

DIAMOND & CBN INTERNAL GRINDING WHEELS

for High Precision Internal Grinding

DIAMOND & CBN INTERNAL GRINDING WHEELS produced by PARAS DIAMOND CO. INDUSTRIAL DIAMOND TOOLS DIVISION are used for High Precision machining, Grinding, Shaping, Forming, Countersinking and slotting. DIAMONDS & CBN Grains are deposited with various Bonding matrixes in every possible shapes, it provides wide range of capabilities; even for application such as for internal grinding of carbide dies & other wear parts with precision.

The advantages of these pins are, they enable Faster Stock Removal, Generates More Production, can avoid Coolant, Avoids dressing and Makes it easy for making complicated forms.

We Manufacture DIAMOND & CBN Grinding Wheels Standard Sizes Following by:

Our Internal Diamond Grinding Wheels are widely used for jigs - Internal grinding and precision grinding of small holes in carbide, ceramics, sapphire, glass and other Ferrous- non Ferrous materials with Jig Grinder, I.D. grinder, machine centers and others.

DIAMOND & CBN Internal Grinding Wheels are produced with following Bonding Matrix:

Standard Sizes					
Head Dia D mm	Coated Length C mm	Neck Length N mm	Shank Dia d mm	Overall Length L mm	Grit
0.5	3	6	3	50	200/230
0.75	3	7	3	50	
1.0	4	8	3	50	140/170
1.5	5	10	3	50	
2.0	5	15	3	50	100/120
2.5	6	20	3	50	
3.0	6	20	3	50	
3.5	6	20	6	60	100/120
4.0	6	25	6	60	
4.5	7	25	6	60	
5.0	7	25	6	60	
6.0	7	25	6	60	
7.0	8	-	6	60	
8.0	8	-	6	60	

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DIAMOND & CBN Internal Grinding Wheels are produced with following Bonding Matrix:

Type of Super Abrasives	Symbol
DIAMOND	D
CBN	B

Type of Bond	Symbol
Metallic / Metal Bond	M
Resinoid / Resin Bond	R
Electrodeposited / Electroplated Bond	E
Ceramic / Vitrified Bond	V

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DIAMOND	CBN
Tungsten carbide- pre sintered, Tungsten carbide with steel combinations, Wear resistant coatings, Cast iron, glass, quartz, precious and semi precious stones, alumina, ceramics, germanium, silicon, graphite, Glass fiber reinforced plastics, Bonded sic or aluminum oxide abrasives	Spring steels, High alloy steels, High speed tools steels, Hot and cold working steels, Case hardening steels, Tempering steels, Ball bearing steels

FYI: CBN grains have more thermal stability than DIAMOND Grains. Higher Thermal stability increases Tool life & makes it ideal and cost effective for tooling Harden materials.

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to PARAS DIAMOND CO. Standards

PDC IGW 1	PDC IGW 2	
<p>PDC IGW 1</p>	<p>PDC IGW 2</p>	
PDC IGW 3	PDC IGW 4	
<p>PDC IGW 3</p>	<p>PDC IGW 4</p>	
PDC IGW 5	PDC IGW 6	PDC IGW 7
<p>PDC IGW 5</p>	<p>PDC IGW 6</p>	<p>PDC IGW 7</p>

Speed

Recommended speeds are between 28 to 30 m/sec. Excellent results can be achieved at speed 45,000 - 60,000 RPM.

Feed

Suggested Feeds for jig or internal grinding are from 0.0002" to 0.0004" per pass

Coolant

Coolant should be used wherever possible

Note:

1. Keep Tool Over Hang as short as possible. One half of the grinding point should stay in contact at the end of the stroke
2. Low concentration provides more Aggressive cutting, coarser finish and potentially higher wheel wear, while high concentration provides less Aggressive cutting, finer finish and lower wheel wear.