



**CARBORUNDUM**

**ABRASIVES FOR THE  
INDUSTRIAL MARKET**

**EFFECTIVE  
2015**



THIN WHEELS

COATED ABRASIVES

NON-WOVEN ABRASIVES

BONDED ABRASIVES

NON-ABRASIVE PRODUCTS







GENERAL INFORMATION
























products. pricing. experience.

*the definition of*  
**DIFFERENT™**










## Thin Wheels

	Depressed Center Wheels <b>4 – 9</b>		Circular Saw Reinforced Cut-off Wheels <b>13</b>		Chop Saw Reinforced Cut-off Wheels <b>17</b>
	Precision Toolroom Cut-off Wheels <b>11</b>		Right Angle Grinder Reinforced Cut-off Wheels <b>14 – 15</b>		High-Speed Saw Reinforced Cut-off Wheels <b>18</b>
	Small Diameter Reinforced Cut-off Wheels <b>12</b>		Stationary Saw Reinforced Cut-off Wheels <b>16</b>		Foundry Reinforced Cut-off Wheels <b>19</b>

## Coated Abrasives

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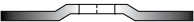


**CARBORUNDUM** *PRODUCT TIERING AND COLOR CODING*  
*Carborundum uses product performance tiering, color-coded for easy product selection.*

<b>BEST</b>	<i>Highest Productivity – Lowest Total Cost</i>
<b>BETTER</b>	<i>Excellent Blend Of Performance And Price</i>
<b>GOOD</b>	<i>Consistent Performance – Low Initial Price</i>
<b>STANDARD</b>	<i>Standard Quality “White” – Opening Price Point</i>





## TYPE-TO-APPLICATION RECOMMENDATION GUIDE

WHEEL TYPE	APPLICATIONS
<b>TYPE 27</b>  .045", 1/16" and 3/32" Thick (Type 27/42) .125" Thick 1/8" Thick 1/4" Thick Z24 Long Life, 1/4" Thick	Cutting only, where fast cutting and low kerf loss are desired Ideal for pipe cutting Cutting and cleaning root pass welds Cutting-off, notching and light side grinding Grinding with low horsepower air and electric grinders or where low pressure is used Grinding with high horsepower machines (3 hp or higher) and heavy pressure; flame cut and other severe applications
<b>TYPE 28</b>  Saucers	Smooth, gouge-free grinding at shallow angles
<b>TYPE 29</b>  Gold Flexible	Polishing and blending applications

## COMPETITIVE CROSS REFERENCE

CARBORUNDUM	3M	BRILLIANT	BULLARD	CAMEL	DEWALT	FLEXOVIT	METABO	PEARL	PFERD	SAIT	TYROLIT	WALTER
<b>Carbo Premier Red</b>	CUII, Green Corps	Brill-Max Z24R	TA24S, ZA24R	-	XP Ceramic, XP	Flexon ZA20Q, Flexon ZA30T	ZA24T	Z24T	ZA R SGP, Z-SG	Saitech Attacker, Pipeline, Ultimate Performance, Ztech	ZA24N-BFX, P, R	Allsteel XX, Xcavator, Double-X
<b>Carbo Gold</b>	High Performance	Brill-Tex A24UHPXL, A30T	A24T, A24R	A24T, A24R	HP	A24/30T, A30S, Metalhog	A24T, A24R	Redline Max A/WA24S, Premium Metal A24S, A24R	A-SG	A24T, A24R, A24 Turbo	A30S & Q-BFX	HP/Allsteel
<b>Carbo Gold - Stainless Steel INOX</b>	-	Brill-Tex A30P	A46Q	WA24S	HP INOX	Free Grind A30Q A360	WA24R, SRT24	A-PS INOX	XA24Q		A30-BF INOX	Stainless
<b>Carbo Gold - Aluminum</b>	-	Brill-Tex 30ALU	AL36N	A30N, Fast Cut	HP Aluminum	Specialist A24ALU	A36M	D.A. Series AL24M	A-SG ALU	A46N - Aluminum	A36N-BFX WA46-BF	Aluminum
<b>Carbo White</b>	General Purpose	Hornet Metal, Brill-Tex A24R	A24N, A24R Competitor	A24N, R&T Fast Cut	HP	Specialist A30R, A24N A30Q		Silver Line A24R & S	A-PS	A24N	A30R-BFX	-

## STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION

MATERIALS	HEAVY-DUTY GRINDING BEST PERFORMANCE	GENERAL-DUTY GRINDING	BLENDING AND FINISHING	CUTTING	SURFACE PREPARATION
<b>Angle / Channel Iron Bar Stock / I-Beams Carbon / High Tensile Steel Metal Studs / Tubing</b>	Premier Red Type 27	Gold Stainless Type 27 Gold Type 27	Gold Flexible Type 27, 29	Gold Type 27	Fibratex Surface Strip Fibratex Surface Blend
<b>Cast Iron / Pipe</b>	Premier Red Type 27	Gold Stainless Type 27 Gold Type 27	Gold Flexible Type 27, 29	Gold Type 27	Fibratex Surface Strip Fibratex Surface Blend
<b>Aluminum / Brass / Bronze</b>	Premier Red Type 27	Gold Stainless Type 27 Gold ALU Type 27	Gold Flexible Type 27, 29	Gold ALU Type 27	Fibratex Surface Strip Fibratex Surface Blend
<b>Fiberglass / Plastic</b>	-	Gold Flexible Type 27	Gold Flexible Type 27, 29	Gold Type 27	Fibratex Surface Strip Fibratex Surface Blend
<b>Paint / Rust</b>	-	Gold Type 27	-	-	-

### techtip

Unique, patented mini-mount hub used on 4-1/2" and 5" depressed center wheels provides up to 30% more wheel life because the hub covers just a small surface area, providing maximum grinding area exposure and usage.

For best results, hold your right angle grinder at a:

- 30° angle with 1/4" and 1/8" thick Type 27 wheels
- 90° angle with .045", 1/16", 3/32", .125" and 1/8" thick Type 27 wheels
- 15° angle with saucers (Type 28) and Gold Flexible (Type 29) wheels



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



90°



30°



15°



# PREMIER RED DEPRESSED CENTER WHEELS

Better Tier / Zirconia Alumina



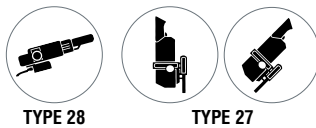
**Z24** Outstanding results grinding stainless steel, high alloy steel, and all ferrous metals.

**Z24 Long Life** Extended life when grinding stainless steel, high alloy steel and all ferrous metals. Best used on high frequency grinders or air grinders with appropriate air supply.

FEATURES	BENEFITS
• High-performance zirconia alumina abrasive	• 60% faster stock removal and a minimum of 3X the life over aluminum oxide wheels
• High-performance resin bond	• Enhanced life; exceptional cut rate
• Exceptional balance	• No vibration or bouncing on workpiece
	• Less grinder maintenance
	• Less operator fatigue
• Unique glass cloth reinforcement design	• No fraying or spalling of abrasive grit
	• Smaller glass on the grinding surface to allow for immediate fast cutting
• Better performing wheel	• Highest productivity; lowest total grinding cost

## FOR GRINDING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539502864	3 x 1/4 x 3/8	Z24	18,000	20
05539502867	4 x 1/4 x 3/8	Z24	15,280	20
05539502868	4 x 1/4 x 5/8	Z24	15,280	20
05539502873	4-1/2 x 1/4 x 5/8-11	Z24	13,580	20
05539502872	4-1/2 x 1/4 x 7/8	Z24	13,580	20
05539502877	5 x 1/4 x 5/8-11	Z24	12,225	20
05539502876	5 x 1/4 x 7/8	Z24	12,225	20
66252844359	6 x 1/4 x 5/8-11	Z24	10,185	10
66252844358	6 x 1/4 x 7/8	Z24	10,185	20
05539502883	7 x 1/4 x 5/8-11	Z24	8,600	10
05539502884	7 x 1/4 x 5/8-11	Z24 Long Life	8,600	10
05539502881	7 x 1/4 x 7/8	Z24	8,600	20
05539502882	7 x 1/4 x 7/8	Z24 Long Life	8,600	20
05539502889	9 x 1/4 x 5/8-11	Z24	6,600	10
05539502890	9 x 1/4 x 5/8-11	Z24 Long Life	6,600	10
66252844378	9 x 1/4 x 7/8	Z24	6,600	20
<b>TYPE 28 – FOR RIGHT ANGLE GRINDERS</b>				
05539502892	7 x 1/4 x 5/8-11	Z24	8,600	10
66252844362	9 x 1/4 x 5/8-11	Z24	6,600	10



## FOR LIGHT GRINDING AND CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539507349	4 x 1/8 x 3/8	Z24	15,280	20
66252844354	4 x 1/8 x 5/8	Z24	15,280	20
05539504702	4-1/2 x 1/8 x 5/8-11	Z24	13,580	20
05539504701	4-1/2 x 1/8 x 7/8	Z24	13,580	20
66252844377	5 x 1/8 x 5/8-11	Z24	12,225	20
05539504703	5 x 1/8 x 7/8	Z24	12,225	20
66252844357	6 x 1/8 x 5/8-11	Z24	10,185	10
66252844356	6 x 1/8 x 7/8	Z24	10,185	20
05539504706	7 x 1/8 x 5/8-11	Z24	8,600	10
66252844360	7 x 1/8 x 7/8	Z24	8,600	20
05539504708	9 x 1/8 x 5/8-11	Z24	6,600	10
66252844361	9 x 1/8 x 7/8	Z24	6,600	20

## FOR CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539502863	3 x .125 x 3/8	Z24	18,000	20
05539502865	4 x .125 x 3/8	Z24	15,280	20
05539502871	4-1/2 x .125 x 5/8-11	Z24	13,580	20
05539502870	4-1/2 x .125 x 7/8	Z24	13,580	20
05539502874	5 x .125 x 7/8	Z24	12,225	20
66252842466	5 x .125 x 5/8-11	Z24	12,225	20
05539502879	7 x .125 x 5/8-11	Z24	8,600	10
05539502878	7 x .125 x 7/8	Z24	8,600	20

### techtip

- 1 For maximum performance, run the grinder at the "Maximum Operating Speed", which is marked on the wheel.
- 2 Carbo Gold wheels for Metal/Steel also grind stainless steel very well. It is important to remember though that contamination, such as iron, can happen if an operator grinds with the same wheel on carbon steel then moves to a workpiece of stainless steel to grind.
- 3 Carbo Gold wheels formulated for stainless can be used as an extra fast cutting wheel for any grinding application.
- 4 Remember to keep your wheels used to grind carbon steel away from stainless steel if you need to avoid contamination of the stainless steel.



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

# PREMIER REDCUT DEPRESSED CENTER WHEELS

Better Tier / Zirconia Alumina



Engineered for cutting pipe, plate and all types of carbon and stainless steel and various hard alloys.

FEATURES	BENEFITS
• Zirconia alumina abrasive	• Burn-free cutting, fast cut rate
• Advanced resin bond	• Long life
• Extra thin	• Quick cutting action
	• Minimal kerf loss
• Specially reinforced	• Added safety, strength and straight cuts



## FOR CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR METAL/STAINLESS STEEL</b>				
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252844369	4-1/2 x .045 x 7/8	ZA60	13,580	25
66252844370	5 x .045 x 7/8	ZA60	12,225	25
66252844371	6 x .045 x 7/8	ZA60	10,185	25



TYPE 27/42

# CARBO GOLD DEPRESSED CENTER WHEELS

Good Tier / Aluminum Oxide



**A24 Aluminum Oxide Abrasive – For Steel/Metal** The choice for grinding all types of ferrous metals and various alloy steels.

**ZA30 Aluminum Oxide Abrasive – For Stainless Steel** Ideal for grinding all types of stainless steel and various hard alloys. Clean bond is formulated to meet nuclear industry standards; no iron, sulphur or chlorine in bond specification to contaminant workpieces.



**A46 Aluminum Oxide Abrasive – For Aluminum** Engineered for grinding aluminum weld beads and fabricated parts. Special filler in the bond mixture to enhance metal removal without loading.



FEATURES	BENEFITS
• Premium aluminum oxide abrasive	• Fast stock removal due to extra grain sharpness
• Advanced resin bond	• Free cutting without a reduction in wheel life
• Exceptional balance	• No vibration
	• No burning of workpiece
	• Less grinder maintenance
	• Less operator fatigue
• Unique glass cloth reinforcement design	• No fraying or spalling of abrasive grit

## FOR GRINDING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
66252844381	3 x 1/4 x 3/8	A24	18,000	20
05539502836	4 x 1/4 x 3/8	A24	15,280	20
05539502837	4 x 1/4 x 5/8	A24	15,280	20
05539502843	4-1/2 x 1/4 x 5/8-11	A24	13,580	20
05539502842	4-1/2 x 1/4 x 7/8	A24	13,580	20
05539502847	5 x 1/4 x 5/8-11	A24	12,225	20
05539502846	5 x 1/4 x 7/8	A24	12,225	20
66252844374	6 x 1/4 x 5/8-11	A24	10,185	10
05539502849	6 x 1/4 x 7/8	A24	10,185	20
05539502854	7 x 1/4 x 5/8-11	A24	8,600	10
05539502853	7 x 1/4 x 7/8	A24	8,600	20
05539502858	9 x 1/4 x 5/8-11	A24	6,600	10
05539502857	9 x 1/4 x 7/8	A24	6,600	20

## FOR GRINDING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 28 – FOR RIGHT ANGLE GRINDERS</b>				
05539502860	7 x 1/4 x 5/8-11	A24	8,600	10
05539502859	7 x 1/4 x 7/8	A24	8,600	20
05539502862	9 x 1/4 x 5/8-11	A24	6,600	10
05539502861	9 x 1/4 x 7/8	A24	6,600	20

Continued on next page.



TYPE 28



TYPE 27



**FOR GRINDING**

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539570192	4-1/2 x 1/4 x 5/8-11	ZA30	13,580	20 ●
05539570191	4-1/2 x 1/4 x 7/8	ZA30	13,580	20 ●
66252842468	5 x 1/4 x 5/8-11	ZA30	12,225	20 ●
05539570193	5 x 1/4 x 7/8	ZA30	12,225	20 ●
66252830562	6 x 1/4 x 7/8	ZA30	10,185	20 ●
05539570195	7 x 1/4 x 5/8-11	ZA30	8,600	10 ●
05539570194	7 x 1/4 x 7/8	ZA30	8,600	20 ●
05539570197	9 x 1/4 x 5/8-11	ZA30	6,600	10 ●
05539570196	9 x 1/4 x 7/8	ZA30	6,600	20 ●

**FOR ALUMINUM**

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539508158	4-1/2 x 1/4 x 5/8-11	A46	13,580	20
05539503588	4-1/2 x 1/4 x 7/8	A46	13,580	20
66252844363	5 x 1/4 x 5/8-11	A46	12,225	20
05539503589	5 x 1/4 x 7/8	A46	12,225	20
66252844379	6 x 1/4 x 7/8	A46	10,185	20
05539503594	7 x 1/4 x 5/8-11	A46	8,600	10
66252844364	7 x 1/4 x 7/8	A46	8,600	20

**FOR CUTTING**

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539502833	4 x .125 x 3/8	A24	15,280	20
05539502834	4 x .125 x 5/8	A24	15,280	20
05539502839	4-1/2 x .125 x 5/8-11	A24	13,580	20
05539502838	4-1/2 x .125 x 7/8	A24	13,580	20
66252844349	5 x .125 x 5/8-11	A24	12,225	20
05539502844	5 x .125 x 7/8	A24	12,225	20
05539502848	6 x .125 x 7/8	A24	10,185	20
05539502851	7 x .125 x 5/8-11	A24	8,600	10
05539502850	7 x .125 x 7/8	A24	8,600	20
05539502856	9 x .125 x 5/8-11	A24	6,600	10
05539502855	9 x .125 x 7/8	A24	6,600	20

**FOR LIGHT GRINDING AND CUTTING**

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
66252844373	3 x 1/8 x 3/8	A24	18,000	20
05539504709	4 x 1/8 x 5/8	A24	15,280	20
05539504711	4-1/2 x 1/8 x 5/8-11	A24	13,580	20
05539504710	4-1/2 x 1/8 x 7/8	A24	13,580	20
66252844350	5 x 1/8 x 5/8-11	A24	12,225	20
05539504712	5 x 1/8 x 7/8	A24	12,225	20
66252844353	6 x 1/8 x 5/8-11	A24	10,185	10
05539504714	6 x 1/8 x 7/8	A24	10,185	20
05539504716	7 x 1/8 x 5/8-11	A24	8,600	10
66252844376	7 x 1/8 x 7/8	A24	8,600	20
05539504718	9 x 1/8 x 5/8-11	A24	6,600	10
05539504717	9 x 1/8 x 7/8	A24	6,600	20
<b>FOR STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
66252832395	4-1/2 x 1/8 x 5/8-11	ZA30	13,580	20 ●
66252832507	4-1/2 x 1/8 x 7/8	ZA30	13,580	20 ●
66252842467	5 x 1/8 x 5/8-11	ZA30	12,225	20 ●
66252832508	5 x 1/8 x 7/8	ZA30	12,225	20 ●
66252830561	6 x 1/8 x 7/8	ZA30	10,185	20 ●
66252832396	7 x 1/8 x 5/8-11	ZA30	8,600	10 ●
66252832509	7 x 1/8 x 7/8	ZA30	8,600	20 ●
66252830879	9 x 1/8 x 5/8-11	ZA30	6,600	10 ●

● = Free of FE + S + CL



TYPE 28



TYPE 27



**techtip**

- 1 Carbo Gold wheels for Metal/Steel also grind stainless steel very well. It is important to remember though that contamination, such as iron, can happen if an operator grinds with the same wheel on carbon steel then moves to a workpiece of stainless steel to grind.
- 2 Carbo Gold wheels formulated for stainless can be used as an extra fast cutting wheel for any grinding application.
- 3 Remember to keep your wheels used to grind carbon steel away from stainless steel if you need to avoid contamination of the stainless steel.



# CARBO GOLD<sup>™</sup> DEPRESSED CENTER WHEELS

Good Tier / Aluminum Oxide

CARBO<sup>™</sup>  
**GOLDCUT<sup>™</sup>**

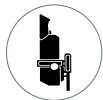


Engineered for cutting pipe, plate and all types of carbon and stainless steel and various hard alloys.

FEATURES	BENEFITS
• Premium aluminum oxide abrasive	• Burn-free cutting
• Advanced resin bond	• Long life
• Extra thin	• Quick cutting action
	• Minimal kerf loss
• Specially reinforced	• Added safety, strength and straight cuts
• Hubbed wheels	• Quick, tool-free changes increase productivity

## FOR CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252844347	4-1/2 x 3/32 x 5/8-11	A30	13,580	20
05539563817	4-1/2 x 3/32 x 7/8	A30	13,580	20
66252844348	5 x 3/32 x 5/8-11	A30	12,225	20
05539563819	5 x 3/32 x 7/8	A30	12,225	20
66252844352	6 x 3/32 x 5/8-11	A30	10,185	10
66252844351	6 x 3/32 x 7/8	A30	10,185	20
66252844375	7 x 3/32 x 5/8-11	A30	8,600	10
05539563821	7 x 3/32 x 7/8	A30	8,600	20



TYPE 27/42

## FOR CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252844537	4 x .045 x 5/8	A30	13,580	20
66252830584	4-1/2 x .045 x 5/8-11	A30	13,580	20
05539561551	4-1/2 x .045 x 7/8	A30	13,580	20
66252844367	5 x .045 x 5/8-11	A30	12,225	20
05539561553	5 x .045 x 7/8	A30	12,225	20
66252844368	6 x .045 x 5/8-11	A30	10,185	20
05539561554	6 x .045 x 7/8	A30	10,185	20
05539561555	7 x 1/16 x 7/8	A30	8,600	20
66252830585	9 x 1/16 x 5/8-11	A30	6,600	10

# CARBO WHITE<sup>™</sup> DEPRESSED CENTER WHEELS

Standard Tier / Aluminum Oxide

CARBO<sup>™</sup>  
**WHITE<sup>™</sup>**



Standard choice for steel/metal applications with low initial price.

FEATURES	BENEFITS
• Aluminum oxide abrasive	• Engineered for all steel/ferrous metals
• Low initial price point	• Best starting specification for end-user unable to measure performance

## FOR CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252836280	4-1/2 x .045 x 7/8	A60	13,580	20
66252836281	5 x .045 x 7/8	A60	12,225	20
66252836282	6 x .045 x 7/8	A60	10,185	20



TYPE 27/42



TYPE 27

## FOR GRINDING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539561568	4-1/2 x 1/4 x 5/8-11	A24	13,580	20
05539561567	4-1/2 x 1/4 x 7/8	A24	13,580	20
05539561571	5 x 1/4 x 7/8	A24	12,225	20
05539561576	7 x 1/4 x 5/8-11	A24	8,600	10
05539561575	7 x 1/4 x 7/8	A24	8,600	20
05539561580	9 x 1/4 x 5/8-11	A24	6,600	10
05539561579	9 x 1/4 x 7/8	A24	6,600	20

## FOR LIGHT GRINDING AND CUTTING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539561566	4-1/2 x 1/8 x 5/8-11	A24	13,580	20
05539561565	4-1/2 x 1/8 x 7/8	A24	13,580	20
05539561569	5 x 1/8 x 7/8	A24	12,225	20
05539561574	7 x 1/8 x 5/8-11	A24	8,600	10
05539561573	7 x 1/8 x 7/8	A24	8,600	20
05539561578	9 x 1/8 x 5/8-11	A24	6,600	10
05539561577	9 x 1/8 x 7/8	A24	6,600	20

# CARBO GOLD FLEXIBLE DEPRESSED CENTER WHEELS

Good Tier / Aluminum Oxide

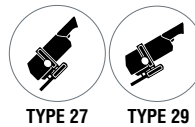


Blending, finishing and polishing of stainless steel, aluminum, structural steel, carbon steel, cast iron welds and burrs.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide grain</li> </ul>	<ul style="list-style-type: none"> <li>Cool cutting; leaves no burn marks</li> <li>Prevents loading</li> </ul>
<ul style="list-style-type: none"> <li>Flexible</li> </ul>	<ul style="list-style-type: none"> <li>Excellent control of finish quality and removal rate in light stock removal applications</li> </ul>
<ul style="list-style-type: none"> <li>Type 29 conical has nubs on the face; (use at a 15° angle)</li> <li>Type 27 has concentric grooves</li> </ul>	<ul style="list-style-type: none"> <li>Shallow grinding angle permits larger contact area with less gouging of workpiece</li> <li>Nubs/grooves allow more air to circulate in grinding zone, promoting cooler cutting (reducing heat and loading) and better swarf removal</li> <li>Ideal for getting into tight spaces, smoothing corners and curves, and polishing and blending welds on flat surfaces</li> </ul>

## FOR BLENDING AND POLISHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27 – FOR RIGHT ANGLE GRINDERS</b>				
05539567289	4-1/2 x 1/8 x 7/8	A60-Medium	13,580	20
05539567287	7 x 1/8 x 5/8-11	A60-Medium	8,600	10
<b>FOR STEEL/METAL</b>				
<b>TYPE 29 – FOR RIGHT ANGLE GRINDERS</b>				
66252833457	4-1/2 x 1/8 x 7/8	A36	13,580	20
66252833458	5 x 1/8 x 7/8	A36	12,225	20



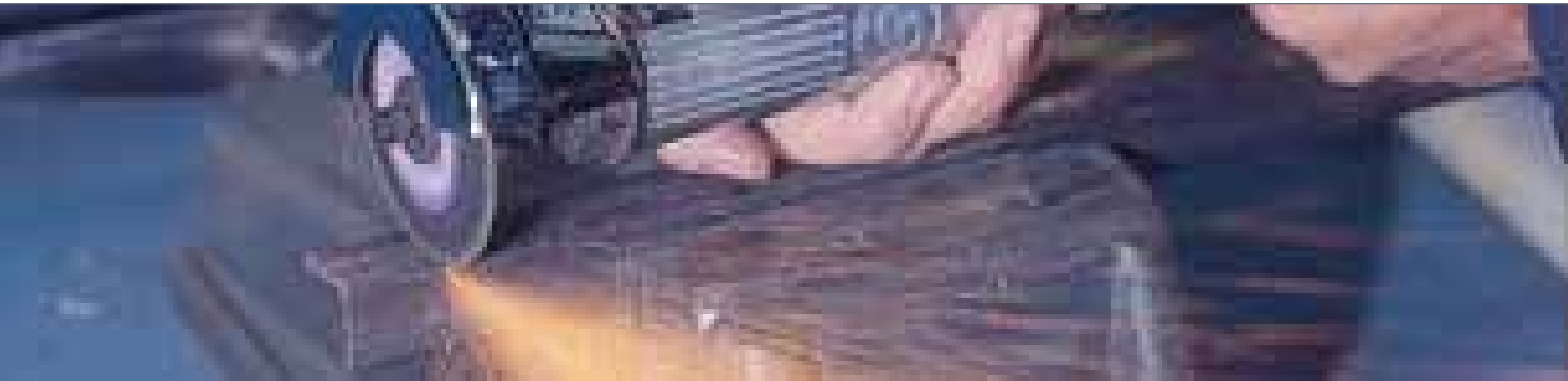
## METAL ADAPTER KIT

Accessory



This adapter kit contains the items necessary to mount depressed center wheels with 7/8" center holes on to standard portable right angle or vertical shaft grinders. Adapter hubs are threaded for mounting on to standard 5/8"-11 NCRH spindles. This adapter kit may be used with wheel thicknesses of 1/8" or 1/4". All depressed center wheels must use the proper adapters to securely mount to the spindle.

PART #	DESCRIPTION	KITS/BOX
<b>FOR DEPRESSED CENTER WHEELS</b>		
07660789275	Adapter Kit	1



**COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	3M	BRILLIANT	BULLARD	CAMEL	DEWALT	FLEXOVIT	METABO	PEARL	PFERD	SAIT	TYROLIT	WALTER
<b>Carbo Premier Red</b>	CUII	–	ZA60T	ZA Quickie Cut	XP	–	Super Slicer	Redline Max Slimcut	SGP-ZA-INOX	Saittech .045, Sait Z-Tech .045, Saittech Steel Worker	Premium	A30-Zip, A30-Chopcut II
<b>Carbo Gold</b>	HP	Brill-Blade Extra FC	A60T	Super Quickie Cut	HP	Razorblade A24T, A30V, A30RB, A24SB	Slicer Plus, A30R, A30S	Slimcut	SG	Sait A60S, Ultimate Cut, Sait MX, EZ Chop, Iron Worker	Standard	A30-Zip, A60-Zip, A30-HC Chopcut
<b>Carbo Gold - Stainless Steel INOX</b>	–	–	–	–	HP SS	WA60R Quickie Cut	RazorBlade A60SST	–	SG-INOX	XA46R	–	A60-ZIP SS
<b>Carbo Gold - Aluminum</b>	–	AL46N	–	A46 Quickie Cut	HP Aluminum	Razorblade A30Q	–	–	SG-ALU	A46N	–	A60-ZIP ALU
<b>Carbo White</b>	–	Hornet Stinger	–	Quickie Cut	HP	Razorblade A30Q	Slicer	Slimcut Pro-V, Silverline	–	–	Basic	–

**STARTING RECOMMENDATIONS BY MATERIAL**

MATERIAL	IN-LINE GRINDERS	RIGHT ANGLE GRINDERS	PORTABLE GAS / ELECTRIC SAWS	STATIONARY SAWS	CHOP SAWS
<b>Angle / Channel Iron / Bar / Sheet Stock</b>	Premier Red, Gold	Premier RedCut	Gold Metal	Premier Red, Gold Long Life	Premier Red Long Life, Gold Long Life
<b>Metal Studs / Tubing</b>	–	GoldCut	Gold Metal	Gold Long Life	Gold Long Life
<b>Cast Iron / Pipe</b>	Gold	GoldCut	Gold Metal	Gold Fast Cut	Gold Fast Cut
<b>Stainless / Alloys</b>	Premier Red	Premier RedCut	Gold Metal	Premier Red	Premier Red Fast Cut
<b>Aluminum / Brass / Bronze</b>	Gold	GoldCut	Gold Metal	Gold Fast Cut	Gold Fast Cut
<b>Concrete / Brick / Block / Asphalt / Green Concrete</b>	–	–	Gold Concrete	–	–
<b>Ductile</b>	–	–	Gold Ductile	–	–
<b>Paint / Rust / Fiberglass / Plastic</b>	Gold	GoldCut	–	Gold Fast Cut	Gold Fast Cut

**TROUBLESHOOTING GUIDE**

PROBLEM	POSSIBLE CAUSES	CORRECTION
Non-square cuts	Work not clamped properly Misaligned spindle bearings Poor coolant distribution Wheel is too hard	Check clamp and clean to remove swarf Check for bearing truth and alignment Ensure equal volume of coolant to each wheel side Use softer acting wheel - softer grade/finer grit
Workpiece burn	Insufficient feed rate Poor coolant flow Wheel is too coarse Wheel is too hard Wheel is running out Wheel speed is too slow	Work machine to maximum power available Increase volume and direct at cutting point Use finer wheel or more machine power Use softer grade wheel Check spindle and flanges Ensure tight flanges and maximum speed marked on wheel being used
Poor finish	Too much burr Wheel too coarse	Use finer grit or softer wheel Use finer grit



# REINFORCED PRECISION TOOLROOM CUT-OFF WHEELS

Good Tier / Aluminum Oxide

CARBO™



Used primarily for cutting off high speed steel drill bits and end mills, as well as slotting dies.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate and long life</li> <li>Free cutting action</li> <li>Burn-free cutting</li> </ul>
<ul style="list-style-type: none"> <li>High strength, reinforced construction</li> <li>BFTK - side reinforced, rough sides</li> <li>Decimal thickness</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage and provides straight cuts</li> <li>Maximum cut rate</li> <li>Very narrow cuts; minimum kerf loss</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR HIGH-SPEED STEEL AND TOOL STEELS</b>				
05539518986	6 x .060 x 1-1/4	A60-OBFTK	10,190	10
05539509197	7 x .035 x 5/8	A60-OBFTK	8,730	10
05539509196	7 x .035 x 1-1/4	BA60-OBFTK	8,730	10
05539509195	7 x .060 x 5/8	A60-OBFTK	8,730	10
05539509194	7 x .060 x 1-1/4	BA60-OBFTK	8,730	10
05539509192	8 x .060 x 1-1/4	A60-OBFTK	7,640	10



TYPE 01

# NON-REINFORCED PRECISION TOOLROOM CUT-OFF WHEELS

Good Tier / Aluminum Oxide

CARBO™



For use on machines where the work is rigidly clamped and the wheel operates on a controlled cutting plane with no twisting or lateral stresses. Ideal for slotting dies or cutting off high-speed steel drills and end mills.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate and long life</li> <li>Free cutting action</li> <li>Burn-free cutting</li> <li>Long life</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR HIGH-SPEED STEEL AND TOOL STEELS</b>				
05539509188	6 x 1/16 x 1-1/4	A60-OB5SW	7,640	10
05539501923	7 x 1/32 x 1-1/4	A60-MB5SW	5,460	10
05539509187	7 x 1/32 x 1-1/4	A60-OB5SW	5,460	10
05539509186	7 x 1/32 x 1-1/4	A70-QB5SW	5,460	10
05539509185	7 x 1/16 x 1-1/4	A46-OB5SW	6,550	10
05539509184	7 x 1/16 x 1-1/4	A60-OB5SW	6,550	10
05539509183	8 x 1/16 x 1-1/4	A46-OB5SW	5,730	10
05539501926	8 x 1/16 x 1-1/4	A60-MB5SW	5,730	10
05539562839	10 x 1/16 x 5/8	A46-QB5RW	4,585	10
05539509181	10 x 1/16 x 5/8	A60-OB5SW	4,585	10



TYPE 01

## techtip

- Reinforced cut-off wheels are designed to resist breakage caused by severe cross-bending and are required on any operation where the work is not securely clamped.
- Non-reinforced cut-off wheels are designed for use on “fixed-base” types of machines where the work is securely clamped, guarded, and where the wheel operates on a controlled cutting plane.

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



# PREMIER RED SMALL DIAMETER REINFORCED CUT-OFF WHEELS

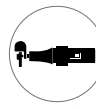
Best Tier / Ceramic Alumina/Zirconia Alumina Blend



Ideal for cutting all types of stainless steel and steel alloys.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>An exclusive blend of high-performance ceramic alumina and zirconia alumina abrasives</li> </ul>	<ul style="list-style-type: none"> <li>Up to 50% added wheel life</li> <li>Up to 5X the life versus aluminum oxide wheels on carbon steel, cast iron, stainless steel, and exotic metals</li> </ul>
<ul style="list-style-type: none"> <li>Advanced grain and bond technology</li> </ul>	<ul style="list-style-type: none"> <li>Substantially longer wheel life</li> <li>Fastest cut rate</li> </ul>
<ul style="list-style-type: none"> <li>1/32" and .035 thick – fastest initial cut rate</li> </ul>	<ul style="list-style-type: none"> <li>Minimum kerf loss</li> </ul>
<ul style="list-style-type: none"> <li>1/16" thick</li> </ul>	<ul style="list-style-type: none"> <li>For demanding applications</li> </ul>
<ul style="list-style-type: none"> <li>1/8" and 3/16" thick – exceptional control</li> </ul>	<ul style="list-style-type: none"> <li>Longest lasting</li> </ul>
<ul style="list-style-type: none"> <li>Smaller blotters</li> </ul>	<ul style="list-style-type: none"> <li>Faster, freer cutting</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
05539503861	3 x 1/32 x 3/8	MZ60-T	25,465	50
05539503863	3 x 1/16 x 3/8	MZ36-T	25,465	50
05539504270	3 x 3/16 x 3/8	MZ36-T	25,465	50
05539503507	4 x .035 x 3/8	MZ60-T	19,100	25
05539503508	4 x 1/16 x 3/8	MZ36-T	19,100	25
05539503509	4 x 1/8 x 3/8	MZ36-T	19,100	25



TYPE 01

# CARBO GOLD SMALL DIAMETER REINFORCED CUT-OFF WHEELS

Good Tier / Aluminum Oxide

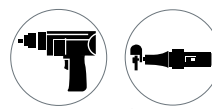


For cutting off ferrous metals, alloy steels and cast iron.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>Free cutting action</li> <li>Burn-free cutting</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage and provides straight cutting</li> </ul>
<ul style="list-style-type: none"> <li>A60 - light glass cloth reinforcement design</li> </ul>	<ul style="list-style-type: none"> <li>Maximum cut rate</li> <li>Minimum kerf loss</li> </ul>
<ul style="list-style-type: none"> <li>A36 reinforced</li> </ul>	<ul style="list-style-type: none"> <li>Versatile, durable free cutting</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
05539509277	2 x .035 x 1/4	A60	30,560	25
05539509276	2 x .035 x 3/8	A60	30,560	25
05539509275	2 x 1/16 x 1/4	A36	30,560	25
66252844365	2 x 1/16 x 3/8	A36	30,560	25
05539509269	3 x .035 x 1/4	A60	25,465	25
05539509268	3 x .035 x 3/8	A60	25,465	25
05539509265	3 x 1/16 x 1/4	A36	25,465	25
05539509264	3 x 1/16 x 1/4	A60	25,465	25
05539509263	3 x 1/16 x 3/8	A36	25,465	25
05539509262	3 x 1/16 x 3/8	A60	25,465	25
05539509261	3 x 1/8 x 1/4	A36	25,465	25
05539509260	3 x 1/8 x 3/8	A36	25,465	25

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
05539509258	4 x .035 x 1/4	A60	19,100	25
05539509257	4 x .035 x 3/8	A60	19,100	25
05539509255	4 x 1/16 x 1/4	A36	19,100	25
05539509254	4 x 1/16 x 3/8	A36	19,100	25
66252844366	4 x 1/8 x 1/4	A36	19,100	25
05539509252	4 x 1/8 x 3/8	A36	19,100	25



TYPE 01

# REINFORCED CIRCULAR SAW CUT-OFF WHEELS

Good Tier / Aluminum Oxide

CARBO™



Used on hand-held portable circular saws to cut steel and all types of metals.

FEATURES	BENEFITS
<ul style="list-style-type: none"><li>• Aluminum oxide abrasive</li></ul>	<ul style="list-style-type: none"><li>• Fast cut rate</li></ul>
<ul style="list-style-type: none"><li>• Resin bond</li></ul>	<ul style="list-style-type: none"><li>• Burn-free cutting</li><li>• Long life</li></ul>
<ul style="list-style-type: none"><li>• High-strength, reinforced construction</li></ul>	<ul style="list-style-type: none"><li>• Resists breakage and provides straight cuts</li></ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL FAST CUT</b>				
05539509243	7 x 1/16 x 5/8	A36-TBFW	8,730	10
05539509249	7 x 3/32 x DM-5/8	A24-T	8,730	10
05539509238	8 x 1/16 x 5/8	A36-TBFW	7,640	10



TYPE 01





# PREMIER REDCUT RIGHT ANGLE GRINDER REINFORCED CUT-OFF

Better Tier / Zirconia Alumina/Aluminum Oxide Blend



Excels on a broad range of materials, from alloys and stainless to gray iron.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premier performing zirconia alumina/aluminum oxide abrasive blend in a free cutting bond</li> </ul>	<ul style="list-style-type: none"> <li>3X the life and 2X the cut rate of standard aluminum oxide wheels</li> <li>Smooth cutting action that minimizes burn and burrs and operator fatigue</li> <li>Maximum productivity; lowest total grinding costs</li> </ul>
<ul style="list-style-type: none"> <li>Unique, high-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Provides strength for use on right angle grinders</li> <li>Flexible, resilient; resists breakage</li> </ul>
<ul style="list-style-type: none"> <li>Extra thin</li> </ul>	<ul style="list-style-type: none"> <li>Less binding; quick cutting action</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 01/41 – FOR RIGHT ANGLE GRINDERS</b>				
05539566206	4-1/2 x .045 x 7/8	ZA60	13,580	25
05539566207	5 x .045 x 7/8	ZA60	12,225	25
05539566208	6 x .045 x 7/8	ZA60	10,185	25



TYPE 01/41

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252844369	4-1/2 x .045 x 7/8	ZA60	13,580	25
66252844370	5 x .045 x 7/8	ZA60	12,225	25
66252844371	6 x .045 x 7/8	ZA60	10,185	25



TYPE 27/42

# CARBO GOLDCUT RIGHT ANGLE GRINDER REINFORCED CUT-OFF

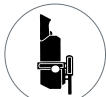
Good Tier / Aluminum Oxide



For general purpose cutting of stainless steel, steel and metal material with a right angle grinder.

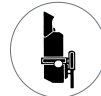
FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast stock removal</li> <li>Free cutting action</li> </ul>
<ul style="list-style-type: none"> <li>Advanced resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Long life, with no bounce</li> </ul>
<ul style="list-style-type: none"> <li>Unique, high-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Provides strength for use on right angle grinders</li> <li>Flexible, resilient; resists breakage</li> </ul>
<ul style="list-style-type: none"> <li>Extra thin .045"</li> </ul>	<ul style="list-style-type: none"> <li>Less binding; quick cutting action</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 01/41 – FOR RIGHT ANGLE GRINDERS</b>				
05539563951	4 x .045 x 5/8	A46-Q	15,280	25
05539527224	4 x 3/32 x 5/8	A36-Q	15,280	25
05539563952	4-1/2 x .045 x 7/8	A60-Q	13,580	25
05539527225	4-1/2 x 3/32 x 7/8	A60-Q	13,580	25
05539563953	5 x .045 x 7/8	A60-Q	12,225	25
05539527226	5 x 3/32 x 7/8	A60-Q	12,225	25
05539563954	6 x .045 x 7/8	A46-Q	10,185	25
05539527228	6 x 3/32 x 7/8	A60-Q	10,185	25
66252832324	7 x 1/16 x 7/8	A46-Q	8,600	25
05539527230	7 x 3/32 x 7/8	A46-Q	8,600	25



TYPE 01/41

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252844537	4 x .045 x 5/8	A30	13,580	20
66252830584	4-1/2 x .045 x 5/8-11	A30	13,580	20
05539561551	4-1/2 x .045 x 7/8	A30	13,580	20
66252844367	5 x .045 x 5/8-11	A30	12,225	20
05539561553	5 x .045 x 7/8	A30	12,225	20
66252844368	6 x .045 x 5/8-11	A30	10,185	20
05539561554	6 x .045 x 7/8	A30	10,185	20
05539561555	7 x 1/16 x 7/8	A30	8,600	20
66252830585	9 x 1/16 x 5/8-11	A30	6,600	10



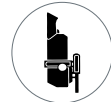
TYPE 27/42



Economical choice for initial-price-conscious customers with general purpose applications.

FEATURES	BENEFITS
• Quality aluminum oxide abrasive	• Quick cutting action
• Extra thin	• Low kerf loss
• Low initial cost per wheel	• Ideal for on-site and small-unit jobs

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>TYPE 01/41 – FOR RIGHT ANGLE GRINDERS</b>				
05539561584	4-1/2 x .040 x 7/8	A60	13,580	25
05539561585	5 x .040 x 7/8	A60	12,225	25
05539561586	6 x .040 x 7/8	A60	10,185	25
<b>TYPE 27/42 – FOR RIGHT ANGLE GRINDERS</b>				
66252836280	4-1/2 x .045 x 7/8	A60	13,580	20
66252836281	5 x .045 x 7/8	A60	12,225	20
66252836282	6 x .045 x 7/8	A60	10,185	20



TYPE 01/41



TYPE 27/42

**safetytip**

Contact your machine vendor for proper flanges and guards when using ultra thin cut-off wheels on right angle grinders (less than 1/8" thick).



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



# PREMIER RED STATIONARY SAW REINFORCED CUT-OFF WHEELS

Best Tier / Zirconia Alumina



For use on fixed-base machines.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium, zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fastest cut rate on steel/metal</li> <li>Ideal for cutting stainless and high alloy steels</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Works best on dry cuts</li> <li>Most free cutting</li> <li>Longest wheel life</li> <li>Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, externally reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage and provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
05539507054	16 x 5/32 x 1	ZA30	3,820	10
05539507061	20 x 5/32 x 1	ZA30	2,710	5



# CARBO GOLD STATIONARY SAW REINFORCED CUT-OFF WHEELS

Good Tier / Aluminum Oxide



For use on fixed-base machines.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate on metal or steel</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Burn-free cutting</li> <li>For dry cuts</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, externally reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage and provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>FAST CUT</b>				
05539509216	10 x 3/32 x 5/8	A30	6,110	10
05539507069	12 x 1/8 x 1	A30	5,095	10
05539507070	14 x 1/8 x 1	A30	4,365	10
05539507071	16 x 5/32 x 1	A30	3,820	10
05539507072	20 x 5/32 x 1	A30	2,710	5
05539509204	20 x 3/16 x 1	A30	2,710	5
<b>LONG LIFE</b>				
05539507063	10 x 3/32 x 5/8	A24	6,110	10
05539507065	14 x 1/8 x 1	A24	4,365	10
05539507066	16 x 5/32 x 1	A24	3,820	10
05539507067	20 x 5/32 x 1	A24	2,710	5
05539507068	20 x 3/16 x 1	A24	2,710	5



## techtip

- Run the cut-off machine at the "Maximum Operating Speed" marked on the wheel.
- A cut-off machine should have 1 horsepower for every inch of wheel diameter.
- With a less powerful machine, we recommend starting with a Fast Cut specification.
- Use Long Life wheels in high horsepower, aggressive applications.



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





## PREMIER RED CHOP SAW REINFORCED CUT-OFF WHEELS

Best Tier / Zirconia Alumina



For use on table-top machines. Best choice for cutting light tubing, angle iron, exhaust pipes, steel extrusions, stainless, alloyed steel and many non-ferrous metals.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>2X the life of aluminum oxide wheels</li> <li>Ideal for cutting stainless steel</li> </ul>
<ul style="list-style-type: none"> <li>High performance resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Works best on dry cuts</li> <li>Most free cutting</li> <li>Long life; highest productivity</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, externally reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage and provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL/STAINLESS STEEL</b>				
<b>FAST CUT</b>				
05539507079	12 x 3/32 x 1	ZA36	5,095	10
05539507080	14 x 3/32 x 1	ZA36	4,365	10
05539507083	16 x 3/32 x 1	ZA36	3,820	10
<b>LONG LIFE</b>				
05539507082	14 x 3/32 x 1	ZA36	4,365	10



TYPE 01

### techtip

- Use Long Life chop saw wheels on machines rated 15 amps or higher.
- Use Fast Cut chop saw wheels on older, lower-powered machines.

## CARBO GOLD CHOP SAW REINFORCED CUT-OFF WHEELS

Good Tier / Aluminum Oxide



For use on table-top machines. Ideal for cutting light tubing, angle iron, exhaust pipes and steel extrusions.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Burn-free cutting</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, externally reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage and provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>FAST CUT</b>				
05539507087	14 x 3/32 x 1	A36	4,365	10
<b>LONG LIFE</b>				
05539507085	12 x 3/32 x 1	A36	5,095	10
05539507086	14 x 3/32 x 1	A36	4,365	10
05539507088	16 x 3/32 x 1	A36	3,820	10



TYPE 01

## CARBO WHITE CHOP SAW REINFORCED CUT-OFF WHEELS

Standard Tier / Aluminum Oxide



Economical choice for initial-price-conscious customers with general purpose cut-off applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Designed for cutting alloys, steels and ferrous metals</li> </ul>
<ul style="list-style-type: none"> <li>Low initial cost per wheel</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for on-site and small-unit jobs</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
05539561581	12 x 3/32 x 1	A36-P	5,095	10
05539561582	14 x 3/32 x 1	A36-P	4,365	10
66252844372	16 x 3/32 x 1	A36-P	3,820	10



TYPE 01

## CARBO GOLD HIGH-SPEED SAW REINFORCED CUT-OFF WHEELS

Good Tier / Aluminum Oxide

CARBO  
**GOLD™**



For use on high-speed gas and electric saws to cut metal or steel.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>Burn-free cutting</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage; provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL – UNIVERSAL ARBOR</b>				
66252837844	12 x 1/8 x 1"/20mm	A24	6,360	10
66252837845	14 x 1/8 x 1"/20mm	A24	5,400	10
66252842743	14 x 1/8 x 1"/20mm	A24 Heavy Duty	5,400	10 ●
66252844380	16 x 1/8 x 1"/20mm	A24	4,700	10

● = New Product



TYPE 01

## CARBO GOLD HIGH-SPEED SAW REINFORCED CUT-OFF WHEELS

Good Tier / Silicon Carbide/Aluminum Oxide Blend

CARBO  
**GOLD™**



For use on high-speed gas and electric saws to cut ductile iron, ultra-hard metals, hydraulic hose, and PVC pipe.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Silicon carbide/aluminum oxide blend</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>Free cutting action; long life</li> <li>Burn-free cutting</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage; provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR DUCTILE IRON – UNIVERSAL ARBOR</b>				
05539565134	12 x 1/8 x 1"/20mm	CA24	6,360	10
05539565136	14 x 1/8 x 1"/20mm	CA24	5,400	10
05539565138	16 x 1/8 x 1"/20mm	CA24	4,700	10



TYPE 01

## CARBO GOLD HIGH-SPEED SAW REINFORCED CUT-OFF WHEELS

Good Tier / Silicon Carbide

CARBO  
**GOLD™**



For use on high-speed gas and electric saws to cut concrete and masonry.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Sharp, silicon carbide abrasive</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>Free cutting action: long life</li> <li>Burn-free cutting</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage; provides straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR CONCRETE/MASONRY – UNIVERSAL ARBOR</b>				
66252837846	12 x 1/8 x 1"/20mm	C24	6,360	10
66252837847	14 x 1/8 x 1"/20mm	C24	5,400	10



TYPE 01

### universalarbor

**TWO BLADE SIZES IN ONE:** Our patent-pending 1"/20mm knock-out arbor holes fit all gas and electric high speed saws. A 20mm bushing is pre-mounted into the 1" molded arbor hole. The wheel, with the 20mm bushing, can be mounted directly on any 20mm arbor high speed saw. Remove the 20mm bushing to mount on 1" arbor high speed saw. Plus heavy-duty triple reinforcing results in a higher performing wheel.



## PREMIER RED FOUNDRY REINFORCED CUT-OFF WHEELS

Best Tier / Zirconia Alumina



Foundry cut-off wheels are used on chop stroke and locked-head push-through applications. Ideal for cutting off casting gates and risers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fastest cut rate on high alloy steels, stainless steel, steel/metal</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Works best on dry cuts</li> <li>Most free cutting</li> <li>Longest wheel life</li> <li>Highest productivity</li> </ul>
<ul style="list-style-type: none"> <li>Internally reinforced wheels</li> </ul>	<ul style="list-style-type: none"> <li>High strength; less kerf loss and provide straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>IRON/STEEL/METAL/STAINLESS STEEL</b>				
05539528045	24 x 7/32 x 1-3/4	2ZA244-VB35FIW	2,260	5



TYPE 01

## CARBO GOLD FOUNDRY REINFORCED CUT-OFF WHEELS

Good Tier / Aluminum Oxide



Used on chop stroke and locked-head push-through applications. Ideal for cutting off casting gates and risers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate on ferrous and non-ferrous metals</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> <li>For dry cuts</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>Internally reinforced wheels</li> </ul>	<ul style="list-style-type: none"> <li>High strength; less kerf loss and provide straight cuts</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
05539528046	24 x 3/16 x 1-3/4	RGA244-RBFIW	2,260	5
05539528047	26 x 7/32 x 1-3/4	RGA244-YB35FIW	2,090	5



TYPE 01



**COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	3M	GEMTEX	HERMES	VSM	KLINGSPOR		
<b>V 2549</b>	983C, 984C, 988C	Ceramix	CB444X, CB444J	ZF713, SF750, SF840	–		
<b>V 1247</b>	501C, 785C	–	RB414X, CB444J, CB444X	KF715	CS565, CS566		
<b>V 0947</b>	381C	A	RB314X/J	KF708, KF808	CS561		
CARBORUNDUM	CAMEL	KLINGSPOR	WALTER	PFERD	SAIT	SIA	VSM
<b>V 0947</b>	A/O	CS561	CoolCut	A, A Cool	A, 2A	4919	KF708, KF808

**STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION**

MATERIAL	HEAVY-DUTY BEST PERFORMANCE	GENERAL-DUTY
<b>Carbon Steel</b>	V 2549	V 1247
<b>Stainless Steel/Alloys</b>	V 2549, V 1247	
<b>Cast Iron</b>	V 2549	V 1247
<b>Brass/Bronze</b>	V 1247	
<b>Aluminum</b>	V 1247	
<b>Fiberglass</b>	V 2549	V 1247
<b>Paint Removal and Clean-up</b>	V 1247	

**RECOMMENDED GRIT SELECTION**

Rough/Heavy-Duty	Intermediate	Finishing
16–50	50–80	80–120



# MEDALIST FIBER DISCS

Best Tier / Ceramic Alumina



The choice for all fiber disc grinding applications requiring aggressive cutting action, cool cut and long life. For hardest-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Ceramic alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Sharper, cooler cutting abrasive continually exposing sharp points</li> <li>Fast cut rate with long life</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Increased strength, durability and grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>Heavy fiber backing</li> </ul>	<ul style="list-style-type: none"> <li>Strength and tear resistance</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>4-1/2" x 7/8" INDIVIDUAL DISCS</b>				
77696000101	24	V 2549	25	25
77696000102	36	V 2549	25	25
77696000103	50	V 2549	25	25
77696000104	60	V 2549	25	25
77696000105	80	V 2549	25	25
77696000106	100	V 2549	25	25
77696000107	120	V 2549	25	25
<b>5" x 7/8" INDIVIDUAL DISCS</b>				
77696000108	24	V 2549	25	25
77696000109	36	V 2549	25	25
77696000110	50	V 2549	25	25
77696000111	60	V 2549	25	25
77696000112	80	V 2549	25	25

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>7" x 7/8" INDIVIDUAL DISCS</b>				
77696000113	24	V 2549	25	25
77696000114	36	V 2549	25	25
77696000115	50	V 2549	25	25
77696000116	60	V 2549	25	25
77696000117	80	V 2549	25	25
77696000118	100	V 2549	25	25
77696000119	120	V 2549	25	25
<b>9-1/8" x 7/8" INDIVIDUAL DISCS</b>				
77696000122	24	V 2549	25	25
77696000123	36	V 2549	25	25
77696000124	50	V 2549	25	25
77696000120	80	V 2549	25	25
77696000121	120	V 2549	25	25

See back-up pads for fiber discs on next page.



# PREMIER RED FIBER DISCS

Better Tier / Ceramic Alumina / Zirconia Alumina Blend



Ideal for heavy-duty grinding of welds, gates, risers and parting lines on castings and carbon steels. The best choice for stainless steel and other hard-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium ceramic and high-performance zirconia alumina abrasive blend</li> </ul>	<ul style="list-style-type: none"> <li>Longer life, especially on hard-to-grind materials</li> <li>Tough, aggressive yet cool cutting and self sharpening</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Increased strength, durability and grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>Heavy fiber backing</li> </ul>	<ul style="list-style-type: none"> <li>Strength and tear resistance</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>4-1/2" x 7/8" INDIVIDUAL DISCS</b>				
05539520088	24	V 1247	25	25
05539520087	36	V 1247	25	25
05539520086	50	V 1247	25	25
05539520034	60	V 1247	25	25
05539520019	80	V 1247	25	25
<b>5" x 7/8" INDIVIDUAL DISCS</b>				
05539510713	24	V 1247	25	25
05539510712	36	V 1247	25	25
05539510711	50	V 1247	25	25
05539520069	60	V 1247	25	25
05539520055	80	V 1247	25	25

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>7" x 7/8" INDIVIDUAL DISCS</b>				
05539510722	24	V 1247	25	25
05539510721	36	V 1247	25	25
05539510720	50	V 1247	25	25
05539520077	60	V 1247	25	25
05539520076	80	V 1247	25	25

See back-up pads for fiber discs on next page.



# CARBO WHITE FIBER DISCS

Standard Tier / Aluminum Oxide

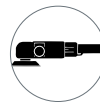


Ideal for weld blending, deburring, stock removal, and rust removal.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• High performance aluminum oxide</li> </ul>	<ul style="list-style-type: none"> <li>• Low initial price with consistent performance</li> </ul>
<ul style="list-style-type: none"> <li>• Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>• Increased strength, durability and grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>• Heavy fiber backing</li> </ul>	<ul style="list-style-type: none"> <li>• Strength and tear resistance</li> </ul>

PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>4" x 5/8" INDIVIDUAL DISCS</b>			
77696000125	24 V 0947	25	25
77696000126	36 V 0947	25	25
77696000127	50 V 0947	25	25
77696000128	60 V 0947	25	25
77696000129	80 V 0947	25	25
<b>4-1/2" x 7/8" INDIVIDUAL DISCS</b>			
77696000130	24 V 0947	25	25
77696000131	36 V 0947	25	25
77696000132	50 V 0947	25	25
77696000133	60 V 0947	25	25
77696000134	80 V 0947	25	25
77696000135	100 V 0947	25	25
77696000136	120 V 0947	25	25
<b>5" x 7/8" INDIVIDUAL DISCS</b>			
77696000137	16 V 0947	25	25
77696000138	24 V 0947	25	25
77696000139	36 V 0947	25	25
77696000140	50 V 0947	25	25
77696000141	60 V 0947	25	25
77696000142	80 V 0947	25	25
77696000143	100 V 0947	25	25
77696009801	120 V 0947	25	25

PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>7" x 7/8" INDIVIDUAL DISCS</b>			
77696009802	16 V 0947	25	25
77696009804	24 V 0947	25	25
77696009805	36 V 0947	25	25
77696009806	50 V 0947	25	25
77696009807	60 V 0947	25	25
77696009808	80 V 0947	25	25
77696009809	100 V 0947	25	25
77696009810	120 V 0947	25	25
<b>9-1/8" x 7/8" INDIVIDUAL DISCS</b>			
77696009812	24 V 0947	25	25
77696009815	36 V 0947	25	25
77696009816	60 V 0947	25	25
77696009817	120 V 0947	25	25



## BACK-UP PADS FOR FIBER DISCS

Accessory



For all-purpose fiber disc sanding. Curved ribs on pad face reduce loading and allow for cooler cut. All pads have a threaded 5/8"-11 female hub.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR RESIN FIBER DISCS</b>			
05539562582	4-1/2" Medium Air-Cooled	11,000	1
05539512033	5" Medium Air-Cooled	10,000	1
05539512032	7" Medium Air-Cooled	8,600	1

## PAD NUT FOR FIBER DISCS

Accessory



Used to secure resin fiber discs to back-up pad.

PART #	DESCRIPTION	PAD NUTS/CASE
<b>PAD NUT FOR RESIN FIBER DISCS</b>		
05539512568	5/8"-11	1

# PREMIER RED E-ZVIEW FLEX-LOC FIBER DISCS

Better Tier / Zirconia Alumina Blend



Ideal for heavy duty grinding of welds, gates, risers and parting lines on castings and carbon steels. The best choice for stainless steel. Strategically placed holes allow the operator to see the surface area being ground while the disc is spinning, enabling faster and more accurate work, and a superior finish.

FEATURES	BENEFITS
• High performance zirconia alumina abrasive blend	• Long life, especially on hard-to-grind materials
• Resin bond	• Ultra tough, aggressive, yet cool cutting, and self sharpening
• Heavy fiber backing	• Increased strength, durability and grain adhesion
• Round edge shape	• Strength and tear resistance
• Scooped holes	• Ideal for reaching into grooves, sharp edges, and hard-to-grind corners where work is done at a steeper angle
• Flex-Loc mount	• Create air flow to remove swarf – preventing loading – and a 30% cooler cutting action than conventional discs
	• Quick, tool-free changing of discs

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>4-1/2" E-ZVIEW FLEX-LOC FIBER INDIVIDUAL DISCS</b>				
05539563969	24	V 1247	10	40
05539563970	36	V 1247	10	40
05539563971	50	V 1247	10	40
<b>5" E-ZVIEW FLEX-LOC FIBER INDIVIDUAL DISCS</b>				
05539562966	24	V 1247	10	40
05539562967	36	V 1247	10	40
05539562968	50	V 1247	10	40
05539562969	60	V 1247	10	40
05539562970	80	V 1247	10	40



15°

## BACK-UP PADS FOR E-ZVIEW FLEX-LOC DISCS

Accessory



Designed exclusively for use with E-ZView Flex-Loc discs. These back-up pads allow easy, tool-free mounting. The mounting hole and recessed lock-nut automatically line disc up with back-up pad and allow more disc to contact work surface.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR E-ZVIEW FLEX-LOC DISCS</b>			
05539563975	4-1/2 x 5/8"-11 Sawtooth	13,000	5
05539563019	5 x 5/8"-11 Sawtooth	13,000	5
05539563395	5 x 7/16"-20 Pistol Grip Sawtooth	20,000	5

### Say Goodbye to Guesswork. Put Your Surface in Easy View.

E-ZView is our patented abrasive product for portable right angle grinders. Strategically positioned holes allow the operator to see the surface area being ground, while the disc is spinning. Being able to see the surface while grinding enables an operator to reduce gouging, work faster and more accurately, and produce a superior finish.





## FLAP DISC SHAPES



GRIND AT FLATTER ANGLES:  
0° – 15°

### TYPE 27 FLAT – THE BEST CHOICE FOR FINISHING

Used primarily on flat surfaces.

The best choice for blending and smooth finishing.



GRIND AT STEEPER ANGLES:  
15° – 25°

### TYPE 29 CONICAL – THE BEST CHOICE FOR AGGRESSIVE STOCK REMOVAL

Conical flap discs have angled flaps and may be used on both contoured and edge work.

The angle provides greater surface contact for stock removal on flat surfaces.

The best choice when speed and stock removal are primary considerations.

## ABRASIVE FLAP DENSITIES



### STANDARD DENSITY

Excellent for heavy-duty applications and rapid stock removal.

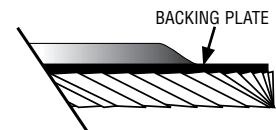


### HIGH DENSITY FAT BOY

Ideal when working on uneven or curved surfaces, as well as finer grit blending.

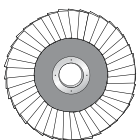
## BACKING PLATE MATERIALS

All flap discs are a combination of abrasive flaps adhered to a rigid backing plate. It is the backing plate that provides stability during operation. There are two main materials used: fiberglass and plastic. The fiberglass backing plate, along with the flap shape, helps to absorb vibration and is consumed during use with no smearing. Fiberglass is the most popular material because of its high strength and light weight.



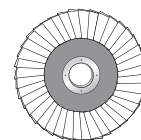
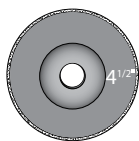
## WHY CHOOSE FLAP DISCS?

Flap discs replace both grinding wheels and fiber discs. The same flap disc can be used for applications ranging from stock removal to blending.



### Flap Discs vs. Grinding Wheels

- Faster stock removal
- Smoother finish, no gouging
- Cooler cutting, less glazing
- Lightweight, easier to control
- Less vibration, less operator fatigue
- Reduced noise



### Flap Discs vs. Fiber Discs

- 20X longer life, reduced abrasive cost
- Fewer disc changes, reduced labor cost
- More consistent finish
- No back-up pad required
- Easier storage, no curling
- Reduced loading
- Use flap discs one grit size coarser than fiber discs, except in 36 grit

## techtip

- Use one grit size coarser than fiber discs, except in 36 grit.
- Operate Type 29 (regular and Fat Boy) flap discs at a 15° – 25° angle; operate Type 27 (Regular, Plastic and Fat Boy) flap discs at an angle less than 15°; more severe angles will weaken flap edges.

