

# ONFLO Superabrasives

Engineered for Performance – The Ultimate Tooling Solution for Every Job.

**PRODUCT CATALOGUE**



[www.onflo.in](http://www.onflo.in)

**onflo**

# Our legacy of Excellence

Our commitment to precision, quality, and innovation has allowed us to build long-lasting partnerships and deliver exceptional value to our clients. From skilled craftsmanship to pioneering techniques, every product reflects our dedication to enhancing performance and setting new industry standards.

**25+**

in the Industry

**280+**

Customers Acquired

**20+**

Partners pan India

**97%**

customer retention rate

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**OUR VALUED CUSTOMERS**

## Serving industry leaders



## RESIN-BONDED DIAMOND TOOLS

Our resin-bonded diamond tools are designed for optimal performance in cutting, grinding, and polishing applications. These tools are widely used in industries where precision and durability are paramount.



## CBN-BONDED DIAMOND TOOLS

Cubic Boron Nitride (CBN) is second only to diamond in hardness, making our CBN-bonded tools the perfect choice for high-precision grinding and machining of hardened steels, superalloys, and other hard materials.



## CUSTOM TOOL SOLUTIONS

We understand that every application is unique, which is why we offer custom-designed diamond tools tailored to the specific needs of our customers.



## TOOL MAINTENANCE & SUPPORT

To maximize the lifespan and performance of your tools, we also offer maintenance services and after-sales support, ensuring your diamond tools continue to deliver exceptional results.



# Product Overview



Resin bonded diamond wheels are designed for precision grinding of tungsten carbide, HSS tools, ceramics, glass, PCD/PCBN tools, and other hard materials. The resin bond ensures a cool cutting action and fine surface finish. Phenolic and polyimide bonds are used depending on application temperature requirements.



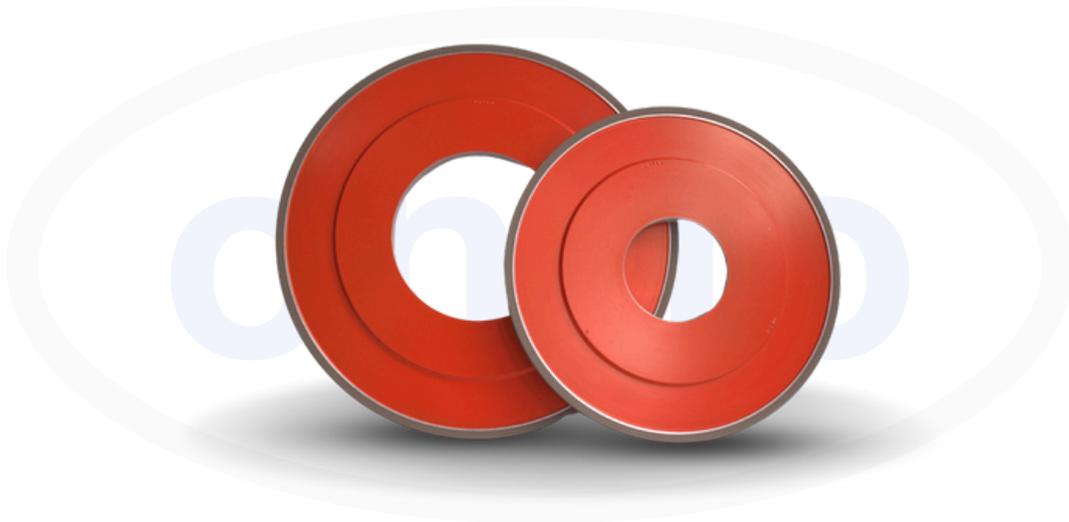
## Grit Size Reference (FEPA Standard)

Grit	Avg. Diamond Size ( $\mu\text{m}$ )	Finish
D7-D20	2 to 10	Mirror Finish
D46	30 to 40	Fine Grinding
D64	50 to 60	Medium Grinding
D91	75 to 90	Rough Grinding
D126	100 to 120	Stock Removal
D181	150 to 180	Heavy Roughing

