.3346		8.50	102	53	60.50	57.87	55.23
21666	.3390	R	8.61	4"	2-3/32"	62.14	59.44	56.73
21671	.3438	11/32"	8.73	4"	2-3/16"	64.33	61.54	58.74
21676	.3480	S	8.84	4"	2-3/16"	66.84	63.94	61.03
21681	.3543		9.00	102	56	67.24	64.31	61.39
21686	.3580	T	9.09	4-1/4"	2-9/32"	69.90	66.86	63.82
21691	.3594	23/64"	9.13	4-1/4"	2-9/32"	70.31	67.26	64.20
21696	.3680	U	9.35	4-1/4"	2-9/32"	77.58	74.21	70.83
21701	.3740		9.50	108	58	78.34	74.93	71.53
21706	.3750	3/8"	9.52	4-1/4"	2-3/8"	79.12	75.68	72.24
21711	.3770	V	9.57	4-1/4"	2-3/8"	81.07	77.54	74.02
21716	.3860	W	9.80	4-1/2"	2-3/8"	82.50	78.92	75.33
21721	.3906	25/64"	9.92	4-1/2"	2-3/8"	83.50	79.87	76.24
21726	.3937		10.00	114	60	86.01	82.26	78.53
21731	.3970	X	10.08	4-1/2"	2-1/2"	87.99	84.17	80.34
21736	.4040	Y	10.26	4-1/2"	2-9/16"	90.65	86.70	82.76
21741	.4062	13/32"	10.32	4-1/2"	2-9/16"	91.43	87.45	83.48
21746	.4130	Z	10.49	4-1/2"	2-5/8"	92.26	88.24	84.24
21751	.4134		10.50	114	67	92.26	88.24	84.24
21756	.4219	27/64"	10.72	4-1/2"	2-11/16"	93.10	89.06	85.01
21761	.4331		11.00	114	68	99.89	95.54	91.21
21766	.4375	7/16"	11.11	4-3/4"	2-13/16"	100.29	95.93	91.56
21771	.4528		11.50	121	71	107.17	102.51	97.85

1280H - 2 Flute (continued)

.4531" - .6299"
(11.51mm - 16.00mm)

HIGH PERFORMANCE
DRILLS

EDP#	$d^{\dagger}$		l_1	l_2	1-11	12-24	25-49	50-100
	Decimal	Diameter Metric						
21776	.4531	29/64"	11.51	4-3/4"	2-7/8"	107.17	102.51	97.85
21781	.4688	15/32"	11.91	4-3/4"	2-7/8"	112.57	107.67	102.78
21786	.4724		12.00	121	73	112.89	107.98	103.07
21791	.4844	31/64"	12.30	5-5/16"	3"	114.15	109.19	104.23
21796	.4921		12.50	135	76	115.51	110.49	105.47
21801	.5000	1/2"	12.70	5-3/8"	3-1/16"	115.75	110.72	105.68
21806	.5118		13.00	137	78	128.75	123.16	117.55
21811	.5156	33/64"	13.10	5-3/8"	3-1/8"	131.77	126.04	120.31
21816	.5312	17/32"	13.49	5-11/16"	3-5/16"	134.86	128.99	123.13
21821	.5315		13.50	144	84	137.84	131.85	125.85
21826	.5469	35/64"	13.89	5-13/16"	3-3/8"	140.84	134.71	128.59
21831	.5512		14.00	148	86	143.88	137.62	131.37
21836	.5625	9/16"	14.29	5-15/16"	3-1/2"	155.56	148.80	142.03
21841	.5709		14.50	151	89	158.42	151.54	144.64
21846	.5781	37/64"	14.68	6"	3-1/2"	161.27	154.26	147.25
21851	.5906		15.00	152	90	164.28	157.13	149.99
21856	.5938	19/32"	15.08	6"	3-9/16"	165.13	157.96	150.77
21861	.6094	39/64"	15.48	6-3/16"	3-11/16"	178.95	171.17	163.39
21866	.6102		15.50	157	94	179.78	171.96	164.15
21871	.6250	5/8"	15.87	6-5/16"	3-3/4"	180.62	172.76	164.91
21876	.6299		16.00	160	95	184.66	176.63	168.60

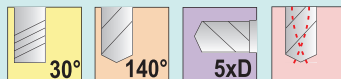
1280KH - 2 Flute

Technical information: page 208-209

TOLERANCES

d	+0.000" -0.005" (+0.000 -0.127mm)	
l ₁	≤ 1/8"	+0.125" -0.062" (+3.175 -1.588mm)
	> 1/8"	+0.125" -0.125" (+3.175 -3.175mm)
l ₂	≤ 1/8"	+0.125" -0.062" (+3.175 -1.588mm)
	> 1/8"	+0.125" -0.125" (+3.175 -3.175mm)

.1575" - .2756"
(4.00mm - 7.00mm)



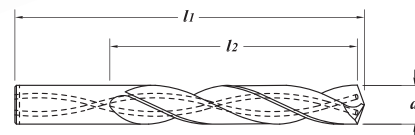
Balinit® HELICA Coated

High performance - high penetration solid submicron grain carbide drill
Coolant through capabilities for high pressure coolant systems
Up to 70% faster than standard carbide drills
30° helix for better chip evacuation
Honed cutting edge

Recommended to run in high nickel, high temperature alloys,
cobalt-based alloys, stainless steels and tool steels