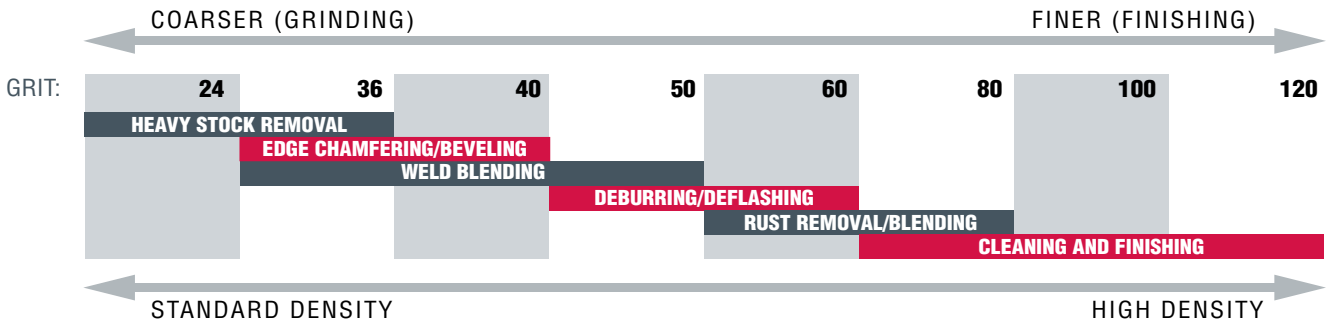


It is the user's responsibility to refer to and comply with ANSI B7.7





## APPLICATION/GRIT RECOMMENDATION GUIDE



## COMPETITIVE CROSS REFERENCE

CARBORUNDUM	DEWALT	GARRYSON	GEMTEX	KLINGSPOR	PFERD	SAIT	3M	WALTER	WEILER	CAMEL
<b>Medalist YP 2079 W</b>	–	Zirc+	Ceramic	–	Ceramic	–	947D, 967A	Enduroflex Ceramic	Saber Tooth Ceramic	C3
<b>Premier Red XC 1176</b>	–	Zirc	Zirc	SMT 630	Cool Zirconia	Saitlam F ZH	563D, 546D	Enduroflex Zirconia	Tiger Zirconia	Z-Stainless
<b>White XB 1186</b>	Zirc			SMT 618	Zirconia				Votec	Z-3

## STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION

MATERIAL	HEAVY DUTY	FINE FINISHES
<b>Stainless steel and other hard to grind materials</b>	YP 2079 W - Type 27	YP 2079 W - Type 27
<b>Carbon and softer to grind materials</b>	XC 1176 – Type 29	XC 1176 - Type 27
<b>Initial price</b>	XB 1186 - Type 29	XB 1186 - Type 27

## MEDALIST FLAP DISCS

Best Tier / Ceramic Alumina Resin Cloth

CARBO™  
**MEDALIST™**



Ideal for aggressive cutting action, cool cut and longer life on harder-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Grind and finish at the same time</li> </ul>	<ul style="list-style-type: none"> <li>No switching from depressed center wheel to resin fiber disc</li> </ul>
<ul style="list-style-type: none"> <li>Fit same type grinder as resin fiber disc and depressed center wheel</li> </ul>	<ul style="list-style-type: none"> <li>Eliminates need for special tools</li> </ul>
<ul style="list-style-type: none"> <li>High-performance blend of ceramic and zirconia abrasives</li> </ul>	<ul style="list-style-type: none"> <li>Requires less pressure to work at maximum performance</li> </ul>
<ul style="list-style-type: none"> <li>Type 27 Plastic – flat face, plastic back</li> </ul>	<ul style="list-style-type: none"> <li>Plastic back wears away with abrasives for longer life</li> <li>More forgiving than Type 29 – producing smooth finishes</li> </ul>

PART #	GRADING	MAX. RPM	DISCS/PKG.	DISCS/CASE
<b>4-1/2" x 5/8"-11 NUT – TYPE 27 PLASTIC</b>				
66623326212	40 YP 2079 W	13,300	10	10
66623326217	60 YP 2079 W	13,300	10	10
66623326218	80 YP 2079 W	13,300	10	10
<b>4-1/2" x 7/8" – TYPE 27 PLASTIC</b>				
05539567811	40 YP 2079 W	13,300	10	10
05539567812	60 YP 2079 W	13,300	10	10
05539567813	80 YP 2079 W	13,300	10	10
<b>5" x 5/8"-11 NUT – TYPE 27 PLASTIC</b>				
66623326219	40 YP 2079 W	12,000	10	10
66623326220	60 YP 2079 W	12,000	10	10
66623326221	80 YP 2079 W	12,000	10	10
<b>5" x 7/8" – TYPE 27 PLASTIC</b>				
05539570054	40 YP 2079 W	12,000	10	10
05539570055	60 YP 2079 W	12,000	10	10
05539570056	80 YP 2079 W	12,000	10	10

PART #	GRADING	MAX. RPM	DISCS/PKG.	DISCS/CASE
<b>7" x 5/8"-11 NUT – TYPE 27 PLASTIC</b>				
66623326222	40 YP 2079 W	8,600	10	10
66623326223	60 YP 2079 W	8,600	10	10
66623326233	80 YP 2079 W	8,600	10	10
<b>7" x 7/8" – TYPE 27 PLASTIC</b>				
05539570057	40 YP 2079 W	8,600	10	10
05539570058	60 YP 2079 W	8,600	10	10
05539570059	80 YP 2079 W	8,600	10	10



TYPE 27

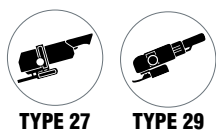


Ideal for metal grinding or polishing, especially for weld bead grinding on fine carbon and stainless steel.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Grind and finish at the same time</li> </ul>	<ul style="list-style-type: none"> <li>No switching from depressed center wheel to resin fiber disc</li> </ul>
<ul style="list-style-type: none"> <li>Fit same type grinder as resin fiber disc and depressed center wheel</li> </ul>	<ul style="list-style-type: none"> <li>Eliminates need for special tools</li> </ul>
<ul style="list-style-type: none"> <li>Type 29 Fiberglass – conical, slightly concaved design</li> <li>Increased area of contact</li> </ul>	<ul style="list-style-type: none"> <li>Built-in grinding angle minimizes workpiece gouging</li> <li>Aggressive action, high stock removal rates</li> <li>Ideal for flat surfaces</li> <li>Excellent on soft metals; increased versatility</li> <li>Best choice when speed is the main consideration</li> </ul>
<ul style="list-style-type: none"> <li>Type 27 Fiberglass – flat face</li> </ul>	<ul style="list-style-type: none"> <li>More forgiving than Type 29</li> <li>Ideal for finishing intricate parts</li> </ul>
<ul style="list-style-type: none"> <li>Fat Boy – thicker with more flaps</li> </ul>	<ul style="list-style-type: none"> <li>Up to 40% longer life than standard flap discs</li> <li>Produces a smooth finish on shapes and irregular surfaces</li> </ul>
<ul style="list-style-type: none"> <li>Fat Boy Type 27 Fiberglass</li> <li>Fat Boy Type 29 Fiberglass</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive action, high stock removal rates</li> <li>Ideal when added performance and longer life are required</li> </ul>
<ul style="list-style-type: none"> <li>Available with 5-8"-11 nut</li> </ul>	<ul style="list-style-type: none"> <li>Less down time for disc changes</li> </ul>

**TYPE 27 – FIBERGLASS BACK**

PART #	GRADING	MAX. RPM	DISCS/PKG.	DISCS/CASE
<b>4-1/2" x 5/8"-11 NUT – TYPE 27 FIBERGLASS</b>				
05539564060	36 XC 1176	13,300	5	5
05539564061	40 XC 1176	13,300	5	5
05539564062	60 XC 1176	13,300	5	5
05539564063	80 XC 1176	13,300	5	5
<b>4-1/2" x 7/8" – TYPE 27 FIBERGLASS</b>				
05539563741	36 XC 1176	13,000	5	5
05539563742	40 XC 1176	13,000	5	5
05539563743	60 XC 1176	13,000	5	5
05539563744	80 XC 1176	13,000	5	5
05539563745	120 XC 1176	13,000	5	5
<b>7" x 5/8"-11 NUT – TYPE 27 FIBERGLASS</b>				
05539564056	36 XC 1176	8,600	5	5
05539564057	40 XC 1176	8,600	5	5
05539564058	60 XC 1176	8,600	5	5
<b>7" x 7/8" – TYPE 27 FIBERGLASS</b>				
05539563746	36 XC 1176	8,600	5	5
05539563747	40 XC 1176	8,600	5	5
05539563748	60 XC 1176	8,600	5	5
<b>4-1/2" x 5/8"-11 NUT – TYPE 27 FAT BOY FIBERGLASS</b>				
66261068838	40 XC 1176	13,300	5	5
66261068846	60 XC 1176	13,300	5	5
66261068848	80 XC 1176	13,300	5	5
<b>4-1/2" x 7/8" – TYPE 27 FAT BOY FIBERGLASS</b>				
05539563929	40 XC 1176	13,300	5	5
05539563930	60 XC 1176	13,300	5	5
05539563931	80 XC 1176	13,300	5	5
<b>7" x 5/8"-11 NUT – TYPE 27 FAT BOY FIBERGLASS</b>				
05539570542	40 XC 1176	8,600	5	5
05539570544	80 XC 1176	8,600	5	5



TYPE 27

TYPE 29

**TYPE 29 – FIBERGLASS BACK**

PART #	GRADING	MAX. RPM	DISCS/PKG.	DISCS/CASE
<b>4" x 5/8" – TYPE 29 FIBERGLASS</b>				
05539518617	36 XC 1176	15,300	5	5
05539518616	40 XC 1176	15,300	5	5
05539518615	60 XC 1176	15,300	5	5
05539518613	80 XC 1176	15,300	5	5
05539518610	120 XC 1176	15,300	5	5
<b>4-1/2" x 5/8"-11 NUT – TYPE 29 FIBERGLASS</b>				
05539520348	36 XC 1176	13,300	5	5
05539520347	40 XC 1176	13,300	5	5
05539520346	60 XC 1176	13,300	5	5
05539520345	80 XC 1176	13,300	5	5
<b>4-1/2" x 7/8" – TYPE 29 FIBERGLASS</b>				
05539518624	24 XC 1176	13,300	5	5
05539518623	36 XC 1176	13,300	5	5
05539518622	40 XC 1176	13,300	5	5
05539518621	60 XC 1176	13,300	5	5
05539518620	80 XC 1176	13,300	5	5
05539518619	120 XC 1176	13,300	5	5
<b>5" x 7/8" – TYPE 29 FIBERGLASS</b>				
05539518629	36 XC 1176	12,000	5	5
05539518628	40 XC 1176	12,000	5	5
05539518627	60 XC 1176	12,000	5	5
05539518626	80 XC 1176	12,000	5	5
<b>7" x 5/8"-11 NUT – TYPE 29 FIBERGLASS</b>				
05539518642	24 XC 1176	8,600	5	5
05539518641	36 XC 1176	8,600	5	5
05539518640	40 XC 1176	8,600	5	5
05539518639	60 XC 1176	8,600	5	5
05539518638	80 XC 1176	8,600	5	5
<b>7" x 7/8" – TYPE 29 FIBERGLASS</b>				
05539518635	36 XC 1176	8,600	5	5
05539518634	40 XC 1176	8,600	5	5
05539518633	60 XC 1176	8,600	5	5
05539518632	80 XC 1176	8,600	5	5
05539518631	120 XC 1176	8,600	5	5
<b>4-1/2" x 5/8"-11 NUT – TYPE 29 FAT BOY FIBERGLASS</b>				
05539570539	40 XC 1176	13,300	5	5
05539570540	60 XC 1176	13,300	5	5
05539570541	80 XC 1176	13,300	5	5



New lower-priced stock offering for jobs where performance is not measurable.

**FEATURES & BENEFITS**

- Grind and finish at the same time – no switching from depressed center wheel to resin fiber disc
- Fit same type grinder as resin fiber disc and depressed center wheel eliminating the need for special tools
- Quality zirconia alumina abrasive provides good cut rate and life
- Low initial price point for best starting specification for end-user unable to measure performance
- Type 27 Plastic – flat face with plastic back which wears away with abrasives for longer life
- NEW! Type 29 Fiberglass with angled face, slightly concaved design for increased area of contact is ideal for flat surfaces; built-in angle for grinding minimizes workpiece gouging while providing aggressive action with high stock removal rates for increased versatility especially on soft metals; best choice when speed is the main consideration
- Available with 5-8"-11 nut for less down time for disc changes

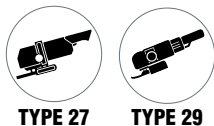
**TYPE 27 – PLASTIC BACK**

PART #	GRADING	MAX. RPM	DISCS/PKG.	DISCS/CASE
<b>4-1/2" x 5/8"-11 NUT – TYPE 27 PLASTIC</b>				
77696002060	40 XB 1186	13,300	10	10
77696002062	60 XB 1186	13,300	10	10
77696002063	80 XB 1186	13,300	10	10
77696002064	120 XB 1186	13,300	10	10
<b>4-1/2" x 7/8" – TYPE 27 PLASTIC</b>				
77696002077	40 XB 1186	13,300	10	10
77696002078	60 XB 1186	13,300	10	10
77696002079	80 XB 1186	13,300	10	10
77696002080	120 XB 1186	13,300	10	10
<b>5" x 5/8"-11 NUT – TYPE 27 PLASTIC</b>				
77696002065	40 XB 1186	12,000	10	10
77696002068	60 XB 1186	12,000	10	10
77696002070	80 XB 1186	12,000	10	10
77696002071	120 XB 1186	12,000	10	10
<b>5" x 7/8" – TYPE 27 PLASTIC</b>				
77696002081	40 XB 1186	12,000	10	10
77696002082	60 XB 1186	12,000	10	10
77696002083	80 XB 1186	12,000	10	10
77696002084	120 XB 1186	12,000	10	10
<b>7" x 5/8"-11 NUT – TYPE 27 PLASTIC</b>				
77696002072	40 XB 1186	8,600	10	10
77696002073	60 XB 1186	8,600	10	10
77696002075	80 XB 1186	8,600	10	10
77696002076	120 XB 1186	8,600	10	10
<b>7" x 7/8" – TYPE 27 PLASTIC</b>				
77696002086	40 XB 1186	8,600	10	10
77696002088	60 XB 1186	8,600	10	10
77696002092	80 XB 1186	8,600	10	10
77696002093	120 XB 1186	8,600	10	10

**FIBERGLASS BACK**

PART #	GRADING	MAX. RPM	DISCS/PKG.	DISCS/CASE
<b>4-1/2 x 5/8-11 NUT - TYPE 29 FIBERGLASS</b>				
77696090095	40 XB 1186	13,000	10	10 ●
77696090096	60 XB 1186	13,000	10	10 ●
77696090097	80 XB 1186	13,000	10	10 ●
77696090098	120 XB 1186	13,000	10	10 ●
<b>4-1/2 x 7/8 - TYPE 29 FIBERGLASS</b>				
77696090099	40 XB 1186	13,000	10	10 ●
77696090100	60 XB 1186	13,000	10	10 ●
77696090101	80 XB 1186	13,000	10	10 ●
77696090102	120 XB 1186	13,000	10	10 ●
<b>5 x 5/8-11 NUT - TYPE 29 FIBERGLASS</b>				
77696090103	40 XB 1186	12,000	10	10 ●
77696090104	60 XB 1186	12,000	10	10 ●
77696090105	80 XB 1186	12,000	10	10 ●
77696090106	120 XB 1186	12,000	10	10 ●
<b>5 x 7/8 - TYPE 29 FIBERGLASS</b>				
77696090107	40 XB 1186	12,000	10	10 ●
77696090108	60 XB 1186	12,000	10	10 ●
77696090109	80 XB 1186	12,000	10	10 ●
77696090110	120 XB 1186	12,000	10	10 ●
<b>7 x 5/8-11 NUT - TYPE 29 FIBERGLASS</b>				
77696090111	40 XB 1186	8,600	10	10 ●
77696090112	60 XB 1186	8,600	10	10 ●
77696090113	80 XB 1186	8,600	10	10 ●
77696090114	120 XB 1186	8,600	10	10 ●
<b>7 x 7/8 - TYPE 29 FIBERGLASS</b>				
77696090115	40 XB 1186	8,600	10	10 ●
77696090116	60 XB 1186	8,600	10	10 ●
77696090117	80 XB 1186	8,600	10	10 ●
77696090118	120 XB 1186	8,600	10	10 ●

● = New Product



TYPE 27

TYPE 29

# PREMIER RED MINI FLAP DISCS

Better Tier / Zirconia Alumina Resin Cloth



Ideal for metal grinding and polishing, especially for weld bead grinding on fine carbon and stainless steel; for small areas of contact.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• High performance zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Provides maximum cut rate and life</li> </ul>
<ul style="list-style-type: none"> <li>• Layered flaps wear away evenly</li> </ul>	<ul style="list-style-type: none"> <li>• Produces a high quality and consistent finish</li> </ul>
<ul style="list-style-type: none"> <li>• Available in 2" and 3" diameters</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to get into tight areas while maintaining required cut and life</li> </ul>
<ul style="list-style-type: none"> <li>• TS (Type II) and TR (Type III) attachment systems</li> </ul>	<ul style="list-style-type: none"> <li>• Easy-on; easy off attachment for quick disc changes</li> </ul>



## TYPE TS (TYPE II)

PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>2"</b>			
77696090119	36 XC 1176	10	10
77696090121	40 XC 1176	10	10
77696090123	60 XC 1176	10	10
77696090125	80 XC 1176	10	10
77696090127	120 XC 1176	10	10
<b>3"</b>			
77696090129	36 XC 1176	10	10
77696090131	40 XC 1176	10	10
77696090133	60 XC 1176	10	10
77696090135	80 XC 1176	10	10
77696090137	120 XC 1176	10	10

## TYPE TR (TYPE III)

PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>2"</b>			
77696090120	36 XC 1176	10	10
77696090122	40 XC 1176	10	10
77696090124	60 XC 1176	10	10
77696090126	80 XC 1176	10	10
77696090128	120 XC 1176	10	10
<b>3"</b>			
77696090130	36 XC 1176	10	10
77696090132	40 XC 1176	10	10
77696090134	60 XC 1176	10	10
77696090136	80 XC 1176	10	10
77696090138	120 XC 1176	10	10



## BACK-UP PADS FOR MINI FLAP DISCS

Accessory

Easy-on; easy off attachment for quick disc changes



PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR MINI FLAP DISCS</b>			
08834168539	2" and 3" TS (Type II) Back-up Pads	30,000	1
08834164922	2" and 3" TR (Type III) Back-up Pads	30,000	1





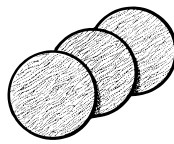
**STICK-ON PAPER DISC COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	3M	HERMES	KLINGSPOR	MIRKA	SIA	VSM
<b>PAPER DISCS</b>						
<b>B 2312 DO, C 2312 DO</b>	735U, 734U	–	PS36	–	1950 Siaspeed	–
<b>B 0912 DO, B 0712 DO</b>	216U, 255L, 260L, 334U	VC154-LL	PS73	Q-Silver, Royal	1950, 1940	MPG
<b>C 0712 DO, PB273</b>	236U, 316U, Red, NX	HCAB, HC135-LL, VC151-LL	PS33, PL36	Bulldog Gold, BaseCut	1947	KP911, MP10
<b>B 0412 DO</b>	414N, 415N, 415U, 426U	PSF-LL, SA168	PL35	CaratFlex, PolarStar	1748	CP131A
<b>E 1214 O</b>	750U, 751U, 740I, 745I	–	–	Royal Coarse Cut	–	KP510E, KP709

**TYPES OF DISC PACKAGING**



LINK DISC ROLL



INDIVIDUAL DISCS

**MEDALIST STICK-ON PAPER DISCS**

*Best Tier / Ceramic Alumina Dri-Lube Resin Paper Open*



Best choice for stripping and preparing primed and painted surfaces for finishing, sanding of plastics, fiberglass, and composites, bare wood sanding, light weld blending, preparing and finishing metal, and sanding of all gel coats and body filler compounds.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Medalist ceramic alumina abrasive, P80 - P800</li> </ul>	<ul style="list-style-type: none"> <li>Fastest cut rate even on hard-to-sand surfaces</li> <li>Extended life – up to 2:1 over conventional discs</li> <li>Broadest ceramic grit range available</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>Unique fiber-reinforced, flexible B- and C-weight latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>50% - 60% improvement in tear resistance, superior resistance to delamination</li> <li>Durable, yet flexible</li> </ul>
<ul style="list-style-type: none"> <li>Special undyed stearate oversize</li> </ul>	<ul style="list-style-type: none"> <li>Superior load resistance and extended life</li> <li>No color transfer to work</li> </ul>
<ul style="list-style-type: none"> <li>PSA (pressure sensitive adhesive) backing</li> </ul>	<ul style="list-style-type: none"> <li>Easy application and removal</li> </ul>
<ul style="list-style-type: none"> <li>Link disc roll, 4-pack with polybags</li> </ul>	<ul style="list-style-type: none"> <li>Easy dispensing</li> <li>Minimizes storage space</li> </ul>

PART #	GRADING	ROLLS/CASE
<b>6" x 0" LINK DISC ROLLS</b>		
05539599500	P80 C 2312 DO	4
05539599499	P100 C 2312 DO	4
05539599498	P120 C 2312 DO	4
05539599497	P150 B 2312 DO	4
05539599496	P180 B 2312 DO	4

PART #	GRADING	ROLLS/CASE
<b>6" x 0" LINK DISC ROLLS</b>		
05539599495	P220 B 2312 DO	4
05539599494	P240 B 2312 DO	4
05539599493	P280 B 2312 DO	4
05539599492	P320 B 2312 DO	4
05539599491	P400 B 2312 DO	4
05539599490	P500 B 2312 DO	4
05539599489	P600 B 2312 DO	4
05539599488	P800 B 2312 DO	4

Link Disc Rolls: 100 discs per roll. Order in multiples of 4 rolls.



See back-up pads for these discs on page 32.  
Disc roll dispenser available on page 36.



Best choice for sanding all paints, primers, plastics and fiberglass. Also suited for sealer and wash coats in wood furniture.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, heat-treated, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• 30% to 50% faster cut rate than other discs</li> <li>• Consistent scratch pattern and finish</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>• Unique fiber-reinforced, B-weight, latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% – 60% improvement in tear strength, superior resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>• PSA (pressure sensitive adhesive) backing</li> </ul>	<ul style="list-style-type: none"> <li>• Easy application and removal</li> </ul>
<ul style="list-style-type: none"> <li>• Special, undyed stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Superior load resistance and extended life</li> <li>• No color transfer to work</li> </ul>
<ul style="list-style-type: none"> <li>• Link disc roll, 4-pack with polybags</li> </ul>	<ul style="list-style-type: none"> <li>• Easy dispensing</li> <li>• Minimizes storage space</li> </ul>
<ul style="list-style-type: none"> <li>• 5" and 6" individual PSA discs have a tabbed, white, translucent liner</li> </ul>	<ul style="list-style-type: none"> <li>• The PSA adhesive is protected from air-borne contaminants</li> <li>• The tab allows easier removal of the paper liner</li> </ul>

PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>3-1/2" x 0" LINK DISC ROLLS</b>			
05539520624	P80 B 0912 DO	4	4
05539520623	P100 B 0912 DO	4	4
05539520620	P180 B 0912 DO	4	4
05539520619	P220 B 0912 DO	4	4
05539520615	P400 B 0912 DO	4	4
<b>5" x 0" LINK DISC ROLLS</b>			
05539518114	P80 B 0912 DO	4	4
05539518113	P100 B 0912 DO	4	4
05539518112	P120 B 0912 DO	4	4
05539518111	P150 B 0912 DO	4	4
05539518110	P180 B 0912 DO	4	4
05539518109	P220 B 0912 DO	4	4
05539518108	P240 B 0912 DO	4	4
05539518107	P280 B 0912 DO	4	4
05539518106	P320 B 0912 DO	4	4
05539518105	P400 B 0912 DO	4	4
05539563779	P500 B 0912 DO	4	4
05539518104	P600 B 0912 DO	4	4
05539518101	P800 B 0712 DO	4	4
PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>5" x 0" INDIVIDUAL TABBED DISCS</b>			
05539520293	P1000 B 0712 DO	100	400
05539520292	P1200 B 0712 DO	100	400
05539520291	P1500 B 0712 DO	100	400

PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>6" x 0" LINK DISC ROLLS</b>			
05539518173	P80 B 0912 DO	4	4
05539518172	P100 B 0912 DO	4	4
05539518171	P120 B 0912 DO	4	4
05539518170	P150 B 0912 DO	4	4
05539518169	P180 B 0912 DO	4	4
05539518168	P220 B 0912 DO	4	4
05539518167	P240 B 0912 DO	4	4
05539518166	P280 B 0912 DO	4	4
05539518165	P320 B 0912 DO	4	4
05539518164	P400 B 0912 DO	4	4
05539563780	P500 B 0912 DO	4	4
05539518163	P600 B 0912 DO	4	4
05539518162	P800 B 0712 DO	4	4
PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL TABBED DISCS</b>			
05539520296	P1000 B 0712 DO	100	400
05539520295	P1200 B 0712 DO	100	400
05539520294	P1500 B 0712 DO	100	400
PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>8" x 0" LINK DISC ROLLS</b>			
05539561110	P80 B 0912 DO	4	4
05539561109	P100 B 0912 DO	4	4
05539561108	P120 B 0912 DO	4	4
05539561106	P180 B 0912 DO	4	4
05539561102	P320 B 0912 DO	4	4

**Link Disc Rolls: 100 discs per roll. Order in multiples of 4 rolls.**



See back-up pads for these discs on page 32.  
 Disc roll dispenser available on page 36.

# CARBO GOLD STICK-ON PAPER DISCS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Ideal for sanding paints, primers, plastics and fiberglass as well as whitewood sanding, clean-up and repair.

FEATURES	BENEFITS
• Premium, P-graded, light brown aluminum oxide abrasive	• Fast cut, long life
• Full resin bond system	• Improved grain adhesion and longest disc life
• Durable, C-weight backing	• High tear resistance
• PSA (pressure sensitive adhesive) backing	• Easy application and removal
• Special, water-based stearate oversize and open coat	• Excellent load resistance
• Link disc roll; 4-pack with polybags	• Easy dispensing; protects individual rolls
	• Minimizes storage space

PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>5" x 0" LINK DISC ROLLS</b>			
05539510555	P80 C 0712 DO	4	4
05539510554	P100 C 0712 DO	4	4
05539510553	P120 C 0712 DO	4	4
05539510552	P150 C 0712 DO	4	4
05539510550	P180 C 0712 DO	4	4
05539510549	P220 C 0712 DO	4	4
05539510548	P240 C 0712 DO	4	4
05539510546	P320 C 0712 DO	4	4
05539510545	P400 C 0712 DO	4	4

PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>6" x 0" LINK DISC ROLLS</b>			
05539510567	P80 C 0712 DO	4	4
05539510566	P100 C 0712 DO	4	4
05539510565	P120 C 0712 DO	4	4
05539510563	P150 C 0712 DO	4	4
05539510562	P180 C 0712 DO	4	4
05539510561	P220 C 0712 DO	4	4
05539510560	P240 C 0712 DO	4	4
05539510558	P320 C 0712 DO	4	4
05539510557	P400 C 0712 DO	4	4

100 discs per roll. Order in multiples of 4 rolls.



# MERIT PB273 STICK-ON PAPER DISCS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Good choice for sanding paint, primer, plastics, and fiberglass, as well as whitewood sanding, clean-up, and repair – at a low initial price.

FEATURES	BENEFITS
• P-graded, sharp, light-brown aluminum oxide abrasive	• Fast cut rate, extended life, and consistent finish
• Full resin bond system	• Improved grain adhesion and longest disc life
• Premium B-weight latex-saturated, high-internal-bond paper backing	• Improved resistance to delamination
• Water-based stearate anti-loading oversize and an open coat	• Improved load resistance on a broad range of substrates
• PSA (pressure sensitive adhesive) backing	• Easy application and removal
• Link disc roll, 4-pack with polybags	• Easy dispensing;
	• Minimizes storage space
• 5" individual PSA discs have an easy-to-remove tabbed white translucent liner	• The PSA adhesive is protected from air-borne contaminants

PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>5" x 0" LINK DISC ROLLS</b>			
66623362930	P80 PB273	4	4
66623362929	P120 PB273	4	4
66623362928	P150 PB273	4	4
66623362927	P180 PB273	4	4
66623362926	P220 PB273	4	4
66623362925	P240 PB273	4	4
66623362924	P320 PB273	4	4

PART #	GRADING	ROLLS/CASE	MIN. QTY.
<b>5" x 0" LINK DISC ROLLS</b>			
66623362923	P400 PB273	4	4
66623362922	P600 PB273	4	4
66623362921	P800 PB273	4	4

100 discs per roll. Order in multiples of 4 rolls. Continued on next page.



PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>5" x 0" INDIVIDUAL TABBED DISCS</b>				
69957348198	P80	PB273	100	400
69957348200	P100	PB273	100	400
69957348201	P120	PB273	100	400
69957348202	P150	PB273	100	400
69957348203	P180	PB273	100	400
69957348204	P220	PB273	100	400
69957348206	P320	PB273	100	400
69957348223	P600	PB273	100	400



PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>6" x 0" LINK DISC ROLLS</b>				
66623362940	P80	PB273	4	4
69957352447	P100	PB273	4	4
66623362939	P120	PB273	4	4
66623362938	P150	PB273	4	4
66623362937	P180	PB273	4	4
66623362936	P220	PB273	4	4
66623362935	P240	PB273	4	4
66623362934	P320	PB273	4	4
66623362933	P400	PB273	4	4
66623362932	P600	PB273	4	4
66623362931	P800	PB273	4	4

100 discs per roll. Order in multiples of 4 rolls.

**SILICON CARBIDE** STICK-ON DISCS

Better Tier / Silicon Carbide Dri-Lube Resin Paper Open

**CARBO™**



Machine sanding metal primer coats and between finish coats. Also for whitewood between wash, sealer, and lacquer coats.

FEATURES	BENEFITS
• P-graded, hard silicon carbide abrasive	• Sharp cut, excellent for finishing
• Full resin bond system	• Improved grain adhesion and longest disc life
• Flexible, B-weight latex paper	• Tear resistance and flexibility
• PSA backing	• Easy application and removal
• Water-based stearate anti-loading oversize and an open coat	• Improved load resistance
• Link disc roll	• Easy dispensing

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>5" x 0" LINK DISC ROLLS</b>				
05539510526	P80	B 0412 DO	4	4
05539510525	P100	B 0412 DO	4	4
05539510523	P120	B 0412 DO	4	4
05539510522	P150	B 0412 DO	4	4
05539510521	P180	B 0412 DO	4	4
05539510517	P320	B 0412 DO	4	4
05539510516	P400	B 0412 DO	4	4

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>6" x 0" LINK DISC ROLLS</b>				
05539510540	P180	B 0412 DO	4	4
05539510539	P220	B 0412 DO	4	4

150 grit and coarser: 125 discs per roll; 180 grit and finer: 250 discs per roll.



**BACK-UP PADS FOR STICK-ON AND GLUE-ON DISCS**

Accessory



Vinyl-faced pads for use with Stick-On discs or conventional discs using disc adhesive. 5" and 6" pads have a riveted 5/16"-24 threaded shank. 8" pads have a 5/8"-11 threaded female hub.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR STICK-ON AND GLUE-ON DISCS</b>			
05539599304	5" Low Profile - Soft	12,000	5*
05539599309	5" Low Profile - Medium	15,000	5*
05539599317	5" Tapered - Medium	15,000	5*
05539599305	6" Low Profile - Soft	12,000	5*
05539599311	6" Low Profile - Medium	15,000	5*
05539599319	6" Tapered - Medium	15,000	5*
05539512023	8" x 1/2 Tapered - Medium	4,800	1

\* Packaged in individual clamshells



## PREMIER RED STICK-ON PAPER DISCS

Better Tier / Zirconia Alumina Resin Paper Open

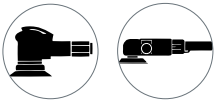


Best choice for stripping paint and rust, as well as blending welds.

FEATURES	BENEFITS
• Premium zirconia alumina abrasive and an open coat	• Fast removal rates • Extended life
• Full, phenolic resin bond system plus latex	• Maximum durability plus flexibility • Excellent grain adhesion
• E-weight, latex paper backing	• Reduced edge shed • Greater flexibility
• PSA backing	• Easy application and removal

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>				
05539521302	36 E 1214 O		50	200
05539521301	40 E 1214 O		50	200
05539521300	80 E 1214 O		50	200

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>8" x 0" INDIVIDUAL DISCS</b>				
05539521305	36 E 1214 O		25	100
05539521304	40 E 1214 O		25	100
05539521303	80 E 1214 O		25	100



## PREMIER RED STICK-ON PAPER DISCS

Better Tier / Aluminum Oxide Resin Paper Open

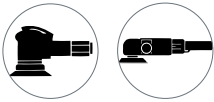


Ideally suited for weld blending, metal polishing and whitewood sanding, clean-up and repair.

FEATURES	BENEFITS
• Tough, P-graded, heat-treated, aluminum oxide abrasive	• Aggressive yet cool cut
• Full resin bond system	• Increased strength and durability
• High strength, F-weight paper backing	• Increased durability and reduced edge wear
• PSA backing	• Easy application and removal
• Link disc roll	• Easy dispensing

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>5" x 0" LINK DISC ROLLS</b>				
05539512549	P60 F 0915		4	4
05539512550	P80 F 0915		4	4
05539512551	P100 F 0915		4	4

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>6" x 0" LINK DISC ROLLS</b>				
05539512556	P60 F 0915		4	4
05539512557	P80 F 0915		4	4
<b>100 discs per roll. Order in multiples of 4 rolls.</b>				



See disc roll dispenser for these discs on page 36.

## PSA CONVERSION DISCS

Accessory



Permanent adhesive on textile hook backing allows for low cost conversion of Stick-On pads to Grip-On.

PART #	DESCRIPTION	PAD NUTS/CASE
<b>STICK-ON TO GRIP-ON CONVERSION DISCS</b>		
05539529418	6"	20



Best choice for sanding all paints, primers, plastics and fiberglass. Also suited for sealer and wash coats in wood furniture.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, heat-treated, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• 30% to 50% faster cut rate than other discs</li> <li>• Consistent scratch pattern and finish</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>• Unique fiber-reinforced, B-weight, latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% – 60% improvement in tear strength, superior resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>• PSA (pressure sensitive adhesive) backing</li> </ul>	<ul style="list-style-type: none"> <li>• Easy application and removal</li> </ul>
<ul style="list-style-type: none"> <li>• Special, undyed stearate oversize, and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Superior load resistance and extended life</li> <li>• No color transfer to work</li> </ul>
<ul style="list-style-type: none"> <li>• Vacuum holes</li> </ul>	<ul style="list-style-type: none"> <li>• Dust-free sanding environment</li> <li>• Extended life</li> </ul>
<ul style="list-style-type: none"> <li>• Link disc roll, 4-pack with polybags</li> </ul>	<ul style="list-style-type: none"> <li>• Easy dispensing</li> <li>• Minimizes storage space</li> <li>• Protects individual rolls</li> </ul>

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>5" x 5 HOLE VACUUM LINK DISC ROLLS D-3329</b>				
05539515295	P80	B 0912 DO	4	4
05539515294	P100	B 0912 DO	4	4
05539515293	P120	B 0912 DO	4	4
05539515292	P150	B 0912 DO	4	4
05539515291	P180	B 0912 DO	4	4
05539515287	P220	B 0912 DO	4	4
05539515286	P240	B 0912 DO	4	4
05539515284	P320	B 0912 DO	4	4
05539515282	P400	B 0912 DO	4	4

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>6" x 6 HOLE VACUUM LINK DISC ROLLS D-3333</b>				
05539515317	P80	B 0912 DO	4	4
05539515316	P100	B 0912 DO	4	4
05539515315	P120	B 0912 DO	4	4
05539515313	P150	B 0912 DO	4	4
05539515312	P180	B 0912 DO	4	4
05539515311	P220	B 0912 DO	4	4
05539515304	P240	B 0912 DO	4	4
05539515300	P320	B 0912 DO	4	4
05539515298	P400	B 0912 DO	4	4
05539515297	P600	B 0912 DO	4	4

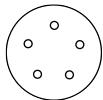
**100 discs per roll. Order in multiples of 4 rolls.**



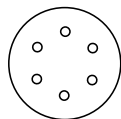
See back-up pads and disc roll dispensers for these discs on page 36.

**techtip**

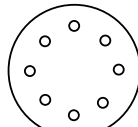
Die pattern numbers showing hole patterns on Vacuum Stick-On Discs.



**DIE D-3329 – DISC ROLLS**  
5" PAD WITH  
5 VACUUM HOLES



**DIE D-3333 – DISC ROLLS**  
6" PAD WITH  
6 VACUUM HOLES



**DIE D-3370**  
8" PAD WITH  
8 VACUUM HOLES



# CARBO GOLD VACUUM STICK-ON PAPER DISCS

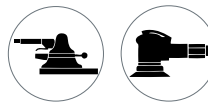
Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Ideal for sanding paints, primers, plastics and fiberglass, as well as whitewood sanding, clean-up and repair.

FEATURES	BENEFITS
• Premium, P-graded, light brown aluminum oxide abrasive	• Fast cut, long life
• Durable C-weight backing	• High tear resistance
• PSA (pressure sensitive adhesive) backing	• Easy application and removal
• Special, water-based stearate oversize, and an open coat	• Excellent load resistance
• Vacuum holes	• Dust-free sanding environment
• Link disc roll	• Easy dispensing
• 4-pack with polybags	• Minimizes storage space
	• Reduces cardboard waste
	• Protects individual rolls

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>5" x 5 HOLE VACUUM LINK DISC ROLLS D-3329</b>				
05539563612	P80	C 0712 DO	4	4
05539563609	P180	C 0712 DO	4	4
<b>100 discs per roll. Order in multiples of 4 rolls.</b>				



See back-up pads for these discs on next page. Disc roll dispenser available on next page.

# PREMIER RED VACUUM STICK-ON PAPER DISCS

Better Tier / Zirconia Alumina Resin Paper Open



Best choice for stripping paint and rust, as well as blending welds.

FEATURES	BENEFITS
• Premium, zirconia alumina abrasive and an open coat	• Fast removal rates, extended life
• Full phenolic resin bond system plus latex	• Maximum durability plus flexibility
	• Excellent grain adhesion
• E-weight, latex paper backing	• Reduced edge shed
	• Greater flexibility
• PSA (pressure sensitive adhesive) backing	• Easy application and removal
• Vacuum holes	• Dust-free sanding environment

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>8" x 8 HOLE INDIVIDUAL VACUUM DISCS D-3370</b>				
05539521311	36	E 1214 O	25	100
05539521309	80	E 1214 O	25	100



## DISC ROLL DISPENSERS

### Accessory



These convenient disc roll dispensers feature heavy-duty construction and a rubberized finish to protect your product. Designed to accommodate any 5" or 6" disc rolls or sheet rolls, they can be easily moved from one work station to another, attached to a wall, or stacked for multi-grit or multi-diameter operations. Discs are individually removed from the roll by a cutter bar.

PART #	DESCRIPTION	DISPENSERS/CASE
<b>DISC ROLL DISPENSER</b>		
05539520361	Disc Roll Dispenser – Single	1
05539520299	Disc Roll Dispenser – Double	1

## BACK-UP PADS FOR VACUUM STICK-ON DISCS

### Accessory



Vinyl-faced pads for use with Stick-On discs with standard vacuum hole patterns. These pads have a riveted 5/16"-24 threaded shank.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PAD FOR STICK-ON VACUUM DISCS</b>			
05539599310	5" x 5 Hole Low Profile - Medium	15,000	5
05539599318	5" x 5 Hole Tapered - Medium	15,000	5
05539599312	6" x 6 Hole Low Profile - Medium	15,000	5
05539599320	6" x 6 Hole Tapered - Medium	15,000	5

**Packaged in individual clamshells**




**GRIP-ON PAPER DISC COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	3M	HERMES	KLINGSPOR	MIRKA	SIA	VSM
<b>PAPER DISCS</b>						
<b>B 2312 DO, C 2312 DO</b>	735U, 734U	–	PS36	–	1950 Siaspeed	–
<b>B 0912 DO, B 0712 DO</b>	216U, 255L, 260L, 334U	VC154-LL	PS73	Q-Silver, Royal	1950, 1940	MPG
<b>C 0712 DO, PB273</b>	236U, 316U, Red, NX	HCAB, HC135-LL, VC151-LL	PS33, PL36	BaseCut Bulldog Gold	– 1947	MP10 KP911
<b>E 1214 O</b>	750U, 751U, 740I, 745I	–	–	Royal Coarse Cut	–	KP510E, KP709

**GRIP-ON PAPER DISC STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION**

MATERIAL	BEST PERFORMANCE	GENERAL-DUTY
<b>Unfinished Metal</b>	E 1214 O	E 0912 O
<b>Primed and Painted Surfaces</b>	C 2312 DO / B 2312 DO	C 0712 DO, PB273
<b>Fiberglass / Composites</b>	C 2312 DO / B 2312 DO, E 1214 O	C 0712 DO, PB273, E 0912 O
<b>Bare Wood</b>	C 2312 DO / B 2312 DO	C 0712 DO, PB273
<b>Sealer Sanding</b>	C 2312 DO / B 2312 DO	B 0412 DO
<b>Paint Stripping</b>	C 2312 DO / B 2312 DO, E 1214 O	C 0712 DO, PB273, E 0912 O

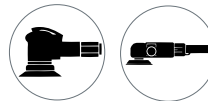


Best choice for stripping and preparing primed and painted surfaces for finishing, sanding of plastics, fiberglass, and composites, bare wood sanding, light weld blending, preparing and finishing metal, and sanding of all gel coats and body filler compounds.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Ceramic alumina abrasive, P80 - P1500 grit range</li> </ul>	<ul style="list-style-type: none"> <li>Fastest cut rate even on hard-to-sand surfaces</li> <li>Extended life – up to 2:1 over conventional discs</li> <li>Broadest ceramic grit range available</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>Unique fiber-reinforced, flexible B- and C-weight latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>50% - 60% improvement in tear resistance, superior resistance to delamination</li> <li>Durable, yet flexible</li> </ul>
<ul style="list-style-type: none"> <li>Special undyed stearate oversize</li> </ul>	<ul style="list-style-type: none"> <li>Superior load resistance and extended life</li> <li>No color transfer to work</li> </ul>
<ul style="list-style-type: none"> <li>Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>Neat, clean application and removal</li> <li>Can be re-used</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>3" x 0" INDIVIDUAL DISCS</b>				
05539553334	P80	C 2312 DO	50	200
05539553335	P120	C 2312 DO	50	200
05539553336	P150	B 2312 DO	50	200
05539553337	P180	B 2312 DO	50	200
05539553338	P220	B 2312 DO	50	200
05539553339	P320	B 2312 DO	50	200
05539553340	P400	B 2312 DO	50	200
05539553341	P600	B 2312 DO	50	200
05539553342	P800	B 2312 DO	50	200
05539553343	P1000	B 2312 DO	50	200
05539553344	P1500	B 2312 DO	50	200
<b>5" x 0" INDIVIDUAL DISCS</b>				
05539599513	P80	C 2312 DO	50	200
05539599512	P100	C 2312 DO	50	200
05539599511	P120	C 2312 DO	50	200
05539599510	P150	B 2312 DO	50	200
05539599509	P180	B 2312 DO	50	200
05539599508	P220	B 2312 DO	50	200
05539599507	P240	B 2312 DO	50	200
05539599506	P280	B 2312 DO	50	200
05539599505	P320	B 2312 DO	50	200
05539599504	P400	B 2312 DO	50	200
05539599503	P500	B 2312 DO	50	200
05539599502	P600	B 2312 DO	50	200
05539599501	P800	B 2312 DO	50	200

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>				
05539599526	P80	C 2312 DO	50	200
05539599525	P100	C 2312 DO	50	200
05539599524	P120	C 2312 DO	50	200
05539599523	P150	B 2312 DO	50	200
05539599522	P180	B 2312 DO	50	200
05539599521	P220	B 2312 DO	50	200
05539599520	P240	B 2312 DO	50	200
05539599519	P280	B 2312 DO	50	200
05539599518	P320	B 2312 DO	50	200
05539599517	P400	B 2312 DO	50	200
05539599516	P500	B 2312 DO	50	200
05539599515	P600	B 2312 DO	50	200
05539599514	P800	B 2312 DO	50	200
05539599423	P1000	B 2312 DO	50	200
05539599444	P1500	B 2312 DO	50	200



See back-up pads for these discs on page 41.

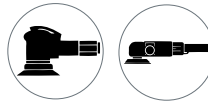


Best choice for sanding all paints, primers, plastics and fiberglass. Also suited for sealer and wash coats in wood furniture.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, heat-treated, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• 30% to 50% faster cut rate than other discs</li> <li>• Consistent scratch pattern and finish</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>• Unique fiber-reinforced, B-weight, latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% – 60% improvement in tear strength, superior resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>• Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>• Neat, clean application and removal</li> <li>• Can be re-used</li> </ul>
<ul style="list-style-type: none"> <li>• Special, undyed stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Superior load resistance and extended life</li> <li>• No color transfer to work</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>3" x 0" INDIVIDUAL DISCS</b>				
05539570019	P80	B 0912 DO	50	200
05539599427	P120	B 0912 DO	50	200
05539570020	P180	B 0912 DO	50	200
05539570021	P320	B 0912 DO	50	200
05539570022	P800	B 0712 DO	50	200
05539569926	P1000	B 0712 DO	50	200
05539569927	P1500	B 0712 DO	50	200
<b>5" x 0" INDIVIDUAL DISCS</b>				
05539520269	P80	B 0912 DO	100	400
05539520267	P100	B 0912 DO	100	400
05539520266	P120	B 0912 DO	100	400
05539520264	P150	B 0912 DO	100	400
05539520263	P180	B 0912 DO	100	400
05539520262	P220	B 0912 DO	100	400
05539520260	P240	B 0912 DO	100	400
05539520259	P280	B 0912 DO	100	400
05539520258	P320	B 0912 DO	100	400
05539520257	P400	B 0912 DO	100	400
05539563781	P500	B 0912 DO	100	400
05539520256	P600	B 0912 DO	100	400
05539520255	P800	B 0712 DO	100	400
05539520254	P1000	B 0712 DO	100	400
05539520253	P1200	B 0712 DO	100	400
05539520252	P1500	B 0712 DO	100	400

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>				
05539520289	P80	B 0912 DO	100	400
05539520288	P100	B 0912 DO	100	400
05539520287	P120	B 0912 DO	100	400
05539520285	P150	B 0912 DO	100	400
05539520284	P180	B 0912 DO	100	400
05539520283	P220	B 0912 DO	100	400
05539520282	P240	B 0912 DO	100	400
05539520278	P280	B 0912 DO	100	400
05539520277	P320	B 0912 DO	100	400
05539520276	P400	B 0912 DO	100	400
05539563782	P500	B 0912 DO	100	400
05539520275	P600	B 0912 DO	100	400
05539520274	P800	B 0712 DO	100	400
05539520272	P1000	B 0712 DO	100	400
05539520271	P1200	B 0712 DO	100	400
05539520270	P1500	B 0712 DO	100	400



See back-up pads for these discs on page 41.

# CARBO GOLD GRIP-ON PAPER DISCS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open

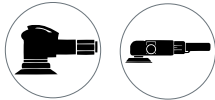


Ideal for sanding paints, primers, plastics and fiberglass, as well as whitewood sanding, clean-up and repair.

FEATURES	BENEFITS
• P-graded, light brown, aluminum oxide abrasive	• Fast cut, long life
• Full resin bond system	• Improved grain adhesion and longest disc life
• C-weight backing	• Durable, high tear resistance
• Hook and loop fastening system	• Neat, clean application and removal
• Special, water-based stearate oversize and an open coat	• Excellent load resistance

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>5" x 0" INDIVIDUAL DISCS</b>				
05539520123	P80	C 0712 DO	100	400
05539520122	P100	C 0712 DO	100	400
05539520121	P120	C 0712 DO	100	400
05539520120	P150	C 0712 DO	100	400
05539520119	P180	C 0712 DO	100	400
05539520118	P220	C 0712 DO	100	400
05539520115	P320	C 0712 DO	100	400

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>				
05539520134	P80	C 0712 DO	100	400
05539520133	P100	C 0712 DO	100	400
05539520132	P120	C 0712 DO	100	400
05539520131	P150	C 0712 DO	100	400
05539520130	P180	C 0712 DO	100	400
05539520129	P220	C 0712 DO	100	400
05539520126	P320	C 0712 DO	100	400
05539520125	P400	C 0712 DO	100	400



# MERIT PB273 GRIP-ON PAPER DISCS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open

# PB273

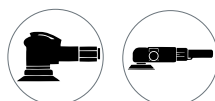


Good choice for sanding paint, primer, plastics, and fiberglass, as well as whitewood sanding, clean-up, and repair – at a low initial price.

FEATURES	BENEFITS
• P-graded, sharp, light-brown aluminum oxide abrasive	• Fast cut rate, extended life, and consistent finish
• Full resin bond system	• Improved grain adhesion and longest disc life
• Premium B-weight latex-saturated, high-internal-bond paper backing	• Improved resistance to delamination
• Water-based stearate anti-loading oversize and an open coat	• Improved load resistance on a broad range of substrates
• No pigment in anti-load oversize or bond	• No risk of color transfer, stronger bond
• Hook and loop fastening system	• Neat, clean application and removal

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>5" x 0" INDIVIDUAL DISCS</b>				
66623362950	P80	PB273	100	400
66623365788	P100	PB273	100	400
66623362949	P120	PB273	100	400
66623362948	P150	PB273	100	400
66623362947	P180	PB273	100	400
66623362946	P220	PB273	100	400
66623362945	P240	PB273	100	400
66623362944	P320	PB273	100	400
66623362943	P400	PB273	100	400
66623362942	P600	PB273	100	400
66623362941	P800	PB273	100	400

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>				
66623362960	P80	PB273	100	400
66623365789	P100	PB273	100	400
66623362959	P120	PB273	100	400
66623362958	P150	PB273	100	400
66623362957	P180	PB273	100	400
66623362956	P220	PB273	100	400
66623362955	P240	PB273	100	400
66623362954	P320	PB273	100	400
66623362953	P400	PB273	100	400
66623362952	P600	PB273	100	400
66623362951	P800	PB273	100	400







Best choice for stripping paint and rust, as well as blending welds.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>Fast removal rates</li> <li>Extended life</li> </ul>
<ul style="list-style-type: none"> <li>Full phenolic resin bond system plus latex</li> </ul>	<ul style="list-style-type: none"> <li>Maximum durability plus flexibility</li> <li>Excellent grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>E-weight latex paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Reduced edge shed</li> <li>Greater flexibility</li> </ul>
<ul style="list-style-type: none"> <li>Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>Neat, clean application and removal</li> <li>Can be re-used</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>				
05539521316	40	E 1214 O	25	100
05539521315	80	E 1214 O	25	100

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>8" x 0" INDIVIDUAL DISCS</b>				
05539521320	36	E 1214 O	25	100
05539521319	40	E 1214 O	25	100
05539521318	80	E 1214 O	25	100



### BACK-UP PADS FOR GRIP-ON DISCS

#### Accessory



Back-up pads for use with Grip-On discs. Incorporate unique hook and loop fastening system for neat, clean application and removal. 5" and 6" pads have a riveted 5/16"-24 threaded shank. 8" pads have a 5/8-11 threaded female hub.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
05539599306	3" Low Profile - Soft	12,000	10*
05539599307	5" Low Profile - Soft	12,000	5*
05539599313	5" Low Profile - Medium	15,000	5*
05539599321	5" Tapered - Medium	15,000	5*
05539599308	6" Low Profile - Soft	12,000	5*
05539599315	6" Low Profile - Medium	15,000	5*
05539599323	6" Tapered - Medium	15,000	5*
05539512030	8" Tapered - Medium	4,800	1

\* Packaged in Individual Clamshells

### INTERFACE PADS FOR GRIP-ON DISCS

#### Accessory



Soft, pliable foam pad which fastens to the standard 5" and 6" Grip-On back-up pad using a hook and loop system. It converts the standard pad into a fine finishing pad and enhances P1000, P1200, and P1500 grit fine sanding random orbital applications.

PART #	DESCRIPTION	PADS/CASE
05539520521	5" Interface Pad	20
05539520520	6" Interface Pad	20

# PREMIER RED VACUUM GRIP-ON PAPER DISCS

Better Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Best choice for sanding all paints, primers, plastics and fiberglass. Also suited for sealer and wash coats in wood furniture.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, heat-treated, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• 30% to 50% faster cut rate than other discs</li> <li>• Consistent scratch pattern and finish</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>• Unique fiber-reinforced, B-weight, latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% – 60% improvement in tear strength, superior resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>• Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>• Neat, clean application and removal</li> <li>• Can be re-used</li> </ul>
<ul style="list-style-type: none"> <li>• Special, undyed stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Superior load resistance and extended life</li> <li>• No color transfer to work</li> </ul>
<ul style="list-style-type: none"> <li>• Vacuum holes</li> </ul>	<ul style="list-style-type: none"> <li>• Dust-free sanding environment</li> <li>• Extended life</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>5" x 5 HOLE INDIVIDUAL VACUUM DISCS D-3328</b>				
05539520315	P80	B 0912 DO	100	400
05539520314	P100	B 0912 DO	100	400
05539520313	P120	B 0912 DO	100	400
05539520312	P150	B 0912 DO	100	400
05539520311	P180	B 0912 DO	100	400
05539520310	P220	B 0912 DO	100	400
05539520307	P320	B 0912 DO	100	400
05539520306	P400	B 0912 DO	100	400
05539520305	P600	B 0912 DO	100	400

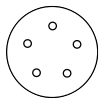
PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 6 HOLE INDIVIDUAL VACUUM DISCS D-3371</b>				
05539520331	P80	B 0912 DO	100	400
05539520330	P100	B 0912 DO	100	400
05539520329	P120	B 0912 DO	100	400
05539520328	P150	B 0912 DO	100	400
05539520326	P180	B 0912 DO	100	400
05539520325	P220	B 0912 DO	100	400
05539520324	P240	B 0912 DO	100	400
05539520323	P280	B 0912 DO	100	400
05539520322	P320	B 0912 DO	100	400
05539520321	P400	B 0912 DO	100	400
05539563784	P500	B 0912 DO	100	400
05539520320	P600	B 0912 DO	100	400
05539520319	P800	B 0712 DO	100	400
05539520318	P1000	B 0712 DO	100	400



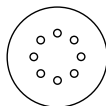
See back-up pads for these discs on page 44.

## techtip

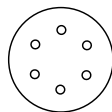
Die pattern numbers showing hole patterns on Vacuum Grip-On Discs.



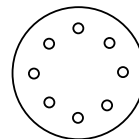
**DIE D-3328**  
5" PAD WITH  
5 VACUUM HOLES



**DIE D-3392**  
5" PAD WITH  
8 VACUUM HOLES



**DIE D-3371**  
6" PAD WITH  
6 VACUUM HOLES



**DIE D-3370**  
8" PAD WITH  
8 VACUUM HOLES



# CARBO GOLD VACUUM GRIP-ON PAPER DISCS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Ideal for sanding paints, primers, plastics and fiberglass, as well as whitewood sanding, clean-up, and repair.

FEATURES	BENEFITS
• P-graded, light brown, aluminum oxide abrasive	• Fast cut, long life
• Full resin bond system	• Improved grain adhesion and longest disc life
• C-weight backing	• Durable, high tear resistance
• Hook and loop fastening system	• Neat, clean application and removal
• Special, water-based stearate oversize and an open coat	• Excellent load resistance
• Vacuum holes	• Dust-free sanding environment

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>5" x 5 HOLE INDIVIDUAL VACUUM DISCS D-3328</b>				
05539563628	P80	C 0712 DO	50	200
05539563627	P120	C 0712 DO	50	200
05539563624	P220	C 0712 DO	50	200



See back-up pads for these discs on page 44

# MERIT PB273 VACUUM GRIP-ON PAPER DISCS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Good choice for sanding paint, primer, plastics, and fiberglass, as well as whitewood sanding, clean-up, and repair – at a low initial price.

FEATURES	BENEFITS
• P-graded, sharp, light-brown aluminum oxide abrasive	• Fast cut rate, extended life, and consistent finish
• Full resin bond system	• Improved grain adhesion and longest disc life
• Premium B-weight latex-saturated, high-internal-bond paper backing	• Improved resistance to delamination
• Water-based stearate anti-loading oversize and an open coat	• Improved load resistance on a broad range of substrates
• No pigment in anti-load oversize or bond	• No risk of color transfer, stronger bond
• Hook and loop fastening system	• Neat, clean application and removal
• Vacuum holes	• Dust-free sanding environment

PART #	GRADING		ROLLS/CASE	MIN. QTY.
<b>5" x 8 HOLE INDIVIDUAL VACUUM DISCS D-3392</b>				
66623366071	P80	PB273	100	400
66623369778	P120	PB273	100	400
66623366073	P150	PB273	100	400
66623366074	P180	PB273	100	400
66623366075	P220	PB273	100	400
66623366077	P320	PB273	100	400



See back-up pads for these discs on page 44.

# PREMIER RED VACUUM GRIP-ON PAPER DISCS

Better Tier / Zirconia Alumina Resin Paper Open



Best choice for stripping paint and rust, as well as blending welds.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Faster removal rates than aluminum oxide discs</li> <li>Extended life</li> </ul>
<ul style="list-style-type: none"> <li>Full phenolic resin bond system plus latex</li> </ul>	<ul style="list-style-type: none"> <li>Maximum durability plus flexibility</li> <li>Excellent grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>E-weight latex paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Reduced edge shed</li> <li>Greater flexibility</li> </ul>
<ul style="list-style-type: none"> <li>Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>Neat, clean application and removal</li> </ul>
<ul style="list-style-type: none"> <li>Vacuum holes</li> </ul>	<ul style="list-style-type: none"> <li>Dust-free sanding environment</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>8" x 8 HOLE INDIVIDUAL VACUUM DISCS D-3370</b>				
05539521325	40	E 1214 O	25	100
05539521324	80	E 1214 O	25	100



## BACK-UP PADS FOR VACUUM GRIP-ON DISCS

Accessory



Unique hook and loop fastening system for use with standard 5" and 6" vacuum hole patterns. These pads have a riveted 5/16"-24 threaded shank.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR GRIP-ON VACUUM DISCS</b>			
05539599314	5" x 5 Hole Low Profile - Medium	15,000	5*
05539599322	5" x 5 Hole Tapered - Medium	15,000	5*
05539599316	6" x 6 Hole Low Profile - Medium	15,000	5*
05539599324	6" x 6 Hole Tapered - Medium	15,000	5*

\* Packaged in Individual Clamshells



# CARBO CLEANAIR PLUS MEDALIST VACUUM GRIP-ON PAPER DISCS

Best Tier / Ceramic Alumina Dri-Lube Resin Paper Open



Combine the revolutionary maximum dust extraction Carbo CleanAir Plus back-up pad with Carbo CleanAir Plus Medalist Dri-Lube discs to optimize performance, increase productivity and eliminate dust. Perform well on conventional paints and primers, wood, as well as hard-to-sand surfaces like ceramic clears, E-coated panels, aluminum and composites.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Precision laser-cut, spiral-hole design</li> </ul>	<ul style="list-style-type: none"> <li>42% more effective at targeting dust than the original CleanAir design</li> <li>No clogging; allows for maximum dust extraction</li> <li>Virtually dust-free sanding for a cleaner work environment</li> <li>Less potential for contamination</li> <li>Consistent cut throughout the life of the disc</li> <li>Deliver more productivity with fewer disc changes</li> </ul>
<ul style="list-style-type: none"> <li>Ceramic alumina grain</li> </ul>	<ul style="list-style-type: none"> <li>Quick/cool superior cut on difficult-to-sand surfaces</li> <li>Substantially longer life and faster cut than conventional abrasives</li> </ul>
<ul style="list-style-type: none"> <li>Unique fiber-reinforced latex/paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Flexible, strong, and tear resistant</li> </ul>
<ul style="list-style-type: none"> <li>Water-based stearate coating (Dri-Lube)</li> </ul>	<ul style="list-style-type: none"> <li>Load resistant for extended product life</li> </ul>
<ul style="list-style-type: none"> <li>Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>Neat, clean, application and removal</li> </ul>

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 11/16" INDIVIDUAL CARBO CLEANAIR PLUS VACUUM DISCS</b>				
05539550000	P80	C 2312 DO	50	200
05539550001	P120	C 2312 DO	50	200
05539550002	P150	B 2312 DO	50	200
05539550003	P180	B 2312 DO	50	200
05539550004	P220	B 2312 DO	50	200
05539550005	P240	B 2312 DO	50	200
05539550006	P320	B 2312 DO	50	200
05539550007	P400	B 2312 DO	50	200

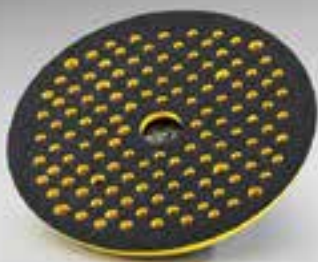
PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>6" x 11/16" INDIVIDUAL CARBO CLEANAIR PLUS VACUUM DISCS</b>				
05539550008	P500	B 2312 DO	50	200
05539550009	P600	B 2312 DO	50	200
05539550010	P800	B 2312 DO	50	200

**Note: Must use multi-hole (54+) back-up pad. Use of the Carbo CleanAir Plus pad is recommended for optimal results.**



## BACK-UP PADS FOR CARBO CLEANAIR PLUS DISCS

Accessory



Clean Air Plus discs attach to any multi-hole (54+ holes) back up pad because the holes in the disc do not have to be matched up with the holes in the pad, so changeover is fast and easy. However, use of the Carbo CleanAir Plus pad is recommended for optimal results. This medium pad is engineered with durable urethane foam, heat-resistant plastic, a molded-in 5/16"-24 spindle, and hooked face.

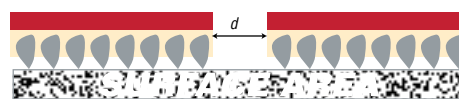
PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR CARBO CLEANAIR DISCS</b>			
63642506160	6" Medium	12,000	1

### Less Dust Means More Productivity

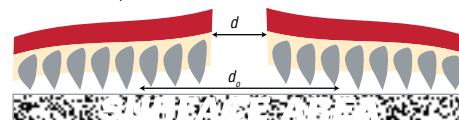
The upgrade to precise, flat, laser-cut instead of die-punched holes, dramatically increases surface area contact allowing CleanAir Plus discs to improve productivity by 32% versus conventional multi-hole sanding and by 60% versus non-vacuum sanding.

The end result is more holes for dust extraction, more abrasive coverage for a better cut and no deformation for full surface contact utilizing all the cutting power of the premium ceramic grain.

CleanAir Plus laser-cut discs are flat and true.



Conventional die-punched holes cause deformation.



# PREMIER RED GLUE-ON PAPER DISCS

Better Tier / Zirconia Alumina Resin Paper Open



Best choice for stripping paint and rust, as well as blending welds. Use disc cement to apply these discs.

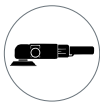
### FEATURES

- Premium zirconia alumina abrasive
- Full phenolic resin bond system plus latex
- E-weight, latex paper backing

### BENEFITS

- Faster removal rates than aluminum oxide discs
- Extended life
- Maximum durability plus flexibility
- Excellent grain adhesion
- Reduced edge shed
- Greater flexibility

PART #	GRADING		DISCS/PKG.	DISCS/CASE
<b>8" x 0" INDIVIDUAL DISCS</b>				
05539521335	36	E 1214 0	25	100
05539521334	40	E 1214 0	25	100
05539521333	80	E 1214 0	25	100



See back-up pads for these discs on page 32.





**DISC COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	3M	HERMES	KLINGSPOR	MIRKA	VSM
<b>CLOTH DISCS</b>					
<b>XC 0877</b>	241D, 251D, 261D, 248D	RB346MX	CS310X	-	KK511X

**MERIT SHURSTIK** SMALL DIAMETER STICK-ON CLOTH DISCS




*Good Tier / Aluminum Oxide Resin Cloth*



Merit ShurStik PSA (pressure sensitive adhesive) individual cloth discs are used on pneumatic die grinders for light to medium pressure grinding, blending, beveling and finishing applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium aluminum oxide abrasive</li> <li>Heavy, durable X-weight cotton backing</li> </ul>	<ul style="list-style-type: none"> <li>Long life</li> <li>Ideal for aggressive stock removal applications</li> <li>Resistant to heat</li> </ul>

PART #	GRADING	DISCS/CASE	PART #	GRADING	DISCS/CASE	PART #	GRADING	DISCS/CASE	PART #	GRADING	DISCS/CASE	
<b>1/2"</b>			<b>1"</b>			<b>2"</b>			<b>4"</b>			
08834171100	36	100	08834171129	36	100	08834171159	36	100	08834171188	24	100	
08834171101	40	100	08834171130	40	100	08834171160	40	100	08834171189	36	100	
08834171102	50	100	08834171131	50	100	08834171161	50	100	08834171190	40	100	
08834171103	60	100	08834171132	60	100	08834171162	60	100	08834171191	50	100	
08834171104	80	100	08834171133	80	100	08834171163	80	100	08834171192	60	100	
08834171105	100	100	08834171134	100	100	08834171164	100	100	08834171193	80	100	
08834171106	120	100	08834171135	120	100	08834171165	120	100	08834171194	100	100	
08834171107	150	100	08834171136	150	100	08834171166	150	100	08834171195	120	100	
08834171108	180	100	08834171137	180	100	08834171167	180	100	08834171196	150	100	
08834171109	240	100	08834171138	240	100	08834171168	240	100	08834171197	180	100	
08834171110	320	100	08834171139	320	100	08834171169	320	100	08834171198	240	100	
<b>3/4"</b>			<b>1-1/2"</b>			<b>3"</b>			08834171199 320 100			
08834171114	36	100	08834171144	36	100	08834171173	24	100	 <p>See back-up pads for these discs on next page.</p>			
08834171115	40	100	08834171145	40	100	08834171174	36	100				
08834171116	50	100	08834171146	50	100	08834171175	40	100				
08834171117	60	100	08834171147	60	100	08834171176	50	100				
08834171118	80	100	08834171148	80	100	08834171177	60	100				
08834171119	100	100	08834171149	100	100	08834171178	80	100				
08834171120	120	100	08834171150	120	100	08834171179	100	100				
08834171121	150	100	08834171151	150	100	08834171180	120	100				
08834171122	180	100	08834171152	180	100	08834171181	150	100				
08834171123	240	100	08834171153	240	100	08834171182	180	100				
08834171124	320	100	08834171154	320	100	08834171184	320	100				



# ALUMINUM OXIDE STICK-ON CLOTH DISCS

Good Tier / Aluminum Oxide Resin Cloth

CARBO™

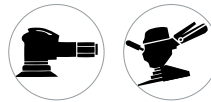


Designed for intermediate/light pressure, dry sanding. Ideal for dimensioning and finishing of contours on metal and all species of wood.

FEATURES	BENEFITS
• Aluminum oxide abrasive	• Tough and durable with aggressive cutting action
• Full resin bond system	• Increased strength and durability
• X-weight cotton backing	• Cool operating
• PSA (pressure sensitive adhesive) backing	• Easy application and removal
• White paper liner	• Easy removal and disc application
	• The Stick-On adhesive is protected from air-borne contaminants

PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>5" x 0" INDIVIDUAL DISCS</b>			
05539520765	36 XC 0877	50	50
05539520766	50 XC 0877	50	50
05539520767	80 XC 0877	50	50

PART #	GRADING	DISCS/PKG.	DISCS/CASE
<b>6" x 0" INDIVIDUAL DISCS</b>			
05539520769	60 XC 0877	50	50
05539520770	80 XC 0877	50	50



## BACK-UP PADS FOR STICK-ON AND GLUE-ON DISCS

Accessory



Vinyl-faced pads for use with Stick-On discs or conventional discs using disc adhesive. 5" and 6" pads have a riveted 5/16"-24 threaded shank. 8" pads have a 5/8"-11 threaded female hub.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>BACK-UP PADS FOR STICK-ON DISCS</b>			
05539599304	5" Low Profile - Soft	12,000	5*
05539599309	5" Low Profile - Medium	15,000	5*
05539599317	5" Tapered - Medium	15,000	5*
05539599305	6" Low Profile - Soft	12,000	5*
05539599311	6" Low Profile - Medium	15,000	5*
05539599319	6" Tapered - Medium	15,000	5*
05539512023	8" x 1/2 Tapered - Medium	4,800	1

\* Packaged in individual clamshells

## PSA CONVERSION DISCS

Accessory



Permanent adhesive on textile hook backing allows for low cost conversion of Stick-On pads to Grip-On.

PART #	DESCRIPTION	PADS/CASE
<b>STICK-ON TO GRIP-ON CONVERSION DISC PADS</b>		
05539529418	6"	20

## BACK-UP PADS FOR CLOTH DISCS

Accessory



The backing of these small, air right-angle grinder, spindle-mounted back-up pads is designed to easily and securely mount and remove PSA-backed discs.