# Technical Data

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Parameter	Typical Range
Operating Speed	25–40 m/s
Working Temperature	150–200°C (phenolic) / up to 400°C (polyimide)
Porosity	5–15%
Diamond Concentration	50–150% (4.4 ct/cm <sup>3</sup> base)
Shrinkage after Curing	0.2–0.4%



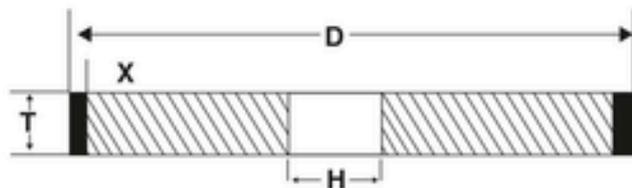
## Typical Applications

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- Tool Industry: Carbide drills, end mills, reamers, and inserts
- Glass & Ceramic Industry: Optical glass and ceramics
- PCD/PCBN Tools: Sharpening and profiling
- Aerospace & Automotive: Precision components and molds
- Semiconductor: Wafer back grinding

## Diamond & CBN Superabrasive Wheels

# 1A1



### Fluting Wheel

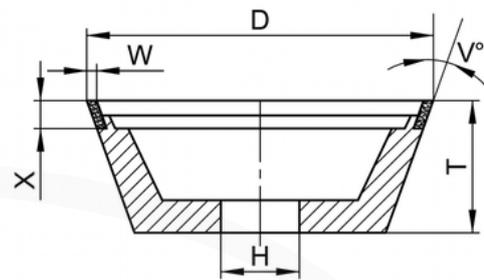
Suitable for flute grinding of solid carbide drills and end mills, ensuring smooth chip flow geometry, controlled material removal, and excellent surface integrity.

Diameter (D)	Thickness (T)	Bore (H)	Depth (X)
75	6 to 12	20, 31.75	5, 10
100	6 to 16	20, 31.75	5, 10
125	6 to 12	20, 31.75	5, 10
150	6 to 25	20, 31.75, 50.8, 76.2	5, 10
175	6 to 25	31.75, 50.8, 76.2	5, 10

*\*Dimensions can be altered for the Special tools*

## Diamond & CBN Superabrasive Wheels

# 11V9



### Cup Wheel

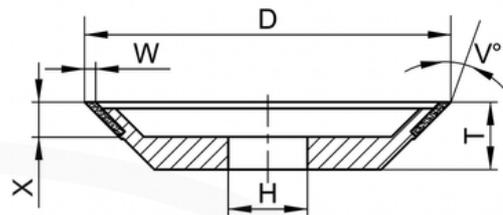
This high performance level is also achievable with cup wheels for machining clearance surfaces and face geometries on tungsten carbide and hardened tool materials.

Diameter (D)	Thickness (T)	Bore (H)	Depth (W)	Usable Layer (X)	Angle (V°)
75	30	20, 31.75	3, 5, 10	10	20*
100	35	20, 31.75	3, 5, 10	10	20*
125	40	20, 31.75	3, 5, 10	10	20*

*\*Dimensions can be altered for the Special tools*

## Diamond & CBN Superabrasive Wheels

# 15V9



### Gashing Wheel

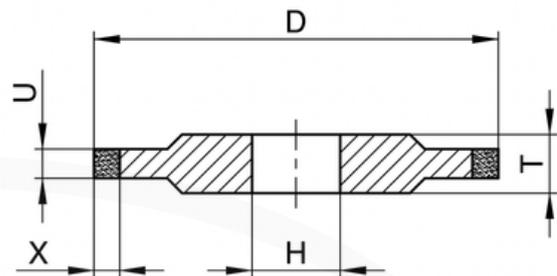
This wheel ensures high grinding efficiency in deep flute and profile grinding operations on solid carbide tools, offering controlled heat generation and superior dimensional accuracy.