Live tooling recommended on lathe processes

Shank tolerance: -.0001" -.0004" (-.0025 / -.0100mm)



EDP#	d †		l ₁	l ₂	1-11	12-24	25-49	50-100
	Decimal	Metric						
NEW 25441	.1575	4.00	64	24	47.54	45.47	43.41	41.34
NEW 25446	.1590	#21	2-1/2"	15/16"	47.86	45.78	43.70	41.62
NEW 25451	.1610	#20	2-1/2"	15/16"	48.24	46.13	44.04	41.94
NEW 25456	.1660	#19	2-1/2"	1"	48.59	46.48	44.37	42.26
NEW 25461	.1695	#18	2-1/2"	1"	48.94	46.81	44.69	42.56
NEW 25466	.1719	11/64"	2-1/2"	1"	49.29	47.14	45.00	42.86
NEW 25471	.1730	#17	2-1/2"	1"	49.61	47.46	45.29	43.14
NEW 25476	.1770	#16	2-1/2"	1"	49.98	47.81	45.64	43.46
NEW 25481	.1772	4.50	64	25	50.36	48.16	45.98	43.78
NEW 25486	.1800	#15	2-3/4"	1"	50.68	48.47	46.27	44.06
NEW 25491	.1820	#14	2-3/4"	1"	51.01	48.80	46.57	44.36
NEW 25496	.1850	#13	2-3/4"	1-1/4"	51.37	49.13	46.90	44.67
NEW 25501	.1875	3/16"	2-3/4"	1-1/4"	51.75	49.50	47.25	45.00
NEW 25506	.1890	#12	2-3/4"	1-1/4"	52.07	49.81	47.55	45.28
NEW 25511	.1910	#11	2-3/4"	1-1/4"	52.41	50.13	47.85	45.57
NEW 25516	.1935	#10	2-3/4"	1-1/4"	52.78	50.48	48.19	45.90
NEW 25521	.1960	#9	3"	1-5/16"	53.09	50.78	48.47	46.17
NEW 25526	.1969	5.00	76	33	53.47	51.14	48.82	46.49
NEW 25531	.1990	#8	3"	1-5/16"	53.74	51.40	49.07	46.73
NEW 25536	.2010	#7	3"	1-5/16"	53.98	51.63	49.29	46.94
NEW 25541	.2031	13/64"	3"	1-5/16"	54.37	52.01	49.64	47.28
NEW 25546	.2040	#6	3"	1-3/8"	54.78	52.40	50.01	47.63
NEW 25551	.2055	#5	3"	1-3/8"	55.15	52.75	50.36	47.95
NEW 25556	.2090	#4	3"	1-3/8"	55.50	53.09	50.68	48.27
NEW 25561	.2130	#3	3"	1-3/8"	55.88	53.45	51.02	48.59
NEW 25566	.2165	5.50	76	35	56.22	53.78	51.33	48.89
25571	.2188	7/32"	3"	1-3/8"	56.36	53.90	51.46	49.00
25576	.2210	#2	3"	1-3/8"	57.30	54.81	52.32	49.83
25581	.2280	#1	3"	1-3/8"	57.51	55.02	52.51	50.01
25586	.2340	A	3-1/4"	1-1/2"	64.55	61.74	58.94	56.13
25591	.2344	15/64"	3-1/4"	1-1/2"	64.67	61.86	59.04	56.23
25596	.2362	6.00	83	38	64.82	62.00	59.19	56.37
25601	.2380	B	3-1/4"	1-5/8"	66.94	64.03	61.12	58.21
25606	.2420	C	3-1/4"	1-5/8"	67.27	64.34	61.42	58.49
25611	.2460	D	3-1/4"	1-5/8"	67.56	64.63	61.68	58.75
25616	.2500	1/4" / E	3-1/4"	1-5/8"	67.84	64.89	61.94	58.99
25621	.2559	6.50	83	41	68.67	65.69	62.70	59.72
25626	.2570	F	3-1/4"	1-11/16"	70.26	67.20	64.15	61.10
25631	.2610	G	3-1/2"	1-11/16"	71.13	68.04	64.94	61.85
25636	.2656	17/64"	3-1/2"	1-11/16"	71.95	68.82	65.69	62.57
25641	.2660	H	3-1/2"	1-11/16"	72.81	69.65	66.48	63.32
25646	.2720	I	3-1/2"	1-11/16"	72.89	69.72	66.55	63.39
25651	.2756	7.00	89	43	73.73	70.52	67.32	64.11

1280KH - 2 Flute (continued)

.2770" - .6299"
(7.03mm - 16.00mm)