PART #	RPM	PADS/CASE	PART #	RPM	PADS/CASE
<b>1/2"</b>			<b>2"</b>		
08834174096	15,000	1	08834174100	12,000	1
<b>3/4"</b>			<b>3"</b>		
08834174097	15,000	1	08834174101	10,000	1
<b>1"</b>			<b>4"</b>		
08834174098	15,000	1	08834174102	6,000	1
<b>1-1/2"</b>					
08834174099	15,000	1			





**COATED ABRASIVE QUICK-CHANGE DISC AVAILABILITY**



**Cloth 2-Ply**

- Our standard 2-ply laminate construction creates an aggressive and durable cloth disc for flat surfaces

**QUICK-CHANGE ATTACHMENT SYSTEMS AND CROSS REFERENCE GUIDE**

**Type TS (Type II)**

- Features a turn-on/turn-off style fastener
- Fastener is made of metal
- Equivalent to Standard Abrasives' SocAtt® locking system



**Type TR (Type III)**

- Features a roll-on/roll-off style fastener
- Fastener is made of plastic
- Equivalent to 3M™ Roloc™ fastening system



**Type TP (Type I)**

- Snap-on/snap-off system which enables you to change discs quickly and safely, reducing downtime and operating expenses
- Fastener is made of nylon



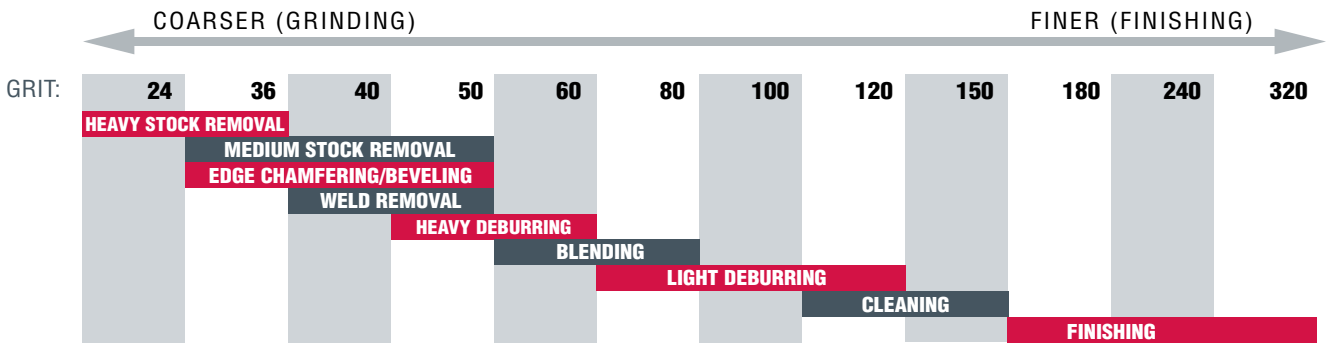
CARBORUNDUM / MERIT	TS TYPE II	TR TYPE III	TP TYPE I
<b>3M</b>	Roloc TS/TSM	Roloc TR	Roloc TP
<b>Standard</b>	TS (SocAtt)	TR (Lockit)	TP (ClickOn)
<b>Superior</b>	Type S	Type R	–
<b>Arc</b>	Type S	Type R	Type P
<b>Pferd</b>	Type CD	Type CDR	–
<b>Sait</b>	SAIT-LOK	SAIT-LOK-R	–
<b>Camel</b>	Turn On	Roll On	–
<b>Klingspor</b>	QMC	QRC	–
<b>Garryson</b>	Type S	Type R	–

**CROSS REFERENCE GUIDE**



	<b>BETTER</b>	<b>GOOD</b>
<b>Abrasive</b>	Zirconia Alumina	Aluminum Oxide
<b>Backing</b>	Cloth	Cloth
<b>Carborundum</b>	Premier Red YP 1288	
<b>Merit</b>		ALO
<b>3M</b>	–	361F
<b>Arc</b>	Zirconia/Y Plus	A/O/Y Premium
<b>Camel</b>	Zirconia AO w/ Grinding Aid	Aluminum Oxide
<b>Garryson</b>	Zirconia AO w/ Grinding Aid	Aluminum Oxide
<b>Klingspor</b>	Alumina Zirconia - Lubricated	Aluminum Oxide
<b>Pferd</b>	–	Aluminum Oxide A, A/O A-FORTE
<b>Sait</b>	3Z, Z-H	2A-H, 2A
<b>Standard</b>	Zirconia Pro	A/O
<b>Superior</b>	Zirc w/ Grinding Aid	Premium A/O, Rigid Kut A/O
<b>Weiler</b>	Tiger Zirconia	Votec

**APPLICATION/GRIT RECOMMENDATION GUIDE**



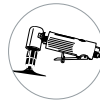


Strong zirconia alumina abrasive on Y-weight polyester backing with grinding aid results in cooler cut on stainless steel and other harder-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Self sharpening zirconia alumina abrasive</li> <li>• Strong Y-weight 2-ply polyester backing</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cut, longer life</li> <li>• Excellent durability and grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>• Grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cut on stainless steel, titanium and other exotic alloys</li> </ul>

PART #	GRADING		STD. PKG.
<b>TS (TYPE II)</b>			
<b>1-1/2"</b>			
66623318721	36	YP 1288	100
66623318722	40	YP 1288	100
66623318724	60	YP 1288	100
66623318725	80	YP 1288	100
<b>2"</b>			
66623318743	24	YP 1288	100
66623318744	36	YP 1288	100
66623318745	40	YP 1288	100
66623318746	50	YP 1288	100
66623318747	60	YP 1288	100
<b>3"</b>			
66623318833	36	YP 1288	50
66623318834	40	YP 1288	50
66623318836	50	YP 1288	50
66623318839	60	YP 1288	50
66623318841	80	YP 1288	50
<b>TR (TYPE III)</b>			
<b>2"</b>			
66623318737	24	YP 1288	100
66623318738	36	YP 1288	100
66623318740	50	YP 1288	100
66623318741	60	YP 1288	100
66623318742	80	YP 1288	100
<b>3"</b>			
66623318842	24	YP 1288	50
66623318843	36	YP 1288	50
66623318846	60	YP 1288	50
66623318847	80	YP 1288	50

PART #	GRADING		STD. PKG.
<b>TP (TYPE I)</b>			
<b>1-1/2"</b>			
66623318718	50	YP 1288	100
66623318719	60	YP 1288	100
66623318720	80	YP 1288	100
<b>2"</b>			
66623318731	24	YP 1288	100
66623318733	40	YP 1288	100
66623318734	50	YP 1288	100
66623318735	60	YP 1288	100
66623318736	80	YP 1288	100
<b>3"</b>			
66623318824	36	YP 1288	50
66623318825	40	YP 1288	50
66623318826	50	YP 1288	50
66623318830	60	YP 1288	50
66623318831	80	YP 1288	50



See back-up pads and accessories for these discs on pages 55-56.

**techtip**

Avoid gouging on contours by using a smaller size back-up pad than the diameter of the discs, such as 1-1/2" back-up pad for 2" discs. For 3" discs and larger, order the special FlexEdge back-up pad part # 08834168539 that is 2" in diameter but contains the cam lock fastener for 3" and larger discs.



Premium abrasive and aluminum oxide blend for aggressive cut and longer life than competitive aluminum oxide discs. Durable Y-weight. 2-ply polyester backing and special grain coating for longer life and faster cut rate on moderately-demanding applications. Great for difficult-to-grind materials (aluminum, brass, bronze, stainless, carbon steel, and titanium) and applications requiring an economical option.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium abrasive and aluminum oxide blend</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive cut and longer life than competitive aluminum oxide discs</li> </ul>
<ul style="list-style-type: none"> <li>Durable Y-weight 2-ply polyester backing and special grain coating</li> </ul>	<ul style="list-style-type: none"> <li>Longer life and faster cut rate on moderately-demanding applications</li> </ul>
<ul style="list-style-type: none"> <li>Great for difficult-to-grind materials (aluminum, brass, bronze, stainless, carbon steel and titanium)</li> </ul>	<ul style="list-style-type: none"> <li>Applications requiring an economical option</li> </ul>

PART #	GRIT	STD. PKG.
<b>TS (TYPE II)</b>		
<b>3/4"</b>		
69957399601	24	100
69957399602	36	100
69957399603	40	100
69957399604	50	100
69957399605	60	100
69957399606	80	100
69957399607	100	100
69957399608	120	100
69957399609	150	100
69957399610	180	100
69957399611	240	100
69957399612	320	100
<b>1"</b>		
69957399613	24	100
69957399614	36	100
69957399615	40	100
69957399616	50	100
69957399617	60	100
69957399618	80	100
69957399619	100	100
69957399620	120	100
69957399621	150	100
69957399622	180	100
69957399623	240	100
69957399624	320	100

PART #	GRIT	STD. PKG.
<b>TS (TYPE II)</b>		
<b>1-1/2"</b>		
69957399625	24	100
69957399626	36	100
69957399627	40	100
69957399628	50	100
69957399629	60	100
69957399630	80	100
69957399631	100	100
69957399632	120	100
69957399633	150	100
69957399634	180	100
69957399635	240	100
69957399636	320	100
<b>2"</b>		
69957399637	24	100
69957399638	36	100
69957399639	40	100
69957399640	50	100
69957399641	60	100
69957399642	80	100
69957399643	100	100
69957399644	120	100
69957399645	150	100
69957399646	180	100
69957399647	240	100
69957399648	320	100

PART #	GRIT	STD. PKG.
<b>TS (TYPE II)</b>		
<b>3"</b>		
69957399649	24	50
69957399650	36	50
69957399651	40	50
69957399652	50	50
69957399653	60	50
69957399654	80	50
69957399655	100	50
69957399656	120	50
69957399657	150	50
69957399658	180	50
69957399659	240	50
69957399660	320	50
<b>4"</b>		
69957399661	36	50
69957399662	40	50
69957399663	50	50
69957399664	60	50
69957399665	80	50
69957399666	100	50
69957399667	120	50
69957399668	180	50



See back-up pads and accessories for these discs on pages 55-56.

PART #	GRIT	STD. PKG.
<b>TR (TYPE III)</b>		
<b>3/4"</b>		
69957399669	24	100
69957399670	36	100
69957399671	40	100
69957399672	50	100
69957399673	60	100
69957399674	80	100
69957399675	100	100
69957399676	120	100
69957399677	150	100
69957399678	180	100
69957399679	240	100
69957399680	320	100

PART #	GRIT	STD. PKG.
<b>TR (TYPE III)</b>		
<b>1"</b>		
69957399681	24	100
69957399682	36	100
69957399683	40	100
69957399684	50	100
69957399685	60	100
69957399686	80	100
69957399687	100	100
69957399688	120	100
69957399689	150	100
69957399690	180	100
69957399691	240	100
69957399692	320	100

PART #	GRIT	STD. PKG.
<b>TR (TYPE III)</b>		
<b>1-1/2"</b>		
69957399693	24	100
69957399694	36	100
69957399695	40	100
69957399696	50	100
69957399697	60	100
69957399698	80	100
69957399699	100	100
69957399700	120	100
69957399701	150	100
69957399702	180	100
69957399703	240	100
69957399704	320	100



PART #	GRIT	STD. PKG.
<b>TR (TYPE III)</b>		
<b>2"</b>		
69957399705	24	100
69957399706	36	100
69957399707	40	100
69957399708	50	100
69957399709	60	100
69957399710	80	100
69957399711	100	100
69957399712	120	100
69957399713	150	100
69957399714	180	100
69957399715	240	100
69957399716	320	100

PART #	GRIT	STD. PKG.
<b>TR (TYPE III)</b>		
<b>3"</b>		
69957399717	24	50
69957399718	36	50
69957399719	40	50
69957399720	50	50
69957399721	60	50
69957399722	80	50
69957399723	100	50
69957399724	120	50
69957399725	150	50
69957399726	180	50
69957399727	240	50
69957399728	320	50

PART #	GRIT	STD. PKG.
<b>TR (TYPE III)</b>		
<b>4"</b>		
69957399729	36	50
69957399730	40	50
69957399731	50	50
69957399732	60	50
69957399733	80	50
69957399734	100	50
69957399735	120	50
69957399736	180	50



See back-up pads and accessories for these discs on pages 55-56.

PART #	GRIT	STD. PKG.
<b>TP (TYPE I)</b>		
<b>3/4"</b>		
69957399737	24	100
69957399738	36	100
69957399739	40	100
69957399740	50	100
69957399741	60	100
69957399742	80	100
69957399743	100	100
69957399744	120	100
69957399745	150	100
69957399746	180	100
69957399747	240	100
69957399748	320	100
<b>1"</b>		
69957399749	24	100
69957399750	36	100
69957399751	40	100
69957399752	50	100
69957399753	60	100
69957399754	80	100
69957399755	100	100
69957399756	120	100
69957399757	150	100
69957399758	180	100
69957399759	240	100
69957399760	320	100

PART #	GRIT	STD. PKG.
<b>TP (TYPE I)</b>		
<b>1-1/2"</b>		
69957399761	24	100
69957399762	36	100
69957399763	40	100
69957399764	50	100
69957399765	60	100
69957399766	80	100
69957399767	100	100
69957399768	120	100
69957399769	150	100
69957399770	180	100
69957399771	240	100
69957399772	320	100
<b>2"</b>		
69957399773	24	100
69957399774	36	100
69957399775	40	100
69957399776	50	100
69957399777	60	100
69957399778	80	100
69957399779	100	100
69957399780	120	100
69957399781	150	100
69957399782	180	100
69957399783	240	100
69957399784	320	100

PART #	GRIT	STD. PKG.
<b>TP (TYPE I)</b>		
<b>3"</b>		
69957399785	24	50
69957399786	36	50
69957399787	40	50
69957399788	50	50
69957399789	60	50
69957399790	80	50
69957399791	100	50
69957399792	120	50
69957399793	150	50
69957399794	180	50
69957399795	240	50
69957399796	320	50
<b>4"</b>		
69957399797	36	50
69957399798	40	50
69957399799	50	50
69957399800	60	50
69957399801	80	50
69957399802	100	50
69957399803	120	50
69957399804	180	50



See back-up pads and accessories for these discs on pages 55-56.



Single-ply construction is designed for maximum conformability when conditioning, deburring and blending contoured surfaces and finishing aerospace and metal fabrication materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium, versatile aluminum oxide abrasive in coarse to finer grit range</li> </ul>	<ul style="list-style-type: none"> <li>Eliminates gouging of work piece</li> <li>Ideal when initial cost is a major buying criterion</li> </ul>
<ul style="list-style-type: none"> <li>Conformable, flexible 1-ply cloth construction</li> </ul>	<ul style="list-style-type: none"> <li>Specifically designed to excel on contoured surfaces and finishing applications</li> <li>Ability to get into tight areas while maintaining required cut and life</li> </ul>

PART #	GRIT	DISCS/PKG.	DISCS/CASE
<b>TS (TYPE II)</b>			
<b>1-1/2"</b>			
77696088231	24	100	100
77696088232	36	100	100
77696088233	40	100	100
77696088234	50	100	100
77696088235	60	100	100
77696088236	80	100	100
77696088237	100	100	100
77696088238	120	100	100
77696088239	150	100	100
77696088240	180	100	100
77696088241	240	100	100
77696088242	320	100	100
<b>2"</b>			
77696088243	24	100	100
77696088244	36	100	100
77696088245	40	100	100
77696088246	50	100	100
77696088247	60	100	100
77696088248	80	100	100
77696088249	100	100	100
77696088250	120	100	100
77696088251	150	100	100
77696088252	180	100	100
77696088253	240	100	100
77696088254	320	100	100
<b>3"</b>			
77696088255	24	50	50
77696088256	36	50	50
77696088257	40	50	50
77696088258	50	50	50
77696088259	60	50	50
77696088260	80	50	50
77696088261	100	50	50
77696088262	120	50	50
77696088263	150	50	50
77696088264	180	50	50
77696088265	240	50	50
77696088266	320	50	50

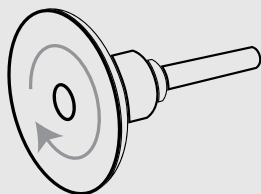
PART #	GRIT	DISCS/PKG.	DISCS/CASE
<b>TYPE TR (TYPE III)</b>			
<b>2"</b>			
77696088267	24	50	50
77696088268	36	50	50
77696088269	40	50	50
77696088270	50	50	50
77696088271	60	50	50
77696088272	80	50	50
77696088273	100	50	50
77696088274	120	50	50
77696088275	150	50	50
77696088276	180	50	50
77696088277	240	50	50
77696088278	320	50	50
<b>3"</b>			
77696088279	24	50	50
77696088280	36	50	50
77696088281	40	50	50
77696088282	50	50	50
77696088283	60	50	50
77696088284	80	50	50
77696088285	100	50	50
77696088286	120	50	50
77696088287	150	50	50
77696088288	180	50	50
77696088289	240	50	50
77696088290	320	50	50



See back-up pads and accessories for these discs on pages 55-56.

# QUICK-CHANGE BACK-UP PADS

## Accessory



- Hard density back-up pads are for aggressive cutting action
- Medium density back-up pads are for all-purpose applications
- Soft density back-up pads are used for contours and fine finishing work



TS (TYPE II)



TR (TYPE III)



TP (TYPE I)

PART #	SIZE (D)	DENSITY	RPM	STD. PKG.
<b>TS (TYPE II)</b>				
66261054014	9/16"	Medium	40,000	1
08834164206	3/4"	Medium	40,000	1
08834164651	1"	Medium	40,000	1
08834164622	1-1/2"	Hard	30,000	1
08834164146	1-1/2"	Medium	30,000	1
08834164624	2"	Hard	30,000	1
08834164198	2"	Medium	30,000	1
08834161625	2"	Soft	30,000	1
08834161626	3"	Hard	20,000	1
08834164113	3"	Medium	20,000	1
08834164626	3"	Soft	20,000	1
08834164135	4"	Medium	15,000	1
<b>TR (TYPE III)</b>				
08834164038	3/4"	Medium	40,000	1
08834164037	1"	Medium	40,000	1
08834164640	1-1/2"	Hard	30,000	1
08834161174	1-1/2"	Medium	30,000	1
08834164643	2"	Hard	30,000	1
08834164922	2"	Medium	30,000	1
08834164641	2"	Soft	30,000	1
08834164036	3"	Hard	20,000	1
08834164949	3"	Medium	20,000	1
08834164644	3"	Soft	20,000	1
08834164655	4"	Medium	15,000	1

PART #	SIZE (D)	DENSITY	RPM	STD. PKG.
<b>TP (TYPE I)</b>				
66261054013	9/16"	Medium	40,000	1
08834164001	3/4"	Medium	40,000	1
08834164002	1"	Medium	40,000	1
08834163996	1-1/2"	Hard	30,000	1
08834164003	1-1/2"	Medium	30,000	1
08834163997	2"	Hard	30,000	1
08834164004	2"	Medium	30,000	1
08834163949	2"	Soft	30,000	1
08834163998	3"	Hard	20,000	1
08834164005	3"	Medium	20,000	1
08834163948	3"	Soft	20,000	1
08834164006	4"	Medium	15,000	1

All Quick-Change back-up pads have a 1/4" solid steel shank. Std. Pkg. = 1

## REPLACEMENT MEDIUM DENSITY RUBBER PADS FOR QUICK-CHANGE BACK-UP PADS

### Accessory

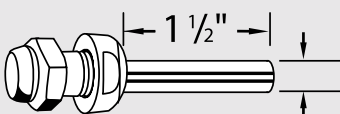


When the rubber pad has worn away, but the steel components of your quick-change back-up are still serviceable, order these replacement rubber pads.

PART #	DIAMETER	MODEL NO.	STD. PKG.
<b>TP (TYPE I)</b>			
08834164008	3/4"	RR75	1
08834164009	1"	RR10	1
08834164011	2"	RR20	1
08834164012	3"	RR30	1
08834164013	4"	RR40	1

## REPLACEMENT ASSEMBLIES AND SHANKS FOR QUICK-CHANGE BACK-UP PADS

### Accessory



Assemblies replace all the steel components of a quick-change back-up pad. This shank replaces the screw-in 1/4" solid steel shank only.

PART #	DESCRIPTION	STD. PKG.
<b>REPLACEMENT MANDRELS AND NUT ASSEMBLY</b>		
08834164015	TP (Type I) Assembly RMN1 for 3/4" - 2"	1
08834164016	TP (Type I) Assembly RMN3 for 3" - 4"	1
08834164303	TS (Type II) & TR (Type III) Replacement 1/4" Shank	1

## EXTENSION MANDRELS AND ASSEMBLY FOR QUICK-CHANGE DISCS

### Accessory

Convert a TP (Type I) back-up pad 1/4" diameter solid shank to a threaded shank.

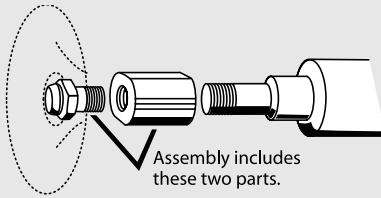


PART #	DIAMETER	MODEL NO.	LENGTH	STD. PKG.
<b>EXTENSION MANDRELS AND ASSEMBLY – TP (TYPE I)</b>				
08834164017	3/4 - 2	EMN-14	4"	1
08834164018	3/4 - 2	EMN-16	6"	1
08834164019	3/4 - 2	EMN-18	8"	1
08834164020	3 - 4	EMN-34	4"	1
08834164026	3 - 4	EMN-36	6"	1
08834164021	3 - 4	EMN-38	8"	1

## MNA-1 PAD ADAPTERS FOR QUICK-CHANGE DISCS

### Accessory

Convert a TP (Type I) back-up pad 1/4" diameter solid shank to a threaded shank.

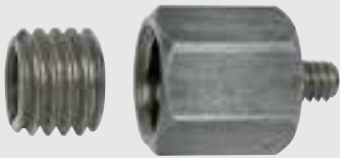


PART #	DISC DIAMETER	MODEL NO.	STD. PKG.
<b>MNA-1 PAD ADAPTERS – TP (TYPE I)</b>			
08834161176	3/4" - 2"	MNA 1/4-20 THD.	1
08834164055	3/4" - 2"	MNA 3/8-24	1
08834163001	3/4" - 2"	MNA 5/8-11	1
08834163002	3" - 4"	MNA 1/4-20	1
08834164041	3" - 4"	MNA 3/8-24	1
08834164028	3" - 4"	MNA 5/8-11	1

## MNA-23 PAD ADAPTERS FOR QUICK-CHANGE DISCS

### Accessory

For use on a right angle grinder: convert TS (Type II) and TR (Type III) back-up pad 1/4" diameter solid shanks to threaded shanks. The larger 5/8"-11 adapter (For 4-1/2" discs) is used alone to convert to a 5/8"-11 thread. The 3/8"-24 insert (for 4" discs) is screwed into the 5/8"-11 adapter to create a 3/8"-24 thread adapter.



PART #	DISC DIAMETER	MODEL NO.	STD. PKG.
<b>MNA-23 PAD ADAPTERS – TS (TYPE II) AND TR (TYPE III)</b>			
08834162764	3/4" - 4"	MNA-23 3/8-24 5/8"-11 THD.	1

## 1/4" DIAMETER EXTENSION MANDREL FOR QUICK-CHANGE DISCS

### Accessory

Use with TP (Type I), TS (Type II), or TR (Type III).



PART #	MODEL NO.	LENGTH	STD. PKG.
<b>1/4" DIAMETER EXTENSION MANDREL 1/4-20 THREAD</b>			
08834154185	EM-144	4"	1
08834154186	EM-146	6"	1
08834154187	EM-148	8"	1





**STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION**

MATERIAL	HEAVY-DUTY	GENERAL-DUTY
Aluminum	YP 1186 W, YP 0998 W, XP 0998 W	XP 0998 W, YP 0998 W
Brass/Bronze	YP 1186 W, YP 0998 W, XP 0998 W	
Carbon Steel	YP 1186 W, YP 2079 W	XP 0998 W, YP 0998 W
Cast Iron	YP 1186 W, YP 0998 W, XP 0998 W	
Die Castings	YP 0998 W, XP 0998 W	
Glass, Ceramic	YC 1186 O	
Inconel	YP 2079 W	
Stainless Steel & Alloys	YP 2079 W, YP 1186 W	XP 0998 W, YP 0998 W
Titanium	YP 2079 W	
Wood	YC 1186 O, YP 0998 W, XP 0998 W	XC 0776 O, XP 0998 W, YP 0998 W
RECOMMENDED GRIT SELECTION		
Rough/Heavy-Duty 24-50	Intermediate 60-100	Finishing/Polishing 120-180

**TROUBLESHOOTING GUIDE**

**SUGGESTED CORRECTION – CONTACT WHEELS**

PROBLEM	HARDER WHEEL	SOFTER WHEEL	LARGER GROOVE/ LAND	SMALLER GROOVE/ LAND	DRESS WHEEL	HIGHER SPEED	LOWER SPEED	STANDARD SERRATION	LARGER WHEEL	SMALLER WHEEL
Dulling	•		•				•			•
Loading			•							•
Over-aggressiveness		•		•				•	•	
Slow cutting	•		•			•				•
Scratches too deep		•		•				•	•	
Burning	•						•			
Non-conformity		•	•				•		•	
Dubbing edges	•									
Shedding (abrasives)		•		•	•	•		•	•	
Chatter		•						•	•	

**SUGGESTED CORRECTION – GENERAL**

PROBLEM	CORRECTION
Loading	Decrease infeed pressure or belt speed
Shedding	Reduce applied pressure Use a less aggressive contact wheel Dress contact wheel if worn or damaged Use entire surface of belt
Belt Breakage	Reduce belt tension Use less aggressive contact wheel Check tracking mechanism for belts tracking erratically
Reduced belt Life	Use coarser grit Reduce pressure



The choice for hard-to-grind alloys and heat-sensitive applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Patented ceramic alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Exceptional life and value</li> <li>Aggressive cut rate</li> <li>Sharpness maintained throughout life of the belt</li> </ul>
<ul style="list-style-type: none"> <li>Durable Y-weight polyester waterproof cloth backing</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain adhesion, reduced edge-fray and strong body retention result in longer life and product consistency</li> </ul>
<ul style="list-style-type: none"> <li>Grinding aid coating</li> </ul>	<ul style="list-style-type: none"> <li>Cooler cut, burn-free grinding of heat-sensitive materials</li> <li>Minimizes loading</li> </ul>

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>1/8" x 12"</b>				
05539554610	P36	YP 2079 W	10	10
05539554611	P40	YP 2079 W	10	10
05539554612	P60	YP 2079 W	10	10
05539554613	P80	YP 2079 W	10	10
<b>1/8" x 18"</b>				
05539554618	P36	YP 2079 W	10	10
05539554619	P40	YP 2079 W	10	10
05539554620	P60	YP 2079 W	10	10
05539554621	P80	YP 2079 W	10	10
<b>1/4" x 12"</b>				
05539554626	P36	YP 2079 W	10	10
05539554627	P40	YP 2079 W	10	10
05539554628	P60	YP 2079 W	10	10
05539554629	P80	YP 2079 W	10	10
<b>1/4" x 18"</b>				
05539554634	P36	YP 2079 W	10	10
05539554635	P40	YP 2079 W	10	10
05539554636	P60	YP 2079 W	10	10
05539554637	P80	YP 2079 W	10	10
<b>1/4" x 24"</b>				
05539554642	P36	YP 2079 W	10	10
05539554643	P40	YP 2079 W	10	10
05539554644	P60	YP 2079 W	10	10
05539554645	P80	YP 2079 W	10	10
<b>1/2" x 12"</b>				
05539554655	P36	YP 2079 W	10	10
05539554656	P40	YP 2079 W	10	10
05539554657	P50	YP 2079 W	10	10
05539554658	P60	YP 2079 W	10	10
05539554659	P80	YP 2079 W	10	10

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>1/2" x 18"</b>				
05539554665	P36	YP 2079 W	10	10
05539554666	P40	YP 2079 W	10	10
05539554667	P50	YP 2079 W	10	10
05539554668	P60	YP 2079 W	10	10
05539554669	P80	YP 2079 W	10	10
<b>1/2" x 24"</b>				
05539554676	P36	YP 2079 W	10	10
05539554677	P40	YP 2079 W	10	10
05539554678	P50	YP 2079 W	10	10
05539554679	P60	YP 2079 W	10	10
05539554680	P80	YP 2079 W	10	10
<b>3/4" x 18"</b>				
05539554686	P36	YP 2079 W	10	10
05539554687	P40	YP 2079 W	10	10
05539554688	P50	YP 2079 W	10	10
05539554689	P60	YP 2079 W	10	10
05539554690	P80	YP 2079 W	10	10
<b>3/4" x 20-1/2"</b>				
05539554696	P36	YP 2079 W	10	10
05539554697	P40	YP 2079 W	10	10
05539554698	P50	YP 2079 W	10	10
05539554699	P60	YP 2079 W	10	10
05539554700	P80	YP 2079 W	10	10



### techtip

A light-bodied grease applied to the belt surface will greatly enhance the belt life when grinding non-ferrous materials such as aluminum, brass, bronze and copper.



It is the user's responsibility to refer to and comply with ANSI B7.7





Designed for all metalworking, finishing and contour and shape sanding applications requiring flexibility and fray resistance.

FEATURES	BENEFITS
• Tough, P-graded, heat-treated aluminum oxide abrasive	• Aggressive yet cool cutting
• Full resin bond system	• Excellent edge adhesion
• Flexible, X- and Y-weight polyester backing	• Tear and fray resistance
• Butt tape joint	• Reversible, durable

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>1/8" x 12"</b>				
05539554606	P40	YP 0998 W	10	10
05539554607	P60	YP 0998 W	10	10
05539554608	P80	YP 0998 W	10	10
05539554609	P120	XP 0998 W	10	10
<b>1/8" x 18"</b>				
05539554614	P40	YP 0998 W	10	10
05539554615	P60	YP 0998 W	10	10
05539554616	P80	YP 0998 W	10	10
05539554617	P120	XP 0998 W	10	10
<b>1/4" x 12"</b>				
05539554622	P40	YP 0998 W	10	10
05539554623	P60	YP 0998 W	10	10
05539554624	P80	YP 0998 W	10	10
05539554625	P120	XP 0998 W	10	10
<b>1/4" x 18"</b>				
05539554630	P40	YP 0998 W	10	10
05539554631	P60	YP 0998 W	10	10
05539554632	P80	YP 0998 W	10	10
05539554633	P120	XP 0998 W	10	10
<b>1/4" x 24"</b>				
05539554638	P40	YP 0998 W	10	10
05539554639	P60	YP 0998 W	10	10
05539554640	P80	YP 0998 W	10	10
05539554641	P120	XP 0998 W	10	10
<b>3/8" x 13"</b>				
05539554646	P40	YP 0998 W	10	10
05539554647	P60	YP 0998 W	10	10
05539554648	P80	YP 0998 W	10	10
05539554649	P120	XP 0998 W	10	10
<b>1/2" x 12"</b>				
05539554650	P40	YP 0998 W	10	10
05539554651	P50	YP 0998 W	10	10
05539554652	P60	YP 0998 W	10	10
05539554653	P80	YP 0998 W	10	10
05539554654	P120	XP 0998 W	10	10
<b>1/2" x 18"</b>				
05539554660	P40	YP 0998 W	10	10
05539554661	P50	YP 0998 W	10	10
05539554662	P60	YP 0998 W	10	10
05539554663	P80	YP 0998 W	10	10
05539554664	P120	XP 0998 W	10	10

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>1/2" x 24"</b>				
05539554670	P40	YP 0998 W	10	10
05539554671	P50	YP 0998 W	10	10
05539554672	P60	YP 0998 W	10	10
05539554673	P80	YP 0998 W	10	10
05539554674	P100	XP 0998 W	10	10
05539554675	P120	XP 0998 W	10	10
<b>3/4" x 18"</b>				
05539554681	P40	YP 0998 W	10	10
05539554682	P50	YP 0998 W	10	10
05539554683	P60	YP 0998 W	10	10
05539554684	P80	YP 0998 W	10	10
05539554685	P120	XP 0998 W	10	10
<b>3/4" x 20-1/2"</b>				
05539554691	P40	YP 0998 W	10	10
05539554692	P50	YP 0998 W	10	10
05539554693	P60	YP 0998 W	10	10
05539554694	P80	YP 0998 W	10	10
05539554695	P120	XP 0998 W	10	10
<b>1" x 12"</b>				
05539554701	P40	YP 0998 W	10	10
05539554702	P50	YP 0998 W	10	10
05539554703	P60	YP 0998 W	10	10
05539554704	P80	YP 0998 W	10	10
05539554705	P120	XP 0998 W	10	10
<b>1" x 24"</b>				
05539554706	P40	YP 0998 W	10	10
05539554707	P50	YP 0998 W	10	10
05539554708	P60	YP 0998 W	10	10
05539554709	P80	YP 0998 W	10	10
05539554710	P120	XP 0998 W	10	10
<b>1" x 30"</b>				
05539554711	P40	YP 0998 W	10	10
05539554712	P50	YP 0998 W	10	10
05539554713	P60	YP 0998 W	10	10
05539554714	P80	YP 0998 W	10	10
05539554715	P120	XP 0998 W	10	10



## PREMIER RED PORTABLE BELTS

Better Tier / Zirconia Alumina Resin Cloth Open



Excellent for finishing wood and non-metallic materials.

FEATURES	BENEFITS
• Zirconia alumina abrasive	• Aggressive, rapid cut rate
• Y-weight cotton backing	• Extended life
• Open coat	• Reduced loading
• Butt tape joint	• Reversible, excellent durability
• Packaged in convenient, durable contractor packs	• Job specific labeling; easy product identification
	• Ideal for walk-in trade, showroom displays

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>3" x 21"</b>				
05539563668	36	YC 1186 O	5	25
05539554807	40	YC 1186 O	5	25
05539563667	50	YC 1186 O	5	25
05539554808	60	YC 1186 O	5	25
05539563666	80	YC 1186 O	5	25
05539563665	120	YC 1186 O	5	25
<b>3" x 24"</b>				
05539554817	40	YC 1186 O	5	25
05539563671	50	YC 1186 O	5	25
05539554818	60	YC 1186 O	5	25
05539563670	80	YC 1186 O	5	25
05539554819	100	YC 1186 O	5	25
05539563669	120	YC 1186 O	5	25

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>4" x 24"</b>				
05539563676	36	YC 1186 O	5	25
05539554828	40	YC 1186 O	5	25
05539563675	50	YC 1186 O	5	25
05539554829	60	YC 1186 O	5	25
05539563674	80	YC 1186 O	5	25
05539554830	100	YC 1186 O	5	25
05539563673	120	YC 1186 O	5	25



## ALUMINUM OXIDE PORTABLE BELTS

Good Tier / Aluminum Oxide Resin Waterproof Cloth



Ideal for sanding metal and all species of wood.

FEATURES	BENEFITS
• Aluminum oxide abrasive	• Tough and durable with aggressive cutting action
• Full resin bond system	• Increased strength
• Flexible, X- and Y-weight polyester backing	• Cool operating on platen sanders
• Butt tape joint	• Reversible, excellent durability

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>3" x 21"</b>				
05539554799	P36	YP 0998 W	5	25
05539554800	P40	YP 0998 W	5	25
05539554801	P50	YP 0998 W	5	25
05539554802	P60	YP 0998 W	5	25
05539554803	P80	YP 0998 W	5	25
05539554804	P100	XP 0998 W	5	25
05539554805	P120	XP 0998 W	5	25
05539554806	P150	XP 0998 W	5	25
<b>3" x 24"</b>				
05539554809	P36	YP 0998 W	5	25
05539554810	P40	YP 0998 W	5	25
05539554811	P50	YP 0998 W	5	25
05539554812	P60	YP 0998 W	5	25
05539554813	P80	YP 0998 W	5	25
05539554814	P100	XP 0998 W	5	25
05539554815	P120	XP 0998 W	5	25
05539554816	P150	XP 0998 W	5	25

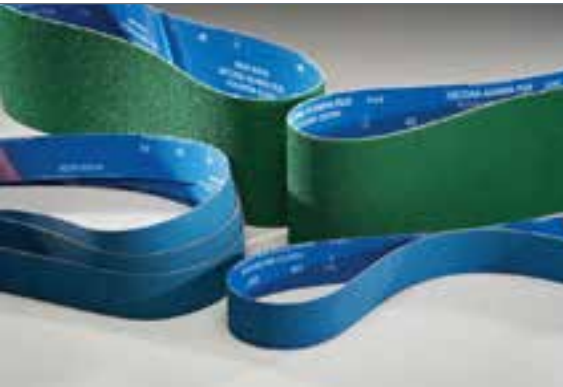


PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>4" x 24"</b>				
05539554820	P36	YP 0998 W	5	25
05539554821	P40	YP 0998 W	5	25
05539554822	P50	YP 0998 W	5	25
05539554823	P60	YP 0998 W	5	25
05539554824	P80	YP 0998 W	5	25
05539554825	P100	XP 0998 W	5	25
05539554826	P120	XP 0998 W	5	25
05539554827	P150	XP 0998 W	5	25



# PREMIER RED NARROW BELTS

Better Tier / Zirconia Alumina Resin Cloth



Excellent on ferrous and non-ferrous applications.

FEATURES	BENEFITS
• Zirconia alumina abrasive	• Aggressive, rapid cut rate
• Full resin bond system	• Increased strength
• Durable, Y-weight polyester backing	• Extended life
• YP 1288 R contains a grinding aid coating	• Cool grinding of heat-sensitive alloys (Inconel, titanium, stainless steel, etc.)
• Butt tape joint	• Reversible, excellent durability

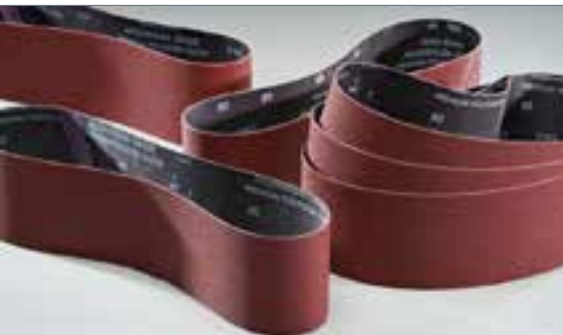
PART #	GRADING		BELTS/PKG.	BELTS/CASE
2" x 48"				
05539554739	P36	YP 1186 W	5	5
05539554740	P40	YP 1186 W	5	5
05539554741	P50	YP 1186 W	5	5
05539554742	P60	YP 1186 W	5	5
05539554743	P80	YP 1186 W	5	5

PART #	GRADING		BELTS/PKG.	BELTS/CASE
6" X 48"				
05539554850	P36	YP 1288 R	5	5
05539554851	P40	YP 1288 R	5	5
05539554852	P50	YP 1288 R	5	5
05539554853	P60	YP 1288 R	5	5
05539554854	P80	YP 1288 R	5	5
05539554855	P100	YP 1288 R	5	5
05539554856	P120	YP 1288 R	5	5



# ALUMINUM OXIDE NARROW BELTS

Good Tier / Aluminum Oxide Resin Waterproof Cloth



Ideal for operations requiring a belt specification that does not generate heat, but is capable of sanding a variety of materials. Closed coat for fast metal removal.

FEATURES	BENEFITS
• Aluminum oxide abrasive	• Versatile
• Full resin bond system	• Tough and durable with aggressive cutting action
• Flexible, X- and Y-weight polyester backing	• Increased strength
• Butt tape joint	• Cool operating on platen sanders
	• Reversible, durable

PART #	GRADING		BELTS/PKG.	BELTS/CASE
1" x 42"				
05539554716	P40	YP 0998 W	5	5
05539554717	P50	YP 0998 W	5	5
05539554718	P60	YP 0998 W	5	5
05539554719	P80	YP 0998 W	5	5
05539554720	P100	XP 0998 W	5	5
05539554721	P120	XP 0998 W	5	5
1-1/2" x 60"				
05539554722	P40	YP 0998 W	5	5
05539554723	P50	YP 0998 W	5	5
05539554724	P60	YP 0998 W	5	5
05539554725	P80	YP 0998 W	5	5
05539554726	P120	XP 0998 W	5	5
05539554727	P220	XP 0998 W	5	5

PART #	GRADING		BELTS/PKG.	BELTS/CASE
2" x 48"				
05539554728	P36	YP 0998 W	5	5
05539554729	P40	YP 0998 W	5	5
05539554730	P50	YP 0998 W	5	5
05539554731	P60	YP 0998 W	5	5
05539554732	P80	YP 0998 W	5	5
05539554733	P100	XP 0998 W	5	5
05539554734	P120	XP 0998 W	5	5
05539554735	P150	XP 0998 W	5	5
05539554736	P180	XP 0998 W	5	5
05539554737	P220	XP 0998 W	5	5
05539554738	P320	XP 0998 W	5	5

Continued on next page.



*Good Tier / Aluminum Oxide Resin Waterproof Cloth*

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>2" x 60"</b>				
05539554744	P36	YP 0998 W	5	5
05539554745	P40	YP 0998 W	5	5
05539554746	P50	YP 0998 W	5	5
05539554747	P60	YP 0998 W	5	5
05539554748	P80	YP 0998 W	5	5
05539554749	P120	XP 0998 W	5	5
05539554750	P150	XP 0998 W	5	5
05539554751	P180	XP 0998 W	5	5
05539554752	P220	XP 0998 W	5	5
05539554753	P320	XP 0998 W	5	5
05539554754	P400	XP 0998 W	5	5
<b>2" x 72"</b>				
05539554755	P36	YP 0998 W	5	5
05539554756	P40	YP 0998 W	5	5
05539554757	P50	YP 0998 W	5	5
05539554758	P60	YP 0998 W	5	5
05539554759	P80	YP 0998 W	5	5
05539554760	P120	XP 0998 W	5	5
<b>2-1/2" x 48"</b>				
05539554772	P36	YP 0998 W	5	5
05539554773	P40	YP 0998 W	5	5
05539554774	P50	YP 0998 W	5	5
05539554775	P60	YP 0998 W	5	5
05539554776	P80	YP 0998 W	5	5
05539554777	P120	XP 0998 W	5	5

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>2-1/2" x 60"</b>				
05539554778	P36	YP 0998 W	5	5
05539554779	P40	YP 0998 W	5	5
05539554780	P50	YP 0998 W	5	5
05539554781	P60	YP 0998 W	5	5
05539554782	P80	YP 0998 W	5	5
05539554783	P120	XP 0998 W	5	5
<b>4" x 36"</b>				
05539554832	P36	YP 0998 W	5	5
05539554833	P40	YP 0998 W	5	5
05539554834	P50	YP 0998 W	5	5
05539554835	P60	YP 0998 W	5	5
05539554836	P80	YP 0998 W	5	5
05539554837	P120	XP 0998 W	5	5
<b>6" x 48"</b>				
05539554843	P36	YP 0998 W	5	5
05539554844	P40	YP 0998 W	5	5
05539554845	P50	YP 0998 W	5	5
05539554846	P60	YP 0998 W	5	5
05539554847	P80	YP 0998 W	5	5
05539554848	P100	XP 0998 W	5	5
05539554849	P120	XP 0998 W	5	5



**MEDALIST NARROW BELTS**

*Best Tier / Ceramic Alumina Resin Waterproof Cloth*



The choice for hard-to-grind alloys and heat-sensitive applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Patented ceramic alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Exceptional life and value</li> <li>Aggressive cut rate</li> <li>Sharpness maintained throughout life of the belt</li> </ul>
<ul style="list-style-type: none"> <li>Durable Y-weight polyester waterproof cloth backing</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain adhesion, reduced edge-fray and strong body retention result in longer life and product consistency</li> </ul>
<ul style="list-style-type: none"> <li>Grinding aid coating</li> </ul>	<ul style="list-style-type: none"> <li>Cooler cut, burn-free grinding of heat-sensitive materials</li> <li>Minimizes loading</li> </ul>

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>2" x 132"</b>				
05539554767	P36	YP 2079 W	5	5
05539554768	P40	YP 2079 W	5	5
05539554769	P50	YP 2079 W	5	5
05539554770	P60	YP 2079 W	5	5
05539554771	P80	YP 2079 W	5	5

PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>3" x 132"</b>				
05539554790	P36	YP 2079 W	5	5
05539554791	P40	YP 2079 W	5	5
05539554792	P50	YP 2079 W	5	5
05539554793	P60	YP 2079 W	5	5
05539554794	P80	YP 2079 W	5	5



See FastTrack Belt Program on pages 65-66 for additional specifications and sizes.

**PREMIER RED NARROW BELTS**  
*Better Tier / Zirconia Alumina Resin Waterproof Cloth*



Applications include weld removal and the finishing of ferrous and non-ferrous materials. The choice for heaviest pressure applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Ultra tough, aggressive</li> <li>Self-sharpening, cool cutting</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Increased strength</li> </ul>
<ul style="list-style-type: none"> <li>Durable Y-weight polyester, waterproof cloth backing</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain adhesion, reduced edge-fray and strong body retention result in longer life and product consistency</li> </ul>
<ul style="list-style-type: none"> <li>Waterproof</li> </ul>	<ul style="list-style-type: none"> <li>Use wet or dry</li> </ul>

PART #	GRADING	BELTS/PKG.	BELTS/CASE
<b>3" x 132"</b>			
05539554795	P40 YP 1186 W	5	5
05539554796	P50 YP 1186 W	5	5
05539554797	P60 YP 1186 W	5	5
05539554798	P80 YP 1186 W	5	5



**ALUMINUM OXIDE NARROW BELTS**  
*Good Tier / Aluminum Oxide Resin Waterproof Cloth*



General purpose belt for sanding ferrous and non-ferrous materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Durable, with aggressive cutting action</li> <li>The economical choice for a wide range of applications</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Increased strength</li> </ul>
<ul style="list-style-type: none"> <li>Flexible X- and Y-weight polyester backing</li> </ul>	<ul style="list-style-type: none"> <li>Durable</li> <li>Resistant to heat</li> </ul>

PART #	GRADING	BELTS/PKG.	BELTS/CASE
<b>2" x 132"</b>			
05539554761	P36 YP 0998 W	5	5
05539554762	P40 YP 0998 W	5	5
05539554763	P50 YP 0998 W	5	5
05539554764	P60 YP 0998 W	5	5
05539554765	P80 YP 0998 W	5	5
05539554766	P120 XP 0998 W	5	5
<b>3" x 132"</b>			
05539554784	P36 YP 0998 W	5	5
05539554785	P40 YP 0998 W	5	5
05539554786	P50 YP 0998 W	5	5
05539554787	P60 YP 0998 W	5	5
05539554788	P80 YP 0998 W	5	5
05539554789	P120 XP 0998 W	5	5



PART #	GRADING	BELTS/PKG.	BELTS/CASE
<b>4" x 132"</b>			
05539554838	P36 YP 0998 W	5	5
05539554839	P40 YP 0998 W	5	5
05539554840	P60 YP 0998 W	5	5
05539554841	P80 YP 0998 W	5	5
05539554842	P100 XP 0998 W	5	5

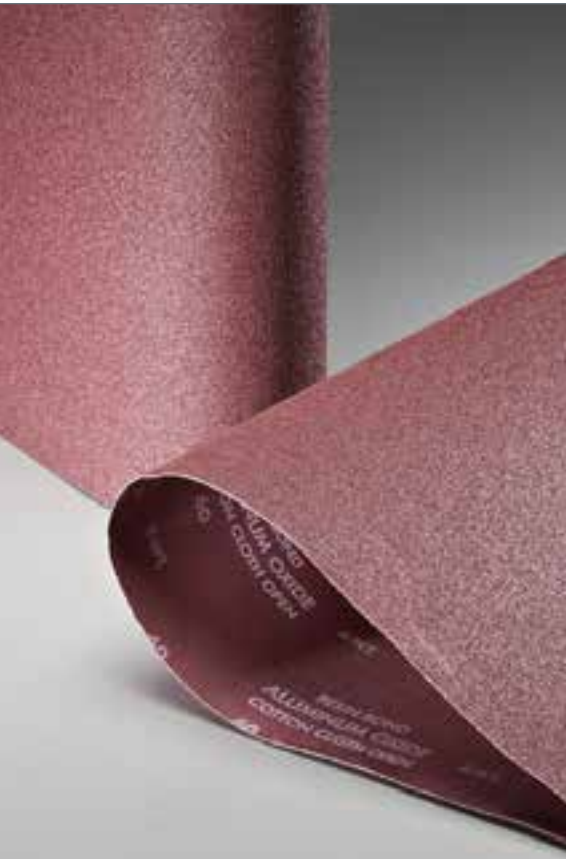
**BELT CLEANING STICK**  
*Accessory*



This solid rubber cleaning stick is designed to remove wood and other non-metallic materials that build up on narrow belts during use. Apply it to the face of the belt while running to remove unwanted materials and increase cut rate and overall life of the belt.

PART #	SIZE	STD. PKG.
05539514745	8 x 1-3/4 x 1-3/4	1

**ALUMINUM OXIDE WIDE BELTS**  
*Good Tier / Aluminum Oxide Resin Cloth Open*



Applications include finishing of wood and non-ferrous metals.

FEATURES	BENEFITS
• Light brown aluminum oxide abrasive	• Uniform scratch pattern
• Full resin bond system	• Increased strength
• X-weight cotton backing	• Resists loading
• Open coat	

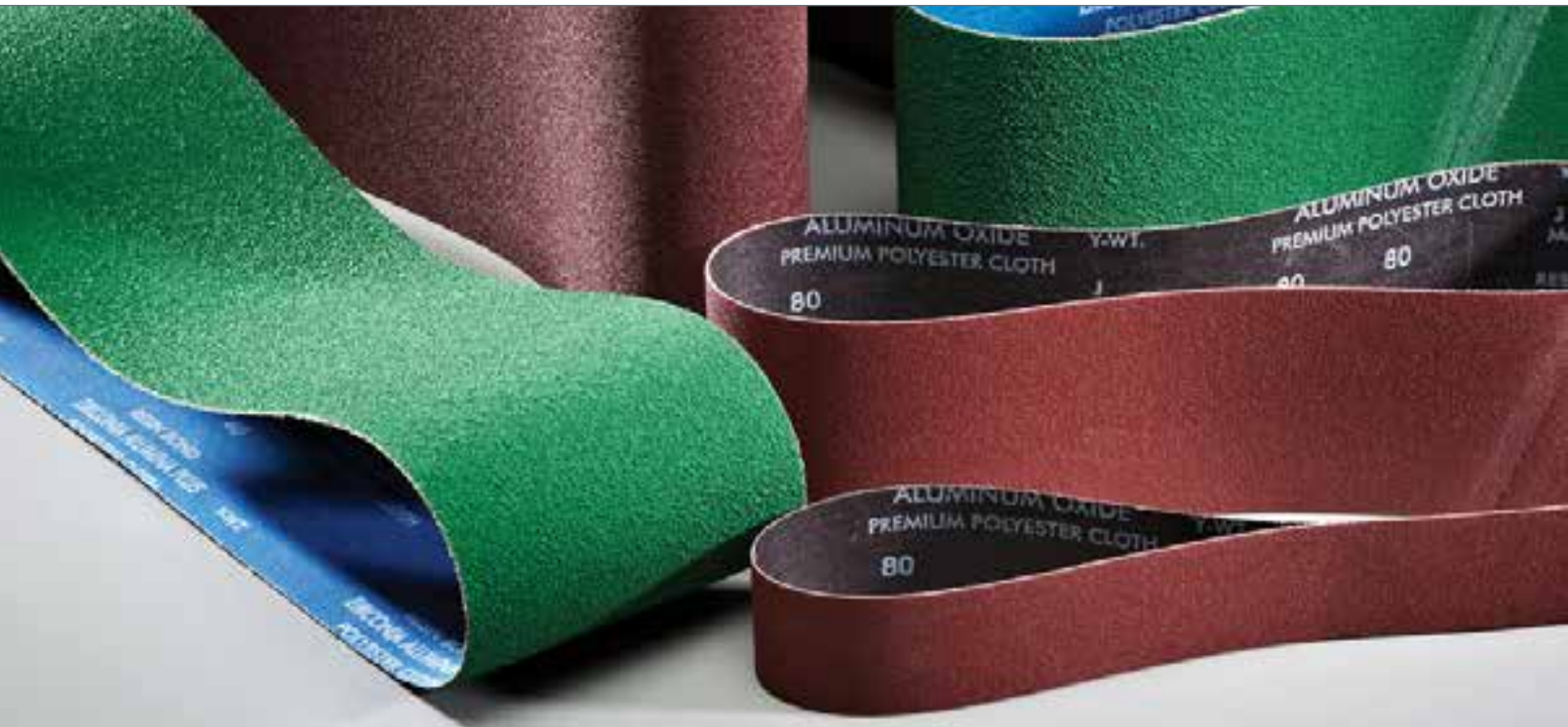
PART #	GRADING		BELTS/PKG.	BELTS/CASE
<b>25" x 75"</b>				
05539599963	80	XC 0776 O	3	3
<b>37" x 60"</b>				
05539599978	60	XC 0776 O	3	3
05539599977	80	XC 0776 O	3	3
05539599976	100	XC 0776 O	5	5
05539599975	120	XC 0776 O	5	5
05539599974	150	XC 0776 O	5	5
05539599973	180	XC 0776 O	5	5
<b>37" x 75"</b>				
05539599992	60	XC 0776 O	3	3
05539599991	80	XC 0776 O	3	3
05539599990	100	XC 0776 O	5	5
05539599989	120	XC 0776 O	5	5
05539599988	150	XC 0776 O	5	5
05539599987	180	XC 0776 O	5	5



**FastTRACK™**  
 SERVICE

See FastTrack Belt Program on pages 65-66 for additional specifications and sizes.





**Manufacturing lead-time is two days for narrow belts (1/2" – 12" wide) and three days for wide belts (14 – 52" wide). Please see the FastTrack chart below for complete details on availability and lead-times.**

Carborundum FastTrack Belt Service offers you all of the advantages of an ISO 9001 quality manufacturer and the advantages of a coated abrasive belt express service.

### PRODUCT AVAILABILITY

- Medalist
- PremRed
- Gold
- Gold X

### MANUFACTURING LEEWAY

- +/-10%

### SIZE AVAILABILITY

- Maximum width: 52"
- 1/2" and greater widths, for 25" and greater lengths

### NEW ONLINE IMMEDIATE BELT QUOTE TOOL!

- Check the FastTrack product availability on the next page
- Include a full description of belt required, including: quantity, dimensions, grit size, and FastTrack belt name: Medalist, PremRed, Gold or GoldX.
- Check splice and flex availability (on next page). FastTrack belt service is limited to standard joint and flex
- Verify that the quantity is within FastTrack limits
- Send order electronically, fax, or phone to customer service
- When ordering a belt that does not have an existing part number, please call Customer Service to expedite part number creation

### FASTTRACK ORDERING QUANTITIES AND LEAD-TIMES

WIDTH	GRIT SIZE	MINIMUM ORDER QUANTITY	CASE QUANTITY	MAXIMUM ORDER QTY. (EQUALS 2 CASES)	CONVERSION LEAD-TIME (DAYS)
<b>NARROW BELTS</b>					
1/2" through 1"	All	50	200	400	2
Over 1" through 5"	All	10	50	100	2
Over 5" through 9"	All	10	20	40	2
Over 9" through 14"	All	10	10	20	2
<b>WIDE BELTS</b>					
Over 14" through 20"	All	5	10	20	3
Over 20" through 52"	All	5	5	10	3

FastTrack belt service applies to belts 25" and greater in length

## FASTTRACK BELTS AVAILABILITY

TIER	ORDER AS*	GRIT SIZE	ABRASIVE GRAIN	BACKING	JOINT*	FLEX*	APPLICATIONS
<b>Best</b>	MEDALIST	24-80	Ceramic Alumina	Y-wt. Polyester	BJ	RR	Ceramic grain with special grinding aid, designed for grinding hard-to-grind alloys and heat-sensitive jobs
<b>Better</b>	PREMRED	24-120	Zirconia Alumina	Y-wt. Polyester	BJ	RR	Zirconia alumina grain, with grinding aid, for grinding heat-sensitive alloys: Inconel, titanium and stainless steel
<b>Good</b>	GOLD	P24-P80	Aluminum Oxide	Y-wt. Polyester	BJ	RR	Heat-treated aluminum oxide grain and strong polyester backing for ferrous and non ferrous materials
<b>Good</b>	GOLDX	P100-P400	Aluminum Oxide	X-wt. Polyester	BJ	RR	P-graded, heat-treated aluminum oxide grain and strong, and flexible polyester backing for ferrous and non ferrous materials

\*FastTrack belts are available in standard flex and joint: BJ = extra strong conventional butt joint; RR = horizontal flex lines (90 deg. angle to edge) for lengthwise flexibility.

## STOCK AND FASTTRACK BELT COMPETITIVE CROSS REFERENCE

CARBORUNDUM	3M	HERMES	VSM	KLINGSPOR	SIA	EKAMANT
<b>CERAMIC ALUMINUM OXIDE – CLOTH</b>						
MEDALIST (YP 2079 W)	963H, 960G, 960H, 970DZ, 984F, 761D, 761F, 777F, 951E, 741A, 747D, 977F, 967F, 987FI, 963G	CB440Y, RB426MX, CR456, CB441Z	SK750X, SK751X, SK840X, SK770X, SK847Y	CS612YY, CS610YY	—	—
<b>ZIRCONIA ALUMINA – CLOTH</b>						
PREMRED (YP 1288 RP)	590W, 562HZ, 591HZ, 561D, 563F, 591W, 960G, 960H, 741A, 577F, 567G, 561F, 551E, 741A, 741E, 761D, 761F, 777F, 977F	RB346-23MX, SB488Y OP, RB484Z, RB426-23MX, RB484TY, RB486X, RB486Y, RB480-21MX, CB440Y, RB486XF	ZK713X, KK717Y, KK715X, KK716Y, KK815Y, ZK744X, ZK713X	CS414YY, CS411X, CS411Y, CS409Y	C888 DP, 2800, 2803, 2929	UZA0X
<b>ALUMINUM OXIDE – CLOTH</b>						
GOLD (YP 0998 W)	363F, 261F, 361F, 353F	RB416Y, RB376TY, RB325X, SB378Y, SB378YR	KK711Y	CS412Y, CS341X	2982, C982 YP, 2803, 933A, 936A	UA0X
GOLDX (XP 0998 W)	270D, 270DZ, 272DZ, 260D, 362RZ, 201E, 203E, 204DZ, 212DZ, 240A, 240D, 240DZ, 231D, 241E, 261E, 311E, 331D, 351E, 353E, 200D, 200DZ, 330EZ, 340I, 241D, 251D, 261D, 248D, 707E	RB316 XOP, RB316-34XOP, RB232JF, CB432EJ, RB303 Flex, RB316 X-Flex, RB317LX, RB306JF, RB317J, RB316EJ, RB346MX, RB317JFW, RB406JF, RB306J, RB307JF, CB442EJ	KK504X, KK524X, KK511F, KK841F, KK524Y, KK524F, KK511X, KK532F, KK564F, KK711T, KK511J	CS311X, CS413Y, CS310X, LS309XH, CS310XF, CS311JF, LS312JF, LS309JF, LS319JF, CS311JF	C9030, C906YO, C903XO, 2820, 2828, 2920, C905X, C984XP, 2912, 2933, 2945, 2910, 2911, 2946, 2951, 2936	UA0X, RKX, PKJ, RKJ, RKJF, RKJFO, MKX, MKJFH, RKJFON

Ideal for cleaning and deburring metal surfaces. May be used dry or with oil.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, brown aluminum oxide abrasive</li> <li>• Advanced full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Tough and durable</li> <li>• Exceptional grain adhesion for longer life</li> </ul>
<ul style="list-style-type: none"> <li>• JCF 0852: orange J-weight backing with increased flexibility</li> <li>• Dispenser boxed</li> </ul>	<ul style="list-style-type: none"> <li>• Superior conformability to complex surfaces and better finishes</li> <li>• Convenience; cut or tear to length</li> </ul>



PART #	GRADING		ROLLS/PKG.	ROLLS/CASE
<b>1" x 10 YARDS – HANDY ROLLS</b>				
05539529317	P80	JCF 0852	1	5
05539529316	P100	JCF 0852	1	5
05539529315	P120	JCF 0852	1	5
05539529314	P150	JCF 0852	1	5
05539529313	P180	JCF 0852	1	5
05539529312	P240	JCF 0852	1	5
05539529311	P320	JCF 0852	1	5
<b>1" x 50 YARDS – ECONOMY ROLLS</b>				
05539510141	P60	XC 0851	1	5
05539529328	P80	JCF 0852	1	5
05539529327	P100	JCF 0852	1	5
05539529326	P120	JCF 0852	1	5
05539529325	P150	JCF 0852	1	5
05539529324	P180	JCF 0852	1	5
05539529323	P220	JCF 0852	1	5
05539529322	P240	JCF 0852	1	5
05539529321	P280	JCF 0852	1	5
05539529320	P320	JCF 0852	1	5
05539529319	P400	JCF 0852	1	5
05539529318	P600	JCF 0852	1	5
<b>1-1/2" x 50 YARDS – ECONOMY ROLLS</b>				
05539510945	P50	XC 0851	1	5
05539510947	P60	XC 0851	1	5
05539529339	P80	JCF 0852	1	5
05539529338	P100	JCF 0852	1	5
05539529337	P120	JCF 0852	1	5
05539529336	P150	JCF 0852	1	5
05539529335	P180	JCF 0852	1	5
05539529334	P220	JCF 0852	1	5
05539529333	P240	JCF 0852	1	5
05539529332	P280	JCF 0852	1	5
05539529331	P320	JCF 0852	1	5
05539529330	P400	JCF 0852	1	5
05539529329	P600	JCF 0852	1	5

PART #	GRADING		ROLLS/PKG.	ROLLS/CASE
<b>2" x 50 YARDS – ECONOMY ROLLS</b>				
05539510585	P40	XC 0851	1	5
05539511102	P50	XC 0851	1	5
05539510340	P60	XC 0851	1	5
05539529350	P80	JCF 0852	1	5
05539529349	P100	JCF 0852	1	5
05539529348	P120	JCF 0852	1	5
05539529347	P150	JCF 0852	1	5
05539529346	P180	JCF 0852	1	5
05539529345	P220	JCF 0852	1	5
05539529344	P240	JCF 0852	1	5
05539529343	P280	JCF 0852	1	5
05539529342	P320	JCF 0852	1	5
05539529341	P400	JCF 0852	1	5
05539529340	P600	JCF 0852	1	5



### techtip

Use light machine oil with cloth rolls as a lubricant for finer finishes and quicker cut.

**!** It is the user's responsibility to refer to and comply with ANSI B7.7



### QUANTITY AVAILABILITY

WIDTH	MINIMUM QUANTITY	MAXIMUM QUANTITY
2" to 9"	5 rolls	10 rolls
>9" to 11"	4 rolls	8 rolls
>11" to 12"	3 rolls	6 rolls

Length = 50 yards for all FastTrack Rolls

### CONVERSION TIME SIZE AVAILABILITY

- 5 days
- Widths: 2" – 12"
- Lengths: 50 yards

### ORDERING IS EASY!

- Call your distributor for FastTrack roll guidelines.
- Include a full description of roll required, including: size, specification, grit size and quantity

**MEDALIST GRIP-ON PAPER ROLLS**  
 Best Tier / Ceramic Alumina Dri-Lube Resin Paper Open



Best choice for paints, primers, plastics, fiberglass, wood and sealer sanding.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Medalist ceramic alumina abrasive, P80 - P600</li> </ul>	<ul style="list-style-type: none"> <li>• Fastest cut rate even on hard-to-sand surfaces</li> <li>• Extended life – up to 2:1 over conventional discs</li> <li>• Broadest ceramic grit range available</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest disc life</li> </ul>
<ul style="list-style-type: none"> <li>• Unique fiber-reinforced, flexible B- and C-weight latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% - 60% improvement in tear resistance, superior resistance to delamination</li> <li>• Durable, yet flexible</li> </ul>
<ul style="list-style-type: none"> <li>• Special undyed stearate oversize</li> </ul>	<ul style="list-style-type: none"> <li>• Superior load resistance</li> <li>• No color transfer to work</li> </ul>
<ul style="list-style-type: none"> <li>• Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>• Neat, clean application and removal</li> <li>• Can be re-used</li> </ul>
<ul style="list-style-type: none"> <li>• Laser perforated every 2-3/4"</li> </ul>	<ul style="list-style-type: none"> <li>• Easy tearing into multiple popular lengths</li> </ul>

PART #	GRADING	ROLLS/PKG.	ROLLS/CASE
<b>2-3/4" x 13 YARDS</b>			
05539599570	P80 C 2312 DO	1	4
05539599568	P120 C 2312 DO	1	4
05539599567	P150 B 2312 DO	1	4
05539599566	P180 B 2312 DO	1	4
05539599565	P220 B 2312 DO	1	4
05539599564	P320 B 2312 DO	1	4
05539599590	P400 B 2312 DO	1	4
05539599591	P500 B 2312 DO	1	4
05539599592	P600 B 2312 DO	1	4



**MERIT GRIP-ON PAPER ROLLS**  
 Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open

**PB273**



Good choice for sanding paints, primers, plastics, and fiberglass, as well as whitewood sanding, clean-up, and repair – at a low initial price.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, sharp, light-brown aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Fast cut rate, extended life, and consistent finish</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest life</li> </ul>
<ul style="list-style-type: none"> <li>• Premium B-weight latex-saturated, high-internal-bond paper backing</li> </ul>	<ul style="list-style-type: none"> <li>• Improved resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>• Water-based stearate anti-loading oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Improved load resistance on a broad range of substrates</li> </ul>
<ul style="list-style-type: none"> <li>• No pigment in anti-load oversize or bond</li> </ul>	<ul style="list-style-type: none"> <li>• No risk of color transfer, stronger bond</li> </ul>
<ul style="list-style-type: none"> <li>• Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>• Neat, clean application and removal</li> </ul>

PART #	GRADING	ROLLS/PKG.	ROLLS/CASE
<b>3" x 12 YARDS</b>			
66623345609	P80 PB273	1	4
66623334493	P120 PB273	1	4
66623334494	P150 PB273	1	4
66623334495	P180 PB273	1	4
66623345611	P220 PB273	1	4
66623335601	P320 PB273	1	4
66623345612	P400 PB273	1	4





**PREMIER RED** STICK-ON PAPER ROLLS  
Better Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Best choice for paints, primers, plastics, fiberglass, wood and sealer sanding.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• P-graded, heat-treated, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Consistent scratch pattern and finish</li> </ul>
<ul style="list-style-type: none"> <li>• Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain adhesion and longest life</li> </ul>
<ul style="list-style-type: none"> <li>• Unique fiber-reinforced, B-weight, latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% – 60% improvement in tear strength, superior resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>• PSA (pressure sensitive adhesive) backing</li> </ul>	<ul style="list-style-type: none"> <li>• Easy application and removal</li> </ul>
<ul style="list-style-type: none"> <li>• Special, undyed stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Superior load resistance</li> <li>• No color transfer to work</li> </ul>

PART #	GRADING	ROLLS/PKG.	ROLLS/CASE
<b>2-3/4" x 25 YARDS</b>			
05539520340	P80 B 0912 DO	1	5
<b>2-3/4" x 30 YARDS</b>			
05539520339	P100 B 0912 DO	1	5
05539520338	P120 B 0912 DO	1	5
<b>2-3/4" x 45 YARDS</b>			
05539520337	P150 B 0912 DO	1	5
05539520336	P180 B 0912 DO	1	5
05539520335	P220 B 0912 DO	1	5
05539520334	P240 B 0912 DO	1	5
05539520333	P320 B 0912 DO	1	5
05539520332	P400 B 0912 DO	1	5

PART #	GRADING	ROLLS/PKG.	ROLLS/CASE
<b>4-1/2" x 10 YARDS</b>			
05539561116	P80 B 0912 DO	1	5
05539561114	P120 B 0912 DO	1	5
05539561113	P150 B 0912 DO	1	5
05539561112	P180 B 0912 DO	1	5
05539561111	P220 B 0912 DO	1	5



**CARBO GOLD** STICK-ON PAPER ROLLS  
Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Ideal for sanding paints, primers, plastics and fiberglass as well as whitewood sanding, clean-up and repair.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Premium, P-graded, light brown aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Fast cut, long life</li> </ul>
<ul style="list-style-type: none"> <li>• Durable, C-weight backing</li> </ul>	<ul style="list-style-type: none"> <li>• High tear resistance</li> </ul>
<ul style="list-style-type: none"> <li>• PSA (pressure sensitive adhesive) backing</li> </ul>	<ul style="list-style-type: none"> <li>• Easy application and removal</li> </ul>
<ul style="list-style-type: none"> <li>• Special, water-based stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent load resistance</li> </ul>

PART #	GRADING	ROLLS/PKG.	ROLLS/CASE
<b>2-3/4" x 20 YARDS</b>			
05539570528	P80 C 0712 DO	1	5

PART #	GRADING	ROLLS/PKG.	ROLLS/CASE
<b>2-3/4" x 25 YARDS</b>			
05539570527	P150 C 0712 DO	1	5
05539570526	P180 C 0712 DO	1	5
05539570525	P220 C 0712 DO	1	5
05539570524	P320 C 0712 DO	1	5
05539570523	P400 C 0712 DO	1	5



DISPENSER FOR STICK-ON ROLLS



This portable Stick-On roll dispenser is a convenient way to unwind the rolls and tear to the desired length. It can be used with all 2-3/4" PSA Stick-On rolls.

