



COATED ABRASIVES

WEILER WAS FIRST

From the company that brought flap discs to the US, Weiler coated abrasive products continue to set the standard. Our Premium Tiger® flap discs are engineered to conquer any material or application.

Weiler recently raised the bar by adding two new flap discs to its abrasive line. The **Tiger X** flap disc leverages industry-first technology to grind faster AND last longer, while the **Tiger Paw** flap disc is specifically designed for superior edge grinding.

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SOLUTIONS SHOWCASE

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.

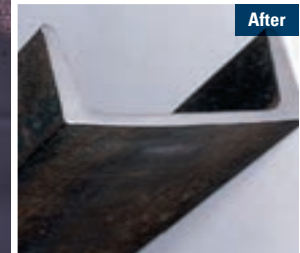
Solution: Coated abrasive flap discs like Weiler's original Tiger Disc are ideal tools for quickly removing heavy corrosion and blending pitting from bevel ends. The chatter-free, compliant grinding action and smooth, consistent finish produced by these discs make them the preferred choice for this application.



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.

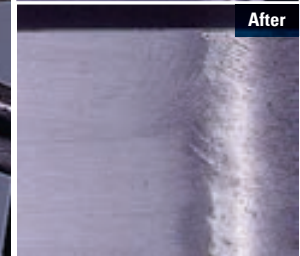
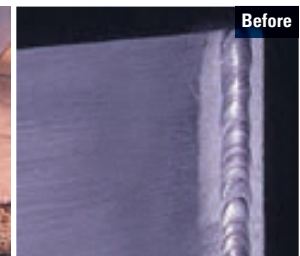
Solution: Weiler's coated abrasive flap wheels are flexible grinding products that are ideal for light stock removal applications. A 60 grit wheel can be used to remove a large burr and produce a smooth blended edge.

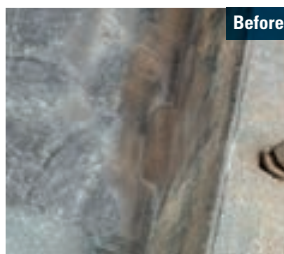


ALUMINUM FRAMES

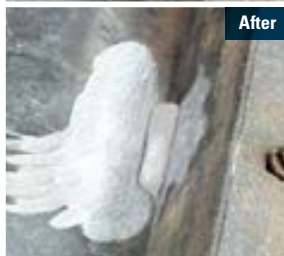
Problem: Aluminum welds are particularly difficult to blend due to the tendency of the chips to become welded to the abrasive media. This causes the cut rate of the abrasive to fall rapidly and generates an expensive grinding operation.

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.





Before



After

SNOW PLOW BLADE

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.



Before



After

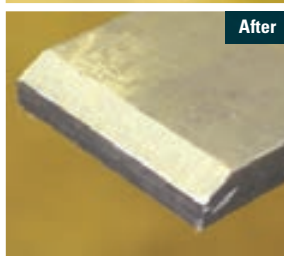
TANK AND PRESSURE VESSEL

Problem: The welds inside tanks and pressure vessels must be blended smooth prior to x-ray and pressure testing.

Solution: Weiler's Big Cat® High Density flap discs have the largest flap area in the industry – 22% more cloth. The result is enhanced conformability on curved or irregular surfaces and up to 40% longer life.



Before



After

STEEL RACK BRACES

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.

SELECTING THE RIGHT FLAP DISC

Weiler's made in the U.S.A. Coated Abrasive flap discs grind and finish in one step, saving you time and money. There's no switching from a Type 27 Grinding Wheel to a Resin Fiber Disc. Use the information provided to help select the right solution for your application.



P PERFORMANCE LINE (INDUSTRIAL GRADE)

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

V VALUE LINE (PROFESSIONAL GRADE)

Weiler's value line is manufactured using similar product construction and the same exacting standards as other Weiler flap discs, but engineered to provide cost-effective use in less demanding environments. Vortec Pro® flap discs are an economical choice for the construction trades, low volume production shops and light duty industrial MRO use.



	SABER TOOTH (Page 20)	BIG CAT (Page 18)	TIGER X (Page 14-15)	TIGER ALUM. BACK (Page 16-17)	TRIM (Page 19)	BOBCAT (Page 21)	TIGER PAW (Page 22-23)	VORTEC PRO (Page 24-25)
APPLICATION	Flat Surface Grinding	★★★★	★★★★					★★
	Light Pressure / Blending	★★★★	★★★★ HD	★★★★		★★	★★	★
	Weld Grinding / Blending	★★★★	★★★★ HD	★★★★		★★	★★★★	★
	Heavy Stock Removal	★★★★		★★			★★★★	★
	Edge Grinding	★★					★★★★	
	Pipeline				★★★★			
	Fillet Grinding	★★★★ TRIM				★★★★		
	Irregular Surface	★★★★ HD	★★★★ HD				★★ HD	★ HD
	Hard To Reach						★★★★	
MATERIAL	Carbon Steel	★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★
	Stainless Steel	★★★★		★★		★★	★★	★
	Aluminum / Non-Ferrous	★★★★						
	Non-Ferrous / Exotic	★★★★						
	Cast Iron	★★★★		★★			★★	

STYLES

ANGLED STYLE (TYPE 29)



Maximum aggression for fast stock removal. Used on both flat surface and edge work. The angle provides greater surface contact for stock removal on flat surfaces.

FLAT STYLE (TYPE 27)



Smooth grinding, blending and finishing. Used primarily on flat surfaces and slight contours.

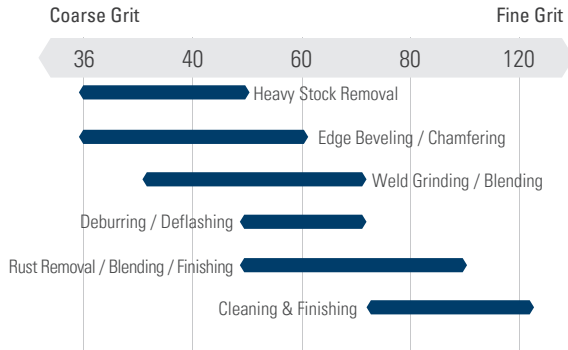
HIGH DENSITY (TYPE 27)



Maximum conformability and life. Provides smooth grinding, blending and finishing on flat and irregular surfaces. Larger flaps ensure more contact and extend life.

