

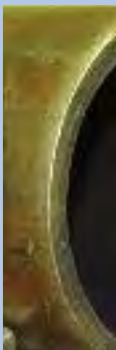
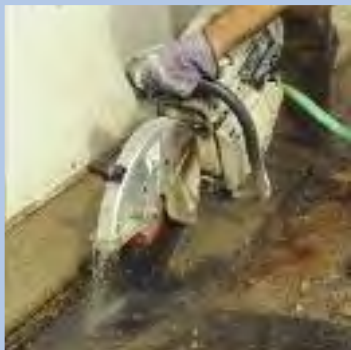
Weiler® Abrasives



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- **Flap Discs**

Market Leader!

- **Resin Fiber Discs**

- **AL-tra CUT™ Discs**

Best for Aluminum

- **Blending Discs**

- **TRIM-KUT® Discs**

- **Flap Wheels**

- **Belts**

- **Shop Rolls**

New!

- **Grinding & Cutting Wheels**

New Vortec Pro® General Purpose Bonded Program

- **Unitized Wheels**

- **Convolute Wheels**

- **Surface Conditioning Discs**

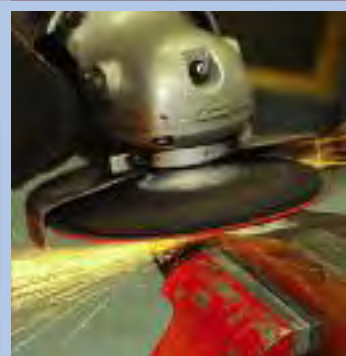
- **Hand Pads**

- **Interleaf Flapwheels**

**Knowledgeable and Responsive
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**Application Engineering Support:
888-299-APPS (2777)**

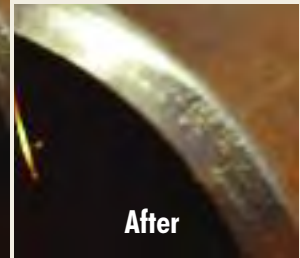
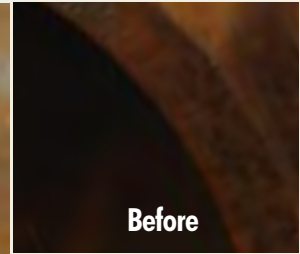
**Interactive Website:
www.weilercorp.com**



Steel Piping

Problem: A clean bevel end free of any surface imperfections is critical to a strong joint when welding heavy-wall piping. Unfortunately, lengths of steel pipe can sit in yards for significant periods of time, and pitting of the bevel ends is usually the result.

Solution: Coated abrasive flap discs like Weiler's original Tiger Disc are ideal tools for quickly removing heavy corrosion and blending pitting from bevel ends. The chatter-free, compliant grinding action and smooth, consistent finish produced by these discs make them the preferred choice for this application.



Steel Channel

Problem: Burrs produced by cut-off operations are dangerous and can prevent parts from fitting together properly which can cause potential structural weak points.

Solution: Weiler's coated abrasive flap wheels are flexible grinding products which are ideal for light stock removal applications. A 60 grit wheel can be used to remove a large burr and produce a smooth blended edge.

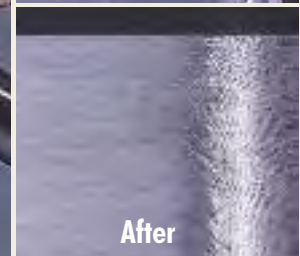
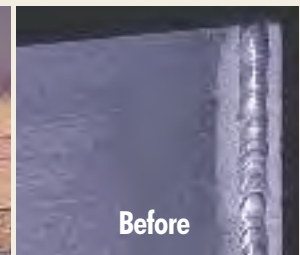


Photos courtesy of On-Line Services.

Aluminum Frames

Problem: Aluminum welds are particularly difficult to blend due to the tendency of the chips to become welded to the abrasive media. This causes the cut rate of the abrasive to fall rapidly and generates an expensive grinding operation.

Solution: Weiler's AL-tra Cut™ discs are specially formulated to prevent loading by lowering the grinding temperature. A 60 grit AL-tra Cut disc can blend an aluminum weld bead much faster than a conventional disc without loading.



Solutions Showcase

Snow Plow Blade



Before



After

Problem: Grinding fillet welds is a difficult, time-consuming process that is often expensive to perform.

Solution: Weiler's Trimmable Tiger® flap disc offers the ability to create a flexible grinding media that can easily blend fillet welds. The disc's trimmable design also extends the life of the disc, resulting in lower grinding and finishing costs.

Steel Handle



Before



After

Problem: The removal of parting lines is a common application in the foundry business.

Solution: Weiler's selection of coated abrasive belts includes high performance and value products that help users control their production costs. Belts with 36 and 40 grit are commonly used for parting line removal.

Steel Rack Braces



Before



After

Problem: To prevent weldments used in the construction of offshore oil platforms from "racking" under load, lengths of steel bar stock are added as braces during the fabrication of these structural members. Beveling or chamfering the ends of the bars increases weld penetration and strengthens the joint.

Solution: The requirement for fast stock removal and long wheel life makes this an ideal application for a good quality Type 27 grinding wheel like those in Weiler's Vortec Pro® line of general-purpose bonded abrasives.

Coated Abrasive Flap Disc Technical Information

PREMIUM PERFORMANCE



Saber Tooth™

Use: Cool, fast cutting on SS, AL & hard-to-grind metals
Cloth Type: Top coated ceramic alumina poly-backed
Styles: Type 27 HD or type 29 standard
Backing: Phenolic

PAGE 102



Big Cat®

Use: Conformable with superior life; industrial applications on steel and stainless
Cloth Type: Premium zirconia alumina or aluminum oxide
Style: Type 27 high density
Backing: Phenolic

PAGE 103



Trimmable

Use: Trimmable and flexible; for extended life and fillet welds on steel and stainless
Cloth Type: Premium zirconia alumina or top coated ceramic alumina poly-backed
Style: Type 29 standard
Backing: Non-marking composite

PAGE 104



Original Tiger®

Use: Premium performance; industrial applications on steel and stainless
Cloth Type: Premium zirconia alumina or aluminum oxide
Styles: Type 29 or 27 standard
Backings: Phenolic or aluminum

PAGE 105-106

Flap Disc Product Tiers

Weiler Tiger®

Premium Industrial Grade Products -

Engineered and manufactured to maximize performance and minimize operating costs in all surface grinding applications. The use of superior construction, the highest quality materials and the most stringent manufacturing processes deliver consistent performance and the lowest cost-of-use.

- **Saber Tooth™ Ceramic Alumina Flap Discs**
- **Big Cat® High Density Flap Discs**
- **Original Tiger® Abrasive Flap Discs**
- **Trimmable Tiger® Flap Discs**
- **BobCat™ Mini Flap Discs**



BobCat™ Mini Flap Discs

Use: Fast grinding in tight areas on steel and stainless
Cloth Type: Premium zirconia alumina
Mounting: Threaded arbor, drive mandrel or Norton Speed-Lok®
Styles: Type 29 or 27 standard
Backing: Non-marking composite

PAGE 111

HIGH PERFORMANCE



New!



Tiger Paw™

Use: Aggressive performance and long life; heavy-duty edge-grinding applications on steel and stainless
Cloth Type: 100% zirconia alumina poly cotton-backed
Styles: Type 29 or 27 standard
Backing: Phenolic

PAGE 107

Tiger Paw™ Super HD

Use: Conformable with extended life; heavy-duty edge-grinding applications on steel and stainless
Cloth Type: 100% zirconia alumina poly cotton-backed
Style: Type 27 high density
Backing: Phenolic

PAGE 108

Weiler Tiger Paw™

High Performance Industrial Grade Products -

Engineered and manufactured to maximize performance on heavy-duty edge grinding applications such as pipe beveling and breaking the edge on plasma torch cut materials. The combination of 100% Zirconia Alumina grain, poly-cotton cloth and superior grain retention ensures long life and a consistent material removal rate over the life of the disc, increasing production throughput and lowering overall grinding costs.

- **Tiger Paw™ Abrasive Flap Discs**
- **Tiger Paw™ Super High Density Flap Discs**

FAST CUT



Vortec Pro®

Use: Standard performance on steel and stainless
Cloth Type: Zirconia alumina cotton-backed
Styles: Type 29 or 27 standard
Backing: Phenolic or aluminum

PAGE 109



Vortec Pro® HD

Use: Conformable with long life; applications on steel and stainless
Cloth Type: Zirconia alumina cotton-backed
Style: Type 27 high density
Backing: Phenolic

PAGE 110

Weiler Vortec Pro®

Fast Cut Professional Grade Products -

Manufactured using similar product construction and to the same exacting standards as other Weiler flap discs, but engineered to provide cost-effective use. Vortec Pro Abrasives are an economical choice for the construction trades, low volume production shops and the professional contractor.

- **Vortec Pro® Abrasive Flap Discs**
- **Vortec Pro® High Density Flap Discs**

Coated Abrasive Flap Disc Technical Information

Flap Disc Product Construction

Grind and Finish in One Step! Weiler's Coated Abrasive Flap Discs save you time and money. There's no need to switch from a Type 27 Grinding Wheel to a Resin Fiber Disc because flap discs grind and finish in one step. This results in fewer changeovers and increased productivity.

Flap Disc Construction Styles:



Angled Style - Type 29

- Maximum aggression
- Long life
- Ideal working angle of 15-35°



Flat Style - Type 27

- Smooth grinding action
- Long life
- Ideal working angle of less than 15°



High Density Style - Type 27

- Thicker disc with longer flaps
- Conforms to curved & irregular surfaces
- Maximum life
- Ideal working angle of less than 15°

Why Choose Flap Discs?

Flap discs replace grinding wheels and resin fiber discs by grinding and finishing in ONE step!

Flap Discs vs. Grinding Wheels:



- Rapid stock removal
- Smooth finish without gouging
- Cool cutting and less glazing
- Lightweight
- Less vibration reduces operator fatigue
- Reduced noise

Flap Discs vs. Resin Fiber Discs:



- Last 20 times longer
- Fewer changeovers reduce overall grinding and finishing costs
- Consistent finish
- No back-up pad needed
- Easy to store, no curling
- Reduced loading

Grain Selection

Grain Type	Grain Features	Application
Ceramic Alumina	<ul style="list-style-type: none"> • Numerous crystals • Cut rate constant for 75% of grinding life • Self-sharpening grain - consistent sharp edge • Long life - dissipates heat 	High cut rate and long life on stainless, aluminum and other hard-to-grind metals.
Zirconia Alumina	<ul style="list-style-type: none"> • Multi-Crystal • Fast cut rate • Self-sharpening • Stands up to heavy pressure & high temps. 	High rate of stock removal and long life in demanding applications.
Aluminum Oxide	<ul style="list-style-type: none"> • Single Crystal • Cut rate declines at start of grinding • Fracturing - dulling 	General purpose metalworking applications.

Grit Size Selection

Coarser Grits: 24, 36, 40
Maximum material removal.

Finer Grits: 60, 80, 120
Achieve desired finishes.

For Best Results:
Use 1 grit size coarser than resin fiber disc. 36 grit, use same size.



Weiler's Ceramic Alumina and Zirconia Alumina Flap Discs are contaminant-free, which means Iron, Sulfur and Chlorine are ≤ 0.1%.

Backing Selection

Aluminum:



Rigid support for maximum aggression; recyclable.

Composite*:



Trimnable, non-marking backing; allows access to hard-to-reach angles.

*BobCat Discs are not trimmable.

Phenolic:



Prevents backing from scratching the workpiece.

Coated Abrasive Flap Disc Technical Information

Coated Abrasive Flap Disc Technical Information

Flap Disc Product Features

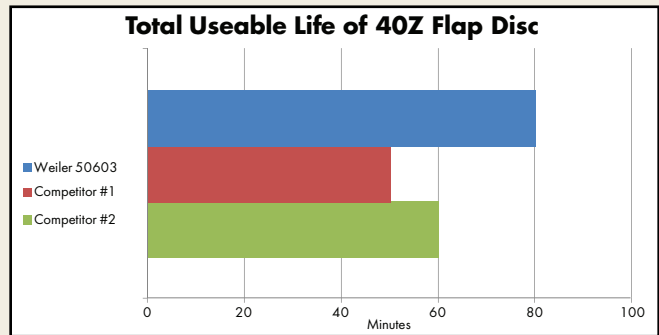
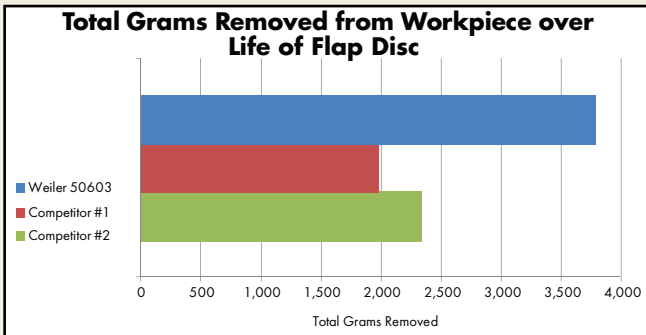


Lab Testing Results

Item(s) Tested: 4-1/2" x 7/8" Flap Discs - 40 Grit Zirconia Alumina

The following are the results of an automated test comparing the Weiler Tiger 4-1/2" Type 29 standard Flap Disc vs. two major manufacturers of flap discs products. The test involved grinding for up to 80 minutes (only the Tiger made it that long) on mild steel bar stock.