PART #	DESCRIPTION	DISPENSERS/CASE
<b>STICK-ON ROLL DISPENSER</b>		
05539520523	Stick-On Roll Dispenser	1





**PAPER SHEET COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	3M	HERMES	KLINGSPOR	MIRKA	SIA	VSM
<b>A 0311 O</b>	110N	–	–	–	–	–
<b>A 0811 O</b>	210N, 210U	HFB	PL31	–	–	–
<b>BF 0415 W</b>	401Q	WSFlex18B	PS11	Waterproof (A)	–	CP918A
<b>BF 0416 W</b>	413Q	WSFlex18B	PS11	Waterproof (A)	–	CP918A
<b>B 0412 DO</b>	414N, 415N, 415U, 426U	PSF-LL, SA168	PL35	CaratFlex, FineFlex	1748	CP131A
<b>B 0912 DO, B 0712 DO</b>	214U, 216U, 334U, 734U	HC133, HCAB	PS33	Royal, Royal Micro	1950 Siaspeed	–
<b>BF 0916 W, BF 0716 W</b>	213Q	–	PS12	–	–	–
<b>C 0311 O</b>	130N	GCAB	–	–	–	–
<b>C 0414 W</b>	438Q, 431Q	WSFlex18C	PS11	–	–	CP918C
<b>C 0811 O</b>	230N	HFB	PL31	–	–	KP31B
<b>D 0311 O</b>	140N	GCAB	–	–	–	–
<b>D 0811 O</b>	230U, 240N, 346U	–	–	–	–	KP31C

**PAPER SHEET STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION**

MATERIAL	BEST PERFORMANCE	GENERAL DUTY
<b>Unfinished Metal</b>	B 0912 DO / B 0712 DO	D 0811 O, C 0811 O, A 0811 O, PB273
<b>Primed and Painted Surfaces</b>	B 0912 DO / B 0712 DO	D 0811 O, C 0811 O, A 0811 O, PB273
<b>Fiberglass / Composites</b>	B 0912 DO / B 0712 DO	PB273
<b>Bare Wood</b>	B 0912 DO / B 0712 DO	A 0311 O, C 0311 O, D 0311 O, D 0811 O, C 0811 O, A 0811 O
<b>Clear Coat Sanding</b>	BF 0415 W	–
<b>Sealer Sanding</b>	B 0912 DO / B 0712 DO	B 0412 DO, PB273
<b>Lacquer Sanding</b>	BF 0415 W, BF 0416 W	C 0414 W, B 0912 DO / B 0712 DO, BF 0916 W
<b>Wet Sanding</b>	BF 0415 W, BF 0416 W	C 0414 W, B 0912 DO / B 0712 DO, BF 0916 W
<b>Paint Stripping</b>	B 0912 DO / B 0712 DO	–

**CLOTH SHEET COMPETITIVE CROSS REFERENCE**

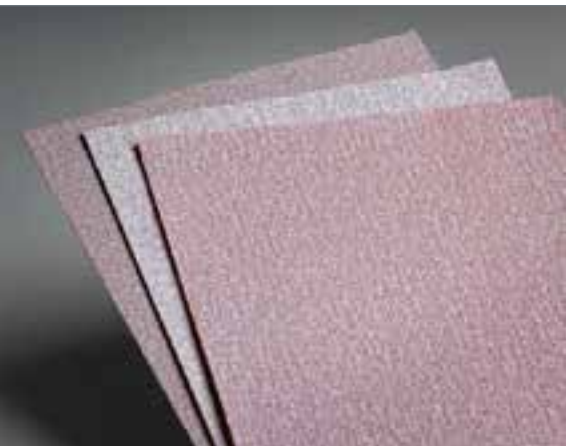
CARBORUNDUM	3M	HERMES	KLINGSPOR	SIA	VSM
<b>JC 0250</b>	011K Crystal Bay	–	KL371	C680J	–
<b>XC 0851</b>	311T Three-M-lte BG, 211K Electrocut	RB317LX	CS310X	–	KK504X
<b>JCF 0852</b>	211K Three-M-lte, 311K Three-M-lte	RB232J	KL361	2947J	KK504J KK504X
<b>M 0405 W</b>	481W	–	–	–	–

**CLOTH SHEET STARTING RECOMMENDATIONS**

CUT RATE	FINISH	SPEC
<b>Waterproof</b>	Load Resistant	M 0405 W
<b>Fast Cut</b>	General Finish	JCF 0852
<b>Slow Cut</b>	Fine Finish	JC 0250

# PREMIER RED PAPER SHEETS

Best Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Ultimate choice for machine and hand sanding of paints, primers, light metals and basecoat/clearcoat paints.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>P-graded, heat-treated, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Consistent finish without a deep scratch</li> <li>30% to 50% faster cut rate than conventional aluminum oxide sheets</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Improved grain adhesion and longest life</li> </ul>
<ul style="list-style-type: none"> <li>Unique fiber-reinforced, B-weight, latex-saturated backing</li> </ul>	<ul style="list-style-type: none"> <li>50% – 60% improvement in tear strength, superior resistance to delamination</li> <li>Durable, yet flexible</li> </ul>
<ul style="list-style-type: none"> <li>Special, undyed stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>Superior load resistance and extended life</li> <li>No color transfer to work</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
9" x 11"				
05539520538	P80	B 0912 DO	50	250
05539520537	P100	B 0912 DO	100	500
05539520536	P120	B 0912 DO	100	500
05539520535	P150	B 0912 DO	100	500
05539520534	P180	B 0912 DO	100	500
05539520533	P220	B 0912 DO	100	500
05539520532	P240	B 0912 DO	100	500
05539520531	P280	B 0912 DO	100	500
05539520530	P320	B 0912 DO	100	500
05539520529	P400	B 0912 DO	100	500

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
9" x 11" (CONTINUED)				
05539563785	P500	B 0912 DO	100	500
05539520528	P600	B 0912 DO	100	500
05539514148	P800	B 0712 DO	100	500
05539520527	P1000	B 0712 DO	100	500
05539520526	P1200	B 0712 DO	100	500



# MERIT PB273 PAPER SHEETS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Good choice for sanding paint, primer, plastics, and fiberglass, as well as whitewood sanding, clean-up, and repair – at a low initial price.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>P-graded, sharp, light-brown aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate, extended life, and consistent finish</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Improved grain adhesion and longest life</li> </ul>
<ul style="list-style-type: none"> <li>Premium B-weight latex-saturated, high-internal-bond paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Improved resistance to delamination</li> </ul>
<ul style="list-style-type: none"> <li>Water-based stearate anti-loading oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>Improved load resistance on a broad range of substrates</li> </ul>
<ul style="list-style-type: none"> <li>No pigment in anti-load oversize or bond</li> </ul>	<ul style="list-style-type: none"> <li>No risk of color transfer, stronger bond</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
9" x 11"				
66623311878	P80	PB273	50	250
66623311877	P100	PB273	100	500
66623311876	P120	PB273	100	500
66623311875	P150	PB273	100	500
66623311874	P180	PB273	100	500
66623311873	P220	PB273	100	500
66623311879	P240	PB273	100	500
66623311871	P320	PB273	100	500
66623311870	P400	PB273	100	500



# SILICON CARBIDE PAPER SHEETS

Better Tier / Silicon Carbide Dri-Lube Resin Paper Open

CARBO™



For hand and machine sanding paint and primer, as well as whitewood clean-up and sealer sanding.

FEATURES	BENEFITS
• P-graded silicon carbide abrasive	• Sharp cut, excellent finish
• Full resin bond system	• Improved grain adhesion and longest life
• Flexible B-weight latex-saturated paper	• Increased flexibility and tear strength
• Stearate oversize	• Improved load resistance

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539510819	80	B 0412 DO	50	250
05539510818	100	B 0412 DO	100	500
05539510817	120	B 0412 DO	100	500
05539510816	150	B 0412 DO	100	500
05539510815	180	B 0412 DO	100	500
05539510814	220	B 0412 DO	100	500
05539510813	240	B 0412 DO	100	500
05539510812	280	B 0412 DO	100	500
05539510810	320	B 0412 DO	100	500
05539510808	400	B 0412 DO	100	500



# PREMIER RED MIRROR FINISH PAPER SHEETS

Best Tier / Aluminum Oxide Resin Waterproof Paper

CARBO™  
**MIRROR**  
finish™



Ideal for removing surface imperfections in acrylic lacquers, enamels, urethanes and clearcoats. Use wet for best results.

FEATURES	BENEFITS
• Premium, P-graded, heat-treated aluminum oxide abrasive	• Ultimate cut and life in wet applications
• Strong, resin bond system	• Long life in wet applications
• B-weight, high-latex, waterproof paper backing	• Ultimate flexibility
	• Wet-curl resistance
	• Environmentally stable, resists humidity-caused curling

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539563888	P220	BF 0916 W	5	250
05539563887	P240	BF 0916 W	5	250
05539563885	P320	BF 0916 W	5	250
05539563884	P400	BF 0916 W	5	250
05539563883	P500	BF 0916 W	5	250
05539563882	P600	BF 0916 W	5	250
05539563881	P800	BF 0716 W	5	250



# PREMIER RED MIRROR FINISH PAPER SHEETS

Best Tier / Silicon Carbide Resin Waterproof Paper



Ideal for producing very fine finishes in wet applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium, ultra fine (1000-2000 grits), silicon carbide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Ultimate finish in wet applications</li> <li>Higher cut rate and improved life</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Longer life in wet applications</li> </ul>
<ul style="list-style-type: none"> <li>Extremely flexible B-weight waterproof paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Much improved wet-curl resistance</li> <li>Environmentally stable; resists humidity-caused curling</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539563880	1000	BF 0415 W	50	250
05539563879	1200	BF 0415 W	50	250
05539563878	1500	BF 0415 W	50	250
05539563877	2000	BF 0415 W	50	250



# SILICON CARBIDE PAPER SHEETS

Better Tier / Silicon Carbide Resin Waterproof Paper



Exceptional finishing in wet applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Sharp, strong silicon carbide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Exceptional finishes in wet applications</li> </ul>
<ul style="list-style-type: none"> <li>Full resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Longer life in wet applications</li> </ul>
<ul style="list-style-type: none"> <li>Extremely flexible, B-weight waterproof paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Improved wet-curl resistance</li> <li>Environmentally stable: resists humidity-caused curling</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539563866	220	BF 0416 W	50	250
05539563865	240	BF 0416 W	50	250
05539563864	280	BF 0416 W	50	250
05539563863	320	BF 0416 W	50	250
05539563862	360	BF 0416 W	50	250
05539563861	400	BF 0416 W	50	250
05539563860	500	BF 0416 W	50	250
05539563859	600	BF 0416 W	50	250



# SILICON CARBIDE PAPER SHEETS

Good Tier / Silicon Carbide Resin Waterproof Paper



May be used wet or dry on plastic or painted surfaces. Best results are obtained when used wet. Excellent for machine and hand rubbing of lacquer, urethane and varathane between coats. Ideal for obtaining fine finishes and feather-edging painted surfaces.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Silicon carbide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for finish sanding</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Excellent grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>Strong waterproof paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Resistance to deterioration when used wet</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539510798	60	C 0414 W	50	250
05539510797	80	C 0414 W	50	250
05539510796	100	C 0414 W	50	250
05539510795	120	C 0414 W	50	250
05539510794	150	C 0414 W	50	250
05539510793	180	C 0414 W	50	250





## ALUMINUM OXIDE PAPER SHEETS

Good Tier / Aluminum Oxide Paper Open

CARBO™



Ideal for general-duty dry sanding of paint, primers, light metals and woods.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>P-graded, aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Tough and durable</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
9" x 11"				
05539510876	P36	D 0811 O	25	125
05539510875	P40	D 0811 O	25	125
05539510874	P50	D 0811 O	50	250
05539510873	P60	C 0811 O	50	250
05539510872	P80	C 0811 O	50	250
05539510871	P100	C 0811 O	100	500
05539510870	P120	C 0811 O	100	500
05539510868	P150	C 0811 O	100	500
05539510862	P180	A 0811 O	100	500
05539510861	P220	A 0811 O	100	500



## GARNET PAPER SHEETS

Good Tier / Garnet Paper Open

CARBO™



For hand and machine sanding of whitewood.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Natural garnet abrasive</li> <li>Unique bond system</li> </ul>	<ul style="list-style-type: none"> <li>Sharp and consistent cutting action</li> <li>Durable</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
9" x 11"				
05539510854	50	D 0311 O	50	250*
05539510853	60	C 0311 O	50	250
05539510852	80	C 0311 O	50	250
05539510851	100	C 0311 O	100	500
05539510850	120	C 0311 O	100	500
05539510849	150	C 0311 O	100	500
05539510848	80	A 0311 O	50	250
05539510847	100	A 0311 O	100	500
05539510846	120	A 0311 O	100	500
05539510845	150	A 0311 O	100	500
05539510844	180	A 0311 O	100	500
05539510843	220	A 0311 O	100	500



## EMERY CLOTH SHEETS

Good Tier / Emery Cloth

CARBO™



Used for removing light burrs and cleaning and polishing metals. May be used dry or with oil.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Natural emery abrasive</li> <li>Flexible, cotton backing</li> </ul>	<ul style="list-style-type: none"> <li>Soft by nature, for light abrading and sanding</li> <li>Follows shapes and contours</li> </ul>

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
9" x 11"				
05539510887	Coarse	JC 0250	25	125
05539510886	Medium	JC 0250	50	250
05539510885	Fine	JC 0250	50	250





# ALUMINUM OXIDE CLOTH SHEETS

Good Tier / Aluminum Oxide Resin Cloth

CARBO™



Ideal for hand sanding, deburring, polishing and removing cutting tool marks on all metal parts.

FEATURES	BENEFITS
• P-graded, aluminum oxide abrasive	• Tough and durable
• Advanced full resin bond system	• Exceptional grain adhesion for long life
• JCF 0852: orange, J-weight backing with increased flexibility	• Superior conformability to complex surfaces and better finishes

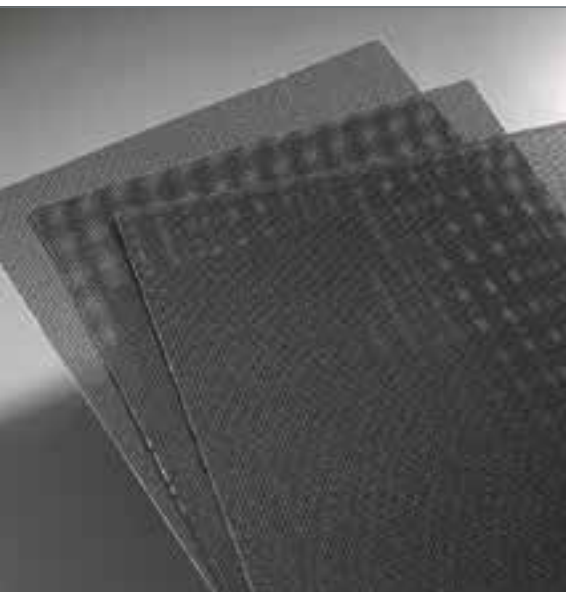
PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539510988	P40	XC 0851	25	125
05539511103	P50	XC 0851	25	125
05539511143	P60	XC 0851	25	125
05539529361	P80	JCF 0852	25	125
05539529360	P100	JCF 0852	50	250
05539529359	P120	JCF 0852	50	250
05539529358	P150	JCF 0852	50	250
05539529357	P180	JCF 0852	50	250
05539529356	P220	JCF 0852	50	250
05539529355	P240	JCF 0852	50	250
05539529354	P280	JCF 0852	50	250
05539529353	P320	JCF 0852	50	250
05539529352	P400	JCF 0852	50	250
05539563813	P500	JCF 0851	50	250
05539529351	P600	JCF 0852	50	250



# SILICON CARBIDE SANDSCREEN SHEETS

Good Tier / Silicon Carbide Waterproof Resin Sandscreen

CARBO™



Ideally suited for floorsanding, drywall, ceramics and wet deck sanding. May be used wet or dry.

FEATURES	BENEFITS
• Black, silicon carbide abrasive	• Very sharp and hard, but brittle
• P-graded in 220 and coarser grits	• Provides consistent finishes
• Full resin bond system	• Maximum grain adhesion
• Screen backing	• Load resistant
	• Both sides are usable

PART #	GRADING		SHEETS/PKG.	SHEETS/CASE
<b>9" x 11"</b>				
05539512316	P80	M 0405 W	25	125
05539512315	P100	M 0405 W	25	125
05539512314	P120	M 0405 W	25	125
05539512313	P150	M 0405 W	25	125
05539512312	P180	M 0405 W	25	125
05539512310	P220	M 0405 W	25	125
05539512308	320	M 0405 W	25	125
05539512307	400	M 0405 W	25	125



## TechTip

Use light machine oil with cloth sheets as a lubricant for finer finishes and quicker cut.



It is the user's responsibility to refer to and comply with ANSI B7.7



**PREMIER RED** STICK-ON MARINE FILE STRIPS

*Better Tier / Zirconia Alumina Resin Paper Open*



Best choice for blending and shaping all types of marine fillers.

FEATURES		BENEFITS	
• Premium zirconia alumina abrasive	• Full phenolic resin bond system plus latex	• Fast removal rates	• Extended life
• E-weight, latex paper backing	• PSA (pressure sensitive adhesive) backing	• Maximum durability plus flexibility	• Excellent grain adhesion
		• Reduced edge shed	• Flexible
		• Easy application and removal	

PART #	GRADING		STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 16-1/2"</b>				
05539521338	36	E 1214 0	50	250
05539521337	40	E 1214 0	50	250
05539521336	80	E 1214 0	50	250

For use with File Board #05539512013 on page 79.



**PREMIER RED** VACUUM STICK-ON MARINE FILE STRIPS

*Better Tier / Zirconia Alumina Resin Paper Open*



Best choice for blending and shaping all types of marine fillers.

FEATURES		BENEFITS	
• Premium zirconia alumina abrasive	• Full phenolic resin bond system plus latex	• Fast removal rates	• Extended life
• E-weight, latex paper backing	• PSA backing	• Maximum durability plus flexibility	• Excellent grain adhesion
• Vacuum holes		• Reduced edge shed	• Flexible
		• Easy application and removal	• Dust-free sanding environment

PART #	GRADING		STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 16" VACUUM D-3364</b>				
05539521339	80	E 1214 0	50	250

Die 3364: 0.5" diameter holes; 9 sets of 2 holes on either side of strip, spaced equally from center at 1.750" apart (14" total)



## PREMIER RED GRIP-ON MARINE FILE STRIPS

Better Tier / Zirconia Alumina Resin Paper Open



Best choice for blending and shaping all types of marine fillers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> <li>Full phenolic resin bond system plus latex</li> </ul>	<ul style="list-style-type: none"> <li>Fast removal rates with extended life</li> <li>Maximum durability plus flexibility</li> <li>Excellent grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>E-weight, latex paper backing</li> <li>Hook and loop fastening system</li> </ul>	<ul style="list-style-type: none"> <li>Flexible; reduced edge shed</li> <li>Easy application and removal; can be re-used</li> </ul>

PART #	GRADING	STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 16-1/2"</b>			
05539521344	36 E 1214 O	25	125
05539521343	40 E 1214 O	25	125
05539521342	80 E 1214 O	25	125

For use with File Board 05539512014 and File Shoe 05539512015 on page 79.



## PREMIER RED GRIP-ON MARINE FILE STRIPS

Better Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Blending all paints, primers, plastics and fiberglass.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>P-graded, heat-treated, aluminum oxide abrasive</li> <li>Full resin bond system</li> <li>Unique, fiber-reinforced, B-weight paper backing</li> <li>Hook and loop fastening system</li> <li>Special, undyed stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>30% to 50% faster cut rate than other strips</li> <li>Consistent scratch pattern and finish</li> <li>Improved grain adhesion; longest life</li> <li>50% – 60% improvement in tear strength</li> <li>Superior resistance to delamination</li> <li>Easy application and removal; can be re-used</li> <li>Superior load resistance</li> <li>No color transfer to work</li> </ul>

PART #	GRADING	STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 16-1/2"</b>			
05539520475	P80 B 0912 DO	50	500
05539520474	P100 B 0912 DO	50	500
05539520473	P120 B 0912 DO	50	500
05539520472	P150 B 0912 DO	50	500
05539520471	P180 B 0912 DO	50	500
05539520470	P220 B 0912 DO	50	500

For use with File Board 05539512014 and File Shoe 05539512015 on page 79.



## PREMIER RED VACUUM GRIP-ON MARINE FILE STRIPS

Better Tier / Zirconia Alumina Resin Paper Open



Best choice for blending and shaping all types of marine fillers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> <li>Full phenolic resin bond system plus latex</li> </ul>	<ul style="list-style-type: none"> <li>Fast removal rates with extended life</li> <li>Maximum durability plus flexibility</li> <li>Excellent grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>E-weight, latex paper backing</li> <li>Hook and loop fastening system</li> <li>Vacuum holes</li> </ul>	<ul style="list-style-type: none"> <li>Flexible; reduced edge shed</li> <li>Easy application and removal; can be re-used</li> <li>Dust-free sanding environment</li> </ul>

PART #	GRADING	STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 16" VACUUM D-3364</b>			
05539521345	80 E 1214 O	25	125

Die 3364: 0.5" diameter holes; 9 sets of 2 holes on either side of strip, spaced equally from center at 1.750" apart (14" total)





## PREMIER RED CLIP-ON MARINE FILE STRIPS

Better Tier / Zirconia Alumina Resin Paper Open



Best choice for blending and shaping all types of marine fillers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast removal rates</li> <li>Extended life</li> </ul>
<ul style="list-style-type: none"> <li>Full phenolic resin bond system plus latex</li> </ul>	<ul style="list-style-type: none"> <li>Maximum durability plus flexibility</li> <li>Excellent grain adhesion</li> </ul>
<ul style="list-style-type: none"> <li>E-weight, latex paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Flexible ; reduced edge shed</li> </ul>

PART #	GRADING	STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 17-1/2"</b>			
05539521350	36 E 1214 O	50	250
05539521349	40 E 1214 O	50	250
05539521348	80 E 1214 O	50	250

For use with File Board #05539512013 on page 79.



## ALUMINUM OXIDE CLIP-ON MARINE FILE STRIPS

Good Tier / Aluminum Oxide Paper Open



For blending and shaping of marine filler.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>P-graded, brown aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Tough and durable</li> </ul>

PART #	GRADING	STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 17-1/2"</b>			
05539510908	P36 D 0811 O	50	500
05539510907	P40 D 0811 O	50	500
05539510906	P60 C 0811 O	50	500
05539510905	P80 C 0811 O	50	500
05539510904	P100 C 0811 O	50	500

For use with File Board #05539512013 on page 79.



## CARBO GOLD CLIP-ON MARINE FILE STRIPS

Good Tier / Aluminum Oxide Dri-Lube Resin Paper Open



Ideal for blending and shaping all types of marine fillers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>P-graded, light brown aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast, aggressive cut and long life</li> </ul>
<ul style="list-style-type: none"> <li>C-weight paper backing</li> </ul>	<ul style="list-style-type: none"> <li>Durability plus tear resistance</li> </ul>
<ul style="list-style-type: none"> <li>Waterbased stearate oversize and an open coat</li> </ul>	<ul style="list-style-type: none"> <li>Excellent load resistance</li> </ul>

PART #	GRADING	STRIPS/PKG.	STRIPS/CASE
<b>2-3/4" x 17-1/2"</b>			
05539510903	P80 C 0712 DO	50	500
05539510902	P100 C 0712 DO	50	500
05539510900	P120 C 0712 DO	50	500
05539510899	P150 C 0712 DO	50	500
05539510898	P180 C 0712 DO	50	500

For use with File Board #05539512013 on page 79.



## **HAND** MARINE FILE BOARD

Accessory



Sturdy tool for hand sanding and blending marine filler. Can be used with both Clip-On and Stick-On marine file strips.

PART #	DESCRIPTION	FILE BOARDS/PKG.
<b>HAND MARINE FILE BOARD</b>		
05539512013	Hand File Board	6

## **GRIP-ON** MARINE FILE BOARD

Accessory



Sturdy tool for hand sanding and blending marine filler. Incorporates a unique hook and loop fastening system. For use with Grip-On marine file strips.

PART #	DESCRIPTION	FILE BOARDS/PKG.
<b>GRIP-ON MARINE FILE BOARD</b>		
05539512014	2-3/4" x 16-1/2"	5

## **GRIP-ON** MARINE AIR FILE SHOE

Accessory



For use on orbital air sanders. Grip-On feature eliminates the need for clips, making mounting and removal quick and easy.

PART #	DESCRIPTION	FILE BOARDS/PKG.
<b>GRIP-ON MARINE AIR FILE SHOE</b>		
05539512015	2-3/4" x 16-1/2"	1



## EZTOUCH ABRASIVE CONTOUR SPONGES

Better Tier / Aluminum Oxide or Silicon Carbide

CARBO™  
**ez TOUCH™**



For hand sanding and uniform finishing of wood, metal, fiberglass, composites, plastics and solid surfaces, and primed, stained, sealed or painted surfaces.

### FEATURES

- Thin, coated on one side with aluminum oxide or silicon carbide abrasive
- Designed with superior flexibility

### BENEFITS

- Can be used wet or dry; washable
- Ideal for flat, curved, contoured and hard-to-reach areas

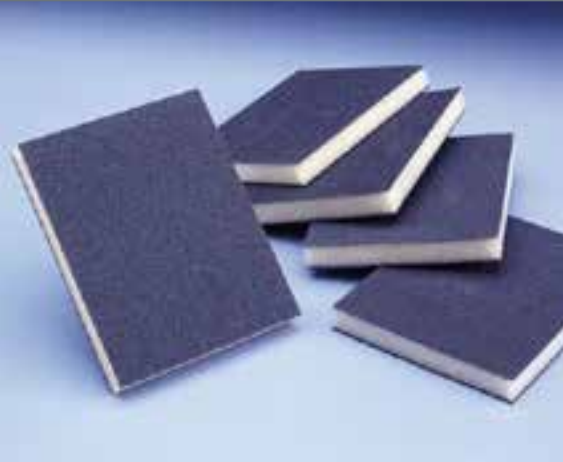
PART #	GRADING	SPONGES/CASE
<b>4-1/2" x 5-1/2" x 3/16" – ONE SIDED</b>		
05539570121	60 Medium Aluminum Oxide	80
05539570122	100 Fine Aluminum Oxide	80
05539570123	180 Super Fine Aluminum Oxide	80
05539570124	220 Ultra Fine Silicon Carbide	80
05539570125	280 Micro Fine Silicon Carbide	80



## FLEXIBLE ABRASIVE SANDING SPONGES

Standard Tier / Silicon Carbide

CARBO™



Ideal for sanding sealer and wash coats in wood, and touching-up or repairing of primer.

### FEATURES

- Ultra flexible polyurethane foam
- Silicon carbide grain

### BENEFITS

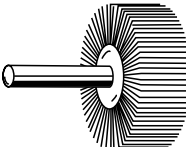


- Provides for a soft sanding action on flat and contoured surfaces without sanding through coatings
- The best choice for sanding primer, sealer and between coats of finish on furniture and cabinets

PART #	GRADING	SPONGES/CASE
<b>4-3/4" x 3-3/4" x 1/2" – TWO SIDED</b>		
05539513710	100 Coarse Silicon Carbide	250
05539513711	150 Medium Silicon Carbide	250
05539513712	220 Fine Silicon Carbide	250





**SHAPE RECOMMENDATION GUIDE**

SHAPE	DESCRIPTION/APPLICATION
	<p><b>Flap Wheels with Mounted Steel Shanks</b></p> <p>Wheels are designed with a 1/8" or 1/4" steel shank as an integral part of each wheel. These shanks run through the wheel creating better balance, a reduction of chatter, and reduced operator fatigue. They also permit quick changes on air tools when using other abrasive products.</p>
	<p><b>Flap Wheels with Mounted 1/4-20 Thread</b></p> <p>Wheels are designed with a 1/4"-20 thread and flange as an integral part of the wheel. These threads facilitate the quickest changes on air tools using flap wheels exclusively, as there are no special tools needed to change the flap wheel. Also allow extended reach with accessory mandrels.</p>
	<p><b>Flap Wheels with Arbor Holes</b></p> <p>For use on larger portable and fixed-base tools where the wheel must fit on an existing arbor.</p>

Good Tier / Aluminum Oxide



Good choice when initial price is the main consideration. The smallest flap wheels, ranging from 3/8" to 1-3/16" diameter, mounted on a 1/8" diameter steel shank. Provide fast polishing and light deburring of internal workpieces with holes or grooves as small as 1/2".

FEATURES	BENEFITS
• Quality aluminum oxide abrasive	• Good cut rate and life
• Engineered cotton backing	• Longer life and wear resistance
• Low initial price point	• Best starting specification for end-user unable to measure total performance

PART #	GRIT	MAX. RPM	STD. PKG.
<b>3/8" x 3/8" x 1/8"</b>			
08834137470	60	40,000	10
08834137471	80	40,000	10
08834137472	120	40,000	10
08834137473	180	40,000	10
08834137474	240	40,000	10
08834137475	320	40,000	10
<b>5/8" x 5/8" x 1/8"</b>			
08834137480	60	37,000	10
08834137481	80	37,000	10
08834137482	120	37,000	10
08834137483	180	37,000	10
08834137484	240	37,000	10
08834137485	320	37,000	10
<b>5/8" x 3/4" x 1/8"</b>			
08834137541	80	37,000	10
08834137542	120	37,000	10
08834137543	180	37,000	10
08834137544	240	37,000	10
08834137545	320	37,000	10
<b>3/4" x 3/16" x 1/8"</b>			
08834137551	80	35,000	10
08834137552	120	35,000	10
08834137553	180	35,000	10
<b>3/4" x 3/8" x 1/8"</b>			
08834137561	80	35,000	10
08834137562	120	35,000	10
08834137563	180	35,000	10
<b>3/4" x 1/2" x 1/8"</b>			
08834137571	80	35,000	10
08834137572	120	35,000	10
08834137573	180	35,000	10
08834137574	240	35,000	10
08834137575	320	35,000	10

PART #	GRIT	MAX. RPM	STD. PKG.
<b>3/4" x 5/8" x 1/8"</b>			
08834137580	60	35,000	10
08834137581	80	35,000	10
08834137582	120	35,000	10
08834137583	180	35,000	10
08834137584	240	35,000	10
08834137585	320	35,000	10
<b>3/4" x 3/4" x 1/8"</b>			
08834137590	60	35,000	10
08834137591	80	35,000	10
08834137592	120	35,000	10
08834137594	240	35,000	10
08834137595	320	35,000	10
<b>1-3/16" x 1/8" x 1/8"</b>			
08834137491	80	30,000	10
08834137492	120	30,000	10
08834137493	180	30,000	10
08834137495	320	30,000	10
<b>1-3/16" x 3/16" x 1/8"</b>			
08834137508	60	30,000	10
08834137501	80	30,000	10
08834137502	120	30,000	10
08834137503	180	30,000	10
08834137504	240	30,000	10
08834137505	320	30,000	10
<b>1-3/16" x 3/8" x 1/8"</b>			
08834137511	80	30,000	10
08834137512	120	30,000	10
08834137513	180	30,000	10
08834137514	240	30,000	10
08834137515	320	30,000	10



MICRO-MINI TEST KIT "MMC"



Contains a variety of the most popular shapes and sizes.

PART #	DESCRIPTION	STD. PKG.
08834131493	Includes five wheels, 3/8" to 1-3/16" diameter in various grits, mounted on 1/8" diameter hardened steel shanks	1

# MERIT HIGH PERFORMANCE MINI FLAP WHEELS 1/4" MOUNTED STEEL SHANKS



Best Tier / Ceramic Alumina/Aluminum Oxide Blend



Best choice for more durable flap wheel applications where aggressive cut and superior life are required.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Long-lasting ceramic alumina/aluminum oxide abrasive grain blend</li> <li>Heavy cotton backing</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive cut and 2 to 3 times longer life</li> <li>Extended durability for added life and reduced edge wear</li> </ul>

PART #	GRIT	MAX. RPM	STD. PKG.
<b>1" x 5/8" x 1/4"</b>			
08834137105	40	30,000	10
08834137100	60	30,000	10
08834137101	80	30,000	10
08834137102	120	30,000	10
08834131536	180	30,000	10
08834137104	240	30,000	10
<b>1" x 1" x 1/4"</b>			
08834131259	40	30,000	10
08834137310	60	30,000	10
08834137311	80	30,000	10
08834137312	120	30,000	10
08834137313	180	30,000	10
08834137114	240	30,000	10
08834137315	320	30,000	10
<b>1-3/8" x 5/8" x 1/4"</b>			
08834137320	60	30,000	10
08834137321	80	30,000	10
08834137322	120	30,000	10
08834137323	180	30,000	10
<b>1-1/2" x 1" x 1/4"</b>			
08834135140	40	25,000	10
08834137340	60	25,000	10
08834137141	80	25,000	10
08834137142	120	25,000	10
08834137343	180	25,000	10
08834132101	240	25,000	10
<b>1-1/2" x 1-1/2" x 1/4"</b>			
08834130643	60	25,000	10
08834130644	80	25,000	10
<b>2" x 3/4" x 1/4"</b>			
08834137160	60	25,000	10
08834137161	80	25,000	10
08834137162	120	25,000	10
<b>2" x 1" x 1/4"</b>			
08834137377	40	25,000	10
08834137370	60	25,000	10
08834137371	80	25,000	10
08834137372	120	25,000	10
08834137373	180	25,000	10
08834137374	240	25,000	10
08834137375	320	25,000	10

PART #	GRIT	MAX. RPM	STD. PKG.
<b>2" x 1-1/2" x 1/4"</b>			
08834137183	40	25,000	10
08834137380	60	25,000	10
08834137381	80	25,000	10
08834137382	120	25,000	10
08834137383	180	25,000	10
<b>2-1/2" x 1" x 1/4"</b>			
08834137410	60	20,000	10
08834137411	80	20,000	10
08834137412	120	20,000	10
08834137413	180	20,000	10
08834137633	240	20,000	10
<b>2-1/2" x 1-1/2" x 1/4"</b>			
08834137420	60	20,000	10
08834137421	80	20,000	10
08834137422	120	20,000	10
<b>3" x 1" x 1/4"</b>			
08834137456	40	20,000	10
08834137450	60	20,000	10
08834137451	80	20,000	10
08834137252	120	20,000	10
08834137253	180	20,000	10
08834135339	240	20,000	10
08834135341	320	20,000	10
<b>3" x 2" x 1/4"</b>			
08834137460	40	12,000	10
08834137260	60	12,000	10
08834137261	80	12,000	10
08834137262	120	12,000	10
08834137263	180	12,000	10



Good Tier / Aluminum Oxide



Good choice when initial price is the main consideration.

FEATURES	BENEFITS
• Quality aluminum oxide abrasive	• Good cut rate and life
• Engineered cotton backing	• Longer life and wear resistance
• Low initial price point	• Best starting specification for end-user unable to measure total performance

PART #	GRIT	MAX. RPM	STD. PKG.
<b>1" x 1/2" x 1/4"</b>			
08834149802	120	30,000	10
<b>1" x 1" x 1/4"</b>			
08834149803	40	30,000	10
08834149804	60	30,000	10
08834149806	120	30,000	10
08834149807	180	30,000	10
<b>1-1/2" x 1/2" x 1/4"</b>			
08834149810	60	25,000	10
08834149811	80	25,000	10
08834149812	120	25,000	10
<b>1-1/2" x 1" x 1/4"</b>			
08834149816	60	25,000	10
08834149817	80	25,000	10
08834149818	120	25,000	10
<b>2" x 1/2" x 1/4"</b>			
08834149821	60	25,000	10
08834149822	80	25,000	10
08834149823	120	25,000	10

PART #	GRIT	MAX. RPM	STD. PKG.
<b>2" x 1" x 1/4"</b>			
08834149824	40	25,000	10
08834149825	60	25,000	10
08834149826	80	25,000	10
08834149828	180	25,000	10
<b>3" x 1/2" x 1/4"</b>			
08834149834	60	20,000	10
08834149835	80	20,000	10
<b>3" x 1" x 1/4"</b>			
08834149836	40	20,000	10
08834149837	60	20,000	10
08834149838	80	20,000	10
08834149839	120	20,000	10
08834149840	180	20,000	10



**MERIT** FLAP WHEEL TEST KITS



**Merit Micro Mini Test Kit "MMC":** The flap wheels are mounted on 1/8" diameter hardened steel shanks. Ideal for fast polishing and light deburring of holes or grooves.

**Merit Mini Test Kit "CMM":** Each wheel comes with a 1/4" steel mandrel permanently mounted. Merit Mini 1/4"-20 Thread Test Kit "CQ".

**Merit Mini 1/4"-20 Thread Test Kit "CQ":** This flap wheel kit includes a 1/4"-20 QC-4 quick-change adapter.

PART #	DESCRIPTION	STD. PKG.
<b>MICRO-MINI TEST KIT "MMC"</b>		
08834131493	Includes 5 wheels, 3/8" to 1-3/16" in diameter	1
<b>MERIT MINI TEST KIT "CMM"</b>		
08834138004	Includes ten wheels, 1" to 3" diameter in various grits	1
<b>MERIT MINI 1/4"-20 THREAD TEST KIT "CQ"</b>		
08834138001	Includes ten, 1" to 3" diameter, 1/4"-20 thread mini flap wheels	1



# MERIT HIGH PERFORMANCE MINI FLAP WHEELS WITH 1/4"-20 THREAD



Best Tier / Ceramic Alumina/Aluminum Oxide Blend



Best choice for more durable flap wheel applications where aggressive cut and superior life are required

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Long-lasting ceramic alumina/aluminum oxide abrasive grain blend</li> <li>Heavy cotton backing</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive cut and 2 to 3 times longer life</li> <li>Extended durability for added life and reduced edge wear</li> </ul>

PART #	GRIT	MAX. RPM	STD. PKG.
<b>1" x 5/8" x 1/4"-20</b>			
08834131001	60	30,000	10
08834131002	80	30,000	10
08834131003	120	30,000	10
<b>1" x 1" x 1/4"-20</b>			
08834131027	40	30,000	10
08834131008	60	30,000	10
08834131009	80	30,000	10
08834131010	120	30,000	10
08834131011	180	30,000	10
08834131012	240	30,000	10
08834131013	320	30,000	10
<b>1-3/8" x 5/8" x 1/4"-20</b>			
08834132001	60	30,000	10
08834132002	80	30,000	10
08834132003	120	30,000	10
<b>1-5/8" x 1" x 1/4"-20</b>			
08834132051	40	25,000	10
08834132015	60	25,000	10
08834132016	80	25,000	10
08834132017	120	25,000	10
08834132018	180	25,000	10
08834132020	320	25,000	10
<b>2" x 3/4" x 1/4"-20</b>			
08834133008	60	25,000	10
08834133009	80	25,000	10
08834133010	120	25,000	10
08834133011	180	25,000	10

PART #	GRIT	MAX. RPM	STD. PKG.
<b>2" x 1" x 1/4"-20</b>			
08834133044	40	25,000	10
08834133015	60	25,000	10
08834133016	80	25,000	10
08834133017	120	25,000	10
08834133018	180	25,000	10
08834133019	240	25,000	10
08834133020	320	25,000	10
<b>2" x 1-1/2" x 1/4"-20</b>			
08834135201	60	25,000	10
08834135202	80	25,000	10
08834135203	120	25,000	10
08834135204	180	25,000	10
<b>2-1/2" x 1" x 1/4"-20</b>			
08834134061	40	20,000	10
08834134022	60	20,000	10
08834134023	80	20,000	10
08834134024	120	20,000	10
08834134025	180	20,000	10
<b>3" x 3/4" x 1/4"-20</b>			
08834135008	60	20,000	10
<b>3" x 1" x 1/4"-20</b>			
08834135230	40	20,000	10
08834135015	60	20,000	10
08834135016	80	20,000	10
08834135017	120	20,000	10
08834135018	180	20,000	10
08834135019	240	20,000	10

For flap wheel adapters and bushings, see the last page of this section.



## MERIT CUP-TYPE MINI FLAP WHEELS

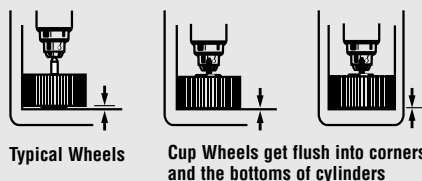


Good Tier / Aluminum Oxide with 1/4" Mounted Steel Shanks



Primarily used for bottom or side-wall type sanding where conventional tools do not reach.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Cup-type flap wheel</li> </ul>	<ul style="list-style-type: none"> <li>Will not mar your workpiece while reaching flush into areas where other wheels cannot</li> </ul>



PART #	GRIT	MAX. RPM	STD. PKG.
<b>2-1/2" x 1-1/2" x 1/4"</b>			
08834144463	60	20,000	10



# MERIT HIGH PERFORMANCE 3-1/2" - 8" FLAP WHEELS WITH ARBOR HOLES



Best Tier / Ceramic Alumina/Aluminum Oxide Blend



Best choice for more durable flap wheel applications where aggressive cut and superior life are required

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Long-lasting ceramic alumina/aluminum oxide abrasive grain blend</li> <li>Heavy cotton backing</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive cut and 2 to 3 times longer life</li> <li>Extended durability for added life and reduced edge wear</li> </ul>

PART #	GRIT	MAX. RPM	STD. PKG.
<b>3-1/2" x 1-1/2" x 5/8"</b>			
08834122013	60	12,000	10
<b>3-1/2" x 2" x 5/8"</b>			
08834122024	60	12,000	10
<b>4" x 1" x 5/8"</b>			
08834122034	60	12,000	10
08834122035	80	12,000	10
08834122037	120	12,000	10
<b>4" x 2" x 5/8"</b>			
08834122054	50	12,000	10
08834122055	60	12,000	10
08834122056	80	12,000	10
08834122058	120	12,000	10
<b>5" x 1-1/2" x 5/8"</b>			
08834122065	60	12,000	10
08834122066	80	12,000	10
<b>6" x 1/2" x 1"</b>			
08834123003	60	6,000	10
08834123005	120	6,000	10
08834123006	180	6,000	10
<b>6" x 1" x 1"</b>			
08834123009	40	6,000	5
08834123011	60	6,000	5
08834123012	80	6,000	5
08834123014	120	6,000	5
08834123016	180	6,000	5
08834123018	320	6,000	5

PART #	GRIT	MAX. RPM	STD. PKG.
<b>6" x 1-1/2" x 1"</b>			
08834123022	60	6,000	5
08834123023	80	6,000	5
08834123025	120	6,000	5
<b>6" x 2" x 1"</b>			
08834123033	60	6,000	5
08834123034	80	6,000	5
08834123036	120	6,000	5
08834123038	180	6,000	5
<b>6" x 3" x 1"</b>			
08834123056	80	6,000	3
08834123058	120	6,000	3
<b>8" x 1" x 1"</b>			
08834123072	60	4,500	3
08834123073	80	4,500	3
08834123075	120	4,500	3
08834123077	180	4,500	3
08834123078	240	4,500	3
<b>8" x 2" x 1"</b>			
08834123095	80	4,500	3

For flap wheel adapters and bushings, see the last page of this section.



# MERIT 6" FLAP WHEELS WITH ARBOR HOLES

Good Tier / Aluminum Oxide



Good choice when initial price is the main consideration.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive</li> <li>Engineered cotton backing</li> <li>Low initial price point</li> </ul>	<ul style="list-style-type: none"> <li>Good cut rate and life</li> <li>Longer life and wear resistance</li> <li>Best starting specification for end-user unable to measure total performance</li> </ul>

PART #	GRIT	MAX. RPM	STD. PKG.
<b>6" x 1" x 1"</b>			
08834120169	60	6,000	5
08834120170	80	6,000	5
08834120172	120	6,000	5

For flap wheel adapters and bushings, see the last page of this section.



# ADAPTER AND BUSHINGS FOR FLAP WHEELS WITH ARBOR HOLES

## Accessory



08834125001



08834125003



08834125027



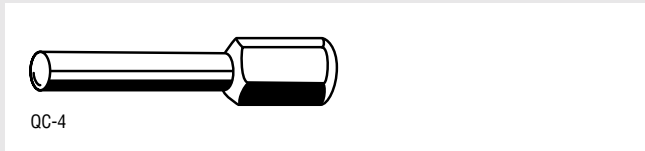
08834125017 & 08834125018

PART #	WHEEL DIAMETER	ADAPTERS	STD. PKG.
<b>SHANK ADAPTERS</b>			
08834125001	3-1/2"	1/4" Shank	1
08834125003	4" - 8"	1/4" Shank	1
<b>THREADED MOUNTING ADAPTERS</b>			
08834125027	4" - 8"	5/8"-11 Thread	1
<b>REDUCING BUSHINGS</b>			
08834125017	6" - 8"	1" to 1/2"	1
08834125018	6" - 8"	1" to 5/8"	1

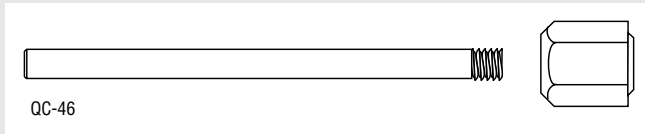
Standard packages = 1 adapter, 1 pair of bushings

# ADAPTERS FOR 1/4"-20 THREAD MINI AND ARBOR HOLE FLAP WHEELS

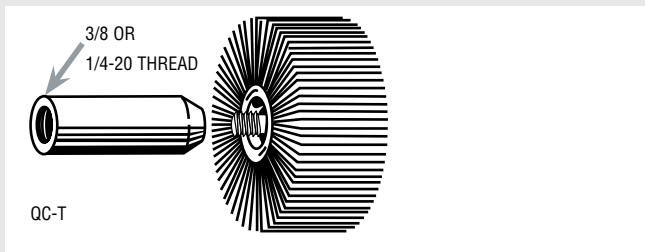
## Accessory



QC-4



QC-46



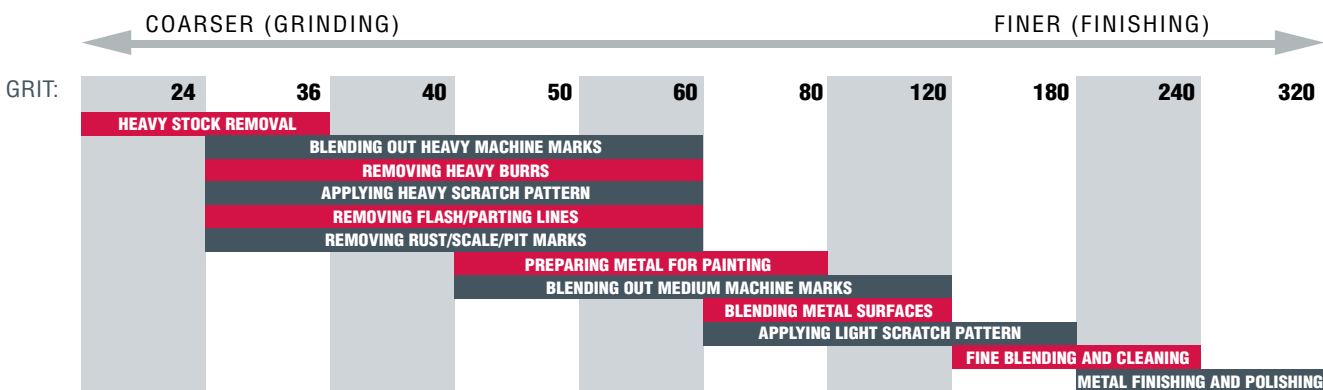
QC-T

PART #	MODEL #	DESCRIPTION	STD. PKG.
<b>ADAPTERS</b>			
08834137001	QC-4	1/4" Shank Dia. x 5/8" Shank Length	1
08834137003	QC-44	1/4" x 4"	1
08834137004	QC-46	1/4" x 6"	1
08834137005	QC-48	1/4" x 8"	1
08834137012	QC-T	1/4"-20 Thread	1
08834137010	QC-T	3/8"-24 Thread	1

Standard package = 1 adapter  
Other thread sizes available for quotation



**APPLICATION/GRIT RECOMMENDATION GUIDE**



**EXPANDING RUBBER DRUMS**  
Accessory



Designed for use with spiral bands, these drums are fabricated from rubber for controlled expansion keeping the band from slipping during use

PART #	SIZE (D X W X SK.)	MAX. RPM	STD. PKG.
08834196030	1/4" x 1/2" x 1/8"	30,000	1
08834196944	3/8" x 1/2" x 1/8"	30,000	1
08834196904	1/2" x 1/2" x 1/4"	30,000	1
08834196906	1/2" x 1" x 1/4"	15,000	1
08834196907	1/2" x 1-1/2" x 1/4"	12,000	1
08834196908	1/2" x 2" x 1/4"	10,000	1
08834196910	3/4" x 3/4" x 1/4"	24,000	1
08834196911	3/4" x 1" x 1/4"	17,000	1
08834196912	3/4" x 1-1/2" x 1/4"	10,000	1
08834196913	3/4" x 2" x 1/4"	10,000	1
08834196916	1" x 1" x 1/4"	18,000	1
08834196917	1" x 1-1/2" x 1/4"	10,000	1
08834196918	1" x 2" x 1/4"	8,000	1
08834196921	1-1/2" x 1" x 1/4"	12,000	1
08834196922	1-1/2" x 1-1/2" x 1/4"	10,000	1
08834196923	1-1/2" x 2" x 1/4"	8,000	1
08834196926	2" x 1" x 1/4"	11,000	1
08834196927	2" x 1-1/2" x 1/4"	8,000	1
08834196928	2" x 2" x 1/4"	6,000	1
08834196931	3" x 3" x 3/8"	3,000	1



Best product for blending and polishing contours when smooth running is a primary concern. Used for finishing hard-to-reach areas, removing parting lines, imperfections, and burrs on all surfaces.

FEATURES	BENEFITS
• One ply of abrasive	• Spiral construction avoids shadow marks and provides smooth, chatter-free cutting action
• Strong X-weight backing construction	• Achieves close tolerances when finishing curved, contoured, and hard-to-reach areas
• Premium aluminum oxide abrasive	• Fast cutting and removes toughest metal
• No tools required for changes	• Bands are easily removed and replaced

PART #	GRIT	STD. PKG.
<b>1/2" x 1/2"</b>		
08834196228	50	100/box
08834196179	80	100/box
08834196189	100	100/box
08834196069	120	100/box
<b>1/2" x 1"</b>		
08834196591	36	100/box
08834196212	60	100/box
08834196215	80	100/box
<b>3/4" x 3/4"</b>		
08834196168	60	100/box
08834196161	80	100/box
<b>3/4" x 1"</b>		
08834196261	36	100/box
08834196515	50	100/box
08834196070	60	100/box
08834196071	80	100/box
08834196219	120	100/box
<b>3/4" x 1-1/2"</b>		
08834196596	24	100/box
08834196554	60	100/box
08834196249	80	100/box
<b>3/4" x 2"</b>		
08834196756	80	100/box
<b>1" x 1"</b>		
08834196072	36	100/box
08834196073	40	100/box
08834196184	50	100/box
08834196075	60	100/box
08834196074	80	100/box
08834196177	120	100/box
<b>1" x 1-1/2"</b>		
08834196525	36	100/box
<b>1" x 2"</b>		
08834196268	80	100/box
<b>1" x 3"</b>		
08834197806	24	100/box
08834196665	36	100/box
08834197688	50	100/box
08834196676	60	100/box
08834196195	80	100/box
08834196445	100	100/box
08834196197	120	100/box

PART #	GRIT	STD. PKG.
<b>1-1/2" x 1-1/2"</b>		
08834196164	36	100/box
08834196176	50	100/box
08834196091	60	100/box
08834196165	80	100/box
<b>1-1/2" x 2"</b>		
08834196067	60	100/box
08834196533	80	100/box
<b>1-1/2" x 3"</b>		
08834197063	36	100/box
08834196703	60	100/box
08834196809	80	100/box
08834196522	100	100/box
08834196343	120	100/box
08834197869	180	100/box
<b>2" x 1"</b>		
08834196166	80	100/box
08834196595	120	100/box
<b>2" x 2"</b>		
08834196110	36	100/box
08834196173	60	100/box
<b>2" x 3"</b>		
08834197903	24	100/box
08834196827	36	100/box
08834196151	40	100/box
08834196152	50	100/box
08834196175	60	100/box
08834196198	80	100/box
08834196199	100	100/box
<b>2-1/4" x 3"</b>		
08834197140	36	100/box
08834197158	40	100/box
08834196620	50	100/box
08834196270	80	100/box
08834196729	120	100/box
08834195857	150	100/box
08834195825	320	100/box

PART #	GRIT	STD. PKG.
<b>3" x 2"</b>		
08834196263	24	100/box
08834196545	36	100/box
08834196090	40	100/box
08834196264	50	100/box
08834196530	60	100/box
08834196265	80	100/box
08834196531	120	100/box
<b>3" x 3"</b>		
08834196256	24	100/box
08834196262	36	100/box
08834196555	40	100/box
08834196253	50	100/box
08834196188	60	100/box
08834196159	80	100/box
08834196250	100	100/box
08834196572	120	100/box
08834196452	150	100/box
08834196574	240	100/box
08834197968	320	100/box





## Cartridge Rolls

- Effective for flash removal
- Polishing or removing machine tool marks
- Edge breaking
- Valuable abrasive tool for reaching into corners, where larger diameter tools cannot work
- All cartridge roll part numbers shown are resin bond, half-glued
- Quarter and full glue are also available for quotation as made-to-order



## MERIT CARTRIDGE ROLLS

Best Tier / Ceramic Alumina with Grinding Aid



With their exclusive ceramic grain technology, grinding aid, and x-weight cotton backing, Merit ceramic alumina products cut cooler and last longer, outperforming all competitive ceramic, zirconia, and aluminum oxide specialty products in today's markets on stainless steel, cobalt, Inconel, titanium, and other hard-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Next-generation ceramic alumina abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly faster cut rates</li> <li>• Resists wear, resulting in 50% – 300% longer life</li> <li>• Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cutting, longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Exceptional grain retention and longer life</li> </ul>

PART #	USE MANDREL	GRIT	STD. PKG.
<b>1/4" x 1-1/2" x 1/8"</b>			
66261194384	M-9	60	100
66261194394	M-9	80	100
66261194397	M-9	120	100
<b>3/8" x 1-1/2" x 1/8"</b>			
66261194392	M-9	60	100
66261194395	M-9	80	100
66261194398	M-9	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
66261194393	M-9	60	100
66261194396	M-9	80	100
66261194399	M-9	120	100

See cartridge and spiral roll mandrels on page 95.



## MERIT CARTRIDGE ROLLS

Better Tier / Ceramic Alumina Blend with Grinding Aid



Ceramic abrasive blend on X-weight cotton backing with grinding aid results in cooler cut on stainless steel and other harder-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Ceramic blend</li> </ul>	<ul style="list-style-type: none"> <li>• Cool cut and long life</li> </ul>
<ul style="list-style-type: none"> <li>• X-weight cotton backing</li> </ul>	<ul style="list-style-type: none"> <li>• Durability and even wear</li> </ul>
<ul style="list-style-type: none"> <li>• Grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cut on stainless steel</li> </ul>

PART #	USE MANDREL	GRIT	STD. PKG.
<b>1/4" x 1-1/2" x 1/8"</b>			
66261040470	M-9	60	100
69957300001	M-9	80	100
<b>3/8" x 1-1/2" x 1/8"</b>			
66261041270	M-9	60	100
08834187134	M-9	80	100
<b>1/2" x 1-1/2" x 1/8"</b>			
08834184221	M-9	60	100
66261012798	M-9	80	100

See cartridge and spiral roll mandrels on page 95.





Effective starting specification for flash removal, polishing or removing machine tool marks and edge breaking on all types of metal.

FEATURES	BENEFITS
• Quality aluminum oxide abrasive	• Tough and durable
• Strong X-weight cotton backing construction	• For extended durability and even wear
• Durable resin bond system	• Provides longer life

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/16" x 3/4" x 3/32"</b>			
08834180005	M-2E	80	100
<b>3/16" x 1" x 3/32"</b>			
08834180023	M-2E	60	100
08834180024	M-2E	80	100
08834180025	M-2E	100	100
08834180026	M-2E	120	100
08834180027	M-2E	150	100
08834180028	M-2E	180	100
08834180030	M-2E	240	100
08834180032	M-2E	320	100
<b>1/4" x 3/4" x 1/8"</b>			
08834180042	M3/M-7	60	100
08834180043	M3/M-7	80	100
08834180045	M3/M-7	120	100
<b>1/4" x 1" x 1/8"</b>			
08834180060	M-4/M-8	50	100
08834180061	M-4/M-8	60	100
08834180062	M-4/M-8	80	100
08834180063	M-4/M-8	100	100
08834180064	M-4/M-8	120	100
08834180065	M-4/M-8	150	100
08834180066	M-4/M-8	180	100
08834180068	M-4/M-8	240	100
08834180070	M-4/M-8	320	100
<b>1/4" x 1-1/2" x 1/8"</b>			
08834180079	M-9	50	100
08834180080	M-9	60	100
08834180081	M-9	80	100
08834180082	M-9	100	100
08834180083	M-9	120	100
08834180084	M-9	150	100
08834180085	M-9	180	100
08834180089	M-9	320	100
<b>1/4" x 2" x 1/8"</b>			
08834180100	M-10	80	100
08834180101	M-10	100	100
08834180102	M-10	120	100
<b>5/16" x 1" x 1/8"</b>			
08834180137	M-4/M-8	60	100
08834180138	M-4/M-8	80	100
08834180140	M-4/M-8	120	100
<b>5/16" x 1-1/2" x 1/8"</b>			
08834180156	M-9	60	100
08834180157	M-9	80	100
08834180159	M-9	120	100
<b>3/8" x 3/4" x 1/8"</b>			
08834180194	M7	60	100
08834180195	M7	80	100
08834180197	M7	120	100

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/8" x 1" x 1/8"</b>			
08834180211	M-8	40	100
08834180212	M-8	50	100
08834180213	M-8	60	100
08834180214	M-8	80	100
08834180215	M-8	100	100
08834180216	M-8	120	100
08834180217	M-8	150	100
08834180218	M-8	180	100
08834180220	M-8	240	100
<b>3/8" x 1-1/2" x 1/8"</b>			
08834180228	M-9	36	100
08834180229	M-9	40	100
08834180230	M-9	50	100
08834180231	M-9	60	100
08834180232	M-9	80	100
08834180233	M-9	100	100
08834180234	M-9	120	100
08834180235	M-9	150	100
08834180236	M-9	180	100
08834180238	M-9	240	100
08834180240	M-9	320	100
<b>3/8" x 2" x 1/8"</b>			
08834180250	M-10	60	100
08834180251	M-10	80	100
08834180252	M-10	100	100
08834180253	M-10	120	100
<b>1/2" x 3/4" x 1/8"</b>			
08834180270	M-7	80	100
<b>1/2" x 1" x 1/8"</b>			
08834180286	M-8	40	100
08834180287	M-8	50	100
08834180288	M-8	60	100
08834180289	M-8	80	100
08834180290	M-8	100	100
08834180291	M-8	120	100
08834180292	M-8	150	100
08834180293	M-8	180	100
08834180295	M-8	240	100
08834180297	M-8	320	100
<b>1/2" x 1-1/2" x 1/8"</b>			
08834180304	M-9	36	100
08834180305	M-9	40	100
08834180306	M-9	50	100
08834180307	M-9	60	100
08834180308	M-9	80	100
08834180309	M-9	100	100
08834180310	M-9	120	100
08834180311	M-9	150	100
08834180312	M-9	180	100
08834180314	M-9	240	100
08834180316	M-9	320	100

PART #	USE MANDREL	GRIT	STD. PKG.
<b>1/2" x 1-1/2" x 3/16"</b>			
08834180919	M-16	120	100
<b>1/2" x 2" x 1/8"</b>			
08834180326	M-10	60	100
08834180327	M-10	80	100
08834180328	M-10	100	100
08834180329	M-10	120	100
08834180331	M-10	180	100
08834180333	M-10	240	100
08834180335	M-10	320	100
<b>1/2" x 2" x 3/16"</b>			
08834180350	M-17	60	100
08834180653	M-17	80	100
08834180338	M-17	120	100
<b>1/2" x 2" x 1/4"</b>			
08834183168	M-22	40	100
08834180351	M-22	80	100
<b>5/8" x 1" x 3/16"</b>			
08834180364	M-15	80	100
<b>5/8" x 1-1/2" x 1/8"</b>			
08834180395	M-9	36	100
08834180392	M-9	40	100
08834180393	M-9	50	100
08834180275	M-9	60	100
08834180789	M-9	80	100
08834180394	M-9	120	100
<b>5/8" x 1-1/2" x 3/16"</b>			
08834180381	M-16	50	100
08834180382	M-16	60	100
08834180383	M-16	80	100
<b>5/8" x 2" x 1/8"</b>			
08834182505	M-10	60	100
08834181080	M-10	80	100
<b>5/8" x 2" x 3/16"</b>			
08834180400	M-10	50	100
08834180401	M-10	60	100
08834180402	M-10	80	100
08834180403	M-10	100	100
<b>3/4" x 1" x 1/8"</b>			
08834180469	M-8	80	100
08834181543	M-8	120	100
<b>3/4" x 1" x 3/16"</b>			
08834180456	M-15	40	100
08834180459	M-15	80	100
08834180461	M-15	120	100

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/4" x 1-1/2" x 1/8"</b>			
08834180069	M-9	40	100
08834180490	M-9	60	100
08834180527	M-9	80	100
08834180487	M-9	120	100
<b>3/4" x 1-1/2" x 3/16"</b>			
08834180474	M-16	36	100
08834180476	M-16	50	100
08834180477	M-16	60	100
08834180478	M-16	80	100
08834180479	M-16	100	100
08834180480	M-16	120	100
08834180482	M-16	180	100
<b>3/4" x 1-1/2" x 1/4"</b>			
08834180907	M-21	36	100
08834180489	M-21	60	100
08834180358	M-21	80	100
08834180523	M-21	100	100
08834180488	M-21	120	100
08834182807	M-21	150	100
<b>3/4" x 2" x 1/8"</b>			
08834180791	M-10	60	100
<b>3/4" x 2" x 3/16"</b>			
08834180494	M-17	40	100
08834180496	M-17	60	100
08834180497	M-17	80	100
08834180498	M-17	100	100
08834180499	M-17	120	100
<b>3/4" x 2" x 1/4"</b>			
08834180506	M-22	60	100
08834181297	M-22	80	100
08834180507	M-22	120	100
<b>1" x 1-1/2" x 1/8"</b>			
08834180580	M-9	60	100
08834180584	M-9	80	100
<b>1" x 1-1/2" x 1/4"</b>			
08834181195	M-21	36	100
08834180587	M-21	60	100
08834180583	M-21	80	100
<b>1" x 2" x 3/16"</b>			
08834180589	M-17	40	100
08834180591	M-17	60	100
08834180592	M-17	80	100
<b>1" x 2" x 1/4"</b>			
08834180603	M-22	60	100
08834180606	M-22	80	100
08834180585	M-22	120	100

See cartridge and spiral roll mandrels on page 95.



## MERIT CARTRIDGE ROLLS

Good Tier / Aluminum Oxide Plus

MERIT



Most effective starting specification for flash removal, polishing or removing machine tool marks and edge breaking on all types of metal.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium aluminum oxide abrasive grain</li> <li>Advanced, full resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Controlled aggressiveness while cool cutting</li> <li>Excellent edge adhesion and long life</li> </ul>

PART #	USE MANDREL	GRIT	STD. PKG.
<b>1/4" x 1-1/2" x 1/8"</b>			
77696089001	M-9	60	100
77696089002	M-9	80	100
77696089003	M-9	120	100
<b>3/8" x 1-1/2" x 1/8"</b>			
77696089004	M-9	60	100
77696089005	M-9	80	100
77696089006	M-9	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
77696089007	M-9	60	100
77696089008	M-9	80	100
77696089009	M-9	120	100

See cartridge and spiral roll mandrels on page 95.



## MERIT CARTRIDGE ROLLS

Good Tier / Silicon Carbide

MERIT



Sharp silicon carbide grain penetrates tough, difficult-to-grind materials, as well as soft, loading materials: titanium, masonry, composites, plastic, and rubber.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Sharp silicon carbide abrasive</li> <li>Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Provides high initial cut on non-ferrous and soft-loading materials</li> <li>Exceptional grain retention and longer life</li> </ul>

PART #	USE MANDREL	GRIT	STD. PKG.
<b>1/4" x 1-1/2" x 1/8"</b>			
08834183274	M-9	60	100
08834182359	M-9	80	100
08834189131	M-9	120	100
<b>3/8" x 1-1/2" x 1/8"</b>			
08834181309	M-9	60	100
08834180710	M-9	80	100
66261042229	M-9	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
08834189233	M-9	60	100
08834180712	M-9	80	100
66261086969	M-9	120	100

See cartridge and spiral roll mandrels on page 95.



