

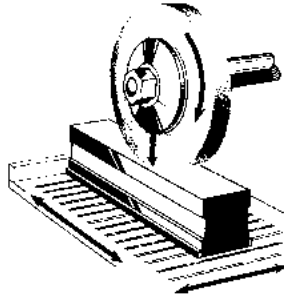
Toolroom Grinding Applications

Toolrooms are found in almost every manufacturing plant throughout the country. They may be called by other names such as machine shops, maintenance shops or repair shops, however the work done is virtually the same. Toolroom grinding involves the production, maintenance and repair of cutting tools and machinery parts used in all types of manufacturing operations.

Surface Grinding

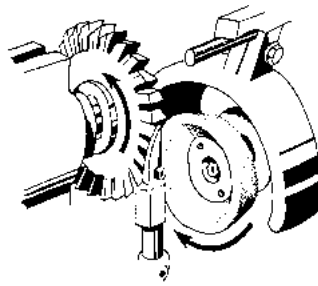
The grinding of flat, contoured or angular surfaces on a workpiece which is passed in a horizontal plane against a revolving grinding wheel.

Surface grinding applications range from heavy, rapid stock removal operations to precision contouring.

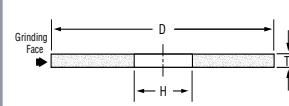


Tool and Cutter Grinding

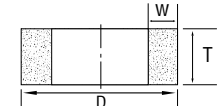
The grinding or resharpener of milling cutters, reamers, drills or end mills for the purpose of restoring keen cutting edges or exact cutting angles.



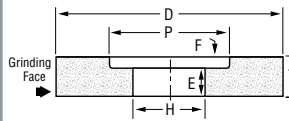
Wheel Shapes



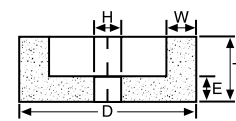
TYPE 01 STRAIGHT



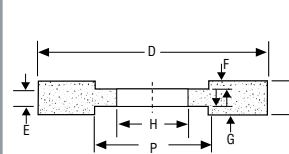
TYPE 02 CYLINDER



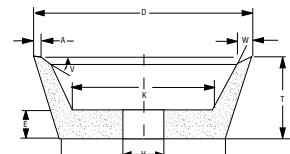
TYPE 05 RECESSED ONE SIDE



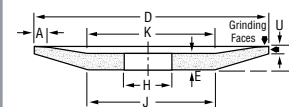
TYPE 06 STRAIGHT CUP



TYPE 07 RECESSED TWO SIDES



TYPE 11 FLARING CUP



TYPE 12 DISH



TYPE 37

Toolroom Basics Selection Guide

PRODUCTIVITY	DURABILITY	ABRASIVE	COLOR	GRIT	GRADE	NARROW CONTACT FORM HOLDING BOND	MEDIUM/WIDE CONTACT AREA POROUS BOND	DRESSING TOOL
Highest	More Durable	Medalist	Blue	46 (Coarse)	F (Soft)	VL	VLP	SG Tool
↕	↕	Medalist R	Purple	↕	↕	—	VPP	SG Tool
		32AR	Gray/Purple			V40	V40P	Conventional Tool
		AR	Ruby			V40	VPP	Conventional Tool
		PA	Pink			V40	VPP	Conventional Tool
Standard	More Friable	AA	White	220 (Fine)	Q (Hard)	V40	V40P, VPP	Conventional Tool

Abrasive: Select abrasive type based on required performance, stock removal rate, and material to be ground.

Grit Size: Select the grit size depending on finish required, stock removal rate needed, and corner/form holding requirements.

Grade: Select the grade based on contact area*, and heat sensitivity/thickness of material to be ground.

Bond: Select the appropriate bond based on the abrasive selected and the contact area.*

Grit Selection

TEST GRIT	REQUIREMENTS	FINISH	MINIMUM CORNER RADIUS
6	General purpose	32 Ra and rougher	0.020"
60	Commercial finish	32 Ra and better	0.016"
80, 100	Fine finish	20 Ra and better	0.0105"
120	Very fine finish	10 Ra and better	0.006"
150	Corner/form holding		0.005"
180	Corner/form holding		0.0035"
220	Corner/form holding		0.002"

Grade/Bond Selection

GENERAL CONDITIONS AND NEEDS	NORMAL GRADE RANGE	STARTING GRADE	BOND
Narrow* contact area or form holding	K - L	K	VL, V40
General surface grinding	H - K	J	VL, V40
Medium/Wide* contact area, cooler grind	F - H	H	VLP, VPP, V40P

*Definitions of Contact Area:

Narrow: The contact area of the grind is less than 25% of the wheel width, or less than 1/4" wide.

Medium: The contact area of the grind is 25% – 50% of the wheel width, or over 1/4" – 1/2" wide.

Wide: The contact area of the grind is greater than 50% of the wheel width, or over 1/2" wide.

Toolroom Wheel Starting Recommendations

APPLICATION/MATERIAL	PERFORMANCE/PRODUCTIVITY								
	BEST	BETTER	GOOD	BEST	BETTER	GOOD	BEST	BETTER	GOOD
	NARROW CONTACT AREA			MEDIUM CONTACT AREA			WIDE CONTACT AREA		
TOOL RESHARPENING									
HEAVY STOCK REMOVAL (> .004)									
- HSS & TOOL STEEL RC 50-68	MEDALIST46-KVL	32AR46-KV40	AA46-KV40	MEDALIST46-JVL	32AR46-JV40	AA46-JV40	MEDALIST46-GVLP	32AR46-GV40P	AA46-HV40
MODERATE STOCK REMOVAL (.002 - .004)									
- HSS & TOOL STEEL RC 50-68	MEDALIST60-KVL	32AR60-KV40	AA60-KV40	MEDALIST60-JVL	32AR60-JV40	AA60-JV40	MEDALIST60-GVLP	32A60-HV40P	AA60-HV40
- CARBIDE	-	-	GC60-IVGC	-	-	GC60-IVGC	-	-	GC60-IVGC
SURFACE GRINDING									
HEAVY STOCK REMOVAL (> .004)									
- HSS & TOOL STEEL RC 50-68 400 SERIES STAINLESS	MEDALIST46-JVL	32AR46-JV40	AA46-JV40	MEDALIST46-IVL	32AR46-IV40	AA46-IV40	MEDALIST46-GVLP	32AR46-GV40P	PA46-GVPP
- SOFT STEELS RC 30-45 300 SERIES STAINLESS	MEDALIST46-KVL	32AR46-KV40	AA46-KV40	MEDALIST46-JVL	32AR46-JV40	AA46-JV40	MEDALIST46-GVLP	AR46-HVPP	PA46-HVPP
- CAST IRON: DUCTILE & GRAY	MEDALIST46-KVL	32AR46-KV40	AA46-KV40	MEDALIST46-JVL	32AR46-JV40	AA46-JV40	MEDALIST46-GVLP	32AR46-HV40P	AA466-HV40
- NON-FERROUS ALLOYS	-	-	GC60-IVGC	-	-	GC60-IVGC	-	-	GC60-IVGC
MODERATE STOCK REMOVAL (.002 - .004)									
- HSS & TOOL STEEL RC 50-68 400 SERIES STAINLESS	MEDALIST60-JVL	32AR60-JV40	AA60-JV40	MEDALIST60-IVL	32AR60-IV40	AA60-IV40	MEDALIST60-GVLP	32AR46-GV40P	AA60-HV40
- SOFT STEELS RC 30-45 300 SERIES STAINLESS	MEDALIST60-KVL	32AR60-KV40	AA60-KV40	MEDALIST60-JVL	32AR60-JV40	AA60-JV40	MEDALIST60-GVLP	32AR46-HV40P	AA60-HV40
- CAST IRON: DUCTILE & GRAY	MEDALIST60-KVL	32AR60-KV40	AA60-KV40	MEDALIST60-JVL	32AR60-JV40	AA60-JV40	MEDALIST60-GVLP	32AR46-HV40P	AA60-IV40
- NON-FERROUS ALLOYS	-	-	GC60-IVGC	-	-	GC60-IVGC	-	-	GC60-IVGC
LIGHT STOCK REMOVAL AND FINISHING (</.001)									
- HSS & TOOL STEEL RC 50-68 400 SERIES STAINLESS	-	32AR80-JV40	AA80-JV40	-	32AR80-IV40	AA80-IV40	-	32AR60-HV40	AA80-HV40
- SOFT STEELS RC 30-45 300 SERIES STAINLESS	-	32AR80-KV40	AA80-KV40	-	32AR80-JV40	AA80-JV40	-	32AR80-IV40	AA80-IV40
- CAST IRON: DUCTILE & GRAY	-	32AR80-KV40	AA80-KV40	-	32AR80-JV40	AA80-JV40	-	32AR80-IV40	AA80-IV40
- NON-FERROUS ALLOYS	-	-	GC80-IVGC	-	-	GC80-IVGC	-	-	GC80-IVGC

