



Tool Room Superabrasive Assortment

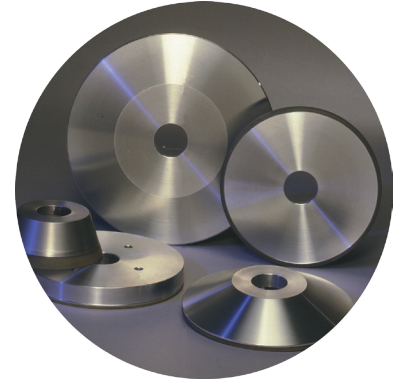
Your Partner in Precision Superabrasives
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Radiac Abrasives

Tool Room Superabrasive Assortment

Radiac Abrasives is proud to announce a **new** Tool Room Superabrasive Assortment. The assortment includes a wide array of resin bonded wheels in the following shapes 1A1, 1A1R, 4A2, 6A2C, 12A2, and 11V9. 1A1 and 11V9 are available in both diamond and CBN. Radiac has delivered technology and quality in this assortment for years.



Typical Applications

For the Tool Room Superabrasive Assortment

- + Cutting off carbide
- + End mill grinding
- + Face grinding
- + Plunge grinding
- + Saw grinding
- + Side grinding
- + Surface grinding
- + Top grinding

General Guidelines

Diamond

- + Avoid dry grinding, use a cutting fluid whenever possible.
- + Always true and dress the wheel before using it.
- + Avoid excessive downfeeds - there is less "give" in a diamond wheel than in conventional abrasives.
- + Avoid grinding steel where possible
- + Use rigid work support
- + Run wheel at the proper speed - never exceed the maximum RPM
- + Lower speeds (2,700-3,500 SFPM) are better for dry grinding.
- + Higher speeds (5,000-7,500 SFPM) are better for wet grinding.

CBN

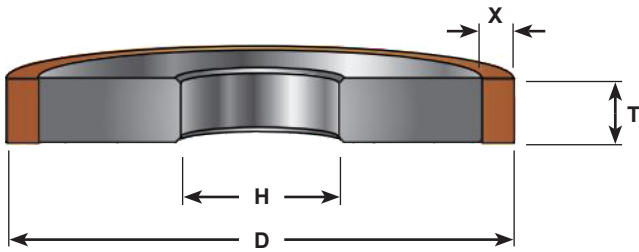
- + Avoid dry grinding, use a cutting fluid whenever possible.
- + A rich emulsion or neat oil is best for CBN.
- + Always true and dress the wheel before using it.
- + Avoid excessive downfeeds - there is less "give" in a CBN wheel than in conventional abrasives.
- + Use rigid work support
- + Run wheel at the proper speed - never exceed the maximum RPM
- + Lower speeds (approx 5,500 SFPM) are better for dry grinding.
- + Higher speeds (above 5,500 SFPM) are better for wet grinding.

Tips for choosing the best grit size:

- + A CBN wheel will give a rougher finish than a diamond wheel of the same grit size.
- + A plunge grind will yield a rougher finish than a traverse grind.
- + Dirty coolant will have a negative effect on surface finish.
- + Machine condition, material being ground and depth of cut all have an effect on surface finish.
- + Always use the coarsest grit size allowable.

Grit	Finish (RMS)	Maximum Depth of Cut per Pass
80	32-46	0.001" - 0.002"
100	24-32	0.001" - 0.002"
120	18-24	0.001" - 0.002"
150	16-18	0.001" - 0.002"
180	14-16	0.0007" - 0.001"
220	12-14	0.0007" - 0.001"
240	10-12	0.0005 - 0.0007"
280	8-10	0.0004" - 0.0006"
320	8	0.0004" - 0.0006"
400	6-8	0.0003" - 0.0005"

