

SOLUTIONS SHOWCASE

TUBE END DEBURRING

Problem: Structural tubing is fabricated into an abundance of different forms. In order to facilitate safer handling and proper fit, the ends of the tubing must frequently be deburred.

Solution: Wide face crimped wire wheel brushes are an extremely effective solution for tube end deburring. Brushes can deburr the OD and ID of tubing at an extremely high rate and produce a media-cost-per-part of considerably less than \$0.01 per part.



GEAR DEBURRING

Problem: Power transmission components like gears cannot function properly when burrs prevent correct engagement. Further, burrs that become detached from gears can become lodged in critical transmission components causing premature wear and potential failure.

Solution: Knot wire wheel brushes with surface speed in excess of 6,000 SFPM are an excellent solution for deburring gears prior to heat treatment. The high energy filament tips are able to separate burrs from base material and produce a uniform edge break, which protects the edge of the gear.







Photos courtesy of On-Line Services.

REMOVAL OF MILL SCALE

Problem: Mill processing of steel often involves heat treating and oil quenching operations that produce an adherent scale, which must be removed prior to joining or finishing operations.

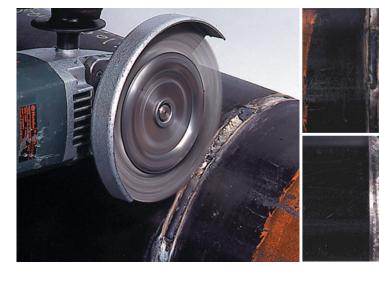
Solution: Wire brushes are capable of quickly cleaning material to white metal and producing varying degrees of surface roughening to promote adhesion. Brushing operations are often preferred over blasting and chemical processes that generate an expensive waste stream and can be costly to operate and maintain.







POWER BRUSHES



INTER-PASS PIPELINE WELD CLEANING

Before

After

Problem: To prevent voids and inclusions when welding multi-pass joints, the surface of each bead must be completely cleaned of slag and other residuals. Performing inter-pass weld cleaning as quickly and as thoroughly as possible is critical to avoiding costly repair work and delays.

Solution: Weiler's Roughneck® and Dually® stringer bead wheels have been engineered to maximize efficiency and minimize costs and are the preferred choice of welders' helpers on the pipeline. From hot pass to cap pass, these premium weld cleaning brushes excel at quickly and thoroughly removing slag, spatter, and oxidation without damaging the filler material.







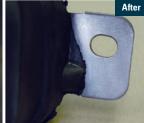
CLEANING THREADED CONNECTIONS

Problem: The box ends of drill string and other oilfield tubular goods are examples of connections that must be periodically cleaned without altering the geometry of the threads. Abrasive products all remove base material to some extent and are capable of damaging threads, resulting in unreliable connections and the risk of potential failures.

Solution: The conformability and impact action of small diameter crimped wire wheels make them ideal tools for cleaning threads without fear of damage. When used on a high-speed die grinder, these radial wheel brushes quickly remove residual dope as well as rust, corrosion and scale from male or female thread ends.







REMOVAL OF EXCESS MOLDED RUBBER

Problem: Mechanical rubber components such as motor mounts are produced through a process that commonly leaves flash and excess rubber on critical surfaces. In order for the component to function properly, this unwanted material must be removed.

Solution: The non-loading nature of wire brushes makes them the best available solution in the marketplace for removal of rubber from targeted surfaces. This solution can be implemented off-hand or using automated equipment.

ELECTING THE RIGHT BRU

SELECTION BY TOOL	Crimped Wheels	Knot Wheels	Crimped Cups	Knot Cups	Crimped Stem-Mtd. Wheels	Knot Stem-Mtd. Wheels	Crimped Stem-Mtd. End	Knot Stem-Mtd. End	Encap- sulated Brushes	Power & Hand Tube Brushes	Mini Brushes
Right Angle Grinder	V	~	~	V					V		
Straight Grinder	V	V			V	~	V	V	V		
Die Grinder	V	V			V	V	V	V	V		
Corded/Cordless Hand Drill					V	V	V	V		V	
High Speed Pencil Grinder											V
Bench/Pedestal Grinder	~	V									
Drill Press					V	V	V	V		V	
CNC/Milling/ Automatic Machine	~	~	~	~	~	~	~	~	~	~	

WIRE SIZE To maximize brush life and reduce costs, always use the finest wire that will accomplish the job without requiring excessive applied pressure or engagement with the brush face.