Toolroom Competitive Cross Reference

CARBORUNDUM	BAY STATE	CAMEL	CINCINNATI	COLONIAL	RADIAC
32AR	7A, 17A	AZ	4A, 12A, 29A, 32A	-	32A, WRA
AA	9A, 48A	83A, WA, AZ (BLUE)	9A, 10A, 11A, 82A	20A	WA, 9A
AR	-	-	-	25A	RA
C	C	-	6C	C	C
DA	2A, 3A, 6A, 8A	91A, DA	29A, 97A	10TA	43A, 45A, 97A, WPA
GA	TA	94A, CGW, A	A, AK	TA	A
GC	1C	-	5C	GC	GC
MEDALIST, MEDALIST R	3GA	AS3	3MSB	20A/VG3	7BP, 8BP
PA	-	PA	12A	24A	RAA

Toolroom Troubleshooting Guide

PROBLEM	POSSIBLE CAUSES	CORRECTION
WHEEL CORNER BREAKDOWN	POOR WHEEL DRESSING WHEEL TOO COARSE WHEEL TOO SOFT WORN MACHINE BEARINGS WRONG WHEEL STRUCTURE	DRESS WHEEL FINER USE FINER GRIT USE HARDER GRADE CHECK FOR RUN-OUT AND CORRECT USE NON-POROUS WHEEL
BURNING OF WORKPIECE	WORN DRESSING TOOL POOR COOLANT FLOW WHEEL ACTING HARD WORK SPEED TOO SLOW INFEEED TOO FAST	ROTATE OR REPLACE DRESSING TOOL INCREASE/DIRECT COOLANT FLOW TO CONTACT AREA DRESS WHEEL COARSER, USE SOFTER GRADE WHEEL OR USE A POROUS WHEEL INCREASE WORK SPEED REDUCE STOCK REMOVED PER PASS OR UPGRADE TO MEDALIST OR 32AR
POOR SURFACE FINISH	POOR WHEEL DRESSING DIRTY COOLANT WHEEL TOO COARSE WHEEL TOO HARD	REDRESS MORE FREQUENTLY OR DECREASE DRESS TRAVERSE RATE FILTER COOLANT OR REPLACE WITH NEW USE FINER GRIT USE SOFTER GRADE WHEEL

Medalist Ceramic Alumina / Aluminum Oxide Abrasive Blend

Features

- High-performance ceramic alumina / aluminum oxide abrasive blend – blue color
- Self-sharpening abrasive
- High-performance vitrified bond
- VLP bond: induced porosity
- Best performance

Benefits

- Fast stock removal on moderate to very heavy stock removal applications
- Cool cutting
- Less burn on part
- Dressing frequency reduced
- Enhanced wheel life
- Superior form and corner holding
- Load resistant
- Highest productivity, lowest total grinding cost

The best choice for grinding all high speed tool steels. Medalist has the versatility to grind easy- to difficult-to-grind steels.

Use VL bond for general purpose applications or medium contact areas.

Use VLP and VPP bonds on wide contact areas where heat is an issue.



TechTip

Key Operating Tips for Maximizing Grinding Performance with Medalist Wheels

Change one parameter at a time:

- 1 Increase infeed 50%
- 2 Increase traverse rate 25%
- 3 Reduce dressing infeed 25%

Gold 32AR Aluminum Oxide Abrasive

Features

- High-performance aluminum oxide abrasive - gray/purple color
- Strong, sharp monocrystalline grain blend
- Tough, yet friable grain
- Strong vitrified bond
- V40P bond: induced porosity

Benefits

- Exceptionally cool, fast cutting on medium to heavy stock removal operations
- Excellent resistance to point wear
- Good penetration on tough alloy steels
- Holds form well
- Requires less dressing
- Long wheel life
- Load resistance

Ideal for moderate to heavy infeed rates, rapid stock removal and precision contouring – for all types of tool steels.

Use V40 bond for general purpose applications or medium contact areas.

Use V40P bond on wide contact areas where heat is an issue.



AR Aluminum Oxide Abrasive

Features

- Durable aluminum oxide abrasive – ruby color
- Durable vitrified bond

Benefits

- Extremely cool cutting
- Good form holding
- Maximum grain retention
- Less dressing; longer wheel life

Engineered for medium to heavy stock removal at moderate to heavy feed rates on a wide variety of tool steels.

Use V40 bond for general purpose applications or medium contact areas.

Use VPP bond on wide contact areas where heat is an issue.



AA Aluminum Oxide Abrasive

Features

- Aluminum oxide abrasive – white color
- Excellent friability
- Durable, vitrified bond
- V40P bond: induced porosity

Benefits

- Fast stock removal for light to medium stock removal operations
- Cool cutting action
- Long wheel life
- Load resistant

AA is ideal for grinding heat-sensitive steels, as well as easy- and medium-to-grind high-speed steels and cast, alloy steels.

Use V40 bond for general purpose applications or medium contact areas.

Use V40P and VPP bonds on wide contact areas where heat is an issue.



PA Aluminum Oxide Abrasive

Features

- Friable, aluminum oxide abrasive – pink color
- Durable vitrified bond

Benefits

- Designed to grind a broad variety of steels at light to moderate feed rates
- Maximum grain retention
- Less dressing; longer wheel life

Excels in light to medium stock removal applications at light to moderate feed rates on tool steels (hardened, forged and stainless) and cast iron.

Use V40 bond for general purpose applications or medium contact areas.

Use VPP bond on wide contact areas where heat is an issue.



See Carbo Cool wheel listings for additional porous specifications on pages 143-145.