HIGH PERFORMANCE
DRILLS

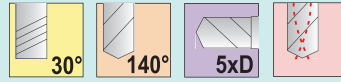
EDP#	$d^{\dagger}$ Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal	Metric						
25656	.2770	J	7.03	3-1/2"	1-11/16"	77.47	74.10	70.73
25661	.2810	K	7.14	3-1/2"	1-3/4"	78.31	74.91	71.50
25666	.2812	9/32"	7.14	3-1/2"	1-3/4"	79.16	75.72	72.28
25671	.2900	L	7.37	3-1/2"	1-3/4"	79.52	76.07	72.60
25676	.2950	M	7.49	3-3/4"	1-3/4"	79.99	76.51	73.03
25681	.2953		7.50	95	44	79.99	76.51	73.03
25686	.2969	19/64"	7.54	3-3/4"	1-7/8"	85.45	81.73	78.02
25691	.3020	N	7.67	3-3/4"	1-7/8"	87.38	83.58	79.78
25696	.3125	5/16"	7.94	3-3/4"	1-7/8"	87.57	83.76	79.96
25701	.3150		8.00	95	48	91.27	87.30	83.34
25706	.3160	O	8.03	3-3/4"	1-7/8"	92.09	88.09	84.08
25711	.3230	P	8.20	3-3/4"	2-3/32"	92.33	88.32	84.30
25716	.3281	21/64"	8.33	4"	2-3/32"	92.94	88.90	84.86
25721	.3320	Q	8.43	4"	2-3/32"	93.46	89.40	85.33
25726	.3346		8.50	102	53	93.95	89.87	85.78
25731	.3390	R	8.61	4"	2-3/32"	98.08	93.82	89.55
25736	.3438	11/32"	8.73	4"	2-3/16"	100.52	96.15	91.78
25741	.3480	S	8.84	4"	2-3/16"	102.77	98.30	93.84
25746	.3543		9.00	102	56	103.22	98.73	94.24
25751	.3580	T	9.09	4-1/4"	2-9/32"	105.16	100.59	96.02
25756	.3594	23/64"	9.13	4-1/4"	2-9/32"	105.56	100.97	96.38
25761	.3680	U	9.35	4-1/4"	2-9/32"	111.88	107.02	102.15
25766	.3740		9.50	108	58	112.43	107.55	102.66
25771	.3750	3/8"	9.52	4-1/4"	2-3/8"	115.22	110.21	105.21
25776	.3770	V	9.57	4-1/4"	2-3/8"	115.60	110.57	105.54
25781	.3860	W	9.80	4-1/2"	2-3/8"	116.88	111.79	106.71
25786	.3906	25/64"	9.92	4-1/2"	2-3/8"	117.75	112.63	107.50
25791	.3937		10.00	114	60	118.82	113.65	108.48
25796	.3970	X	10.08	4-1/2"	2-1/2"	124.17	118.77	113.37
25801	.4040	Y	10.26	4-1/2"	2-9/16"	124.72	119.30	113.87
25806	.4062	13/32"	10.32	4-1/2"	2-9/16"	127.11	121.59	116.05
25811	.4130	Z	10.49	4-1/2"	2-5/8"	129.12	123.50	117.88
25816	.4134		10.50	114	67	129.12	123.50	117.88
25821	.4219	27/64"	10.72	4-1/2"	2-11/16"	130.95	125.26	119.56
25826	.4331		11.00	114	68	135.65	129.75	123.85
25831	.4375	7/16"	11.11	4-3/4"	2-13/16"	138.40	132.38	126.37
25836	.4528		11.50	121	71	143.34	137.11	130.87
25841	.4531	29/64"	11.51	4-3/4"	2-7/8"	148.23	141.78	135.35
25846	.4688	15/32"	11.91	4-3/4"	2-7/8"	151.63	145.04	138.44
25851	.4724		12.00	121	73	154.90	148.16	141.43
25856	.4844	31/64"	12.30	5-5/16"	3"	165.29	158.10	150.91
25861	.4921		12.50	135	76	177.41	169.70	161.99
25866	.5000	1/2"	12.70	5-3/8"	3-1/16"	179.09	171.30	163.52
25871	.5118		13.00	137	78	203.11	194.28	185.45
25876	.5156	33/64"	13.10	5-3/8"	3-1/8"	211.69	202.49	193.28
25881	.5312	17/32"	13.49	5-11/16"	3-5/16"	215.11	205.76	196.40
25886	.5315		13.50	144	84	218.42	208.93	199.43
25891	.5469	35/64"	13.89	5-13/16"	3-3/8"	230.40	220.39	210.36
25896	.5512		14.00	148	86	233.78	223.62	213.45
25901	.5625	9/16"	14.29	5-15/16"	3-1/2"	253.39	242.37	231.35
25906	.5709		14.50	151	89	255.38	244.28	233.18
25911	.5781	37/64"	14.68	6"	3-1/2"	256.07	244.93	233.80
25916	.5906		15.00	152	90	259.40	248.12	236.84
25921	.5938	19/32"	15.08	6"	3-9/16"	266.16	254.58	243.02
25926	.6094	39/64"	15.48	6-3/16"	3-11/16"	299.54	286.52	273.49
25931	.6102		15.50	157	94	300.36	287.30	274.25
25936	.6250	5/8"	15.87	6-5/16"	3-3/4"	308.65	295.24	281.81
25941	.6299		16.00	160	95	312.70	299.10	285.50

1280KD - 2 Flute

Technical information: page 208-209

4.00mm - 7.50mm
(.1575" - .2953")

**NEW
SERIES**



TOLERANCES

d1	3mm - 6mm	+0.16 +0.04mm (+.00063" +.00015")
	> 6mm - 10mm	+0.21 +0.06mm (+.00082" +.00023")
	> 10mm - 18mm	+0.25 +0.07mm (+.00098" +.00027")
	> 18mm - 20mm	+0.29 +0.08mm (+.00114" +.00031")
d2	6mm	+0.00 -0.08mm (+.00000" -.00030")
	8mm - 10mm	+0.00 -0.09mm (+.00000" -.00035")
	12mm - 18mm	+0.00 -0.11mm (+.00000" -.00040")
	20mm	+0.00 -0.13mm (+.00000" -.00050")