Reciprocating Flap Disc Machine - The angle grinder is mounted at a 15° angle and applies 15 pounds of weight to the 1/8" thick workpiece. The grinder moves back & forth over an 8" path and the flap disc and workpiece weights are taken every minute.




The 50603 flap disc outperformed the competition in both material removal and life. More work and fewer changeovers increases productivity and reduces overall grinding & finishing costs.

Important Safety Information

Read and comply with the Safety Standards of the American National Standards Institute - ANSI B7.1 "Safety Requirements - For the Use, Care and Protection of Abrasive Wheels".

 Observe all speed restrictions indicated on products, containers, labels or printed in literature. NEVER exceed the Maximum RPM!

 Safety goggles and face shields worn over safety glasses with side shields MUST BE WORN BY ALL OPERATORS AND OTHERS IN AREA OF ABRASIVE OPERATIONS. Comply with the requirements of ANSI Z87.1 "Occupational Eye and Face Protection".



Appropriate clothing must be used where there is a possibility of injury that can be prevented.



Safety gloves must be worn.



Hearing protection must be worn where required.



Keep all guards in place.



Wear respiratory protection against dust and fumes (see ANSI Z88.2).

Saber Tooth™ Ceramic Alumina Flap Discs

Saber Tooth™ Ceramic Alumina Flap Discs

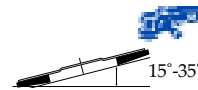
provide cool, fast cutting action on hard-to-grind metals, resulting in lower grinding and finishing costs.

- Fast cut and long life due to the aggressive self-sharpening ceramic alumina grain.
- Specially formulated grinding aid prevents dulling and glazing of grain and allows for "cool-cutting" protecting high value parts from heat discoloration.
- Designed to work with heat sensitive materials such as Aluminum, Stainless Steel, Inconel, Titanium and other hard-to-grind metals.

Bright Red Grinding Aid Dissipates Heat



CHECK OUT THE VIDEO



Saber Tooth™ Flap Disc - Angled Style (Type 29) -

Cool, fast cutting on hard-to-grind metals.

Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
4-1/2"	7/8"	36	13,000	10	50100
		40			50101
		60			50102
		80			50103
4-1/2"	5/8"-11 Nut	36	13,000	10	50104*
		40			50105*
		60			50106*
		80			50107*
7"	7/8"	36	8,600	10	50108
		40			50109
		60			50110
		80			50111
7"	5/8"-11 Nut	36	8,600	10	50112*
		40			50113*
		60			50114*
		80			50115*

*Patent # 6,945,863

Trimable Back Saber Tooth™ - Angled Style (Type 29) -

Cool, fast cutting on hard-to-grind metals. High stock removal, long life and flexibility.

Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
4 1/2"	7/8"	40	13,000	10	50117
		60			50118
		80			50119
4 1/2"	5/8"-11 Nut	40	13,000	10	50121*
		60			50122*
		80			50123*

*Patent # 6,945,863

Saber Tooth™ Phenolic Back - High Density - Flat Style (Type 27) -

Cool, fast cutting on hard-to-grind metals. Increased conformability and 30-40% longer life than standard flap discs.

Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
4-1/2"	7/8"	40	13,000	10	50130
		60			50131
		80			50132
4-1/2"	5/8"-11 Nut	40	13,000	10	50133*
		60			50134*
		80			50135*
7"	7/8"	40	8,600	10	50136
		60			50137
		80			50138
7"	5/8"-11 Nut	40	8,600	10	50139*
		60			50140*
		80			50141*

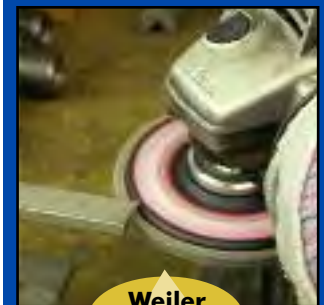
*Patent # 6,945,863



Weld blending on stainless steel with a Saber Tooth Abrasive Flap Disc.



50109



Weiler Innovation!

Weiler's Ceramic Alumina Flap Discs were the first line in the marketplace to include a trimmable backed disc, providing:

- Extended disc life.
- High flexibility which enables access to hard-to-reach areas such as right angles and irregular shapes.
- Non-marking backing will not damage the workpiece, resulting in less rework and scrap.

Saber Tooth™ Ceramic Alumina Flap Discs

High Density Abrasive Flap Discs



Blending and finishing edges of a flame-cut steel part.

**22%
MORE CLOTH**
than competitors'
high density
flap discs!

High Density Flap Discs - Due to their thickness and larger flaps, Weiler's made in the U.S.A., high density flap discs conform to curved and irregular surfaces while producing a consistent finish and a 30-40% longer life than standard flap discs.

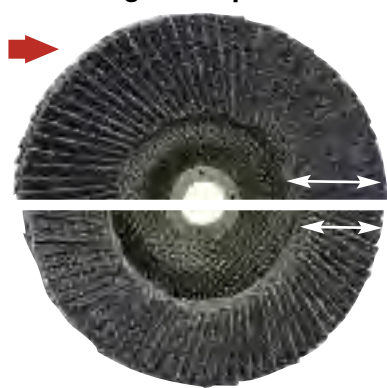
Applications

Provides increased conformability and long life when:

- Grinding and finishing in one step
- Weld blending
- Deburring
- Deflashing
- Edge chamfering
- Stock removal

**Weiler
Big Cat Flap Disc**

Larger flaps ensure more contact with the work surface, providing smoother grinding action and longer life.



**Competitor
High Density Flap Disc**

Features And Benefits

- **Enhanced conformability** helps reduce gouging and undercutting.
- **Thicker phenolic back** (more layers of fiberglass) than competitors, provides more stability for thicker cloth configuration.
- **Most flap area in the industry** – unique combination of flap count, height and width.
- **Longest lasting high density disc** – as much as 20% over top competitors discs.
- **Big Cat is well known in the industry** – ask for it by name for increased productivity, reduced operating costs and maximum disc life.
- **Weiler's 20 years of experience** producing flap discs has yielded our proprietary cloth which has a unique combination of grain, grain placement, size, make coats and woven backing material.
- **Made in the U.S.A.** – satisfaction guaranteed!

Big Cat® - High Density Flat Style (Type 27)
Increased conformability and maximum life.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number Phenolic Backing	
					Zirconia Alumina	Aluminum Oxide
4-1/2"	7/8"	40	12,000	10	50803	50763
		60			50804	50764
		80			50805	50765
		120			50806	50766
4-1/2"	5/8"-11 Nut	40	12,000	10	50808*	50768*
		60			50809*	50769*
		80			50810*	50770*
7"	7/8"	40	8,600	10	50823	50783
		60			50824	50784
		80			50825	50785
		120			50826	50786
7"	5/8"-11 Nut	40	8,600	10	50843*	50833*
		60			50844*	50834*
		80			50845*	50835*
		120			50846*	50836*

*Patent # 6,945,863

High Density Abrasive Flap Discs



50804



50765



NOTE

See adapters on page 106.

Trimmable Abrasive Flap Discs

Trimmable Tiger® Flap Discs - Durable and efficient, Weiler's made in the U.S.A., Trimmable Tiger is designed for hard-to-reach angles and increased life!

- The unique composite backing can be trimmed, exposing more abrasive material and extending disc life, resulting in lower grinding and finishing costs.
- The trimmable backing also allows for high flexibility, enabling the operator to access hard-to-reach areas such as right angles and irregular shapes, and grind on-edge without changing tools, increasing productivity.
- The non-marking backing will not damage the workpiece, resulting in less re-work and scrap.
- Like all Tiger Discs, the Trimmable Tiger aggressively removes stock while providing excellent finish consistency - all in one step.

Applications

- Grinding and finishing in one step
- Deburring
- Deflashing
- Edge chamfering
- Stock removal
- Weld blending

Trimmable Tiger Disc - Angled Style (Type 29)
High stock removal, long life and flexibility.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Zirconia Alumina
4-1/2"	7/8"	40	13,000	10	50002
		60			50003
		80			50004
		120			50005
4-1/2"	5/8"-11 Nut	40	13,000	10	50006*
		60			50007*
		80			50008*
		120			50009*
5"	7/8"	40	12,000	10	50010
		60			50011
		80			50012
		120			50013
5"	5/8"-11 Nut	40	12,000	10	50014
		60			50015
		80			50016
		120			50017

Weiler Innovation!

*Patent # 6,945,863

1st in the market to offer trimmable backed flap discs with Metal 5/8"-11 Nuts!

(Eliminates the possibility of cross-threading or nut sticking to spindle after use.)

Tech Note

Trimmable Backing For Extended Disc Life.

The Trimmable Tiger Disc's innovative design enables the operator to reduce the diameter of the backing to extend disc life. To trim backing, run against a sharp metal edge until desired backing diameter is achieved as shown at right.



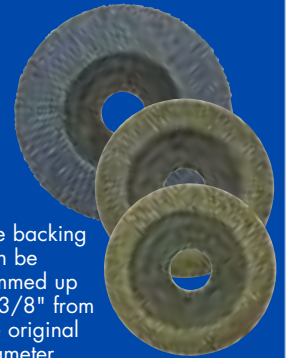
Trimmable Tigers are packaged in a convenient display box with a window and perforated sides for quick, easy opening and display.

DID YOU KNOW?

Trimmable Flap Discs are used in the construction and fabrication of the "Up-Armored" Humvees used by the United States Military.



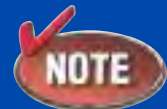
Grinding in corners just got easier with the flexibility of the Trimmable Tiger Disc!



The backing can be trimmed up to 3/8" from the original diameter, dramatically extending the life of the disc.



50002



Visit www.weilercorp.com to see a video demonstrating applications and advantages of our Trimmable Tiger Disc.

Trimmable Abrasive Flap Discs

Tiger® Disc Abrasive Flap Discs

#1 Seller

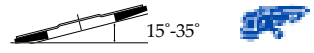
Original Tiger® Disc - Weiler's "made in U.S.A." Tiger Discs are the benchmark of the industry. They are designed for the serious industrial user who values both a high cut rate and long life.

Applications

- Grinding and finishing in one step
- Weld blending
- Deburring
- Deflashing
- Edge chamfering
- Stock removal

Removing rust, corrosion and pitting from the bevel end of pipe.

Tiger Disc - Angled Style (Type 29). Maximum aggression and long life.



Tiger® Disc Abrasive Flap Discs



50603



50513



50543

Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number		
					Phenolic Backing		Aluminum Backing
					Zirconia Alumina	Alum. Oxide	Zirconia Alumina
4"	5/8"	36	15,000	10	50592	50552	50502
		40			50593	50553	50503
		60			50594	50554	50504
		80			50595	50555	50505
		120			50596	50556	50506
		4-1/2"			7/8"	★24	13,000
36	50602	50562	50512				
40	50603	50563	50513				
60	50604	50564	50514				
80	50605	50565	50515				
120	50606	50566	50516				
4-1/2"	5/8"-11 Nut	★24	13,000	10	-	-	50510*
		36			-	-	50517*
		40			50608*	-	50518*
		60			50609*	-	50519*
		80			50610*	-	50520*
		120			-	-	50509*
5"	7/8"	★24	12,000	10	50611	50571	50521
		36			50612	50572	50522
		40			50613	50573	50523
		60			50614	50574	50524
		80			50615	50575	50525
		120			50616	50576	50526
6"	7/8"	40	10,200	10	50649	-	-
		60			50650	-	-
		80			50651	-	-
6"	5/8"-11 Nut	40	10,200	10	50659	-	-
		60			50660	-	-
		80			50661	-	-
7"	7/8"	★24	8,600	10	50621	50581	50531
		36			50622	50582	50532
		40			50623	50583	50533
		60			50624	50584	50534
		80			50625	50585	50535
		120			50626	50586	50536
7"	5/8"-11 Nut	★24	8,600	10	50641*	50631*	50541*
		36			50642*	50632*	50542*
		40			50643*	50633*	50543*
		60			50644*	50634*	50544*
		80			50645*	50635*	50545*
		120			50646*	50636*	50546*

*Patent # 6,945,863

★ When grinding steel and other ferrous materials, a 36 grit Tiger Disc is more productive than a 24 grit. 24 grit Tiger Discs are most productive when used on aluminum and other soft materials.

