

Wheel Specifications for Various Grinding Applications
Diamond and CBN Grinding Wheels
(The information listed below are recommended starting points for various applications)

Surface Grinding/Resin Bond

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
1A1TR	6-12" OD x width x Hole Size ASDS150 R75 B10 x=1/4	6-12" OD x width x Hole Size CBN150 R75 B10 x=1/4	>=220 mesh use 100 Con

OD Grinding/Resin Bond

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
1A1TR	6-24 OD x width x Hole Size ASDS120R75 B10 X=1/4	6-24 OD x width x Hole Size CBN120R75 B10 X=1/4	Diamond and CBN sizes for spec. 120/140, 140/170, 170/200

Punch Grinding and Profiling Bonds/Resin Bond
Punch Grinding (HSS and Carbide Materials)

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
1A1TR	Roughing 8.0" diameter ASDS140/170 R125 BSA X=1/4	8.0" diameter CBN140/170 R125 BSA X=1/4	12 to 14 rms on Rollomatic
	Finishing 6.0" diameter ASDS325/400 R125 BSA X=1/4	6.0" diameter CBN325/400 R125 BSA X=1/4	8 rms on Rollomatic
	Finishing 6.0" diameter ASDS600 R125 BSA X=1/4	6.0" diameter CBN600 R125 BSA X=1/4	4 to 6 rms on Rollomatic

Dry Grinding Resharpener operations
(Tool and Cutter Grinder- Cincinnati, Monoset)

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
11V9 70deg	3 3/4" to 6.0" diameter SDS220 R75 B10	3 3/4" to 6.0" diameter CBN5220 R75 B10	OD and End Work
1V1 30 or 45 12V9 30 or 45 deg	4.0" to 6.0" diameter SDS220 R75 B10	4.0" to 6.0" diameters CBN5220 R75 B10	Gashing and Fluting
1A1TR	4.0" to 6.0" diameter SDS180 R75 B10	4.0 to 6.0" diameter CBN5180 R75 B10	Fluting

Bore Grinding

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
W8 or 1A8 W8 shanks	3/8".....3.0" diameters ASDS120 R75 B Both steel or carbide shanks are available	3/8".....3.0" diameters CBN 120 R75 B	75 Con except for finer mesh sizes 220 and finer - 100 Con

**Small Volume Manufacturing-Tools CNC Machines. (eg. Walter and ANCA)
(Wet Grinding)**

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
11V9 70 DEG 11A2	4.0" to 6.0" diameters ASDS220 R100 B80N OR BN	4.0" to 6.0" diameters CBN220 R100 B80	OD and end operations
1V1TR 12V9	4.0" to 6" diameters ASDS200 R100 B80N OR BN	4.0: to 6.0" diameters CBN220 R100 B80	Gashing and of fluteing
1A1TR	4.0" to 6.0" diameters ASDS180 R100 B80N OR BN	4.0" to 6.0" diameters CBN180 R100 B80	Fluting operation

**High Volume Grinding Carbide Cutting Tools .
Polyimide Wheels**

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
11V9	4.0 to 6" diameters ASDC 220 R100 BP2 ¼"		Soft BP Bond
11V9	ASDC 220 R100 BP4 ¼"		Harder than BP2 Corner holding
1V1 1A1 12V9	4.0" to 6.0" diameters ASDC 220 mesh and Higher R100 BP3.		BP bond w porosity for fluting

**Additional recommendations for other applications
Diamond and CBN Cut off wheels**

Wheel Type	Diamond Wheel Specification	CBN Wheel Specification	Comments
1A1R	4.0" to 10" diameters ASDS 120 R100 B ¼"	4.0" to 10" diameters CBN 120 R100 B ¼"	Cut off wheels