Balinit® HELICA Coated

High performance solid submicron grain carbide drill with reinforced shank

Utilizes DIN standard 6537

Up to 70% faster than standard carbide drills

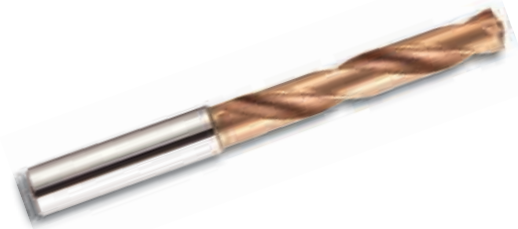
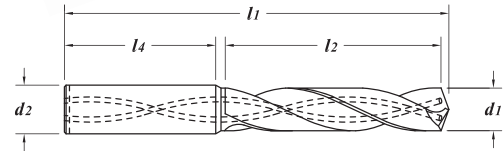
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys, cobalt-based alloys, stainless steels and tool steels

Balinit® HELICA is a multi-layer AlCr-based coating designed exclusively for high performance drilling

Live tooling recommended on lathe processes



EDP#	d1 Diameter		d2 Shank Diameter	l1 Overall Length	l2 Flute Length	l4 Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
25205	.1575"	4.00	6.0	74	36	36	78.86	75.43	72.01	68.58
25215	.1614"	4.10	6.0	74	36	36	78.86	75.43	72.01	68.58
25225	.1654"	4.20	6.0	74	36	36	78.86	75.43	72.01	68.58
25235	.1673"	4.25	6.0	74	36	36	78.86	75.43	72.01	68.58
25245	.1693"	4.30	6.0	74	36	36	78.86	75.43	72.01	68.58
25255	.1732"	4.40	6.0	74	36	36	78.86	75.43	72.01	68.58
25265	.1772"	4.50	6.0	74	36	36	78.20	74.80	71.40	68.00
25275	.1811"	4.60	6.0	74	36	36	78.20	74.80	71.40	68.00
25285	.1831"	4.65	6.0	74	36	36	78.20	74.80	71.40	68.00
25295	.1850"	4.70	6.0	74	36	36	78.20	74.80	71.40	68.00
25305	.1870"	4.75	6.0	74	36	36	78.20	74.80	71.40	68.00
25315	.1890"	4.80	6.0	82	44	36	78.20	74.80	71.40	68.00
25325	.1929"	4.90	6.0	82	44	36	78.20	74.80	71.40	68.00
25335	.1969"	5.00	6.0	82	44	36	77.56	74.19	70.81	67.44
25345	.2008"	5.10	6.0	82	44	36	77.56	74.19	70.81	67.44
25355	.2027"	5.15	6.0	82	44	36	77.56	74.19	70.81	67.44
25365	.2047"	5.20	6.0	82	44	36	77.56	74.19	70.81	67.44
25375	.2087"	5.30	6.0	82	44	36	77.56	74.19	70.81	67.44
25385	.2165"	5.50	6.0	82	44	36	74.36	71.13	67.89	64.66
25395	.2185"	5.55	6.0	82	44	36	74.36	71.13	67.89	64.66
25397	.2205"	5.60	6.0	82	44	36	74.36	71.13	67.89	64.66
25400	.2243"	5.70	6.0	82	44	36	74.36	71.13	67.89	64.66
25405	.2283"	5.80	6.0	82	44	36	74.36	71.13	67.89	64.66
25415	.2323"	5.90	6.0	82	44	36	74.36	71.13	67.89	64.66
25425	.2342"	5.95	6.0	82	44	36	74.36	71.13	67.89	64.66
25435	.2362"	6.00	6.0	82	44	36	71.17	68.07	64.98	61.88
25437	.2402"	6.10	8.0	91	53	36	109.05	104.31	99.57	94.83
25440	.2441"	6.20	8.0	91	53	36	109.05	104.31	99.57	94.83
25443	.2480"	6.30	8.0	91	53	36	109.05	104.31	99.57	94.83
25445	.2500"	6.35	8.0	91	53	36	109.05	104.31	99.57	94.83
25450	.2520"	6.40	8.0	91	53	36	106.81	102.16	97.52	92.87
25455	.2559"	6.50	8.0	91	53	36	106.81	102.16	97.52	92.87
25457	.2571"	6.53	8.0	91	53	36	106.81	102.16	97.52	92.87
25460	.2598"	6.60	8.0	91	53	36	106.81	102.16	97.52	92.87
25463	.2638"	6.70	8.0	91	53	36	106.81	102.16	97.52	92.87
25465	.2657"	6.75	8.0	91	53	36	106.81	102.16	97.52	92.87
25475	.2677"	6.80	8.0	91	53	36	106.81	102.16	97.52	92.87
25485	.2717"	6.90	8.0	91	53	36	106.81	102.16	97.52	92.87
25495	.2756"	7.00	8.0	91	53	36	104.54	100.00	95.45	90.91
25505	.2795"	7.10	8.0	91	53	36	104.54	100.00	95.45	90.91
25515	.2815"	7.15	8.0	91	53	36	104.54	100.00	95.45	90.91
25525	.2835"	7.20	8.0	91	53	36	104.54	100.00	95.45	90.91
25530	.2874"	7.30	8.0	91	53	36	104.54	100.00	95.45	90.91
25535	.2913"	7.40	8.0	91	53	36	104.54	100.00	95.45	90.91
25545	.2953"	7.50	8.0	91	53	36	102.30	97.85	93.41	88.96