Weiler Innovation!

1st in the market to offer aluminum backed flap discs! (Strongest in the industry)

NOTE

See adapters on page 106.



Grit Size Selection

For Best Results: Use 1 grit size coarser than resin fiber disc.
Exception: 36 grit, use same size.

Tiger[®] Disc Abrasive Flap Discs

Tiger Disc - Flat Style (Type 27). Smooth grinding action and long life.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number Phenolic Backing	
					Zirconia Alumina	Aluminum Oxide
4"	5/8"	40	15,000	10	50693	50653
		60			50694	50654
		80			50695	50655
		120			50696	50656
4-1/2"	7/8"	40	13,000	10	50703	50663
		60			50704	50664
		80			50705	50665
		120			50706	50666
4-1/2"	5/8"-11 Nut	40	13,000	10	50708*	50668*
		60			50709*	50669*
		80			50710*	50670*
		120			50699*	50671*
5"	7/8"	40	12,000	10	50713	50673
		60			50714	50674
		80			50715	50675
		120			50716	50676
7"	7/8"	40	8,600	10	50723	50683
		60			50724	50684
		80			50725	50685
		120			50726	50686
7"	5/8"-11 Nut	40	8,600	10	50743*	50733*
		60			50744*	50734*
		80			50745*	50735*
		120			50746*	50736*

*Patent # 6,945,863

Adapting Nuts & Spanner Wrench - For use with Tiger, Vortec Pro and High Density Flap Discs.

Description	Thread Size	For Use With	Standard Pack	Item Number
Adapting Nuts	3/8" - 24	4" Flap Disc with 5/8" arbor hole (Can be used with an adjustable or combination wrench.)	1	56484
Adapting Nuts	5/8"-11	4-1/2", 5" & 7" Flap Discs with 7/8" arbor hole	1	56494
Spanner Wrench	-	Item No. 56494 only	1	56495

When mounting, adapters must be nested, see illustration below.



Flap Disc Adapting Nut Assembly



Removing heavy weld spatter while prepping surface for painting.



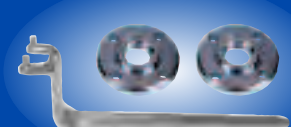
50664



50708



56494



56495

Tiger[®] Disc Abrasive Flap Discs

Tiger Paw™ Abrasive Flap Discs

Tiger Paw™ Flap Discs are designed for the user looking for aggressive performance and long life in heavy-duty applications like edge grinding.

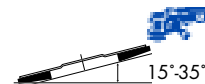
CHECK OUT THE VIDEO



- **100% zirconia alumina grain** is fast cutting with long life, resulting in fewer changeovers and increased productivity.
- **Superior grain retention** - lasts longer and maintains perfect cutting angle to provide excellent performance and sustained stock removal when grinding on-edge.
- **Engineered poly/cotton cloth** features excellent grain retention for maximum disc life.

New!

Tiger Paw - Phenolic Back - Angled Style (Type 29) - Aggressive action and long life; for heavy-duty applications on steel and stainless.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Zirconia Alumina
4"	5/8"	40	15,000	10	51104
		60			51105
4-1/2"	7/8"	36	13,000	10	51118
		40			51119
		60			51120
		80			51121
4-1/2"	5/8"-11 Nut	36	13,000	10	51123*
		40			51124*
		60			51125*
		80			51126*
5"	7/8"	40	12,000	10	51129
		60			51130
5"	5/8"-11 Nut	36	12,000	10	51153*
		40			51132*
		60			51133*
		80			51154*
7"	7/8"	40	8,600	10	51145
		60			51150
7"	5/8"-11 Nut	36	8,600	10	51149*
		40			51146*
		60			51147*
		80			51148*

*Patent # 6,945,863

Tiger Paw - Phenolic Back - Flat Style (Type 27) - Smooth action and long life; for heavy-duty applications on steel and stainless.



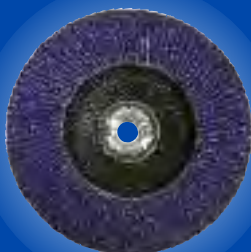
Diameter	Arbor Hole	Zirconia Alumina Grit Size	Max. RPM	Standard Pack	Item Number
4"	5/8"	40	15,000	10	51101
		60			51102
4-1/2"	7/8"	36	13,000	10	51107
		40			51108
		60			51109
		80			51110
4-1/2"	5/8"-11 Nut	36	13,000	10	51112*
		40			51113*
		60			51114*
		80			51115*
5"	7/8"	40	12,000	10	51134
		60			51135
5"	5/8"-11 Nut	36	12,000	10	51155*
		40			51156*
		60			51157*
		80			51158*
7"	7/8"	40	8,600	10	51137
		60			51138
7"	5/8"-11 Nut	36	8,600	10	51139*
		40			51140*
		60			51142*
		80			51143*

*Patent # 6,945,863

Beveling a pipe edge with a Tiger Paw Flap Disc.



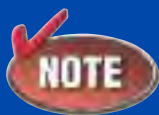
51118



51147



51115



See adapters on page 106.

Tiger Paw™ Abrasive Flap Discs

Tiger Paw™ Abrasive Flap Discs

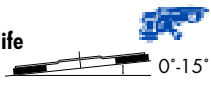


Weld blending on the corner of a security gate with a Tiger Paw XHD.

Tiger Paw™ Super High Density Flap Discs feature thicker and larger flaps that conform to curved and irregular shapes while producing a consistent finish. These high density flap discs are designed for the user looking for extended life and conformability in heavy-duty applications.

- **40% more abrasive cloth** than a standard flap disc.
- **100% zirconia alumina grain** provides superior edge grinding.
- **Engineered poly/cotton cloth** features excellent grain retention for maximum disc life.

Tiger Paw XHD - Super High Density - Phenolic Back - Flat Style (Type 27) - Extended life and conformability; for heavy-duty applications on steel and stainless steel.



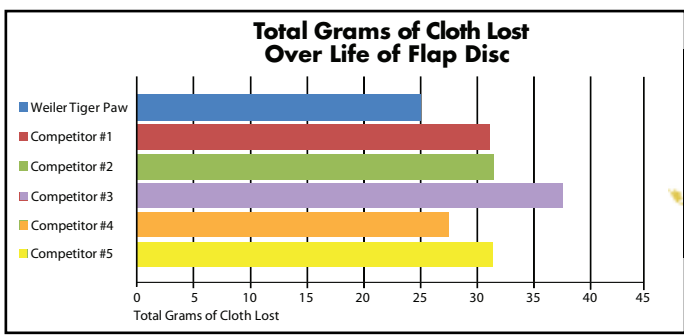
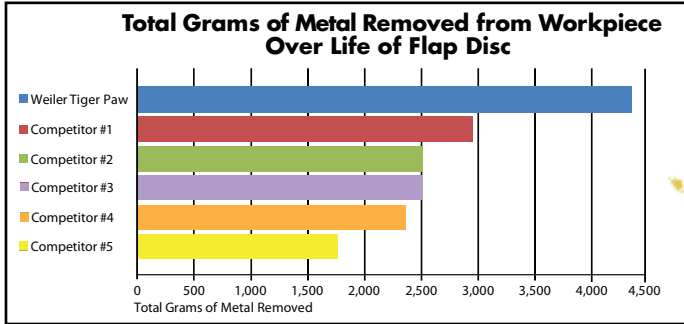
Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number Zirconia Alumina
4-1/2"	7/8"	36	12,000	10	51160
		40			51161
		60			51162
		80			51163
4-1/2"	5/8"-11 Nut	36	12,000	10	51164*
		40			51165*
		60			51166*
		80			51167*
7"	7/8"	40	8,600	10	51170
		60			51171
7"	5/8"-11 Nut	40	8,600	10	51168*
		60			51169*

*Patent # 6,945,863

When Performance Counts, Count On Weiler!

The following are the results of automated testing comparing the Weiler Tiger Paw 4-1/2" Type 29 standard density Flap Disc vs. five major manufacturers of flap disc products.

Reciprocating Flap Disc Machine - The angle grinder is mounted at a 15° angle and applies 15 pounds of weight to the 1/8" thick workpiece. The grinder moves back & forth over an 8" path and the flap disc and workpiece weights are taken every minute.



The Weiler Tiger Paw flap disc outperformed the competition in both material removal and life. More work and fewer changeovers increases productivity and reduces overall grinding and finishing costs.

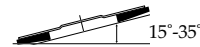


Tiger Paw™ Abrasive Flap Discs

Vortec Pro® Abrasive Flap Discs

Vortec Pro® Flap Discs - Made in the U.S.A., these flap discs are designed for the user looking for a high cut rate at a value price (maintains similar cut rate as original Tiger® Discs).

Vortec Pro® - Angled Style (Type 29) - High cut rate at a value price.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number	
					Phenolic Backing	Aluminum Backing
					Zirconia Alumina	Zirconia Alumina
4"	5/8"	36	15,000	10	31337 ■	31301 ■
		40			31338	31302
		60			31339 ■	31303 ■
		80			31340 ■	31304 ■
		120			31341	31305
4-1/2"	7/8"	★24	13,000	10	31342	31306
		36			31343 ■	31307 ■
		40			31344	31308
		60			31345 ■	31309 ■
		80			31346 ■	31310 ■
120	31347	31311				
4-1/2"	5/8"-11 Nut	★24	13,000	10	31348*	31312*
		36			31349*	31313*
		40			31350*	31314*
		60			31351*	31315*
		80			31352*	31316*
120	31353*	31317*				
5"	7/8"	★24	12,000	10	31354	31318
		36			31355	31319
		40			31356	31320
		60			31357	31321
		80			31358	31322
120	31359	31323				
7"	7/8"	★24	8,600	10	31360	31324
		36			31361 ■	31325 ■
		40			31362	31326
		60			31363 ■	31327 ■
		80			31364 ■	31328 ■
120	31365	31329				
7"	5/8"-11 Nut	★24	8,600	10	31366*	31330*
		36			31367*	31331*
		40			31368*	31332*
		60			31369*	31333*
		80			31370*	31334*
120	31371*	31335*				

*Patent # 6,945,863 ★ When grinding steel and other ferrous materials, a 36 grit Vortec Pro flap disc is more productive than a 24 grit. 24 grit Vortec Pro flap discs are most productive when used on aluminum and other soft materials.

■ Available in display pack. See page 172 for details.

Vortec Pro® - Flat Style (Type 27) - Smooth grinding action at a value price.



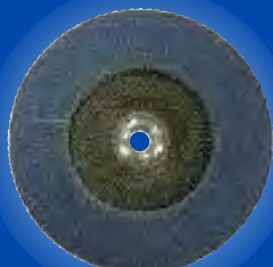
Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Phenolic Backing
					Zirconia Alumina
4-1/2"	7/8"	36	13,000	10	31401
		40			31402
		60			31403
		80			31404
4-1/2"	5/8"-11 Nut	36	13,000	10	31407*
		40			31408*
		60			31409*
		80			31410*
7"	7/8"	36	8,600	10	31413
		40			31414
		60			31415
		80			31416
7"	5/8"-11 Nut	36	8,600	10	31419*
		40			31420*
		60			31421*
		80			31422*

*Patent # 6,945,863

Grinding welds on a fabricated steel part.



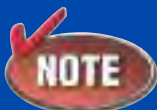
31350



31369



31402



See adapters on page 106.

Vortec Pro® Abrasive Flap Discs

High Density Abrasive Flap Discs



Vortec Pro® - High Density Flat Style (Type 27)
Increased conformability at a value price.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number	
					Phenolic Backing	Zirconia Alumina
4-1/2"	7/8"	40	12,000	10	31387	
		60			31388	
		80			31389	
4-1/2"	5/8"-11 Nut	40	12,000	10	31390*	
		60			31391*	
		80			31392*	

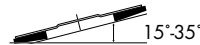
*Patent # 6,945,863

Blending and finishing edges of a flame-cut steel part.



31390

Vortec Pro® - Display Packaged - Angled Style (Type 29) -
Standard performance on steel and stainless.