Wire	Coarse		Medium	Medium to Coarse		Medium		Fine		Fine
Gauge #	20	24	25	30	33	34	35	38	43	47
Dia. in Inches	.035	.023	.020	.014	.0118	.0104	.0095	.008	.006	.005
Dia. in Millimeters	0,89	0,58	0,51	0,36	0,30	0,26	0,24	0,20	0,15	0,13

Wire sizes in decimals of an inch are shown in all tables throughout this catalog. American Steel Wire Equivalent Gauge (Formerly Washburn & Moen)

LARGE DIAMETER WIRE

- Aggressive brushing action
- Fatigues and breaks more quickly

SMALL DIAMETER WIRE

- Resists fatique and breakage
- Less aggressive
- Flexible brushing action

CRIMPED VS. KNOT WIRE

CRIMPED WIRE BRUSHES:



- Wire is crimped to allow individual filaments to support each other.
- Provide flexibility for light/medium duty applications.
- Use on parts that could be damaged by the impact of a knot brush.
- Use for a broad range of applications.

KNOT WIRE BRUSHES:



- Straight wire filaments that are twisted as a single unit like a piece of cable or wire rope.
- Provide less flexibility and more aggressive brushing action in heavy-duty applications.
- Use on parts requiring high-impact action.
- Use to remove large burrs and heavy contamination, such as multiple layers of rust, scale, paint or oxides.

KNOT TWIST CONFIGURATIONS



STANDARD

Provides some flexibility for use on irregular surfaces. Sharp wire tips make this knot aggressive right from the start.



Provides smoother operation but sacrifices much of the cleaning action.



CABLE

Provides very aggressive brushing action. Sharp wire tips make this knot aggressive right from the start.



STRINGER BEAD

High-impact action, primarily for weld cleaning. Sharp wire tips make this knot aggressive right from the start.

TRIM LENGTH & FILL DENSITY

To maximize brush life and reduce costs, always use the shortest trim, highest density brush that will adequately conform to the surface or part edges.

LONG TRIM, LOW DENSITY BRUSHES

- Flexibility that is ideal for applications such as cleaning surfaces that are somewhat irregular
- Lower fill density can result in shorter brush life and less consistent performance in production environments.

SHORT TRIM, HIGH DENSITY BRUSHES

- Less flexible and faster action requires less applied pressure
- Consistent performance and longer life



POLYFLEX® ENCAPSULATED

These brushes are suitable for extremely demanding applications that do not require a high degree of conformability. They are especially well-suited for users with the following types of requirements:

Extreme brushing pressure - Encapsulation protects wires from over-flexing and extends brush life relative to conventional knot and crimped wire brushes.

Severe cleaning operations - Encapsulation holds the wire tips rigidly in place and creates the most aggressive brushing action that can be achieved with a wire brush.

BURGUNDY (STANDARD)



General purpose elastomer; suitable for most manufacturing applications.

ORANGE (HEAVY-DUTY)



A more heavy-duty elastomer than burgundy; used for more demanding applications.

BLACK (EXTRA HEAVY-DUTY)



A heat stabilized elastomer that does not wear easily; used primarily for cleaning welds.

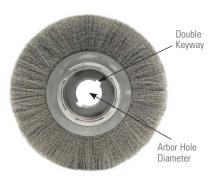
ARBOR HOLE VARIATIONS

FOR WEILER PERFORMANCE LINE WHEELS

If an arbor hole size other than the size listed in the product table is required, change the last digit of the Item Number as indicated in the Table.