## MERIT SPECIALTIES – TEST KITS

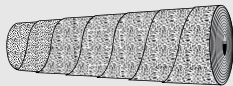
MERIT



PART #	DESCRIPTION
<b>MERIT BLAZE CARTRIDGE ROLL TEST KIT</b>	
66261066726	Kit includes a variety of our Merit ceramic alumina cartridge rolls, spiral rolls and mandrels in popular sizes and grits.
<b>MERIT ALUMINUM OXIDE CARTRIDGE ROLL TEST KIT "CR"</b>	
08834181061	Includes over 120 pieces of our most popular sizes, grits and shapes with their appropriate mandrels.
<b>MERIT GENERAL PURPOSE TEST KIT "GP"</b>	
08834169025	Includes samples of various Merit abrasive specialties. One of these kits could be worth the cost of the entire kit by solving your problems in deburring, polishing and grinding.
<b>MERIT PORTING TEST KIT "APK-MO"</b>	
08834169032	The samples in this kit highlight Merit for general metal and wood working polishing and finishing applications.

## Spiral Rolls

- All spiral roll part numbers shown are full tapered, resin bond, and half glued
- Half-tapered and sidewall-tapered are available for quotation
- Quarter and full glue are also available for quotation as made-to-order



### Full Taper

- Especially useful for grinding/polishing of channels, fillets and radii, and deburring small holes
- Full taper used when the area to finished is hard to reach with a full cartridge roll
- The tapered roll conforms to smaller areas
- Fits into irregular concaves, contours, channels



### Half Taper

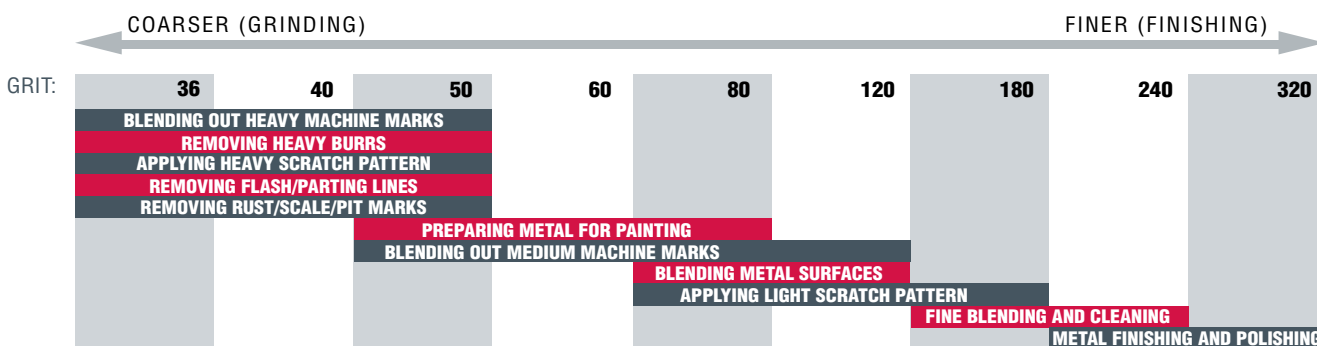
- Used when the area to be finished is not narrow but a beginning point on the roll is needed
- The portion of the roll that is not tapered is then used to finish off the sides



### Sidewall Taper

- The portion of the roll that is tapered guides the roll down to the area to be finished
- The sidewall then finishes off the sides

## APPLICATION/GRIT RECOMMENDATION GUIDE



## MERIT SPIRAL ROLLS

Best Tier / Ceramic Alumina with Grinding Aid – Full Taper



With their exclusive ceramic grain technology, grinding aid, and x-weight cotton backing, Merit ceramic alumina products cut cooler and last longer, outperforming all competitive ceramic, zirconia, and aluminum oxide specialty products in today's markets. on stainless steel, cobalt, Inconel, titanium, and other hard-to-grind materials.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Next-generation ceramic alumina abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly faster cut rates</li> <li>• Resists wear, resulting in 50% – 300% longer life</li> <li>• Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cutting, longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Exceptional grain retention and longer life</li> </ul>

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/8" x 1-1/2" x 1/8"</b>			
66261194481	M-9	60	100
66261194490	M-9	80	100
66261194491	M-9	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
66261194484	M-9	60	100
66261194492	M-9	80	100
66261194495	M-9	120	100

See cartridge and spiral roll mandrels on page 95.





# MERIT SPIRAL ROLLS

Good Tier / Aluminum Oxide Plus – Full Taper



Especially useful for cooler grinding/polishing of channels, fillets and radii, and deburring small holes..

FEATURES	BENEFITS
• Premium aluminum oxide abrasive	• Run cooler and more efficiently; ideal for grinding exotic alloys
• Strong X-weight cotton backing construction	• For extended durability and even wear
• Advanced, full resin bond system	• Provides exceptional grain retention and longer life

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/8" x 1-1/2" x 1/8"</b>			
77696089010	M-9	60	100
77696089011	M-9	80	100
77696089012	M-9	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
77696089013	M-9	60	100
77696089014	M-9	80	100
77696089015	M-9	120	100



See cartridge and spiral roll mandrels on page 95.

# MERIT SPIRAL ROLLS

Good Tier / Aluminum Oxide – Full Taper



Especially useful for grinding/polishing of channels, fillets and radii, and deburring small holes.

FEATURES	BENEFITS
• Quality aluminum oxide abrasive	• Tough and durable
• Strong X-weight cotton backing construction	• For extended durability and even wear
• Durable resin bond system	• Provides long life

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/8" x 1" x 1/8"</b>			
08834181714	M-8	60	100
08834181715	M-8	80	100
08834181717	M-8	120	100
<b>3/8" x 1-1/2" x 1/8"</b>			
08834181724	M-9	60	100
08834181708	M-9	80	100
08834181727	M-9	120	100
08834181728	M-9	150	100
08834181709	M-9	180	100
<b>1/2" x 1" x 1/8"</b>			
08834181734	M-8	60	100
08834181735	M-8	80	100
08834181737	M-8	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
08834181230	M-9	36	100
08834181743	M-9	50	100
08834181744	M-9	60	100
08834181745	M-9	80	100
08834181746	M-9	100	100
08834181747	M-9	120	100
08834181749	M-9	180	100
08834181750	M-9	240	100
<b>1/2" x 2" x 1/8"</b>			
08834181754	M-10	60	100
08834181755	M-10	80	100
08834181757	M-10	120	100

PART #	USE MANDREL	GRIT	STD. PKG.
<b>5/8" x 1-1/2" x 1/8"</b>			
08834181776	M-9	100	100
08834181777	M-9	120	100
08834183313	M-9	240	100
08834181781	M-9	320	100
<b>5/8" x 1-1/2" x 3/16"</b>			
08834181444	M-16	80	100
<b>3/4" x 1-1/2" x 1/8"</b>			
08834181286	M-9	60	100
08834180886	M-9	80	100
<b>3/4" x 1-1/2" x 3/16"</b>			
08834181807	M-16	50	100
08834181808	M-16	60	100
08834181809	M-16	80	100
08834181811	M-16	120	100
<b>3/4" x 2" x 3/16"</b>			
08834181820	M-17	60	100
<b>1" x 1-1/2" x 1/8"</b>			
08834181240	M-9	60	100
<b>1" x 2" x 3/16"</b>			
08834181875	M-17	36	100
08834181878	M-17	60	100
08834181879	M-17	80	100



See cartridge and spiral roll mandrels on page 95.





Sharp silicon carbide grain penetrates tough, difficult-to-grind materials, as well as soft, loading materials: titanium, masonry, composites, plastic, and rubber.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Sharp silicon carbide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Provides high initial cut on non-ferrous and soft- loading materials</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Provides exceptional grain retention and longer life</li> </ul>

PART #	USE MANDREL	GRIT	STD. PKG.
<b>3/8" x 1-1/2" x 1/8"</b>			
08834189904	M-9	80	100
66261046936	M-9	120	100
<b>1/2" x 1-1/2" x 1/8"</b>			
66261185977	M-9	60	100
08834183460	M-9	80	100
08834183448	M-9	120	100
66261042229	M-9	120	100

See cartridge and spiral roll mandrels below.



*CARTRIDGE AND SPIRAL ROLL MANDRELS*  
**Accessory**

PART #	MODEL NO.	PILOT DIA.	PILOT LENGTH	SHANK DIA.	SHANK LENGTH	OVERALL LENGTH
<b>CARTRIDGE AND SPIRAL ROLL MANDRELS</b>						
08834183799	M-2E	3/32"	3/4"	1/4"	1"	3"
08834181202	M-2	3/32"	1"	1/8"	1"	3"
08834181203	M-3	1/8"	1/2"	1/8"	1"	2-1/2"
08834181204	M-4	1/8"	3/4"	1/8"	1"	2-1/2"
08834181205	M-5	1/8"	1"	1/8"	1"	2-3/4"
08834181206	M-6	1/8"	1-1/2"	1/8"	1"	2-1/2"
08834181207	M-7	1/8"	1/2"	1/4"	1-1/4"	2-1/4"
08834181208	M-8	1/8"	3/4"	1/4"	1-1/4"	2-1/2"
08834181209	M-9	1/8"	1"	1/4"	1-1/4"	2-3/4"
08834181210	M-10	1/8"	1-1/2"	1/4"	1-1/4"	3-1/4"

PART #	MODEL NO.	PILOT DIA.	PILOT LENGTH	SHANK DIA.	SHANK LENGTH	OVERALL LENGTH
<b>CARTRIDGE AND SPIRAL ROLL MANDRELS (CONTINUED)</b>						
08834181211	M-11	1/8"	2"	1/4"	1-1/4"	4"
08834181215	M-15	3/16"	3/4"	1/4"	1-1/4"	2-3/4"
08834181216	M-16	3/16"	1"	1/4"	1-1/4"	3"
08834181217	M-17	3/16"	1-1/2"	1/4"	1-1/4"	3-1/2"
08834181218	M-18	3/16"	2"	1/4"	1-1/4"	4"
08834181220	M-20	1/4"	3/4"	1/4"	1-1/4"	2-3/4"
08834181221	M-21	1/4"	1"	1/4"	1-1/4"	3"
08834181222	M-22	1/4"	1-1/2"	1/4"	1-1/4"	3-1/2"
08834181223	M-23	1/4"	2"	1/4"	1-1/4"	4"

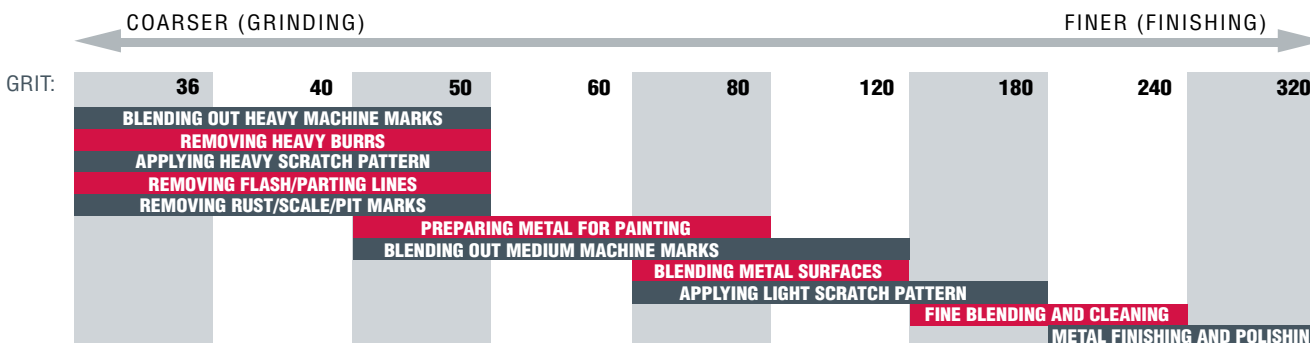
**Standard Package = 1**

## Tapered Cone Points

- Tapered cone points are similar to cartridge rolls but their shape lends greater accessibility to many difficult-to-reach work areas
- They are used for deburring holes and in close tolerance work areas
- Popular sizes and mandrels are listed, with additional sizes available as made-to-order



### APPLICATION/GRIT RECOMMENDATION GUIDE



## MERIT TAPERED CONE POINTS

Good Tier / Aluminum Oxide – Full Taper



Tapered cone points are similar to cartridge rolls but their shape lends greater accessibility to many difficult-to-reach work areas. They are used for deburring holes and in close tolerance work areas.

FEATURES	BENEFITS
• Premium aluminum oxide abrasive	• Provides long life
• Strong X-weight cotton backing construction	• For extended durability and even wear
• Durable resin bond system	• Exceptional grain retention and longer life

PART #	USE MANDREL	GRIT	STD. PKG.
<b>5/16" x 1-1/2" x 5°</b>			
08834180873	B-20	80	500
08834182043	B-20	100	500
08834182717	B-20	120	500
08834182535	B-20	180	500
08834182044	B-20	240	500
08834182537	B-20	320	500
<b>3/16" x 1" x 2-1/2°</b>			
08834186893	K-110	60	500
08834180918	K-110	80	500
08834182197	K-110	100	500
08834182199	K-110	120	500
08834186894	K-110	180	500
08834186895	K-110	240	500



## EXTRA SHANK LENGTH MANDRELS

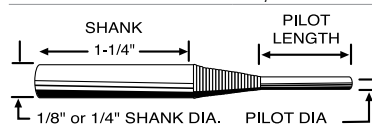
Accessory

PART NO.	MODEL NO.	SHANK LENGTH	OVERALL LENGTH	DIAMETER
08834180116	M-8-4	4"	5-1/4"	1/4"
08834180122	M-8-6	6"	7-1/4"	1/4"
08834180096	M-9-2.5	2-1/2"	4"	1/4"
08834180129	M-9-3	3"	4-1/2"	1/4"
08834180074	M-9-4	4"	5-1/2"	1/4"
08834180131	M-9-6	6"	7-1/2"	1/4"
08834180133	M-9-8	8"	9-1/2"	1/4"
08834180145	M-10-6	6"	8"	1/4"

Standard Package = 1

## Recommended Pilot Length for Mandrels

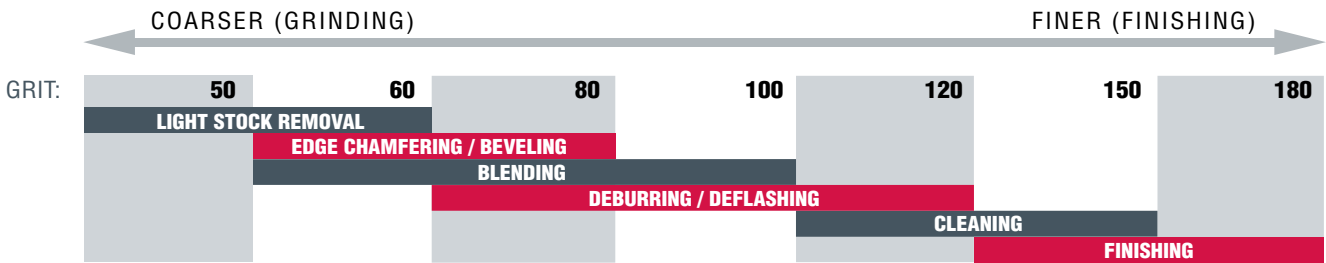
ROLL LENGTH	USE PILOT
3/4"	1/2"
1"	3/4"
1-1/2"	1"
2"	1-1/2"



**SPECIALTIES** – SQUARE AND CROSS PADS, OVERLAP SLOTTED DISCS



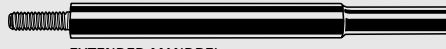
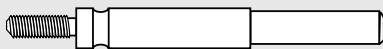
**APPLICATION/GRIT RECOMMENDATION GUIDE**



*QUICK-CHANGE MANDRELS FOR OVERLAP SLOTTED DISCS, SQUARE AND CROSS PADS*  
**Accessory**

PART #	MODEL #	CROSS PAD SIZE DIAMETER	SQUARE PAD SIZE DIAMETER	OVERALL LENGTH	THREAD SIZE
08834183162	MM48-4	1/4", 3/8", and 1/2" wide		2-1/2"	3-48
08834183163	MM32-4	3/4", 1" wide	Up thru 1-1/2" sq. x 1/2" thick	3"	8-32
08834183164	MM20-4	All pads 2-1/2" x 1-1/2" and larger	2" sq. x 1/4" or 1/2" thick and larger	3"	1/4-20

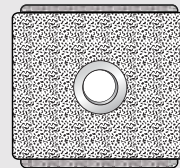
For overlap slotted discs, choose a mandrel with the same thread size as the disc.



EXTENDED MANDREL

## Square Pads

- With Merit square pads, corners wear down consistently exposing fresh abrasive; the pad becomes round for less aggressive stock removal
- Grind almost as fast as hard wheels, but are much smoother and easier to control
- For quick blending of channels, fillets, corners, or spotting flat surfaces



## MERIT SQUARE PADS

**Best Tier / Ceramic Alumina with Grinding Aid**



Best for hard-to-grind materials – stainless steel, cobalt, inconel, and titanium.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Next-generation ceramic alumina abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly faster cut rates</li> <li>• Resists wear, resulting in 50%-300% longer life</li> <li>• Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cutting, longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain retention and longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Standard quick-change eyelet for fast, easy mounting and removal on quick-change mandrels</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal downtime</li> <li>• Mandrel use increases range and versatility</li> </ul>



PART #	EYELET	GRIT	STD. PKG.
<b>2" x 2" x 1/2"</b>			
66261194520	1/4-20	60	100
66261194552	1/4-20	80	100
66261194554	1/4-20	120	100
<b>3" x 3" x 1/4"</b>			
66261194531	1/4-20	60	100
66261194555	1/4-20	80	100
66261194556	1/4-20	120	100

PART #	EYELET	GRIT	STD. PKG.
<b>3" x 3" x 1/2"</b>			
66261194528	1/4-20	60	100
66261194557	1/4-20	80	100
66261194558	1/4-20	120	100

See quick-change mandrels for overlap slotted discs, square pads, and cross pads on page 97.



## MERIT SQUARE PADS

**Good Tier / Aluminum Oxide**



Good for most ID deburring and polishing applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Quality aluminum oxide abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Versatile; ideal for deburring, chamfering, and polishing most radii, holes, recesses, and cylinder walls</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Good grain retention and life</li> </ul>
<ul style="list-style-type: none"> <li>• Standard quick-change eyelet for fast, easy mounting and removal on quick-change mandrels</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal downtime</li> <li>• Mandrel use increases range and versatility</li> </ul>



PART #	EYELET	GRIT	STD. PKG.
<b>1" x 1" x 6 PLY</b>			
08834184826	8-32	80	100
<b>1" x 1" x 8 PLY</b>			
08834184828	8-32	60	100
08834184124	8-32	80	100
08834184994	8-32	120	100
<b>1-1/2" x 1-1/2" x 1/2"</b>			
08834184463	1/4-20	60	100
08834184125	1/4-20	80	100
<b>2" x 2" x 1/2"</b>			
08834184334	1/4-20	60	100
08834184397	1/4-20	80	100

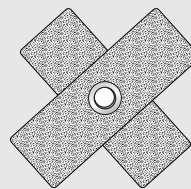
PART #	EYELET	GRIT	STD. PKG.
<b>2" x 2" x 3/4"</b>			
08834184487	1/4-20	50	100
08834184394	1/4-20	80	100
<b>3" x 3" x 1/4"</b>			
08834184882	1/4-20	80	100
<b>3" x 3" x 1/2"</b>			
08834182152	1/4-20	50	100
08834182057	1/4-20	60	100
08834184336	1/4-20	80	100

See quick-change mandrels for overlap slotted discs, square pads, and cross pads on page 97.



**Cross Pads**

- The shape of Merit's cross pads enables you to see through to the contact area, and provides greater flexibility than square pads to conform to variable internal diameters
- Used for close-tolerance polishing of small radii and channels, deburring, and finishing of bell-mouth configurations
- All pads are furnished with standard quick-change eyelet, as listed
- Plain hole sizes must be specified and are made-to-order



**MERIT CROSS PADS**

*Best Tier / Ceramic Alumina with Grinding Aid*



Best for hard-to-grind materials – stainless steel, cobalt, Inconel, and titanium.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Next-generation ceramic alumina abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly faster cut rates</li> <li>• Resists wear, resulting in 50%-300% longer life</li> <li>• Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cutting, longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Improved grain retention and longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Standard quick-change eyelet for fast, easy mounting and removal on quick-change mandrels</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal downtime</li> <li>• Mandrel use increases range and versatility</li> </ul>

PART #	PLY	EYELET	GRIT	STD. PKG.
<b>1-1/2" x 1-1/2" x 1/2"</b>				
66261194496	8	8-32	60	100
66261194508	8	8-32	80	100
66261194511	8	8-32	120	100
<b>2" x 2" x 3/4"</b>				
66261194502	8	8-32	60	100
66261194513	8	8-32	80	100
66261194516	8	8-32	120	100

PART #	PLY	EYELET	GRIT	STD. PKG.
<b>3" x 3" x 1"</b>				
66261194504	8	1/4-20	60	100
66261194549	8	1/4-20	80	100
66261194551	8	1/4-20	120	100

See quick-change mandrels for overlap slotted discs, square pads, and cross pads on page 97.



**MERIT CROSS PADS**

*Good Tier / Aluminum Oxide*



Good for most ID deburring and polishing applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Quality aluminum oxide abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Versatile; ideal for deburring, chamfering, and polishing most radii, holes, recesses, and cylinder walls</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Good grain retention and life</li> </ul>
<ul style="list-style-type: none"> <li>• Standard quick-change eyelet for fast, easy mounting and removal on quick-change mandrels</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal downtime</li> <li>• Mandrel use increases range and versatility</li> </ul>

PART #	PLY	EYELET	GRIT	STD. PKG.
<b>3/4" x 3/4" x 3/8"</b>				
08834185578	8	3-48	80	100
<b>1" x 1" x 3/8"</b>				
08834184943	8	3-48	60	100
08834185519	8	3-48	80	100
08834184195	8	3-48	100	100
08834185164	8	3-48	120	100
<b>1-1/2" x 1-1/2" x 1/2"</b>				
08834184258	8	8-32	60	100
08834184465	8	8-32	80	100
08834182196	8	8-32	100	100
08834182148	8	8-32	120	100
<b>2" x 2" x 1/2"</b>				
08834182156	8	8-32	60	100
08834182157	8	8-32	80	100
08834182132	8	8-32	120	100

PART #	PLY	EYELET	GRIT	STD. PKG.
<b>2" x 2" x 3/4"</b>				
08834184128	8	8-32	60	100
08834184194	8	8-32	80	100
08834184285	8	8-32	120	100
<b>2" x 2" x 1"</b>				
08834184805	8	8-32	120	100
<b>2-1/4" x 2-1/4" x 1/2"</b>				
08834184402	8	8-32	80	100
<b>2-1/2" x 2-1/2" x 3/4"</b>				
08834184206	8	8-32	80	100
08834184074	8	8-32	120	100
<b>3" x 3" x 1"</b>				
08834182135	8	1/4-20	60	100
08834184119	8	1/4-20	80	100
08834184116	8	1/4-20	120	100

PART #	PLY	EYELET	GRIT	STD. PKG.
<b>3" x 3" x 1"</b>				
08834182140	10	1/4-20	80	100
<b>3" x 3" x 1-1/2"</b>				
08834182184	10	1/4-20	80	100
<b>4" x 4" x 1"</b>				
08834184142	8	1/4-20	60	100
08834184135	8	1/4-20	80	100
08834184377	8	1/4-20	120	100
<b>4" x 4" x 1-1/2"</b>				
08834184129	8	1/4-20	80	100
08834184370	8	1/4-20	120	100

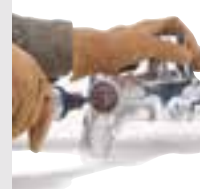
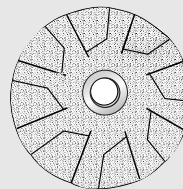
See quick-change mandrels for overlap slotted discs, square pads, and cross pads on page 97.





## Overlap Slotted Discs

- Used for deburring and polishing radii, holes and cylinder walls
- Our “2 to a set” configuration cuts on the inward motion only
- The “4 to a set” configuration, assembled back to back, cuts on both the inward and outward motions
- All discs are furnished with standard quick-change eyelet
- Plain hole sizes must be specified and are made-to-order



## MERIT OVERLAP SLOTTED DISCS

Best Tier / Ceramic Alumina with Grinding Aid



Best for hard-to-grind materials – stainless steel, cobalt, Inconel, and titanium

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Next-generation ceramic alumina abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly faster cut rates</li> <li>• Resists wear, resulting in 50%-300% longer life</li> <li>• Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced grinding aid</li> </ul>	<ul style="list-style-type: none"> <li>• Cooler cutting, longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>• Good grain retention and longer life</li> </ul>
<ul style="list-style-type: none"> <li>• Standard quick-change eyelet for fast, easy mounting and removal on quick-change mandrels</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal downtime</li> <li>• Mandrel use increases range and versatility</li> </ul>



### 2 PER SET

PART #	EYELET	GRIT	STD. PKG.
<b>1-1/2"</b>			
66261195051	8-32	60	100
66261195368	8-32	80	100
66261195367	8-32	120	100
<b>2"</b>			
66261195054	8-32	60	100
66261195055	8-32	80	100
66261195056	8-32	120	100

PART #	EYELET	GRIT	STD. PKG.
<b>3"</b>			
66261195057	1/4-20	60	100
66261195058	1/4-20	80	100
66261195059	1/4-20	120	100

See quick-change mandrels for overlap slotted discs, square pads, and cross pads on page 97.





Good for most ID deburring and polishing applications

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>Versatile; ideal for deburring, chamfering, and polishing most radii, holes, recesses, and cylinder walls</li> </ul>
<ul style="list-style-type: none"> <li>Durable resin bond system</li> </ul>	<ul style="list-style-type: none"> <li>Good grain retention and life</li> </ul>
<ul style="list-style-type: none"> <li>Standard quick-change eyelet for fast, easy mounting and removal on quick-change mandrels</li> </ul>	<ul style="list-style-type: none"> <li>Minimal downtime</li> <li>Mandrel use increases range and versatility</li> </ul>

## 2 PER SET

PART #	EYELET	GRIT	STD. PKG.
<b>1"</b>			
08834184346	8-32	60	100
08834184019	8-32	80	100
08834184224	8-32	100	100
08834184151	8-32	120	100
08834185078	8-32	180	100
<b>1-1/4"</b>			
08834184270	8-32	60	100
08834184065	8-32	80	100
08834184291	8-32	100	100
08834184084	8-32	120	100
<b>1-1/2"</b>			
08834184066	8-32	60	100
08834184079	8-32	80	100
08834184279	8-32	100	100
08834186035	8-32	120	100
08834184498	8-32	180	100
<b>1-3/4"</b>			
08834184655	8-32	60	100
08834184042	8-32	80	100
<b>2"</b>			
08834184076	8-32	80	100
08834184145	8-32	100	100
08834184055	8-32	120	100
<b>2-1/2"</b>			
08834184444	8-32	80	100
<b>3"</b>			
08834184818	1/4-20	50	100
08834184041	1/4-20	60	100
08834184077	1/4-20	80	100
08834184082	1/4-20	100	100
08834184344	1/4-20	120	100
<b>4"</b>			
08834184000	1/4-20	60	100
08834184159	1/4-20	100	100
08834185155	1/4-20	120	100
<b>4-1/2"</b>			
08834184431	1/4-20	120	100
<b>5"</b>			
08834184302	1/4-20	100	100

## 4 PER SET






PART #	EYELET	GRIT	STD. PKG.
<b>1"</b>			
08834184085	8-32	80	100
08834184236	8-32	120	100
<b>1-1/2"</b>			
08834184023	8-32	100	100

See quick-change mandrels for overlap slotted discs, square pads, and cross pads on page 97.

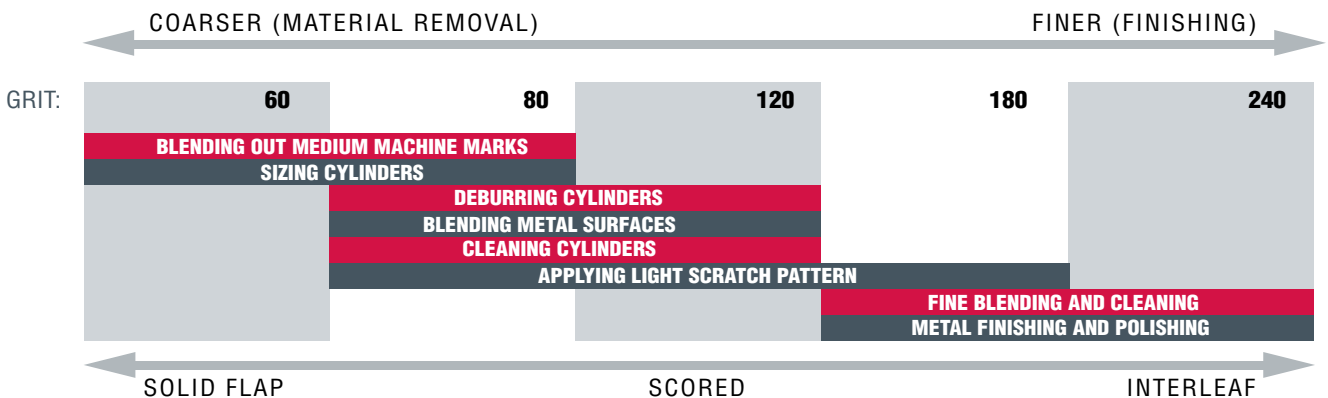




**APPLICATION-TO-PRODUCT SHAPE RECOMMENDATION GUIDE**

SHAPE	APPLICATION
 <p><b>Bore Polisher</b> <b>Solid Flaps</b> <b>B-3 Series</b></p>	<ul style="list-style-type: none"> <li>• For 5/8" to 1" interior diameter bores</li> <li>• 3 abrasive packs 1-1/2" wide, bonded to hub</li> <li>• Use with QC-5 mandrel Part # 08834154182</li> </ul>
 <p><b>Bore Polisher</b> <b>Solid Flaps</b> <b>B-4 Series</b></p>	<ul style="list-style-type: none"> <li>• For 1" to 4" interior diameter bores</li> <li>• 4 abrasive packs 1-1/2" wide, bonded to hub</li> <li>• Use with BPM-4 mandrel Part # 08834154183</li> </ul>
 <p><b>Bore Polisher</b> <b>Solid Flaps</b> <b>B-8 Series</b></p>	<ul style="list-style-type: none"> <li>• For 2" to 5-7/8" interior diameter bores</li> <li>• 8 abrasive packs 1-1/2" wide, bonded to hub</li> <li>• Use with BPM-8 mandrel Part # 08834154184</li> </ul>
 <p><b>Bore Polisher</b> <b>Scored Flaps</b></p>	<p>Available as made-to-order. Contact your representative for quotation and lead-time information.</p>
 <p><b>Bore Polisher</b> <b>Interleaf</b></p>	<p>Merit interleaf bore polishers do double duty. Designed to polish and finish in one easy application, they are the ideal choice when close tolerances must be maintained while giving an interior a polished finish.</p>

**APPLICATION/GRIT RECOMMENDATION GUIDE**





Bore polishers are self-centering, so they apply equal pressure to full wall of inside diameter. Spring action design gives faster inside diameter cleaning, deburring and polishing to cylinders, deep bores and tubes.

FEATURES	BENEFITS
• Premium aluminum oxide abrasive	• Provides long life
• Strong X-weight cotton backing construction	• For extended durability and even wear
• Durable resin bond system	• Provides exceptional grain retention and longer life

PART #	GRIT	MAX. RPM	STD. PKG.
<b>B-305 – FITS I.D. 5/8" TO 1" – SOLID FLAP</b>			
08834154190	60	25,000	10
08834154191	80	25,000	10
08834154193	120	25,000	10
08834154195	180	25,000	10
08834154197	240	25,000	10
<b>B-405 – FITS I.D. 1" TO 1-1/2" – SOLID FLAP</b>			
08834154091	60	22,000	10
08834154092	80	22,000	10
08834154093	120	22,000	10
08834154094	180	22,000	10
<b>B-410 – FITS I.D. 1-1/2" TO 2" – SOLID FLAP</b>			
08834154100	60	20,000	10
08834154101	80	20,000	10
08834154102	120	20,000	10
08834154103	180	20,000	10
08834154104	240	20,000	10
<b>B-415 – FITS I.D. 2-1/8" TO 2-1/2" – SOLID FLAP</b>			
08834154109	60	16,000	10
08834154110	80	16,000	10
08834154111	120	16,000	10
08834154112	180	16,000	10
<b>B-420 – FITS I.D. 2-1/2" TO 3" – SOLID FLAP</b>			
08834154118	60	15,000	10
08834154119	80	15,000	10
08834154120	120	15,000	10
08834154121	180	15,000	10
08834154122	240	15,000	10
<b>B-425 – FITS I.D. 3-1/8" TO 4" – SOLID FLAP</b>			
08834154127	60	10,000	10
08834154128	80	10,000	10
08834154129	120	10,000	10
08834154130	180	10,000	10
<b>B-810 – FITS I.D. 2" TO 2-1/2" – SOLID FLAP</b>			
08834154136	60	16,000	10
08834154137	80	16,000	10
08834154138	120	16,000	10
08834154139	180	16,000	10
08834154140	240	16,000	10

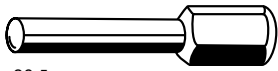
PART #	GRIT	MAX. RPM	STD. PKG.
<b>B-815 – FITS I.D. 2-5/8" TO 3" – SOLID FLAP</b>			
08834154145	60	15,000	10
08834154146	80	15,000	10
08834154147	120	15,000	10
08834154148	180	15,000	10
08834154149	240	15,000	10
<b>B-820 – FITS I.D. 3-1/8" TO 4" – SOLID FLAP</b>			
08834154154	60	10,000	10
08834154155	80	10,000	10
08834154156	120	10,000	10
08834154157	180	10,000	10
08834154158	240	10,000	10
<b>B-825 – FITS I.D. 4-1/4" TO 5-1/4" – SOLID FLAP</b>			
08834154163	60	8,000	10
08834154164	80	8,000	10
08834154165	120	8,000	10
08834154166	180	8,000	10
08834154167	240	8,000	10
<b>B-830 – FITS I.D. 5-1/4" TO 5-7/8" – SOLID FLAP</b>			
08834154172	60	8,000	10
08834154173	80	8,000	10
08834154174	120	8,000	10
08834154175	180	8,000	10
08834154176	240	8,000	10
<b>BORE POLISHERS – SCORED FLAPS</b>			
Available on request			
<b>B-405 – FITS ID 1" TO 1-1/2" – INTERLEAF</b>			
08834150271	80	22,000	10
08834150273	180	22,000	10
<b>B-410 INTERLEAF – FITS ID 1-1/2" TO 2" – INTERLEAF</b>			
08834150275	80	20,000	10



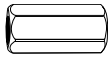
See mandrels for bore polishers on next page.

## MANDRELS FOR BORE POLISHERS

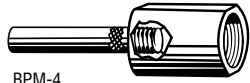
### Accessory



QC-5



QC-5 EXT



BPM-4



BPM-8

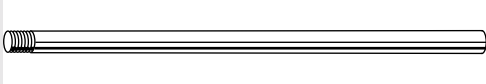
Choose mandrels to match the series of the bore polisher being used.

PART #	DESCRIPTION	MODEL NO.	THREAD
08834154182	For B-3 Series	QC-5	5/16-18
08834150573	QC-5 EXT	QC-5 EXT	5/16-18
08834154183	For B-4 Series	BPM-4	1/2-20
08834154184	For B-8 Series	BPM-8	1/4-20

**Standard Package = 1**

## EXTENSION MANDRELS FOR BORE POLISHERS

### Accessory



To extend a B-3 series bore polisher, attach the QC-5 Ext. to the bore polisher, then attach the desired length extension mandrel to the QC-5 Ext. To extend a B-4 series bore polisher, attach the adapter piece of the BPM-4 mandrel to the bore polisher, then attach the desired length extension mandrel to the BPM-4 adapter piece. To extend a B-8 series bore polisher, attach the desired length extension mandrel directly to the bore polisher.

PART #	MODEL NO.
<b>1/4" x 4" x 1/4"-20 THREAD</b>	
08834154185	EM-144
<b>1/4" x 6" x 1/4"-20 THREAD</b>	
08834154186	EM-146
<b>1/4" x 8" x 1/4"-20 THREAD</b>	
08834154187	EM-148

**Standard Package = 1**

## MERIT BORE POLISHER TEST KIT

**MERIT**



Contains a variety of the most popular shapes and sizes of bore polishers.

PART #	DESCRIPTION
<b>MERIT BORE POLISHER TEST KIT "BP"</b>	
08834154181	Contains ten bore polishers and two mini 1/4"-20 thread flap wheels in assorted sizes and grits for finishing 1" to 5" interior diameters, and mandrel for 1/4" chuck.



## HOW TO READ A COATED ABRASIVE SPECIFICATION

A coated abrasive product is made up of three basic raw materials: an abrasive mineral, the backing onto which the abrasive is applied, and an adhesive bond. The Carborundum Abrasives coated abrasive marking system includes both a generic and a technical marking.

The generic markings identify the abrasive type, bond, backing, and any special features and/or tradenames. An example would be: Premier Red Aluminum Oxide Dri-Lube Resin Paper Open.

The technical markings identify the actual components which make up the product. Technical markings consists of up to 10 parts. An example would be: P36 XBS 09 8 6 W O. The following terminology explains the technical marking system.

## COATED ABRASIVE TERMINOLOGY KEY

GRADING		GRIT SIZE	BACKING	CLOTH TYPE	BACKING FLEXIBILITY	MINERAL	BACKING	BOND	PERFORMANCE	COATING
P	FEPA	12	Paper:	B Poly/ Cotton	F Flexible	00 Cork	0 Mesh	0 Glue	A Anti-Static	O Open Coat
—	ANSI	2000	A	Blend	— Standard	01 Crocus	1 Paper	1 U/G	D Dri-Lube Oversizee	— Closed Coat
			B			02 Emery	2 Comb.	2 U/U		
			C	C Cotton	S Stiff	03 Garnet	3 Film	3 R/G or U		
			D			04 S/C (Silicon Carbide)	4 Fiber			
			E			05 WA (White A/O)			R Reactive	
			F	G Glass		06 PA (Pink A/O)			W Washable or Waterproof	
			Cloth:	N Poly/ Nylon		07 LBA (Light Brown A/O)	5 Most Flexible	4 Least Durable		
			J			08 A/O (Aluminum Oxide)				
			X			09 HT A/O (Heat-Treated)				
			9.5 Micron	Y Polyester		10 Open				
						11 ZA (Zirconia Alumina)				
						12 ZA (Premium)	9 Least Flexible	9 Most Durable		
			T Comb.	R Rayon		23 Ceramic Alumina - Reduced Ratio	Performance Rating			
			M Mesh			24 Open - Ceramic Alumina				
			V Fiber			25 Ceramic Alumina - Full Ratio				
			P Film			40 S/C-Cork Super Finishing				
						80 A/O-Cork Super Finishing				

## ABRASIVE TYPES

### Emery (02)

Emery is a dark gray, round-shaped grain which tends to polish rather than abrade a work surface.

- For polishing and cleaning metal only



### Garnet (03)

Garnet is reddish brown in color. This natural abrasive is medium hard and relatively sharp, but not as durable as synthetic abrasives.

- For use on wood only
- Particularly good for soft woods such as pine
- Produces an excellent finish



### Silicon Carbide (04)

Silicon carbide is the hardest and sharpest of the manufactured abrasives. Because of its extreme sharpness, this bluish-black abrasive grain permits fast stock removal and cool cut.

- Cast iron
- Non-ferrous metals, i.e. brass, aluminum and bronze
- Non-metallics, i.e. glass, rubber, plastic and stone
- Final finish on wood and stainless steel
- Abrasive planing particleboard



### Light Brown Aluminum Oxide (07)

Light brown aluminum oxide is a tough, yet sharp synthetic abrasive characterized by cool cut, long life and the ability to break down under pressure, producing new cutting edges.

- Production wood sanding
- Non-ferrous metal finishing



### Brown Aluminum Oxide (08)

Brown aluminum oxide is a tough, durable, synthetic abrasive characterized by the long life and wear resistance of its cutting edges. It offers enormous penetrating strength, even at high speeds.

- Ferrous metals
- Aluminum
- Hardwood



### Heat-treated Aluminum Oxide (09)

Heat-treated aluminum oxide is a tough but cool cutting abrasive which gives both long life and freeness of cut on a wide range of materials.

- Ferrous metals
- Wood sanding



### Zirconia Alumina (11, 12)

Zirconia alumina is an ultra-tough, synthetic abrasive which provides a free, cool cut for high stock removal applications. It is tougher and sharper than aluminum oxide. It has a micro-crystalline structure which allows for controlled breakdown and self-sharpening.

- Heavy-duty snagging and grinding of all ferrous and non-ferrous metals
- Abrasive planing of wood, plywood and particleboard
- Grinding fiberglass, rubber and plastics



### Ceramic Alumina (23, 25)

The sub-micron structure of ceramic alumina allows each grain to continually expose sharp cutting points, resulting in a cooler cutting action and an extended life.

- All ferrous/non-ferrous metals, carbon steel and exotic alloys



## GRIT COMPARISON CHART

AVERAGE PARTICLE SIZE IN MICRONS	GRADING SYSTEMS (OTHER THAN EMERY)			EMERY PRODUCTS
	CAMI	FEPA	JIS	
5.0	-	-	-	-
6.0	-	-	3000	-
6.5	1200	-	2500	4/0
8.4	-	P2500	-	-
8.5	-	-	2000	-
9.2	1000	-	-	3/0
10.3	-	P2000	-	-
10.5	-	-	1500	-
12.2	800	-	1200	-
12.6	-	P1500	-	-
15.0	-	-	-	-
15.3	-	P1200	1000	-
16.0	600	-	-	2/0
18.3	-	P1000	800	-
19.7	500	-	-	0
20.0	-	-	-	-
21.8	-	P800	-	-
23.6	400	-	600	-
25.0	-	-	-	-
25.75	-	P600	-	-
28.8	360	-	500	-
30.0	-	P500	-	-
35.0	-	P400	400	-
36.0	320	-	-	-
40.0	-	-	360	-
40.5	-	P360	-	-
44.0	280	-	-	1
45.0	-	-	-	-
46.2	-	P320	320	-
50.0	-	-	-	-
52.5	-	P280	280	-
53.5	240	-	-	-
55.0	-	-	-	-
58.5	-	P240	-	-
60.0	-	-	240	-

## BACKING TYPES

Backings are the base for the abrasive minerals and, combined with the adhesive bond, support and anchor the abrasive mineral. The backings used in the manufacture of coated abrasives are:

**Paper:** Paper is used for a variety of operations from hand sanding to mechanical sanding. It is the least expensive backing. Due to the fine surface of paper, a consistent finish is produced. Paper weights include A, B, C, D, E and F weights with A being the lightest and most flexible and F being the heaviest and least flexible. A, B, C and D weight papers are used for hand sanding and light mechanical operations in the form of sheets, Grip-On and Stick-On discs and Stick-On rolls. E and F weight papers are primarily used for more aggressive mechanical operations in the form of belts and discs.

**Cloth:** Cloth backings used for coated abrasives are identified by weight. Cloth backings are filled or “finished” with a variety of materials, glues or resins, to create various backing characteristics, most notably flexibility.

There are three basic weights of cloth: J-weight or “jeans” is the lightest and most flexible. X-weight or “drills” is a heavier cloth that ranges in flexibility, strength and durability and is used on the broadest range of applications. Y-weight is a heavyweight drills cloth used on heavy-duty, high stock removal operations. Several cloth types are used: cotton, polyester, and polyester/cotton blends.

**Fiber:** Vulcanized fiber (cotton fibers which are chemically treated and then pressed under temperature and pressure to form a very durable backing) is used exclusively as the backing for resin fiber discs.

## BOND TYPES

An adhesive bond system is required to secure the abrasive mineral to the backing. All coated abrasive products are made with a two-stage bonding process. The first layer of bond applied to the backing is called the *make coat*. The make coat provides the adhesive base between the abrasive mineral and the backing.

AVERAGE PARTICLE SIZE IN MICRONS	GRADING SYSTEMS (OTHER THAN EMERY)			EMERY PRODUCTS
	CAMI	FEPA	JIS	
64.0	-	-	-	2
65.0	-	P220	220	-
66.0	220	-	-	-
78.0	180	P180	180	-
79.0	-	-	-	3
93.0	150	-	150	-
95.0	-	-	-	FINE
97.0	-	P150	-	-
116.0	120	-	120	-
127.0	-	P120	100	-
136.0	-	-	-	MEDIUM
141.0	100	-	-	-
156.0	-	P100	-	-
189.0	-	-	-	COARSE
192.0	80	-	80	-
197.0	-	P80	-	-
260.0	-	P60	-	-
268.0	60	-	60	-
326.0	-	P50	50	-
341.0	-	-	-	EX. COARSE
351.0	50	-	-	-
412.0	-	P40	40	-
428.0	40	-	-	-
524.0	-	P36	-	-
535.0	36	-	36	-
622.0	-	P30	-	-
638.0	30	-	30	-
715.0	24	-	-	-
740.0	-	P24	24	-
905.0	20	-	-	-
984.0	-	P20	20	-
1320.0	16	-	16	-
1324.0	-	P16	-	-
1764.0	-	P12	-	-
1842.0	12	-	-	-

## BOND TYPES (CONTINUED)

The second coat is the *size coat*, which is applied over the abrasive mineral and make coat to anchor the abrasive mineral and provide the desired physical strength of the finished product.

Glue, urea resin, and phenolic resin are the three basic bonding agents most commonly used. There are many size coat and make coat combinations, such as glue over glue, urea over glue, and resin over resin. Glue over glue is the most flexible bond while resin over resin bond is moisture-resistant, harder, less flexible, heat-resistant and has superior grain retention.

## COATING TYPES

There are two types of abrasive coatings used in the manufacturing of coated abrasives: open coat and closed coat.

### Open Coat

With an open coat, 50% to 75% of the coated abrasive surface is covered by abrasive grain. There are evenly spaced voids between the particles of grain, helping reduce the effect of loading caused by wood dust or metal particles.



OPEN COAT  
(1/3 LESS GRAIN THAN  
CLOSED COAT)

### Closed Coat

With a closed coat, the entire coated abrasive surface is covered with abrasive grain, with no voids between the particles. This is the most typical coating, permitting the greatest degree of stock removal and longest product life.



CLOSED COAT

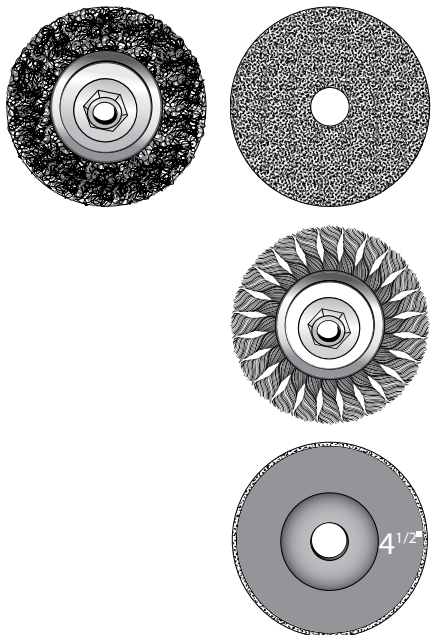


**COMPONENTS OF NON-WOVEN RIGHT ANGLE DISCS**

Non-woven right angle discs have three components: strong synthetic fiber mesh and quality abrasives, bonded together by a smear-resistant adhesive. Surface Strip discs have an open web construction that enables aggressive cutting action while maintaining a cool, non-loading surface. Surface Prep discs have a more open weave that excels in preparation and cleaning of a surface. Each product provides excellent cutting action while improving surface finish.

The non-woven web is attached to a fiberglass backing plate (Surface Strip depressed center wheels) for direct mounting or onto a woven substrate backing (Surface Prep discs) for mounting on a rubber back-up pad.

**WHY CHOOSE NON-WOVEN RIGHT ANGLE DISCS?**



**Non-Woven Right Angle Discs versus Fiber Discs, Wire Wheels, and Conventional Depressed Center Wheels**

- Deburring, blending and finishing done with one product to reduce the number of steps
- To provide a controlled, sustained finish
- To prevent undercutting and gouging
- To provide a cooler grinding action to lessen the chance of warping or discoloration
- When loading is an issue with fiberglass, adhesives and soft metals
- For stripping coatings and paint off of hard materials like concrete, cement and stone
- Less vibration and quieter for high operator acceptance
- To provide a safe alternative to wire brushes



# CARBO FIRE SURFACE STRIP NON-WOVEN DEPRESSED CENTER WHEELS

Best Tier / Ceramic Alumina



Extremely sharp and tough extra coarse ceramic grain blend and open construction make these wheels the best choice for quick and easy rough cleaning and stripping of all materials. Capable of material removal, blending and finishing.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Ceramic alumina grain</li> <li>Advanced resin bond</li> </ul>	<ul style="list-style-type: none"> <li>2X cut rate, 2X life over silicon carbide</li> <li>Does not shed on rust encrusted pieces, and prevents gouging and rework</li> <li>Does not snag when used for deburring</li> </ul>
<ul style="list-style-type: none"> <li>New coating process</li> </ul>	<ul style="list-style-type: none"> <li>Abrasive coating covers the entire disc providing a consistent cut rate</li> </ul>
<ul style="list-style-type: none"> <li>Open structure</li> </ul>	<ul style="list-style-type: none"> <li>Sticky coatings, adhesives, and soft metals will not clog the disc</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	WHEELS/ CASE
<b>4-1/2" x 5/8"-11</b>				
05539500534	Extra Coarse Ceramic	Orange	12,000	5
<b>4-1/2" x 7/8"</b>				
05539500535	Extra Coarse Ceramic	Orange	12,000	10
<b>7" x 5/8"-11</b>				
05539500536	Extra Coarse Ceramic	Orange	8,000	5
<b>7" x 7/8"</b>				
05539500537	Extra Coarse Ceramic	Orange	8,000	10



# SURFACE STRIP NON-WOVEN DEPRESSED CENTER WHEELS

Good Tier / Silicon Carbide



An open web construction quickly and easily cleans and conditions a multitude of materials, with very little loading. Excellent for removal of surface rust and residue, corrosion, light weld splatter, dirt, mill scale and other similar surface contaminants.

Major applications include:

- preparing surfaces before welding
- cleaning and conditioning after welding
- surface preparation before coatings are applied
- paint and epoxy coating removal

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Open web construction</li> <li>Extra coarse grit</li> <li>Thick and durable</li> </ul>	<ul style="list-style-type: none"> <li>Smear resistant formula; resist loading</li> <li>Quick cleaning and conditioning of surfaces</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	WHEELS/ CASE
<b>4-1/2" x 5/8"-11</b>				
05539562616	Extra Coarse S/C	Black	12,000	10
<b>4-1/2" x 7/8"</b>				
05539562615	Extra Coarse S/C	Black	12,000	10
<b>7" x 5/8"-11</b>				
05539562618	Extra Coarse S/C	Black	8,000	10
<b>7" x 7/8"</b>				
05539562617	Extra Coarse S/C	Black	8,000	10



# SURFACE BLEND VORTEX GRAIN TECHNOLOGY N-W DEPRESSED CENTER WHEELS

Best Tier / Vortex Aluminum Oxide



Can be used in place of, or in sequence with, fiber and flap discs, to clean, polish and impart great finishes in one or two operations. Engineered for heavy deburring and finishing a wide range of materials

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Proprietary Vortex aluminum oxide aggregate grain</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive, fast stock removal cut rate while providing a fine finish</li> <li>Twice the wheel life over conventional unified wheels, with minimal shedding</li> </ul>
<ul style="list-style-type: none"> <li>New bond technology</li> </ul>	<ul style="list-style-type: none"> <li>Consistent performance with no smearing</li> </ul>
<ul style="list-style-type: none"> <li>Controlled porosity</li> </ul>	<ul style="list-style-type: none"> <li>Cooler and improved cut rate</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	WHEELS/ CASE
<b>4-1/2" x 5/8"-11</b>				
05539500538	Medium Vortex A/O	Blue	12,000	10
<b>4-1/2" x 7/8"</b>				
05539500539	Medium Vortex A/O	Blue	12,000	10



# SURFACE BLEND NON-WOVEN DEPRESSED CENTER WHEELS

Good Tier / Aluminum Oxide or Silicon Carbide



Can be used in place of, or in sequence with, fiber and flap discs, to clean, polish and impart great finishes in one or two operations. Surface Blend depressed center wheels will work anywhere our Surface Strip products work. Use Surface Blend wheels when a less aggressive product is needed.

Major applications include:

- prepping surfaces
- removing light scale on electrical power generation components (beryllium, copper, brass and bronze), composite and fiberglass resins, surface impurities from aluminum tubing, weld discoloration, over-spray from powder coating and painting operations
- cleaning and polishing injection molds, paper mill rolls, stainless steel, and ferrous and nonferrous metal surfaces

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Fine grain particle concentration cleans and polishes while imparting final finishes on a variety of materials</li> </ul>	<ul style="list-style-type: none"> <li>Increases productivity and reduces total abrasive costs by eliminating a grinding step</li> </ul>
<ul style="list-style-type: none"> <li>Advanced resin system</li> </ul>	<ul style="list-style-type: none"> <li>Resists loading: smear-free, clean, fine finishes</li> </ul>
<ul style="list-style-type: none"> <li>Low density</li> </ul>	<ul style="list-style-type: none"> <li>Conformable and flexible</li> </ul>
<ul style="list-style-type: none"> <li>Undersized backing</li> </ul>	<ul style="list-style-type: none"> <li>Maximizes grinding area and usage for longer life</li> </ul>
<ul style="list-style-type: none"> <li>CFX-2MA</li> </ul>	<ul style="list-style-type: none"> <li>Most aggressive</li> </ul>
<ul style="list-style-type: none"> <li>CFX-2FA</li> </ul>	<ul style="list-style-type: none"> <li>Multi-purpose</li> </ul>
<ul style="list-style-type: none"> <li>CFX-2FS</li> </ul>	<ul style="list-style-type: none"> <li>Polishing</li> </ul>
<ul style="list-style-type: none"> <li>Medium A/O High Strength</li> </ul>	<ul style="list-style-type: none"> <li>Less aggressive, most conformable</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	WHEELS/ CASE
<b>4-1/2" x 5/8"-11</b>				
66261023940	CFX-2MA	Tan	12,000	10
66261023910	CFX-2FA	Tan	12,000	10
66261023909	CFX-2FS	Grey	12,000	10
66261023942	Medium A/O High Strength	Maroon	12,000	10

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	WHEELS/ CASE
<b>4-1/2" x 7/8"</b>				
66261021754	CFX-2MA	Tan	12,000	10
66261021758	CFX-2FA	Tan	12,000	10
66261021750	CFX-2FS	Grey	12,000	10
66261021761	Medium A/O High Strength	Maroon	12,000	10





# CARBO FIRE SURFACE STRIP NON-WOVEN DISCS

Best Tier / Ceramic Alumina



Rust-free alternative to a wire brush. These discs offer unmatched stripping power. Ideal for hard-to-reach areas. Rugged design provides long life and continuous cutting action to remove rust oxidation, and unwanted paint.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Ceramic alumina grain</li> <li>Open web construction</li> </ul>	<ul style="list-style-type: none"> <li>2X cut rate, 2X life over silicon carbide</li> <li>Effective on sharp, jagged surfaces</li> <li>Great alternative to wire brushes</li> <li>Resist loading</li> </ul>
<ul style="list-style-type: none"> <li>Synthetic material web</li> <li>Thick and durable</li> </ul>	<ul style="list-style-type: none"> <li>Will not rust</li> <li>Extended product life</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	WHEELS/CASE
<b>3" TR</b>				
66623329280	Extra Coarse Ceramic	Orange	12,000	10
<b>4" TR +</b>				
66623329282	Extra Coarse Ceramic	Orange	8,000	5
<b>4" x 1/2" x 1/4" ARBOR HOLE</b>				
77696039321	Extra Coarse Ceramic	Orange	8,000	25



See back-up pads and mandrel for these discs on page 111.  
TR+ discs must be used with adapter, part number 77696061650 also on page 111.

# SURFACE STRIP NON-WOVEN DISCS

Good Tier / Silicon Carbide



An open web construction quickly and easily cleans and conditions a multitude of materials, with very little loading. Excellent for removal of surface rust and residue, corrosion, light weld splatter, dirt, mill scale and other similar surface contaminants.

- Major applications include:
- preparing surfaces before welding
  - cleaning and conditioning after welding
  - surface preparation before coatings are applied
  - paint and epoxy coating removal

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Open web construction</li> </ul>	<ul style="list-style-type: none"> <li>Smear resistant formula</li> <li>Resist loading</li> </ul>
<ul style="list-style-type: none"> <li>Extra coarse grit</li> </ul>	<ul style="list-style-type: none"> <li>Quick cleaning and conditioning of surfaces</li> </ul>
<ul style="list-style-type: none"> <li>2" and 3" discs with quick-change TR fastener</li> </ul>	<ul style="list-style-type: none"> <li>Quick, tool-free disc changes allow more grinding time</li> </ul>
<ul style="list-style-type: none"> <li>4" discs with quick-change TR+ fastener with longer TR shank</li> </ul>	<ul style="list-style-type: none"> <li>Can be used on face and edge</li> <li>Quick-change replacement</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	DISCS/CASE
<b>2" TR</b>				
05539564097	Extra Coarse S/C	Black	15,500	10
<b>3" TR</b>				
05539564098	Extra Coarse S/C	Black	12,000	10
<b>4" TR+</b>				
05539573903	Extra Coarse S/C	Black	8,000	5

PART #	GRIT/ABRASIVE	COLOR	MAX. RPM	DISCS/CASE
<b>4" x 1/2" x 1/4" ARBOR HOLE</b>				
05539563438	Extra Coarse S/C	Black	8,000	25
<b>4" x 1/2" x 3/8" ARBOR HOLE</b>				
05539562614	Extra Coarse S/C	Black	8,000	25
<b>4" x 1/2" x 1/2" ARBOR HOLE</b>				
05539527164	Extra Coarse S/C	Black	8,000	25

See back-up pads and mandrel for these discs on page 111.  
TR+ discs must be used with adapter, part number 77696061650 also on page 111.



## BACK-UP PADS FOR NON-WOVEN QUICK-CHANGE TR DISCS

### Accessory



TR (Type III) molded rubber pad with a 1/4" steel shank for quick mounting. Unique locking device on face provides convenience and quick change.

- Hard density pads are used for aggressive cutting action
- Medium density pads are used for all-purpose applications
- Soft density pads are used for contours and fine finishing work
- All quick-change back-up pads have a 1/4" diameter shank
- Refer to the end of the Coated Abrasive quick-change disc section for a complete list of back-up pads and mandrels.

PART #	DENSITY	MAX. RPM	PADS/CASE
<b>2" TR</b>			
08834164643	Hard	30,000	1
08834164922	Medium	30,000	1
08834164641	Soft	30,000	1
<b>3" TR</b>			
08834164036	Hard	20,000	1
08834164949	Medium	20,000	1
08834164644	Soft	20,000	1
<b>4" TR+</b>			
77696061650	Medium	8,000	10

# E-ZVIEW FLEX-LOC SURFACE PREP NON-WOVEN DISCS

Good Tier / Aluminum Oxide



Allow operator to see surface being ground. Deliver a consistent finish when used to clean, deburr, blend or finish all types of metal and plastic. Ideal for the removal of rust, oxidation and coatings.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Non-woven web design</li> </ul>	<ul style="list-style-type: none"> <li>• Conformable, controlled cutting action</li> <li>• Minimizes undercutting and gouging</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced resin system</li> <li>• Round edge shape</li> </ul>	<ul style="list-style-type: none"> <li>• Resists loading</li> <li>• Ideal for reaching into grooves, sharp edges, and hard-to-grind corners where work is done at a steeper angle</li> </ul>
<ul style="list-style-type: none"> <li>• Scooped holes</li> </ul>	<ul style="list-style-type: none"> <li>• Allow operator to see the surface area being ground</li> <li>• Create air flow to remove swarf – preventing loading – and 30% cooler cutting action than conventional discs</li> </ul>
<ul style="list-style-type: none"> <li>• Flex-Loc mount</li> <li>• Aligned center-hole locking mechanism</li> </ul>	<ul style="list-style-type: none"> <li>• Quick, tool-free changing of discs</li> <li>• Elimination of hole slippage or spinning</li> <li>• Discs are easily mounted and stay securely in place at all times.</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>4-1/2" x 7/8" E-ZVIEW FLEX-LOC</b>			
05539554535	Extra Coarse A/O	Black	10
05539563955	Coarse A/O	Tan	10
05539563956	Medium A/O	Maroon	10
05539554536	Fine A/O	Green	10
05539563957	Very Fine A/O	Blue	40

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>7" x 7/8" E-ZVIEW FLEX-LOC</b>			
05539554537	Medium A/O	Maroon	40



## BACK-UP PADS FOR E-ZVIEW EDGER FLEX-LOC DISCS

Accessory



Designed exclusively for use with E-ZView Flex-Loc Discs. These back-up pads allow easy, tool-free mounting. The mounting hole and recessed lock-nut automatically line disc up with back-up pad and allow more disc to contact work surface.

PART #	DESCRIPTION	MAX. RPM	PADS/CASE
<b>FOR E-ZVIEW EDGER FLEX-LOC DISCS</b>			
05539563975	4-1/2" x 5/8"-11 Sawtooth	13,000	5
05539563836	7" x 5/8"-11 Round, Medium, Thicker	8,600	5



# SURFACE PREP NON-WOVEN DISCS

Standard Tier / Aluminum Oxide



Good choice for light deburring and blending operation.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• New Clean Bond resin system</li> </ul>	<ul style="list-style-type: none"> <li>• Smear-free, even on high nickel content alloys</li> <li>• Will not load on aluminum and soft metals, as competitive products can</li> </ul>
<ul style="list-style-type: none"> <li>• Proprietary new coating method</li> </ul>	<ul style="list-style-type: none"> <li>• Thick layer of grain throughout the product extends life; grain does not sit on top of fibers as on other competitive products</li> </ul>
<ul style="list-style-type: none"> <li>• Extended form holding</li> </ul>	<ul style="list-style-type: none"> <li>• Lowers total cost of consumable tooling per workpiece</li> </ul>
<ul style="list-style-type: none"> <li>• Good choice for light deburring and blending operations</li> </ul>	<ul style="list-style-type: none"> <li>• Provide better grain utility while remaining flexible</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>4-1/2" x 7/8" ARBOR HOLE</b>			
05539554538	Extra Coarse A/O	Black	25
05539554539	Coarse A/O	Tan	25
05539554540	Medium A/O	Maroon	25
05539554541	Fine A/O	Green	25
05539554542	Very Fine A/O	Blue	25
<b>5" x 7/8" ARBOR HOLE</b>			
05539554543	Extra Coarse A/O	Black	25
05539554544	Coarse A/O	Tan	25
05539554545	Medium A/O	Maroon	25
05539554546	Fine A/O	Green	25
05539554547	Very Fine A/O	Blue	25
<b>6" x 7/8" ARBOR HOLE</b>			
05539554548	Extra Coarse A/O	Black	25
05539554549	Coarse A/O	Tan	25
05539554550	Medium A/O	Maroon	25
05539554551	Fine A/O	Green	25
05539554552	Very Fine A/O	Blue	25
<b>7" x 7/8" ARBOR HOLE</b>			
05539554553	Extra Coarse A/O	Black	25
05539554554	Coarse A/O	Tan	25
05539554555	Medium A/O	Maroon	25
05539554556	Fine A/O	Green	25
05539554557	Very Fine A/O	Blue	25

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>4-1/2" x 5/8"-11 SPEED-CHANGE</b>			
05539554436	Coarse A/O	Tan	25
05539554437	Medium A/O	Maroon	25
05539554438	Very Fine A/O	Blue	25
<b>5" x 5/8"-11 SPEED-CHANGE</b>			
05539554439	Coarse A/O	Tan	25
05539554440	Medium A/O	Maroon	25
05539554441	Very Fine A/O	Blue	25
<b>7" x 5/8"-11 SPEED-CHANGE</b>			
05539554442	Coarse A/O	Tan	25
05539554443	Medium A/O	Maroon	25
05539554444	Very Fine A/O	Blue	25



## BACK-UP PADS FOR NON-WOVEN DISCS

Accessory



Curved ribs on pad face reduce loading and allow for cooler cut. All air-cooled back up pads have a threaded 5/8-11" threaded female hub.

PART #	DIAMETER/DENSITY	MAX. RPM	STD. PKG.
<b>FOR SURFACE PREP DISCS</b>			
05539562582	4-1/2" Medium	11,000	5
05539512033	5" Medium	10,000	5
05539512032	7" Medium	8,600	5



# SURFACE PREP HOOK & LOOP NON-WOVEN DISCS

Standard Tier / Aluminum Oxide



Good choice for light deburring and blending operation.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>New Clean Bond resin system</li> </ul>	<ul style="list-style-type: none"> <li>Smear-free, even on high nickel content alloys</li> <li>Will not load on aluminum and soft metals, as competitive products can</li> </ul>
<ul style="list-style-type: none"> <li>Proprietary new coating method</li> </ul>	<ul style="list-style-type: none"> <li>Thick layer of grain throughout the product extends life; grain does not sit on top of fibers as on other competitive products</li> </ul>
<ul style="list-style-type: none"> <li>Extended form holding</li> </ul>	<ul style="list-style-type: none"> <li>Lowers total cost of consumable tooling per workpiece</li> </ul>
<ul style="list-style-type: none"> <li>Improved backing on hook and loop discs</li> </ul>	<ul style="list-style-type: none"> <li>Will not fly off rotary sanders</li> <li>Discs sit flatter on back-up pads, resulting in a more consistent finish on DA applications</li> </ul>
<ul style="list-style-type: none"> <li>Good choice for light deburring and blending operations</li> </ul>	<ul style="list-style-type: none"> <li>Provide better grain utility while remaining flexible</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>4-1/2"</b>			
05539554558	Extra Coarse A/O	Black	25
05539554559	Coarse A/O	Tan	25
05539554560	Medium A/O	Maroon	25
05539554561	Fine A/O	Green	25
05539554562	Very Fine A/O	Blue	25
<b>5"</b>			
05539554416	Extra Coarse A/O	Black	25
05539554417	Coarse A/O	Tan	25
05539554418	Medium A/O	Maroon	25
05539554419	Fine A/O	Green	25
05539554420	Very Fine A/O	Blue	25
<b>6"</b>			
05539554421	Extra Coarse A/O	Black	25
05539554422	Coarse A/O	Tan	25
05539554423	Medium A/O	Maroon	25
05539554424	Fine A/O	Green	25
05539554425	Very Fine A/O	Blue	25

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>7"</b>			
05539554426	Extra Coarse A/O	Black	25
05539554427	Coarse A/O	Tan	25
05539554428	Medium A/O	Maroon	25
05539554429	Fine A/O	Green	25
05539554430	Very Fine A/O	Blue	25
<b>8"</b>			
05539554431	Extra Coarse A/O	Black	25
05539554432	Coarse A/O	Tan	25
05539554433	Medium A/O	Maroon	25
05539554434	Fine A/O	Green	25
05539554435	Very Fine A/O	Blue	25



## BACK-UP PADS FOR NON-WOVEN HOOK AND LOOP DISCS

Accessory



Hook and loop fastening system for neat, clean application and removal.

