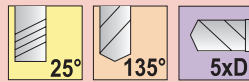


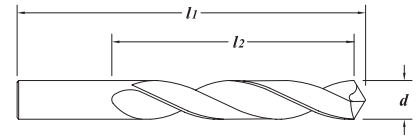
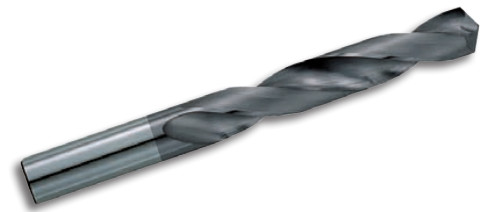
.0625" - .1575"
(1,59mm - 4,00mm)



TOLERANCES

d	+0,0000 -0,0127mm (+.0000" -.0005")
l ₁	≤ 1/8" +3,175 -1,588mm (+.125" -.062")
	> 1/8" +3,175 -3,175mm (+.125" -.125")
l ₂	≤ 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
 No spotting required in most applications
 4-facet self-centering point
 Adaptability when converting from high-speed steel
Recommended to run in titanium, inconel, hastalloy, wasp alloy, 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
 Vorzentrieren bei den meisten Anwendungen nicht notwendig
 4-Fasen-Anschliff Selbstzentrierend Punkt
 Anpassungsfähig beim Umstieg von Hochleistungsschnellstahl (HSS)
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
 No se requiere pretaladrado para la mayoría de las aplicaciones
 Punta de 4 caras autocentrada
 Adaptable para trabajos con aceros de alta velocidad
Recomendado para titanio, inconel, hastalloy, wasp alloy 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
 Pas de point de centre requis pour la plupart des applications
 Pointe auto centrante avec 4 faces de depouille
Recommander pour titane, inconel, hastalloy, wasp alloy 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
 Pre-centraggio non richiesto nella maggior parte delle applicazioni
 Punto 4 facce autocentrante
 Alternativa alle punte tradizionali in HSS
Raccomandata per lavorazioni su titanio, inconel, hastalloy, wasp alloy 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%
 4-小平面自定心刀尖
 在多数用途中不需要定心
 能适应从高速钢转换
推荐加工钛合金、铬镍铁耐热耐蚀合金、耐盐酸镍基合金、耐高热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		
89166	.0625	1/16"	1,59	3/4"
89171	.0635	#52	1,61	3/4"
89176	.0670	#51	1,70	3/4"
89181	.0700	#50	1,78	7/8"
89186	.0730	#49	1,85	7/8"
89191	.0760	#48	1,93	7/8"
89196	.0781	5/64"	1,98	7/8"
89201	.0785	#47	1,99	7/8"
89206	.0787	2,00	44	22
89211	.0810	#46	2,06	7/8"
89216	.0820	#45	2,08	7/8"
89221	.0860	#44	2,18	1"
89226	.0890	#43	2,26	1"
89231	.0935	#42	2,37	1"
89236	.0938	3/32"	2,38	1"
89241	.0960	#41	2,44	1"
89246	.0980	#40	2,49	1"
89251	.0984	2,50	57	32
89256	.0995	#39	2,53	1-1/4"
89261	.1015	#38	2,58	1-1/4"
89266	.1040	#37	2,64	1-1/4"
89271	.1065	#36	2,71	1-1/4"
89276	.1094	7/64"	2,78	1-1/4"
89281	.1100	#35	2,79	1-1/4"
89286	.1110	#34	2,82	1-1/4"
89291	.1130	#33	2,87	1-1/4"
89296	.1160	#32	2,95	1-1/4"
89301	.1181	3,00	57	32
89306	.1200	#31	3,05	1-1/4"
89311	.1250	1/8"	3,17	1-1/4"
89316	.1285	#30	3,26	1-1/4"
89321	.1360	#29	3,45	1-3/8"
89326	.1378	3,50	63	35
89331	.1405	#28	3,57	1-3/8"
89336	.1406	9/64"	3,57	1-3/8"
89341	.1440	#27	3,66	1-3/8"
89346	.1470	#26	3,73	1-3/8"
89351	.1495	#25	3,80	1-3/8"
89356	.1520	#24	3,86	1-3/8"
89361	.1540	#23	3,91	1-3/8"
89366	.1562	5/32"	3,97	1-3/8"
89371	.1570	#22	3,99	1-3/8"
89376	.1575	4,00	63	35

continued →

1205H / z = 2 (continued)

