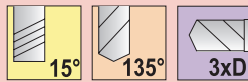


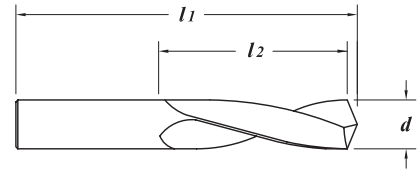
.0625" - .1575"
(1,59mm - 4,00mm)



TOLERANCES

d	+0,0000 -0,0127mm (+.0000" -.0005")
l_1	$\leq 1/8"$ +3,175 -1,588mm (+.125" -.062") $> 1/8"$ +3,175 -3,175mm (+.125" -.125")
l_2	$\leq 1/8"$ +3,175 -1,588mm (+.125" -.062") $> 1/8"$ +3,175 -3,175mm (+.125" -.125")

Balinit® HARDLUBE Coated
Balinit® HARDLUBE-Beschichtet
Recubrimiento de Balinit® HARDLUBE
Revêtement Balinit® HARDLUBE
Rivestimento in Balinit® HARDLUBE
Balinit® HARDLUBE 涂层



DRILLS



Solid submicron grain carbide drill
 Excellent heat resistance and lubricity
 Up to 40% faster than uncoated
 Heavy web for extra rigidity and added strength
 Thinned point

Recommended to run in titanium, inconel, hastalloy, waspalloy, and stainless steel
 Live tooling recommended on lathe processes
 Shank tolerance: -0,0025 / -0,0100mm (-.0001" -.0004")



Vollhartmetallbohrer aus Feinkornhartmetall
 Exzellente Hitzebeständigkeit und Schmiereigenschaften
 Bis zu 40% schneller als unbeschichtete Werkzeuge
 Starke Schneidkante für hohe Stabilität
 Ausspitzung

Empfohlen für Titan, Inconel, Hastalloy, Waspalloy, und rostfreie Stähle
 Empfehlung fuer den Einsatz auf der Drehmaschine
 Schaft-Toleranz: -0,0025 / -0,0100mm (-.0001" -.0004")



Broca de submicrograno sólido carburo
 Excelente resistencia térmica y lubricación
 Hasta un 40% más rápido que sin recubrimiento
 Cuerpo resistente para mayor rigidez y resistencia
 Punta rebajada

Recomendado para titanio, inconel, hastalloy, waspalloy y acero inoxidable
 Recomendación para la aplicación en torno
 Tolerancia del vástago: -0,0025 / -0,0100mm (-.0001" -.0004")



Forets carbure submicrograin
 Excellente resistance a la haute temperature et glissement
 40% plus rapide que le non revetu
 Corps lourd pour plus de rigidité
 Ame amincie

Recommander pour titane, inconel, hastalloy, waspalloy et acier inoxydable
 Outillage allumé est conseillé pendant les process avec le tour
 Tolerance de la tige: -0,0025 / -0,0100mm (-.0001" -.0004")



Super sub-micrograno metallo duro
 Eccellente resistenza al calore e autolubrificante
 Fino al 40% più veloce rispetto al non rivestito
 Gambo robusto per una massima rigidità
 Centro scaricato

Raccomandata per lavorazioni su titanio, inconel, hastalloy, waspalloy e acciaio inox
 Giri consigliati per forature su tornio
 Tolleranza gambo: -0,0025 / -0,0100mm (-.0001" -.0004")



整体硬质合金钻头
 耐热性和润滑性特好
 跟无涂层刀具相比可提高速度高达 40%
 大的中心刃产生超强刚性和强度
 经过修磨的刀尖

推荐加工钛合金、铬镍铁耐热耐蚀合金、耐盐酸镍基合金、耐高镍基合金和不锈钢合金
 推荐在车床加工中
 柄部公差: -0,0025 / -0,0100mm (-.0001" -.0004")