GRIT & GRAIN

GRIT SIZE BY DESIRED FINISH



ALUMINUM OXIDE (AO)

- Single crystal
- Durable for short term grinding
- Hard
- Inexpensive



ZIRCONIA ALUMINA (ZA)

- Self-sharpening multi crystals
- Holds up under extreme pressure
- Self-sharpening
- Sharper, faster cut



CERAMIC ALUMINA (CA)

- Self-sharpening multi crystals with predetermined fracture points
- Self-sharpening
- Maintains cut-rate for 75% of life

WEILER X3 TECHNOLOGY

- Proprietary mix of Ceramic and Zirconia Alumina
- Triple split grain anchoring system
- Dual flap design
- Grinds faster AND lasts longer

BACKING

PHENOLIC



Prevents backing from scratching the workpiece.

ALUMINUM



Rigid support for maximum aggression; recyclable.

COMPOSITE*



Trimmable, non-marking backing; allows access to hard-to-reach areas.

*BobCat™ Discs are not Trimmable.

ARBOR



5/8" - 11 NUT

- Quick change over
- Eliminates cross-threading experienced with plastic backs
- Metal nut eliminates the disc from sticking to the grinder due to heat build up



5/8" & 7/8" ARBOR HOLE

- Cost-effective
- Requires adapting nuts



Mounting Flap Discs with 5/8" & 7/8" Arbors



TIGER® FLAP DISCS / PERFORMANCE LINE



MADE IN
USA



Grinding & blending a weld between two steel plates.

UNLEASH TIGER X: Tiger X flap discs raise the bar for those who are driven to get the job done right and done fast. Tiger X holds nothing back with its industry-first X3 technology that combines an advanced anchoring system, dual flap design and engineered backing. The combination delivers fast grinding AND long disc life for increased productivity.

Tiger X delivers the ultimate productivity enhancing X-Factors so you can do more in less time while lowering your consumable costs.

- **Increased Productivity** – The combination of aggressive grinding and long disc life deliver the ultimate X-Factor, a disc that gets more done in less time.
- **Lower Consumable Costs** – The combination of extreme aggressive grinding and long disc life means you get more for your money.
- **Enhanced Worker Safety** – Increased aggression requires less force to get equal or better results. This means less stress and reduced fatigue.
- **Greater Versatility** – X3 technology allows for greater versatility, reducing the need to switch discs when changing applications.

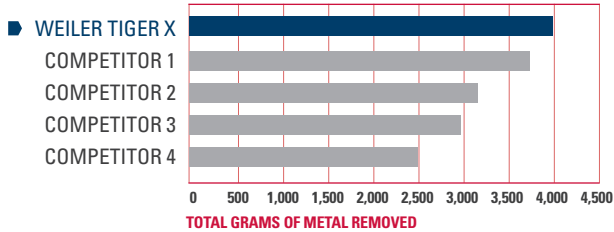
APPLICATIONS

- Flat surface grinding
- Light pressure / blending
- Weld grinding / blending
- Heavy stock removal
- Deburring

TESTED. PROVEN. TIGER X WORKS FASTER, LONGER.

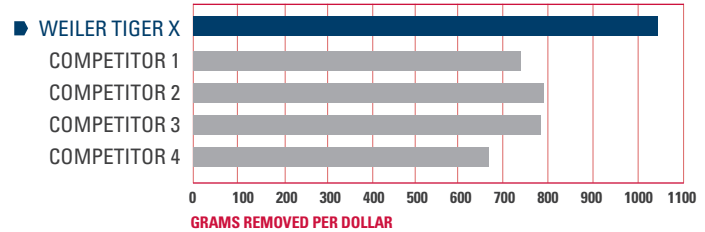
TIGER X REMOVES UP TO 40% MORE MATERIAL

TOTAL GRAMS OF METAL REMOVED FROM WORKPIECE OVER LIFE OF FLAP DISC



GET UP TO 40% MORE FOR YOUR MONEY

TOTAL GRAMS OF METAL REMOVED FOR EVERY DOLLAR YOU SPEND



Test Procedure: Weiler Tiger X 4-1/2" Type 29 standard density flap disc vs. similar competing flap discs. Test grinder mounted at 15° angle against 1/2" workpiece with 15 pounds of pressure. Bi-directional 8" travel. Discs and workpiece weighed after 5 minute intervals for the life of the product. Tiger X usable life: 100 minutes. Competitors' usable life: 65 – 90 minutes.

Ceramic Alumina and Zirconia Alumina grain mix

Grinds Faster and Lasts Longer.

Industry First

X3

Technology

grain anchoring system, dual flap design, & engineered backing.



P **TIGER X FLAP DISCS** Angled Style (Type 29) / Phenolic Backing
 Designed for aggressive grinding and long life when used on Steel and Stainless Steel.



LIFE ●●●●●
 AGGRESSION ●●●●●

Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Ceramic & Zirconia Alumina
4-1/2"	7/8"	36	13,000	10	51200
		40			51201
		60			51202
		80			51203
4-1/2"	5/8"-11 Nut	36	13,000	10	51204
		40			51205
		60			51206
		80			51207
5"	7/8"	36	12,000	10	51208
		40			51209
		60			51210
		80			51211
5"	5/8"-11 Nut	40	12,000	10	51212
		60			51213
		80			51214
7"	7/8"	36	8,600	10	51215
		40			51216
		60			51217
		80			51218
7"	5/8"-11 Nut	36	8,600	10	51219
		40			51220
		60			51221
		80			51222



51205



51216

P **TIGER X FLAP DISCS** Flat Style (Type 27) / Phenolic Backing
 Ideal working angle of less than 15° provides smooth grinding when used on Steel and Stainless Steel.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Ceramic & Zirconia Alumina
4-1/2"	7/8"	40	13,000	10	51223
		60			51224
		80			51225
4-1/2"	5/8"-11 Nut	40	13,000	10	51226
		60			51227
		80			51228
7"	7/8"	40	8,600	10	51229
		60			51230
		80			51231
7"	5/8"-11 Nut	40	8,600	10	51232
		60			51233
		80			51234



51229

Key:
P PERFORMANCE LINE Industrial Grade
V VALUE LINE Professional Grade



Weiler's Original Tiger flap discs are the brand you have trusted for over 20 years and THE flap discs that set the standard in the industry for performance, consistency, reliability and quality. Aluminum back flap discs are the benchmark for the pipeline industry, providing rigid support for maximum aggression.

MADE IN USA

APPLICATIONS

- Flat surface grinding
- Weld grinding / blending
- Edge grinding
- Light pressure / blending
- Heavy stock removal
- Pipeline

Blending the weld of a steel frame prior to painting.

- LIFE ●●●●●●●●
- AGGRESSION ●●●●●●●●
- PIPELINE USE ●●●●●●●●

P TIGER DISCS Angled Style (Type 29) / Phenolic & Aluminum Backing

Designed for the industrial user who values high cut rate and long life.