1280KD - 2 Flute (continued)

7.55mm - 12.95mm
(.2972" - .5098")

HIGH PERFORMANCE
DRILLS

EDP#	<i>d1</i> Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>l4</i> Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
25555	.2972"	7.55	8.0	91	53	36	102.30	97.85	93.41	88.96
25565	.2992"	7.60	8.0	91	53	36	102.30	97.85	93.41	88.96
25575	.3031"	7.70	8.0	91	53	36	102.30	97.85	93.41	88.96
25585	.3071"	7.80	8.0	91	53	36	102.30	97.85	93.41	88.96
25595	.3130"	7.95	8.0	91	53	36	102.30	97.85	93.41	88.96
25605	.3150"	8.00	8.0	91	53	36	100.08	95.73	91.37	87.03
25610	.3189"	8.10	10.0	103	61	40	139.15	133.10	127.05	121.00
25615	.3228"	8.20	10.0	103	61	40	139.15	133.10	127.05	121.00
25625	.3268"	8.30	10.0	103	61	40	139.15	133.10	127.05	121.00
25635	.3287"	8.35	10.0	103	61	40	139.15	133.10	127.05	121.00
25640	.3307"	8.40	10.0	103	61	40	136.59	130.66	124.72	118.78
25645	.3346"	8.50	10.0	103	61	40	136.59	130.66	124.72	118.78
25655	.3386"	8.60	10.0	103	61	40	136.59	130.66	124.72	118.78
25665	.3425"	8.70	10.0	103	61	40	136.59	130.66	124.72	118.78
25675	.3445"	8.75	10.0	103	61	40	136.59	130.66	124.72	118.78
25685	.3465"	8.80	10.0	103	61	40	136.59	130.66	124.72	118.78
25695	.3504"	8.90	10.0	103	61	40	136.59	130.66	124.72	118.78
25705	.3543"	9.00	10.0	103	61	40	134.05	128.22	122.39	116.56
25715	.3583"	9.10	10.0	103	61	40	134.05	128.22	122.39	116.56
25725	.3602"	9.15	10.0	103	61	40	134.05	128.22	122.39	116.56
25735	.3622"	9.20	10.0	103	61	40	134.05	128.22	122.39	116.56
25745	.3661"	9.30	10.0	103	61	40	134.05	128.22	122.39	116.56
25750	.3701"	9.40	10.0	103	61	40	131.47	125.75	120.04	114.32
25755	.3740"	9.50	10.0	103	61	40	131.47	125.75	120.04	114.32
25765	.3760"	9.55	10.0	103	61	40	131.47	125.75	120.04	114.32
25767	.3780"	9.60	10.0	103	61	40	131.47	125.75	120.04	114.32
25770	.3819"	9.70	10.0	103	61	40	131.47	125.75	120.04	114.32
25775	.3858"	9.80	10.0	103	61	40	131.47	125.75	120.04	114.32
25785	.3898"	9.90	10.0	103	61	40	131.47	125.75	120.04	114.32
25795	.3937"	10.00	10.0	103	61	40	128.92	123.31	117.71	112.10
25800	.3976"	10.10	12.0	118	71	45	179.09	171.30	163.52	155.73
25805	.4016"	10.20	12.0	118	71	45	179.09	171.30	163.52	155.73
25815	.4055"	10.30	12.0	118	71	45	179.09	171.30	163.52	155.73
25825	.4134"	10.50	12.0	118	71	45	175.88	168.24	160.59	152.94
25830	.4173"	10.60	12.0	118	71	45	175.88	168.24	160.59	152.94
25835	.4213"	10.70	12.0	118	71	45	175.88	168.24	160.59	152.94
25845	.4252"	10.80	12.0	118	71	45	175.88	168.24	160.59	152.94
25855	.4331"	11.00	12.0	118	71	45	172.67	165.16	157.65	150.14
25865	.4370"	11.10	12.0	118	71	45	172.67	165.16	157.65	150.14
25875	.4409"	11.20	12.0	118	71	45	172.67	165.16	157.65	150.14
25880	.4488"	11.40	12.0	118	71	45	169.49	162.12	154.75	147.38
25885	.4528"	11.50	12.0	118	71	45	169.49	162.12	154.75	147.38
25895	.4606"	11.70	12.0	118	71	45	169.49	162.12	154.75	147.38
25905	.4685"	11.90	12.0	118	71	45	169.49	162.12	154.75	147.38
25915	.4724"	12.00	12.0	118	71	45	166.26	159.04	151.81	144.58
25925	.4764"	12.10	14.0	124	77	45	258.16	246.94	235.71	224.48
25930	.4803"	12.20	14.0	124	77	45	258.16	246.94	235.71	224.48
25935	.4842"	12.30	14.0	124	77	45	258.16	246.94	235.71	224.48
25940	.4882"	12.40	14.0	124	77	45	254.97	243.88	232.79	221.71
25945	.4921"	12.50	14.0	124	77	45	254.97	243.88	232.79	221.71
25950	.4961"	12.60	14.0	124	77	45	254.97	243.88	232.79	221.71
25955	.5000"	12.70	14.0	124	77	45	254.97	243.88	232.79	221.71
25960	.5039"	12.80	14.0	124	77	45	254.97	243.88	232.79	221.71
25961	.5051"	12.83	14.0	124	77	45	254.97	243.88	232.79	221.71
25963	.5079"	12.90	14.0	124	77	45	254.97	243.88	232.79	221.71
25964	.5098"	12.95	14.0	124	77	45	254.97	243.88	232.79	221.71