EDP#	$d^{\dagger}$		l_1	l_2
	Decimal	Diameter Metric		
19071	.0625	1/16"	1,59	5/8"
19076	.0635	#52	1,61	1-11/16"
19081	.0670	#51	1,70	1-11/16"
19086	.0700	#50	1,78	1-11/16"
19091	.0730	#49	1,85	1-11/16"
19096	.0760	#48	1,93	1-11/16"
19101	.0781	5/64"	1,98	1-11/16"
19106	.0785	#47	1,99	1-3/4"
19116	.0787	2,00	45	19
19121	.0810	#46	2,06	1-3/4"
19126	.0820	#45	2,08	1-3/4"
19131	.0860	#44	2,18	1-3/4"
19136	.0890	#43	2,26	1-3/4"
19141	.0935	#42	2,37	1-3/4"
19146	.0938	3/32"	2,38	1-3/4"
19151	.0960	#41	2,44	1-13/16"
19156	.0980	#40	2,49	1-13/16"
19161	.0984	2,50	46	21
19166	.0995	#39	2,53	1-13/16"
19171	.1015	#38	2,58	1-13/16"
19176	.1040	#37	2,64	1-13/16"
19181	.1065	#36	2,71	1-13/16"
19186	.1094	7/64"	2,78	1-13/16"
19191	.1100	#35	2,79	1-7/8"
19196	.1110	#34	2,82	1-7/8"
19201	.1130	#33	2,87	1-7/8"
19206	.1160	#32	2,95	1-7/8"
19211	.1181	3,00	48	22
19216	.1200	#31	3,05	1-7/8"
19221	.1250	1/8"	3,17	1-7/8"
19226	.1285	#30	3,26	1-15/16"
19231	.1360	#29	3,45	1-15/16"
19236	.1378	3,50	49	24
19241	.1405	#28	3,57	1-15/16"
19246	.1406	9/64"	3,57	1-15/16"
19251	.1440	#27	3,66	2-1/16"
19256	.1470	#26	3,73	2-1/16"
19261	.1495	#25	3,80	2-1/16"
19266	.1520	#24	3,86	2-1/16"
19271	.1540	#23	3,91	2-1/16"
19276	.1562	5/32"	3,97	2-1/16"
19281	.1570	#22	3,99	2-1/8"
19286	.1575	4,00	54	27

continued →

1510H / z = 2 (continued)

.1590" - .3346"
(4,04mm - 8,50mm)

DRILLS

EDP#	$d^{\dagger}$ Diameter		l_1 Overall Length	l_2 Flute Length
	Decimal	Metric		
19291	.1590	#21	4,04	2-1/8"
19296	.1610	#20	4,09	2-1/8"
19301	.1660	#19	4,22	2-1/8"
19306	.1695	#18	4,30	2-1/8"
19311	.1719	11/64"	4,37	2-1/8"
19316	.1730	#17	4,39	2-3/16"
19321	.1770	#16	4,49	2-3/16"
19326	.1772		4,50	56
19331	.1800	#15	4,57	2-3/16"
19336	.1820	#14	4,62	2-3/16"
19341	.1850	#13	4,70	2-3/16"
19346	.1875	3/16"	4,76	2-3/16"
19351	.1890	#12	4,80	2-1/4"
19356	.1910	#11	4,85	2-1/4"
19361	.1935	#10	4,91	2-1/4"
19366	.1960	#9	4,98	2-1/4"
19371	.1969		5,00	57
19376	.1990	#8	5,05	2-1/4"
19381	.2010	#7	5,10	2-1/4"
19386	.2031	13/64"	5,16	2-1/4"
19391	.2040	#6	5,18	2-3/8"
19396	.2055	#5	5,22	2-3/8"
19401	.2090	#4	5,31	2-3/8"
19406	.2130	#3	5,41	2-3/8"
19411	.2165		5,50	60
19416	.2188	7/32"	5,56	2-3/8"
19421	.2210	#2	5,61	2-7/16"
19426	.2280	#1	5,79	2-7/16"
19431	.2340	A	5,94	2-7/16"
19436	.2344	15/64"	5,95	2-7/16"
19441	.2362		6,00	64
19446	.2380	B	6,04	2-1/2"
19451	.2420	C	6,15	2-1/2"
19456	.2460	D	6,25	2-1/2"
19461	.2500	1/4" / E	6,35	2-1/2"
19466	.2559		6,50	67
19471	.2570	F	6,53	2-5/8"
19476	.2610	G	6,63	2-5/8"
19481	.2656	17/64"	6,75	2-5/8"
19486	.2660	H	6,76	2-11/16"
19491	.2720	I	6,91	2-11/16"
19496	.2756		7,00	68
19501	.2770	J	7,03	2-11/16"
19506	.2810	K	7,14	2-11/16"
19511	.2812	9/32"	7,14	2-11/16"
19516	.2900	L	7,37	2-3/4"
19521	.2950	M	7,49	2-3/4"
19526	.2953		7,50	70
19531	.2969	19/64"	7,54	2-3/4"
19536	.3020	N	7,67	2-13/16"
19541	.3125	5/16"	7,94	2-13/16"
19546	.3150		8,00	75
19551	.3160	O	8,03	2-15/16"
19556	.3230	P	8,20	2-15/16"
19561	.3281	21/64"	8,33	2-15/16"
19566	.3320	Q	8,43	3"
19571	.3346		8,50	76