50601



50519



50543

Dia.	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number		
					Phenolic Backing		Alum. Backing
					Zirconia Alumina	Aluminum 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			—	—	50506
		—			—	—	—
4-1/2"	7/8"	24	13,000	10	50601	—	50511
		36			—	50562	50512
		40			—	50563	50513 ■
		60			—	50564	50514 ■
		80			—	50565	50515
		120			50606	—	50516
4-1/2"	5/8"-11Nut	24	13,000	10	—	—	50510*
		36			—	—	50517*
		40			—	—	50518 ■*
		60			—	—	50519 ■*
		80			—	—	50520*
		120			—	—	50509*
5"	7/8"	36	12,000	10	—	50572	50522
		40			—	50573	50523
		60			—	50574	50524
		80			—	50575	50525
		120			50616	—	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"	36	8,600	10	—	50582	50532
		40			—	50583	50533
		60			—	—	50534
		80			—	50585	—
7"	5/8"-11 Nut	24	8,600	10	—	—	50541*
		36			—	50632*	50542*
		40			—	50633*	50543*
		60			—	50634*	50544*
		80			—	50635*	50545*
		120			—	—	50546*

* Patent # 6,945,863

■ Packaged product available. See pages 123-133 for details.

P **TIGER DISCS** Flat Style (Type 27) / Phenolic Backing
High stock removal, long life and flexibility.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number	
					Zirconia Alumina	Aluminum Oxide
4	5/8"	40	15,000	10	50693	50653
		60			50694	50654
		80			50695	50655
		120			50696	—
		—			—	—
4-1/2"	7/8"	40	13,000	10	—	50663
		60			—	50664
		80			—	50665
		120			50706	—
		—			—	—
4-1/2"	5/8"-11 Nut	40	13,000	10	—	50668*
		60			—	50669*
		80			—	50670*
		120			50699*	—
		—			—	—
5"	7/8"	40	12,000	10	50713	50673
		60			50714	50674
		80			50715	50675
		120			50716	—
		—			—	—
7"	7/8"	40	8,600	10	—	50683
		60			—	50684
		80			—	—
		120			50726	—
		—			—	—
7"	5/8"-11 Nut	40	8,600	10	—	50733*
		60			—	50734*
		80			—	50735*
		120			50746*	—
		—			—	—

* Patent # 6,945,863



50699

ADAPTING NUTS & SPANNER WRENCH

For use with Tiger, High Density and Vortec Pro Flap Discs.

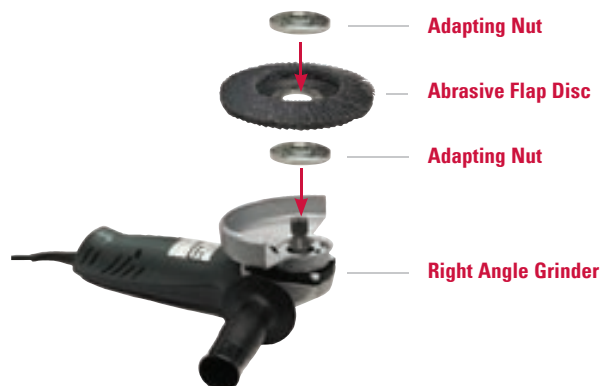
Description	Thread Size	For Use With	Standard Pack	Item Number
Adapting Nuts	3/8" - 24	4" Flap Disc with 5/8" arbor hole (can be used with an adjustable or combination wrench)	1	56484
Adapting Nuts	5/8" -11	4-1/2", 5" & 7" Flap Discs with 7/8" arbor hole	1	56494
Spanner Wrench	—	Item No. 56494 only	1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

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



56494

56495



Adapting Nut

Abrasive Flap Disc

Adapting Nut

Right Angle Grinder

Key:

P PERFORMANCE LINE Industrial Grade **V** VALUE LINE Professional Grade



Blending and finishing a weld.



Weiler's Big Cat flap discs offer the widest footprint in the industry. The wider flaps better conform to curved and irregular surfaces, producing a consistent finish and lasting 30-40% longer than a standard flap disc.



APPLICATIONS

Provides increased conformability and long life when:

- Flat surface grinding
- Weld grinding / blending
- Irregular surface
- Light pressure / blending
- Heavy stock removal

FEATURES AND BENEFITS

Enhanced **conformability** helps reduce gouging and undercutting.

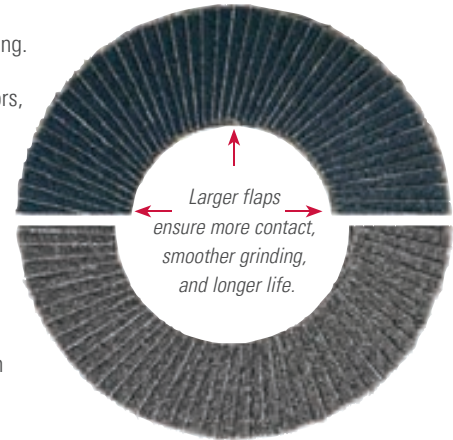
Thicker phenolic back (more layers of fiberglass) than competitors, provides **more stability** for the thicker cloth configuration.

Largest flap area in the industry as a result of the unique combination of flap count, height and width.

Longest lasting high density discs provide as much as 20% more life than the top competitors HD discs.

Big Cat is well known in the industry – ask for it by name for **increased productivity**, reduced operating cost and maximum disc life.

Big Cat HD Flap Disc



Competitors HD Flap Disc

- LIFE ●●●●●
- AGGRESSION ●●●●●
- CONFORMABLE ●●●●●

P BIG CAT FLAP DISCS Flat Style (Type 27) / Phenolic Backing

Increased conformability and maximum life.



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

* Patent # 6,945,863

■ Packaged product available. See pages 123-133 for details.



50804



50823



Weiler's Trimmable Tiger flap discs are designed for hard-to-reach areas such as right angles and irregular shapes while grinding on-edge without changing tools. The unique composite backing can be trimmed, exposing more abrasive material and extending disc life, resulting in lower grinding and finishing costs. The backing can be trimmed up to 3/8" from the original diameter, dramatically extending flap length for grinding into fillet welds.

MADE IN USA



To trim backing, run against a sharp edge until desired backing diameter is achieved.

APPLICATIONS

- Light pressure / blending
- Weld grinding / blending
- Heavy stock removal
- Fillet grinding
- Irregular surface



Trimmed back 3/8"



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

ABRASIVES

POWER BRUSHES

NYLOX® BRUSHES

PACKAGED ITEMS

MAINTENANCE

P TRIMMABLE TIGER FLAP DISCS Angled Style (Type 29) / Composite Backing
High stock removal, long life and flexibility, ideal for working into fillet welds.