			BEST – MEDALIST		BETTER – 32AR & AR		GOOD – AA & PA		
WHEEL SIZE	MAX. RPM	WHEELS/ BOX	PART NO.	GRADING	PART NO.	GRADING	PART NO.	GRADING	
Type 01 – For Internal Grinding									
1/2 x 1/2 x 1/4	64,935	40					66253062129*	PA60-KV40	
3/4 x 1 x 1/4	43,240	40					66253062131*	PA60-KV40	
1 x 1/4 x 1/4	32,470	40					66253062132*	PA60-IV40	
1 x 3/4 x 1/4	32,470	40					66253062133*	PA60-IV40	
1 x 1 x 3/8	32,470	40					66253062138*	PA60-KV40	
Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders									
6 x 1/4 x 1-1/4	4,140	10	05539562350	80-KVL	05539527691*	32AR60-KV40			
6 x 1/2 x 1-1/4	4,140	10			66253051313*	32AR46-JV40	05539509882*	AA60-JV40	
	4,140	10			05539527692	32AR60-JV40			
	4,140	10			05539562244*	32AR60-KV40			
	4,140	10			66253051315*	32AR80-KV40			
6 x 3/4 x 1-1/4	4,140	10			66253051675*	32AR46-JV40			
	4,140	10			66253051677*	32AR60-JV40			
6 x 1 x 1-1/4	4,140	10			66253051683*	32AR46-JV40			
	4,140	10			66253051684*	32AR60-JV40			
7 x 1/8 x 1-1/4	3,600	10					05539562175*	AA100-KV40	
7 x 1/4 x 1-1/4	3,600	10	05539562351 B	46-JVL	05539527686	32AR46-HV40	66253051696	AA46-IV40	
	3,600	10	05539527241	60-IVL	66253051861*	32AR46-IV40	05539509875*	AA60-JV40	
	3,600	10	05539527242 B	60-JVL	05539527688	32AR46-JV40	05539509874	AA60-KV40	
	3,600	10	05539527243	60-KVL	66253051862*	32AR60-HV40	66253051698	AA80-JV40	
	3,600	10	05539527244	80-JVL	05539527689	32AR60-IV40	05539509871*	AA80-KV40	
	3,600	10	05539527245	80-KVL	05539527311 B	32AR60-JV40	05539509870*	AA100-IV40	
	3,600	10	05539527247	100-KVL	05539527312	32AR60-KV40	05539509869*	AA100-JV40	
	3,600	10			05539527313*	32AR80-IV40	05539527714	AA100-KV40	
	3,600	10			05539527314	32AR80-JV40	05539562176*	AA120-JV40	
	3,600	10			05539527315 B	32AR80-KV40	05539509866	AA150-KV40	
	3,600	10			66253051867*	32AR100-IV40	05539562177*	AA150-LV40	
	3,600	10			05539562246 B	32AR100-JV40	66253051859*	AA220-KV40	
	3,600	10			05539562249	32AR120-KV40	05539569194*	PA46-JV40	
	3,600	10					05539569199*	PA60-JV40	
	3,600	10					05539569200*	PA120-HV40	
	3,600	10					05539569207*	PA120-JV40	
	7 x 3/8 x 1-1/4	3,600	10			66253051936*	32AR60-HV40		
		3,600	10			66253051937*	32AR60-JV40		
7 x 1/2 x 1-1/4	3,600	5	05539527248	46-GVLP	05539527316*	32AR46-FV40P	05539509865	AA46-HV40	
	3,600	5	05539564478	46-GVPP	05539527317	32AR46-GV40P	05539507039*	AA46-HV40P	
	3,600	5	66253051963*	46-HVL	05539527319	32AR46-HV40	05539509864	AA46-IV40	
	3,600	5	05539527250	46-IVL	05539527318 B	32AR46-HV40P	05539509863	AA46-JV40	
	3,600	5	05539527249 B	46-IVLP	05539527321	32AR46-IV40	05539509862*	AA46-KV40	
	3,600	5	05539527251	46-JVL	05539527320	32AR46-IV40P	66253051967	AA60-HV40	
	3,600	5	05539527252	46-KVL	05539527322	32AR46-JV40	05539564489	AA60-HVPP	
	3,600	5	05539527253*	60-GVLP	05539527323	32AR46-KV40	05539509860	AA60-IV40	
	3,600	5	66253051965*	60-HVL	05539527326	32AR60-HV40	05539509859	AA60-JV40	
	3,600	5	05539527255 B	60-IVL	05539527325*	32AR60-HV40P	05539509858	AA60-KV40	
	3,600	5	05539527254*	60-IVLP	05539527327	32AR60-IV40	66253051969	AA80-HV40	
	3,600	5	05539527256	60-JVL	05539527328 B	32AR60-JV40	05539509857	AA80-IV40	
	3,600	5	05539527257 B	60-KVL	05539527329	32AR60-KV40	05539509856*	AA80-JV40	
	3,600	5	05539527259*	80-IVL	05539527330*	32AR80-IV40	05539509854	AA80-KV40	
	3,600	5	05539527260	80-JVL	05539562257*	32AR80-JV40	05539509852	AA100-IV40	
	3,600	5	05539527261 B	80-KVL	05539527331	32AR80-KV40	05539509850*	AA100-JV40	
	3,600	5			05539562253*	32AR100-IV40	05539562180	AA120-KV40	
	3,600	5			66253061619*	AR46-HV40	66253054721*	AA150-KV40	
	3,600	5			66253061620*	AR46-IV40	66253061613*	PA46-HV40	
	3,600	5			66253061621*	AR60-IV40	66253061614*	PA46-IV40	
	3,600	5			66253061622*	AR60-JV40	05539566899	PA46-JV40	
	3,600	5					05539569213*	PA46-KV40	
	3,600	5					66253061615*	PA60-IV40	
	3,600	5					05539569217*	PA60-JV40	
	3,600	5					05539569218*	PA60-KV40	
	3,600	5					05539569222*	PA80-KV40	





		BEST – MEDALIST			BETTER – 32AR & AR			GOOD – AA & PA		
WHEEL SIZE	MAX. RPM	WHEELS/ BOX	PART NO.	GRADING	PART NO.	GRADING	PART NO.	GRADING		
Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders										
7 x 3/4 x 1-1/4	3,600	5	05539527262 B	46-KVL	66253054729*	32AR46-HV40	05539562185*	AA46-KV40		
	3,600	5	05539527263*	60-KVL	05539527334*	32AR46-IV40	05539509848	AA60-IV40		
	3,600	5			05539527335*	32AR46-KV40	05539569233*	PA46-JV40		
	3,600	5			05539527336*	32AR60-IV40	05539569234*	PA60-JV40		
	3,600	5			05539527337 B	32AR60-KV40				
7 x 1 x 1-1/4	3,600	5	05539527264	46-JVL	05539509861*	32AR60-IV40				
	3,600	5	05539562356*	60-KVL	05539562261*	32AR60-KV40				
8 x 1/4 x 1-1/4	•	5			05539562263*	32AR46-HV40	05539562188*	AA60-IV40		
	3,600	5			66253054775*	32AR46-KV40	05539509844 B	AA80-JV40		
	3,600	5			66253054776*	32AR60-HV40	66253054773*	AA100-KV40		
	3,600	5			66253054778*	32AR60-IV40	66253054774*	AA120-KV40		
	3,600	5			05539562264	32AR60-JV40				
	3,600	5			05539527338	32AR60-KV40				
	3,600	5			66253054780*	32AR80-IV40				
	3,600	5			05539527339	32AR80-KV40				
8 x 1/2 x 1-1/4	3,105	5	05539527267	46-GVLP	05539527340 B	32AR46-GV40	05539509841	AA46-HV40		
	3,105	5	05539527268 B	46-IVL	05539527342	32AR46-HV40	05539509840	AA46-IV40		
	3,600	5	05539527269	46-JVL	05539527341†	32AR46-HV40P	05539509839	AA46-JV40		
	•	5	05539527270	46-KVL	05539527343 B	32AR46-IV40	05539509838*	AA46-KV40		
	3,600	5	05539527271	60-IVL	05539527344	32AR46-JV40	05539509836	AA60-IV40		
	3,600	5	05539527272	60-JVL	05539527345	32AR46-KV40	05539562190	AA60-JV40		
	3,600	5	05539527273	60-KVL	05539527347	32AR60-HV40	66253052850	AA60-KV40		
	3,600	5	05539562363*	80-JVL	05539527348	32AR60-IV40	05539527716*	AA80-JV40		
	3,600	5			05539527349 B	32AR60-JV40	05539509831*	AA80-KV40		
	3,600	5			05539562271*	32AR80-IV40	66253052540*	AA100-JV40		
	3,105	5			66253061627*	AR46-HV40	66253061623*	PA46-HV40		
	3,105	5			66253061628*	AR46-IV40	66253061624*	PA46-IV40		
	3,600	5			66253061629*	AR60-IV40	05539569237*	PA46-JV40		
	3,600	5			66253061630*	AR60-JV40	05539564569	PA60-GVPP		
	3,600	5					66253061625*	PA60-IV40		
	3,600	5					66253061626*	PA60-JV40		
8 x 3/4 x 1-1/4	•	5	05539527274	46-IVL	66253052537*	32AR46-HV40	05539509827	AA46-JV40		
	3,600	5	05539527275	46-JVL	05539527351*†	32AR46-HV40P	66253052539*	AA80-JV40		
	•	5	05539527276	46-KVL	05539527353	32AR46-IV40				
	3,600	5	05539527277	60-JVL	05539527354	32AR46-JV40				
	3,600	5			05539527355	32AR60-IV40				
8 x 1 x 1-1/4	3,600	5			05539527356	32AR60-JV40				
	3,105	5	05539562365*	46-IVL	05539527358*	32AR46-IV40	05539562193*	AA46-IV40		
	3,600	5	05539562379*	60-KVL	05539562272	32AR60-IV40				
	3,600	5			05539562318*	32AR60-KV40				