PART #	PAD DIAMETER	SPINDLE OR HOLE SIZE	MAX. RPM	STD. PKG.
<b>FOR SURFACE PREP HOOK AND LOOP DISCS</b>				
08834168025	2"	1/4" Steel Shank	23,000	1
08834168984	4"	5/8"-11 Thread	13,000	1
05539562718	4-1/2"	5/8"-11 Thread	10,000	5
08834168967	5"	5/8"-11 Thread	10,000	1
05539562723	6"	5/8"-11 Thread	8,000	5
08834168032	7"	5/8"-11 Thread	6,000	1





**NON-WOVEN QUICK-CHANGE DISC COMPONENTS**

Carborundum Surface Prep non-woven quick-change discs are a combination of strong synthetic mesh and quality abrasives, bonded together by a smear-resistant adhesive. They are ideal for use on portable tools to clean and remove surface imperfections, deburr, finish, blend weld seams, or create decorative finishes. The open construction of the non-woven material enables aggressive cutting action and improved surface finish while maintaining its non-loading feature.

**QUICK-CHANGE ATTACHMENT SYSTEMS AND CROSS REFERENCE GUIDE**

Enable quick, safe disc changes, reducing downtime and operating expenses.

**Type TR (Type III)**

- Features a roll-on/roll-off style fastener
- Fastener is made of nylon
- Equivalent to 3M™ Roloc™ fastening system



**Type TS (Type II)**

- Features a turn-on/turn-off style fastener
- Fastener is made of nylon
- Equivalent to Standard Abrasives' SocAtt® locking system



**Type TP (Type I)**

- Features a snap-on/snap-off style fastener
- Fastener is made of nylon



CARBORUNDUM	TYPE TR (TYPE III)	TYPE TS (TYPE II)	TYPE TP (TYPE I)
<b>3M</b>	Roloc TR	Roloc TS/TSM	Roloc TP
<b>Standard</b>	TR (Lockit)	TS (SocAtt)	TP (ClickOn)
<b>Superior</b>	Type R	Type S	–
<b>Arc</b>	Type R	Type S	Type P
<b>Pferd</b>	Type CDR	Type CD	–
<b>Sait</b>	SAIT-LOK-R	SAIT-LOK	–
<b>Camel</b>	Roll On	Turn On	–
<b>Klingspor</b>	QRC	QMC	–
<b>Garryson</b>	Type R	Type S	–

**APPLICATION/GRIT RECOMMENDATION GUIDE**

	MOST AGGRESSIVE				LEAST AGGRESSIVE		
	CARBO FIRE SURFACE STRIP	SURFACE STRIP	CARBO FIRE SURFACE BLEND	SURFACE BLEND	SURFACE PREP WITH VORTEX GRAIN TECHNOLOGY	SURFACE PREP	HS BUFFING, BUFFING
<b>SCALE REMOVAL</b>	BEST CHOICE	SECOND CHOICE					
<b>STOCK REMOVAL</b>	BEST CHOICE	SECOND CHOICE					
<b>HEAVY DEBURRING</b>		BEST CHOICE	SECOND CHOICE				
<b>LIGHT DEBURRING</b>			BEST CHOICE	SECOND CHOICE			
<b>LIGHT FINISHING</b>					BEST CHOICE	SECOND CHOICE	
<b>BLENDING</b>					BEST CHOICE	SECOND CHOICE	
<b>CLEANING</b>					SECOND CHOICE	BEST CHOICE	
<b>FINISHING</b>						BEST CHOICE	SECOND CHOICE

**CROSS REFERENCE GUIDE**

	STRIPPING	HEAVY/LIGHT DEBURRING	LIGHT DEBURRING/BLENDING/CLEANING/FINISHING	
CARBORUNDUM /MERIT	SURFACE STRIP	SURFACE BLEND	SURFACE PREP	HS BUFFING, BUFFING
<b>3M</b>	Clean & Strip, Clean Strip XT	EXL Unitized	Surf Cond, SL, SE	-
<b>Standard</b>	Cleaning Disc	500-900 Series Unitized	FE, GP, RC	Buff & Blend - HS, Buff & Blend
<b>Fiberal/SIA</b>		-	Meteor, Type B & C	-
<b>Superior</b>	Type R	XL Unitized	FD, GD, CC	HS, HD A/O
<b>Arc</b>	Arcstrip	-	Surface Cond	Blend & Finish
<b>Pferd</b>	Policlean	-	Finishing Disc - Hard & Soft	-
<b>Sait</b>	SAIT-Strip	-	HD, GP	Sand-Light Blending
<b>Camel</b>	EZ Strip - Black	-	-	-
<b>Klingspor</b>	Strip-It Black	-	-	-
<b>Garryson</b>		-	Surface Cond	-
<b>Bibielle</b>		BUR Unitized	DCR	-

**ABRASIVE/GRIT/DENSITY KEY**

ABRASIVE	SILICON CARBIDE	ALUMINUM OXIDE				CERAMIC
	SHARPER, FINER/BRIGHTER SCRATCH PATTERN					MORE DURABLE, LONGER LASTING, POLISHED FINISH
GRIT SIZE	XC (24-36)	C (50-80)	M (100-150)	F (180-220)	VF (240-360)	SF (400-600)
	FASTER, AGGRESSIVE CUT, ROUGHER FINISH				REDUCED CUT RATE, FINER FINISH	
DENSITY	2					9
	SOFT, OPEN, CONFORMABLE, LESS BURNING/LOADING				HARDER, MORE DURABLE, FASTER CUTTING, BETTER FINISH	

# CARBO FIRE SURFACE BLEND NON-WOVEN QUICK-CHANGE DISCS

Best Tier / Ceramic Alumina



Best choice for deburring and blending applications

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Ceramic alumina grain</li> </ul>	<ul style="list-style-type: none"> <li>Performs the extra coarse to medium grit steps of traditional surface conditioning discs in one operation</li> </ul>
<ul style="list-style-type: none"> <li>Special resin bond chemistry</li> </ul>	<ul style="list-style-type: none"> <li>Resists shedding when used on sharp edges making these discs ideal for deburring</li> <li>No smearing</li> </ul>
<ul style="list-style-type: none"> <li>New erodable construction: abrasive is distributed throughout the entire disc (top, bottom, and sides)</li> </ul>	<ul style="list-style-type: none"> <li>All three faces can be used – versus competitive discs' one bottom layer of abrasive</li> <li>3 - 8 times the life of competitive surface blending discs</li> <li>Fewer safety, ergonomic, and environmental issues due to fewer changeouts, less downtime, and less production waste/landfill scrap</li> </ul>

PART #	GRIT/ABRASIVE	MAX. RPM	STD. PKG.
<b>TR (TYPE III)</b>			
<b>2" x 1/4" x TR</b>			
05539500541	Coarse Ceramic	22,000	25
<b>3" x 1/4" x TR</b>			
05539500542	Coarse Ceramic	18,000	25

PART #	GRIT/ABRASIVE	MAX. RPM	STD. PKG.
<b>TS (TYPE II)</b>			
<b>2" x 1/4" x TS</b>			
05539500543	Coarse Ceramic	22,000	25
<b>3" x 1/4" x TS</b>			
05539500544	Coarse Ceramic	18,000	25

See quick-change back-up pads for these discs on page 121.



# SURFACE BLEND VORTEX GRAIN TECHNOLOGY NON-WOVEN QUICK-CHANGE DISCS

Better Tier / Vortex Aluminum Oxide



Better choice for finishing and blending applications

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Proprietary Vortex aluminum oxide aggregate grain</li> </ul>	<ul style="list-style-type: none"> <li>Performs the medium through fine grit steps of traditional discs in an easy one-step operation</li> </ul>
<ul style="list-style-type: none"> <li>Special resin bond chemistry</li> </ul>	<ul style="list-style-type: none"> <li>Resists shedding when used on sharp edges, making these discs ideal for deburring</li> <li>No smearing</li> </ul>
<ul style="list-style-type: none"> <li>New erodable construction: abrasive is distributed throughout the entire disc (top, bottom and side)</li> </ul>	<ul style="list-style-type: none"> <li>All three faces can be used – versus competitive discs' one bottom layer of abrasive</li> <li>3 - 8 times the life of competitive surface blending discs</li> <li>Fewer safety, ergonomic, and environmental issues due to fewer change-outs, less downtime, and less production waste/landfill scrap</li> </ul>

PART #	GRIT/ABRASIVE	MAX. RPM	STD. PKG.
<b>TR (TYPE III)</b>			
<b>2" x 1/4" x TR</b>			
05539500545	Medium Vortex A/O	22,000	25
<b>3" x 1/4" x TR</b>			
05539500546	Medium Vortex A/O	18,000	25

PART #	GRIT/ABRASIVE	MAX. RPM	STD. PKG.
<b>TS (TYPE II)</b>			
<b>2" x 1/4" x TS</b>			
05539500547	Medium Vortex A/O	22,000	25
<b>3" x 1/4" x TS</b>			
05539500548	Medium Vortex A/O	18,000	25

See quick-change back-up pads for these discs on page 121.





A good choice for moderate deburring and blending applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>High-performance abrasives bonded to high quality nylon fiber</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive, fast stock removal cut rate while providing a fine finish</li> </ul>
<ul style="list-style-type: none"> <li>Durable bond technology</li> </ul>	<ul style="list-style-type: none"> <li>Consistent performance with hardness/flexibility</li> </ul>
<ul style="list-style-type: none"> <li>Smear-resistant resin formula</li> </ul>	<ul style="list-style-type: none"> <li>Smear-free finish</li> </ul>
<ul style="list-style-type: none"> <li>Controlled porosity</li> </ul>	<ul style="list-style-type: none"> <li>Uniform, cool cut rate for longer life</li> </ul>

PART #	GRIT/ABRASIVE	DENSITY	MAX. RPM	STD. PKG.
<b>TR (TYPE III)</b>				
<b>2" x 1/4" x TR</b>				
66261054187	Coarse A/O	7-9	22,000	60
66261054183	Medium A/O	2-3	22,000	60
66261054185	Medium A/O	4-6	22,000	60
66261054186	Medium A/O	7-9	22,000	60
66261054182	Fine S/C	2-3	22,000	60
66261054184	Fine S/C	4-6	22,000	60

PART #	GRIT/ABRASIVE	DENSITY	MAX. RPM	STD. PKG.
<b>TR (TYPE III)</b>				
<b>3" x 1/4" x TR</b>				
66261054198	Coarse A/O	7-9	15,000	20
66261054193	Medium A/O	2-3	15,000	20
66261054196	Medium A/O	4-6	15,000	20
66261054197	Medium A/O	7-9	15,000	20
66261054192	Fine A/O	2-3	15,000	20
66261054194	Fine A/O	4-6	15,000	20
66261054195	Fine S/C	4-6	15,000	20

See quick-change back-up pads for these discs on page 121.



**SURFACE PREP** VORTEX GRAIN TECHNOLOGY NON-WOVEN QUICK-CHANGE DISCS

Better Tier / Vortex Aluminum Oxide



Best choice for finishing and blending applications

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Proprietary Vortex aluminum oxide aggregate grain</li> </ul>	<ul style="list-style-type: none"> <li>Most consistent cutting and finishing of surface conditioning products on the market</li> <li>Combines fast cutting speed with the finish of finer grits</li> <li>Reduces process times by 50+% by combining multiple grit sequences to 1 step in a blending operation</li> <li>Friable grain structure keeps Ra specs throughout disc life and reduces scrap and rework</li> </ul>
<ul style="list-style-type: none"> <li>New, proprietary coating method</li> </ul>	<ul style="list-style-type: none"> <li>More resistant to edge wear; up 4X life versus competitive products</li> <li>Thick layer of grain throughout the product extends life; grain does not sit on top of fibers as on other competitive products</li> </ul>
<ul style="list-style-type: none"> <li>New Clean Bond resin system</li> </ul>	<ul style="list-style-type: none"> <li>Smear-free, even on high nickel content alloys</li> <li>Will not load on aluminum and soft metals, as competitive products can</li> </ul>
<ul style="list-style-type: none"> <li>Extended form holding</li> </ul>	<ul style="list-style-type: none"> <li>Lowers total cost of consumable tooling per workpiece</li> </ul>



PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TR (TYPE III)</b>			
<b>1"</b>			
05539500471	Extra Coarse Vortex A/O	Black	50
05539500472	Coarse Vortex A/O	Tan	50
05539500473	Medium Vortex A/O	Maroon	50
05539500474	Fine Vortex A/O	Green	50
05539500475	Very Fine Vortex A/O	Blue	50
<b>1-1/2"</b>			
05539500476	Extra Coarse Vortex A/O	Black	50
05539500478	Coarse Vortex A/O	Tan	50
05539500479	Medium Vortex A/O	Maroon	50
05539500480	Fine Vortex A/O	Green	50
05539500481	Very Fine Vortex A/O	Blue	50

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TR (TYPE III)</b>			
<b>2"</b>			
05539500482	Extra Coarse Vortex A/O	Black	50
05539500483	Coarse Vortex A/O	Tan	50
05539500484	Medium Vortex A/O	Maroon	50
05539500485	Fine Vortex A/O	Green	50
05539500486	Very Fine Vortex A/O	Blue	50

See quick-change back-up pads for these discs on page 121.  
Continued on next page.



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PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TR (TYPE III) [CONTINUED]</b>			
<b>3"</b>			
05539500488	Extra Coarse Vortex A/O	Black	50
05539500489	Coarse Vortex A/O	Tan	50
05539500490	Medium Vortex A/O	Maroon	50
05539500491	Fine Vortex A/O	Green	50
05539500492	Very Fine Vortex A/O	Blue	50

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TR (TYPE III)</b>			
<b>4"</b>			
05539500493	Extra Coarse Vortex A/O	Black	50
05539500494	Coarse Vortex A/O	Tan	50
05539500495	Medium Vortex A/O	Maroon	50
05539500497	Fine Vortex A/O	Green	50
05539500500	Very Fine Vortex A/O	Blue	50

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TS (TYPE II)</b>			
<b>1"</b>			
05539500501	Extra Coarse Vortex A/O	Black	50
05539500502	Coarse Vortex A/O	Tan	50
05539500503	Medium Vortex A/O	Maroon	50
05539500504	Fine Vortex A/O	Green	50
05539500505	Very Fine Vortex A/O	Blue	50
<b>1-1/2"</b>			
05539500506	Extra Coarse Vortex A/O	Black	50
05539500507	Coarse Vortex A/O	Tan	50
05539500508	Medium Vortex A/O	Maroon	50
05539500509	Fine Vortex A/O	Green	50
05539500515	Very Fine Vortex A/O	Blue	50
<b>2"</b>			
05539500516	Extra Coarse Vortex A/O	Black	50
05539500517	Coarse Vortex A/O	Tan	50
05539500518	Medium Vortex A/O	Maroon	50
05539500519	Fine Vortex A/O	Green	50
05539500520	Very Fine Vortex A/O	Blue	50

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TS (TYPE II)</b>			
<b>3"</b>			
05539500521	Extra Coarse Vortex A/O	Black	50
05539500522	Coarse Vortex A/O	Tan	50
05539500523	Medium Vortex A/O	Maroon	50
05539500524	Fine Vortex A/O	Green	50
05539500525	Very Fine Vortex A/O	Blue	50
<b>4"</b>			
05539500526	Extra Coarse Vortex A/O	Black	50
05539500527	Coarse Vortex A/O	Tan	50
05539500528	Medium Vortex A/O	Maroon	50
05539500529	Fine Vortex A/O	Green	50
05539500533	Very Fine Vortex A/O	Blue	50

See quick-change back-up pads for these discs on page 121.



**SURFACE PREP** NON-WOVEN QUICK-CHANGE DISCS

Good Tier / Aluminum Oxide



Good choice for finishing and blending applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• New Clean Bond resin system</li> </ul>	<ul style="list-style-type: none"> <li>• Smear-free, even on high nickel content alloys</li> <li>• Will not load on aluminum and soft metals, as competitive products may</li> </ul>
<ul style="list-style-type: none"> <li>• Proprietary new coating method</li> </ul>	<ul style="list-style-type: none"> <li>• Thick layer of grain throughout the product extends life; grain does not sit on top of fibers as on other competitive products</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TR (TYPE III)</b>			
<b>1"</b>			
05539554521	Extra Coarse A/O	Black	50
05539554523	Coarse A/O	Tan	50
05539554445	Medium A/O	Maroon	50
05539554447	Fine A/O	Green	50
05539554449	Very Fine A/O	Blue	50
<b>1-1/2"</b>			
05539554451	Extra Coarse A/O	Black	50
05539554453	Coarse A/O	Tan	50
05539554455	Medium A/O	Maroon	50
05539554457	Fine A/O	Green	50
05539554459	Very Fine A/O	Blue	50
<b>2"</b>			
05539554461	Extra Coarse A/O	Black	50
05539554463	Coarse A/O	Tan	50
05539554465	Medium A/O	Maroon	50
05539554467	Fine A/O	Green	50
05539554469	Very Fine A/O	Blue	50

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TR (TYPE III)</b>			
<b>3"</b>			
05539554525	Extra Coarse A/O	Black	25
05539554527	Coarse A/O	Tan	25
05539554529	Medium A/O	Maroon	25
05539554531	Fine A/O	Green	25
05539554533	Very Fine A/O	Blue	25
<b>4"</b>			
05539554563	Extra Coarse A/O	Black	25
05539554565	Coarse A/O	Tan	25
05539554472	Medium A/O	Maroon	25
05539554567	Fine A/O	Green	25
05539554569	Very Fine A/O	Blue	25

See quick-change back-up pads for these discs on page 121.

Continued on next page.





PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TS (TYPE II)</b>			
<b>1"</b>			
05539554522	Extra Coarse A/O	Black	50
05539554524	Coarse A/O	Tan	50
05539554446	Medium A/O	Maroon	50
05539554448	Fine A/O	Green	50
05539554450	Very Fine A/O	Blue	50
<b>1-1/2"</b>			
05539554452	Extra Coarse A/O	Black	50
05539554454	Coarse A/O	Tan	50
05539554456	Medium A/O	Maroon	50
05539554458	Fine A/O	Green	50
05539554460	Very Fine A/O	Blue	50
<b>2"</b>			
05539554462	Extra Coarse A/O	Black	50
05539554464	Coarse A/O	Tan	50
05539554466	Medium A/O	Maroon	50
05539554468	Fine A/O	Green	50
05539554470	Very Fine A/O	Blue	50
<b>3"</b>			
05539554526	Extra Coarse A/O	Black	25
05539554528	Coarse A/O	Tan	25
05539554530	Medium A/O	Maroon	25
05539554532	Fine A/O	Green	25
05539554534	Very Fine A/O	Blue	25
<b>4"</b>			
05539554564	Extra Coarse A/O	Black	25
05539554471	Coarse A/O	Tan	25
05539554566	Medium A/O	Maroon	25
05539554568	Fine A/O	Green	25
05539554570	Very Fine A/O	Blue	25

PART #	GRIT/ABRASIVE	COLOR	DISCS/ CASE
<b>TP (TYPE I)</b>			
<b>1-1/2"</b>			
05539554586	Coarse A/O	Tan	50
05539554587	Medium A/O	Maroon	50
05539554588	Very Fine A/O	Blue	50
<b>2"</b>			
05539554589	Coarse A/O	Tan	50
05539554590	Medium A/O	Maroon	50
05539554591	Very Fine A/O	Blue	50
<b>3"</b>			
05539554592	Coarse A/O	Tan	25
05539554593	Medium A/O	Maroon	25
05539554594	Very Fine A/O	Blue	25

See quick-change back-up pads for these discs on page 121.



**MERIT HIGH STRENGTH** NON-WOVEN BUFFING/POLISHING QUICK-CHANGE DISCS



Better Tier / Aluminum Oxide



Tough, yet conformable, high-strength discs are smear-proof and resist tearing on burrs and sharp edges.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>A non-woven nylon fiber impregnated with abrasive and laminated to a quick-change nylon backing</li> </ul>	<ul style="list-style-type: none"> <li>Superior button adhesion to prevent disc fly-offs at higher grinding speeds</li> <li>Produce a consistently uniform finish</li> <li>Longer lasting</li> </ul>

PART #	GRIT/ABRASIVE	STD. PKG.
<b>TR (TYPE III)</b>		
<b>2"</b>		
08834164064	Medium A/O	50
08834163987	Very Fine A/O	50
<b>3"</b>		
08834164065	Medium A/O	25
08834163559	Very Fine A/O	25

PART #	GRIT/ABRASIVE	STD. PKG.
<b>TS (TYPE II)</b>		
<b>2"</b>		
08834164244	Medium A/O	50
08834164245	Very Fine A/O	50
<b>3"</b>		
08834164252	Medium A/O	25
08834164255	Very Fine A/O	25

See quick-change back-up pads for these discs on page 121.





This product incorporates high-performance fiber blends with flexible resin technology. Designed for light removal of paint or rust without affecting the base product.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>A non-woven nylon fiber impregnated with abrasive and laminated to a quick-change nylon backing</li> </ul>	<ul style="list-style-type: none"> <li>Superior button adhesion to prevent disc fly-offs at higher grinding speeds</li> <li>Produce a consistently uniform finish</li> </ul>

PART #	GRIT/ABRASIVE	STD. PKG.
<b>TR (TYPE III)</b>		
<b>1-1/2"</b>		
08834161647	Coarse A/O	100
08834166368	Medium A/O	100
08834166369	Fine A/O	100
08834166417	Very Fine A/O	100
<b>2"</b>		
08834161649	Coarse A/O	50
08834166303	Medium A/O	50
08834166304	Fine A/O	50
08834166305	Very Fine A/O	50
<b>3"</b>		
08834161651	Coarse A/O	25
08834166308	Medium A/O	25
08834166309	Fine A/O	25
08834166310	Very Fine A/O	25
<b>4"</b>		
08834161654	Coarse A/O	25
08834166314	Medium A/O	25
08834166315	Fine A/O	25
08834166316	Very Fine A/O	25

PART #	GRIT/ABRASIVE	STD. PKG.
<b>TS (TYPE II)</b>		
<b>1-1/2"</b>		
08834166391	Coarse A/O	100
08834166392	Medium A/O	100
08834166393	Fine A/O	100
08834166406	Very Fine A/O	100
<b>2"</b>		
08834166394	Coarse A/O	50
08834166395	Medium A/O	50
08834166396	Fine A/O	50
08834166405	Very Fine A/O	50
<b>3"</b>		
08834166397	Coarse A/O	25
08834166398	Medium A/O	25
08834166399	Fine A/O	25
08834166403	Very Fine A/O	25
<b>4"</b>		
08834166400	Coarse A/O	25
08834166401	Medium A/O	25
08834166402	Fine A/O	25
08834166404	Very Fine A/O	25

PART #	GRIT/ABRASIVE	STD. PKG.
<b>TP (TYPE I)</b>		
<b>1-1/2"</b>		
08834166294	Coarse A/O	100
08834166292	Medium A/O	100
08834166332	Fine A/O	100
08834166333	Very Fine A/O	100
<b>2"</b>		
08834161627	Coarse A/O	50
08834166280	Medium A/O	50
08834166281	Fine A/O	50
08834166282	Very Fine A/O	50
<b>3"</b>		
08834166293	Coarse A/O	25
08834166284	Medium A/O	25
08834166285	Fine A/O	25
08834166286	Very Fine A/O	25
<b>4"</b>		
08834166295	Medium A/O	25
08834166296	Fine A/O	25
08834166297	Very Fine A/O	25



**BACK-UP PADS FOR QUICK-CHANGE DISCS**

**Accessory**



- Hard density pads are used for aggressive cutting action
- Medium density pads are used for all-purpose applications
- Soft density pads are used for contours and fine finishing work
- All quick-change back-up pads have a 1/4" diameter shank
- Standard package for quick-change back-up pads is 1
- Refer to the end of the Coated Abrasive quick-change disc section for a complete list of back-up pads and mandrels.



TR (TYPE III)

PART #	DIA.	MAX. RPM	DENSITY
<b>TR (TYPE III) ATTACHMENT</b>			
08834164037	1"	40,000	Medium
08834164640	1-1/2"	30,000	Hard
08834161174			Medium
08834164643	2"	30,000	Hard
08834164922			Medium
08834164641			Soft
08834164036	3"	20,000	Hard
08834164949			Medium
08834164644			Soft
08834164655	4"	15,000	Medium



TS (TYPE II)

PART #	DIA.	MAX. RPM	DENSITY
<b>TS (TYPE II) ATTACHMENT</b>			
08834164651	1"	40,000	Medium
08834164622	1-1/2"	30,000	Hard
08834164146			Medium
08834164624	2"	30,000	Hard
08834164198			Medium
08834161625			Soft
08834161626	3"	20,000	Hard
08834164113			Medium
08834164626			Soft
08834164135	4"	15,000	Medium



TP (TYPE I)

PART #	DIA.	MAX. RPM	DENSITY
<b>TP (TYPE I) ATTACHMENT</b>			
08834164002	1"	40,000	Medium
08834163996	1-1/2"	30,000	Hard
08834164003			Medium
08834163997	2"	30,000	Hard
08834164004			Medium
08834163949			Soft
08834163998	3"	20,000	Hard
08834164005			Medium
08834163948			Soft
08834164006	4"	15,000	Medium



Good choice for ID cleaning, finishing and polishing.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Unique shape for ID work</li> </ul>	<ul style="list-style-type: none"> <li>• Flexible star shape penetrates the ID and polishes or cleans the surface without disturbing any tolerances</li> </ul>
<ul style="list-style-type: none"> <li>• 1/4"-20 eyelets</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to mount to standard 1/4"-20 threaded mandrels</li> </ul>
<ul style="list-style-type: none"> <li>• Proprietary Clean Bond resin system</li> </ul>	<ul style="list-style-type: none"> <li>• Provides a clean, smear-free finish</li> </ul>
<ul style="list-style-type: none"> <li>• High-performance aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Provides consistent cutting and surface finishes</li> </ul>

PART #	GRIT/ABRASIVE	STD. PKG.
<b>1-1/2" x 1/4"-20 EYELET</b>		
08834185923	Coarse A/O	100
08834185924	Medium A/O	100
08834185925	Very Fine A/O	100
<b>2" x 1/4"-20 EYELET</b>		
08834185926	Coarse A/O	100
08834185927	Medium A/O	100
08834185298	Very Fine A/O	100

PART #	GRIT/ABRASIVE	STD. PKG.
<b>3" x 1/4"-20 EYELET</b>		
08834185929	Coarse A/O	100
08834185678	Medium A/O	100
08834185931	Very Fine A/O	100
<b>4" x 1/4"-20 EYELET</b>		
08834185932	Coarse A/O	100
08834185933	Medium A/O	100
08834185934	Very Fine A/O	100



*QUICK-CHANGE MANDREL FOR 1/4"-20 EYELET PRODUCTS*

**Accessory**



Designed for use with surface preparation stars.

PART #	MODEL #	OVERALL LENGTH	THREAD SIZE
08834183164	MM20-4	3"	1/4-20

**APPLICATION RECOMMENDATION GUIDE**

COARSER ACTING  
FOR CLEANING  
AND DEBURRING



FINER ACTING  
FOR LIGHT SCUFFING  
AND BLENDING

**Brown – 05539574000**

A heavy-duty, medium grit aluminum oxide pad for aggressive action where a stiffer, coarser pad is required.

**Gray – 05539574600**

A medium grit, silicon carbide pad, with an open web structure primarily used for all types of blending applications, especially on stainless steel.

**Green – 05539579600**

A very fine grit aluminum oxide pad for general clean-up as well as finishing stainless steel.

**Maroon – 05539577700**

A very fine grit, aluminum oxide pad with a fast cut rate for cleaning, deburring, and corrosion and oxidation removal.

**Maroon – 05539574700 / 05539584700**

Very fine, aluminum oxide pads for general cleaning and finishing, removal of rust and oxidation from metals, and lightly sanding old paint or new primers. No color bleeding when working with solvents. 84700 is perforated to create two smaller 4-1/2" x 6" pads.

**Light Green – 05539569600**

A very fine grit, aluminum oxide pad for general purpose cleaning in food processing plants and sanitary preparations.

**Gray – 05539563500**

An ultra fine grit, silicon carbide pad for denubbing between finish coats, as well as lacquer rubbing.

**Gray – 05539574800**

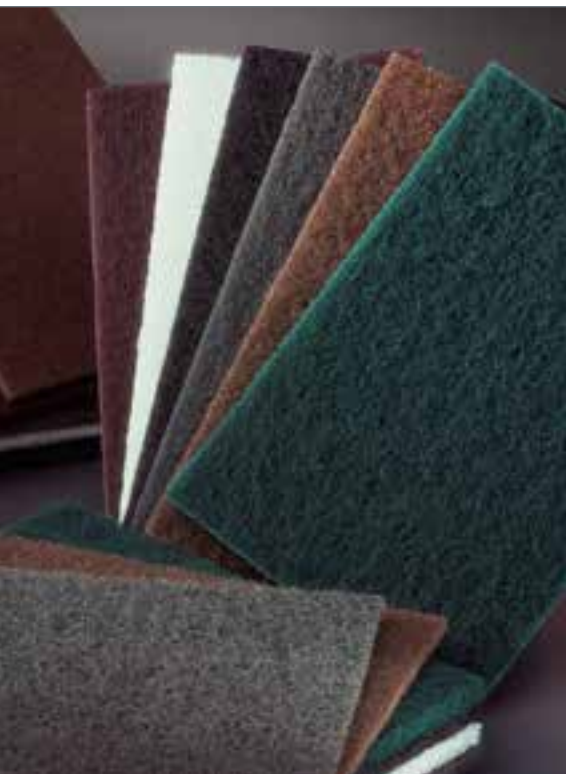
A micro fine grit, silicon carbide pad for light cleaning steel and non-steel, defuzzing wood and final rubbing. Softer acting, more flexible. Consistent, finer finishes.

**White – 05539545600**

For general clean-up, light primer rub down and paint overspray removal. Softer acting, more flexible. Non-abrasive.

**FIBRATEX** NON-WOVEN HAND PADS

Good Tier / Aluminum Oxide, Silicon Carbide, or Non-Abrasive



Fibratex products are a non-woven nylon web impregnated with abrasive grain and resin bond. They are non-metallic, won't rust, and are ideal as replacements for steel wool and/or wire brushes.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Non-woven nylon, impregnated with abrasive grain</li> </ul>	<ul style="list-style-type: none"> <li>Excellent conformability and flexibility</li> <li>Easy to fold</li> <li>Long lasting and high resistance to tearing</li> </ul>
<ul style="list-style-type: none"> <li>Numerous specifications</li> </ul>	<ul style="list-style-type: none"> <li>Replacement for steel wool and wire brushes</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	TIER	PADS/ CASE
<b>6" x 9"</b>				
05539574000	Medium A/O	Brown	<b>GOOD</b>	40
05539574600	Medium S/C	Gray	<b>GOOD</b>	40
05539579600	VF A/O Scouring	Green	<b>GOOD</b>	60
05539577700	Very Fine A/O Long Life	Maroon	<b>GOOD</b>	60
05539574700	Very Fine A/O Gen. Purp.	Maroon	<b>BETTER</b>	60
05539584700	VF A/O G/P Perforated	Maroon	<b>BETTER</b>	60
05539569600	VF A/O Food Pro	Lt. Green	<b>GOOD</b>	60
05539563500	Ultra Fine S/C	Gray	<b>GOOD</b>	60
05539574800	Micro Fine S/C	Gray	<b>GOOD</b>	60
05539545600	Non-Abrasive	White	<b>GOOD</b>	60
PART #	DESCRIPTION			HOLDERS/ CASE
<b>HAND PAD HOLDER</b>				
05539562709	Hand Pad Holder			10



# FIBRATEX THIN & FLEXIBLE HIGH PERFORMANCE HAND PADS

Better Tier / Aluminum Oxide or Silicon Carbide



For cleaning, blending, finishing, and deburring in wood working, metalworking, maintenance operations, and synthetics fabrication.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Superior flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Conforms to a workpiece for a consistent finish</li> </ul>
<ul style="list-style-type: none"> <li>• Advanced web design</li> </ul>	<ul style="list-style-type: none"> <li>• Cuts quicker than standard hand pad</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	PADS/CASE
<b>4-1/2" x 9"</b>			
05539554859	Very Fine Aluminum Oxide	Maroon	25
05539554860	Ultra Fine Silicon Carbide	Grey	25



# FIBRATEX NON-WOVEN ROLLS

Good Tier / Aluminum Oxide, Silicon Carbide, or Non-Abrasive



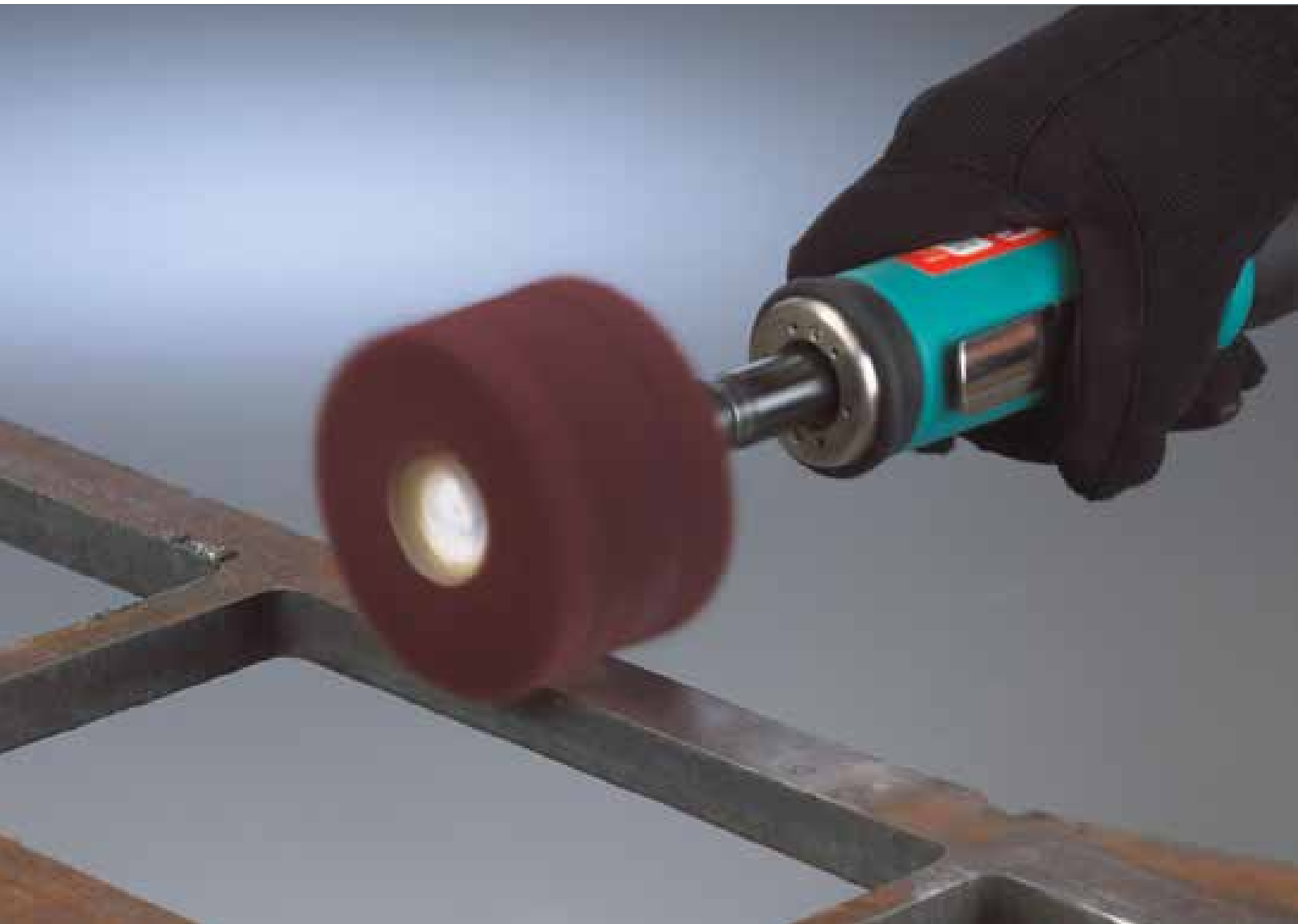
An economical alternative to cut pads; can be cut to specific size needed for hand sanding applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Premium aluminum oxide and silicon carbide grains available in wide variety of grit sizes</li> </ul>	<ul style="list-style-type: none"> <li>• Clean cutting</li> </ul>
<ul style="list-style-type: none"> <li>• Durable web; strong resin binders</li> </ul>	<ul style="list-style-type: none"> <li>• Long lasting and high resistance to tearing on burrs and sharp edges</li> </ul>
<ul style="list-style-type: none"> <li>• Uniform web construction</li> </ul>	<ul style="list-style-type: none"> <li>• Consistent surface finish</li> </ul>
<ul style="list-style-type: none"> <li>• Can be cut to exact sizes needed</li> </ul>	<ul style="list-style-type: none"> <li>• Economical; minimal waste</li> </ul>

PART #	DESCRIPTION	ABRASIVE	GRIT SIZE	COLOR	TIER	ROLLS/CASE
<b>4" x 30 FEET</b>						
05539554571	General Purpose	A/O	Fine	Maroon	<b>GOOD</b>	4
05539554572	Fast Cut	A/O	VF	Maroon	<b>GOOD</b>	4
05539554573	Scouring	A/O	VF	Green	<b>GOOD</b>	5
05539554574	High Strength	A/O	VF	Maroon	<b>BETTER</b>	3
05539554575	General Cleaning	S/C	VF	Gray	<b>GOOD</b>	3
05539554576	Clean & Finish	S/C	UF	Gray	<b>GOOD</b>	5
05539554577	Finishing	S/C	MF	Gray	<b>GOOD</b>	5
05539554578	T-Polishing	None	Non	White	<b>GOOD</b>	3
<b>6" x 30 FEET</b>						
05539554579	High Strength	A/O	Med	Maroon	<b>BETTER</b>	2
05539554580	General Cleaning	S/C	VF	Gray	<b>GOOD</b>	3
05539554581	Clean & Finish	S/C	UF	Gray	<b>GOOD</b>	3
05539554582	Fast Cut	A/O	UF	Maroon	<b>GOOD</b>	3
05539554583	High Strength	A/O	MF	Maroon	<b>BETTER</b>	2





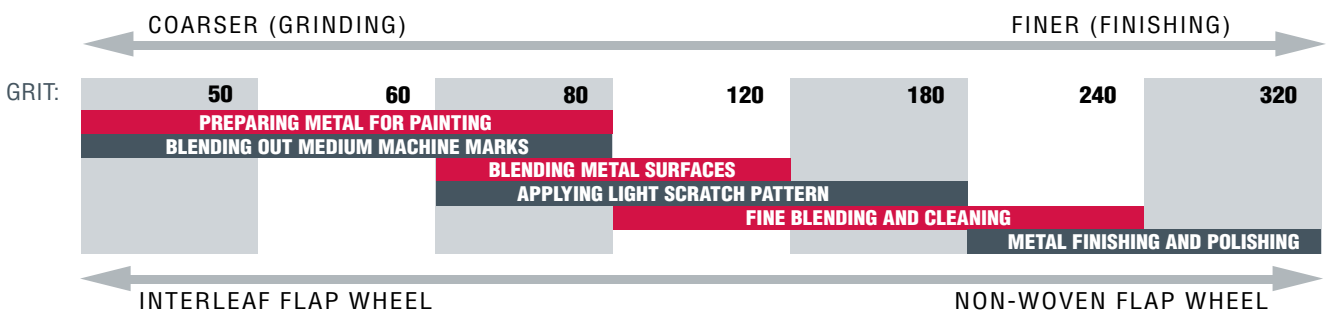


**NON-WOVEN FLAP WHEELS**

Non-woven surface finishing flap wheels are an ideal choice for a wide variety of blending and finishing applications common in the metal fabrication, welding and polishing industries. Flap wheels are conformable to intricate shapes and contours. Designed to deliver a consistent finish with a uniform rate of cut, flap wheels wear away continually exposing fresh abrasives.

There are two types of non-woven flap wheels: non-woven only abrasive flaps where finishing is the primary application, and interleaf with alternating cloth and non-woven abrasive flaps (less conformable, more aggressive) for stock removal and finishing. Interleaf flap wheels must always be run in the direction indicated by the arrow.

**APPLICATION/GRIT RECOMMENDATION GUIDE**



# MERIT NON-WOVEN FLAP WHEELS WITH 1/4" MOUNTED STEEL SHANKS



Good Tier / Aluminum Oxide



Used for a wide range of metal fabrication and welding applications including blending, deburring, cleaning, finishing, and polishing. Use non-woven flap wheels where finishing is the primary application.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Flexible and conformable</li> </ul>	<ul style="list-style-type: none"> <li>• Eliminate gouging</li> <li>• Consistent surface finish on uneven or irregular surfaces as well as flat areas</li> </ul>
<ul style="list-style-type: none"> <li>• Premium abrasive grains</li> </ul>	<ul style="list-style-type: none"> <li>• Quick cutting and finishing action</li> </ul>

PART #	NON-WOVEN GRIT/ABRASIVE	MAX. RPM	STD. PKG.
<b>2" x 1" x 1/4"</b>			
66261189992	Medium A/O	12,000	20
69957399202	Very Fine A/O	12,000	20
<b>3" x 1" x 1/4"</b>			
08834131921	Medium A/O	12,000	10
66261189993	Very Fine A/O	12,000	10



# MERIT N-W INTERLEAF FLAP WHEELS WITH 1/4" MOUNTED STEEL SHANKS



Good Tier / Aluminum Oxide



Interleaf flap wheels, with alternating cloth and non-woven abrasive flaps, are less conformable, and more aggressive for stock removal and finishing. Interleaf flap wheels must always be run in the direction indicated by the arrow.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Consist of alternating flaps of aluminum oxide coated abrasive cloth and medium grit non-woven material</li> </ul>	<ul style="list-style-type: none"> <li>• Produce a finer finish</li> <li>• Eliminate chatter at slow speeds</li> </ul>
<ul style="list-style-type: none"> <li>• More aggressive than a standard non-woven flap wheel</li> </ul>	<ul style="list-style-type: none"> <li>• Remove more material</li> </ul>

PART #	COATED ABRASIVE GRIT	NON-WOVEN GRIT	ABRASIVE	MAX. RPM	STD. PKG.
<b>2" x 1" x 1/4"</b>					
08834138122	60	Coarse	A/O	12,000	10
08834138123	80	Medium	A/O	12,000	10
08834144457	120	Medium	A/O	12,000	10
08834144458	180	Fine	A/O	12,000	10
08834144459	320	Very Fine	A/O	12,000	10
<b>2" x 1-1/2" x 1/4"</b>					
08834138125	80	Medium	A/O	12,000	10
08834138126	120	Medium	A/O	12,000	10
<b>3" x 1" x 1/4"</b>					
08834138129	60	Coarse	A/O	12,000	10
08834138130	80	Medium	A/O	12,000	10
08834138118	120	Medium	A/O	12,000	10
08834138120	180	Fine	A/O	12,000	10
08834138119	320	Very Fine	A/O	12,000	10
<b>3" x 2" x 1/4"</b>					
08834144460	120	Medium	A/O	8,000	10
08834144461	180	Medium	A/O	8,000	10
<b>4" x 2" x 1/4"</b>					
08834121115	80	Coarse	A/O	12,000	10
08834120458	120	Medium	A/O	12,000	10



# MERIT NON-WOVEN FLAP WHEELS WITH ARBOR HOLES

Good Tier / Aluminum Oxide or Silicon Carbide



Used for a wide range of metal fabrication and welding applications including blending, deburring, cleaning, finishing, and polishing. Use non-woven flap wheels where finishing is the primary application.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Flexible and conformable</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate gouging</li> <li>Consistent surface finish on uneven or irregular surfaces as well as flat areas</li> </ul>
<ul style="list-style-type: none"> <li>Premium abrasive grains</li> </ul>	<ul style="list-style-type: none"> <li>Quick cutting and finishing action</li> </ul>

PART #	NON-WOVEN GRIT/ABRASIVE	MAX. RPM	STD. PKG.
<b>6" x 1" x 2"</b>			
05539512667	Medium A/O	3,000	4
05539512658	Very Fine S/C	3,000	4
<b>8" x 1" x 3"</b>			
05539527460	Fine A/O	2,500	3
<b>8" x 2" x 3"</b>			
05539512677	Medium A/O	2,500	2
05539526627	Fine A/O	2,500	2
<b>12" x 2" x 5"</b>			
05539562637	Medium High Strength A/O	1,900	1



# MERIT NON-WOVEN INTERLEAF FLAP WHEELS WITH ARBOR HOLES

Good Tier / Aluminum Oxide



Interleaf flap wheels, with alternating cloth and non-woven abrasive flaps, are less conformable, and more aggressive for stock removal and finishing. Interleaf flap wheels must always be run in the direction indicated by the arrow.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Consist of alternating flaps of aluminum oxide coated abrasive cloth and medium grit non-woven material</li> </ul>	<ul style="list-style-type: none"> <li>Produce a finer finish</li> <li>Eliminate chatter at slow speeds</li> </ul>
<ul style="list-style-type: none"> <li>More aggressive than a standard non-woven flap wheel</li> </ul>	<ul style="list-style-type: none"> <li>Remove more material</li> </ul>

PART #	COATED ABRASIVE GRIT	NON-WOVEN GRIT	ABRASIVE	MAX. RPM	STD. PKG.
<b>6" x 1" x 1"</b>					
08834126028	50	Coarse	A/O	6,000	10
08834126006	120	Medium	A/O	6,000	10
08834126030	240	Very Fine	A/O	6,000	10



# REDUCING BUSHINGS FOR CONVOLUTE AND FLAP WHEELS WITH ARBOR HOLES

Accessory



A set of reducing bushings will be included at no charge, for 6" diameter convolute wheels and flap wheels, when ordered with the wheels and specified on the order.

PART #	WHEEL CENTER HOLE	BUSHING REDUCES TO ARBOR SIZE	PAIRS/BOX
<b>REDUCING BUSHINGS</b>			
66261080527	2	from 2" to 1/2" Wheels 6" diameter	1
66261080528	2	from 2" to 5/8" Wheels 6" diameter	1
66261080529	2	from 2" to 1" Wheels 6" diameter	1
66261080530	2	from 2" to 1-1/4" Wheels 6" diameter	1
66261080531	3	from 3" to 1" Wheels 8" diameter	1
66261080532	3	from 3" to 1-1/4" Wheels 8" diameter	1
66261080383	3	from 3" to 1-1/2" Wheels 8" diameter	1
66261080384	3	from 3" to 1-3/4" Wheels 8" diameter	1
66261080514	3	from 3" to 2" Wheels 8" diameter	1

Wheel center hole is equal to the bushing outside diameter. Order by number of pairs. (Example: 3 = 3 Pairs which = 6 bushings)

**APPLICATION/GRIT RECOMMENDATION GUIDE**

Carborundum non-woven belts are a combination of strong synthetic mesh and quality abrasive, bonded together by a smear-resistant adhesive. The open construction of non-woven material enables aggressive cutting action and improved surface finish while maintaining its non-loading feature.

	COARSE	MEDIUM	VERY FINE
<b>Stock Removal</b>	X		
<b>Heavy Deburring</b>	X		
<b>Light Deburring</b>		X	
<b>Light Finishing</b>		X	
<b>Finishing</b>			X

**SURFACE PREP NON-WOVEN BELTS**

Good Tier / Aluminum Oxide



Good choice for finishing and blending applications, such as removing surface defects, light edge burrs, parting lines, flashing, rust, oxides, corrosion, paints; blending mill marks, tool marks, uneven edges, and applying decorative finishes.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• New Clean Bond resin system</li> </ul>	<ul style="list-style-type: none"> <li>• Smear-free, even on high nickel content alloys</li> <li>• Will not load on aluminum and soft metals, as competitive products can</li> </ul>
<ul style="list-style-type: none"> <li>• Proprietary new coating method</li> </ul>	<ul style="list-style-type: none"> <li>• Thick layer of grain throughout the product extends life; grain does not sit on top of fibers as on other competitive products</li> </ul>
<ul style="list-style-type: none"> <li>• Extended form holding</li> </ul>	<ul style="list-style-type: none"> <li>• Lowers total cost of consumable tooling per workpiece</li> </ul>

PART #	GRIT/ABRASIVE	COLOR	STD. PKG.
<b>1/4" x 18"</b>			
05539554473	Coarse A/O	Brown	12
05539554474	Medium A/O	Maroon	12
05539554475	Very Fine A/O	Blue	12
<b>1/4" x 24"</b>			
05539554476	Coarse A/O	Brown	12
05539554477	Medium A/O	Maroon	12
05539554478	Very Fine A/O	Blue	12
<b>1/2" x 18"</b>			
05539554479	Coarse A/O	Brown	12
05539554480	Medium A/O	Maroon	12
05539554481	Very Fine A/O	Blue	12
<b>1/2" x 24"</b>			
05539554482	Coarse A/O	Brown	12
05539554483	Medium A/O	Maroon	12
05539554484	Very Fine A/O	Blue	12
<b>3/4" x 18"</b>			
05539554485	Coarse A/O	Brown	12
05539554486	Medium A/O	Maroon	12
05539554487	Very Fine A/O	Blue	12
<b>3/4" x 20-1/2"</b>			
05539554488	Coarse A/O	Brown	12
05539554489	Medium A/O	Maroon	12
05539554490	Very Fine A/O	Blue	12
<b>1" x 42"</b>			
05539554491	Coarse A/O	Brown	12
05539554492	Medium A/O	Maroon	12
05539554493	Very Fine A/O	Blue	12
<b>1" x 60"</b>			
05539554494	Coarse A/O	Brown	12
05539554495	Medium A/O	Maroon	12
05539554496	Very Fine A/O	Blue	12

PART #	GRIT/ABRASIVE	COLOR	STD. PKG.
<b>2" x 18-15/16"</b>			
05539554503	Coarse A/O	Brown	12
05539554504	Medium A/O	Maroon	12
05539554505	Very Fine A/O	Blue	12
<b>2" x 34"</b>			
05539554497	Coarse A/O	Brown	12
05539554498	Medium A/O	Maroon	12
05539554499	Very Fine A/O	Blue	12
<b>2" x 48"</b>			
05539554500	Coarse A/O	Brown	12
05539554501	Medium A/O	Maroon	12
05539554502	Very Fine A/O	Blue	12
<b>2-3/4" x 15-1/2"</b>			
05539554506	Coarse A/O	Brown	10
05539554507	Medium A/O	Maroon	10
05539554508	Very Fine A/O	Blue	10
<b>3" x 10-11/16"</b>			
05539554509	Coarse A/O	Brown	12
05539554510	Medium A/O	Maroon	12
05539554511	Very Fine A/O	Blue	12
<b>3-1/2" x 15-1/2"</b>			
05539554512	Coarse A/O	Brown	12
05539554513	Medium A/O	Maroon	12
05539554514	Very Fine A/O	Blue	12
<b>4" x 36"</b>			
05539554515	Coarse A/O	Brown	8
05539554516	Medium A/O	Maroon	8
05539554517	Very Fine A/O	Blue	8
<b>6" x 48"</b>			
05539554518	Coarse A/O	Brown	4
05539554519	Medium A/O	Maroon	4
05539554520	Very Fine A/O	Blue	4



**INTRODUCTION**

Most non-woven products consist of a non-woven web of nylon fibers, impregnated throughout with abrasive grain and bonded with synthetic resins. This design produces a cushioned, three-dimensional material that is extremely pliable and long lasting.

The uniform dispersion of abrasive throughout the web provides a continuous supply of new grain as the old grain and fibers wear away during use.

Non-woven products, with their open mesh construction, are waterproof, washable, resilient, conformable, non-loading, non-conductive, non-metallic, non-rusting and easily pre-formed to conform to special-shaped workpieces.

Since non-woven products are designed for use where stock removal is not required, they begin where other abrasives leave off. The relatively non-aggressive nature of nylon and grit in the non-woven material makes it ideal as a finishing tool. While 60 to 80 grit are considered intermediate sizes in other products, they are considered coarse for non-woven items.

Used wet or dry, non-woven products offer the following advantages:

- Controlled cut without stock removal
- Consistent, uniform finish
- Minimized smearing and discoloration of the workpiece (heat is dissipated through the open mesh of the product)
- Increased production; time savings
- Ability to automate operations
- Reduced operator training
- Less maintenance required
- Greater safety than other methods
- Conformability to irregular surfaces

These advantages make non-woven products excellent alternatives to bristle brushes, set-up wheels, greaseless compounds, and steel wool.

**ABRASIVES**

- Silicon carbide is sharper, cuts faster, and produces finer scratch patterns on most surfaces.
- Aluminum oxide is more durable, tends to last longer, and produces less discoloration on aluminum.
- Ceramic alumina is the most aggressive on certain applications such as hardened steel parts.
- Non-woven hand pads and rolls are available in a non-abrasive material.

**CONVENTIONAL FINISHING METHODS VERSUS NON-WOVEN PRODUCTS**

The following chart outlines the advantages achievable when using non-woven products as alternatives to other cleaning, blending, deburring, and finishing methods. Non-woven products are listed in the sequence of normal preference for the application stated. However, because of the numerous variables, only testing can ensure selection of the most cost-effective product.

CONVENTIONAL FINISHING METHOD	KEY APPLICATION	NON-WOVEN PRODUCT AS AN ALTERNATIVE	ADVANTAGES OF FIBRATEx PRODUCT VERSUS ALTERNATE FINISHING METHODS
Bristle Brushes	Cleaning	Flap Wheel	Superior cleaning performance Higher productivity No slurry or compound required More consistent finish Eliminates compound dust and flying bristles
Greaseless Compounds	Finishing	Flap Wheel	Reduced maintenance No compound, instant set-up Elimination of compound dust More uniform finish More consistent work rate
Steel Wool	Cleaning	Rolls Discs Hand Pads	Faster, longer life Less pressure required Non-rusting, cleaner Safer, no splinters

**GRITS**

Grit refers to the size of the abrasive grain impregnated into the nylon web. Use of large particles results in more aggressive cut and a coarser finish. Small size particles produce fine surface finishes, if all other conditions are equal.

GRIT DESIGNATIONS	COMPARABLE GRIT SIZE
Coarse (C)	50 - 80
Medium (M)	100 - 150
Fine (F)	180 - 220
Very Fine (VF)	240 - 360
Ultra Fine (UF)	600
Micro Fine (MF)	800 - 1200

**DENSITIES**

The product "density" refers to the number of fibers which have been compressed into the nylon web material. Under identical conditions, harder (closed) density wheels cut faster, last longer, and produce finer finishes than softer (more open) density wheels. Softer density wheels offer greater conformability and have less tendency to load or burn the workpiece.

**FIBER SIZING**

Several nylon fiber sizes (the denier) are used in the manufacture of non-woven web material because the fiber size is a significant factor in the coating process, as each produces distinct cutting characteristics.

As the intended applications for the specific item determines the fiber size used, the denier is not an optional ingredient and, therefore, is not included in the product offering specifications.

**BONDING AGENTS**

Waterproof resins are used in the manufacture of non-woven web material to bond the nylon fibers together and to firmly anchor the abrasive grains throughout the web. A variety of resins are utilized in order to obtain the required softness, hardness, toughness, flexibility and other characteristics required of the finished product.

As the intended applications for the specific non-woven item determine the resin type, the resin is not an optional ingredient and, therefore, is not included in the product offering specifications.



**GETTING THE MOST OUT OF NON-WOVEN PRODUCTS**

Maximum life and best surface conditioning results can be achieved by closely adhering to the following recommendations.

**1) DIRECTION**

Non-woven conventional flap wheels and unified wheels can be run in either direction. Interleaf flap wheels and convolute wheels must be run only in the direction indicated by the arrow.

**2) SPEED**

Speed is an important factor in that it affects product finish, rate of cut and wheel life. In general, fast wheel speeds give harder action and a finer finish; whereas, slower speeds give a softer action and a coarser finish for the same wheel density.

The following are recommended operating speeds for the most common applications.

APPLICATION	COMPARABLE GRIT SIZE
Cleaning and upgrading of surface conditions	2200 to 6000 SFPM
Cut-buffing on metal surfaces	6500 to 8000 SFPM
Deburring	5500 to 8000 SFPM
Decorative finishing	500 to 3000 SFPM
Imparting decorative finishes	900 to 3000 SFPM
Oxide Removal	3500 to 6500 SFPM

Testing may show that a slower or faster speed is desirable for specific operations. Never exceed the maximum RPM rating of the wheel.

**3) PRESSURE**

Light to medium pressure is recommended for most operations. Flap wheels require much lighter pressure to perform properly than other non-woven wheels. Unified wheels can withstand much higher pressures in order to perform deburring jobs. In all cases, avoid excessive pressure which may result in wheel deformation and damage to the work surface.

**4) FEED SPEED**

Feed speeds directly affect the number of pieces completed over a given period of time. Slow feed speed reduces the number of workpieces completed, while producing a shorter scratch pattern. Slow feed speed allows for longer dwell time and permits more work to be done on each piece. Conversely, a fast feed speed increases the number of workpieces completed, while producing a longer scratch pattern.

**5) OSCILLATION**

Oscillation may be used to break up scratch lines and produce a more uniform finish. Additionally, an increase in cut may be experienced. A general starting point for oscillation is 3/8" amplitude at 200 cycles per minute.

**6) LUBRICANTS**

Lubricants, such as water, water soluble oil and straight oil, will decrease the heat generated while running, improve the luster and reduce the surface finish. The higher the viscosity of the lubricant, the lower the surface finish (RMS value) produced.

**SURFACE FINISH VARIABLES**

Changes in any one of many factors can affect the surface finish on the workpiece. This chart shows the effect on surface finish by changes in single factors of product specifications. Arrows have been used to signify the trend direction. The arrow length does not signify that the effect of each factor is equal.

VARIABLE FACTOR	ROUGH FINISH	SMOOTH SURFACE
	HIGH RMS READING	LOWER RMS READING
1. Grit Size	COARSE ←	→ VERY FINE
2. Wheel Grade	SOFT ←	→ HARD
3. Wheel Speed	SLOW ←	→ FAST
4. Feed Speed	FASTER (LONG SCRATCH) ←	→ SLOWER (SHORT SCRATCH)
5. Oscillation	NO OSCILLATION ←	→ OSCILLATION
6. Lubricants and Compounds	DRY ←	→ WATER SOLUBLE OIL STRAIGHT OIL ← COMPOUNDS →



# PREMIER RED REINFORCED PORTABLE SNAGGING WHEELS

Best Tier / Zirconia Alumina Abrasive



Use when grinding with a hand-held machine. Best choice for grinding steel, steel alloys and cast iron.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>3 times the life of aluminum oxide</li> <li>Greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>High-performance resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 01 – FOR PORTABLE GRINDERS</b>				
05539509169	6 x 1 x 5/8	2ZA14-RBF64	8,000	5
05539509167	8 x 1 x 5/8	2ZA14-RBF64	6,000	5
<b>Minimum quantity = box quantity.</b>				



TYPE 01

# CARBO GOLD REINFORCED PORTABLE SNAGGING WHEELS

Good Tier / Aluminum Oxide Abrasive



Use when grinding with a hand-held machine. The economical choice for grinding steel, steel alloys and cast iron.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>High-strength, reinforced construction</li> </ul>	<ul style="list-style-type: none"> <li>Resists breakage</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 01 – FOR PORTABLE GRINDERS</b>				
05539507347	8 x 1 x 5/8	GA16-P5BF5	4,540	5
<b>Minimum quantity = box quantity.</b>				



TYPE 01

# REINFORCED PORTABLE SNAGGING WHEELS

Good Tier / Aluminum Oxide Abrasive



Use when grinding with a hand-held machine. Ideal for grinding parting lines, gates and risers.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate and long life</li> </ul>
<ul style="list-style-type: none"> <li>Reinforced</li> </ul>	<ul style="list-style-type: none"> <li>Durable, yet cool cutting</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 01 – FOR PORTABLE GRINDERS</b>				
05539506618	3 x 1/2 x 3/8	GA24-PBFF	18,080	10
<b>Minimum quantity = box quantity.</b>				



TYPE 01

# PREMIER RED PORTABLE SNAGGING WHEELS

Best Tier / Zirconia Alumina



Best choice for grinding steel, steel alloys and cast iron. Used for grinding weld seams, cleaning metal before welding, grinding off fins and parting lines, smoothing surfaces on castings, and smoothing surfaces before painting or plating.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>3 times the life of aluminum oxide abrasive; greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>High-performance resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> </ul>

## FULL STEEL BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539500694	6 / 4-13/16 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	2ZA16-QB64	6,000	5



TYPE 11

## STANDARD BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539563938	4 / 3 x 2 x 5/8-11 Rim 3/4, Back 3/4	2ZA16-QB64	9,070	10
05539509156	5 / 3-3/4 x 2 x 5/8-11 Rim 1, Back 3/4	2ZA16-QB64	7,260	5
05539508397	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	2ZA14-RB64	6,000	5
05539509155	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	2ZA16-PB64	6,000	5
05539507176	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	2ZA16-QB64	6,000	5

Minimum quantity = box quantity.

# CARBO GOLD PORTABLE SNAGGING WHEELS

Good Tier / Aluminum Oxide



Economical choice for grinding steel, steel alloys and all ferrous metals.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide abrasive</li> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>Free cutting action</li> </ul>

## FULL STEEL BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539507182	6 / 4-13/16 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	A16-PB5	6,000	5



TYPE 11

## STANDARD BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539509166	4 / 3 x 2 x 5/8-11 Rim 3/4, Back 3/4	A16-PB5	9,070	10
05539509162	5 / 3-3/4 x 2 x 5/8-11 Rim 1, Back 3/4	A24-PB5	7,260	5
05539509160	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	A16-PB5	6,000	5
05539563989	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	A16-QB5	6,000	5
05539509159	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	A24-PB5	6,000	5

Minimum quantity = box quantity.

# PREMIER RED PORTABLE SNAGGING WHEELS

Best Tier / Zirconia Alumina/Silicon Carbide Blend



Best choice for grinding dirty, scale-covered castings, aluminum and other soft metal castings.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina/silicon carbide abrasive blend</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> <li>3 times the life of aluminum oxide/silicon carbide abrasive blend</li> </ul>
<ul style="list-style-type: none"> <li>High performance resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> </ul>

## STANDARD BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR SOFT METALS</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539507177	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	2ZC16-QB64	6,000	5
<b>Minimum quantity = box quantity.</b>				



TYPE 11

# CARBO GOLD PORTABLE SNAGGING WHEELS

Good Tier / Aluminum Oxide/Silicon Carbide Blend



Economical choice for grinding dirty, scale-covered castings, aluminum and other soft metals.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Quality aluminum oxide/ silicon carbide abrasive blend</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> </ul>
<ul style="list-style-type: none"> <li>Resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> </ul>

## FULL STEEL BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR SOFT METALS</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539507183	6 / 4-13/16 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	CGA16-QB5	6,000	5

## STANDARD BACK BUSHING

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR SOFT METALS</b>				
<b>TYPE 11 – FOR PORTABLE CUP GRINDERS</b>				
05539507181	6 / 4-3/4 x 2 x 5/8-11 Rim 1-1/2, Back 3/4	CGA16-QB5	6,000	5
<b>Minimum quantity = box quantity.</b>				



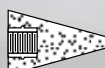
TYPE 11



**Cone and Plug Shapes**



TYPE 16



TYPE 17



TYPE 18



TYPE 18R

**PREMIER RED PORTABLE SNAGGING CONES AND PLUGS**

*Best Tier / Zirconia Alumina*



The best choice for grinding steel, steel alloys, and cast iron, for removing burrs and flash, and finishing any type of metal surface in a confined area.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium zirconia alumina abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fastest cut rate</li> <li>3X the life of aluminum oxide abrasive: greatest productivity</li> </ul>
<ul style="list-style-type: none"> <li>High-performance resin bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action</li> </ul>

PART #	SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 16 CONES (ROUND END)</b>				
05539520886	2 x 3 x 5/8-11	2ZA20-R	18,145	10
05539520887	2-3/4 x 3-1/2 x 5/8-11	2ZA20-R	13,195	10
<b>TYPE 18 PLUGS (SQUARE END)</b>				
05539520889	2 x 3 x 5/8-11	2ZA20-R	18,145	10
<b>TYPE 18R PLUGS (ROUND END)</b>				
05539520893	1-1/2 x 3 x 5/8-11	2ZA20-R	24,190	10
05539520891	2 x 3 x 5/8-11	2ZA20-R	18,145	10
<b>Minimum quantity = box quantity</b>				





## PORTABLE SNAGGING CONES AND PLUGS

**Better Tier / Zirconia Alumina/Aluminum Oxide Blend**

**CARBO™**



Excellent for grinding steel, steel alloys and cast iron, for removing burrs and flash and finishing any type of metal surface in a confined area.

FEATURES	BENEFITS
• Performance, zirconia alumina/aluminum oxide abrasive blend	• Fast cut rate
• Resin bond	• Easily grinds scale-covered parts
	• Long life

PART #	SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 16 CONES (ROUND END)</b>				
05539563710	1-1/2 x 3 x 3/8-24	3ZA24-R	24,190	10
05539563711	1-1/2 x 3 x 5/8-11	3ZA20-R	24,190	10



## PORTABLE SNAGGING CONES AND PLUGS

**Good Tier / Aluminum Oxide**

**CARBO™**



The economical choice for grinding steel or iron castings, removing burrs and flash and finishing metal surfaces in confined areas.