LIFE ●●●●●
AGGRESSION ●●●●●
VERSATILITY ●●●●●

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
5"	5/8"-11 Nut	40	12,000	10	50014
		60			50015
		80			50016



50002

*Patent # 6,945,863
■ Packaged product available. See pages 123-133 for details.

Key:

P PERFORMANCE LINE Industrial Grade **V** VALUE LINE Professional Grade



Grinding and beveling Stainless Steel tubing with a Saber Tooth abrasive flap disc.



Weiler's Saber Tooth flap discs deliver real performance on Aluminum, Stainless Steel, Inconel, Titanium and other hard-to-grind metals. A grinding aid prevents dulling and glazing of the Ceramic Alumina grain and allows for cool-cutting, protecting high value parts from heat discoloration. The self-sharpening Ceramic grain provides cool, fast-cutting action, allowing you to do more work, more quickly. Discs are contaminant free, with Iron, Sulfur and Chlorine $\leq 0.1\%$.

MADE IN USA

APPLICATIONS

- Flat surface grinding
- Light pressure / blending
- Weld grinding / blending
- Heavy stock removal
- Edge grinding
- Fillet grinding
- Irregular surface

LIFE ●●●●●●●●●●
 AGGRESSION ●●●●●●●●●●
 USE ON SS / AL ●●●●●●●●●●

P SABER TOOTH FLAP DISCS Angled Style (Type 29) / Phenolic Backing

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



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Ceramic Alumina
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*



50105



50121

P SABER TOOTH TRIM FLAP DISCS Angled Style (Type 29) / Composite Backing

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
					Ceramic Alumina
4-1/2"	7/8"	40	13,000	10	50117
		60			50118
		80			50119
		40			50121*
4-1/2"	5/8"-11 Nut	60	13,000	10	50122*
		80			50123*

P SABER TOOTH HIGH DENSITY (HD) FLAP DISCS Flat Style (Type 27) / Phenolic Backing

Cool, fast cutting on hard-to-grind metals. Increases conformability and provides 30-40% longer life than standard (Type 29) flap discs.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
					Ceramic Alumina
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*



50139



*Patent # 6,945,863

■ Packaged product available. See pages 123-133 for details.



Weiler's BobCat flap discs are designed for use on right angle die grinders without the need for a back-up pad. The 2" and 3" mini discs provide smooth grinding and enhanced conformability in tight areas.

MADE IN USA



Blending welds on a steel rule die with a BobCat disc.

APPLICATIONS

- Grinding and finishing for hard to reach areas
- High aggression, rapid stock removal
- Grinding, deburring and blending
- Metal fabrication, weld blending or edge chamfering

P BOBCAT MINI FLAP DISCS Plastic Backing (No back-up pad required)
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	
				Zirconia Alumina	
				Type 29	Type 27
2"	36	30,000	10	50922	50932
	40			50923	50933
	60			50924	50934
	80			50925	50935
	120			—	50936
3"	36	20,000	10	50902	50912
	40			50903	50913
	60			50904	50914
	80			50905	50915
	120			50906	50916

Patent # 5,951,389

LIFE ●●●●●
AGGRESSION ●●●●●
NIMBLE ●●●●●



50924 & 50904

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 Weiler metal hub pad #60509.
2" BobCats can also be mounted on Weiler metal hub pad #60508.



07766

"I have been in the business for 20+ years and I find Weiler to be the best I have ever used."

- **Andy Bettelli**, Pipeline Contractor, A B Welding



ABRASIVES

POWER BRUSHES

NYLOX® BRUSHES

PACKAGED ITEMS

MAINTENANCE

TIGER PAW™ FLAP DISCS / PERFORMANCE LINE



Weiler's Tiger Paw flap discs are designed for the user looking for aggressive performance and long life in heavy-duty applications like **grinding on the edge of pipe**.



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 while the engineered poly/cotton cloth features excellent grain retention for maximum disc life.

APPLICATIONS

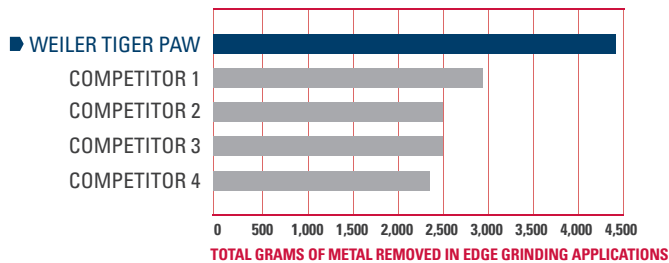
- Light pressure / blending
- Heavy stock removal
- Weld grinding / blending
- Edge grinding
- Irregular surface



Beveling pipe on edge with a Tiger Paw flap disc.

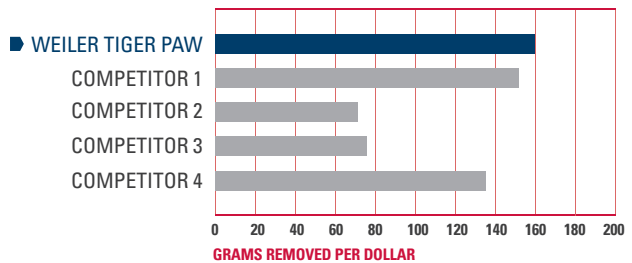
TIGER PAW REMOVES MORE MATERIAL

TOTAL GRAMS OF METAL REMOVED FROM WORKPIECE OVER LIFE OF FLAP DISC



GET MORE FOR YOUR MONEY

TOTAL GRAMS OF METAL REMOVED FOR EVERY DOLLAR YOU SPEND



Test Procedure: Weiler Tiger Paw 4-1/2" Type 29 standard density flap disc vs. similar competing flap discs. Test grinder mounted at 15° angle against 1/8" workpiece with 15 pounds of pressure. Bi-directional 8" travel. Discs and workpiece weighed after 5 minute intervals for the life of the product. Tiger Paw usable life: 17 minutes. Competitors' usable life: 8 - 10 minutes.

- LIFE ●●●●●●●●●●
- AGGRESSION ●●●●●●●●●●
- EDGE GRINDING ●●●●●●●●●●

P TIGER PAW Angled Style (Type 29) / Phenolic Backing

Aggressive action and long life; for heavy-duty applications on Steel and Stainless.



51118



51147

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

■ Packaged product available. See pages 123-133 for details.

P **TIGER PAW** Flat Style (Type 27) / Phenolic Backing
Smooth 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	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



51115

HIGH DENSITY

Tiger Paw Extreme High Density flap discs feature thicker and larger flaps that conform to curved and irregular surfaces 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.