1510H / z = 2 (continued)

.3390" - .6299"
(8,61mm - 16,00mm)

EDP#	d^+ Diameter		l_1 Overall Length	l_2 Flute Length
	Decimal	Metric		
19576	.3390	R 8,61	3"	1-11/16"
19581	.3438	11/32" 8,73	3"	1-11/16"
19586	.3480	S 8,84	3-1/16"	1-3/4"
19591	.3543	9,00	78	44
19596	.3580	T 9,09	3-1/16"	1-3/4"
19601	.3594	23/64" 9,13	3-1/16"	1-3/4"
19606	.3680	U 9,35	3-1/8"	1-13/16"
19611	.3740	9,50	79	46
19616	.3750	3/8" 9,52	3-1/8"	1-13/16"
19621	.3770	V 9,57	3-1/4"	1-7/8"
19626	.3860	W 9,80	3-1/4"	1-7/8"
19631	.3906	25/64" 9,92	3-1/4"	1-7/8"
19636	.3937	10,00	84	49
19641	.3970	X 10,08	3-5/16"	1-15/16"
19646	.4040	Y 10,26	3-5/16"	1-15/16"
19651	.4062	13/32" 10,32	3-5/16"	1-15/16"
19656	.4130	Z 10,49	3-3/8"	2"
19661	.4134	10,50	86	51
19666	.4219	27/64" 10,72	3-3/8"	2"
19671	.4331	11,00	87	52
19676	.4375	7/16" 11,11	3-7/16"	2-1/16"
19681	.4528	11,50	91	54
19686	.4531	29/64" 11,51	3-9/16"	2-1/8"
19691	.4688	15/32" 11,91	3-5/8"	2-1/8"
19696	.4724	12,00	94	56
19701	.4844	31/64" 12,30	3-11/16"	2-3/16"
19706	.4921	12,50	95	56
19711	.5000	1/2" 12,70	3-3/4"	2-1/4"
19716	.5118	13,00	107	60
19721	.5156	33/64" 13,10	4-1/4"	2-3/8"
19726	.5312	17/32" 13,49	4-1/4"	2-3/8"
19731	.5315	13,50	107	60
19736	.5469	35/64" 13,89	4-1/4"	2-3/8"
19741	.5512	14,00	107	60
19746	.5625	9/16" 14,29	4-1/2"	2-1/2"
19751	.5709	14,50	115	65
19756	.5781	37/64" 14,68	4-1/2"	2-1/2"
19761	.5906	15,00	115	65
19766	.5938	19/32" 15,08	4-1/2"	2-1/2"
19771	.6094	39/64" 15,48	4-1/2"	2-1/2"
19776	.6102	15,50	115	65
19781	.6250	5/8" 15,87	4-1/2"	2-1/2"
19786	.6299	16,00	115	65