* Non-stock. Ask your sales representative for lead-times. Minimum quantity = box quantity.

† See 8" Max. RPM Tech Tip below.

B = Best seller



TechTip

• 8" Type 01 and Type 05 Vitrified Toolroom Wheels' Maximum Operating Speeds:

- 46 grit, J grade and harder = 3,600 RPMs
- 54 grit, I grade and harder = 3,600 RPMs
- 60 grit and finer, H grade and harder = 3,600 RPMs
- † exceptions to the rule: speed-tested to 3,600 RPMs
- all other specifications = 3,105 RPMs



It is the user's responsibility to refer to and comply with ANSI B7.1

Refer to page 159 for truing and dressing products.

See Carbo Cool Wheel listings on pages 143-145 for additional porous specifications.



			BEST – MEDALIST		BETTER – 32AR		GOOD – AA & PA	
WHEEL SIZE	MAX. RPM	WHEELS/ BOX	PART NO.	GRADING	PART NO.	GRADING	PART NO.	GRADING
Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders								
10 x 1/2 x 3	2,485	5					66253052916*	AA46-HV40
	2,485	5					05539569344*	AA60-JV40
10 x 3/4 x 3	2,485	2			66253052918*	32AR46-HV40		
	2,485	2			05539562201	32AR46-IV40		
	2,485	2			05539562202*	32AR60-IV40		
	2,485	2			05539527696	32AR60-JV40		
10 x 1 x 2	2,485	2					66253053091*	AA46-HV40
	2,485	2					66253053090*	AA46-IV40
	2,485	2					66253053096*	AA60-KV40
	2,485	2					66253053097*	AA80-JV40
10 x 1 x 3	2,485	2	05539527278	46-GVLP	05539527697*	32AR46 GV40P	05539569070*	AA46-HV40
	2,485	2	05539527279	46-IVL	66253054449*	32AR46-HV40	66253054439*	AA46-KV40
	2,485	2	05539527280	46-JVL	05539569253*	32AR46-HV40P	05539509814	AA46-JV40
	2,485	2	05539527282	60-JVL	05539527359	32AR46-IV40	66253054445*	AA60-HV40
	2,485	2			05539567967*	32AR46-JV40	66253054446*	AA60-IV40
	2,485	2			05539527360	32AR60-IV40	66253054447*	AA60-JV40
	2,485	2			05539562204	32AR60-KV40	66253054448*	AA80-JV40
	2,485	2					05539569240*	PA46-IV40
	2,485	2					05539569242*	PA60-IV40
12 x 3/4 x 1-1/4	2,070	1	05539562382	46-OVL				
12 x 3/4 x 3	2,070	2			05539562210*	32AR46-HV40P	66253054540*	AA46-HV40
	2,070	2			05539562211*	32AR46-IV40	66253054541*	AA46-IV40
	2,070	2			66253054542*	32AR46-JV40	05539569054*	AA60-IV40
	2,070	2			66253054544*	32AR60-JV40		
12 x 3/4 x 5	2,070	2					66253054552*	AA60-JV40
12 x 1 x 3	2,070	2	05539562325*	46-HVLP	05539527361	32AR46-HV40	66253054555*	AA46-HV40
	2,070	2	05539527283	46-IVL	05539562216 B	32AR46-IV40	66253054556*	AA46-IV40
	2,070	2	05539527284	46-JVL	05539527362	32AR46-JV40	05539509810*	AA46-JV40
	2,070	2	05539562328*	60-GVLP	05539527363*	32AR60-IV40	66253054557*	AA46-KV40
	2,070	2	05539564511	60-GVPP	05539527364	32AR60-JV40	05539569246*	PA46-KV40
	2,070	2	05539527285*	60-IVL	66253054558*	32AR60-KV40	05539564571	PA60-GVPP
	2,070	2	05539562332*	46-IVL	05539527365	32AR46-IV40	05539524572*	AA46-HV40
12 x 1 x 5	2,070	2	05539527287	46-JVL	66253053098*	32AR60-IV40	05539501900	AA46-IV40
	2,070	2	05539527290	60-JVL	66253053100*	32AR60-JV40	66253053092*	AA46-JV40
	2,070	2			66253053101*	32AR60-KV40	66253053094*	AA46-KV40
	2,070	2					05539562163*	AA60-IV40
	2,070	2					05539509807	AA60-JV40
	2,070	2					69083164147*	AA80-JV40
	2,070	2					60253053097*	AA80-JV40
	12 x 1-1/4 x 3	2,070	2		05539562221	32AR46-IV40		
	12 x 1-1/2 x 3	2,070	2		05539562222*	32AR60-JV40		
12 x 1-1/2 x 5	2,070	2	05539562337 B	60-GVLP	05539562223*	32AR46-GV40P		
	2,070	2			05539527368 B	32AR46-HV40		
	2,070	2			05539527369	32AR46-IV40		
	2,070	2			05539562224	32AR46-JV40		
	2,070	2			05539562226	32AR60-HV40		
12 x 2 x 1-1/4	2,070	2		05539562227*	32AR46-KV40			
12 x 2 x 5	2,070	2			05539562316	32AR46-IV40	05539562166*	AA46-HV40
	2,070	2			05539569544*	32AR46-JV40		
14 x 1 x 3	1,800	2	05539562339*	46-IVL	66253054713*	32AR46-HV40		
	1,800	2			66253054716*	32AR60-IV40		
14 x 1 x 5	1,800	2	05539527291*	46-GVLP	05539562230	32AR46-HV40	66253054785*	AA46-IV40
	1,800	2	05539562341*	46-HVLP	05539527370	32AR46-JV40	05539509806	AA46-JV40
	1,800	2	05539562342*	46-IVL	05539527371	32AR60-JV40	66253054786*	AA46-KV40
	1,800	2	05539527292	46-JVL	66253061056*	32AR60-KV40	66253054787*	AA60-IV40
	1,800	2	05539527293	60-JVL			05539562170*	AA80-KV40
	1,800	2	05539562345*	80-JVL			05539569202*	PA46-IV40
	1,800	2					05539569204*	PA60-JV40

See Carbo Cool Wheel listings on pages 143-145 for additional porous specifications. Refer to page 159 for truing and dressing products.