Diameter	Arbor Hole	Grit Size	Max. RPM	Item Number	
				Phenolic Backing	Aluminum Backing
				Zirconia Alumina	Zirconia Alumina
4"	5/8"	36	15,000	30822	-
		40		30825	-
		60		30826	-
4"	5/8"-11 Nut	36	15,000	-	30821
		60		-	30823
		80		-	30824
4-1/2"	7/8"	36	13,000	30828	-
		60		30831	-
		80		30832	-
4-1/2"	5/8"-11 Nut	36	13,000	-	30827
		40		-	30829
		60		-	30830



30831

High Density Abrasive Flap Discs

DID YOU KNOW?

Weiler was the first manufacturer of Abrasive Flap Discs in the U.S.A.

BobCat™ Mini Flap Discs

BobCat™ Mini Flap Discs - Weiler's made in the U.S.A. BobCats are designed for use on right angle die grinders, providing smooth grinding and enhanced conformability in tight areas.

Applications

- Grinding and finishing in one step
- Grinding, deburring and blending on steel, stainless steel and other metals
- Jobs requiring high aggression and rapid stock removal
- Metal fabrication requiring light weld blending or edge chamfering

Outlasts Blending Discs 19 to 1!

BobCat Mini Flap Discs - Zirconia Alumina Grain - Plastic Backing
Ideal for tight spaces and in heavy-duty applications where blending discs do not hold up.



Diameter	Grit Size	Max. RPM	Standard Pack	Item Number	
				Type 29	Type 27
2"	36	30,000	10	50922	50932
	40			50923	50933
	60			50924	50934
	80			50925	50935
	120			50926	50936
3"	36	20,000	10	50902	50912
	40			50903	50913
	60			50904	50914
	80			50905	50915
	120			50906	50916

Patent #5,951,389

BobCat Drive Mandrel - For mounting BobCat Discs without a backing pad.

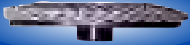
Description	Standard Pack	Item Number
For mounting 2" & 3" BobCats on tools with 1/4" collets	1	07766

3" BobCats can also be mounted on Norton Speed-Lok® TS back-up pads and Weiler metal hub pad #60509. Speed-Lok® TS is a registered trademark of Norton Co.

DID YOU KNOW?

Our website features a Distributor Locator to make it easy to find Weiler products in your area.

Surface blending with a BobCat disc in a tight area.



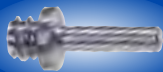
Type 29



Type 27



50914



07766

Resin Fiber Discs

Resin Fiber Discs - These fiber backed, coated abrasive discs are for use on right angle grinders. Weiler's line of premium resin fiber discs are suitable for light grinding, blending, surface preparation and finishing on a variety of materials.

Applications

■ Saber Tooth™

Ceramic Alumina:
Cool, fast cutting action on aluminum, stainless steel and other hard-to-grind metals.

■ Zirconia Alumina:

High performance grinding of stainless steel, tool steel and hard-to-grind materials.

■ Aluminum Oxide:

All purpose weld blending, grinding, surface preparation and finishing of metals, plastic, wood and fiberglass.

Saber Tooth Resin Fiber Discs - Ideal for aluminum and stainless steel.

Dissipates Heat



Diameter	Arbor Hole	Grit Size	Standard Pack	Item No. - Ceramic Alumina
4-1/2"	7/8"	24	25	59550
		36		59551
		50		59552
		60		59553
		80		59554
5"	7/8"	24	25	59557
		36		59558
		50		59559
		60		59560
		80		59561
7"	7/8"	24	25	59564
		36		59565
		50		59566
		60		59567
		80		59568

Resin Fiber Discs - Ideal for blending, finishing and surface preparation.



Diameter	Arbor Hole	Grit Size	Standard Pack	Item Number	
				Zirconia Alumina	Aluminum Oxide
4"	5/8"	24	25	-	59491
		36		-	59492
		50		-	59493
		60		-	59494
		80		-	59495
		120		-	59497
4-1/2"	7/8"	24	25	59731	59571
		36		59732	59573
		50		59733	59575
		60		-	59576
		80		59735	59577
		100		-	59578
5"	7/8"	120	25	-	59579
		16		-	59500
		24		59701	59501
		36		59702	59503
		50		59703	59505
		60		-	59506
7"	7/8"	80	25	59705	59507
		100		-	59508
		120		-	59509
		16		59710	59520
		24		59711	59521
		36		59712	59523
9"	7/8"	50	25	59713	59525
		60		59714	59526
		80		59715	59527
		100		-	59528
		120		-	59529
		16		-	59540
9"	7/8"	24	25	-	59541
		36		59722	59543
		50		-	59545
		60		-	59546

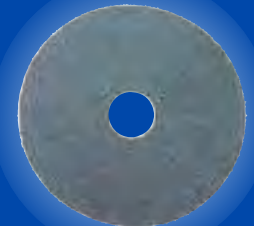
Do not exceed maximum RPM of back-up pad.



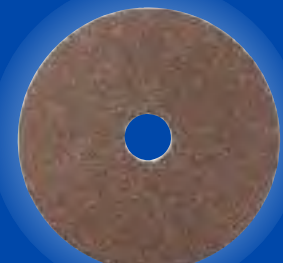
Blending welds on the corner of a steel furniture frame.



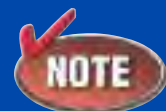
59557



59732



59503



See back-up pads on page 113.

Resin Fiber Discs

AL-tra CUT™ Discs - For Grinding Aluminum

AL-tra CUT™ Discs - Specially formulated for superior grinding performance on aluminum, **AL-tra CUTs improve grinding on aluminum 400-800%!** These revolutionary discs resist loading, ensure higher cut rates, prolong disc life and achieve a superior finish compared to conventional sanding/grinding discs in the market. AL-tra CUT Discs replace conventional resin fiber discs 5 to 1 or more.

Applications

For aluminum applications such as:

- Weld blending
- Grinding
- Deburring
- Finishing

AL-tra CUT Performance



Weiler's exclusive AL-tra CUT Discs resist loading when grinding aluminum, ensuring constant grain contact with the work surface.



Conventional resin fiber discs load when grinding aluminum. This prevents the abrasive grain from contacting the work surface and dramatically decreases performance.

2" & 3" AL-tra CUT Discs - Aluminum Oxide

Diameter	Grit Size	Standard Pack	Item Number	
			Plastic Button*	Metal Hub ⁺
2"	36	50	59806	59869
	60		59807	59870
	80		59808	59871
	120		59809	59872
3"	36	25	59811	59874
	60		59812	59875
	80		59813	59876
	120		59814	59877
2" & 3" Back-up Pads - 1/4" stem				
Diameter	Max. RPM	Std. Pack	Plastic Button	Metal Hub
2"	25,000	1	51551	60508
3"	20,000	1	51552	60509

Do not exceed maximum RPM of back-up pad.

Do not store AL-tra CUT Discs above 120° F.

* Compatible with 3M Roloc™ back-up pads. (Roloc™ is a trademark of 3M.)

+ Compatible with Norton Speed-Lok® TS back-up pads. (Speed-Lok® TS is a registered trademark of Norton Co.)

4-1/2" & 7" AL-tra CUT Discs - Aluminum Oxide

Diameter	Arbor Hole	Grit Size	Standard Pack	Item Number
4-1/2"	7/8"	36	25	59821
		60		59823
		80		59824
		120		59826
7"	7/8"	36	25	59862
		60		59864
		80		59865
		120		59867

Do not exceed maximum RPM of back-up pad.

Do not store AL-tra CUT Discs above 120° F.

Accessories for Resin Fiber & AL-tra CUT Discs

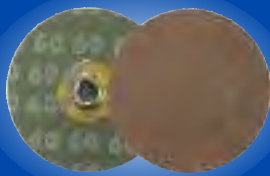
Description	Thread Size	Max. RPM	Standard Pack	Item Number
4" Back-up Pad	5/8"-11*	12,000	1	59605
4-1/2" Back-up Pad	5/8"-11*	11,000	1	59611
5" Back-up Pad	5/8"-11*	10,000	1	59600
7" Back-up Pad	5/8"-11	8,500	1	59601
9" Back-up Pad	5/8"-11	6,500	1	59602
Spanner Wrench	-	-	1	59603
Disc Nut	5/8"-11	-	1	59604

*Other thread sizes available on special orders.

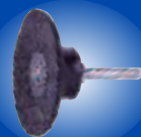
Blending welds and saw marks on a mounting bracket.



59806



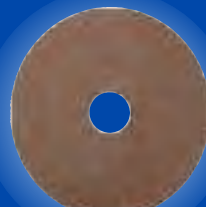
59875



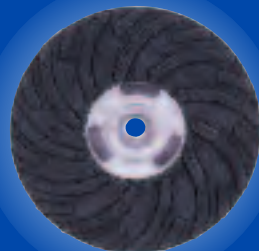
51552



60508



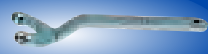
59821



59601



59604



59603

AL-tra CUT™ Discs - For Grinding Aluminum

Blending Discs

Blending Discs - These cloth backed, coated abrasive discs are for use on right angle air tools. Available with either a metal hub or a plastic button fastening system, the flexible back-up pads give the discs a great deal of conformability. Weiler's blending discs are suitable for a wide range of light fabrication, repair and maintenance applications.

Applications

■ **Saber Tooth™ Ceramic Alumina:**
Cool, fast cutting action on aluminum, stainless steel and other hard-to-grind metals.

■ **Zirconia Alumina:**
High performance blending of stainless steel, tool steel and hard-to-grind materials.

■ **Aluminum Oxide:**
All purpose blending or finishing metal surfaces, light weld removal, removing handling marks, surface imperfections and mill marks.

Saber Tooth™ Ceramic Alumina Blending Discs -

For aluminum, stainless and other hard-to-grind metal applications.

Compatible with Norton Speed-Lok® TS back-up pads.

Compatible with 3M Roloc™ back-up pads.

Dissipates Heat

Diameter	Grit Size	Standard Pack	Item Number	
			Metal Hub	Plastic Button
2"	36	100	60150	60170
	60		60151	60171
	80		60152	60172
3"	36	50	60155	60175
	60		60156	60176
	80		60157	60177

Blending Discs - Metal Hub Style - Compatible with Norton Speed-Lok® TS back-up pads.

Diameter	Grit Size	Standard Pack	Item Number	
			Zirconia Alumina	Aluminum Oxide
2"	36	100	60378	60040
	60		60381	60043
	80		60382	60044
	120		60384	60046
3"	36	50	60391	60053
	60		60394	60056
	80		60395	60057
	120		60397	60059

Blending Discs - Plastic Button Style - Compatible with 3M Roloc™ back-up pads.

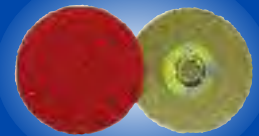
Diameter	Grit Size	Standard Pack	Item Number
			Aluminum Oxide
2"	36	100	60118
	60		60121
	80		60122
	120		60124
3"	36	50	60131
	60		60134
	80		60135
	120		60137

Back-up Pads - 1/4" Stem

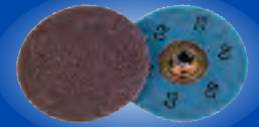
Diameter	Max. RPM	Standard Pack	Metal Hub Style	Plastic Button Style
2"	25,000	1	60508	51551
3"	20,000	1	60509	51552

Do not exceed maximum RPM of back-up pad.
(Speed-Lok® TS is a registered trademark of Norton Co.) (Roloc™ is a trademark of 3M.)

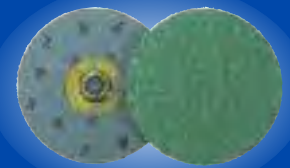
Blending surface imperfections prior to painting.



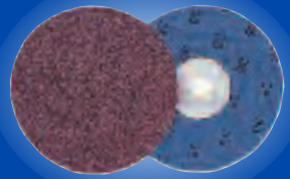
60150



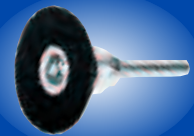
60044



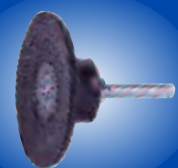
60391



60131



60508



51552

Blending Discs

TRIM-KUT® Discs



Deburring and chamfering a section of pipe after cutting.



59300



59403



59327

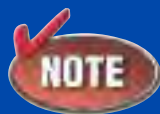


59326

56485



56496



If you are using a blending disc or TRIM-KUT Disc, ask our Application Engineering Department if Weiler's BobCat Abrasive Flap Discs can enhance your productivity. BobCats dramatically outperform blending and TRIM-KUT Discs by reducing changeovers and providing consistently high cut rates and extended life. See page 107 for more information.