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

EDP#	$d^{\dagger}$ Diameter			l_1 Overall Length	l_2 Flute Length
	Decimal		Metric		
89381	.1590	#21	4,04	2-1/2"	1-3/8"
89386	.1610	#20	4,09	2-1/2"	1-3/8"
89391	.1660	#19	4,22	2-3/4"	1-5/8"
89396	.1695	#18	4,30	2-3/4"	1-5/8"
89401	.1719	11/64"	4,37	2-3/4"	1-5/8"
89406	.1730	#17	4,39	2-3/4"	1-5/8"
89411	.1770	#16	4,49	2-3/4"	1-5/8"
89416	.1772		4,50	70	41
89421	.1800	#15	4,57	2-3/4"	1-5/8"
89426	.1820	#14	4,62	2-3/4"	1-5/8"
89431	.1850	#13	4,70	2-3/4"	1-5/8"
89436	.1875	3/16"	4,76	2-3/4"	1-5/8"
89441	.1890	#12	4,80	2-3/4"	1-5/8"
89446	.1910	#11	4,85	2-3/4"	1-5/8"
89451	.1935	#10	4,91	2-3/4"	1-5/8"
89456	.1960	#9	4,98	3"	1-3/4"
89461	.1969		5,00	76	44
89466	.1990	#8	5,05	3"	1-3/4"
89471	.2010	#7	5,10	3"	1-3/4"
89476	.2031	13/64"	5,16	3"	1-3/4"
89481	.2040	#6	5,18	3"	1-3/4"
89486	.2055	#5	5,22	3"	1-3/4"
89491	.2090	#4	5,31	3"	1-3/4"
89496	.2130	#3	5,41	3"	1-3/4"
89501	.2165		5,50	76	44
89506	.2188	7/32"	5,56	3"	1-3/4"
89511	.2210	#2	5,61	3"	1-3/4"
89516	.2280	#1	5,79	3"	1-3/4"
89521	.2340	A	5,94	3-1/4"	2"
89526	.2344	15/64"	5,95	3-1/4"	2"
89531	.2362		6,00	82	50
89536	.2380	B	6,04	3-1/4"	2"
89541	.2420	C	6,15	3-1/4"	2"
89546	.2460	D	6,25	3-1/4"	2"
89551	.2500	1/4" / E	6,35	3-1/4"	2"
89556	.2559		6,50	82	50
89561	.2570	F	6,53	3-1/4"	2"
89566	.2610	G	6,63	3-1/2"	2-1/8"
89571	.2656	17/64"	6,75	3-1/2"	2-1/8"
89576	.2660	H	6,76	3-1/2"	2-1/8"
89581	.2720	I	6,91	3-1/2"	2-1/8"
89586	.2756		7,00	88	54
89591	.2770	J	7,03	3-1/2"	2-1/8"
89596	.2810	K	7,14	3-1/2"	2-1/8"
89601	.2812	9/32"	7,14	3-1/2"	2-1/8"
89606	.2900	L	7,37	3-1/2"	2-1/8"
89611	.2950	M	7,49	3-3/4"	2-3/8"
89616	.2953		7,50	95	60
89621	.2969	19/64"	7,54	3-3/4"	2-3/8"
89626	.3020	N	7,67	3-3/4"	2-3/8"
89631	.3125	5/16"	7,94	3-3/4"	2-3/8"
89636	.3150		8,00	95	60
89641	.3160	O	8,03	3-3/4"	2-3/8"
89646	.3230	P	8,20	3-3/4"	2-3/8"
89651	.3281	21/64"	8,33	4"	2-1/2"
89656	.3320	Q	8,43	4"	2-1/2"
89661	.3346		8,50	101	63

1205H / z = 2 (continued)

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

DRILLS

EDP#	$d^{\dagger}$ Diameter		l_1 Overall Length	l_2 Flute Length
	Decimal	Metric		
89666	.3390	R 8,61	4"	2-1/2"
89671	.3438	11/32" 8,73	4"	2-1/2"
89676	.3480	S 8,84	4"	2-1/2"
89681	.3543	9,00	101	63
89686	.3580	T 9,09	4-1/4"	2-3/4"
89691	.3594	23/64" 9,13	4-1/4"	2-3/4"
89696	.3680	U 9,35	4-1/4"	2-3/4"
89701	.3740	9,50	107	70
89706	.3750	3/8" 9,52	4-1/4"	2-3/4"
89711	.3770	V 9,57	4-1/4"	2-3/4"
89716	.3860	W 9,80	4-1/2"	2-7/8"
89721	.3906	25/64" 9,92	4-1/2"	2-7/8"
89726	.3937	10,00	114	73
89731	.3970	X 10,08	4-1/2"	2-7/8"
89736	.4040	Y 10,26	4-1/2"	2-7/8"
89741	.4062	13/32" 10,32	4-1/2"	2-7/8"
89746	.4130	Z 10,49	4-1/2"	2-7/8"
89751	.4134	10,50	114	73
89756	.4219	27/64" 10,72	4-1/2"	2-7/8"
89761	.4331	11,00	114	73
89766	.4375	7/16" 11,11	4-1/2"	2-7/8"
89771	.4528	11,50	120	76
89776	.4531	29/64" 11,51	4-3/4"	3"
89781	.4688	15/32" 11,91	4-3/4"	3"
89786	.4724	12,00	120	76
89791	.4844	31/64" 12,30	4-3/4"	3"
89796	.4921	12,50	120	76
89801	.5000	1/2" 12,70	4-3/4"	3"
89806	.5118	13,00	127	83
89811	.5156	33/64" 13,10	5"	3-1/4"
89816	.5312	17/32" 13,49	5"	3-1/4"
89821	.5315	13,50	127	83
89826	.5469	35/64" 13,89	5"	3-1/4"
89831	.5512	14,00	127	83
89836	.5625	9/16" 14,29	5"	3-1/4"
89841	.5709	14,50	127	83
89846	.5781	37/64" 14,68	5-1/4"	3-1/2"
89851	.5906	15,00	133	89
89856	.5938	19/32" 15,08	5-1/4"	3-1/2"
89861	.6094	39/64" 15,48	5-1/4"	3-1/2"
89866	.6102	15,50	133	89
89871	.6250	5/8" 15,87	5-1/4"	3-1/2"
89876	.6299	16,00	133	89