1A1 Tool Room Wheels



D - Diameter
X - Abrasive Depth
H - Hole
T - Thickness

1A1 DIAMOND WHEELS

For surface grinding and side grinding

DIMENSION D x T x H	MATERIAL NUMBER	SPECIFICATION
6 x 0.25 x 1.25	34154634	D100 R100 B 1/8 M
6 x 0.25 x 1.25	34153579	D150 R100 B 1/8 M
6 x 0.25 x 1.25	34154811	D220 R100 B 1/8 M
6 x 0.375 x 1.25	34403712	D100 R100 B 1/8 M
6 x 0.375 x 1.25	34154651	D150 R100 B 1/8 M
6 x 0.375 x 1.25	34153574	D220 R100 B 1/8 M
6 x 0.5 x 1.25	34403713	D100 R100 B 1/8 M
6 x 0.5 x 1.25	34154585	D150 R100 B 1/8 M
6 x 0.5 x 1.25	34153552	D220 R100 B 1/8 M
7 x 0.25 x 1.25	34403716	D100 R100 B 1/8 M
7 x 0.25 x 1.25	34154380	D150 R100 B 1/8 M
7 x 0.25 x 1.25	34153503	D220 R100 B 1/8 M
7 x 0.375 x 1.25	34152514	D100 R100 B 1/8 M
7 x 0.375 x 1.25	34152519	D150 R100 B 1/8 M
7 x 0.375 x 1.25	34154423	D220 R100 B 1/8 M
7 x 0.5 x 1.25	34403718	D100 R100 B 1/8 M
7 x 0.5 x 1.25	34153476	D150 R100 B 1/8 M
7 x 0.5 x 1.25	34154750	D220 R100 B 1/8 M

1A1 CBN WHEELS

For surface grinding, and side grinding

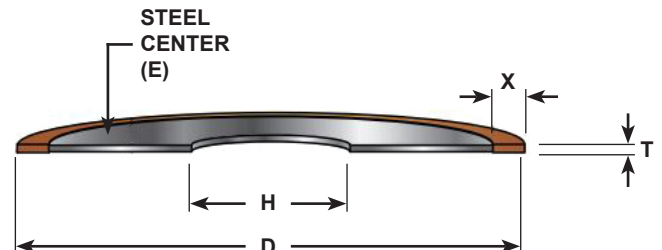
DIMENSION D x T x H	MATERIAL NUMBER	SPECIFICATION
6 x 0.25 x 1.25	34152560	CBN100 R100 B 1/8 M
6 x 0.25 x 1.25	34154663	CBN120 R100 B 1/8 M
6 x 0.25 x 1.25	34153598	CBN180 R100 B 1/8 M
6 x 0.375 x 1.25	34203131	CBN100 R100 B 1/8 M
6 x 0.375 x 1.25	34153982	CBN120 R100 B 1/8 M
6 x 0.375 x 1.25	34152533	CBN180 R100 B 1/8 M
6 x 0.5 x 1.25	34152321	CBN100 R100 B 1/8 M
6 x 0.5 x 1.25	34153744	CBN120 R100 B 1/8 M
6 x 0.5 x 1.25	34153758	CBN180 R100 B 1/8 M
7 x 0.25 x 1.25	34153888	CBN100 R100 B 1/8 M
7 x 0.25 x 1.25	34403717	CBN120 R100 B 1/8 M
7 x 0.25 x 1.25	34153620	CBN180 R100 B 1/8 M
7 x 0.375 x 1.25	34153569	CBN100 R100 B 1/8 M
7 x 0.375 x 1.25	34153847	CBN120 R100 B 1/8 M
7 x 0.375 x 1.25	34154504	CBN180 R100 B 1/8 M
7 x 0.5 x 1.25	34153513	CBN100 R100 B 1/8 M
7 x 0.5 x 1.25	34152554	CBN120 R100 B 1/8 M
7 x 0.5 x 1.25	34153627	CBN180 R100 B 1/8 M