P **TIGER PAW HD FLAP DISCS** Flat Style (Type 27) / Phenolic Backing
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

LIFE = ●●●●●
AGGRESSION = ●●●●●



51168

VORTEC PRO® FLAP DISCS / VALUE LINE



Grinding welds on a fabricated Steel part.



Weiler's Vortec Pro flap discs are fast cutting professional grade products using the same exacting standards as the Weiler performance line flap discs, but engineered to be cost-effective. Vortec Pro Abrasives are an economical choice for the construction trades, low volume production shops and the professional contractor.

APPLICATIONS

- Flat surface grinding
- Light pressure / blending
- Weld grinding / blending
- Heavy stock removal
- Irregular surface

- LIFE ●●●●●●●●
 AGGRESSION ●●●●●●●●
 PRICE/DISC ●●●●●●●●

V VORTEC PRO FLAP DISCS Angled Style (Type 29) / Phenolic & Aluminum Backing

High cut rate at a value price.



31350



31369

Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number	
					Phenolic Backing	Aluminum Backing
					Zirconia Alumina	
4"	5/8"	36	15,000	10	31337 ■	—
		40			31338	—
		60			31339 ■	—
		80			31340 ■	—
		120			31341	—
4-1/2"	7/8"	24	13,000	10	31342	—
		36			31343 ■	31307 ■
		40			31344	31308
		60			31345 ■	31309 ■
		80			31346 ■	31310 ■
		120			31347	—
4-1/2"	5/8"-11 Nut	24	13,000	10	31348*	—
		36			31349*	31313*
		40			31350*	31314*
		60			31351*	31315*
		80			31352*	31316*
		120			31353*	31317*
5"	7/8"	36	12,000	10	31355	—
		40			31356	—
		60			31357	—
		80			31358	—
7"	7/8"	24	8,600	10	31360	—
		36			31361	—
		40			31362	31326
		60			31363	—
		80			31364	—
7"	5/8"-11 Nut	36	8,600	10	31367*	31331*
		40			31368*	31332*
		60			31369*	31333*
		80			31370*	31334*

* Patent # 6,945,863

■ Packaged product available. See pages 123-133 for details.

Key:

P PERFORMANCE LINE
Industrial Grade

V VALUE LINE
Professional Grade

V VORTEC PRO FLAP DISCS Flat Style (Type 27) / Phenolic Backing
Smooth grinding action at a value price.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number	
					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"	40	8,600	10	31414	
		60			31415	
7"	5/8"-11 Nut	36	8,600	10	31419*	
		40			31420*	
		60			31421*	
		80			31422*	



31402

*Patent # 6,945,863

V VORTEC PRO HD FLAP DISCS Flat Style (Type 27) / Phenolic Backing
Increased life and conformability over other Vortec Pro discs at a value price.



Diameter	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number	
					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*	



31390

*Patent # 6,945,863

"Weiler products are very rugged consumables. They have a long life."

- **Dave Porzuczek**, Assistant Foreman, Karnel Incorporated



RESIN FIBER DISCS

Weiler's 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.



Blending welds on the corner of a steel furniture frame.

P SABER TOOTH RESIN FIBER DISCS

These coated abrasive discs are designed for cool, fast weld blending, grinding, surface preparation and finishing on Aluminum, Stainless Steel and other hard-to-grind metals.



59557

Diameter	Arbor Hole	Grit Size	Standard Pack	Item Number - 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

P RESIN FIBER DISCS - Ideal for blending, finishing and surface preparation.



59732



59503

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		—	59577
		100		—	59578
5"	7/8"	120	25	—	59579
		16		—	59500
		24		59701	59501
		36		59702	59503
		50		—	59505
		60		—	59506
7"	7/8"	80	25	—	59507
		100		—	59508
		16		—	59520
		24		59711	59521
		36		59712	59523
		50		—	59525
9"	7/8"	60	25	—	59526
		80		—	59527
		100		—	59528
		120		—	59529
		16		—	59540
		36		59722	59543

NOTE

See back-up pads on page 27.

Do not exceed maximum RPM of back-up pad.

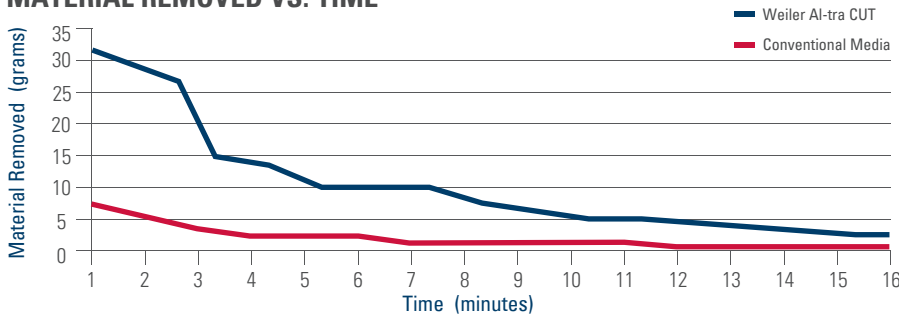
AL-TRA CUT™ DISCS - FOR GRINDING ALUMINUM

Weiler's Al-tra CUT discs are 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 and grinding discs in the market. AL-tra CUT discs outlast conventional resin fiber discs 5 to 1.

ALUMINUM APPLICATIONS

- Weld blending
- Grinding
- Deburring
- Finishing

MATERIAL REMOVED VS. TIME



Blending welds and saw marks on a mounting bracket.

P 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	-
3"	36	25	59811	59874
	60		59812	59875
	80		59813	59876
	120		59814	59877
2" & 3" Back-up - 1/4" stem				
Diameter	Max. RPM	Std. Pack		
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.)

P 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

Do not exceed maximum RPM of back-up pad. Do not store AL-tra Cut Discs above 120° F.

P 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.



ABRASIVES
 POWER BRUSHES
 NYLOX® BRUSHES
 PACKAGED ITEMS
 MAINTENANCE

BLENDING DISCS



Blending surface imperfections prior to painting.

Weiler's 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

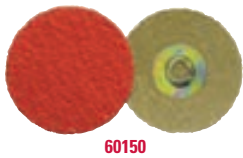
Saber Tooth™ Ceramic Alumina:
Cool, fast cutting action on Aluminum, Stainless Steel and other hard-to-grind metals.

Zirconia Alumina:
High performance 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.

P SABER TOOTH CERAMIC ALUMINA BLENDING DISCS

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



60150

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



60044

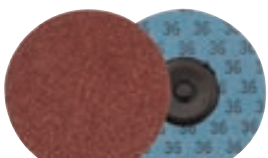
P BLENDING DISCS - Metal Hub Style

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



60391

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



60131

P 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



60508

P BACK-UP PADS - 1/4" Stem

Diameter	Max. RPM	Standard Pack	Item Number
2"	25,000	1	51551
3"	20,000	1	51552



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.)