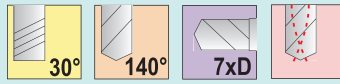
continued →

1280KD - 2 Flute (continued)

13.00mm - 20.00mm
(.5118" - .7874")

EDP#	<i>d1</i> Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>l4</i> Shank Length	1-11	12-24	25-49	50-100
	Decimal	Metric								
25965	.5118"	13.00	14.0	124	77	45	251.77	240.82	229.88	218.93
25975	.5157"	13.10	14.0	124	77	45	251.77	240.82	229.88	218.93
25981	.5236"	13.30	14.0	124	77	45	251.77	240.82	229.88	218.93
25985	.5315"	13.50	14.0	124	77	45	248.54	237.73	226.93	216.12
25995	.5394"	13.70	14.0	124	77	45	248.54	237.73	226.93	216.12
26005	.5433"	13.80	14.0	124	77	45	248.54	237.73	226.93	216.12
26015	.5512"	14.00	14.0	124	77	45	245.34	234.67	224.01	213.34
26025	.5551"	14.10	16.0	133	83	48	340.30	325.50	310.71	295.91
26027	.5591"	14.20	16.0	133	83	48	340.30	325.50	310.71	295.91
26035	.5610"	14.25	16.0	133	83	48	340.30	325.50	310.71	295.91
26045	.5630"	14.30	16.0	133	83	48	340.30	325.50	310.71	295.91
26055	.5709"	14.50	16.0	133	83	48	336.77	322.13	307.49	292.84
26065	.5787"	14.70	16.0	133	83	48	336.77	322.13	307.49	292.84
26067	.5827"	14.80	16.0	133	83	48	336.77	322.13	307.49	292.84
26075	.5906"	15.00	16.0	133	83	48	333.27	318.78	304.28	289.80
26085	.5945"	15.10	16.0	133	83	48	333.27	318.78	304.28	289.80
26095	.6102"	15.50	16.0	133	83	48	329.71	315.38	301.04	286.71
26105	.6181"	15.70	16.0	133	83	48	329.71	315.38	301.04	286.71
26107	.6220"	15.80	16.0	133	83	48	329.71	315.38	301.04	286.71
26115	.6299"	16.00	16.0	133	83	48	326.21	312.02	297.84	283.66
26118	.6331"	16.08	18.0	143	93	48	413.72	395.73	377.75	359.76
26119	.6339"	16.10	18.0	143	93	48	413.72	395.73	377.75	359.76
26123	.6378"	16.20	18.0	143	93	48	413.72	395.73	377.75	359.76
26125	.6398"	16.25	18.0	143	93	48	413.72	395.73	377.75	359.76
26135	.6496"	16.50	18.0	143	93	48	407.28	389.57	371.86	354.16
26145	.6555"	16.65	18.0	143	93	48	407.28	389.57	371.86	354.16
26155	.6693"	17.00	18.0	143	93	48	400.74	383.32	365.89	348.47
26165	.6713"	17.05	18.0	143	93	48	400.74	383.32	365.89	348.47
26175	.6870"	17.45	18.0	143	93	48	400.74	383.32	365.89	348.47
26185	.6890"	17.50	18.0	143	93	48	394.35	377.20	360.06	342.91
26195	.7027"	17.85	18.0	143	93	48	394.35	377.20	360.06	342.91
26205	.7087"	18.00	18.0	143	93	48	387.83	370.97	354.10	337.24
26215	.7185"	18.25	20.0	153	101	50	497.32	475.70	454.07	432.45
26225	.7283"	18.50	20.0	153	101	50	490.74	469.40	448.07	426.73
26235	.7342"	18.65	20.0	153	101	50	490.74	469.40	448.07	426.73
26245	.7480"	19.00	20.0	153	101	50	484.36	463.30	442.24	421.18
26255	.7500"	19.05	20.0	153	101	50	484.36	463.30	442.24	421.18
26256	.7520"	19.10	20.0	153	101	50	484.36	463.30	442.24	421.18
26257	.7539"	19.15	20.0	153	101	50	484.36	463.30	442.24	421.18
26258	.7559"	19.20	20.0	153	101	50	484.36	463.30	442.24	421.18
26259	.7579"	19.25	20.0	153	101	50	484.36	463.30	442.24	421.18
26260	.7590"	19.28	20.0	153	101	50	484.36	463.30	442.24	421.18
26261	.7598"	19.30	20.0	153	101	50	484.36	463.30	442.24	421.18
26265	.7638"	19.40	20.0	153	101	50	484.36	463.30	442.24	421.18
26275	.7677"	19.50	20.0	153	101	50	477.42	456.66	435.91	415.15
26281	.7795"	19.80	20.0	153	101	50	477.42	456.66	435.91	415.15
26285	.7815"	19.85	20.0	153	101	50	477.42	456.66	435.91	415.15
26295	.7874"	20.00	20.0	153	101	50	470.75	450.28	429.81	409.34

