

Diprofil diamante

DIPROFIL®

Diprofil Rotary Diamond and CBN Tools are made from carefully selected quality diamonds and Cubic Boron Nitride, precisely bonded to obtain the best physical properties for added strength and resistance to wear.

Electroplated Diamond pins and wheels are excellent for general grinding applications in hard materials such as carbide, hardened steel and ceramics. They are normally used without cooling agent but in stationary applications, and when grinding in thin glass cooling is often required. Maximum temperature for Diamonds is 800° C.

Electroplated cylindrical CBN pins are excellent for general grinding applications in hardened steel. They are normally used without cooling agent but in stationary applications cooling is often required. Maximum temperature for CBN is 1200° C.



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Recommended speeds

Recommend speed for dry cutting:

Diamond: 10 – 20 m/s

CBN: 15 – 30 m/s

Recommend speed for wet cutting:

Diamond: 15 – 30 m/s

CBN: 20 – 45 m/s

Cooling: Cooling normally enhances the lifetime of the tools. In addition it also generates a better surface. The risk for damage on thin or sharp edges of the grinding tool is reduced when using coolant.

Cooling is performed with an emulsion or grinding oil. For diamond tools an Emulsion is specially recommended and for CBN tools a mineral oil is preferable.

Recommended speeds in RPM

Tool Ø (mm)	Peripheral speed (m/s)							
	10	20	25	30	35	40	45	50
2	95541	191083	238854	286624	334395	382166	429936	477707
3	63694	127389	159236	191083	222930	254777	286624	318471
4	47771	95541	119427	143312	167197	191083	214968	238854
5	38217	76433	95541	114650	133758	152866	171975	191083
6	31847	63694	79618	95541	111465	127389	143312	159236
7	27298	54595	68244	81893	95541	109190	122839	136488
8	23885	47771	59713	71656	83599	95541	107484	119427
9	21231	42463	53079	63694	74310	84926	95541	106157
10	19108	38217	47771	57325	66879	76433	85987	95541
12	15924	31847	39809	47771	55732	63694	71656	79618
14	13649	27298	34122	40946	47771	54595	61419	68244
16	11943	23885	29857	35828	41799	47771	53742	59713
18	10616	21231	26539	31847	37155	42463	47771	53079
20	9554	19108	23885	28662	33439	38217	42994	47771
22	8686	17371	21714	26057	30400	34742	39085	43428
24	7962	15924	19904	23885	27866	31847	35828	39809
26	7349	14699	18373	22048	25723	29397	33072	36747
28	6824	13649	17061	20473	23885	27298	30710	34122
30	6369	12739	15924	19108	22293	25478	28662	31847
35	5460	10919	13649	16379	19108	21838	24568	27298