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



Deburring and chamfering a section of pipe after cutting.

P 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.



59300

P 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
		120			59405

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



59403

P TRIM-KUT ADAPTERS

Description	For Use With	Max. RPM	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



59327

59326



56485

56496



NOTE

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 21 for more information.

Key:

P PERFORMANCE LINE
Industrial Grade

V VALUE LINE
Professional Grade

ABRASIVES

POWER BRUSHES

NYLOX® BRUSHES

PACKAGED ITEMS

MAINTENANCE

COATED ABRASIVE FLAP WHEELS



Weiler's abrasive flap wheels are designed with a solid hub construction that enables wheels to be rated at higher RPMs and provide more aggressive cutting action and increased productivity. They provide perfect balance leading to smooth, chatter-free finishing.

APPLICATIONS

- Internal diameter cleaning
- Finishing metal surfaces
- Deburring machined parts
- Cleaning and reconditioning pipe threads
- Polishing, blending & finishing
- Prepping surface for painting or plating
- Edge blending



Removing burrs from the inside diameter of a cut tube.



52010



52027

P 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"	60	25,000	10	52009
		80			52010
		120			52011
2"	1/2"	60	25,000	10	52366
	80	52367			
2"	1"	60	25,000	10	52015
		80			52016
		120			52017
2-1/2"	1"	60	23,000	10	52486
		80			52487
3"	1/2"	60	23,000	10	52024
		80			52025
3"	1"	60	23,000	10	52027
		80			52028 ■
		120			52029

■ Packaged product available. See pages 123-133 for details.



52621

P TIGER MOUNTED FLAP WHEELS - 1/4"-20 Threaded 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	52601
		80			52603
		120			52605
2"	1"	60	25,000	10	52611
		80			52613
3"	1"	60	20,000	10	52621
		80			52623



07756

P DRIVE ARBOR - For 1/4"-20 Mounted Flap Wheels

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

NOTE

- 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.

Key:

P PERFORMANCE LINE
Industrial Grade

V VALUE LINE
Professional Grade

P TIGER® UNMOUNTED FLAP WHEELS - Aluminum Oxide

Diameter	Width	Arbor Hole	Grit Size	Max. RPM	Standard Pack	Item Number
6"	1"	1"	60	6,000	5	53286
			80			53287
6"	2"	1"	60	5,700	3	53326
			80			53327



53286

P 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



03834

VORTEC PRO®

GREAT VALUE AT THE RIGHT PRICE

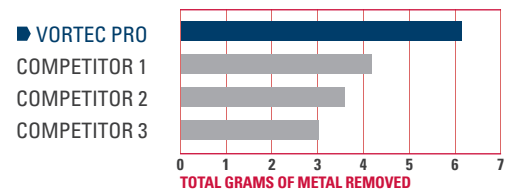
Vortec Pro Flap Wheels offer a high cut rate at a cost-effective price. The smart option for use in medium production environments.

APPLICATIONS

- Internal diameter cleaning
- Finishing metal surfaces
- Deburring machined parts
- Cleaning and reconditioning pipe threads
- Polishing, blending & finishing
- Prepping surface for painting or plating
- Edge blending

VORTEC PRO FLAP WHEELS OUTPERFORM

3"x1", 60 GRIT FLAP WHEEL PERFORMANCE OVER 30 MINUTES



Performance comparison based on automated lab testing completed by Weiler.

V 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



30726

■ Packaged product available. See pages 123-133 for details.

V VORTEC PRO MOUNTED FLAP WHEELS - 1/4"-20 Threaded 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	30745
		80			30746
2"	1"	60	25,000	10	30737
		80			30738
3"	1"	60	20,000	10	30735
		80			30736



30735

See page 30 for drive arbor.

COATED ABRASIVE SHOP ROLLS



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

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



65204

P 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"	60	1	65218
	80		65219
	100		65220
	120		65221
	150		65222
	180		65223
	240		65225
	320		65226
	2"		60
80		65232	
100		65233	
120		65234	
150		65235	
180		65236	
240		65238	
320		65239	

NOTE

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

Key:

P PERFORMANCE LINE
Industrial Grade

V VALUE LINE
Professional Grade



BONDED ABRASIVES

PERFORMANCE YOU EXPECT

Specifically designed for general purpose cutting and grinding applications on a budget, "Vortec Pro®" resin bonded products are fiberglass reinforced and provide the quality and performance that you expect from Weiler without breaking the bank. For rough grinding, weld removal, snagging, cutting, and parting, Vortec Pro delivers a great combination of performance and value.

Technical Information	34-35
Cutting Wheels	36-37, 39
Grinding Wheels.....	38-39

SELECTING A BONDED WHEEL

Specifically designed for general purpose grinding & cutting applications requiring heavy material removal such as rough grinding, weld removal, snagging, cutting and parting. All Weiler bonded abrasives are resin formulated for aggressive stock removal, fast cutting and reinforced with fiberglass webbing for stability.



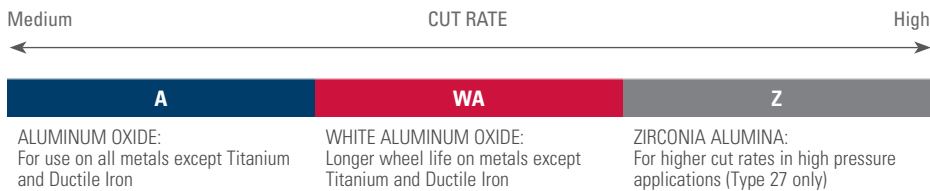
TYPE 27 – DEPRESSED CENTER
5/8"-11 hub option



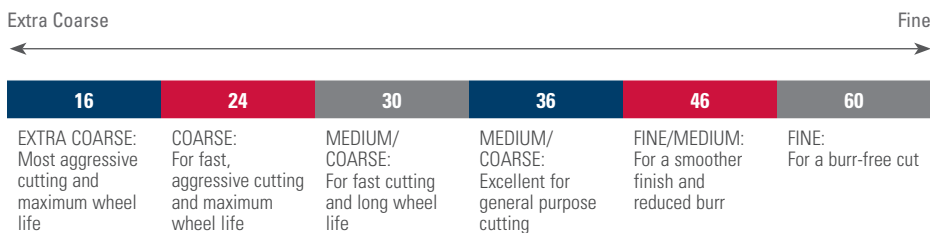

TYPE 1 – CUTTING
For use with mounting mandrels or adapting nut assembly



GRAIN SELECTION



GRIT SELECTION



GRADE SELECTION



Thickness Guide

1/4"	Grinding Only
1/8"	Cutting Only
3/32"	Cutting Only
1/16"	Cutting Only
.045"	Cutting Only
.040"	Cutting Only
.035"	Cutting Only

GENERAL OPERATING RECOMMENDATIONS

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

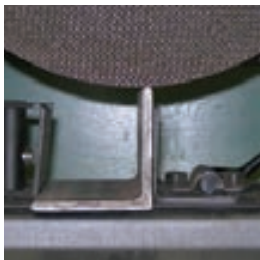
is recommended for cutting large cross sections (over 8") and when cutting tubular stock.