TRIM-KUT® Discs - Trim-Kuts are abrasive discs designed for light grinding and blending applications on a variety of materials. The abrasive grains are fused directly onto a wearable polymer backing, resulting in a disc that requires no back-up pad. The polymer backing trims during use to expose new grains to the work surface. 3" discs are designed for use on right angle air die grinders, and 4-1/2" discs are for use on right angle grinders.

Applications

- Edge blending
- Light weld and stock removal
- Preparation for painting and surface finishing
- Deburring

TRIM-KUT Discs - Aluminum Oxide



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
3"	5/16" - 18	36	21,000	25	59300
		60			59305
		120			59315

Do not use TRIM-KUT discs in temperatures lower than 48° fahrenheit. Store at 50% relative humidity.

TRIM-KUT Discs - Aluminum Oxide



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
4-1/2"	7/8"	36	13,000	25	59403
		60			59404
		120			59405

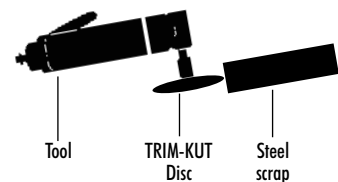
Do not use TRIM-KUT discs in temperatures lower than 48° fahrenheit. Store at 50% relative humidity.

TRIM-KUT Adapters

Description	For Use With	Standard Pack	Item Number
1/4" Mandrel	3" TRIM-KUT Discs	25	59327
3/8"-24 UNF Adapter	3" TRIM-KUT Discs	25	59326
Adapting Nuts	4-1/2" TRIM-KUT Discs	1	56485
Spanner Wrench	Item No. 56485 only	1	56496



Extend disc life 2-3 times.
Renew TRIM-KUT's sharp cutting edge by running the edge against a clamped piece of steel scrap.



Coated Abrasive Flap Wheels

Flap Wheels are designed with a solid hub construction that:

- Enables flap wheels to be rated at higher RPM's, providing more aggressive cutting action and increased productivity.
- Provides perfect balance leading to smooth, chatter-free finishing.

Applications

- Final finishing metal surfaces
- Blending and finishing dies, molds, tools, tubing, and channels
- Finish prior to painting or plating
- Deburring and mis-match removal on machined parts
- Smoothing metal, plastics and wood
- Cleaning
- Edge blending

Tiger® Mounted Flap Wheels - 1/4" Stem - Aluminum Oxide. A premium line designed to provide long life. Ideal for medium to high production environments.

Diameter	Width	Grit Size	Max. RPM	Standard Pack	Item Number
1"	1"	60	30,000	10	52003
		80			52004
		120			52005
1-1/2"	1/2"	60	25,000	10	52226
		80			52227
		120			52229
1-1/2"	1"	60	25,000	10	52009
		80			52010
		120			52011
2"	1/2"	60	25,000	10	52366
		80			52367
		120			52369
2"	1"	60	25,000	10	52015
		80			52016
		120			52017
2-1/2"	1"	60	23,000	10	52486
		80			52487
		120			52489
3"	1/2"	60	23,000	10	52024
		80			52025
		120			52026
3"	1"	60	23,000	10	52027
		80			52028
		120			52029

Tiger® Mounted Flap Wheels - 1/4"-20 Threaded Stem - Aluminum Oxide

Diameter	Width	Grit Size	Max. RPM	Standard Pack	Item Number
1"	1"	60	30,000	10	52601
		80			52603
		120			52605
2"	1"	60	25,000	10	52611
		80			52613
		120			52615
3"	1"	60	20,000	10	52621
		80			52623
		120			52625

Drive Arbor - For 1/4"-20 Mounted Flap Wheels

Thread Size	Adapted Size	Standard Pack	Item Number
1/4"-20	1/4"	5	07756

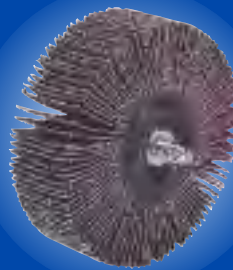
Deburring perforated steel channel after saw-cut.



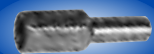
52010



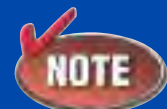
52027



52621



07756



- Drive arbor is used individually and must be ordered individually.
- Drive arbor is to be used with Weiler flap wheels only.
- Stems must be fully chucked before using and should not be run above the maximum RPM listed.

Coated Abrasive Flap Wheels

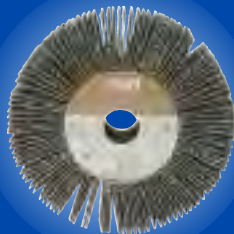
Coated Abrasive Flap Wheels



Removing burrs from the inside diameter of a cut tube.



30726



53166



53286



03834

Coated Abrasive Flap Wheels

Vortec Pro® Mounted Flap Wheels - 1/4" Stem - Aluminum Oxide

Provide fast cutting action at a value price. Ideal for low to medium production environments.

Diameter	Width	Grit Size	Max. RPM	Standard Pack	Item Number
1"	1"	60	30,000	10	30720
		80			30721
		120			30722
2"	1"	60	25,000	10	30723
		80			30724
		120			30725
3"	1"	60	23,000	10	30726
		80			30727
		120			30728

Tiger® Unmounted Flap Wheels - Aluminum Oxide

Diameter	Width	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
4"	1"	5/8"	60	9,000	10	53166
			80			53167
			120			53169
6"	1"	1"	50	6,000	5	53285
			60			53286
			80			53287
			120			53289
			53288			
6"	1-1/2"	1"	50	5,700	4	53305
			60			53306
			80			53307
			120			53309
			53308			
6"	2"	1"	50	5,700	3	53325
			60			53326
			80			53327
			120			53329
			53328			

Metal Adapters - For Unmounted Flap Wheels. Used in pairs and priced per pair.

Wheel Arbor Hole Size	Adapted Arbor Hole Size	Standard Pack	Item Number
1"	1/2"	1	03833
	5/8"		03834
	3/4"		03835

DID YOU KNOW?

Weiler products were used in the construction of the 'Oasis of the Sea', the world's largest ocean liner.

Coated Abrasive Belts

Coated Abrasive Belts - Enhance productivity and lower operating costs with our wide assortment of coated abrasive belts in sizes ranging from 1/4" x 18" to 6" x 132". We also have the ability to provide custom made belts in sizes, backings and grains for specialized applications.

Portable File Belts



Size (Width x Length)	Grit Size	Standard Pack	Item Number	
			Zirconia Alumina	Aluminum Oxide
1/4" x 18"	80	10	68524	67023
1/4" x 24"	60	10	68541	67040
	80		68542*	67041
	120		-	67043
3/4" x 18"	40	10	68575	67074
	60		68577	67076
	80		68578	67077
	120		-	67079
1/2" x 24"	36	10	68592	67091
	40		68593	67092
	50		68594	67093
	60		68595	67094
	80		68596	67095
	100		-	67096
	120		-	67097
3/4" x 20-1/2"	40	10	68629	67128
	50		68630	67129
	60		68631	67130
	80		68632	67131
	100		-	67132
	120		-	67133
1" x 12"	60	10	68649	67148
	80		68650	67149
	120		-	67151
1" x 30"	60	10	68667	67166
	80		68668	67167
	120		-	67169

Portable Belts



Size (Width x Length)	Grit Size	Standard Pack	Item Number	
			Zirconia Alumina	Aluminum Oxide
3" x 18"	60	10	-	67488
	80		-	67489
	120		-	67491
3" x 21"	40	10	69005	67504
	50		69006	67505
	60		69007	67506
	80		69008	67507
	100		-	67508
	120		-	67509
3" x 24"	36	10	69040	67539
	40		69041	67540
	50		69042	67541
	60		69043	67542
	80		69044	67543
	100		-	67544
	120		-	67545
3-1/2" x 15-1/2"	60	10	-	67614
	80		-	67615
	120		-	67617
4" x 21-3/4"	60	10	-	67632
	80		-	67633
	100		-	67634
	120		-	67635
4" x 24"	36	10	69148	67647
	40		69149	67648
	50		69150	67649
	60		69151	67650
	80		69152	67651
	100		-	67652
	120		-	67653

*Standard Pack 50



Blending a weld using a portable file belt.



68524



67091



68650



69008



67614



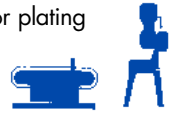
69152

Coated Abrasive Belts

Coated Abrasive Belts

Applications

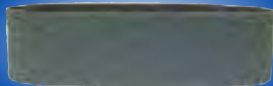
- Decorative finishing of metal surfaces
- Smoothing metal, plastic & wood
- Grinding, deburring and flash removal on saw-cut parts
- Removing tool marks & forging scale
- Edge blending
- Finishing prior to painting or plating
- Grinding gates off castings



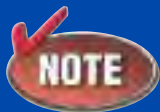
Blending parting lines on a grey iron casting.



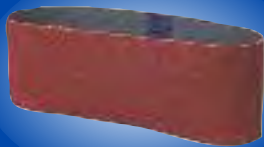
68828



69166



Saber Tooth™ Ceramic Belts also available! Contact Customer Service at 800-835-9999 for available sizes and grits.



Benchstand/Backstand Belts

Size (Width x Length)	Grit Size	Standard Pack	Item Number		
			Zirconia Alumina	Aluminum Oxide	
1" x 42"	40	10	68683	67182	
	60		68685	67184	
	80		68686	67185	
	100		-	67186	
	120		-	67187	
1" x 132"	36	10	68718	67217	
	40		68719	67218	
	60		68721	67220	
	80		68722	67221	
	100		-	67222	
2" x 60"	60	10	68828	67327	
	80		68829	67328	
	120		-	67330	
2" x 118"	40	10	68879	67378	
	60		68881	67380	
2" x 132"	24	10	68895	67394	
	36		68896	67395	
	40		68897	67396	
	50		68898	67397	
	60		68899	67398	
	80		68900	67399	
	100		-	67400	
	120		-	67401	
2-1/2" x 60"	36	10	68950	67449	
	40		68951	67450	
	50		68952	67451	
	60		68953	67452	
	80		68954	67453	
	100		-	67454	
	120		-	67455	
3" x 132"	24	10	69075	67574	
	36		69076	67575	
	40		69077	67576	
	50		69078	67577	
	60		69079	67578	
	80		69080	67579	
	100		-	67580	
	120		-	67581	
	150		-	67582	
	180		-	67583	
	220		-	67584	
	240		-	67585	
	320		-	67586	
4" x 36"	36	10	69166	67665	
	40		69167	67666	
	50		69168	67667	
	60		69169	67668	
	80		69170	67669	
	100		-	67670	
	120		-	67671	
4" x 132"	24	10	69291	67790	
	36		69292	67791	
	40		69293	67792	
	50		69294	67793	
	60		69295	67794	
	80		69296	67795	
	100		-	67796	
	120		-	67797	

Note: Other belt sizes available by special order.

Coated Abrasive Belts & Shop Rolls



Polishing the O.D. of a part turning in a lathe.

Benchstand/Backstand Belts



Size (Width x Length)	Grit Size	Standard Pack	Item Number	
			Zirconia Alumina	Aluminum Oxide
6" x 48"	36	10	69346	67845
	40		69347	67846
	50		69348	67847
	60		69349	67848
	80		69350	67849
	100		-	67850
	120		-	67851
	150		-	67852
6" x 60"	36	10	69382	67881
	40		69383	67882
	50		69384	67883
	60		69385	67884
	80		69386	67885
	120		-	67853
6" x 132"	36	10	69400	67899
	40		69401	67900
	50		69402	67901
	60		69403	67902
	80		69404	67903
	120		-	67905

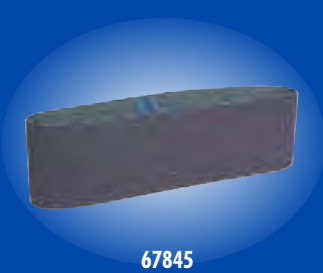
Shop Rolls - Weiler's Shop Rolls are resin over resin bonded - providing a stronger, heat and moisture resistant bond that better utilizes the abrasive grains. The cotton cloth provides a tougher, durable backing for longer life. J-flex cloth provides a higher degree of flexibility to conform to contoured parts.

Applications

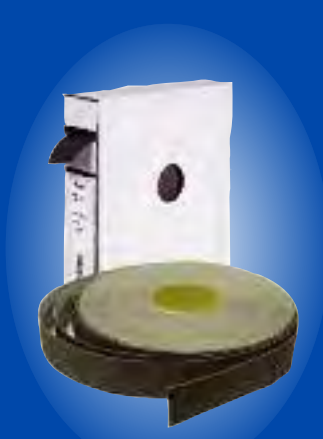
- Off-hand polishing of metal surfaces
- General purpose machine shop use
- Off-hand deburring
- Cleaning stock that is being turned in a lathe

Shop Rolls - Aluminum Oxide - 50 Yards. One roll per box.