FEATURES	BENEFITS
• Quality, aluminum oxide abrasive	• Fast stock removal
• Resin bond	• Free cutting action

PART #	SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
<b>TYPE 16 CONES (ROUND END)</b>				
05539509154	1-1/2 x 3 x 5/8-11	A24-R	24,190	10
05539564070	2 x 3 x 3/8-24	A24-R	18,145	10
05539509153	2 x 3 x 5/8-11	A24-R	18,145	10
05539509152	2-3/4 x 3-1/2 x 5/8-11	A24-R	13,195	10
<b>TYPE 17 CONES (SQUARE END)</b>				
05539509150	1-1/2 / 1/2 x 3 x 3/8-24	A24-R	24,190	10
05539509149	2 / 1/2 x 3 x 5/8-11	A24-R	18,145	10
<b>TYPE 18 PLUGS (SQUARE END)</b>				
05539509145	1-1/2 x 2-1/2 x 5/8-11	A24-R	24,190	10
05539509144	1-1/2 x 3 x 3/8-24	A24-R	24,190	10
05539509143	1-1/2 x 3 x 5/8-11	A24-R	24,190	10
05539509142	2 x 3 x 3/8-24	A24-R	18,145	10
05539509141	2 x 3 x 5/8-11	A24-R	18,145	10
05539509139	3 x 4 x 5/8-11	A24-R	12,095	10
<b>TYPE 18R PLUGS (ROUND END)</b>				
05539509138	1-1/2 x 3 x 3/8-24	A24-R	24,190	10
05539509137	1-1/2 x 3 x 5/8-11	A24-R	24,190	10
05539509136	2 x 3 x 5/8-11	A24-R	18,145	10
05539509134	3 x 4 x 5/8-11	A24-R	12,095	10

Minimum quantity = box quantity.



# PREMIER RED FOUNDRY FLOORSTAND SNAGGING WHEELS

Better Tier / Zirconia Alumina/Aluminum Oxide Blend



Castings small enough to be carried to the grinder are ground using a floorstand wheel. Ideal for grinding all types of metals, cast iron and cast steel.

FEATURES	BENEFITS
• Performance zirconia alumina/aluminum oxide abrasive blend	• Fast cut rate
• Resin bond	• Easily grinds scale-covered parts
• High-strength, safety web construction	• Extended wheel life
• Convenient 10 wheels/pallet packaging available	• Resists breakage
	• Economical; environmentally-friendly
	• Easy storage and handling

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
05539562953	30 x 2 x 12	3AZA14-SBF68	1,595	1
05539562952	30 x 2 x 12	3AZA16-QBF68	1,595	1
<b>SPECIAL PALLET PACK OF 10 WHEELS</b>				
05539563987	30 x 2 x 12	3AZA16-QBF68	1,595	10
<b>Minimum quantity = box quantity.</b>				

# FOUNDRY FLOORSTAND SNAGGING WHEELS

Good Tier / Zirconia Alumina/Aluminum Oxide Blend



Castings small enough to be carried to the grinder are ground using a floorstand wheel. The choice for medium- to low-pressure cast iron and metal applications - when initial-price is the main purchasing consideration.

FEATURES	BENEFITS
• Unique zirconia alumina/aluminum oxide abrasive blend	• Competitive performance/ price ratio
• Resin bond	• Ideal for medium to low pressure applications
• High-strength, safety web construction	• Long life
	• Resists breakage

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR IRON/STEEL/METAL</b>				
05539563988	30 x 2 x 12	AZ All Purpose	1,595	1
<b>Minimum quantity = box quantity.</b>				

# TOOL POST WHEELS

Good Tier / Aluminum Oxide



Tool post wheels provide the first step in reconditioning heavily damaged high speed tool steel on post grinders and universal attachments on cylindrical grinders.

FEATURES	BENEFITS
• Aluminum oxide abrasive	• Tough and durable, yet cool cutting
• Resin bond	• High-strength and long life

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 01 - FOR TOOL POST GRINDERS</b>				
05539509907	2 x 1/2 x 3/8	A36-P5B6	18,145	10
<b>Minimum quantity = box quantity.</b>				



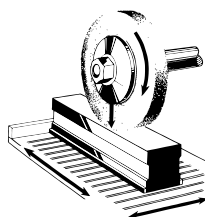


**TOOLROOM GRINDING APPLICATIONS**

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.

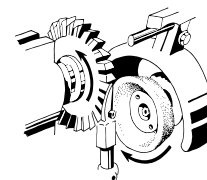
**Surface Grinding**

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.

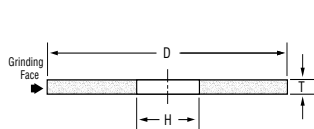


**Tool and Cutter Grinding**

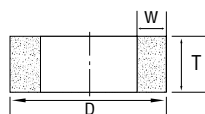
The grinding or resharpenering of milling cutters, reamers, drills, or end mills for the purpose of restoring keen cutting edges or exact cutting angles.



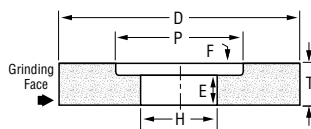
**WHEEL SHAPES**



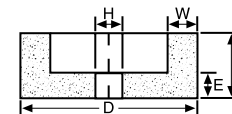
TYPE 01 STRAIGHT



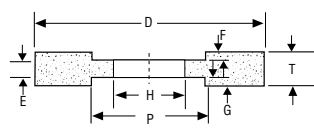
TYPE 02 CYLINDER



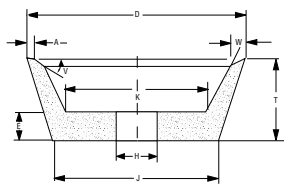
TYPE 05 RECESSED ONE SIDE



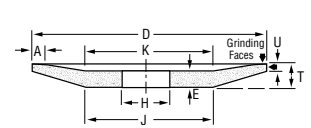
TYPE 06 STRAIGHT CUP



TYPE 07 RECESSED TWO SIDES



TYPE 11 FLARING CUP



TYPE 12 DISH



TYPE 37

**TOOLROOM BASICS SELECTION GUIDE**

PRODUCTIVITY	DURABILITY	ABRASIVE	COLOR	GRIT SIZE	GRADE	NARROW CONTACT FORM HOLDING BOND	MEDIUM/WIDE CONTACT AREA POROUS BOND	DRESSING TOOL
Highest	More Durable	Medalist	Blue	46 (Coarse)	E (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	120 (Fine)	P (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
46	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"

**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 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 Infeed 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 wheels

**NEW! TO MAXIMIZE THE PERFORMANCE OF TOOLROOM WHEELS SEE THE NEW CARBORUNDUM STATIONARY DIAMOND DRESSING TOOLS ON PAGE 156-157.**

**TOOLROOM WHEEL COMPETITIVE CROSS REFERENCE**

CARBORUNDUM	CAMEL	CINCINNATI	RADIAC
<b>32AR</b>	32A	4A, 12A, 29A, 32A	32A, WRA
<b>AA</b>	83A, WA, AZ (Blue)	9A, 10A, 11A, 82A	WA, 9A
<b>AR</b>	–	–	RA
<b>GC</b>	–	5C	GC
<b>Medalist, Medalist R</b>	AS3	3MSB	7BP, 8BP
<b>PA</b>	PA	12A	RAA

**TOOLROOM WHEEL STARTING RECOMMENDATIONS BY MATERIAL/APPLICATION**

APPLICATION/MATERIAL	PERFORMANCE/PRODUCTIVITY								
	NARROW CONTACT AREA			MEDIUM CONTACT AREA			WIDE CONTACT AREA		
	BEST	BETTER	GOOD	BEST	BETTER	GOOD	BEST	BETTER	GOOD
<b>TOOL RESHARPENING</b>									
<b>HEAVY STOCK REMOVAL (&gt; .004)</b>									
HSS & Tool Steel RC 50-68	Medalist46-KVL	32AR46-KV40	AA46-KV40	Medalist46-JVL	32AR46-JV40	AA46-JV40	Medalist46-GVLP	32AR46-GV40P	AA46-Hv40
<b>MODERATE STOCK REMOVAL (.002 - .004)</b>									
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
<b>SURFACE GRINDING</b>									
<b>HEAVY STOCK REMOVAL (&gt; .004)</b>									
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
<b>MODERATE STOCK REMOVAL (.002 - .004)</b>									
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
<b>LIGHT STOCK REMOVAL AND FINISHING (&lt;/.001)</b>									
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



# MEDALIST TOOLROOM WHEELS FOR STEEL APPLICATIONS

Best Tier / Ceramic Alumina / Aluminum Oxide Blend



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. See Page 145 for additional porous specifications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>High-performance ceramic alumina / aluminum oxide abrasive blend – blue color</li> </ul>	<ul style="list-style-type: none"> <li>Fast stock removal on moderate to very heavy stock removal applications</li> <li>Cool cutting</li> </ul>
<ul style="list-style-type: none"> <li>Self-sharpening abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Less burn on part</li> <li>Dressing frequency reduced</li> </ul>
<ul style="list-style-type: none"> <li>High-performance vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced wheel life</li> <li>Superior form and corner holding</li> </ul>
<ul style="list-style-type: none"> <li>VLP bond: induced porosity</li> </ul>	<ul style="list-style-type: none"> <li>Load resistant</li> </ul>
<ul style="list-style-type: none"> <li>Best performance</li> </ul>	<ul style="list-style-type: none"> <li>Highest productivity, lowest total grinding cost</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539562350	6" x 1/4" x 1-1/4"	80-KVL	4,140	10
05539562351 B	7" x 1/4" x 1-1/4"	46-JVL	3,600	10
05539527241	7" x 1/4" x 1-1/4"	60-IVL	3,600	10
05539527242 B	7" x 1/4" x 1-1/4"	60-JVL	3,600	10
05539527243	7" x 1/4" x 1-1/4"	60-KVL	3,600	10
05539527244	7" x 1/4" x 1-1/4"	80-JVL	3,600	10
05539527245	7" x 1/4" x 1-1/4"	80-KVL	3,600	10
05539527247	7" x 1/4" x 1-1/4"	100-KVL	3,600	10
05539527248	7" x 1/2" x 1-1/4"	46-GVLP	3,600	5
05539527250	7" x 1/2" x 1-1/4"	46-IVL	3,600	5
05539527249 B	7" x 1/2" x 1-1/4"	46-IVLP	3,600	5
05539527251	7" x 1/2" x 1-1/4"	46-JVL	3,600	5
05539527252	7" x 1/2" x 1-1/4"	46-KVL	3,600	5
05539527255 B	7" x 1/2" x 1-1/4"	60-IVL	3,600	5
05539527256	7" x 1/2" x 1-1/4"	60-JVL	3,600	5
05539527257 B	7" x 1/2" x 1-1/4"	60-KVL	3,600	5
05539527260	7" x 1/2" x 1-1/4"	80-JVL	3,600	5
05539527261 B	7" x 1/2" x 1-1/4"	80-KVL	3,600	5
05539527262 B	7" x 3/4" x 1-1/4"	46-KVL	3,600	5
05539527264	7" x 1" x 1-1/4"	46-JVL	3,600	5
05539527268 B	8" x 1/2" x 1-1/4"	46-IVL	3,105	5
05539527269	8" x 1/2" x 1-1/4"	46-JVL	3,600	5
05539527270	8" x 1/2" x 1-1/4"	46-KVL	3,600	5
05539527271	8" x 1/2" x 1-1/4"	60-IVL	3,600	5
05539527272	8" x 1/2" x 1-1/4"	60-JVL	3,600	5
05539527273	8" x 1/2" x 1-1/4"	60-KVL	3,600	5
05539562363	8" x 1/2" x 1-1/4"	80-JVL	3,600	5
05539527274	8" x 3/4" x 1-1/4"	46-IVL	3,105	5
05539527275	8" x 3/4" x 1-1/4"	46-JVL	3,600	5
05539527276	8" x 3/4" x 1-1/4"	46-KVL	3,600	5
05539527277	8" x 3/4" x 1-1/4"	60-JVL	3,600	5
05539562365	8" x 1" x 1-1/4"	46-IVL	3,105	5
05539527279	10" x 1" x 3"	46-IVL	2,485	2
05539527280	10" x 1" x 3"	46-JVL	2,485	2
05539527282	10" x 1" x 3"	60-JVL	2,485	2
05539562382	12" x 3/4" x 1-1/4"	46-OVL	2,070	1
05539527283	12" x 1" x 3"	46-IVL	2,070	2
05539527284	12" x 1" x 3"	46-JVL	2,070	2
05539564511	12" x 1" x 3"	60-GVPP	2,070	2
05539527287	12" x 1" x 5"	46-JVL	2,070	2
05539527290	12" x 1" x 5"	60-JVL	2,070	2
05539562337 B	12" x 1-1/2" x 5"	60-GVLP	2,070	2
05539527291	14" x 1" x 5"	46-GVLP	1,800	2
05539527292	14" x 1" x 5"	46-JVL	1,800	2
05539527293	14" x 1" x 5"	60-JVL	1,800	2
05539527294	14" x 1-1/2" x 5"	46-GVLP	1,800	1
05539527295 B	14" x 1-1/2" x 5"	46-IVL	1,800	1

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539527296	14" x 1-1/2" x 5"	46-JVL	1,800	1
05539562346 B	14" x 1-1/2" x 5"	60-IVL	1,800	1
05539527298	14" x 1-1/2" x 5"	60-JVL	1,800	1
05539562347	14" x 1-1/2" x 5"	80-KVL	1,800	1
05539562348	14" x 2" x 5"	46-JVL	1,800	1
05539562349	14" x 2" x 5"	60-JVL	1,800	1
<b>TYPE 05 – FOR SURFACE GRINDERS</b>				
05539527300	7" x 1" x 1-1/4" Recess 1/S 2-3/4" x 1/2"	46-JVL	3,600	5
05539527301	7" x 1" x 1-1/4" Recess 1/S 2-3/4" x 1/2"	60-JVL	3,600	5
05539562370	7" x 1" x 1-1/4" Recess 1/S 3" x 1/2"	60-KVL	3,600	5
05539562366	12" x 1-1/2" x 5" Recess 1/S 7-1/2" x 1/2"	46-GVLP	2,070	2
05539562367	14" x 1-1/2" x 5" Recess 1/S 8" x 1/2"	46-JVL	1,800	1
<b>TYPE 07 – FOR SURFACE GRINDERS</b>				
05539564513	12" x 2" x 5" Recess 2/S 7-1/2" x 1/2"	60-GVPP	2,070	1
<b>TYPE 11 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539527302	4" / 3" x 1-1/2" x 1-1/4" Rim 1/4", Back 1/2"	46-JVL	5,730	5
05539527303	4" / 3" x 1-1/2" x 1-1/4" Rim 1/4", Back 1/2"	60-JVL	5,730	5
05539527305	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	46-JVL	4,585	5
05539527306	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	60-KVL	4,585	5
<b>TYPE 12 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539527308	6" x 1/2" x 1-1/4" U = 3/8, E = 5/16 J = 3, K = 3	46-JVL	4,140	5
05539562380	8" x 1-9/16" x 1-1/4" U = 7/16, E = 25/32, J = 3, K = 3	46-JVL	3,105	4
<b>TYPE 37 – FOR SURFACE GRINDERS</b>				
05539562383	10" x 3-1/2" x 8" Rim 1", Eight 1/4"-20 Bolts on 9" Bolt Circle	54-IVL	2,105	1

Minimum quantity = box quantity. | B = Best Seller



## techtip

**OPERATING TIPS FOR MAXIMIZING GRINDING PERFORMANCE WITH**

### MEDALIST WHEELS

Change one parameter at a time:

- Increase infeed 50%
- Increase traverse rate 25%
- Reduce dressing infeed 25%

# CARBO GOLD TOOLROOM WHEELS FOR STEEL APPLICATIONS

Better Tier / 32AR Aluminum Oxide



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. See Page 145 for additional porous specifications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>High-performance aluminum oxide abrasive - gray/purple color</li> <li>Strong, sharp monocrystalline grain blend</li> </ul>	<ul style="list-style-type: none"> <li>Exceptionally cool, fast cutting on medium to heavy stock removal operations</li> <li>Excellent resistance to point wear</li> <li>Good penetration on tough alloy steels</li> </ul>
<ul style="list-style-type: none"> <li>Tough, yet friable grain</li> </ul>	<ul style="list-style-type: none"> <li>Holds form well</li> <li>Requires less dressing</li> </ul>
<ul style="list-style-type: none"> <li>Strong vitrified bond</li> <li>V40P bond: induced porosity</li> </ul>	<ul style="list-style-type: none"> <li>Long wheel life</li> <li>Load resistance</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539527692	6" x 1/2" x 1-1/4"	32AR60-JV40	4,140	10
05539562244	6" x 1/2" x 1-1/4"	32AR60-KV40	4,140	10
05539527686	7" x 1/4" x 1-1/4"	32AR46-HV40	3,600	10
05539527688	7" x 1/4" x 1-1/4"	32AR46-JV40	3,600	10
05539527689	7" x 1/4" x 1-1/4"	32AR60-IV40	3,600	10
05539527311 B	7" x 1/4" x 1-1/4"	32AR60-JV40	3,600	10
05539527312	7" x 1/4" x 1-1/4"	32AR60-KV40	3,600	10
05539527314	7" x 1/4" x 1-1/4"	32AR80-JV40	3,600	10
05539527315 B	7" x 1/4" x 1-1/4"	32AR80-KV40	3,600	10
05539562246 B	7" x 1/4" x 1-1/4"	32AR100-JV40	3,600	10
05539562249	7" x 1/4" x 1-1/4"	32AR120-KV40	3,600	10
05539527317	7" x 1/2" x 1-1/4"	32AR46-GV40P	3,600	5
05539527319	7" x 1/2" x 1-1/4"	32AR46-HV40	3,600	5
05539527318 B	7" x 1/2" x 1-1/4"	32AR46-HV40P	3,600	5
05539527321	7" x 1/2" x 1-1/4"	32AR46-IV40	3,600	5
05539527320	7" x 1/2" x 1-1/4"	32AR46-IV40P	3,600	5
05539527322	7" x 1/2" x 1-1/4"	32AR46-JV40	3,600	5
05539527323	7" x 1/2" x 1-1/4"	32AR46-KV40	3,600	5
05539527326	7" x 1/2" x 1-1/4"	32AR60-HV40	3,600	5
05539527327	7" x 1/2" x 1-1/4"	32AR60-IV40	3,600	5
05539527328 B	7" x 1/2" x 1-1/4"	32AR60-JV40	3,600	5
05539527329	7" x 1/2" x 1-1/4"	32AR60-KV40	3,600	5
05539527331	7" x 1/2" x 1-1/4"	32AR80-KV40	3,600	5
05539527334	7" x 3/4" x 1-1/4"	32AR46-IV40	3,600	5
05539527335	7" x 3/4" x 1-1/4"	32AR46-KV40	3,600	5
05539527337 B	7" x 3/4" x 1-1/4"	32AR60-KV40	3,600	5
66253054775	8" x 1/4" x 1-1/4"	32AR46-KV40	3,600	5
05539562264	8" x 1/4" x 1-1/4"	32AR60-JV40	3,600	5
05539527338	8" x 1/4" x 1-1/4"	32AR60-KV40	3,600	5
05539527339	8" x 1/4" x 1-1/4"	32AR80-KV40	3,600	5
05539527340 B	8" x 1/2" x 1-1/4"	32AR46-GV40	3,105	5
05539527342	8" x 1/2" x 1-1/4"	32AR46-HV40	3,105	5
05539527341†	8" x 1/2" x 1-1/4"	32AR46-HV40P	3,600	5
05539527343 B	8" x 1/2" x 1-1/4"	32AR46-IV40	3,105	5
05539527344	8" x 1/2" x 1-1/4"	32AR46-JV40	3,600	5
05539527345	8" x 1/2" x 1-1/4"	32AR46-KV40	3,600	5
05539527347	8" x 1/2" x 1-1/4"	32AR60-HV40	3,600	5
05539527348	8" x 1/2" x 1-1/4"	32AR60-IV40	3,600	5

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/BOX
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539527349 B	8" x 1/2" x 1-1/4"	32AR60-JV40	3,600	5
05539527353	8" x 3/4" x 1-1/4"	32AR46-IV40	3,105	5
05539527354	8" x 3/4" x 1-1/4"	32AR46-JV40	3,600	5
05539527355	8" x 3/4" x 1-1/4"	32AR60-IV40	3,600	5
05539527356	8" x 3/4" x 1-1/4"	32AR60-JV40	3,600	5
05539562272	8" x 1" x 1-1/4"	32AR60-IV40	3,600	5
05539562201	10" x 3/4" x 3"	32AR46-IV40	2,485	2
05539527696	10" x 3/4" x 3"	32AR60-JV40	2,485	2
05539527697	10" x 1" x 3"	32AR46 GV40P	2,485	2
05539527359	10" x 1" x 3"	32AR46-IV40	2,485	2
05539527360	10" x 1" x 3"	32AR60-IV40	2,485	2
05539562204	10" x 1" x 3"	32AR60-KV40	2,485	2
05539527361	12" x 1" x 3"	32AR46-HV40	2,070	2
05539562216 B	12" x 1" x 3"	32AR46-IV40	2,070	2
05539527362	12" x 1" x 3"	32AR46-JV40	2,070	2
05539527364	12" x 1" x 3"	32AR60-JV40	2,070	2
05539527365	12" x 1" x 5"	32AR46-IV40	2,070	2
05539562221	12" x 1-1/4" x 3"	32AR46-IV40	2,070	2
05539527368 B	12" x 1-1/2" x 5"	32AR46-HV40	2,070	2
05539527369	12" x 1-1/2" x 5"	32AR46-IV40	2,070	2
05539562224	12" x 1-1/2" x 5"	32AR46-JV40	2,070	2
05539562226	12" x 1-1/2" x 5"	32AR60-HV40	2,070	2
05539562227	12" x 2" x 1-1/4"	32AR46-KV40	2,070	2
05539562316	12" x 2" x 5"	32AR46-IV40	2,070	2
05539562230	14" x 1" x 5"	32AR46-HV40	1,800	2
05539527370	14" x 1" x 5"	32AR46-JV40	1,800	2
05539527371	14" x 1" x 5"	32AR60-JV40	1,800	2
05539527372 B	14" x 1-1/2" x 5"	32AR46-HV40	1,800	1
05539527673	14" x 1-1/2" x 5"	32AR46-IV40	1,800	1
05539527700	14" x 1-1/2" x 5"	32AR46-JV40	1,800	1
05539562240	14" x 2" x 5"	32AR46-IV40	1,800	1
05539562242	14" x 2" x 5"	32AR60-KV40	1,800	1

Minimum quantity = box quantity. | B = Best Seller  
Continued on next page



## techtip

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

### 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



PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 02 – FOR SURFACE AND TOOL &amp; CUTTER GRINDERS</b>				
05539562315	9" x 2" x 5" Rim 2-1/32", Six 9/32 Holes on 4" Bolt Circle	32AR70-JV40P	2,546	2
<b>TYPE 05 – FOR SURFACE GRINDERS</b>				
05539527703	7" x 1" x 1-1/4" Recess 1/S 2-3/4" x 1/2"	32AR46-HV40	3,600	5
05539527675	7" x 1" x 1-1/4" Recess 1/S 2-3/4" x 1/2"	32AR46-IV40	3,600	5
05539527704	7" x 1" x 1-1/4" Recess 1/S 2-3/4" x 1/2"	32AR60-IV40	3,600	5
05539562285	7" x 1" x 1-1/4" Recess 1/S 3" x 1/2"	32AR46-KV40	3,600	5
05539562286	7" x 1-1/4" x 1-1/4" Recess 1/S 2-3/4" x 5/8"	32AR60-IV40	3,600	5
05539527677	8" x 1" x 1-1/4" Recess 1/S 3-1/4" x 1/2"	32AR46-IV40	3,600	5
05539527678	8" x 1" x 1-1/4" Recess 1/S 3-1/4" x 1/2"	32AR46-JV40	3,600	5
05539562277	12" x 1-1/2" x 5" Recess 1/S 7-1/2" x 1/2"	32AR46-IV40	2,070	2
05539562279	14" x 1-1/2" x 5" Recess 1/S 8" x 1/2"	32AR46-IV40	1,800	1
05539562281	14" x 1-1/2" x 5" Recess 1/S 8" x 1/2"	32AR60-IV40	1,800	1
05539562283	14" x 2" x 5" Recess 1/S 8" x 1"	32AR60-KV40	1,800	1
<b>TYPE 06 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539562288	5 x 1-1/2" x 1-1/4" " Rim 3/8", Back 3/8"	32AR46-KV40	4,585	5
05539527705	5 x 1-1/2" x 1-1/4" " Rim 3/8", Back 3/8"	32AR60-KV40	4,585	5
<b>TYPE 07 – FOR SURFACE GRINDERS</b>				
05539562292	12" x 2" x 5" Recess 2/S 7-1/2" x 1/2"	32AR46-HV40	2,070	1
05539562294	12" x 2" x 5" Recess 2/S 7-1/2" x 1/2"	32AR46-KV40	2,070	1

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 11 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539527679	4" / 3" x 1-1/2" x 1-1/4" Rim 1/4", Back 1/2"	32AR46-KV40	5,730	5
05539527680	4" / 3" x 1-1/2" x 1-1/4" Rim 1/4", Back 1/2"	32AR60-JV40	5,730	5
05539527681	4" / 3" x 1-1/2" x 1-1/4" Rim 1/4", Back 1/2"	32AR60-KV40	5,730	5
05539527682	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	32AR46-JV40	4,585	5
05539527684	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	32AR46-KV40	4,585	5
05539527685	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	32AR60-JV40	4,585	5
05539527683	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	32AR60-KV40	4,585	5
05539562301	6" / 4-1/2" x 2" x 1-1/4" Rim 3/8", Back 1/2"	32AR46-IV40	3,820	5
<b>TYPE 12 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539527707	6" x 1/2" x 1-1/4" U = 3/8, E = 5/16 J = 3, K = 3	32AR60-JV40	4,140	5
05539562303	10" x 1" x 1-1/4" U = 2, E = 11/16, J = 6-1/4, K = 3-5/8	32AR54-JV40	2,485	2

Minimum quantity = box quantity.



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

**NEW! TO MAXIMIZE THE PERFORMANCE OF TOOLROOM WHEELS SEE THE NEW CARBORUNDUM STATIONARY DIAMOND DRESSING TOOLS ON PAGE 156-157.**



AA abrasive 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.

FEATURES	BENEFITS
• Aluminum oxide abrasive – white color	• Fast stock removal for light to medium stock removal operations
• Excellent friability	• Cool cutting action
• Durable, vitrified bond	• Long wheel life
• V40P bond: induced porosity	• Load resistant

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539562175	7" x 1/8" x 1-1/4"	AA100-KV40	3,600	10
66253051696	7" x 1/4" x 1-1/4"	AA46-IV40	3,600	10
05539509875	7" x 1/4" x 1-1/4"	AA60-JV40	3,600	10
05539509874	7" x 1/4" x 1-1/4"	AA60-KV40	3,600	10
66253051698	7" x 1/4" x 1-1/4"	AA80-JV40	3,600	10
05539527714	7" x 1/4" x 1-1/4"	AA100-KV40	3,600	10
05539509866	7" x 1/4" x 1-1/4"	AA150-KV40	3,600	10
05539569199	7" x 1/4" x 1-1/4"	PA60-JV40	3,600	10
05539509865	7" x 1/2" x 1-1/4"	AA46-HV40	3,600	5
05539509864	7" x 1/2" x 1-1/4"	AA46-IV40	3,600	5
05539509863	7" x 1/2" x 1-1/4"	AA46-JV40	3,600	5
05539509862	7" x 1/2" x 1-1/4"	AA46-KV40	3,600	5
66253051967	7" x 1/2" x 1-1/4"	AA60-HV40	3,600	5
05539564489	7" x 1/2" x 1-1/4"	AA60-HVPP	3,600	5
05539509860	7" x 1/2" x 1-1/4"	AA60-IV40	3,600	5
05539509859	7" x 1/2" x 1-1/4"	AA60-JV40	3,600	5
05539509858	7" x 1/2" x 1-1/4"	AA60-KV40	3,600	5
66253051969	7" x 1/2" x 1-1/4"	AA80-HV40	3,600	5
05539509857	7" x 1/2" x 1-1/4"	AA80-IV40	3,600	5
05539509854	7" x 1/2" x 1-1/4"	AA80-KV40	3,600	5
05539509852	7" x 1/2" x 1-1/4"	AA100-IV40	3,600	5
05539562180	7" x 1/2" x 1-1/4"	AA120-KV40	3,600	5
05539509848	7" x 3/4" x 1-1/4"	AA60-IV40	3,600	5
05539509844 B	8" x 1/4" x 1-1/4"	AA80-JV40	3,600	5
05539509841	8" x 1/2" x 1-1/4"	AA46-HV40	3,105	5
05539509840	8" x 1/2" x 1-1/4"	AA46-IV40	3,105	5
05539509839	8" x 1/2" x 1-1/4"	AA46-JV40	3,600	5
05539509836	8" x 1/2" x 1-1/4"	AA60-IV40	3,600	5
05539562190	8" x 1/2" x 1-1/4"	AA60-JV40	3,600	5
66253052850	8" x 1/2" x 1-1/4"	AA60-KV40	3,600	5
05539527716	8" x 1/2" x 1-1/4"	AA80-JV40	3,600	5
05539509827	8" x 3/4" x 1-1/4"	AA46-JV40	3,600	5
05539509814	10" x 1" x 3"	AA46-JV40	2,485	2
05539509810	12" x 1" x 3"	AA46-JV40	2,070	2
05539501900	12" x 1" x 5"	AA46-IV40	2,070	2
05539509807	12" x 1" x 5"	AA60-JV40	2,070	2
05539509806	14" x 1" x 5"	AA46-JV40	1,800	2
05539562172	14" x 1-1/2" x 5"	AA46-IV40	1,800	1
05539509804 B	14" x 1-1/2" x 5"	AA46-JV40	1,800	1
05539509803	14" x 1-1/2" x 5"	AA60-JV40	1,800	1
<b>TYPE 02 – FOR SURFACE AND TOOL &amp; CUTTER GRINDERS</b>				
05539503517	9" x 2" x 5" Rim 2-1/32", Six 9/32 Holes on 4" Bolt Circle	AA70-JV40P	2,546	2

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 05 – FOR SURFACE GRINDERS</b>				
66253054746	7" x 3/4" x 1-1/4" Recess 1/8" x 1/4"	AA46-IV40	3,600	5
66253054748	7" x 3/4" x 1-1/4" Recess 1/8" x 1/4"	AA46-JV40	3,600	5
05539509798	7" x 1" x 1-1/4" Recess 1/8" x 1/2"	AA46-IV40	3,600	5
66253054767	7" x 1" x 1-1/4" Recess 1/8" x 1/2"	AA46-JV40	3,600	5
05539509796	7" x 1" x 1-1/4" Recess 1/8" x 1/2"	AA60-IV40	3,600	5
66253054769	7" x 1" x 1-1/4" Recess 1/8" x 1/2"	AA60-JV40	3,600	5
<b>TYPE 06 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539509793	4" x 2" x .787 (20mm) Rim 3/8", Back 3/8"	AA80-JV40	5,730	5
05539509792	6" x 1-1/2" x 1-1/4" Rim 1-1/2", Back 1/2"	AA60-JV40	3,820	5
<b>TYPE 11 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539509790	4" / 3" x 1-1/2" x 1-1/4" Rim 1/4", Back 1/2"	AA46-KV40	5,730	5
05539569412	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	AA46-JV40	4,585	5
05539509783	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	AA60-JV40	4,585	5
05539509782	5" / 3-3/4" x 1-3/4" x 1-1/4" Rim 1/4", Back 1/2"	AA60-KV40	4,585	5
05539509781	6" / 4-1/2" x 2" x 1-1/4" Rim 3/8", Back 1/2"	AA46-KV40	3,820	5
<b>TYPE 12 – FOR TOOL &amp; CUTTER GRINDERS</b>				
05539509777	6" x 1/2" x 1-1/4" U = 3/8, E = 5/16 J = 3, K = 3	AA60-JV40	4,140	5

Minimum quantity = box quantity. | B = Best Seller



See Carbo Cool wheel listings for porous specifications on pages 146.

# CARBO PA TOOLROOM WHEELS FOR STEEL APPLICATIONS

Good Tier / Aluminum Oxide

CARBO™



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.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Friable, aluminum oxide abrasive – pink color</li> </ul>	<ul style="list-style-type: none"> <li>Designed to grind a broad variety of steels at light to moderate feed rates</li> </ul>
<ul style="list-style-type: none"> <li>Durable vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain retention</li> <li>Less dressing; longer wheel life</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539569199	7" x 1/4" x 1-1/4"	PA60-JV40	3,600	10
05539564571	12" x 1" x 3"	PA60-GVPP	2,070	2
Minimum quantity = box quantity.				



See Carbo Cool wheel listings for porous specifications on page 146.

# CARBO GOLD 32AR SKATE SHARPENING WHEELS

Better Tier / Aluminum Oxide

CARBO  
**GOLD™**



Formulated for sharpening all types of skate blades.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Premium aluminum oxide abrasive – gray/ purple color</li> </ul>	<ul style="list-style-type: none"> <li>Fast, cool cutting action</li> <li>No burn</li> </ul>
<ul style="list-style-type: none"> <li>Strong vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Consistent form holding</li> <li>Long life</li> </ul>
<ul style="list-style-type: none"> <li>Plastic bushing</li> </ul>	<ul style="list-style-type: none"> <li>Provides a tighter fit – reducing vibrations and arbor-wear on the skate grinder</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>TYPE 01 – FOR SKATE SHARPENING MACHINES</b>				
05539528044	8 x 5/16 x 1-1/4	32AR80-KV40	3,600	5
<b>TYPE 01 CROSS GRIND – FOR SKATE SHARPENING MACHINES</b>				
05539509972	6 x 1 x 1	60 - Medium	4,140	5
Minimum quantity = box quantity.				





# CARBO COOL MEDALIST R TOOLROOM WHEELS FOR STEEL APPLICATIONS

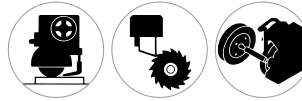
Best Tier / Ceramic Alumina



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

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Ceramic Medalist R abrasive with VPP porous bond – purple color</li> <li>Controlled porosity bond</li> </ul>	<ul style="list-style-type: none"> <li>Maximum productivity; lowest total grinding costs</li> <li>Increased chip clearance, maximum coolant flow, reduced loading</li> <li>Cool cutting – wet or dry – in heat-sensitive applications</li> </ul>
<ul style="list-style-type: none"> <li>Durable bond post</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain retention</li> <li>Less dressing; longer wheel life</li> </ul>
<ul style="list-style-type: none"> <li>Maximum depth of cut</li> </ul>	<ul style="list-style-type: none"> <li>Consistent grinding action at high metal removal rates</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>HIGH POROSITY – FOR HEAVY STOCK REMOVAL</b>				
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539564503	8 x 1/2 x 1-1/4	46-HVPP	3,600	5
Minimum quantity = box quantity.				



# CARBO COOL AR TOOLROOM WHEELS FOR STEEL APPLICATIONS

Better Tier / Aluminum Oxide



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

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Durable aluminum oxide abrasive with VPP porous bond – ruby color</li> <li>Controlled porosity bond</li> </ul>	<ul style="list-style-type: none"> <li>Extremely cool cutting</li> <li>Good form holding</li> <li>Increased chip clearance, maximum coolant flow, reduced loading</li> <li>Cool cutting – wet or dry – in heat-sensitive applications</li> </ul>
<ul style="list-style-type: none"> <li>Durable bond post</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain retention</li> <li>Less dressing; longer wheel life</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>HIGH POROSITY – FOR MEDIUM/HEAVY STOCK REMOVAL</b>				
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539564480	7 x 1/2 x 1-1/4	AR46-GVPP	3,600	5
05539564484	7 x 1/2 x 1-1/4	AR46-HVPP	3,600	5
05539564486	7 x 1/2 x 1-1/4	AR60-HVPP	3,600	5
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539564530	8 x 1/2 x 1-1/4	AR46-HVPP	3,600	5
Minimum quantity = box quantity.				



**NEW! TO MAXIMIZE THE PERFORMANCE OF TOOLROOM WHEELS SEE THE NEW CARBORUNDUM STATIONARY DIAMOND DRESSING TOOLS ON PAGE 156-157.**

## CARBO COOL PA TOOLROOM WHEELS FOR STEEL APPLICATIONS

Good Tier / Aluminum Oxide



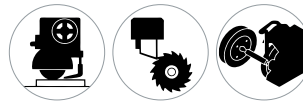
Excels in light to medium stock removal, heat-sensitive applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Friable, aluminum oxide abrasive with VPP porous bond – pink color</li> <li>Controlled porosity bond</li> </ul>	<ul style="list-style-type: none"> <li>Designed to grind a broad variety of steels at light to moderate feed rates</li> <li>Increased chip clearance and maximum coolant flow</li> <li>Reduced loading</li> <li>Cool cutting – wet or dry – in heat-sensitive applications</li> </ul>
<ul style="list-style-type: none"> <li>Durable bond post</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain retention</li> <li>Less dressing; longer wheel life</li> </ul>



PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>HIGH POROSITY – FOR LIGHT/MEDIUM STOCK REMOVAL</b>				
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539564477	7 x 1/2 x 1-1/4	PA46-GVPP	3,600	5
05539564490	7 x 1/2 x 1-1/4	PA46-HVPP	3,600	5
05539564492	7 x 1/2 x 1-1/4	PA60-HVPP	3,600	5

Minimum quantity = box quantity.



## CARBO COOL AA TOOLROOM WHEELS FOR STEEL APPLICATIONS

Good Tier / Aluminum Oxide



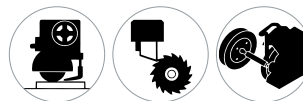
Excellent for light stock removal, heat-sensitive applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Most friable aluminum oxide abrasive with VPP porous bond – white color</li> <li>Versatile</li> <li>Controlled porosity bond</li> </ul>	<ul style="list-style-type: none"> <li>Exceptionally cool cutting in light pressure grinding applications, or where burn is a concern</li> <li>Ideal for use across a broad variety of tool steels</li> <li>Increased chip clearance, maximum coolant flow, reduced loading</li> <li>Cool cutting – wet or dry – in heat-sensitive applications</li> </ul>
<ul style="list-style-type: none"> <li>Durable bond post</li> </ul>	<ul style="list-style-type: none"> <li>Maximum grain retention</li> <li>Less dressing; longer wheel life</li> </ul>



PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>HIGH POROSITY – FOR LIGHT STOCK REMOVAL</b>				
<b>TYPE 01 – FOR SURFACE, CYLINDRICAL AND TOOL &amp; CUTTER GRINDERS</b>				
05539564479	7 x 1/2 x 1-1/4	AA46-GVPP	3,600	5
05539564487	7 x 1/2 x 1-1/4	AA46-HVPP	3,600	5
05539564599	8 x 1/2 x 1-1/4	AA46-HVPP	3,600	5

Minimum quantity = box quantity.





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

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>High performance, sharp, silicon carbide abrasive – green</li> </ul>	<ul style="list-style-type: none"> <li>Fast stock removal</li> <li>Cool, free cut</li> </ul>
<ul style="list-style-type: none"> <li>Performance vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Long life</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR CARBIDE</b>				
<b>TYPE 01 – FOR SURFACE AND TOOL &amp; CUTTER GRINDERS</b>				
05539509585 B	6 x 1/2 x 1-1/4	GC80-IVGC	4,140	5
05539509582	6 x 1/2 x 1-1/4	GC120-IVGC	4,140	5
05539509581	6 x 3/4 x 1-1/4	GC60-IVGC	4,140	5
05539509580	6 x 3/4 x 1-1/4	GC80-IVGC	4,140	5
05539509578	6 x 3/4 x 1-1/4	GC120-IVGC	4,140	5
05539509576	7 x 1/2 x 1-1/4	GC60-IVGC	3,600	5
05539509575	7 x 1/2 x 1-1/4	GC80-IVGC	3,600	5
05539509573	7 x 1/2 x 1-1/4	GC120-IVGC	3,600	5
05539509572	8 x 1/2 x 1-1/4	GC60-IVGC	3,600	5
05539562395 B	8 x 1/2 x 1-1/4	GC100-IVGC	3,600	5
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	8 x 1 x 1-1/4	GC80-IVGC	3,600	5

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR CARBIDE</b>				
<b>TYPE 01 – FOR SURFACE AND TOOL &amp; CUTTER GRINDERS (CONTINUED)</b>				
05539509566	6 x 1 x 4 Rim 1, Fits Both: Four 9/32 Holes on 3-1/4" Bolt Circle Four 7/16 Holes on 3-1/4" Bolt Circle	GC60-IVGC	3,600	2
05539509564	6 x 1 x 4 Rim 1, Fits Both: Four 9/32 Holes on 3-1/4" Bolt Circle Four 7/16 Holes on 3-1/4" Bolt Circle	GC120-IVGC		2

**Minimum quantity = box quantity. | B = Best Seller**



**NEW! TO MAXIMIZE THE PERFORMANCE OF TOOLROOM WHEELS SEE THE NEW CARBORUNDUM STATIONARY DIAMOND DRESSING TOOLS ON PAGE 156-157.**

# BENCH AND PEDESTAL WHEELS

Good Tier / Aluminum Oxide

CARBO™



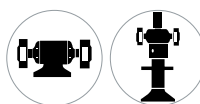
Ideal for removing burrs on steel parts, as well as sharpening high-speed steel cutting tools.  
Note: arbor hole reducing bushings included. See next page.

FEATURES	BENEFITS
• Aluminum oxide abrasive – brown color	• Fast cut rate
• Vitrified bond	• Free cutting action; long life

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 01 – FOR BENCH AND PEDESTAL GRINDERS</b>				
05539509978	6 x 1/2 x 1	60-M	4,140	5
05539509976	6 x 3/4 x 1	36-M	4,140	5
05539509975	6 x 3/4 x 1	60-M	4,140	5
05539509974	6 x 3/4 x 1	100-K	4,140	5
05539509973	6 x 1 x 1	36-M	4,140	5
05539509972	6 x 1 x 1	60-M	4,140	5
05539509971	6 x 1 x 1	100-K	4,140	5
05539509966	7 x 1 x 1	36-M	3,600	5
66253059536	7 x 1 x 1	46-M	3,600	5
05539509965	7 x 1 x 1	60-M	3,600	5
05539509964	7 x 1 x 1	100-K	3,600	5
05539509961	8 x 3/4 x 1	60-M	3,600	5
05539509960	8 x 1 x 1	24-P	3,600	5
05539509959	8 x 1 x 1	36-M	3,600	5
05539509956	8 x 1 x 1	60-M	3,600	5
66253060236	8 x 1 x 1	80-M	3,600	5
05539509955	10 x 1 x 1-1/4	24-P	2,485	2
05539509953	10 x 1 x 1-1/4	36-M	3,250	2

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 01 – FOR BENCH AND PEDESTAL GRINDERS CONTINUED</b>				
05539509952	10 x 1 x 1-1/4	60-M	3,250	2
05539509950	10 x 1-1/4 x 1-1/4	36-M	3,250	2
05539509948	10 x 1-1/2 x 1-1/4	24-P	2,485	2
05539509947	10 x 1-1/2 x 1-1/4	36-M	3,250	2
05539509941	12 x 1-1/2 x 1-1/2	36-M	2,705	1
05539509939	12 x 2 x 1-1/2	24-P	2,070	1
05539509938	12 x 2 x 1-1/2	36-M	2,705	1
05539509937	12 x 2 x 1-1/2	60-M	2,705	1
05539509935	14 x 2 x 1-1/2	24-P	1,800	1
05539509934	14 x 2 x 1-1/2	36-M	1,800	1

Minimum quantity = box quantity.



# CARBO WHITE BENCH AND PEDESTAL WHEELS

Standard Tier / Aluminum Oxide

CARBO™  
**WHITE™**



Good choice for general purpose light metal removal and resharpening of steel and metal tools.  
Note: arbor hole reducing bushings included. See next page.

FEATURES	BENEFITS
• Versatile aluminum oxide abrasive – brown color	• Ideal for small job shops and numerous general purpose applications
• Vitrified bond	• The choice when initial price is a primary purchasing criterion
	• Free cutting action; long life

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR STEEL/METAL</b>				
<b>TYPE 01 – FOR BENCH AND PEDESTAL GRINDERS</b>				
66253383004	6 x 3/4 x 1	Coarse	4,140	2
66253383005	6 x 3/4 x 1	Medium	4,140	2
66253383006	6 x 3/4 x 1	Fine	4,140	2
66253383007	6 x 1 x 1	Coarse	4,140	2
66253383008	6 x 1 x 1	Medium	4,140	2
66253383009	6 x 1 x 1	Fine	4,140	2
66253383010	8 x 1 x 1	Coarse	3,600	2
66253383011	8 x 1 x 1	Medium	3,600	2
66253383012	8 x 1 x 1	Fine	3,600	2

Minimum quantity = box quantity.



# BENCH AND PEDESTAL WHEELS

Good Tier / Silicon Carbide



Ideal for sharpening carbide-tipped cutting tools. Note: arbor hole reducing bushings included. See below.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Sharp, silicon carbide abrasive – dark green color</li> </ul>	<ul style="list-style-type: none"> <li>Fast cut rate</li> </ul>
<ul style="list-style-type: none"> <li>Vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action; long life</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR CARBIDE/NON-FERROUS METALS</b>				
<b>TYPE 01 – FOR BENCH AND PEDESTAL GRINDERS</b>				
05539509929	6 x 3/4 x 1	60-I	4,140	1
05539509928	6 x 3/4 x 1	80-I	4,140	1
05539509927	6 x 3/4 x 1	120-I	4,140	1
05539509926	6 x 1 x 1	60-I	4,140	1
05539509925	6 x 1 x 1	80-I	4,140	1
05539509924	6 x 1 x 1	120-I	4,140	1
66253060288	7 x 1 x 1	60-I	3,600	5
05539509922	7 x 1 x 1	80-I	3,600	5
05539509920	7 x 1 x 1	120-I	3,600	5
05539509916	8 x 1 x 1	60-I	3,600	5

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR CARBIDE/NON-FERROUS METALS</b>				
<b>TYPE 01 – FOR BENCH AND PEDESTAL GRINDERS CONTINUED</b>				
05539509915	8 x 1 x 1	80-I	3,600	5
05539509914	8 x 1 x 1	120-I	3,600	5
05539509913	10 x 1 x 1-1/4	60-I	3,250	2
05539509912	10 x 1 x 1-1/4	80-I	3,250	2
05539509911	10 x 1 x 1-1/4	120-I	3,250	2

Minimum quantity = box quantity.



# CARBO WHITE BENCH AND PEDESTAL WHEELS

Standard Tier / Silicon Carbide

CARBO™  
**WHITE™**



Good choice for general purpose bench and pedestal applications on non-ferrous materials and carbide tooling. Note: arbor hole reducing bushings included. See below.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Sharp, silicon carbide abrasive – green color</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for small job shops and numerous general purpose applications</li> <li>The choice when initial price is a primary purchasing criterion</li> </ul>
<ul style="list-style-type: none"> <li>Vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Free cutting action; long life</li> </ul>

PART #	WHEEL SIZE	GRADING	MAX. RPM	WHEELS/ BOX
<b>FOR CARBIDE/NON-FERROUS METALS</b>				
<b>TYPE 01 – FOR BENCH AND PEDESTAL GRINDERS</b>				
66253383015	6 x 3/4 x 1	Medium	4,140	2
66253383016	6 x 3/4 x 1	Fine	4,140	2
66253383017	6 x 1 x 1	Medium	4,140	2
66253383018	6 x 1 x 1	Fine	4,140	2
66253383019	8 x 1 x 1	Medium	3,600	2
66253383021	8 x 1 x 1	Fine	3,600	2

Minimum quantity = box quantity



# REDUCING BUSHINGS FOR BENCH AND PEDESTAL WHEELS

Accessory



Reducing bushings can be safely used to reduce the center hole in a grinding wheel. They are designed to fit freely on the spindle and maintain proper clearance. It is important that the bushing diameter does not come in contact with the flange bearing area and does not exceed the width of the wheel.

Reducing bushings are included with Bench and Pedestal Wheels as follows:

WHEEL DIAMETER	BUSHING	WHEEL DIAMETER	BUSHING
6", 7"	7/8, 3/4, 5/8, 1/2	12"	1-1/4, 1
8"	7/8, 3/4, 5/8	14"	1-1/4, 1
10"	1, 7/8, 3/4		



# MEDALIST SURFACE GRINDING SEGMENTS

Best Tier / Ceramic Alumina



Ideal for high stock removal on flat surfaces. Best for grinding hard materials.

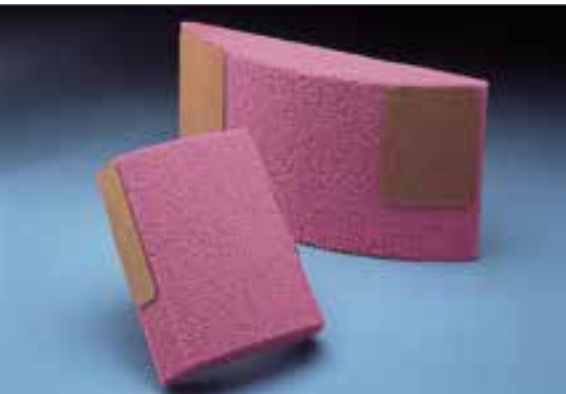
FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>High-performance, ceramic alumina abrasive - blue color</li> </ul>	<ul style="list-style-type: none"> <li>Fastest stock removal; maximum productivity</li> <li>Cool cutting</li> </ul>
<ul style="list-style-type: none"> <li>Self-sharpening abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Less burn on part</li> </ul>
<ul style="list-style-type: none"> <li>High-performance bond</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced segment life</li> </ul>
<ul style="list-style-type: none"> <li>Induced porosity</li> </ul>	<ul style="list-style-type: none"> <li>Cool, free cut with excellent chip/coolant flow</li> </ul>

PART NO.	SEGMENT SIZE	GRADING	TYPE	SEGMENTS/BOX
05539507043	5 x 1-1/2 x 6	30-EVLP	NO	8
05539507044	5 x 1-1/2 x 6	30-GVLP	NO	8
05539507047	11-1/4 x 2-1/4 x 6	30-EVLP	CD	5
05539562907	11-1/4 x 2-1/4 x 6	30-FVLP	CD	5
05539507048	11-1/4 x 2-1/4 x 6	30-GVLP	CD	5



# PREMIER RED SURFACE GRINDING SEGMENTS

Better Tier / Aluminum Oxide



Engineered for high stock removal on flat surfaces. Very versatile; work well on mild steels.

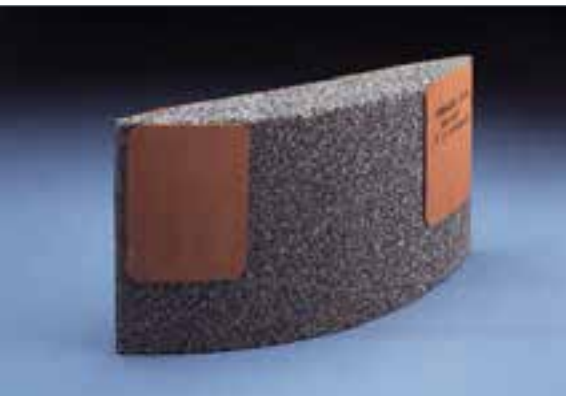
FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Performance, aluminum oxide abrasive - pink color</li> </ul>	<ul style="list-style-type: none"> <li>Fast, cool cutting action</li> </ul>
<ul style="list-style-type: none"> <li>Premium vitrified bond with induced porosity</li> </ul>	<ul style="list-style-type: none"> <li>Long life with cool, free cut</li> </ul>

PART NO.	SEGMENT SIZE	GRADING	TYPE	SEGMENTS/BOX
05539562911	5 x 1-1/2 x 6	RA30-GV40P	NO	8
05539562912	11-1/4 x 2-1/4 x 6	RA24-EV40P	CD	5
05539562914	11-1/4 x 2-1/4 x 6	RA30-EV40P	CD	5
05539562915	11-1/4 x 2-1/4 x 6	RA30-GV40P	CD	5



# CARBO GOLD SURFACE GRINDING SEGMENTS

Good Tier / Aluminum Oxide



For high stock removal on flat surfaces. Excellent value for general purpose use.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Excellent value, aluminum oxide abrasive blend - gray/pink color</li> </ul>	<ul style="list-style-type: none"> <li>Fast, cool cutting action</li> </ul>
<ul style="list-style-type: none"> <li>Advanced vitrified bond with induced porosity</li> </ul>	<ul style="list-style-type: none"> <li>Long life with cool, free cut</li> </ul>

PART NO.	SEGMENT SIZE	GRADING	TYPE	SEGMENTS/BOX
05539563010	11-1/4 x 2-1/4 x 6	Gold 30-E	CD	5
05539562922	11-1/4 x 2-1/4 x 6	Gold 30-F	CD	5
05539562924	11-1/4 x 3 x 8	Gold 30-F	CD*	4

\* Bonus Grind



## SIZE = WIDTH X THICKNESS X HEIGHT

SEGMENT NO.	SEGMENTS PER SET FOR NORTON-MATTISON CHUCKS (NO):
NO14	6
NO18	8
NO20	9
NO22	10

SEGMENT NO.	SEGMENTS PER SET FOR CORTLAND CHUCKS (CD):
CD18L	4
CD22L	5
CD36	8



## NORZON MOUNTED POINTS – RESIN BOND

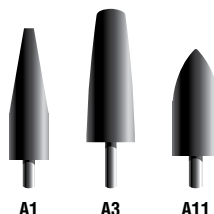
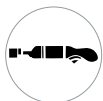
Best Tier / Zirconia Alumina



Premium quality mounted points for metal fabricating and foundry applications. 24 grit: snagging castings, smoothing contours, removing fins and parting lines.

### FEATURES & BENEFITS

- Self-sharpening zirconia alumina abrasive in a durable resin bond for an aggressive, free cut
- Long lasting with 4 times faster stock removal than competitive aluminum oxide products



W SHAPES

PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"A" SHAPES</b>						
61463616457	A1	3/4 x 2-1/2	1/4	NZ24-UBXR1	19,800	5/25
61463616459	A3	1 x 2-3/4	1/4	NZ24-UBXR1	16,100	5/25
61463616463	A11	7/8 x 2	1/4	NZ24-UBXR1	19,860	5/25

PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"W" SHAPES</b>						
61463616465	W189	1/2 x 2	1/4	NZ24-UBXR1	24,000	5/25
61463616467	W197	5/8 x 2	1/4	NZ24-UBXR1	21,000	5/25
61463616471	W208	3/4 x 2	1/4	NZ24-UBXR1	18,750	5/25
61463617520	W220	1 x 1	1/4	NZ24-UBXR1	25,500	5/25
61463616473	W221	1 x 1-1/2	1/4	NZ24-UBXR1	19,120	5/25
61463616475	W222	1 x 2	1/4	NZ24-UBXR1	15,900	5/25

Shank length is 1-1/2". Max. RPM valid to 1/2" overhang. See package insert for other overhangs.

## CHARGER MOUNTED POINTS – RESIN BOND

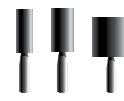
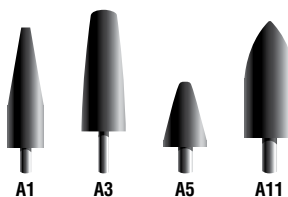
Better Tier / Zirconia Alumina



Premium quality mounted points for metal fabricating and foundry applications. 30 grit: deburring, removing weld beads, smoothing and blending welded areas.

### FEATURES & BENEFITS

- Self-sharpening 30 grit zirconia alumina abrasive provides 35% faster cut rate than standard aluminum oxide
- An aggressive, free cut results in more parts cleaned in less time to substantially increase productivity
- Specially formulated organic bond reduces vibration and wheel chatter resulting in 5X greater life than ordinary aluminum oxide



W SHAPES

PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"A" SHAPES</b>						
61463616458	A1	3/4 x 2-1/2	1/4	Charger	19,800	5/25
61463616460	A3	1 x 2-3/4	1/4	Charger	16,100	5/25
61463616462	A5	3/4 x 1-1/8	1/4	Charger	45,000	5/25
61463616464	A11	7/8 x 2	1/4	Charger	19,860	5/25

PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"W" SHAPES</b>						
61463616466	W189	1/2 x 2	1/4	Charger	24,000	5/25
61463616470	W207	3/4 x 1-1/2	1/4	Charger	24,000	5/25
61463616472	W208	3/4 x 2	1/4	Charger	18,750	5/25
61463617521	W220	1 x 1	1/4	Charger	25,500	5/25
61463616474	W221	1 x 1-1/2	1/4	Charger	19,120	5/25
61463616476	W222	1 x 2	1/4	Charger	15,900	5/25

Shank length is 1-1/2". Max. RPM valid to 1/2" overhang. See package insert for other overhangs.

### techtip

- Use "A" shapes for medium- to heavy-duty blending
- Use "W" shapes for offhand and precision grinding of medium to heavy stock



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

# FIBER-REINFORCED MOUNTED POINTS – RESIN BOND

Good Tier / Aluminum Oxide



Engineered for blending, polishing, and finishing dies, cavities, etc.

## FEATURES & BENEFITS

- Cotton fiber reinforced aluminum oxide mounted points are ideal for blending and finishing parts without changing geometry
- Use 80 grit for most materials
- Chose 120 grit for polishing and stainless steel applications



A11



B52



B121



W SHAPES



PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>FOR POLISHING</b>						
61463622664	A11	7/8 x 2	1/4	A80-HBF3	19,860	25/25
61463620242	B52	3/8 x 3/4	1/8	A120-HBF3	45,370	25/25
61463622657	B121	1/2" Ball	1/8	A80-HBF3	45,370	25/25
61463622655	W163	1/4 x 1/2	1/8	A80-HBF3	60,000	25/25
61463622656	W163	1/4 x 1/2	1/8	A120-HBF3	60,000	25/25

PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>FOR POLISHING (CONTINUED)</b>						
61463622654	W176	3/8 x 1/2	1/8	A80-HBF3	45,370	25/25
61463622649	W185	1/2 x 1/2	1/8	A80-HBF3	34,500	25/25
61463622651	W187	1/2 x 1	1/8	A80-HBF3	20,620	25/25
61463622646	W220	1 x 1	1/4	A80-HBF3	25,500	25/25

Shank length is 1-1/2". Max. RPM valid to 1/2" overhang. See package insert for other overhangs.

# CENTER LAP MOUNTED POINTS – VITRIFIED BOND

Better Tier / Aluminum Oxide Abrasive



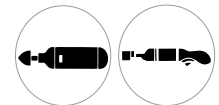
For use on Ex-Cello Center Lap and similar machines to produce accurate centers – precisely angled, truly conical, and free from ridges – for cylindrical grinding.

## FEATURES & BENEFITS

- Specially formulated wheel treatment (#5 wood resin) adds lubricity to the point, minimizing risk of metallurgical damage
- Large diameter spindle for minimum deflection, rigid support
- Precise dimensional tolerances ensure accurate location of centers

PART #	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>FOR CENTER LAPPING</b>					
61463621421	1/2 x 2**	1/2	A80-VVM	65,000	5/25
61463622926	1 x 2**	1/2	A80-VVM	15,900	5/25

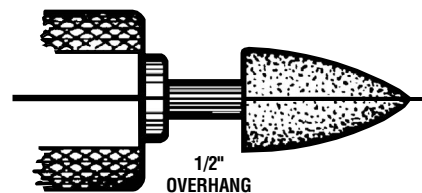
Shank length is 1-1/2". Max. RPM valid to 1/2" overhang. See package insert for other overhangs. \*\* Pointed 60°.



## techtip

### DESCRIPTION OF OVERHANG

- Overhang is the distance between the grinder chuck and the abrasive on the spindle. The larger the overhang, the lower the maximum safe operating speed.
- Maximum operating speed is based on 1/2" overhang.
- The standard shank length is 1-1/2".



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

# GEMINI MOUNTED POINTS – VITRIFIED BOND

Good Tier / Aluminum Oxide



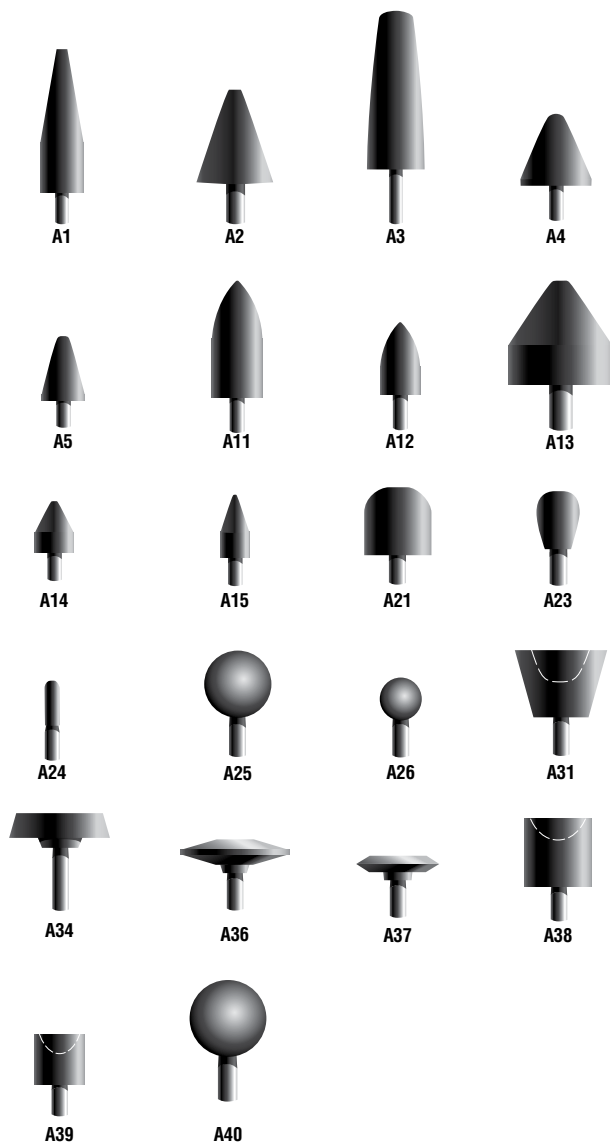
**“A” Shape Applications.** Ideal for general maintenance applications in metal fabrication plants.

**“B” Shape Applications:** Ideal for light deburring of machined parts and for finishing/polishing molds and dies.

**“W” Shape Applications:** Ideal for precision grinding machine parts, molds and dies, involving medium to heavy stock removal.

## FEATURES & BENEFITS

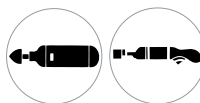
- Quality 38A aluminum oxide abrasive – brown color – is cool cutting for less burn
- Vitrified bond provides long life with consistent form holding
- Diverse shapes and sizes available
- Great choice for small job shops , and ideal when initial price is the main purchasing consideration



PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>“A” SHAPES – FOR GENERAL MAINTENANCE</b>						
61463624374	A1	3/4 x 2-1/2	1/4	38A36-T	19,800	5/25
61463624375	A1	3/4 x 2-1/2	1/4	38A60-P	19,800	5/25
07660724376	A2	1 x 1/4	1/4	38A60-P	38,200	5/25
61463624377	A3	1 x 2-3/4	1/4	38A36-T	16,100	5/25
61463624378	A3	1 x 2-3/4	1/4	38A60-P	16,100	5/25
61463624380	A4	1-1/4 x 1-1/4	1/4	38A60-P	30,560	5/25
61463624381	A5	3/4 x 1-1/8	1/4	38A36-T	45,000	5/25
61463624382	A5	3/4 x 1-1/8	1/4	38A60-P	45,000	5/25
61463624384	A11	7/8 x 2	1/4	38A36-T	19,860	5/25
61463624385	A11	7/8 x 2	1/4	38A60-P	19,860	5/25
61463624388	A12	11/16 x 1-1/4	1/4	38A60-P	48,000	5/25
61463624389	A13	1-1/8 x 1-1/8	1/4	38A60-P	33,950	5/25
61463624390	A14	11/16 x 7/8	1/4	38A60-P	55,560	5/25
61463624391	A15	1/4 x 1-1/16	1/4	38A60-P	72,750	5/25
61463624392	A21	1 x 1	1/4	38A60-P	34,500	5/25
61463624394	A23	3/4 x 1	1/4	38A60-P	39,370	5/25
61463624395	A24	1/4 x 3/4	1/4	38A60-P	76,500	5/25
61463624396	A25	1" Ball	1/4	38A60-P	35,620	5/25
61463624397	A26	5/8" Ball	1/4	38A60-P	61,120	5/25
61463624399	A31	1-3/8 x 1	1/4	38A60-P	27,780	5/25
61463624402	A34	1-1/2 x 3/8	1/4	38A60-P	25,470	5/25
61463624404	A36	1-5/8 x 3/8	1/4	38A60-P	23,520	5/25
61463624405	A37	1-1/4 x 1/4	1/4	38A60-P	30,560	5/25
61463624406	A38	1 x 1	1/4	38A60-P	34,500	5/25
61463624407	A39	3/4 x 3/4	1/4	38A60-P	47,250	5/25
61463624408	A40	3/4" Ball	1/4	38A60-P	47,250	5/25

Standard shank size is 1/4" x 1-1/2".

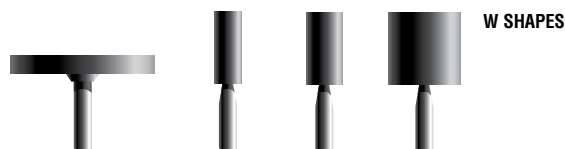
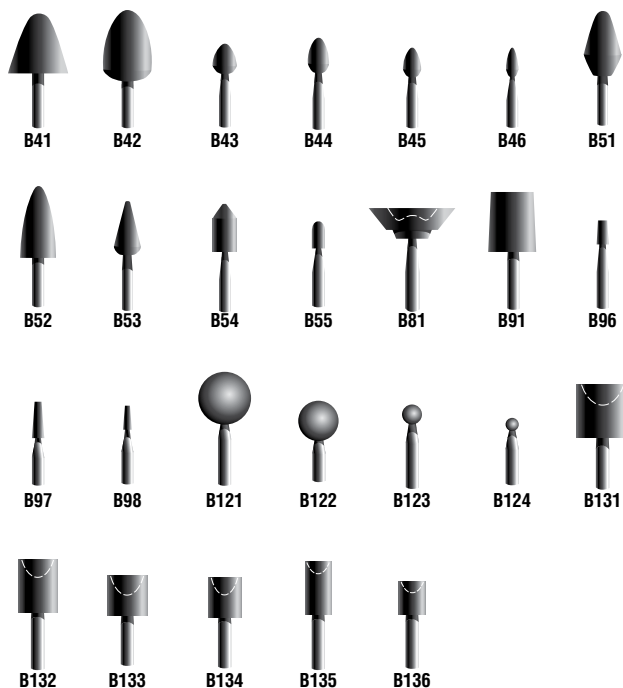
Max. RPM valid to 1/2" overhang. See package insert for other overhangs.





PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"B" SHAPES – FOR LIGHT DEBURRING AND FINISHING</b>						
61463624410	B41	5/8 x 5/8	1/8	38A60-P	33,570	5/25
61463624412	B42	1/2 x 3/4	1/8	38A60-P	33,570	5/25
61463624413	B43	1/4 x 5/16	1/8	38A60-P	81,370	5/25
61463624414	B44	7/32 x 3/8	1/8	38A60-P	68,400	5/25
61463624415	B45	3/16 x 5/16	1/8	38A60-P	104,250	5/25
61463624416	B46	1/8 x 5/16	1/8	38A60-P	105,000	5/25
61463624418	B51	7/16 x 3/4	1/8	38A60-P	45,370	5/25
61463624420	B52	3/8 x 3/4	1/8	38A60-P	45,370	5/25
61463624419	B52	3/8 x 3/4	1/4	38A60-P	81,000	5/25
61463624422	B52	3/8 x 3/4	1/8	38A90-Q	45,370	5/25
61463624423	B53	5/16 x 5/8	1/8	38A60-P	60,000	5/25
61463624424	B54	1/4 x 1/2	1/8	38A60-P	60,000	5/25
61463624425	B55	1/8 x 1/4	1/8	38A60-P	105,000	5/25
61463624437	B81	3/4 x 3/16	1/8	38A60-P	50,930	5/25
61463624443	B91	1/2 x 5/8	1/8	38A60-P	34,500	5/25
61463624448	B96	1/8 x 1/4	1/8	38A60-P	105,000	5/25
61463624449	B96	1/8 x 1/4	1/8	38A90-Q	105,000	5/25
61463624451	B97	1/8 x 3/8	1/8	38A60-P	105,000	5/25
61463624452	B98	3/32 x 1/4	1/8	38A60-P	105,000	5/25
61463624466	B121	1/2" Ball	1/8	38A60-P	45,370	5/25
61463624470	B122	3/8" Ball	1/8	38A60-P	61,650	5/25
61463624471	B122	3/8" Ball	1/8	38A90-Q	61,650	5/25
61463624472	B123	3/16" Ball	1/8	38A60-P	104,250	5/25
61463624474	B124	1/8" Ball	1/8	38A90-Q	105,000	5/25
61463624475	B131	1/2 x 1/2	1/8	38A60-P	34,500	5/25
61463624479	B132	3/8 x 1/2	1/8	38A60-P	45,370	5/25
61463624481	B133	3/8 x 3/8	1/8	38A60-P	54,000	5/25
61463624482	B134	5/16 x 3/8	1/8	38A60-P	61,650	5/25
61463624484	B135	1/4 x 1/2	1/8	38A60-P	60,000	5/25
61463624485	B136	1/4 x 5/16	1/8	38A60-P	77,250	5/25

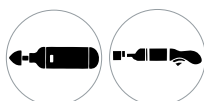
Shank length is 1-1/2". Max. RPM valid to 1/2" overhang. See package insert for other overhangs.



PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"W" SHAPES – FOR MEDIUM TO HEAVY STOCK REMOVAL</b>						
61463624488	W144	1/8 x 1/4	1/8	38A60-P	105,000	5/25
61463624489	W145	1/8 x 3/8	1/8	38A60-P	105,000	5/25
61463624491	W146	1/8 x 1/2	1/8	38A60-P	105,000	5/25
61463624495	W152	3/16 x 1/4	1/8	38A60-P	105,000	5/25
61463624496	W153	3/16 x 3/8	1/8	38A60-P	80,850	5/25
61463624497	W154	3/16 x 1/2	1/8	38A60-P	70,500	5/25
61463624501	W160	1/4 x 1/4	1/8	38A60-P	81,370	5/25
61463624503	W162	1/4 x 3/8	1/8	38A60-P	64,800	5/25
61463624504	W163	1/4 x 1/2	1/8	38A60-P	60,000	5/25
61463624505	W164	1/4 x 3/4	1/8	38A60-P	45,900	5/25
61463624511	W170	5/16 x 1/2	1/8	38A60-P	52,500	5/25
61463624516	W175	3/8 x 3/8	1/8	38A60-P	54,000	5/25
61463624517	W176	3/8 x 1/2	1/8	38A60-P	45,370	5/25
61463624518	W177	3/8 x 3/4	1/8	38A60-P	33,750	5/25
61463624525	W185	1/2 x 1/2	1/8	38A60-P	34,500	5/25
61463624526	W185	1/2 x 1/2	1/4	38A60-P	61,500	5/25
61463624528	W186	1/2 X 3/4	1/4	38A60-P	51,000	5/25
61463624530	W188	1/2 x 1-1/2	1/4	38A60-P	30,370	5/25
61463624531	W189	1/2 x 2	1/4	38A60-P	24,000	5/25

PART #	SHAPE	SIZE D X L	SPINDLE	GRADING	MAX. RPM	MIN/STD PKG.
<b>"W" SHAPES – FOR MEDIUM TO HEAVY STOCK REMOVAL</b>						
61463624539	W196	5/8 x 1	1/4	38A60-P	35,250	5/25
61463624543	W200	3/4 x 1/8	1/8	38A60-P	50,930	5/25
61463624544	W200	3/4 x 1/8	1/8	38A90-Q	50,930	5/25
61463624549	W204	3/4 x 3/4	1/4	38A60-P	42,750	5/25
61463624550	W205	3/4 x 1	1/4	38A60-P	34,500	5/25
61463624553	W208	3/4 x 2	1/4	38A60-P	18,750	5/25
61463624560	W215	1 x 1/8	1/8	38A60-P	38,200	5/25
61463624562	W216	1 x 1/4	1/4	38A60-P	38,200	5/25
61463624564	W218	1 x 1/2	1/4	38A60-P	38,200	5/25
61463624566	W220	1 x 1	1/4	38A60-P	25,500	5/25
61463624567	W221	1 x 1-1/2	1/4	38A60-P	19,120	5/25
61463624569	W222	1 x 2	1/4	38A60-P	15,900	5/25
61463624578	W230	1-1/4 x 1-1/4	1/4	38A60-P	20,400	5/25
61463624583	W235	1-1/2 x 1/4	1/4	38A60-P	25,470	5/25
61463624585	W236	1-1/2 x 1/2	1/4	38A60-P	25,470	5/25
61463624587	W237	1-1/2 x 1	1/4	38A60-P	22,500	5/25
61463624588	W238	1-1/2 x 1-1/2	1/4	38A60-P	15,600	5/25
61463624592	W242	2 x 1	1/4	38A60-P	19,100	5/25

Shank length is 1-1/2". Max. RPM valid to 1/2" overhang. See package insert for other overhangs.



### techtip

For best mounted point performance, always run the mounted point at the maximum allowable speed according to ANSI B7.1.

- Use 36 grit for rough grinding.
- Use 60 grit for imparting fine finishes or when grinding on narrow surfaces.



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



# COMBINATION GRIT ABRASIVE SHARPENING STONES

Good Tier / Silicon Carbide or Aluminum Oxide

CARBO™



Silicon carbide combination benchstones have both coarse and fine grit silicon carbide surfaces. These fast-cutting stones are used to sharpen edges on tools to moderate tolerances quickly. Dark gray in color. Aluminum oxide combination benchstones have both coarse and fine grit aluminum oxide abrasive surfaces to produce strong, keen, long-lasting edges on quality tools. Orange/brown in color.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Sharp, silicon carbide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced cutting action</li> <li>Fast stock removal</li> </ul>
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>Fast, cool cutting action</li> <li>Maintains high part tolerance</li> </ul>
<ul style="list-style-type: none"> <li>Vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Long life and excellent form holding</li> </ul>

PART #	PRODUCT #	SIZE	GRIT SIZE	QTY. PKG./ CASE
<b>CRYSTOLON (SILICON CARBIDE)</b>				
05539509128	JB6	6 x 2 x 1	Coarse/Fine	1/5
05539509126	JB8	8 x 2 x 1	Coarse/Fine	1/5
<b>INDIA (ALUMINUM OXIDE)</b>				
05539509107	IB6	6 x 2 x 1	Coarse/Fine	1/5
05539509105	iB8	8 x 2 x 1	Coarse/Fine	1/5



# DRESSING AND FINISHING STICKS

Good Tier / Silicon Carbide or Aluminum Oxide

CARBO™



Aluminum oxide dressing sticks work best on cBN grinding wheels, but can also be used on diamond grinding wheels.

Silicon carbide dressing sticks in coarse grit sizes and hard grades are used for dressing conventional vitrified wheels. Silicon carbide dressing sticks in fine grit sizes and softer grades are used for dressing diamond wheels.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Aluminum oxide abrasive – white</li> </ul>	<ul style="list-style-type: none"> <li>Free dressing action</li> </ul>
<ul style="list-style-type: none"> <li>Silicon carbide abrasive – black</li> </ul>	<ul style="list-style-type: none"> <li>Sharp, durable</li> </ul>
<ul style="list-style-type: none"> <li>Vitrified bond</li> </ul>	<ul style="list-style-type: none"> <li>Excellent conformability</li> </ul>

PART #	SIZE THICKNESS X WIDTH X LENGTH	GRIT SIZE	QTY. PKG./ CASE
<b>ALUMINUM OXIDE</b>			
05539507214	3/4 x 3/4 x 4	AA150-HV40	5
05539507211	1/2 x 1/2 x 6	AA220-HV40	5
05539507232	1 x 1 x 6	AA220-HV40	5
<b>SILICON CARBIDE</b>			
05539507224	1 x 1 x 6	C220-KVGC	5



## techtip

Selecting the appropriate dressing stick for each application depends on the wheel size, type, speed, grit size, and specification, as well as the work piece material. Initial starting specifications are listed below.

- For Resin Bond Diamond and cBN Wheels: Choose a dressing stick one or two grit sizes finer than the abrasive in the wheel – in a soft grade (H or I). Example: for a 100 or 120 grit resin bond wheel, choose a 150 grit dressing stick, and for a 150 or 220 grit resin bond wheel, choose a 220 grit dressing stick



# MEDALIST SINGLE POINT DIAMOND DRESSING TOOLS

Good Tier / For Ceramic Wheels



Designed to dress and true harder ceramic toolroom wheels.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Specially selected broad-shaped, diamond</li> </ul>	<ul style="list-style-type: none"> <li>Withstands the increased grinding pressures of ceramic abrasives</li> </ul>
<ul style="list-style-type: none"> <li>Each diamond is hand selected for stone shape, quality and structural integrity</li> </ul>	<ul style="list-style-type: none"> <li>Consistent tool performance</li> </ul>
<ul style="list-style-type: none"> <li>Multi-purpose</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate most straight dressing and simple form dressing applications</li> <li>Stand up to ceramic abrasive sharpness; can also be used to dress conventional abrasives</li> </ul>

PART #	PRODUCT #	FOR WHEEL DIAMETER	TOOL CARAT WEIGHT	TOOL DIAMETER	TOOL LENGTH
<b>SINGLE POINT TOOLS FOR TRUING/DRESSING CERAMIC WHEELS (NON RESETTABLE)</b>					
07958787451	MED2M6	Up to 7"	1/4 (0.25)	3/8"	2"
07958787452	MED2M7	Up to 7"	1/4 (0.25)	7/16"	2"
07958787453	MED3M6	8" to 10"	1/3 (0.33)	3/8"	2"
07958787454	MED3M7	8" to 10"	1/3 (0.33)	7/16"	2"
07958787455	MED5M6	11" to 14"	1/2 (0.50)	3/8"	2"
07958787456	MED5M7	11" to 14"	1/2 (0.50)	7/16"	2"

### WHEEL FORMS DRESSED BY THESE TOOLS



# SINGLE POINT DIAMOND DRESSING TOOLS

Good Tier / For Aluminum Oxide Wheels

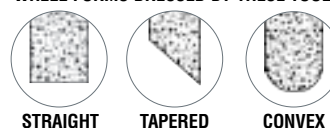


Designed to dress and true conventional aluminum oxide toolroom wheels.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Consistent diamond structure and shape</li> </ul>	<ul style="list-style-type: none"> <li>Repeatable dressing performance</li> </ul>
<ul style="list-style-type: none"> <li>Well defined, sharp diamond point</li> </ul>	<ul style="list-style-type: none"> <li>Durable; maximum cost effectiveness for dressing conventional abrasives</li> </ul>
<ul style="list-style-type: none"> <li>Steeper 60 degree included angle head design</li> </ul>	<ul style="list-style-type: none"> <li>Greater machine and part clearance produce forms with tighter tolerances</li> </ul>

PART #	PRODUCT #	FOR WHEEL DIAMETER	TOOL CARAT WEIGHT	TOOL DIAMETER	TOOL LENGTH
<b>SINGLE POINT TOOLS FOR TRUING/DRESSING ALUMINUM OXIDE WHEELS (NON RESETTABLE)</b>					
07958787457	CA2-6	Up to 7"	1/4 (0.25)	3/8"	2"
07958787458	CA2-7	Up to 7"	1/4 (0.25)	7/16"	2"
07958787459	CA3-6	8" to 10"	1/3 (0.33)	3/8"	2"
07958787461	CA3-7	8" to 10"	1/3 (0.33)	7/16"	2"
07958787462	CA5-6	11" to 14"	1/2 (0.50)	3/8"	2"
07958787463	CA5-7	11" to 14"	1/2 (0.50)	7/16"	2"

### WHEEL FORMS DRESSED BY THESE TOOLS

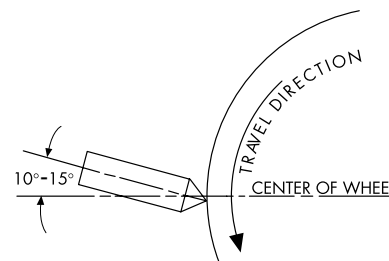


## techtip

### SINGLE-POINT TOOLS

- Rigidly mount single point tools at a 10° - 15° angle to the wheel centerline with a line drawn through the center of the wheel, pointing in the direction of wheel travel.
- Point of contact should be slightly below centerline of wheel as shown.
- Use coolant whenever possible.
- Normal infeed is .001" per pass.
- Lead selections range from .002" - .010" per wheel revolution.
- Rotate the tool 1/4 turn periodically to maintain a sharp point.

To optimize applications using ceramic abrasives and/or tools, normal dressing parameters must change. Reduce infeed by 25%. Significant reductions in the amount of infeed and frequency of dress will result in substantially lower cost per part ground.



# MEDALIST MULTI-POINT DIAMOND DRESSING TOOLS

Best Tier / For Ceramic Wheels

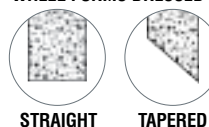


Multi-Point tools for ceramic toolroom wheels include a higher concentration of diamonds to withstand the increased diamond pressure generated by ceramic wheels.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Uniformly distributed diamonds in a tough, durable matrix</li> </ul>	<ul style="list-style-type: none"> <li>Consistent performance throughout tool life</li> </ul>
<ul style="list-style-type: none"> <li>Fresh, multiple diamond points exposed in truing operation; no turning or resetting required</li> </ul>	<ul style="list-style-type: none"> <li>Faster, more consistent straight face dressing with maximum efficiency and longer tool life than single point tools</li> </ul>
<ul style="list-style-type: none"> <li>Overall diamond weight exceeds equivalent single point tool</li> </ul>	<ul style="list-style-type: none"> <li>The most economical way to dress straight and tapered forms</li> </ul>

PART #	PRODUCT #	FOR WHEEL DIAMETER	WHEEL GRIT SIZE	TOOL DIAMETER	APPROACH ANGLE
<b>MULTI-POINT TOOLS FOR TRUING/DRESSING CERAMIC WHEELS</b>					
07958787464	MED1R6J7	Up to 10"	54 to 100	7/16"	0 degrees
07958787465	MED2R6K7	11" to 14"	54 to 100	7/16"	0 degrees

### WHEEL FORMS DRESSED BY THESE TOOLS



# MULTI-POINT DIAMOND DRESSING TOOLS

Good Tier / For Aluminum Oxide Wheels

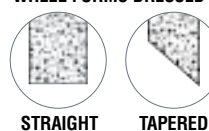


Multi-Point tools for aluminum oxide toolroom wheels are the ideal selection of general purpose tools for use on conventional abrasives on a broad range of dressing applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Uniformly distributed diamonds in a tough, durable matrix</li> </ul>	<ul style="list-style-type: none"> <li>Consistent performance throughout tool life</li> </ul>
<ul style="list-style-type: none"> <li>Fresh, multiple diamond points exposed in truing operation; no turning or resetting required</li> </ul>	<ul style="list-style-type: none"> <li>Faster, more consistent straight face dressing with maximum efficiency and longer tool life than single point tools</li> </ul>
<ul style="list-style-type: none"> <li>Overall diamond weight exceeds equivalent single point tool</li> </ul>	<ul style="list-style-type: none"> <li>The most economical way to dress straight and tapered forms</li> </ul>

PART #	PRODUCT #	FOR WHEEL DIAMETER	WHEEL GRIT SIZE	TOOL DIAMETER	APPROACH ANGLE
<b>MULTI-POINT TOOLS FOR TRUING/DRESSING ALUMINUM OXIDE WHEELS</b>					
07958787466	CA64	Up to 10"	54 to 100	7/16"	0 degrees
07958787467	CA65	11" to 14"	54 to 100	7/16"	0 degrees

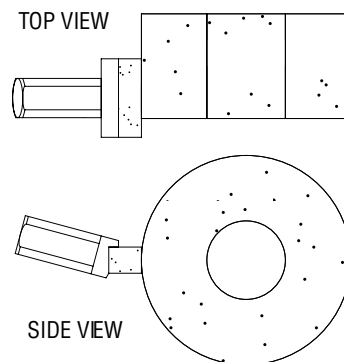
### WHEEL FORMS DRESSED BY THESE TOOLS



## techtip

### MULTI-POINT TOOLS – STRAIGHT FACE DRESSING AND TRUING

- Most multi-point tools are used for straight face dressing.
- Tool should have full face contact with the wheel.
- With new tool, 3–5 passes at .005" per pass should be taken to expose diamonds.
- Infeed per pass .001" - .002"
- Use coolant whenever possible.
- Use appropriate lead (and traverse rate).



## HOW TO READ A BONDED ABRASIVE SPECIFICATION

**Wheel Symbols and Markings:** Carborundum abrasive wheels are marked according to the system which is standard throughout the industry. This standard marking system consists of six positions. The characters in each position denote a specific characteristic of the wheel.

### BONDED ABRASIVE TERMINOLOGY KEY

Position 1	Position 2	Position 3	Position 4	Position 5	Position 6
AA	46	K	8	V	40
ABRASIVE	GRIT SIZE	GRADE	STRUCTURE	BOND TYPE	BOND MODIFICATION
MEDALIST - BLUE CERAMIC ALUMINA	<b>COARSE</b>	<b>SOFT</b>	<b>DENSE</b>	V - VITRIFIED	<b>40</b>
MEDALIST R - PURPLE CERAMIC ALUMINA	14	E	1	B - RESINOID	P = Porous
MZ - CERAMIC ALUMINA/ZA BLEND	46	F	2	RR - RUBBER	
32AR - GRAY/PURPLE ALUMINUM OXIDE	16	G	3		
38A - ALUMINUM OXIDE	54	H	4		
A - ALUMINUM OXIDE	60	I	5		
AA - WHITE ALUMINUM OXIDE	70	J	6		
AR - RUBY ALUMINUM OXIDE	80	K	8		
AZ - ZA/AO BLEND	100	L	9		
BA - ALUMINUM OXIDE	120	M	10		
DA - GRAY ALUMINUM OXIDE BLEND	150	N	11		
GA - ALUMINUM OXIDE		O	12		
GRA - GA/RA BLEND		P			
PA - PINK ALUMINUM OXIDE		Q			
RA - PINK/PURPLE ALUMINUM OXIDE		R			
RG		S			
RG		T			
37C - BLACK SILICON CARBIDE		U			
C - BLACK SILICON CARBIDE		V			
CA - BLACK SILICON CARBIDE					
CGA - ALUMINUM OXIDE/SILICON CARBIDE BLEND					
DAC - ALUMINUM OXIDE/SILICON CARBIDE BLEND					
GC - GREEN SILICON CARBIDE					
Z - ZIRCONIA ALUMINA					
AZA - ZA/AO BLEND					
ZA - ZA/AO BLEND					
2ZA - ZA/GA BLEND					
2ZC - ZA/C BLEND					
3AZA - ZIRCONIA ALUMINA/ALUMINUM OXIDE BLEND					
3ZA - ZIRCONIA ALUMINA/ALUMINUM OXIDE BLEND					
NORZON - PREMIUM ZIRCONIA ALUMINA					
PR - ZIRCONIA ALUMINA					
CHARGER - ZIRCONIA ALUMINA					



### WHEEL SPEEDS – CONVERSION TABLE

Example: Find the machine RPMs. This should be written on the machine itself. For this example, assume that the machine RPM is 1,773 and that the wheel diameter is 14".

- Find the diameter of 14" in either the left-most or right-most column of the chart.
- Follow the row horizontally to RPM of 1,773 as this is the spindle speed of the machine.
- Follow column directly upwards to find SFPM of 6,500.

REVOLUTIONS PER MINUTE (RPM)	SURFACE SPEED IN FEET PER MINUTE (SFPM)																
	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000	8,500	9,000	9,500	10,000	12,000	12,500	14,200	16,000
1"	15,279	17,189	19,098	21,008	22,918	24,828	26,737	28,647	30,558	32,467	34,377	36,287	38,196	40,106	42,016	43,926	45,836
2"	7,639	8,594	9,549	10,504	11,459	12,414	13,368	14,323	15,278	16,233	17,188	18,143	19,098	20,053	21,008	21,963	22,918
3"	5,093	5,729	6,366	7,003	7,639	8,276	8,913	9,550	10,187	10,824	11,461	12,098	12,735	13,372	14,009	14,646	15,283
4"	3,820	4,297	4,775	5,252	5,729	6,207	6,684	7,162	7,640	8,118	8,595	9,073	9,551	10,028	10,506	10,984	11,462
5"	3,056	3,438	3,820	4,202	4,584	4,966	5,348	5,730	6,112	6,494	6,876	7,258	7,640	8,022	8,404	8,786	9,168
6"	2,546	2,865	3,183	3,501	3,820	4,138	4,456	4,775	5,092	5,411	5,729	6,048	6,366	6,684	7,003	7,321	7,640
7"	2,183	2,455	2,728	3,001	3,274	3,547	3,820	4,092	4,366	4,638	4,911	5,183	5,456	5,728	6,001	6,274	6,547
8"	1,910	2,148	2,387	2,626	2,865	3,103	3,342	3,580	3,820	4,058	4,297	4,535	4,775	5,013	5,252	5,491	5,730
9"	1,698	1,910	2,122	2,334	2,546	2,758	2,970	3,182	3,394	3,606	3,818	4,030	4,242	4,454	4,666	4,878	5,090
10"	1,528	1,719	1,910	2,101	2,292	2,483	2,674	2,865	3,056	3,247	3,438	3,629	3,820	4,011	4,202	4,393	4,584
12"	1,273	1,432	1,591	1,751	1,910	2,069	2,228	2,387	2,546	2,705	2,864	3,023	3,183	3,342	3,501	3,660	3,819
14"	1,091	1,228	1,366	1,503	1,641	1,779	1,917	2,055	2,193	2,331	2,469	2,607	2,745	2,883	3,021	3,159	3,297
16"	955	1,074	1,194	1,313	1,432	1,552	1,672	1,791	1,910	2,029	2,149	2,268	2,387	2,506	2,625	2,744	2,863
18"	849	955	1,061	1,167	1,273	1,379	1,485	1,591	1,698	1,803	1,910	2,016	2,120	2,226	2,332	2,438	2,544
20"	764	859	955	1,050	1,146	1,241	1,337	1,432	1,528	1,623	1,719	1,814	1,910	1,999	2,095	2,190	2,286
22"	694	781	868	955	1,042	1,128	1,215	1,303	1,388	1,476	1,562	1,649	1,736	1,822	1,909	1,995	2,082
24"	637	716	796	875	955	1,034	1,115	1,194	1,274	1,353	1,433	1,512	1,591	1,670	1,749	1,828	1,907
26"	588	661	734	808	881	955	1,028	1,101	1,176	1,248	1,322	1,395	1,468	1,542	1,615	1,688	1,762
28"	546	614	682	750	818	887	955	1,023	1,092	1,159	1,228	1,296	1,364	1,433	1,501	1,569	1,638
30"	509	573	637	700	764	828	891	955	1,018	1,082	1,146	1,210	1,274	1,338	1,402	1,466	1,530

**Note:** The calculated RPM figures listed above are rounded off to the next higher 5 for wheel marking purposes. For intermediate diameters not listed, use the formula listed in Section 1.2.10 of ANSI B7.1 (SFPM = .262 x wheel diameter in inches x RPM) Note: SFPM ÷ 1.676 = m/s (meters per second)

## ABRASIVE GRAINS

The abrasive grains (ceramic alumina, zirconia alumina, aluminum oxide and silicon carbide) perform the cutting action. An ideal grinding abrasive has the ability to fracture before serious dulling occurs and offers maximum resistance to point wear. Each abrasive has special crystal structure and fracture characteristics, making it suitable for grinding operations on specific materials.

### Medalist – Ceramic Alumina

A superior performing grain for high temperature alloys such as Inconel, Waspalloy and Haspalloy, hardened tool steels, spray metal or Stellite and other hardened steels.

### Zirconia Alumina

A tough, sharp abrasive designed for optimum performance in cut-off wheels, snagging wheels and depressed center wheels for grinding or cutting cast steel, alloy steel, and malleable and ductile iron.

### Aluminum Oxide

A tough, sharp grain produced under controlled conditions and especially adapted to grinding or cutting materials of high tensile strength, such as alloy steel, high speed steel, annealed, malleable iron, and tough bronze.

### Silicon Carbide

This is a very hard, sharp abrasive grain used in the grinding of tungsten carbide and low tensile strength materials such as cast iron, bronze, aluminum, copper, and non-metallic materials such as plastics, glass, marble, granite and stone.



## GRADE

The grade is the strength of bonding of a grinding wheel, and is frequently referred to as its hardness. The higher the letter designation, the stronger the bond.

## WHEEL STRUCTURES

Wheel structures (the spacing between grain particles) range from open to dense and vary with different grinding operations, depending upon the area of contact and type of material being ground, rate of stock removal and finish required. Carborundum offers standard structure wheels that will perform well on a wide range of materials.

## BONDS

The purpose of the bonding material is to hold the abrasive grain particles together.

### Vitrified Bonds

Vitrified wheels have a glass bond composition. Vitrified wheels hold form extremely well and produce a high ratio of stock removal to wheel use. Vitrified wheels are commonly used for precision grinding in the tool and die market.

### Porosity

Vitrified wheels can be manufactured with induced porosity. All vitrified bonds that end in P (VLP, V40P, VPP) indicate induced porosity. This porosity allows excellent coolant flow and chip clearance. For materials that load or for wide surface area contact, this provides a cooler cutting action, less loading and less chance of burn on the workpiece.

### Resinoid Bonds

Resinoid, or organic compound, bonds are more shock resistant than vitrified bonds and are generally operated at higher peripheral speeds. Most resinoid bond wheels are used for fast stock removal in the metal fabrication and foundry markets.

## PROCEDURES FOR PROPER HANDLING AND STORAGE OF BONDED ABRASIVE PRODUCTS

### HANDLING

All grinding wheels are relatively fragile and must be handled with care. This applies to all types of bonds: vitrified, resinoid and rubber.

#### Do:

- Inspect all wheels upon receipt.
- Use pallets or trucks to transport.
- Support firmly at all times.
- Place wheels carefully in racks.

#### Do Not:

- Leave wheels packed in absorbent material.
- Roll wheels on floor.
- Lean wheel against equipment.
- Place tools or parts on top of wheels.

### STORAGE

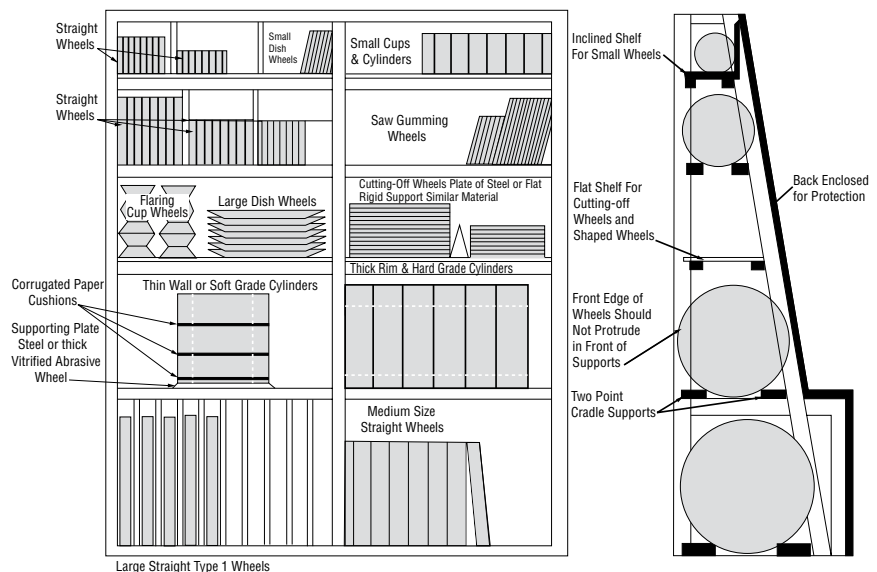
Suitable racks, cradles and drawers should be provided to store the various types of wheels used.

#### Do:

- Store wheels correctly supported.
- Stack thin wheels flat.
- Ensure storage in dry conditions.

#### Do Not:

- Store in damp or humid conditions.
- Subject wheels to dramatic change in temperature.
- Subject wheels to temperatures at or approaching freezing.







**OBSERVE WIRE BRUSH SAFETY WARNINGS TO AVOID INJURY**

Stainless brushes are made of 304L stainless steel with high chromium content to resist corrosion, high tensile resistance and lower carbon content. These brushes are suitable for all applications requiring corrosion resistance like the dairy, food processing, chemical processing and aircraft industries, among others.

1. **Safety Goggles:** Safety goggles or full face shields worn over safety glasses with side shields must be worn by all operators and others in the area of power brush operations. Comply with the requirements of ANSI Z87.1 "Occupational Eye and Face Protection".
2. **Guards:** Keep all machine guards in place.
3. **Speeds:** Observe all speed restrictions indicated on the brushes, containers, labels, or printed in pertinent literature. "MSFS" means Maximum Safe Free Speed (RPM) – free spinning wheel with no work applied. For reasons of safety, the MSFS should not be exceeded under any circumstance.
4. **Safety Standard:** Comply with the safety Standards of the Industrial Division of the American National Standards Institute ANSI B165.1 "Safety Requirements – Power Brushes" and refer to the "Safety" section in the carborundumabrasives.com web site.
5. **Protective Equipment:** Appropriate protective clothing and equipment (such as gloves, respirator, etc.) must be used.

Warning: In normal power brushing operations, the material being removed, such as burrs, scale, dirt, weld slag, or other residue, will fly off the brush with considerable force along with the brush filaments which break off due to fatigue.

The potential of serious injury exists for both the brush operator and others in the work area (possibly 50 or more feet from the brush). To protect against this hazard, before rotating the brush, operators and others in the area must wear SAFETY GOGGLES or FULL FACE SHIELDS WORN OVER SAFETY GLASSES WITH SIDE SHIELDS, along with PROTECTIVE CLOTHING.

**KNOTTED WIRE CUP BRUSHES**

*Better Tier / Carbon*



High-impact cutting and cleaning on more demanding applications such as heavy deburring, weld cleaning and cleaning larger surfaces.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Rigid structure</li> <li>• Available with or without plastic guard</li> <li>• Protective guard opens up into a shield</li> </ul>	<ul style="list-style-type: none"> <li>• High impact cutting and cleaning</li> <li>• Application-specific</li> <li>• Prevents wire, dust and any kind of projection from reaching the end-user during work</li> <li>• Provides for a friendly handling of the brush, preventing potential pricking caused by the wire ends, for safety before, during and after work</li> </ul>
<ul style="list-style-type: none"> <li>• Knotted Cup – single row, twist knot construction</li> </ul>	<ul style="list-style-type: none"> <li>• Limits flaring of the brush on corners and angles</li> </ul>

PART #	BRUSH SIZE DIA. x WIRE SIZE x ARBOR HOLE	WIRE TYPE	MAX. RPM	BRUSHES/ BOX
<b>FOR STEEL/METAL</b>				
<b>KNOTTED CUP WITH PROTECTIVE GUARD – SINGLE ROW</b>				
66252844498	2-3/4 x .020 x 5/8-11	Carbon	15,000	1
<b>KNOTTED CUP – SINGLE ROW</b>				
66252844497	2-3/4 x .020 x 5/8-11	Carbon	15,000	1
66252844500	4 x .020 x 5/8-11	Carbon	9,000	1
66252844501	6 x .020 x 5/8-11	Carbon	6,000	1

Individually boxed.



**RED = FOR STEEL/METAL USE    BLUE = FOR STAINLESS STEEL USE**

## CRIMPED WIRE CUP BRUSHES

Better Tier / Carbon



For light- to medium-duty brushing applications on flat or irregular surfaces, and bevel buffing.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Highly flexible</li> <li>Heavy wire fill</li> </ul>	<ul style="list-style-type: none"> <li>Fast cutting</li> </ul>

PART #	BRUSH SIZE DIA. x WIRE SIZE x ARBOR HOLE	WIRE TYPE	MAX. RPM	BRUSHES/ BOX
<b>FOR STEEL/METAL</b>				
66252844499	3 x .014 x 5/8-11	Carbon	13,000	1
Individually boxed.				



## END BRUSHES

Better Tier / Carbon



KNOTTED

CRIMPED

For use on die grinders to clean and deburr a recessed area or the inside diameter of a tube or pipe.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Knot wire end brushes</li> <li>Crimped wire end brushes</li> </ul>	<ul style="list-style-type: none"> <li>For more aggressive cutting</li> <li>For lighter brushing action and contoured surfaces</li> </ul>

PART #	BRUSH SIZE DIA. x WIRE SIZE x ARBOR HOLE	WIRE TYPE	MAX. RPM	BRUSHES/ BOX
<b>FOR STEEL/METAL</b>				
<b>STEM MOUNTED KNOTTED</b>				
66252844510	1 x .020 x 1/4 Shank	Carbon	20,000	10
<b>STEM MOUNTED CRIMPED</b>				
66252844511	1 x .020 x 1/4 Shank	Carbon	20,000	10
Bulk packed.				



## CRIMPED WIRE WHEEL BRUSHES

Better Tier / Carbon



Medium-faced brushes clean larger areas and have longer life. Brushes may be used individually or stacked on a shaft.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Dense, high-quality, tempered crimped wire construction</li> </ul>	<ul style="list-style-type: none"> <li>Offers excellent performance for deburring, removing rust, corrosion and dirt, or for surface preparation</li> </ul>

PART #	BRUSH SIZE DIA. x WIRE SIZE x ARBOR HOLE	WIRE TYPE	MAX. RPM	BRUSHES/ BOX
<b>FOR STEEL/METAL</b>				
<b>CRIMPED MEDIUM 3/4" FACE</b>				
66252844508	6 x .014 x 1/2-2	Carbon	6,500	1
66252844509	8 x .014 x 1/2-2	Carbon	4,500	1
7 bushing sizes are included with each brush.				
Individually boxed.				



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## FULL CABLE TWIST KNOT WIRE WHEEL BRUSHES

Better Tier / Carbon



For the tougher applications, especially for weld passes or other demanding applications.

### FEATURES & BENEFITS

- Full cable twist knot brushes provide very low flex and high impact cutting and cleaning

PART #	BRUSH SIZE DIA. x WIRE SIZE x ARBOR HOLE	WIRE TYPE	MAX. RPM	BRUSHES/ BOX
<b>FOR STEEL/METAL</b>				
66252844504	4-1/2 x .020 x 5/8-11	Carbon	20,000	5
<b>Bulk packed.</b>				



## STRINGER BEAD KNOT WIRE WHEEL BRUSHES

Better Tier / Stainless or Carbon



Specially suited for groove and weld bead, corners and t-connections.

### FEATURES & BENEFITS

- Narrow face stringer bead wire delivers high-impact cutting and cleaning for toughest applications
- Joint/Crack cleaning wire wheel brushes used for brushing joints, cleaning cracks in concrete and asphalt, and preparing expansion joints for filling and scaling
- Powder-coated and color-coated hubs prevent cross-contamination and rust

PART #	BRUSH SIZE DIA. x WIRE SIZE x ARBOR HOLE	WIRE TYPE	MAX. RPM	BRUSHES/ BOX
<b>FOR STAINLESS STEEL</b>				
<b>FOR RIGHT ANGLE GRINDERS</b>				
66252844503	4 x .020 x 5/8-11	Stainless	20,000	12
<b>FOR STEEL/METAL</b>				
<b>FOR RIGHT ANGLE GRINDERS</b>				
66252844502	4 x .020 x 5/8-11	Carbon	20,000	5
66253370022	4 x .020 x 5/8-11 Economy	Carbon	20,000	10
66252844505	6 x .020 x 5/8-11	Carbon	12,500	10
66252844506	6-7/8 x .020 x 5/8-11	Carbon	9,000	10
<b>FOR WALK-BEHIND MACHINES – JOINT/CRACK CLEANING BRUSHES</b>				
66252844507	12 x .035 x 1 - DP	Carbon	4,500	2
<b>Bulk packed.</b>				



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# HAND BRUSHES

Better Tier / Stainless or Carbon



Narrow brush allows access into tight areas and slots. Curved face for hard-to-reach places. Color-coded handles prevent cross-contamination and rust.

FEATURES	BENEFITS
<ul style="list-style-type: none"><li>• Long handle and shoe handle brushes</li></ul>	<ul style="list-style-type: none"><li>• Steel scratch brushes are made with high-carbon brass-coated steel; red handle</li><li>• Stainless steel brushes are made with a 304L stainless steel; blue handle</li></ul>

PART #	BRUSH SIZE	WIRE TYPE	BRUSHES/ BOX
<b>FOR STAINLESS STEEL</b>			
<b>HAND BRUSHES</b>			
66252844514	Scratch Brush 3 x 19 Long Handle	Stainless	12
66252844516	Scratch Brush 4 x 16 Shoe Handle	Stainless	12
66252844512	Inspection Brush 3 x 7	Stainless	36
<b>FOR STEEL/METAL</b>			
<b>HAND BRUSHES</b>			
66252844513	Scratch Brush 3 x 19 Long Handle	Carbon	12
66252844515	Scratch Brush 4 x 16 Shoe Handle	Carbon	12
<b>Bulk packed.</b>			



**RED = FOR STEEL/METAL USE**    **BLUE = FOR STAINLESS STEEL USE**

# PART # TO PAGE CROSS REFERENCE

PART #	PAGE	PART #	PAGE	PART #	PAGE	PART #	PAGE	PART #	PAGE	PART #	PAGE	PART #	PAGE
05539500471	118	05539500544	117	05539503588	8	05539509128	155	05539509570	147	05539509929	149	05539510712	21
05539500472	118	05539500545	117	05539503589	8	05539509134	135	05539509572	147	05539509934	148	05539510713	21
05539500473	118	05539500546	117	05539503594	8	05539509136	135	05539509573	147	05539509935	148	05539510720	21
05539500474	118	05539500547	117	05539503861	13	05539509137	135	05539509575	147	05539509937	148	05539510721	21
05539500475	118	05539500548	117	05539503863	13	05539509138	135	05539509576	147	05539509938	148	05539510722	21
05539500476	118	05539500694	132	05539504270	13	05539509139	135	05539509578	147	05539509939	148	05539510793	73
05539500478	118	05539501900	143	05539504701	6	05539509141	135	05539509580	147	05539509941	148	05539510794	73
05539500479	118	05539501923	12	05539504702	6	05539509142	135	05539509581	147	05539509947	148	05539510795	73
05539500480	118	05539501926	12	05539504703	6	05539509143	135	05539509582	147	05539509948	148	05539510796	73
05539500481	118	05539502833	8	05539504706	6	05539509144	135	05539509585	147	05539509950	148	05539510797	73
05539500482	118	05539502834	8	05539504708	6	05539509145	135	05539509777	143	05539509952	148	05539510798	73
05539500483	118	05539502836	7	05539504709	8	05539509149	135	05539509781	143	05539509953	148	05539510808	72
05539500484	118	05539502837	7	05539504710	8	05539509150	135	05539509782	143	05539509955	148	05539510810	72
05539500485	118	05539502838	8	05539504711	8	05539509152	135	05539509783	143	05539509956	148	05539510812	72
05539500486	118	05539502839	8	05539504712	8	05539509153	135	05539509790	143	05539509959	148	05539510813	72
05539500488	119	05539502842	7	05539504714	8	05539509154	135	05539509792	143	05539509960	148	05539510814	72
05539500489	119	05539502843	7	05539504716	8	05539509155	132	05539509793	143	05539509961	148	05539510815	72
05539500490	119	05539502844	8	05539504717	8	05539509156	132	05539509796	143	05539509964	148	05539510816	72
05539500491	119	05539502846	7	05539504718	8	05539509159	132	05539509798	143	05539509965	148	05539510817	72
05539500492	119	05539502847	7	05539506618	131	05539509160	132	05539509803	143	05539509966	148	05539510818	72
05539500493	119	05539502848	8	05539507043	150	05539509162	132	05539509804	143	05539509971	148	05539510819	72
05539500494	119	05539502849	7	05539507044	150	05539509166	132	05539509806	143	05539509972	144	05539510843	74
05539500495	119	05539502850	8	05539507047	150	05539509167	131	05539509807	143	05539509972	148	05539510844	74
05539500497	119	05539502851	8	05539507048	150	05539509169	131	05539509810	143	05539509973	148	05539510845	74
05539500500	119	05539502853	7	05539507054	17	05539509181	12	05539509814	143	05539509974	148	05539510846	74
05539500501	119	05539502854	7	05539507061	17	05539509183	12	05539509827	143	05539509975	148	05539510847	74
05539500502	119	05539502855	8	05539507063	17	05539509184	12	05539509836	143	05539509976	148	05539510848	74
05539500503	119	05539502856	8	05539507065	17	05539509185	12	05539509839	143	05539509978	148	05539510849	74
05539500504	119	05539502857	7	05539507066	17	05539509186	12	05539509840	143	05539510141	67	05539510850	74
05539500505	119	05539502858	7	05539507067	17	05539509187	12	05539509841	143	05539510340	67	05539510851	74
05539500506	119	05539502859	7	05539507068	17	05539509188	12	05539509844	143	05539510516	32	05539510852	74
05539500507	119	05539502860	7	05539507069	17	05539509192	12	05539509848	143	05539510517	32	05539510853	74
05539500508	119	05539502861	7	05539507070	17	05539509194	12	05539509852	143	05539510521	32	05539510854	74
05539500509	119	05539502862	7	05539507071	17	05539509195	12	05539509854	143	05539510522	32	05539510861	74
05539500515	119	05539502863	6	05539507072	17	05539509196	12	05539509857	143	05539510523	32	05539510862	74
05539500516	119	05539502864	6	05539507079	18	05539509197	12	05539509858	143	05539510525	32	05539510868	74
05539500517	119	05539502865	6	05539507080	18	05539509204	17	05539509859	143	05539510526	32	05539510870	74
05539500518	119	05539502867	6	05539507082	18	05539509216	17	05539509860	143	05539510539	32	05539510871	74
05539500519	119	05539502868	6	05539507083	18	05539509238	14	05539509862	143	05539510540	32	05539510872	74
05539500520	119	05539502870	6	05539507085	18	05539509243	14	05539509863	143	05539510545	31	05539510873	74
05539500521	119	05539502871	6	05539507086	18	05539509249	14	05539509864	143	05539510546	31	05539510874	74
05539500522	119	05539502872	6	05539507087	18	05539509252	13	05539509865	143	05539510548	31	05539510875	74
05539500523	119	05539502873	6	05539507088	18	05539509254	13	05539509866	143	05539510549	31	05539510876	74
05539500524	119	05539502874	6	05539507176	132	05539509255	13	05539509874	143	05539510550	31	05539510885	74
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69957399779	53	77696000114	21	77696002073	27	77696088240	54	77696088279	54	77696090107	27		
69957399780	53	77696000115	21	77696002075	27	77696088241	54	77696088280	54	77696090108	27		

## safety symbols



### FACE PROTECTION

Always wear government-approved face and eye protection when using abrasive products.



### SAFETY GLOVES

Grinding applications are conducted in harsh environments. The use of proper fitting gloves is recommended.



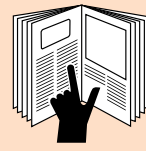
### DUST PROTECTION

Exposure to dust generated from workpiece and/or abrasive materials can result in lung damage and/or other physical injury.

Use dust capture or local exhaust as stated in the MSDS. Wear government-approved respiratory protection and eye and skin protection.

Failure to follow this warning can result in serious lung damage and/or physical injury.

This is a general dust warning and does not cover specific situations. For more information, refer to the MSDS dust warning provided with your products, and workpiece.



### SAFETY GUIDES, MSDS & WHEEL WARNING MESSAGES

Before using any abrasive materials, READ:

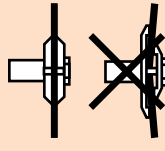
- The Safety Guides
- Wheel Warning Messages and
- Material Safety Data Sheets (MSDS)

Carborundum provides information pertaining to the safe use of all products. Please take the time to read it carefully. Contact suppliers of the workpiece and abrasive materials for copies of the MSDS if one is not readily available. Carborundum abrasives MSDS can be obtained on-line at [www.carborundumabrasives.com](http://www.carborundumabrasives.com)



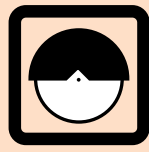
### HEARING PROTECTION

Use of abrasive products might create elevated sound levels. Hearing protection must be worn where required.



### FLANGES

When mounting most grinding wheels, use flanges of equal diameter and bearing surface. For exceptions, see ANSI B7.1.



### WHEEL GUARD

Always use the wheel guard as supplied by the machine manufacturer, in the proper position.



### SPEEDS

Check machine spindle speed and speed listed on machine against safe maximum operating speed marked on the grinding wheel. Do not overspeed the wheel.



## WARNING

**This warning icon appears on our products and packaging. It is intended to draw your attention to the specific safety warning practices outlined after it.**

## SAFETY ON THE WEB

As part of Saint-Gobain Abrasives' ongoing commitment to safety, each month a new safety article is published on the Carborundum website. Topics include proper abrasive storage, equipment maintenance, proper wheel mounting, using blotters, ring testing a grinding wheel, wheel dressing and much more.

Visit the Carborundum website at [www.carborundumindustrial.com](http://www.carborundumindustrial.com) and check the "News" section for the newest article. Or click on "Safety" to review our archived safety articles.

For more information on product safety, ask your Carborundum Abrasives distributor for these publications:

- "Play it Safe at the Wheel" pamphlet CA8900, and "Safety, It's the Smart Thing to Do" DVD
- ANSI Standard B7.1 Safety Requirements for the Use, Care and Protection of Abrasive Wheels
- ANSI Standard B7.7 Safety Requirements for Abrading Materials with Coated Abrasive Systems

For additional safety information, visit our website at [www.carborundumindustrial.com](http://www.carborundumindustrial.com)



## safetytips

### **DEPRESSED CENTER, CUT-OFF, AND SNAGGING WHEELS**

#### **Do's**

- Check all wheels for cracks or damage before use
- Check machine speed against established safe operating speed marked on the wheel
- Always use the guard furnished with machine
- Run wheel in a protected area for one minute at operating speed before grinding

#### **Don'ts**

- Don't use wheels that have been dropped or otherwise damaged
- Don't use heavy side pressure on any thin Type O1 cut-off wheel or Type 27/42 thin depressed center wheel
- Never use a grinding wheel with a rated speed less than that of the grinder

### **PROPER GRINDING WHEEL OPERATING SPEEDS AND SAFETY!**

As abrasive wheel producers have known for many years, most grinding wheel breakages and injuries are caused by one major oversight. That oversight is operating a grinding wheel in an over-speed condition. A grinding wheel should never be operated at speeds greater than the wheel's rated speed.

- Never mount grinding wheels on sanders (Pistol Grip Air Sanders)
- Never mount grinding wheels directly on electric motors
- Never mount grinding wheels on the wrong size machine for the grinding wheel
- Always properly maintain your machine: especially governors on pneumatic machines and linkage on floorstand machines
- Never use the incorrect air, hydraulic or electric power supply
- Never use the improper speed setting on a machine

### **TOOLROOM WHEELS**

#### **Do's**

- Check all wheels for cracks or damage before use
- Always use a safety guard and ensure work rest is properly adjusted on a bench grinder
- Always handle and store wheels in a careful manner
- Check mounting flanges for equal and correct diameter and use blotters when supplied
- Check machine speed against established safe operating speed marked on wheel

#### **Don'ts**

- Don't use a cracked wheel or one that has been dropped or damaged
- Don't exceed recommended operating speeds
- Don't tighten the mounting nut excessively
- Don't jam work into the wheel
- Do not sand wood, plastic or any other non-metallic material on bench and pedestal grinders

### **A DEADLY EQUATION**

**PISTOL GRIP AIR SANDER  
+ GRINDING WHEEL  
= CERTAIN INJURY!**

- Never use a high-speed air sander as a portable grinder
- Use only sanding discs specifically designed for sanders
- Because the speed of these sanders far exceeds the maximum rated speeds for grinding wheels, a potentially lethal wheel breakage might occur



**PISTOL GRIP AIR SANDER**



**IT IS THE USER'S RESPONSIBILITY TO REFER TO AND COMPLY WITH ANSI B7.1 AND B7.7 SAFETY STANDARDS**



CALL YOUR LOCAL DISTRIBUTOR FOR OUR SAFETY DVD:

**“SAFETY, IT'S THE SMART THING TO DO!”**



## WHAT ARE THE MAJOR CAUSES OF GRINDING WHEEL BREAKAGES?

A grinding wheel is a safe tool when used properly. All grinding wheels are tested in accordance with ANSI B7.1 before Saint-Gobain ships them. However, after the grinding wheels are shipped they might be subjected to any number of abuses and misuses. Listed here are some of the major causes of grinding wheel breakages.

- Using a grinding wheel damaged during transportation, storage or as a result of careless or improper handling. Inspect all grinding wheels before mounting them on a machine. NEVER MOUNT A DAMAGED GRINDING WHEEL.
- Selecting the wrong grinding wheel for the job. DON'T GRIND MATERIAL FOR WHICH THE WHEEL IS NOT DESIGNED.
- Incorrect machine. NEVER MOUNT A GRINDING WHEEL ON A MACHINE NOT DESIGNED AND GUARDED FOR THAT GRINDING WHEEL.
- Machine speed higher than the grinding wheel speed. NEVER OVER-SPEED A GRINDING WHEEL.
- Poor machine maintenance. FAILURE TO PROPERLY MAINTAIN A GRINDING MACHINE CAN CAUSE GRINDING WHEEL BREAKAGES RESULTING IN SERIOUS INJURY OR DEATH.
- The improper mounting of grinding wheels. See ANSI B7.1 and literature provided for proper mounting procedures.
- Operator carelessness. ALL GRINDING WHEELS CAN BE BROKEN IF NOT USED PROPERLY.
- Lack of knowledge or training. IF YOU DO NOT KNOW HOW TO USE A GRINDING WHEEL OR THE GRINDER, GET HELP!
- Poor wheel balance caused by the failure to turn off coolant before stopping the grinding wheel. Always spin coolant out of a grinding wheel before shutting the operation down.
- Jamming the work into the grinding wheel.
- Force grinding, so that the motor slows noticeably or the work gets hot.
- Grinding on the wrong surface of a grinding wheel, i.e. grinding on the side of a Type 1 straight grinding wheel.

For additional information on this topic or any other grinding wheel safety information, please review ANSI, OSHA and literature provided by the grinding wheel and machine manufacturer. You may also contact the Saint-Gobain Product Safety Department at Tel. (508) 795-2317 or Fax. (508) 795-5120 for additional product safety information. See "Safety" section on [www.carborundumabrasives.com](http://www.carborundumabrasives.com).



## STARTING A GRINDING WHEEL

### ANSI'S PROCEDURE FOR STARTING AN ABRASIVE WHEEL

In the past several years we have heard of wheel breakages and accidents involving abrasive wheels breaking on start-up. This article is designed to remind users of the proper procedure when starting a machine with a new abrasive wheel mounted on it, or starting a machine after the machine and wheel have been stored for a period of time, or remounting a wheel. ANSI B7.1-2000 requires the following procedure when starting a newly mounted grinding wheel.

### 9.8 STARTING THE WHEEL (REQUIREMENTS)

All abrasive wheels shall be run at operating speeds with the safety guard in place or in a protected enclosure for at least one minute before applying work. During this time no one shall stand in front of or in line with the wheel. (See section 4, for safety guard requirements.) This provision shall apply each time one of the following conditions occur: a) a new wheel has been mounted; or b) a used wheel has been remounted.

### E 9.8 STARTING THE WHEEL (EXPLANATORY INFORMATION)

An abrasive wheel may be damaged in shipment or storage, or the wheel may be subjected to improper, excessive stresses during mounting. Wheels which have been damaged or are under excessive stress, are likely to fracture within the first minute of rotation at operating speed. While this procedure is most important at the time when an abrasive wheel is mounted or remounted, damage may also occur to a wheel during a shut down of the machine on which it is mounted. The user should evaluate the circumstances and length of machine shut down to determine additional times that the operating rule should be followed.

Improper wheel mounting is a major cause of wheel breakages. Always use proper mounting procedures as outlined in ANSI B7.1, machine manufacturer's instructions and those supplied with the abrasive wheel. Be safe, know and follow the rules!

For additional information on this topic or any other abrasive product safety information, please review ANSI, OSHA and literature provided by the grinding wheel and machine manufacturer.

## WHAT YOU SHOULD KNOW ABOUT GRINDING WHEEL GUARDS

Reports indicate customers in the grinding wheel industry break approximately one grinding wheel per day. Most of these breakages are caused by human error, do not result in personal injury, and generally go unreported. Grinding wheel guards are one of the key components in keeping these grinding wheel mishaps from becoming a personal injury.

### DANGEROUS CONDITIONS CAUSED BY THE INEFFECTIVE USE OF GRINDING WHEEL GUARDS:

**Incorrect:** Cup wheels such as Type 6 and 11 used on a portable angle grinder with a Type 27, 28 and 29 depressed center grinding wheel guard.

**Explanation:** While a properly adjusted Type 27, 28 and 29 guard works with a Type 27, 28 or 29 wheel, it offers little or no protection with a Type 6 or 11 cup wheel. The cup wheel "hangs" below the guard meant for a Type 27, 28 or 29 wheel and in the event of a wheel breakage; it offers little or no protection.

**Incorrect:** Type 01 straight cut-off wheels used on a portable angle grinder with a Type 27, 28 or 29 depressed center grinding wheel guard.

**Explanation:** Type 27, 28 and 29 guards are open on the bottom to allow for side grinding with raised hub/depressed center wheels. When side grinding with the Type 27, 28 or 29 wheel, the workpiece acts as a portion of the guard, protecting the operator in the event of a wheel breakage. Cut-off wheels are not designed for use on their side and must be used on their outer periphery only. Guards for cut-off wheels must cover a full 180° area on all sides of the wheel. When using a cut-off wheel with a Type 27, 28 or 29 guard, there is no guard on one side of the wheel, protecting the operator in the event of a wheel breakage. Do not use cut-off wheels on angle grinders without the proper guard.

**In Summary:** Grinding wheel guards designed for one type of machine used on another type of machine, or the wrong guards for the type of wheel, are dangerous.

### INEFFECTIVE GRINDING WHEEL GUARDS:

- The most ineffective guard is the one that has been removed from its machine and is sitting in storage. The removal of a wheel guard on a machine in operation is not only extremely dangerous, but illegal.
- Do not alter or cut back a guard. Using a damaged or altered wheel guard is extremely dangerous to the safety of the operator and bystanders. Guards that are altered, cracked, deformed, bent, or severely worn must be replaced. Once a guard has been damaged, it might become ineffective in a future wheel breakage. If a wheel breakage occurs, the guard must be inspected and if there is any sign of damage, the guard must be replaced.
- Machines with missing wheel guard fasteners are also very dangerous. Sometimes during routine machine maintenance the guard fasteners are damaged and not replaced when the machine is reassembled. During a wheel breakage, the missing fasteners might allow the guard to move, become unattached from the machine or open, exposing the operator to being injured by the guard or not containing the wheel fragments in the event of a wheel break.
- A guard made of paper, tin, cloth, wood or other materials not designed to contain wheel fragments might fail when struck by a wheel fragment. Always use the guard that is recommended for the machine and its operation. Never paint or disguise the wrong material for a proper guard.

### GUARDS NOT PROPERLY ADJUSTED:

- A wheel guard that is set too high on a portable angle grinder will allow the wheel to hang below the guard. This improper setting may render the guard useless in the event of a wheel breakage.
- The wheel guard of a portable machine positioned improperly. A guard used on a portable machine must be positioned so it is located between the operator and the grinding wheel. Also, bystanders must not be positioned in front of the wheel guard's open area.
- Failure to maintain the proper setting of the adjustable tongue guard (AKA spark arrester) on bench, pedestal, or small floor stand grinder. OSHA requires a maximum clearance of 1/4" between the grinding wheel and the tongue guard. If a wheel breakage should occur, maintaining the proper distance will help to contain the wheel fragments and reduce the probability of an injury.

## HOW TO PERFORM A RING TEST ON A GRINDING WHEEL

One method of grinding wheel inspection is called ring testing. OSHA, ANSI and the grinding wheel manufacturers require this method of grinding wheel inspection. It must be performed BEFORE the wheel is mounted on a grinding machine. Ring testing depends on the damping characteristics of a cracked wheel to alter the sound emitted when the wheel is tapped lightly. It is subject to interpretation by the inspector and is primarily applicable to vitrified bonded wheels. To perform the ring test, wheels should be tapped gently with a light nonmetallic implement, such as the handle of a screw driver for light wheels, or a wooden mallet for heavier wheels.

- Tap wheels about 45 degrees each side of the vertical line and about 1" or 2" from the periphery. Rotate the wheel 45 degrees and repeat the test.
- Large and thick wheels may be given the ring test by striking the wheel on the periphery rather than the side of the wheel.
- A sound and undamaged wheel will give a clear tone. If cracked, there will be a dead sound and not a clear ring and the wheel should not be used.
- Wheels must be dry and free of sawdust when applying the ring test, otherwise the sound may be deadened. The ring test is not applicable to certain wheels because of their size, shape or composition.



# Safety – It’s the Smart Thing to Do

**SAFE OPERATING PRACTICES MUST BE PART OF EVERY GRINDING WHEEL USER’S OPERATION.**

- 1 Be sure to read any safety material/guidelines provided with the abrasive product.
- 2 Always check the wheel for cracks or damage before use.
- 3 Before mounting the wheel, use a tachometer to measure the spindle speed. Wheel speeds should never exceed the maximum speed shown on the wheel or package.
- 4 Ensure the mounting flanges, backplate or adapter supplied by the machine manufacturer are properly used and kept in good condition. ANSI Safety Requirement B7.1 provides wheel mounting requirements. Check mounting flanges for equal and correct diameter and use blotters when supplied.
- 5 Always mount, true and dress the wheel in compliance with the guidelines published in the ANSI Safety Requirements B7.1.
- 6 Ensure the correct wheel guard is in place before starting the wheel. Allow the wheel to come up to full operating speed for a minimum of 1 minute before starting to grind. Stand out of the plane of rotation.
- 7 NEVER use a high speed air sander as a portable grinder.
- 8 Never use a grinding wheel with a rated speed less than the grinder.
- 9 NEVER exceed the maximum operating speed marked on the wheel being used. The following formula may be used to convert wheel speed from RPM to SFPM.  
**SFPM = Spindle Speed in RPM x Wheel Diameter in inches x .262**  
**(or refer to the Wheel Speeds Conversion Table, where applicable, in Bonded Abrasives Basics)**
- 10 When not using the wheel, store the wheel in its original packing materials and avoid dropping or bumping the wheel. This protects the wheel from chips and cracking, as well as provides easy identification of the wheel.

To obtain the maximum performance of the wheel, your operating procedures must include the care of the product both before and after its actual use. The greatest efficiency and lowest overall abrasive cost can be realized only if proven care and use techniques become standard practice.

**SAINT-GOBAIN ABRASIVES TRADEMARKS**

Abrasive Connection®	Carborundum logo®	EZ-Touch™	Gold™	PowerFlex®	Speed-Lok®
Abrasive Connection Express®	Carbo Medalist™	E-ZView™	Gold Cut™	PowerLock®	Stick-On™
Abrasotex™	Carbo Premier Red™	FastTrack™	Gold MaXX™	PowerStrip™	Surface Blend™
Carbo™	Carbo White™	Fat Boy™	Gold XT™	Premier Red™	Surface Prep™
Carbo CleanAir®	Charger™	Fibratex®	Grind-O-Flex™	Premier Red Cut™	Surface Strip™
Carbo CleanAir Plus™	Clean Bond™	FlexDrum™	Grip-On®	PremRed™	Thin-Flex™
Carbo Cool®	The Definition of Different™	FlexEdge™	High Performance™	Safety Tred™	Vortex®
Carbo Fire®	Dri-Lube®	Flex-Loc™	Merit®	Sand-O-Flex™	Zenith®
Carbo Gold™	Edger™	fX™	Mirror Finish™	ShurStik™	And others.
		Gemini®	NorZon®	Sof-Tutch™	

**PRODUCT WARRANTY**

WARRANTY – Carborundum warrants the products in this catalog to be free from defects in material or workmanship for a period of one year from the date of purchase. Carborundum’s sole obligation under this warranty shall be to repair or replace, at Carborundum’s option, any product which is non-conforming provided any such product failure was not caused by a subsequent modification of the product, misuse or a failure to follow any applicable instructions for the product.

EXCEPT FOR THE FOREGOING, CARBORUNDUM EXPRESSLY DISCLAIMS ALL OTHER GUARANTIES AND/OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

**PRODUCT QUALITY COMPLAINTS**

All product quality complaints should be submitted to your local Carborundum Distributor.

**LIABILITY LIMITATION**

CARBORUNDUM’S LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT SHALL NOT EXCEED THE PURCHASE PRICE THEREOF, REGARDLESS OF WHETHER SUCH LIABILITY ARISES IN CONTRACT, TORT (INCLUDING WITHOUT LIMITATION NEGLIGENCE OR STRICT LIABILITY), OR OTHERWISE, AND IN NO EVENT SHALL CARBORUNDUM BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. NO REPRESENTATIVE OF CARBORUNDUM, NOR ANY OF CARBORUNDUM’S DISTRIBUTORS OR DEALERS, IS AUTHORIZED TO MODIFY THIS WARRANTY OR ISSUE ANY WARRANTY REGARDING THE PRODUCTS IN THIS CATALOG.

## the definition of **DIFFERENT™**

*"Different" is more than a tagline. Carborundum Abrasives embodies its uniqueness in product, pricing and experience with a market approach to match. Our brand differentiation represents our rich history of commitment to developing better abrasives that offer better value leadership without compromise. Building and maintaining your business with Carborundum Abrasives just keeps getting easier. Call, click, or visit us online to learn how a different way of doing business doesn't have to be complicated.*



## Customer Service

Distributors: To place an order, contact our customer service support center with:

- Customer number and contact name
- Complete product information:
  - 11-digit Part Number
  - Product description
  - Quantity and unit of measure
  - Price by unit of measurement

To ensure minimal errors and faster turnaround, using electronic media is preferred. For assistance with [www.abrasiveconnection.com](http://www.abrasiveconnection.com) or EDI setup, contact us at:

**Email:** [abrasive.connection@saint-gobain.com](mailto:abrasive.connection@saint-gobain.com)

**Phone:** 888-383-2236



## Judge for Yourself

Carborundum | Saint-Gobain is so confident of the superior performance of our abrasive products, as recommended for specific applications, that we invite in-plant tests against any other brand of abrasive product on the market.

### The Carborundum No-Risk Test Policy

- 1 The test will be conducted in the user's own plant, on their own machines, using their own work-pieces.
- 2 Even if the user purchases only a minimum quantity of Carborundum abrasive products, the user will receive the same quantity discount as would apply to their normal production orders.
- 3 If the Carborundum product tested proves completely unsatisfactory, the user will receive a full refund.
- 4 If the Carborundum product tested performs at a lower level than the product presently in production, the user will receive an adjustment to make up the difference in performance.
- 5 The user is the final judge of performance!



## Online

The printed catalog is a great starting resource for Carborundum and Merit product selection. Our website is the ideal resource for a more comprehensive outline of product and application information. It is continually updated with all our most current information and offers more electronic queries for deeper detail, at the click of a button.



*The **courage** to stand apart.  
The **wisdom** to think competitively.  
The **experience** to back you up.*



*Carborundum Abrasives – the definition of*  
**DIFFERENT™**



# BETTER ABRASIVES, BETTER VALUE – BETTER THAN EVER!

Count on Carborundum Abrasives to continually add the essentials of brand differentiation with our products, pricing, and experience to help you meet the evolving needs of your customers and markets.



## **products** - the courage to stand apart with choices

A full line of leading-edge products for your toughest MRO applications. From the day-to-day products that keep your business running, to the market innovations that maximize productivity with lowest total cost.



## **pricing** - the heart to make you profitable

A four-tier performance-to-quality ratio to best suit the unique needs of each of your customers and give you a competitive advantage. From the highest quality materials and engineering, to the lowest initial cost.



## **experience** - the wisdom to leverage our expertise

A network of deep product knowledge and high sales support that is fully supported by a responsive customer service team to best service the distribution framework that keeps your business moving forward.



**CARBORUNDUM**

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Fax Toll Free: 1 (800) 4589-3448  
Local Phone: 1 (254) 918-2304  
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NO RISK  
TEST POLICY**

**FORM #CA1000** REV 01/15

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