- 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.

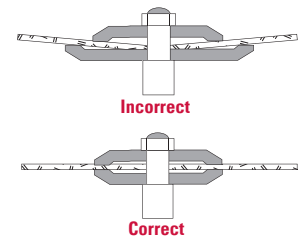


Incorrect
(Wide contact point)



Correct
(Two small contact points)

Fixture the work-piece to minimize wheel contact area for a faster, cooler cut.



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

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.

TROUBLESHOOTING 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	<ul style="list-style-type: none"> • Insufficient power being used • Contact area too large • Side run out • Wheel binding 	<ul style="list-style-type: none"> • Increase feed rate; run machine at full power • Reduce contact area • Check for spindle run out • Provide relief under part
Workpiece burn	<ul style="list-style-type: none"> • Insufficient feed rate • Wheel speed too slow • Wheel too coarse 	<ul style="list-style-type: none"> • Increase feed rate • Check for wheel slippage • Use finer grit or increase power
Non-square cuts	<ul style="list-style-type: none"> • Work not properly fixtured • Worn spindle bearings 	<ul style="list-style-type: none"> • Support both sides and fixture properly • Check spindle
Too much burr	<ul style="list-style-type: none"> • Improper fixturing • Grit too coarse 	<ul style="list-style-type: none"> • Check part fixturing • Use a finer grit

CUTTING WHEELS



Cutting a piece of Steel tubing to length.

For general purpose cutting applications on Steel, Iron, and other ferrous metals. Formulated for aggressive stock removal and fast cutting and reinforced with fiberglass webbing for stability.

APPLICATIONS

- Weld removal
- Cutting and parting
- Notching



56388

P THIN CUTTING WHEELS Depressed Center (Type 27)

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



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number	
						Zirconia Alumina	
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	



56283

V VORTEC PRO® THIN CUTTING WHEELS Depressed Center (Type 27)

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



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number	
						Aluminum Oxide	
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*	

*Contaminant-free.



56385

V VORTEC PRO CUTTING WHEELS Depressed Center (Type 27)

For general purpose cutting on ferrous metals.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number	
						Aluminum Oxide	
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"				56475	
5"	3/32"	5/8"-11	A24T - Metal	12,200	10	56384	
		7/8"				56476	
6"	3/32"	5/8"-11	A24R - Metal	10,200	10	56278	
		7/8"				56277	
7"	3/32"	5/8"-11	A24R - Metal	8,500	10	56477	
		7/8"				56383	



56430

V VORTEC PRO CUTTING & NOTCHING WHEELS Depressed Center (Type 27)

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



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number	
						Aluminum Oxide	
4-1/2"	1/8"	5/8"-11	A24R - Metal	13,300	10	56429	
		7/8"				56430	
5"	1/8"	5/8"-11	A24T - Metal	12,200	10	56427	
		7/8"				56428	
7"	1/8"	5/8"-11	A24T - Metal	8,500	10	56425	
		7/8"				56426	



VORTEC PRO® SMALL CUTTING WHEELS Reinforced (Type 1)

General purpose cutting applications in tool rooms and machine shops.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number
						Aluminum Oxide
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
	1/8"	3/8"	A36T - Metal		50	56076
	1/8"	1/4"	A36T - Metal		50	56270
4"	.035"	5/8"	WA60T - Metal	19,000	50	56271*
	.035"	3/8"	WA60T - Metal		50	56080*
	1/16"	3/8"	A36T - Metal		50	56086
	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	50	56281*
	1/16"	7/8"	A60T - Metal		50	56103
5"	.035"	5/8"	WA60T - Metal	12,200	100	56108*
	1/16"	7/8"	A36T - Metal		100	56118

*Contaminant-free.



56013



56103



VORTEC PRO THIN CUTTING WHEELS Reinforced (Type 1)

General purpose metal applications in tool rooms and machine shops.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number
						Aluminum Oxide
6"	.040"	7/8"	WA60T - Metal	10,200	25	56282*
	.045"	7/8"	WA60T - Metal			56273*
7"	.045"	7/8"	WA60T - Metal	8,740	25	56275*

*Contaminant-free. DIA. = 5/8" arbor with diamond knockout adapter for circular saws.



56282

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



56489

Key:



PERFORMANCE LINE
Industrial Grade



VALUE LINE
Professional Grade

WHY WEILER

ABRASIVES

POWER BRUSHES

NYLOX® BRUSHES

PACKAGED ITEMS

MAINTENANCE

GRINDING WHEELS



Grinding out weld defects for repair.

For general purpose grinding applications on Steel, Iron, and other ferrous metals. Formulated for aggressive stock removal and fast grinding and reinforced with Fiberglass webbing for stability.

APPLICATIONS

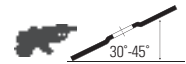
- Weld removal
- Rough grinding
- Notching



56453

P GRINDING WHEELS Depressed Center (Type 27)

High performance grain that cuts faster with long life. For general purpose, rough grinding.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number	
						Zirconia Alumina	
4-1/2"	1/4"	5/8"-11 7/8"	Z24T - Metal	13,300	10	56453	
						56456	



56464

V VORTEC PRO® GRINDING WHEELS Depressed Center (Type 27)

For general purpose, rough grinding.



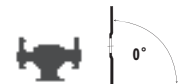
Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number	
						Aluminum Oxide	
4"	1/4"	5/8"	A24R - Metal	15,200	25	56473	
4-1/2"	1/4"	5/8"-11 7/8"	A24R - Metal	13,300	10	56454	
						56464	
4-1/2"	1/4"	5/8"-11 7/8"	A24N - Metal	13,300	10	56455	
						56457	
5"	1/4"	5/8"-11 7/8"	A24R - Metal	12,200	10	56449	
						56466	
6"	1/4"	5/8"-11 7/8"	A24R - Metal	10,200	10	56279	
						56280	
7"	1/4"	5/8"-11 7/8"	A24R - Metal	8,500	10	56468	
						56467	
9"	1/4"	5/8"-11	A24R - Metal	6,600	10	56470	



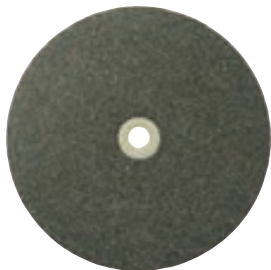
56468

V VORTEC PRO TYPE 1 VITRIFIED GRINDING WHEELS -

For general purpose rough grinding and heavy stock removal.