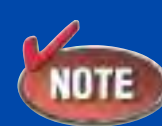
Roll Width	Grit Size	Standard Pack	Item Number		
1"	50	1	65204		
	60		65205		
	80		65206		
	100		65207		
	120		65208		
	150		65209		
	180		65210		
	240		65212		
	320		65213		
	1-1/2"		50	1	65217
			60		65218
80		65219			
100		65220			
120		65221			
150		65222			
180		65223			
240		65225			
320		65226			
2"		50	1		65230
		60			65231
	80	65232			
	100	65233			
	120	65234			
	150	65235			
	180	65236			
	240	65238			
	320	65239			



67845



65204



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

Coated Abrasive Belts & Shop Rolls

Bonded Abrasive Technical Information

Vortec Pro® Bonded Abrasives - Specifically designed for general purpose grinding & cutting applications requiring heavy material removal such as rough grinding, weld removal, snagging, cutting and parting. All product is resin bond formulated for aggressive stock removal and fast cutting and are reinforced with fiberglass webbing for stability.



Grinding

Type 27 Products:

These products range from 4" to 9" diameter and are available in 1/4" thick for grinding and 1/8" thick for light grinding. Type 27 Wheels are offered in aluminum oxide, silicon carbide or zirconia alumina grain with a 5/8"-11 hub option.

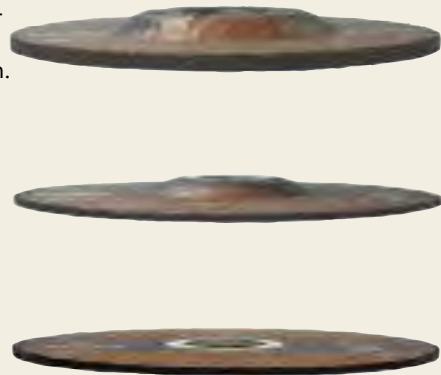
Cutting

Type 27 Products:

Type 27 Wheels are offered in .045", .060", 3/32" and 1/8" wheel thicknesses. Diameters range from 4" to 9" and are available in aluminum oxide, silicon carbide or zirconia alumina grain, with an option of a 5/8"-11 hub.

Type 1 Products:

This product category includes wheels ranging from 2" to 14" diameter in various thicknesses and grit sizes in aluminum oxide, silicon carbide or zirconia alumina grain. Type 1 Wheels are for use on right angle grinders, electric or air die grinders, tool room grinders, circular saws, stationary saws, chop saws and high speed portable gas and electric saws and walk-behind machines.



Safety



Abrasive users and others in area must wear goggles or face shields over safety glasses. Safety guards must be used. Do not exceed maximum RPM.

Bonded Abrasives Safety Guide - For complete and detailed safety information see ANSI safety code B7.1.

— DO —

1. ALWAYS handle and store wheels in a careful manner.
2. ALWAYS visually inspect all wheels before mounting for possible damage.
3. ALWAYS make sure operation speed established for machine does not exceed wheel speed.
4. ALWAYS check mounting flanges for equal and correct diameter.
5. ALWAYS use mounting blotters when supplied with wheels.
6. ALWAYS keep grinder work rest properly adjusted within 1/8" of wheel face.
7. ALWAYS wear safety glasses or some type of eye protection equipment.
8. ALWAYS use a safety guard covering at least one-half of the wheel diameter.
9. ALWAYS allow newly mounted wheels to run at operation speed, with guard in place, for at least one minute before applying to workpiece.

1. DON'T use a wheel that has been dropped.
2. DON'T force a wheel onto the spindle or alter the hole size of the wheel.
3. DON'T use a wheel that fits the arbor too loosely.
4. DON'T exceed maximum operation speed established for the wheel.
5. DON'T use dirty, nicked, warped or sprung mounting flanges.
6. DON'T tighten the mounting nut excessively.
7. DON'T grind on the side of the wheel unless the wheel is specifically designed for that purpose.
8. DON'T start machine without safety guard in place.
9. DON'T jam work into the wheel.
10. DON'T stand directly in front of a grinding wheel whenever a grinder is started.
11. DON'T grind or cut material for which the wheel is not designed.
12. DON'T grind or cut without proper ventilation.

— DON'T —

Bonded Abrasive Technical Information

Bonded Wheel General Operating Recommendations

Fixture the work-piece

to minimize wheel contact area for a faster, cooler cut.



Incorrect
(Wide contact point)



Correct
(Two small contact points)

Use an oscillating head

when cutting thicker cross sections (over 3"). This reduces arc of contact and permits larger sections to be cut with a given diameter wheel.



Counter rotation of the work-piece

is recommended for cutting large cross sections (over 8") and when cutting tubular stock.



■ To maximize performance, run at or close to the Maximum Safe Free Speed or RPM. NEVER EXCEED the MSFS or RPM.

■ For maximum wheel life, select the coarsest, hardest wheel that will perform the cut.

■ How to determine proper wheel wear:

Convex wheel wear is a sign of proper wheel usage.

Pointed wheel wear is a sign of improper usage. Wheel is too hard for application or feed rate is too slow for application.

Bonded Wheel Product Selection

Grain/Grit/Grade Guide

Grain	WA	White Aluminum Oxide: Longer wheel life on all metals except titanium & ductile iron
	A	Aluminum Oxide: for use on all metals except titanium and ductile iron
	C	Silicon Carbide: for use on non-metallics, titanium, ductile iron & stone
	Z	Zirconia Alumina: for higher cut rates in high pressure applications (Type 27 only)
Grit	16	Extra Coarse: for fast, aggressive cutting and maximum wheel life
	24	Coarse: for fast, aggressive cutting and maximum wheel life
	30	Medium/Coarse: for fast cutting and long wheel life
	36	Medium/Coarse: excellent for general purpose cutting
	46	Fine/Medium: for a smoother finish and reduced burr
	60	Fine: for a burr-free cut
Grade	S-V	Hard: for maximum wheel life
	R	Medium/Hard: for cutting large cross sections; improved stock removal rate
	N	Soft: for maximum cut rate

Thickness Guide

1/4"	Grinding Only
1/8"	Light Grind & Cut
3/32"	Cutting Only
1/16"	Cutting Only
.045"	Cutting Only
.040"	Cutting Only
.035"	Cutting Only

Application Guide

A24N	Aluminum Oxide - Fast Cut - Ideal for use on hard welds and steel, stainless steel, and in low pressure, large contact grinding where the harder wheel grade (R) dulls or glazes.
A24R	Aluminum Oxide - Long Life - Offers longer life than the softer wheel grade (N). Ideal for all general purpose grinding on structural steel, or in foundries or heavy fabrication applications.
Z24T	High Performance Zirconia Alumina - Offers improved cut rate in high pressure applications. Ideal when grinding or cutting stainless steel, high carbon steel, cast iron and other metals.
C24R	High Performance Silicon Carbide - Offers an excellent cut rate on concrete, stone and non-ferrous metals.

Bonded Abrasive Technical Information

Application Solutions Guide

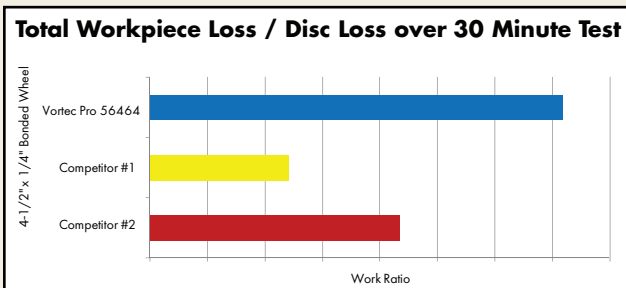
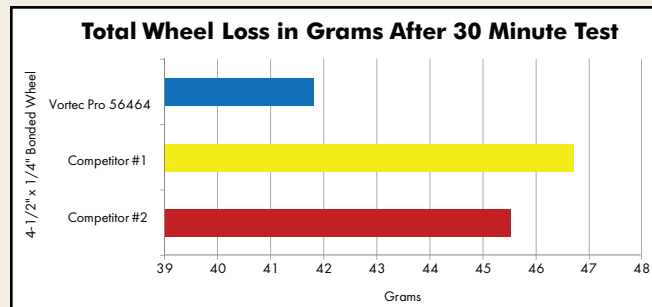
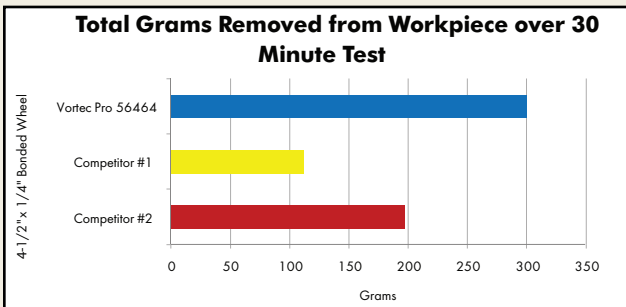
There are many variables in using Cut-Off Wheels. If the product you are using does not accomplish the desired results, select a solution from the suggestions below for your specific application or call Weiler's **Application Engineering Hotline at 888-299-2777**.

Problem	Possible Cause	Recommended Solution
Slow cut rate	• Insufficient power being used	• Increase feed rate; run machine at full power
	• Contact area too large	• Reduce contact area
	• Side run out	• Check for spindle run out
	• Wheel binding	• Provide relief under part
Workpiece burn	• Insufficient feed rate	• Increase feed rate
	• Wheel speed too slow	• Check for wheel slippage
	• Wheel too coarse	• Use finer grit or increase power
Non-square cuts	• Work not properly fixtured	• Support both sides and fixture properly
	• Worn spindle bearings	• Check spindle
Too much burr	• Improper fixturing	• Check part fixturing
	• Grit too coarse	• Use a finer grit

Lab Testing Results

Item(s) Tested: 4-1/2" x 1/4" x 7/8" Bonded Grinding/Cutting Wheels in A24R

The following are the results of an automated test comparing the Weiler Vortec Pro Type 27 4-1/2 X 1/4" general purpose grinding wheel vs. two major manufacturers of general purpose bonded products. The test involved grinding for 30 minutes on mild steel bar stock.

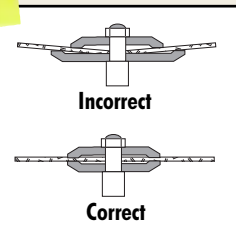


As you can see from this data, the Vortec Pro #56464 Grinding Wheel removed more total material from the workpiece while losing less gram mass than the competition. Combining the higher workpiece removal with the least disc loss makes the Vortec Pro product the obvious choice for your bonded abrasive applications.

Tech Note

Storage and Handling:

- Handle bonded product in a manner to prevent dropping or bumping.
- Do not roll wheels
- Use trucks or other appropriate conveyances to provide support and protection in transporting all bonded products that cannot be carried by hand.
- Store in suitable racks, bins or drawers.
- Store in a dry area not subject to extreme temperature changes. Some bonded product may be affected by excessive humidity and temperature changes.
- Locate racks as near as practical to the grinding location, but never where there is damage from passing trucks, crane handling equipment or excessive vibration.



Flanges should be of equal diameter, recessed and at least one-third the diameter of the wheel.

Tech Note

Vortec Pro® Bonded Abrasives

Cutting & Grinding Wheels - The Vortec Pro® bonded abrasive line is specifically designed for general purpose cutting and grinding applications on steel, iron, and other ferrous metals. All product is resin-bond formulated for aggressive stock removal and fast cutting, and are reinforced with fiberglass webbing for stability.

Applications

- Weld removal
- Cutting and parting
- Rough Grinding
- Notching

Vortec Pro® Small Type 1 Reinforced Cut-Off Wheels -

General purpose cutting applications in toolrooms and machine shops.

Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
2"	.035"	1/4"	WA60T - Metal	30,000	100	56013*
	1/16"	1/4"	A36T - Metal		50	56015
	1/4"	3/8"	A36T - Metal		25	56131
3"	.035"	1/4"	WA60T - Metal	25,000	100	56061*
	.035"	3/8"	WA60T - Metal		100	56062*
	1/16"	1/4"	A36T - Metal		100	56065
	1/16"	3/8"	A36T - Metal		100	56068
	1/16"	1/4"	A60T - Metal		100	56067
	1/16"	3/8"	A60T - Metal		100	56070
	1/8"	3/8"	A36T - Metal		50	56076
	1/8"	1/4"	A36T - Metal		50	56270
	1/4"	3/8"	A36T - Metal		25	56147
	4"	.035"	5/8"		WA60T - Metal	19,000
.035"		1/4"	WA60T - Metal	50	56079*	
.035"		3/8"	WA60T - Metal	50	56080*	
1/16"		1/4"	A36T - Metal	50	56083	
1/16"		3/8"	A36T - Metal	50	56086	
1/16"		1/4"	A60T - Metal	50	56085	
1/16"		3/8"	A60T - Metal	50	56088	
1/16"		5/8"	A60T - Metal	50	56272	
1/4"		3/8"	A36T - Metal	25	56163	
1/8"		3/8"	A36T - Metal	50	56099	
4-1/2"		.045"	7/8"	WA60T - Metal	13,500	
	1/16"	7/8"	A60T - Metal	50		56103
5"	.035"	3/8"	WA60T - Metal	12,200	100	56106*
	.035"	5/8"	WA60T - Metal		100	56108*
	1/16"	5/8"	A36T - Metal		25	56115
	1/16"	5/8"	A60T - Metal		25	56117
	1/16"	7/8"	A36T - Metal		100	56118

*Contaminant-free.

Vortec Pro® Type 1 Reinforced Cut-Off Wheels -

General purpose metal applications in toolrooms and machine shops.

Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
6"	.035"	1/2"	WA60T - Metal	10,200	25	56170*
	.035"	5/8"	WA60T - Metal			56171*
	.040"	7/8"	WA60T - Metal			56282*
	.045"	7/8"	WA60T - Metal			56273*
	1/16"	5/8"	A60T - Metal			56274
7"	.035"	5/8"	WA60T - Metal	8,740	25	56183*
	.045"	7/8"	WA60T - Metal			56275*
	1/16"	5/8"	A36T - Metal			56188
	1/16"	1-1/4"	A60T - Metal			56193
7"	1/8"	5/8"/DIA.	A24T - Metal	8,740	15	56208
			C24T - Concrete			56209

*Contaminant-free.

DIA. = 5/8" arbor with diamond knockout adapter for circular saws.

Mounting Mandrels - 1/4" Stem. For Type 1 Wheels only

Arbor Size	Wheel Thickness	Standard Pack	Item Number
1/4"	.035" to 1/4"	10	56489
3/8"	.035" to 1/4"	10	56490
1/4", 3/8" *	.035" to 1/4"	10	56491*
1/4", 3/8"+	.035" to 1/4"	1	36512+

*Combination pack +Display packaged



Cutting a piece of steel tubing to length.



56013



56103



All Weiler grinding and cutting wheels are resin bonded and contain at least 2-layers of fiberglass reinforcement.



56282



56489

Vortec Pro® Bonded Abrasives

Vortec Pro® Bonded Abrasives



Notching a steel bar prior to welding.

Vortec Pro® Type 27 Thin Cutting Wheels - Aluminum Oxide

For general purpose, burr-free cutting with less resistance on various metals.

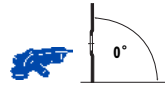


Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
4-1/2"	.045"	7/8"	WA60S - Metal	13,300	25	56393*
5"	.045"	7/8"	WA60S - Metal	12,200	100	56392*
6"	.045"	7/8"	WA60S - Metal	10,200	25	56283*
7"	.060"	7/8"	WA60S - Metal	8,500	25	56391*

*Contaminate-free.

Type 27 Thin Cutting Wheels - Zirconia Alumina

For fast, burr-free cutting with longer life and less resistance on various metals.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
4-1/2"	.045"	7/8"	Z46T - Metal	13,300	25	56389
5"	.045"	7/8"	Z46T - Metal	12,200	50	56388
7"	.060"	7/8"	Z36T - Metal	8,500	25	56387

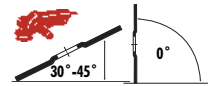
Vortec Pro® Type 27 Cutting Wheels - For general purpose cutting on ferrous metals.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
4"	3/32"	5/8"	A24T - Metal	15,200	25	56474
4-1/2"	3/32"	5/8"-11	A24T - Metal	13,300	10	56385
		7/8"	A24T - Metal		25	56475
5"	3/32"	5/8"-11	A24T - Metal	12,200	10	56384
		7/8"			A24T - Metal	25
6"	3/32"	5/8"-11	A24R - Metal	10,200	10	56278
		7/8"			A24R - Metal	25
7"	3/32"	5/8"-11	A24R - Metal	8,500	10	56477
		7/8"			A24R - Metal	25

Vortec Pro® Type 27 - Pipeline Cutting & Light Grinding Wheels -

General purpose light grinding and cutting. For root pass cutting and light grinding.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
4"	1/8"	5/8"	A24R - Metal	15,200	25	56431
4-1/2"	1/8"	5/8"-11	A24R - Metal	13,300	10	56429
		7/8"			A24R - Metal	25
5"	1/8"	5/8"-11	A24T - Metal	12,200	10	56427
		7/8"			A24T - Metal	25
7"	1/8"	5/8"-11	A24T - Metal	8,500	10	56425
		7/8"			A24T - Metal	25
9"	1/8"	5/8"-11	A24T - Metal	6,600	10	56423
		7/8"			A24T - Metal	20

Tech Note

■ All Weiler Vortec Pro bonded Thin Cutting wheels (.060 and thinner) contain White AO for a longer life vs the standard brown AO other manufactures use to save cost.

■ All Weiler Vortec Pro bonded Thin Cutting wheels (.060 and thinner) are contaminant free, which means Iron, Sulfur and Chlorine is ≤ 0.1% - they will not rust stainless steel.

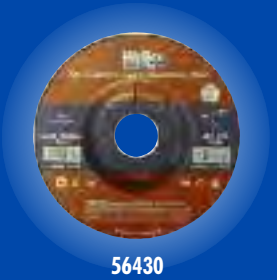
Vortec Pro® Bonded Abrasives



56283



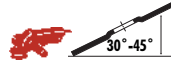
56385



56430

Vortec Pro® Bonded Abrasives

Vortec Pro® Type 27 Grinding Wheels - For general purpose, rough grinding.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
Silicon Carbide - For Stone/Concrete Applications						
4-1/2"	1/4"	5/8"-11 7/8"	C24R Stone/Concrete	13,300	10 25	56482 56483
7"	1/4"	5/8"-11 7/8"	C24R Stone/Concrete	8,500	10 20	56486 56487
9"	1/4"	5/8"-11 7/8"	C24R Stone/Concrete	6,600	10 20	56492 56493
Aluminum Oxide - For General Purpose Steel Applications						
4"	1/4"	5/8"	A24R - Metal	15,200	25	56473
4-1/2"	1/4"	5/8"-11 7/8"	A24R - Metal	13,300	10 25	56454 56464
4-1/2"	1/4"	5/8"-11 7/8"	A24N - Metal	13,300	10 25	56455 56457
5"	1/4"	5/8"-11 7/8"	A24R - Metal	12,200	10 25	56449 56466
6"	1/4"	5/8"-11 7/8"	A24R - Metal	10,200	10 25	56279 56280
7"	1/4"	5/8"-11 7/8"	A24R - Metal	8,500	10 20	56468 56467
9"	1/4"	5/8"-11 7/8"	A24R - Metal	6,600	10 20	56470 56442

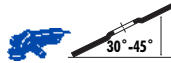


Grinding out weld defects for repair.



56464

Type 27 Grinding Wheels - For general purpose, rough grinding.

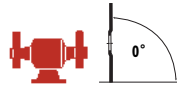


Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
Zirconia Alumina - High Performance Grain That Cuts Faster with Long Life						
4-1/2"	1/8"	5/8"-11 7/8"	Z24T - Metal	13,300	10 25	56420 56421
4-1/2"	1/4"	5/8"-11 7/8"	Z24T - Metal	13,300	10 10	56453 56456
7"	1/8"	5/8"-11 7/8"	Z24T - Metal	8,500	10 20	56416 56417
7"	1/4"	5/8"-11 7/8"	Z24T - Metal	8,500	10 10	56444 56446



56468

Vortec Pro® Type 1 Vitrified Grinding Wheels - For general purpose rough grinding and heavy stock removal.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
6"	3/4"	1"	36AO - Metal 60AO - Metal	4,100	5	36459 36460
8"	1"	1"	36AO - Metal 60AO - Metal	3,600	5	33052 33053



Adapting Nut Assembly



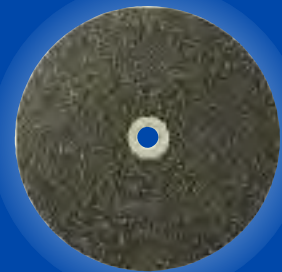
56494

Adapting Nut

Grinding Wheel

Adapting Nut

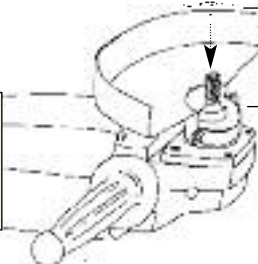
Right Angle Grinder



33052

Adapting Nuts - For 4-1/2" & 5" Angle Grinders.

Adapts To	Min. Wheel Thickness	Standard Pack	Item Number
7/8" to 5/8"-11	1/16"	1	56494
5/8" to 3/8"-24	1/16"	1	56484



When mounting, adapters must be nested, see illustration at right.

Vortec Pro® Bonded Abrasives

Vortec Pro® Bonded Abrasives

Vortec Pro® Large Type 1 Reinforced Cut-Off Wheels -

General purpose - For stationary machines.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
12"	1/8"	1"	C24T - Stone/Concrete	5,100	10	56234
14"	1/8"	1"	A30R - Metal	4,400	10	56230
14"	1/8"	1"	C20R - Stone/Concrete	4,400	10	56246

Vortec Pro® Large Type 1 Reinforced Cut-Off Wheels -

General purpose - For portable gas or electric saws.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
12"	1/8"	1"	A24T - Metal	6,300	10	56241
12"	1/8"	1"	C24T - Stone/Concrete	6,300	10	56242
12"	1/8"	20mm	A24T - Metal	6,300	10	56254
12"	1/8"	20mm	C24T - Stone/Concrete	6,300	10	56255
14"	1/8"	1"	A24T - Metal	5,400	10	56250
14"	1/8"	1"	C24T - Stone/Concrete	5,400	10	56251
14"	1/8"	20mm	A24T - Metal	5,460	10	56263
14"	1/8"	20mm	C24T - Stone/Concrete	5,460	10	56264

Vortec Pro® Large Type 1 Reinforced Cut-Off Wheels -

General purpose - For low horsepower chop saws.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
12"	3/32"	1"	A46T - Metal	5,100	10	56239
12"	3/32"	1"	A46S - Metal	5,100	10	56238
14"	3/32"	1"	A46T - Metal	4,400	10	56240
14"	3/32"	1"	A46S - Metal	4,400	10	56244

Vortec Pro® Large Type 1 Reinforced Cut-Off Wheels -

General purpose - For walk behind machines.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Standard Pack	Item Number
14"	3/16"	1"	C16T - Stone/Concrete	4,400	10	56268
			C16R - Stone/Concrete			56267

Plastic Adapters - Allows Type 1 wheels to work on machines with a 20mm arbor hole.

Wheel Arbor Hole Size	Adapted Arbor Hole Size	Standard Pack	Item Number
1"	20mm	10	04455

Cutting angle iron with a chopsaw.



56264



56238



04455

Tech Note

The following factors can cause wheel breakage:

- Excessive speed
- Excessive wheel feed rate
- Improper mounting
- Improper machine conditions
- Work improperly clamped
- Misuse

DID YOU KNOW?

All Weiler Vortec Pro Cutting Wheels have a metal reinforcement ring around the arbor hole.

Non-Woven Unitized Wheels

Non-Woven Abrasives Technical Information

Non-woven abrasive products can be used in a broad range of surface-conditioning applications from cleaning and finishing to deburring and light blending. Unlike bonded and coated abrasives, they cannot be used for applications requiring heavy stock removal such as grinding and weld blending.

All non-woven products are fabricated from base materials that are composed of a random "web" of nylon fibers that have been bonded together with synthetic resins and impregnated with abrasive grains. Although these materials vary in fiber density, their three dimensional nature results in specialty abrasive products that are pliable, conformable to the work surface, and limited in their ability to remove base stock.

Non-woven products resist loading and perform consistently as new, fresh abrasive grains are exposed as the nylon fibers wear away from the product during use. Non-woven abrasives can be used either wet or dry on a range of materials including ferrous and non-ferrous metals, ceramics, plastics, composites, and wood. Non-woven products are designed for use where stock removal is not required. Non-wovens begin where coated abrasives leave off.

Unitized Wheels - Designed for use on die grinders and are ideal for a variety of cleaning, finishing, deburring and edge blending applications.

