

SPECIFICATION

1B 126 H 7 VP063 200

Abrasive Type	Grit Size	Hardness	Structure	Bond	Concentration
CBN	Thinner 46	Hard P	12 - Opened	Vitrified	200
1B	↑ ↓ 252 Thicker	↑ ↓ F Soft	6 - Standard	V	175
2B					150
3B					125
			3 - Closed		75
					50

ABRASIVE TYPE

Cubic Boron Nitride - CBN

The CBN is a synthetic abrasive twice harder and four times more resistant than the abrasion of conventional abrasives. Only the diamond is a more resistant than CBN.



HARDNESS

The hardness is determined by the higher or lower capacity of the bond to retain the abrasive grain. The hardness of the grinding wheel is indicated by letters being D the softest and P the hardest.

SIZE GRAIN

The size of the abrasive grains affects the power of removal of CBN grinding wheels, the thicker the grain, more cutting power, and hence, the ground surface will be rougher. The nomenclature follows the CBN International Standards according to table below:

Grain Size	FEPA	ISO
60 / 80	B 252	250 / 180
80 / 100	B 181	180 / 150
100 / 120	B 151	150 / 125
120 / 140	B 126	125 / 106
170 / 200	B 107	106 / 90
170 / 200	B 91	90 - 75
200 / 230	B 76	75 / 63
230 / 270	B 64	63 / 53
270 / 325	B 54	53 / 45
325 / 4000	B 46	54 / 45

BOND

Bonds are ceramic (V) materials and it is used to join the abrasive grains.

CONCENTRATION

The performance of a Vitrified CBN Grinding Wheel is also related to the concentration of CBN, the higher this concentration, better the performance of the wheel.

Concentration is the amount of CBN Grinding Wheel per cm³. Its measurement is made in carat and obey an International Standard.

TECHNICAL DATA

The process of Grinding with CBN Wheels improves the operational capability of modern machines available in the global market, providing more productivity and efficiency. CBN Grinding Wheels have a longer life due to long intervals of dressing added to the smallest increment, providing high performance between changes of grinding.

Another advantages is the quality of the parts rectified without generating excessive heat, getting better finishings and better consistency piece by piece.

SURFACE INTEGRITY

The performance of a Grinding Wheel can be compared through resistance surface tensions applied during grinding.

In a conventional grinding wheel with normal working conditions are only applied compressive residual forces, if we increase this force, the applied voltage will start to act internally on the wheel reducing its cutting power, but in the case of vitrified CBN wheels is possible to work with much higher tensions on the surface without compromising cutting power.

DRESSING

The effect of depth and speed during dressing mainly affects the roughness of the workpiece. The faster the passage of the dresser higher the surface roughness rectified part and it proves that the roughness can be controlled.

When the depth of the dressing is less than 10 microns per pass, the roughness receives almost no interference of the operation and so the surface roughness is defined by the size of the abrasive.

APPLICATIONS

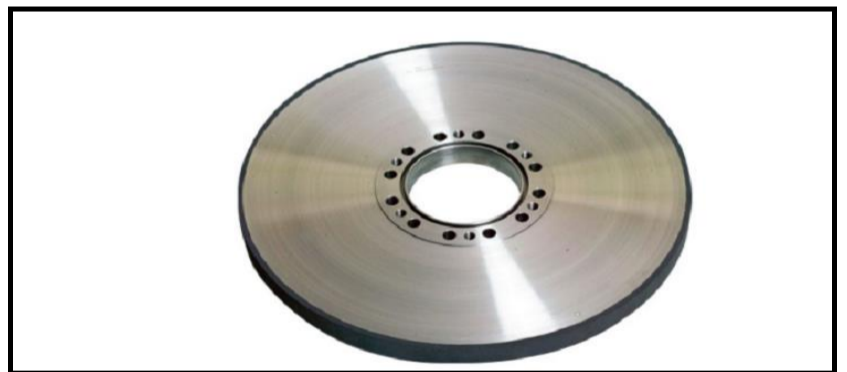
- Internal Grinding Wheel - Races and Holes



- Special Mounted Points



- Crankshaft / Camshaft



- Special Shapes and Cups