			BEST – MEDALIST		BETTER – 32AR		GOOD – AA & PA	
WHEEL SIZE	MAX. RPM	WHEELS/ BOX	PART NO.	GRADING	PART NO.	GRADING	PART NO.	GRADING
Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders								
14 x 1-1/2 x 5	1,800	1	05539527294	46-GVLP	05539562234*	32AR46-GV40P	05539524608*	AA46-HV40
	1,800	1	05539527295 B	46-IVL	05539527372 B	32AR46-HV40	05539562172	AA46-IV40
	1,800	1	05539527296	46-JVL	05539527673	32AR46-IV40	05539509804 B	AA46-JV40
	1,800	1	05539562346 B	60-IVL	05539527700	32AR46-JV40	66253054791*	AA46-KV40
	1,800	1	05539527298	60-JVL	05539562236*	32AR46-KV40	66253054792*	AA60-HV40
	1,800	1	05539562347*	80-KVL	05539562237	32AR60-HV40	05539509803	AA60-JV40
	1,800	1			05539527674*	32AR60-IV40		
	1,800	1			05539527701*	32AR60-JV40		
14 x 2 x 5	1,800	1	05539562348	46-JVL	05539562240	32AR46-IV40	66253054797*	AA46-HV40
	1,800	1	05539562349	60-JVL	05539562241*	32AR46-KV40	66253054798*	AA46-JV40
	1,800	1			05539562242	32AR60-KV40	66253054799*	AA60-JV40
16 x 1-1/2 x 5	1,550	1					66253059029*	AA46-HV40
	1,550	1					66253059030*	AA46-JV40
	1,550	1					66253059031*	AA60-KV40
16 x 2 x 5	1,550	1					66253059032*	AA46-IV40
	1,550	1					66253059033*	AA46-JV40
	1,550	1					66253059038*	AA60-KV40
Type 02 – For Surface and Tool & Cutter Grinders								
6 x 1 x 4	3,600	5			66253052535*	32AR46-KV40		
Rim 1, Fits Both: Four 9/32 Holes on 3-1/4" Bolt Circle & Four 7/16 Holes on 3-1/4" Bolt Circle								
9 x 2 x 5 Rim 2-1/32,	2,546	2			05539562315	32AR70-JV40P	05539503517	AA70-JV40P
Six 9/32 Holes on 4" Bolt Circle								
Type 05 – For Internal Grinding								
1/2 x 1/2 x 1/8	14,935	40					66253062125*	PA60-KV40
Recess 1/S 1/4 x 5/32								
1 x 1 x 3/8	32,470	40					66253062136*	PA60-KV40
Recess 1/S 1/2 x 1/2								
1-1/2 x 1 x 3/8	21,645	40					66253062140*	PA60-KV40
Recess 1/S 5/8 x 1/2								
2 x 1 x 3/8	15,980	40					66253062141*	PA60-KV40
Recess 1/S 3/4 x 1/2								
Type 05 – For Surface Grinders								
7 x 3/4 x 1-1/4	3,600	5			05539527702*	32AR46-IV40		
Recess 1/S 2-3/4 x 1/4	3,600	5			05539568013*	32AR60-IV40		
	3,600	5			05539562312*	32AR60-KV40		
	3,600	5					66253054745*	AA46-HV40
7 x 3/4 x 1-1/4	3,600	5					66253054746	AA46-IV40
Recess 1/S 3 x 1/4	3,600	5					66253054748	AA46-JV40
	3,600	5					66253054755*	AA60-HV40
	3,600	5					66253054756	AA60-JV40
	3,600	5						
	3,600	5						
7 x 1 x 1-1/4	3,600	5	05539527300	46-JVL	05539527703	32AR46-HV40		
Recess 1/S 2-3/4 x 1/2	3,600	5	05539527301	60-JVL	05539527675	32AR46-IV40		
	3,600	5			05539527704	32AR60-IV40		
	3,600	5					66253054764*	AA46-HV40
7 x 1 x 1-1/4	3,600	5	05539562369*	46-IVL	05539562284*	32AR46-HV40P	66253054764*	AA46-HV40
Recess 1/S 3 x 1/2	3,600	5	05539562370	60-KVL	05539562285*	32AR46-KV40	05539509798	AA46-IV40
	3,600	5					66253054767	AA46-JV40
	3,600	5					66253054768	AA46-KV40
	3,600	5					05539564605	AA60-GVPP
	3,600	5					05539509796*	AA60-IV40
	3,600	5					66253054769	AA60-JV40
	3,600	5					05539505805*	AA60-KV40
	3,600	5						

* Non-stock. Ask your sales representative for lead-times. Minimum quantity = box quantity.
B = Best seller



			BEST – MEDALIST		BETTER – 32AR		GOOD – AA & PA	
WHEEL SIZE	MAX. RPM	WHEELS/ BOX	PART NO.	GRADING	PART NO.	GRADING	PART NO.	GRADING
Type 05 – For Surface Grinders								
7 x 1-1/4 x 1-1/4 Recess 1/S 2-3/4 x 5/8	3,600	5			05539562286	32AR60-IV40		
7 x 1-1/2 x 1-1/4 Recess 1/S 2-3/4 x 3/4	3,600	5			05539562287*	32AR46-IV40		
8 x 3/4 x 1-1/4 Recess 1/S 3 x 1/4	3,105	5					05539564321*	AA46-HV40
	3,105	5					66253052857*	AA46-HV40P
	3,105	5					05539569071*	AA46-IV40
	3,600	5					66253052856*	AA46-JV40
	3,600	5					66253052859*	AA60-IV40
	3,600	5					66253052858*	AA60-JV40
	3,600	5					66253052860*	AA60-KV40
8 x 1 x 1-1/4 Recess 1/S 3 x 1/2	3,105	5					66253052861*	AA46-HV40P
	3,600	5					66253052862*	AA60-HV40
	3,600	5					66253054864*	AA60-IV40
	3,600	5					66253052866	AA60-JV40
	3,600	5					66253052868*	AA60-KV40
8 x 1 x 1-1/4 Recess 1/S 3-1/4 x 1/2	3,600	5			05539527677	32AR46-IV40	05539564600	AA46-HVPP
	3,600	5			05539527678	32AR46-JV40	05539564563	PA46-HVPP
	3,600	5			05539527676*	32AR60-IV40	05539564577	PA60-HVPP
12 x 1-1/2 x 3 Recess 1/S 7-1/2 x 1/2	2,070	2					66253053107*	AA46-HV40
	2,070	2					66253053108*	AA46-IV40
	2,070	2					66253054575*	AA46-JV40
12 x 1-1/2 x 5 Recess 1/S 7-1/2 x 1/2	2,070	2	05539562366	46-GVLP	05539569121*	32AR46-HV40	66253054583*	AA46-KV40
	2,070	2			05539562277	32AR46-IV40	66253054578*	AA60-IV40
	2,070	2					66253054584*	AA60-JV40
14 x 1-1/2 x 5 Recess 1/S 8 x 1/2	1,800	1	05539562367	46-JVL	05539562279	32AR46-IV40	05539562195*	AA46-HV40
	1,800	1	05539562368*	60-JVL	05539562280*	32AR46-KV40	05539567482*	AA46-IV40
	1,800	1			05539562281	32AR60-IV40	66253054794*	AA46-JV40
	1,800	1			66253061063*	32AR60-JV40	66253054796*	AA60-HV40
	1,800	1			05539562282*	32AR60-KV40	05539569087*	AA60-IV40
14 x 2 x 5 Recess 1/S 8 x 1	1,800	1			05539568664*	32AR46-KV40	66253054800*	AA46-HV40
	1,800	1			05539562283	32AR60-KV40	66253054801*	AA46-IV40
	1,800	1					66253054802*	AA46-JV40
	1,800	1					66253054803*	AA46-KV40
	1,800	1					66253054804*	AA60-IV40
	1,800	1					66253054805*	AA60-JV40
Type 06 – For Tool & Cutter Grinders								
4 x 2 x .787 (20mm) Rim 3/8, Back 3/8	5,730	5					05539509793	AA80-JV40
5 x 1-1/2 x 1-1/4 Rim 3/8, Back 3/8	4,585	5			05539562288	32AR46-KV40		
	4,585	5			05539527705	32AR60-KV40		
6 x 1-1/2 x 1-1/4 Rim 3/8, Back 3/8	3,820	5			66253052239*	32AR46-JV40		
	3,820	5			66253052240*	32AR60-JV40		
6 x 1-1/2 x 1-1/4 Rim 1-1/2, Back 1/2	3,820	5					05539509792*	AA60-JV40
Type 07 – For Surface Grinders								
12 x 2 x 3 Recess 2/S 6-1/2 x 1/2	2,070	1					66253054700*	AA46-IV40
	2,070	1					66253054703*	AA60-JV40
12 x 2 x 3 Recess 2/S 7-1/4 x 1/2	2,070	1			05539562291*	32AR46-JV40		
12 x 2 x 5 Recess 2/S 7-1/2 x 1/2	2,070	1	05539564513	60-GVPP	05539562292	32AR46-HV40	66253054706*	AA46-IV40
	2,070	1			05539562294	32AR46-KV40	66253054708*	AA46-JV40
	2,070	1					66253054709*	AA60-HV40
	2,070	1					66253054711*	AA60-JV40
	2,070	1					66253054712*	AA60-KV40