1A1R Tool Room Wheels

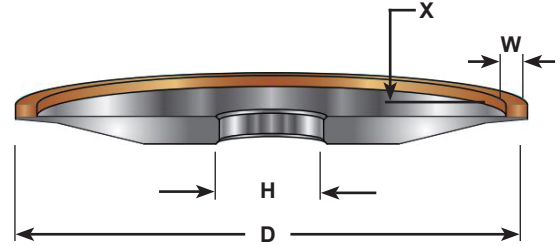
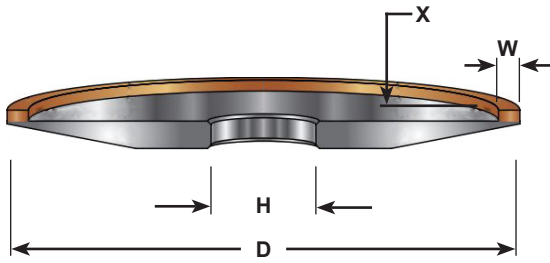
1A1R DIAMOND WHEELS

For plunge grinding and cut off

DIMENSION D x T x H	MATERIAL NUMBER	SPECIFICATION
6 x .035 x 1.25	34403715	D100 R100 B 1/4 ST
8 x .045 x 1.25	34107129	D100 R100 B 1/4 ST



4A2 Tool Room Wheels



4A2RR DIAMOND WHEELS

For face grinding

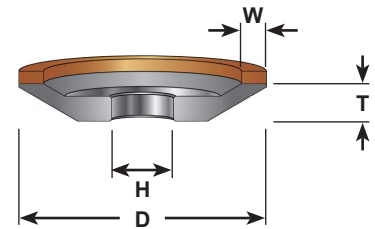
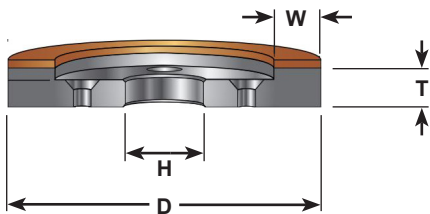
DIMENSION D x T x H	W	MATERIAL NUMBER	SPECIFICATION
6 x 0.438 x 1.25	0.250	34154684	D320 R100 B 1/8 M
6 x 0.438 x 1.25	0.250	34152583	D120 R100 B 1/8 M
6 x 0.438 x 1.25	0.250	34152578	D180 R100 B 1/8 M
6 x 0.438 x 1.25	0.188	34152515	D320 R100 B 1/8 M
6 x 0.438 x 1.25	0.188	34106432	D120 R100 B 1/8 M
6 x 0.438 x 1.25	0.188	34106478	D180 R100 B 1/8 M
8 x 0.438 x 1.25	0.250	34154675	D320 R100 B 1/8 M
8 x 0.438 x 1.25	0.250	34403947	D120 R100 B 1/8 M
8 x 0.438 x 1.25	0.250	34154630	D180 R100 B 1/8 M

4A2TR DIAMOND WHEELS

For face grinding

DIMENSION D x T x H	W	MATERIAL NUMBER	SPECIFICATION
6 x 0.375 x 1.25	0.188	34111501	D120 R100 B 1/16 M
6 x 0.375 x 1.25	0.188	34153279	D180 R100 B 1/16 M
6 x 0.375 x 1.25	0.188	34152525	D320 R100 B 1/16 M
6 x 0.375 x 1.25	0.250	34154620	D120 R100 B 1/16 M
6 x 0.375 x 1.25	0.250	34154748	D180 R100 B 1/16 M
6 x 0.375 x 1.25	0.250	34154419	D320 R100 B 1/16 M
8 x 0.375 x 1.25	0.250	34153373	D120 R100 B 1/16 M
8 x 0.375 x 1.25	0.250	34154879	D180 R100 B 1/16 M
8 x 0.375 x 1.25	0.250	34154907	D320 R100 B 1/16 M