.1575" - .2810"
(4.00mm - 7.14mm)



TOLERANCES

d	+0.000" -0.0005" (+0.000 -0.0127mm)
h	≤ 1/8" +.125" -0.062" (+3.175 -1.588mm)
	> 1/8" +.125" -0.125" (+3.175 -3.175mm)
l ₂	≤ 1/8" +.125" -0.062" (+3.175 -1.588mm)
	> 1/8" +.125" -0.125" (+3.175 -3.175mm)

Balinit® HELICA Coated

High performance - high penetration solid submicron grain carbide drill

Coolant through capabilities

Up to 70% faster than standard carbide drills

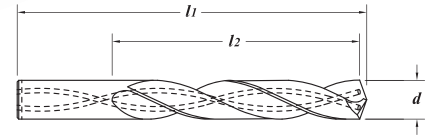
30° helix for better chip evacuation

Honed cutting edge

Recommended to run in high nickel, high temperature alloys,
cobalt-based alloys, stainless steels and tool steels

Live tooling recommended on lathe processes

Shank tolerance: -.0001" -.0004" (-.0025 / -.0100mm)



EDP#	d †		l ₁	l ₂	1-11	12-24	25-49	50-100
	Decimal	Diameter Metric						
NEW 26441	.1575	4.00	76	38	51.12	48.89	46.68	44.45
NEW 26446	.1590	#21	4.04	3"	1-1/2"	51.46	49.22	46.99
NEW 26451	.1610	#20	4.09	3"	1-1/2"	51.88	49.62	47.36
NEW 26456	.1660	#19	4.22	3"	1-1/2"	52.25	49.98	47.70
NEW 26461	.1695	#18	4.30	3-1/2"	1-3/4"	52.61	50.33	48.04
NEW 26466	.1719	11/64"	4.37	3-1/2"	1-3/4"	53.00	50.69	48.39
NEW 26471	.1730	#17	4.39	3-1/2"	1-3/4"	53.34	51.02	48.70
NEW 26476	.1770	#16	4.49	3-1/2"	1-3/4"	53.75	51.41	49.08
NEW 26481	.1772		4.50	88	45	54.14	51.79	49.43
NEW 26486	.1800	#15	4.57	3-1/2"	1-3/4"	54.49	52.11	49.74
NEW 26491	.1820	#14	4.62	3-1/2"	1-3/4"	54.85	52.47	50.08
NEW 26496	.1850	#13	4.70	3-1/2"	1-3/4"	55.23	52.83	50.43
NEW 26501	.1875	3/16"	4.76	4"	2"	55.65	53.23	50.81
NEW 26506	.1890	#12	4.80	4"	2"	55.99	53.56	51.13
NEW 26511	.1910	#11	4.85	4"	2"	56.36	53.90	51.46
NEW 26516	.1935	#10	4.91	4"	2"	56.75	54.29	51.81
NEW 26521	.1960	#9	4.98	4"	2"	57.09	54.60	52.12
NEW 26526	.1969		5.00	102	50	57.48	54.98	52.48
NEW 26531	.1990	#8	5.05	4"	2"	57.78	55.27	52.76
NEW 26536	.2010	#7	5.10	4"	2"	58.04	55.52	53.00
NEW 26541	.2031	13/64"	5.16	4"	2"	58.46	55.92	53.37
NEW 26546	.2040	#6	5.18	4"	2"	58.91	56.35	53.78
NEW 26551	.2055	#5	5.22	4"	2"	59.30	56.72	54.14
NEW 26556	.2090	#4	5.31	4"	2"	59.69	57.09	54.50
NEW 26561	.2130	#3	5.41	4"	2"	60.09	57.48	54.87
NEW 26566	.2165		5.50	102	50	60.46	57.82	55.20
26571	.2188	7/32"	5.56	4"	2"	60.82	58.18	55.53
26576	.2210	#2	5.61	4"	2"	61.78	59.09	56.40
26581	.2280	#1	5.79	4-1/8"	2-1/8"	70.78	67.70	64.63
26586	.2340	A	5.94	4-1/8"	2-1/8"	74.72	71.48	68.22
26591	.2344	15/64"	5.95	4-1/8"	2-1/8"	74.85	71.59	68.34
26596	.2362		6.00	105	55	75.00	71.74	68.48
26601	.2380	B	6.04	4-1/8"	2-1/8"	78.27	74.87	71.47
26606	.2420	C	6.15	4-1/4"	2-1/4"	78.58	75.16	71.75
26611	.2460	D	6.25	4-1/4"	2-1/4"	78.87	75.44	72.01
26616	.2500	1/4" / E	6.35	4-1/4"	2-1/4"	79.15	75.71	72.27
26621	.2559		6.50	108	58	79.99	76.51	73.03
26626	.2570	F	6.53	4-3/8"	2-3/8"	83.06	79.46	75.84
26631	.2610	G	6.63	4-3/8"	2-3/8"	83.91	80.26	76.61
26636	.2656	17/64"	6.75	4-3/8"	2-3/8"	84.74	81.06	77.37
26641	.2660	H	6.76	4-3/8"	2-3/8"	85.61	81.89	78.17
26646	.2720	I	6.91	4-3/8"	2-3/8"	85.70	81.97	78.24
26651	.2756		7.00	111	61	86.52	82.75	79.00
26656	.2770	J	7.03	4-3/8"	2-3/8"	90.89	86.93	82.98
26661	.2810	K	7.14	4-7/16"	2-7/16"	91.75	87.76	83.77

continued →

1880KH - 2 Flute (continued)