* Non-stock. Ask your sales representative for lead-times. Minimum quantity = box quantity.





		BEST – MEDALIST			BETTER – 32AR		GOOD – AA	
WHEEL SIZE	MAX. RPM	WHEELS/ BOX	PART NO.	GRADING	PART NO.	GRADING	PART NO.	GRADING
Type 07 – For Surface Grinders								
14 x 2 x 5	1,800	1					66253054806*	AA46-IV40
Recess 2/S 8 x 3/8	1,800	1					66253054808*	AA46-JV40
	1,800	1					66253054809*	AA46-KV40
Type 11 – For Tool & Cutter Grinders								
3-1/2 /2-3/4 x	7,640	5			66253051978*	32AR46-JV40		
1-1/2 x 1-1/4	7,640	5			66253051992*	32AR46-KV40		
Rim 3/4, Back 3/8	7,640	5			66253051993*	32AR60-JV40		
	7,640	5			66253041994*	32AR60-KV40		
4 / 3 x 1-1/2 x 1-1/4	5,730	5	05539562371*	46-IVLP	05539527679	32AR46-KV40	05539509790*	AA46-KV40
Rim 1/4, Back 1/2	5,730	5	05539527302*	46-JVL	05539527680	32AR60-JV40	05539509788*	AA60-KV40
	5,730	5	05539569173*	60-HVLP	05539527681	32AR60-KV40		
	5,730	5	05539527303	60-JVL	66253051997*	32AR80-JV40		
	5,730	5	05539562373*	80-KVL	05539569167*	32AR120-KV40		
5 / 3-3/4 x 1-3/4 x 1-1/4	4,585	5	05539527305	46-JVL	05539527682	32AR46-JV40	05539567353*	AA46-HV40
Rim 1/4, Back 1/2	4,585	5	05539569177*	60-IVL	05539527684	32AR46-KV40	05539569412*	AA46-JV40
	4,585	5	05539527306	60-KVL	05539527685	32AR60-JV40	05539569097*	AA46-KV40
	4,585	5			05539527683	32AR60-KV40	05539509783	AA60-JV40
	4,585	5					05539509782	AA60-KV40
6 / 4-1/2 x 2 x 1-1/4	3,820	5			05539562301	32AR46-IV40	05539509781	AA46-KV40
Rim 3/8, Back 1/2	3,820	5			66253052001*	32AR46-JV40		
Type 12 – For Tool & Cutter Grinders								
4 x 1/2 x 3/4	6,210	5			66253051996*	32AR80-JV40		
U = 3/8, E = 5/16								
6 x 1/2 x 1-1/4	4,140	5	05539527308	46-JVL	05539527707	32AR60-JV40	05539509777	AA60-JV40
U = 3/8, E = 5/16 J = 3, K = 3			05539527309*	60-LVL	05539562306*	32AR60-KV40		
6 x 3/4 x 1-1/4	4,140	5	05539527310*	60-KVL	66253051999*	32AR46-JV40	66253051998*	AA60-KV40
U = 3/8, E = 3/8, J = 3, K = 3					66253052000*	32AR60-JV40		
7 x 1/2 x 1-1/4	3,600	5			05539562275*	32AR60-KV40		
U = 7/16, E = 11/32, J = 2-3/4, K = 3-1/4								
7 x 3/4 x 1-1/4	3,600	5			05539562313 *	32AR60-KV40		
U = 1/2, E = 1/2, J = 2-3/4, K = 3-1/4								
8 x 1-9/16 x 1-1/4	3,105	4	05539562380	46-JVL				
U = 7/16, E = 25/32, J = 3, K = 3								
10 x 1 x 1-1/4	2,485	2			05539562303	32AR54-JV40		
U = 2, E = 11/16, J = 6-1/4, K = 3-5/8								
Refer to diagram on page 133 for dimension key.								
Type 37 – For Surface Grinders								
10 x 3-1/2 x 8	2,105	1	05539562383	54-IVL				
Rim 1, Eight 1/4-20 Bolts on 9" Bolt Circle								

* Non-stock. Ask your sales representative for lead-times. Minimum quantity = box quantity.

See Carbo Cool Wheel listings on pages 143-145 for additional porous specifications.
Refer to page 159 for truing and dressing products.

Skate Sharpening Wheels – Gold 32AR Aluminum Oxide Abrasive

Features

- Premium aluminum oxide abrasive – gray/purple color
- Strong vitrified bond
- Plastic bushing

Benefits

- Fast, cool cutting action
- No burn
- Consistent form holding
- Long life
- Provides a tighter fit – reducing vibrations and arbor-wear on the skate grinder

Sharpening all types of skate blades.



Refer to page 159 for truing and dressing products.

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
Type 01 – For Skate Sharpening Machines				
05539528044*	8 x 5/16 x 1-1/4	32AR80-KV40	3,600	5
Type 01 Cross Grind – For Skate Sharpening Machines				
05539509972	6 x 1 x 1	60 - Medium	4,140	5

Saw Gumming Wheels – Premier Red Zirconia Alumina Abrasive – Resin Bond

Features

- Durable 2ZA zirconia alumina abrasive

Benefits

- Designed specifically for large, timber-harvesting, circular and band saw steel blades

Saw gumming wheels are used primarily to shape and resharpen various timber and woodworking saws.

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
Type 01 – For Saw Gumming				
66253062023*	10 x 5/8 x 1-1/4	2ZA36-NB67	3,630	5
66253062026*	12 x 5/8 x 1-1/4	2ZA36-NB67	3,025	5
66253062029*	12 x 3/4 x 1-1/4	2ZA36-NB67	3,025	5
66253062030*	12 x 7/8 x 1-1/4	2ZA36-NB67	3,025	5
66253062031*	12 x 1 x 1-1/4	2ZA36-NB67	3,025	5

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

Saw Gumming Wheels – Gold 32AR Aluminum Oxide Abrasive – Vitrified Bond

Features

- High-performance aluminum oxide abrasive and strong vitrified bond

Benefits

- Long wheel life on medium to heavy stock removal operations on lower-speed machines

Saw gumming wheels are used primarily to shape and resharpen various timber and woodworking saws.

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
Type 01 – For Saw Gumming				
66253061632*	8 x 3/16 x 1-1/4	32AR46-MV40	4,535	5
66253062014*	10 x 3/8 x 1-1/4	32AR46-MV40	3,630	5
66253062013*	10 x 1/2 x 1-1/4	32AR46-MV40	3,630	5

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

Refer to page 159 for truing and dressing products.