6A2C Tool Room Wheels



6A2C DIAMOND WHEELS

For face grinding

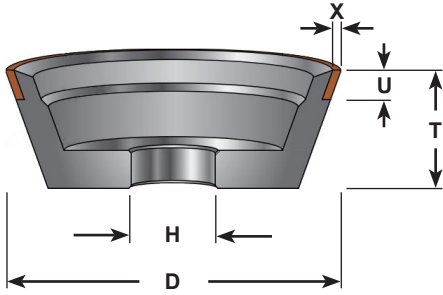
DIMENSION D x T x H	W	MATERIAL NUMBER	SPECIFICATION
6 x 0.75 x 1.25	0.75	34153671	D100 R100 B 1/16 M
6 x 0.75 x 1.25	0.75	34154727	D150 R100 B 1/16 M
6 x 0.75 x 1.25	0.75	34154829	D220 R100 B 1/16 M

12A2 DIAMOND WHEELS

For saw grinding and top grinding

DIMENSION D x T x H	W	MATERIAL NUMBER	SPECIFICATION
6 x 1 x 1.25	0.25	34153238	D120 R100 B 1/8 M
6 x 1 x 1.25	0.25	34153585	D180 R100 B 1/8 M

11V9 Tool Room Wheels



11V9 DIAMOND WHEELS

For end mill grinding

DIMENSION D x T x H	U	MATERIAL NUMBER	SPECIFICATION
3.75 x 1.5 x 1.25	0.375	34153380	D100 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34154696	D120 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34153292	D150 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34383003	D180 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34154122	D220 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34154782	D320 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34152296	D400 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34153335	SD120 R100 B 1/16 BG*
3.75 x 1.5 x 1.25	0.375	34154116	SD150 R100 B 1/16 BG*
3.75 x 1.5 x 1.25	0.375	34153262	SD220 R100 B 1/16 BG*
3.75 x 1.5 x 1.25	0.375	34386664	D100 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34386665	D120 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34386666	D150 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34154699	D180 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34154839	D220 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34386669	D320 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34154525	D400 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34154113	SD120 R100 B 1/8 BG*
3.75 x 1.5 x 1.25	0.375	34154832	SD150 R100 B 1/8 BG*
3.75 x 1.5 x 1.25	0.375	34154115	SD220 R100 B 1/8 BG*
5 x 1.75 x 1.25	0.438	34386970	D100 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34154856	D120 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34154834	D150 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34112171	D180 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34386991	D220 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34386992	D320 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34154120	D400 R100 B 1/16 BG

*SD specification is designed for dry grinding.

11V9 DIAMOND WHEELS (CONTINUED)

For end mill grinding

DIMENSION D x T x H	U	MATERIAL NUMBER	SPECIFICATION
5 x 1.75 x 1.25	0.438	34153320	SD120 R100 B 1/16 BG*
5 x 1.75 x 1.25	0.438	34153274	SD150 R100 B 1/16 BG*
5 x 1.75 x 1.25	0.438	34152320	SD220 R100 B 1/16 BG*
5 x 1.75 x 1.25	0.438	34386994	D100 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34154698	D120 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34154920	D150 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34154883	D180 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34153374	D220 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34154694	D320 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34153604	D400 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34153239	SD120 R100 B 1/8 BG*
5 x 1.75 x 1.25	0.438	34154518	SD150 R100 B 1/8 BG*
5 x 1.75 x 1.25	0.438	34152309	SD220 R100 B 1/8 BG*

11V9 CBN WHEELS

For end mill grinding

DIMENSION D x T x H	U	MATERIAL NUMBER	SPECIFICATION
3.75 x 1.5 x 1.25	0.375	34154725	CBN100 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34154784	CBN120 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34154526	CBN180 R100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34152310	PCB100 P100 B 1/16 BG
3.75 x 1.5 x 1.25	0.375	34386682	CBN100 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34386683	CBN120 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34386684	CBN180 R100 B 1/8 BG
3.75 x 1.5 x 1.25	0.375	34154686	PCB100 P100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34152300	CBN100 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34152314	CBN120 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34153307	CBN180 R100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34386993	PCB100 P100 B 1/16 BG
5 x 1.75 x 1.25	0.438	34153237	CBN100 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34154124	CBN120 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34153550	CBN180 R100 B 1/8 BG
5 x 1.75 x 1.25	0.438	34154519	PCB100 P100 B 1/8 BG



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