Diameter	Wheel Thickness	Arbor Hole Includes Diameters For	Type	Max. RPM	Standard Pack	Item Number
6"	3/4"	1/2" - 5/8" - 3/4"	36AO - Metal	4,100	5	36459
			60AO - Metal			36460
8"	1"	5/8" - 3/4"	36AO - Metal	3,600	5	33052



33052

Key:

- P** PERFORMANCE LINE Industrial Grade **V** VALUE LINE Professional Grade

V VORTEC PRO® LARGE REINFORCED CUT-OFF WHEEL Reinforced (Type 1)
 General purpose - For stationary machines.



Diameter	Wheel Thickness	Arbor Hole	Type	Max. RPM	Std. Pack	Item Number
						Aluminum Oxide
14"	1/8"	1"	A30R - Metal	4,400	10	56230



56239

V VORTEC PRO LARGE REINFORCED CUT-OFF WHEELS Reinforced (Type 1)
 General purpose - For low horsepower chop saws.



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

ADAPTING NUTS & SPANNER WRENCH For 4-1/2" & 9" Angle Grinders.

Description	Adapts To	Min. Wheel Thickness	Standard Pack	Item Number
Adapting Nuts	7/8" to 5/8"-11	1/16"	1	56494
Spanner Wrench	-	-	1	56495
Adapting Nuts	5/8" to 3/8"-24	1/16"	1	56484



56494

56495

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



Grinding out weld defects for repair with a grinding wheel.



NON-WOVEN ABRASIVES

FINEST AT THE FINISH

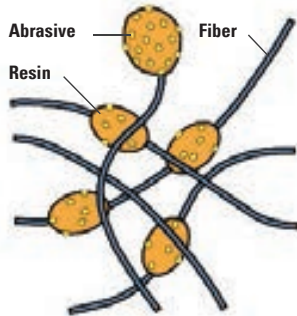
Non-woven abrasive products can be used in a broad range of surface-conditioning applications from cleaning and finishing to deburring and light blending. Unlike bonded and coated abrasives, they cannot be used for applications requiring heavy stock removal such as grinding and weld blending.

Non-Woven Abrasives Overview	41
Unitized Wheels	41
Surface Conditioning Discs	42
Hand Pads	43
Flap Wheels	43

SELECTING THE RIGHT PRODUCT

The various grades of non-woven products produce scratch patterns that can be compared to those produced by coated abrasive products. However, their pliable nature results in a softer, less pronounced scratch-line pattern. The strength of these products is producing decorative finishes ranging from satin to near-mirror polish.

Denser non-woven products are suitable for applications requiring light stock removal such as removing large, well-attached burrs and blending minor tool marks and imperfections.



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.

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

UNITIZED WHEELS

P **UNITIZED WHEELS** - Designed for use on die grinders and are ideal for a variety of cleaning, finishing, deburring and edge blending applications.



Diameter	Face Width	Arbor Hole	Grain	Grade	Max. RPM	Standard Pack	Item Number
Series 2 - Cleaning & Finishing - Hardness: Soft							
3"	1/4"	1/4"	Aluminum Oxide	Fine	12,000	10	55512
	1/4"		Silicon Carbide	Fine			55513
Series 6 - Deburring - Hardness: Medium/Hard							
1"	1"	3/16"	Aluminum Oxide	Fine	30,000	10	55531
3"	1/4"	1/4"	Aluminum Oxide	Fine	18,000		54492
	1/2"		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
	1/2"		Aluminum Oxide	Medium			55541
3"	1/8"	1/4"	Aluminum Oxide	Coarse	18,000	10	55546
	1/4"			Medium			55541
1/2"	Medium			55542			



55512



55541

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



56489

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, corrosion and oxidation
- Cleaning and removing stains from stainless steel
- Producing satin finishes on aluminum and stainless steel

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



51532



51533



51552

P PLASTIC BUTTON STYLE DISCS - General Purpose

Compatible with 3M Roloc™ back-up pads.



Diameter	Grade	Standard Pack	Item Number
2"	Very Fine (Blue)	50	51530
	Medium (Maroon)		51531
	Coarse (Brown)		51532
3"	Very Fine (Blue)	25	51533
	Medium (Maroon)		51534
	Coarse (Brown)		51535

PLASTIC BUTTON STYLE BACK-UP PADS - 1/4" Stem

Diameter	Max. RPM	Standard Pack	Item Number
2"	30,000	1	51551
3"	20,000	1	51552

Do not exceed maximum RPM of back-up pad.

P HOOK & LOOP STYLE DISCS



51508



51578

Diameter	Grade	Standard Pack	Item Number
3"	Very Fine (Blue)	25	51506
	Medium (Maroon)		51507
	Coarse (Brown)		51508
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
7"	Very Fine (Blue)	10	51521
	Medium (Maroon)		51522
	Coarse (Brown)		51523

HOOK & LOOP STYLE BACK-UP PADS

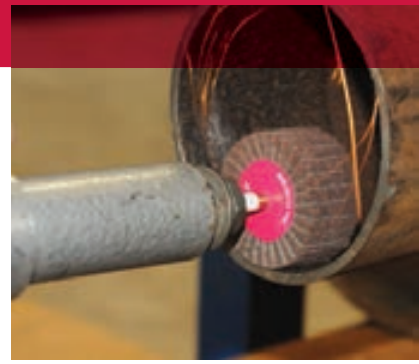
Diameter	Arbor Hole or Stem Size	Max. RPM	Standard Pack	Item Number
3"	1/4" Stem	18,000	1	51562
4-1/2"	5/8" -11 Arbor	13,000	1	51569
5"	5/8" -11 Arbor	10,000	1	51575
7"	5/8" -11 Arbor	6,000	1	51578

INTERLEAF FLAP WHEELS

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



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

P 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



54500



54510

HAND PADS

Industrial Grade:

- Producing satin finishes on aluminum and stainless steel
- Light deburring
- Surface preparation
- Blending light scratches

Commercial Grade:

- Cleaning and removing stains from stainless steel
- Removing rust, corrosion and oxidation

P 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.

Size	Grain	Grade	Description	Standard Pack	Item Number
Industrial Grade					
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
Commercial Grade					
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



51460



51457

Key:

P PERFORMANCE LINE Industrial Grade **V** VALUE LINE Professional Grade

ABRASIVES

POWER BRUSHES

NYLOX® BRUSHES

PACKAGED ITEMS

MAINTENANCE