Carbo Cool Medalist R Ceramic Alumina Abrasive

Features

- Ceramic Medalist R abrasive with VPP porous bond – purple color
- Controlled porosity bond
- Durable bond post
- Maximum depth of cut

Benefits

- Maximum productivity; lowest total grinding costs
- Increased chip clearance, maximum coolant flow, reduced loading
- Cool cutting – wet or dry – in heat-sensitive applications
- Maximum grain retention
- Less dressing; longer wheel life
- Consistent grinding action at high metal removal rates

High porosity for heavy stock removal, heat-sensitive applications.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Heavy Stock Removal				

Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders

05539564481*	7 x 1/2 x 1-1/4	46-HVPP	3,600	5
05539564497*	8 x 1/2 x 1-1/4	46-GVPP	3,600	5
05539564503		46-HVPP	3,600	5
05539564505*	12 x 1 x 3	46-HVPP	2,710	2

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Heavy Stock Removal				

Type 05 – For Surface Grinders

05539564493*	7 x 1 x 1-1/4	46-GVPP	3,600	5
05539564494	Recess 1/S 2-3/4 x 1/2	46-HVPP	3,600	5
05539564495*		60-GVPP	3,600	5
05539564504*	8 x 1 x 1-1/4	46-HVPP	3,600	5
05539564510	Recess 1/S 3-1/4 x 1/2	60-GVPP	3,600	5
05539564516*		60-HVPP	3,600	5
05539564500*	12 x 1-1/2 x 5	46-GVPP	2,710	2
05539564506	Recess 1/S 7-1/2 x 1/2	46-HVPP	2,710	2
05539564518*		60-HVPP	2,710	2
05539564508	14 x 1-1/2 x 5	46-HVPP	2,320	1
05539564520	Recess 1/S 8 x 1/2	60-HVPP	2,320	1

Carbo Cool AR Aluminum Oxide Abrasive

Features

- Durable aluminum oxide abrasive with VPP porous bond – ruby color
- Controlled porosity bond
- Durable bond post

Benefits

- Extremely cool cutting
- Good form holding
- Increased chip clearance, maximum coolant flow, reduced loading
- Cool cutting – wet or dry – in heat-sensitive applications
- Maximum grain retention
- Less dressing; longer wheel life

Engineered for medium to heavy stock removal, heat-sensitive applications.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Medium/Heavy Stock Removal				

Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders

66253051674*	6 x 1/2 x 1-1/4	AR60-HVPP	4,140	5
66253051678*	6 x 3/4 x 1-1/4	AR46-HVPP	4,140	5
66253051679*		AR60-GVPP	4,140	5
66253051680*		AR60-HVPP	4,140	5
05539564480*	7 x 1/2 x 1-1/4	AR46-GVPP	3,600	5
05539564484		AR46-HVPP	3,600	5
66253054724*		AR46-IVPP	3,600	5
05539564486*		AR60-HVPP	3,600	5
66253054725*		AR60-IVPP	3,600	5
66253054728*		AR80-HVPP	3,600	5
66253054734*	7 x 3/4 x 1-1/4	AR46-GVPP	3,600	5
66253054741*		AR60-GVPP	3,600	5

continued



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Medium/Heavy Stock Removal (cont'd)				

Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders

66253052852*	8 x 1/2 x 1-1/4	AR46-GVPP	3,600	5
05539564530		AR46-HVPP	3,600	5
66253052855*		AR60-GVPP	3,600	5
66253053087*	10 x 3/4 x 3	AR46-GVPP	3,250	5
66253054530*	10 x 1 x 3	AR46-GVPP	3,250	5
66253054561*	12 x 1 x 3	AR46-HVPP	2,710	2
66253053102*	12 x 1 x 5	AR46-GVPP	2,710	2
66253053106*		AR46-HVPP	2,710	2
66253061069*	14 x 1 x 5	AR46-GVPP	2,320	2
66253061070*		AR46-HVPP	2,320	2
66253061074*	14 x 1-1/2 x 5	AR46-GVPP	2,320	2

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

Carbo Cool AR Aluminum Oxide Abrasive (continued)

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Medium/Heavy Stock Removal (cont'd)				
Type 05 – For Surface Grinders				
66253054759*	7 x 3/4 x 1-1/4	AR46-GVPP	3,600	5
66253054760*	Recess 1/S 3 x 1/4	AR46-HVPP	3,600	5
66253054761*		AR60-GVPP	3,600	5
05539564529*	7 x 1 x 1-1/4	AR46-HVPP	3,600	5
05539564545*	Recess 1/S 2-3/4 x 1/2	AR60-HVPP	3,600	5
66253054771*	7 x 1 x 1-1/4	AR46-GVPP	3,600	5
66253054772*	Recess 1/S 3 x 1/2	AR60-GVPP	3,600	5
05539564531*	8 x 1 x 1-1/4	AR46-HVPP	3,600	5
05539564538*	Recess 1/S 3-1/4 x 1/2	AR60-GVPP	3,600	5
05539564547*		AR60-HVPP	3,600	5
05539564535*	14 x 1-1/2 x 5	AR46-HVPP	2,320	1
05539564544	Recess 1/S 8 x 1/2	AR60-GVPP	2,320	1
05539564526	12 x 1-1/2 x 5	AR46-GVPP	2,710	1
	Recess 1/S 7-1/2 x 1/2			

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Medium/Heavy Stock Removal (cont'd)				

Type 07 – For Surface Grinders

05539564527	12 x 2 x 5	AR46-GVPP	2,710	1
05539564534*	Recess 2/S 7-1/2 x 1/2	AR46-HVPP	2,710	1

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

Refer to page 159 for truing and dressing products.

Carbo Cool PA Aluminum Oxide Abrasive

Features

- Friable, aluminum oxide abrasive with VPP porous bond – pink color
- Controlled porosity bond

Benefits

- Designed to grind a broad variety of steels at light to moderate feed rates
- Increased chip clearance and maximum coolant flow
- Reduced loading
- Cool cutting – wet or dry – in heat-sensitive applications
- Maximum grain retention
- Less dressing; longer wheel life

Excels in light to medium stock removal, heat-sensitive applications.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Light/Medium Stock Removal				
Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders				
66253051941*	7 x 3/8 x 1-1/4	PA60-IVPP	3,600	5
05539564477	7 x 1/2 x 1-1/4	PA46-GVPP	3,600	5
05539564490		PA46-HVPP	3,600	5
05539564491*		PA60-GVPP	3,600	5
05539564492*		PA60-HVPP	3,600	5
05539564554*	8 x 1/2 x 1-1/4	PA46-GVPP	3,600	5
05539564562*		PA46-HVPP	3,600	5
05539564576*		PA60-HVPP	3,600	5
66253053088*	10 x 3/4 x 3	PA46-HVPP	3,250	5
66253054537*	10 x 1 x 3	PA46-IVPP	3,250	5
66253054538*		PA60-IVPP	3,250	5
66253054545*	12 x 3/4 x 3	PA46-HVPP	2,710	2
66253054551*		PA46-IVPP	2,710	2
66253054567*	12 x 1 x 3	PA46-IVPP	2,710	2
66253053104*	12 x 1 x 5	PA46-IVPP	2,710	2
66253054717*	14 x 1 x 3	PA46-IVPP	2,320	2
66253061075*	14 x 1-1/2 x 5	PA46-IVPP	2,320	2



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Light/Medium Stock Removal (cont'd)				