Diameter (D)	Thickness (T)	Bore (H)	Depth (W)	Usable Layer (X)	Angle (V°)
75	20	20, 31.75	3	10	15*, 30*, 45*
100	20	20, 31.75	3	10	15*, 30*, 45*
125	25	20, 31.75	3	10	15*, 30*, 45*
150	25	20, 31.75, 50.8	3	10	15*, 30*, 45*
175	25	20, 31.75, 50.8	3	10	15*, 30*, 45*

*\*Dimensions can be altered for the Special tools*

## Diamond & CBN Superabrasive Wheels

# 14A1



### Cutoff Wheel

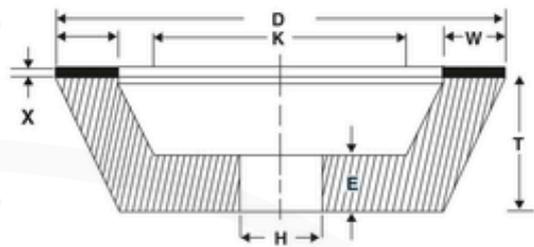
Engineered for precision cut-off applications, offering fast cutting rates, minimal burr formation, low thermal damage, and excellent edge quality on carbide and hardened materials.

Diameter (D)	Thickness (U)	Bore (H)	Depth (X)
75	1.5 to 5	20, 31.75	5
100	1.5 to 5	20, 31.75	5
125	1.5 to 5	20, 31.75	5
150	1.5 to 5	20, 31.75, 50.8, 76.2	5
175	1.5 to 5	31.75, 50.8, 76.2	5
200	1.5 to 5	31.75, 50.8, 76.2	5

*\*Dimensions can be altered for the Special tools*

## Diamond & CBN Superabrasive Wheels

# 11A2



### Face cup Wheel

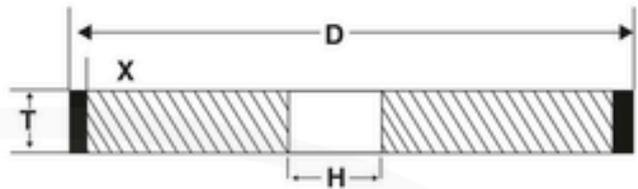
Designed for precision face and clearance grinding, this wheel delivers stable cutting action, excellent profile retention, and consistent results on carbide and hardened steels.

Diameter (D)	Thickness (W)	Bore (H)	Depth (X)
75	2 to 15	20, 31.75	5, 10, 15
100	2 to 15	20, 31.75	5, 10, 15
125	2 to 15	20, 31.75	5, 10, 15

*\*Dimensions can be altered for the Special tools*

## Diamond & CBN Superabrasive Wheels

**1A1 - CG**



### Cylindrical Grinding Wheel

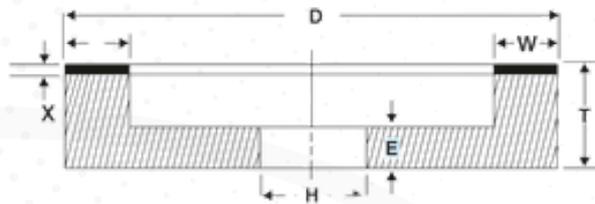
High-precision wheel for external cylindrical grinding, ensuring excellent roundness, stable stock removal, low vibration, and superior surface finish on carbide and hardened steels.

Diameter (D)	Thickness (T)	Bore (H)	Depth (X)
200	6 to 25	31.75, 50.8, 76.2	5, 10
250	6 to 25	50.8, 76.2	5, 10
300	6 to 25	50.8, 76.2, 127	5, 10

*\*Dimensions can be altered for the Special tools*

## Diamond & CBN Superabrasive Wheels

# 6A2



### Lapping Wheel

Designed for precision lapping and fine finishing, providing controlled material removal, excellent flatness, uniform surface quality, and minimal subsurface damage on carbide and hard materials.

Diameter (D)	Thickness (W)	Bore (H)	Depth (X)
100	5, 10	20, 31.75	5, 10, 15, 20
150	5, 10	31.75, 50.8	5, 10, 15, 20
175	5, 10	50.8, 76.2	5, 10, 15, 20
200	5, 10	50.8, 76.2	5, 10, 15, 20

*\*Dimensions can be altered for the Special tools*

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