.2812" - .6299"
(7.14mm - 16.00mm)

EDP#	$d^{\dagger}$ Diameter		l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100
	Decimal	Metric						
26666	.2812	9/32"	7.14	4-7/16"	2-7/16"	92.59	88.57	84.54
26671	.2900	L	7.37	4-7/16"	2-7/16"	92.96	88.91	84.87
26676	.2950	M	7.49	4-7/16"	2-7/16"	93.42	89.36	85.30
26681	.2953		7.50	116	66	93.42	89.36	85.30
26686	.2969	19/64"	7.54	4-9/16"	2-9/16"	100.85	96.46	92.08
26691	.3020	N	7.67	4-9/16"	2-9/16"	102.78	98.31	93.85
26696	.3125	5/16"	7.94	4-11/16"	2-9/16"	102.98	98.50	94.03
26701	.3150		8.00	119	69	106.67	102.03	97.40
26706	.3160	O	8.03	4-11/16"	2-11/16"	108.46	103.75	99.03
26711	.3230	P	8.20	4-11/16"	2-11/16"	108.69	103.97	99.24
26716	.3281	21/64"	8.33	4-11/16"	2-11/16"	109.30	104.55	99.80
26721	.3320	Q	8.43	4-15/16"	2-15/16"	109.84	105.07	100.30
26726	.3346		8.50	125	75	110.32	105.53	100.73
26731	.3390	R	8.61	4-15/16"	2-15/16"	115.54	110.52	105.50
26736	.3438	11/32"	8.73	4-15/16"	2-15/16"	117.99	112.86	107.72
26741	.3480	S	8.84	5"	3"	120.23	115.00	109.78
26746	.3543		9.00	127	77	120.68	115.43	110.19
26751	.3580	T	9.09	5"	3"	132.42	126.66	120.91
26756	.3594	23/64"	9.13	5"	3"	132.90	127.12	121.35
26761	.3680	U	9.35	5"	3"	140.60	134.48	128.37
26766	.3740		9.50	130	80	141.49	135.34	129.19
26771	.3750	3/8"	9.52	5-1/8"	3-1/8"	145.22	138.90	132.59
26776	.3770	V	9.57	5-1/8"	3-1/8"	147.50	141.09	134.68
26781	.3860	W	9.80	5-1/8"	3-1/8"	148.00	141.56	135.13
26786	.3906	25/64"	9.92	5-1/4"	3-1/4"	148.91	142.43	135.96
26791	.3937		10.00	133	83	151.83	145.23	138.62
26796	.3970	X	10.08	5-1/4"	3-1/4"	156.88	150.06	143.24
26801	.4040	Y	10.26	5-3/8"	3-3/8"	159.99	153.04	146.08
26806	.4062	13/32"	10.32	5-3/8"	3-3/8"	160.90	153.90	146.91
26811	.4130	Z	10.49	5-3/8"	3-3/8"	163.56	156.45	149.33
26816	.4134		10.50	137	86	163.56	156.45	149.33
26821	.4219	27/64"	10.72	5-7/16"	3-7/16"	165.60	158.40	151.20
26826	.4331		11.00	138	88	172.01	164.53	157.05
26831	.4375	7/16"	11.11	5-7/16"	3-7/16"	175.68	168.04	160.40
26836	.4528		11.50	141	91	181.94	174.02	166.12
26841	.4531	29/64"	11.51	5-9/16"	3-13/16"	187.62	179.46	171.30
26846	.4688	15/32"	11.91	5-9/16"	3-13/16"	192.31	183.94	175.58
26851	.4724		12.00	141	98	197.25	188.67	180.10
26856	.4844	31/64"	12.30	5-9/16"	3-13/16"	202.36	193.56	184.77
26861	.4921		12.50	152	102	203.49	194.64	185.80
26866	.5000	1/2"	12.70	6"	4"	204.22	195.34	186.46
26871	.5118		13.00	152	102	213.81	204.52	195.22
26876	.5156	33/64"	13.10	6"	4"	222.80	213.12	203.42
26881	.5312	17/32"	13.49	6-1/8"	4-1/8"	226.43	216.58	206.74
26886	.5315		13.50	156	105	229.93	219.94	209.93
26891	.5469	35/64"	13.89	6-1/8"	4-1/8"	242.53	231.98	221.44
26896	.5512		14.00	156	105	246.08	235.38	224.68
26901	.5625	9/16"	14.29	6-1/4"	4-3/8"	266.73	255.13	243.54
26906	.5709		14.50	159	109	268.83	257.14	245.45
26911	.5781	37/64"	14.68	6-1/4"	4-3/8"	269.55	257.83	246.11
26916	.5906		15.00	162	112	273.06	261.19	249.32
26921	.5938	19/32"	15.08	6-3/8"	4-3/8"	280.16	267.98	255.79
26926	.6094	39/64"	15.48	6-7/16"	4-7/16"	315.28	301.57	287.86
26931	.6102		15.50	164	113	316.15	302.40	288.66
26936	.6250	5/8"	15.87	6-9/16"	4-9/16"	324.90	310.77	296.64
26941	.6299		16.00	167	117	329.16	314.85	300.54