Type 05 – For Surface Grinders

05539564565*	12 x 1-1/2 x 5	PA46-HVPP	2,710	2
05539564572*	Recess 1/S 7-1/2 x 1/2	PA60-GVPP	2,710	2
05539564579		PA60-HVPP	2,710	2
05539564560*	14 x 1-1/2 x 5	PA46-GVPP	2,320	1
05539564567*	Recess 1/S 8 x 1/2	PA46-HVPP	2,320	1
05539564574*		PA60-GVPP	2,320	1
05539564581*		PA60-HVPP	2,320	1

Type 07 – For Surface Grinders

05539564566*	12 x 2 x 5	PA46-HVPP	2,710	1
	Recess 2/S 7-1/2 x 1/2			

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

Carbo Cool AA Aluminum Oxide Abrasive

Features

- Most friable aluminum oxide abrasive with VPP porous bond – white color
- Versatile
- Controlled porosity bond
- Durable bond post

Benefits

- Exceptionally cool cutting in light pressure grinding applications, or where burn is a concern
- Ideal for use across a broad variety of tool steels
- Increased chip clearance, maximum coolant flow, reduced loading
- Cool cutting – wet or dry – in heat-sensitive applications
- Maximum grain retention
- Less dressing; longer wheel life

Excellent for light stock removal, heat-sensitive applications.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Light Stock Removal				
Type 01 – For Surface, Cylindrical and Tool & Cutter Grinders				
05539564479	7 x 1/2 x 1-1/4	AA46-GVPP	3,600	5
05539564487*		AA46-HVPP	3,600	5
05539564488*		AA60-GVPP	3,600	5
05539564592*	8 x 1/2 x 1-1/4	AA46-GVPP	3,600	5
05539564599*		AA46-HVPP	3,600	5
05539564606*		AA60-GVPP	3,600	5
05539564601*	12 x 1 x 3	AA46-HVPP	2,710	2

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
High Porosity – For Light Stock Removal				
Type 05 – For Surface Grinders				
05539564602*	12 x 1-1/2 x 5	AA46-HVPP	2,710	2
05539564609*	Recess 1/S 7-1/2 x 1/2	AA60-GVPP	2,710	2
05539564616		AA60-HVPP	2,710	2
Type 07 – For Surface Grinders				
05539564603*	12 x 2 x 5	AA46-HVPP	2,710	1
	Recess 2/S 7-1/2 x 1/2			

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

GC Silicon Carbide Abrasive

Features

- High performance, sharp, silicon carbide abrasive – green
- Performance vitrified bond

Benefits

- Fast stock removal
- Cool, free cut
- Long life

GC abrasive is used for grinding hard, cemented carbide tooling and non-ferrous materials.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
For Carbide				
Type 01 – For Surface and Tool & Cutter Grinders				
05539509586*	6 x 1/2 x 1-1/4	GC60-IVGC	4,140	5
05539509585 B		GC80-IVGC	4,140	5
05539509582		GC120-IVGC	4,140	5
05539509581	6 x 3/4 x 1-1/4	GC60-IVGC	4,140	5
05539509580		GC80-IVGC	4,140	5
05539509578		GC120-IVGC	4,140	5
66253060303*	7 x 1/4 x 1-1/4	GC60-IVGC	3,600	5
66253060304*		GC80-IVGC	3,600	5
66253060305*		GC100-IVGC	3,600	5
05539569208*		GC120-HVGC	3,600	5
05539509576	7 x 1/2 x 1-1/4	GC60-IVGC	3,600	5
05539509575		GC80-IVGC	3,600	5
05539562390*		GC80-JVGC	3,600	5
05539509574*		GC100-IVGC	3,600	5
05539509573		GC120-IVGC	3,600	5

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.
continued



BONDED ABRASIVES

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
For Carbide				
Type 01 – For Surface and Tool & Cutter Grinders (cont'd)				
05539562392*	7 x 3/4 x 1-1/4	GC80-JVGC	3,600	5
66253060314*	8 x 1/4 x 1-1/4	GC80-IVGC	3,600	5
05539509572	8 x 1/2 x 1-1/4	GC60-IVGC	3,600	5
66253060315*		GC80-IVGC	3,600	5
05539562395 B		GC100-IVGC	3,600	5

B = Best seller
continued

Toolroom Wheels

GC Silicon Carbide Abrasive (continued)

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
For Carbide				
Type 01 – For Surface and Tool & Cutter Grinders (continued)				
05539509570	8 x 3/4 x 1-1/4	GC60-IVGC	3,600	5
05539562397	8 x 1 x 1-1/4	GC60-JVGC	3,600	5
05539562398		GC80-IVGC	3,600	5
66253061066*	10 x 1 x 3	GC60-JVGC	2,485	2
05539562386	14 x 1 x 5	GC60-IVGC	1,800	2
05539562388	14 x 2 x 5	GC60-JVGC	1,800	1
Type 02 – For Surface and Tool & Cutter Grinders				
05539509566	6 x 1 x 4	GC60-IVGC	3,600	2
05539509565*	Rim 1, Fits Both:	GC100-IVGC		2
05539509564	Four 9/32 Holes on 3-1/4" Bolt Circle Four 7/16 Holes on 3-1/4" Bolt Circle	GC120-IVGC		2
66253059203*	14 x 4 x 1-1/4 Rim 1-1/2", Plate Mounted, Tape Wound	GC60-IVGC	1,640	1

PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
For Carbide				
Type 05 – For Surface Grinding				
66253060309*	7 x 3/4 x 1-1/4	GC60-IVGC	3,600	5
66253060310*	Recess 1/S 3 x 1/4	GC80-IVGC	3,600	5
66253060311*		GC100-IVGC	3,600	5
66253060312*	7 x 1 x 1-1/4	GC60-IVGC	3,600	5
05539569224*	Recess 1/S 3 x 1/2	GC80-IVGC	3,600	5
66253060316*	8 x 1 x 1-1/4 Recess 1/S 3 x 1/2	GC60-IVGC	3,600	5

* Non-stock. Ask your sales representative for lead-times.
Minimum quantity = box quantity.

Bench and Pedestal Wheels

Aluminum Oxide Abrasive

Features

- Aluminum oxide abrasive
– brown color
- Vitrified bond

Benefits

- Fast cut rate
- Free cutting action; long life

Ideal for removing burrs on steel parts, as well as sharpening high-speed steel cutting tools. Note: Bushings included.



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
For Steel/Metal				
Type 01 – For Bench and Pedestal Grinders				
66253059518*	6 x 1/2 x 1	46-M	4,140	5
05539509978		60-M	4,140	5
66253059519*		80-M	4,140	5
05539509976*	6 x 3/4 x 1	36-M	4,140	5
66253059522*		46-M	4,140	5
05539509975		60-M	4,140	5
05539509974		100-K	4,140	5
05539509973	6 x 1 x 1	36-M	4,140	5
66253059524*		46-M	4,140	5
05539509972		60-M	4,140	5
05539509971		100-K	4,140	5
66253059529*	7 x 3/4 x 1	36-M	3,600	5
66253059533*		46-M	3,600	5
66253059534*		60-M	3,600	5
05539509966	7 x 1 x 1	36-M	3,600	5
66253059536*		46-M	3,600	5
05539509965		60-M	3,600	5
05539509964		100-K	3,600	5

continued



PART NO.	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
For Steel/Metal				
Type 01 – For Bench and Pedestal Grinders (continued)				
05539509962	8 x 3/4 x 1	36-M	3,600	5
66253060232*		46-M	3,600	5
05539509961		60-M	3,600	5
05539509960	8 x 1 x 1	24-P	3,600	5
05539509959		36-M	3,600	5
66253060235*		46-M	3,600	5
05539509956		60-M	3,600	5
66253060236		80-M	3,600	5
05539509955	10 x 1 x 1-1/4	24-P	2,485	2
05539509953		36-M	3,250	2
05539509952		60-M	3,250	2

continued