Applications

- Deburring machined surfaces
- Blending saw and machine marks
- Removing heat discoloration, rust and oxidation

Unitized Wheels

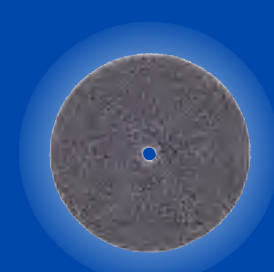
Diameter	Face Width	Arbor Hole	Grain	Grade	Max. RPM	Standard Pack	Item Number
Series 2 - Cleaning & Finishing - Hardness: Soft							
2"	1/4"	1/4"	Silicon Carbide	Fine	18,000	10	55511
3"	1/4"	1/4"	Aluminum Oxide	Fine	12,000	10	55512
			Silicon Carbide	Fine			55513
Series 4 - General Purpose - Hardness: Medium							
2"	1/4"	1/4"	Aluminum Oxide	Fine	18,000	10	55520
			Aluminum Oxide	Fine			55481
3"	1/4"	1/4"	Aluminum Oxide	Fine	12,000	10	55522
			Aluminum Oxide	Fine			55487
Series 6 - Deburring - Hardness: Medium/Hard							
1"	1"	3/16"	Aluminum Oxide	Fine	30,000	10	55531
2"	1/4"	1/4"	Aluminum Oxide	Fine	22,000	10	54488
3"	1/4"	1/4"	Aluminum Oxide	Fine	18,000		54492
			Aluminum Oxide	Fine			55530
Series 8 - HD Deburring & Polishing - Hardness: Hard (Heavy-Duty)							
1"	1"	3/16"	Aluminum Oxide	Medium	30,000	10	55543
2"	1/8"	1/4"	Aluminum Oxide	Coarse	22,000	10	55545
			Aluminum Oxide	Medium			55540
3"	1/8"	1/4"	Aluminum Oxide	Coarse	18,000	10	55546
			Aluminum Oxide	Medium			55541
			Aluminum Oxide	Medium			55542

Mandrels

Stem Diameter	For Wheel Diameter	For Wheel Thickness	Standard Pack	Item Number
1/4"	2" - 3"	1/2"	1	07761
	1"	1"	1	07764
	2" - 3"	1/8" - 1/4"	10	56489



A unitized wheel deburring a ring gear.



55512



55541



56489

Non-Woven Unitized Wheels

Non-Woven Convolute Wheels

Convolute Wheels - Weiler's Convolute Wheels are designed for a wide variety of cleaning, finishing, deburring and edge blending needs on straight shaft tools and bench/pedestal grinders.

Applications

- Cleaning and polishing metal surfaces
- Polishing and finishing machined parts
- Deburring stamped metal parts
- Removing parting lines
- Blending edges
- Removing coated abrasive grind lines

Convolute Wheels



Dia.	Face Width	Arbor Hole	Grain	Grade	Density	Max. RPM	Standard Pack	Item Number
MRO/General Purpose - For general cleaning and finishing								
6"	1/2"	1"	Silicon Carbide	Fine	7	6,000	4	54450
	1"		Silicon Carbide	Fine			3	54455
	1"		Silicon Carbide	Medium			3	54456
8"	1"	3"	Silicon Carbide	Fine	7	4,500	3	54460
			Silicon Carbide	Medium			7	54461
Deburring Wheels - For deburring and edge blending								
6"	1/2"	1"	Silicon Carbide	Fine	8	6,000	4	54300
	1/2"		Silicon Carbide	Fine			4	54301
	1/2"		Silicon Carbide	Medium			4	54401
	1"		Silicon Carbide	Fine			3	54303
	1"		Silicon Carbide	Fine			3	54304
	1"		Silicon Carbide	Medium			3	54050
	2"		Silicon Carbide	Fine			2	54307
8"	1"	3"	Silicon Carbide	Fine	8	4,500	3	54309
			Silicon Carbide	Fine			3	54310
			Silicon Carbide	Medium			3	54052

Adapters

Wheel Inside Diameter	Arbor Hole	Standard Pack	Item Number
Telescoping Plastic Adapter			
1"	3/4" - 5/8" - 1/2"	1	04440
Metal Adapters			
3"	1/2"	1	03804
	5/8"		03805
	3/4"		03806
	1"		03807
	1-1/4"		03808

Tech Note

Suggested Wheel Dressing Method

The initial dressing is most important to achieve maximum cutting and face uniformity. This process takes less than one minute.

- Step 1:** Mount a 36 grit abrasive cloth strip to a solid backing (plywood).
- Step 2:** Run the wheel at a high RPM (not to exceed Maximum Safe Free Speed). Apply the abrasive strip to the wheel face using light, uniform pressure.
- Step 3:** Move the abrasive strip across the wheel face until the wheel face is uniform.
- Step 4:** Use a piece of hardwood to burn away the excess nylon fiber. Hold the wood against the face until the wheel cuts the wood, exposing fresh grain and eliminating excess nylon.



Wheel that needs to be dressed.

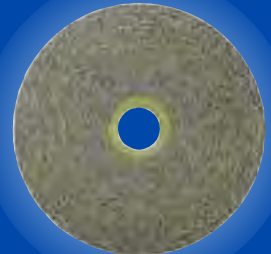


Illustration of Step 2.

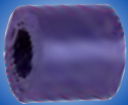
Polishing a stainless steel door handle.



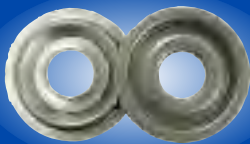
54455



54303



04440



03804

NOTE

Lubricut™ Lubricant is available for use on Convolute Wheels. See page 73 for usage recommendations.

Non-Woven Surface Conditioning Discs



Surface Conditioning Discs - Have an open construction, scrim reinforcement and a superior resin system. These features minimize loading, heat build-up, fraying of disc edges, grain shedding and extend disc life, providing superior performance.

Applications

- Light deburring
- Surface preparation
- Blending light scratches
- Removing rust and corrosion
- Removing rust and oxidation
- Cleaning and removing stains from stainless steel
- Producing satin finishes on aluminum and stainless steel

Plastic Button Style Discs - Compatible with 3M Roloc™ back-up pads.



Diameter	Grade	Standard Pack	Item Number	
			General Purpose	High Performance
1-1/2"	Very Fine (Blue)	50	51527	-
	Medium (Maroon)		51528	-
	Coarse (Brown)		51529	-
2"	Very Fine (Blue)	50	51530	57324
	Medium (Maroon)		51531	57323
	Coarse (Brown)		51532	57322
3"	Very Fine (Blue)	25	51533	57327
	Medium (Maroon)		51534	57326
	Coarse (Brown)		51535	57325
4"	Very Fine (Blue)	10	51536	-
	Medium (Maroon)		51537	-
	Coarse (Brown)		51538	-

Roloc™ is a trademark of 3M.

Plastic Button Style Back-up Pads - 1/4" Stem

Diameter	Max. RPM	Standard Pack	Item Number
1-1/2"	30,000	1	51550
2"	30,000	1	51551
3"	20,000	1	51552
4"	12,000	1	51553

Do not exceed maximum RPM of back-up pad.



- The flexible, open style construction of non-wovens makes them conformable, non-loading and ideal for finishing non-ferrous metals such as aluminum and brass.
- Unlike steel wool, the non-metallic construction of non-wovens will not contaminate metals and cause surface rust.

Finishing the surface for a stainless steel part for the food service industry.



51532



51533



51552

Non-Woven Surface Conditioning Discs

Non-Woven Surface Conditioning Discs

Hook & Loop Style Discs



Putting a decorative satin finish on a stainless steel door.



51508

Diameter	Grade	Standard Pack	Item Number
2"	Very Fine (Blue)	50	51503
	Medium (Maroon)		51504
	Coarse (Brown)		51505
3"	Very Fine (Blue)	25	51506
	Medium (Maroon)		51507
	Coarse (Brown)		51508
4"	Very Fine (Blue)	10	51509
	Medium (Maroon)		51510
	Coarse (Brown)		51511
4-1/2"	Very Fine (Blue)	10	51512
	Medium (Maroon)		51513
	Coarse (Brown)		51514
5"	Very Fine (Blue)	10	51515
	Medium (Maroon)		51516
	Coarse (Brown)		51517
6"	Very Fine (Blue)	10	51518
	Medium (Maroon)		51519
	Coarse (Brown)		51520
7"	Very Fine (Blue)	10	51521
	Medium (Maroon)		51522
	Coarse (Brown)		51523
8"	Medium (Maroon)	10	51525
	Coarse (Brown)		51526

Hook & Loop Style Back-up Pads



51561

Diameter	Arbor Hole or Stem Size	Max. RPM	Standard Pack	Item Number
2"	1/4" Stem	16,000	1	51561
3"	1/4" Stem	18,000	1	51562
4"	1/4" Stem	16,000	1	51563
4-1/2"	5/8" -11 Arbor	13,000	1	51569
5"	5/8" -11 Arbor	10,000	1	51575
6"	5/8" -11 Arbor	8,000	1	51577
7"	5/8" -11 Arbor	6,000	1	51578
8"	5/8" -11 Arbor	4,500	1	51579

Do not exceed maximum RPM of back-up pad.



Weiler operates 6 warehouses in the U.S.A., Canada & Mexico.

Non-Woven Hand Pads

Hand Pads - For cleaning and conditioning surfaces by hand. Unlike steel wool, hand pads are non-metallic, and do not produce "after-rust" on work surfaces. Hand pads can be used in wet applications.

Applications

- | | |
|--|---|
| <p>Industrial Grade:</p> <ul style="list-style-type: none"> ■ Producing satin finishes on aluminum and stainless steel ■ Light deburring ■ Surface preparation ■ Blending light scratches | <p>Commercial Grade:</p> <ul style="list-style-type: none"> ■ Cleaning and removing stains from stainless steel ■ Removing rust, corrosion and oxidation |
|--|---|

Hand Pads - Industrial Grade

Size	Grain	Grade	Description	Standard Pack	Item Number
6" x 9"	Silicon Carbide	Ultra Fine	Finishing (Grey)	60	51434
6" x 9"	Aluminum Oxide	Medium	Economy General Purpose (Maroon)	60	51460
6" x 9"	Aluminum Oxide	Med/ Coarse	General Purpose (Maroon)	60	51444
6" x 9"	Aluminum Oxide	Heavy-Duty	Heavy-Duty (Tan)	40	51454

Hand Pads - Commercial Grade

Size	Grain	Grade	Description	Standard Pack	Item Number
6" x 9"	Aluminum Oxide	Fine	Economy (Green)	400	51456
6" x 9"	Aluminum Oxide	Medium	Standard-Duty (Green)	60	51457
6" x 9"	Aluminum Oxide	Heavy-Duty	Heavy-Duty (Green) 20% thicker than Standard Duty	60	51458

Hand Pad Holder

Description	Standard Pack	Item Number
For 3" x 6" Pad	1	59616



Although denser non-woven abrasive products are suitable for applications requiring light stock removal such as removing large, well-attached burrs and blending minor tool marks and imperfections, the strength of these products is producing decorative finishes ranging from satin to near-mirror polish. The various grades of non-woven products produce scratch patterns which can be compared to those produced by coated abrasive products. However, their pliable nature results in a softer, less pronounced scratch-line pattern.

Grade	Grit Range
Ultra Fine	600
Very Fine	240-360
Fine	180-220
Medium	100-150
Coarse	50-80



Cleaning a restaurant sink with a commercial hand pad.



51460



51457



59616

Non-Woven Hand Pads

Non-Woven Interleaf Flap Wheels



Deburring the I.D. of a steel pipe with an interleaf flap wheel.



54500



54510

Interleaf Flap Wheels - Provide a combination of non-woven and coated abrasive material to produce a very conformable product compared to a standard coated abrasive flap wheel. They are designed to be a finishing and surface blending tool as compared to a material-removing coated abrasive flap wheel. They are ideal for producing satin or decorative finishes on irregular or contoured surfaces.

Applications

- General decorative finishing
- Soft metal finishing
- Applying satin finishes
- Removing oxides from precious metals
- Producing antique finishes
- Fine burr removal
- Final sandings

Stem-Mounted Interleaf Flap Wheels - Aluminum Oxide



Diameter	Face Width	Grit Size	Stem Size	Max. RPM	Standard Pack	Item Number
2"	1"	120	1/4"	13,700	10	54500
		180				54501
		320				54502
3"	1"	120	1/4"	8,600	5	54506
		180				54507
		320				54508
3"	2"	120	1/4"	8,600	5	54509
		180				54510
		320				54511

DID YOU KNOW?

Defuzzing coconuts, finishing casket hardware and cleaning blades used for lasik surgery are all applications in which Weiler products are used.

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