Arbor Hole Diameter	Arbor Hole Features	Change Last Digit of Item # To:
1/2"-3/8"	Plastic Snap-Out Adapter	4
5/8"-1/2"	Plastic Snap-Out Adapter	5
5/8"-11 UNC	Threaded Nut (6", 7" & 8" Wheels Only)	6
5/8"	3", 4" & 6" Wheels Only	7
3/4"	_	8
7/8"	_	0 - 11
1"	1/4"*x 1/8"+ double keyway	0 - 12
1-1/4"	5/16"*x 5/32"+ double keyway	9
1-1/2"	3/8"*x 3/16"+ double keyway	0 - 13
1-3/4"	3/8"*x 3/16"+ double keyway	0 - 16
2"	1/2"*x 1/4"+ double keyway	0 - 14
2-1/4"	3/4"*x 3/8"+ double keyway	0 - 17
2-1/2"	1/2"*x 1/4"+ double keyway	0 - 15

^{*} Width of keyway



Example: Item Number 01228 has a listed, standard size arbor hole of 3/4". If an 1-1/4" arbor hole is desired, drop the 8 from 01228 and add 9. The Item Number becomes 01229. If a 2" arbor hole is desired, drop the 8 from 01228 and add 0-14. The Item Number becomes 01220-14.

⁺ Depth of keyway

PRODUCT ADVANTAGES

PRODUCT LINE STRUCTURE

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.

VALUE LINE (PROFESSIONAL GRADE)

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

OPERATIONAL ADVANTAGES

POWER BRUSHES DO NOT REMOVE BASE MATERIAL

- The impact action of the wire tips of a rotating brush behave in the same manner as the media in a blasting operation and they have the same ability to separate surface contaminants without damaging the substrate.
- Due to its compliant nature, a power brush is the ideal tool for removing burrs and blending sharp edges without changing overall part dimensions after sawing, cutting, grinding and machining operations.

Grinding Wheel



Wire Wheel



POWER BRUSHES DO NOT LOAD

Unlike bonded, coated and non-woven abrasive products, power brushes will not load when used on softer materials or when removing paint or similar coatings from a harder surface. Because a power brush consists of a collection of individual wire filaments, there is no place for debris to accumulate and prevent the sharp wire tips from striking the work.

Resin Fiber Disc



Wheel Brush



POWER BRUSHES ARE SELF-SHARPENING

As a power brush is used, the wire tips will naturally tend to wear to a point due to contact with the working surface. It is possible to take advantage of this self-sharpening action by periodically switching the mounting position of wheel brushes to maintain their speed and effectiveness.

WEILER SUPERIOR CONSTRUCTION





WEILER'S SOLID RING CONSTRUCTION

Our crimped wire brushes are constructed using solid rings to retain the fill material and our manufacturing process results in an even, consistent distribution of wire strands around the entire brush diameter. This ensures that our crimped wire products run smoother and last longer than the competition – even in the toughest applications.



WEILER'S INDIVIDUAL KNOT HOLE CONSTRUCTION

Weiler's knot wheels are constructed with an internal steel plate that has equally spaced individual holes around the perimeter. Wire is inserted through each hole and twisted into a knot. Each hole has precisely the same wire count, thereby assuring perfect balance. This eliminates vibration, reduces operator fatigue and increases brush life.



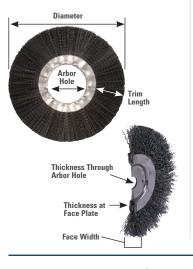


WEILER'S ROUGHNECK® WELD CLEANING BRUSH CONSTRUCTION

Each knot is twisted through its own hole and locked into an individual sprocket tooth. This prevents the knots from moving, providing a stronger striking action on the work surface, longer brush life and less operator fatigue. This results in the most aggressive weld cleaning in the market with the lowest cost-per-piece brushed.

PRODUCT CHARACTERISTICS

WHEEL BRUSH



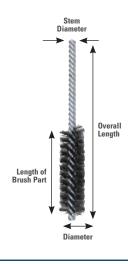
CUP BRUSH



END BRUSH



TUBE BRUSH



FILL MATERIALS



Steel Wire - Carbon steel wire is the most durable power brush fill material for metalworking and heavyduty cleaning applications. Weiler industrial grade brushes utilize heat treated, high tensile steel wire that has been drawn to the most exacting industry standards for superior fatigue resistance and aggressive brushing action. Vortec Pro® professional grade brushes utilize more cost-effective grades of steel wire to deliver reliable performance in less demanding applications.



Stainless Steel Wire - Stainless steel wire is only recommended when brushing corrosion-resistant or non-ferrous metals such as stainless or aluminum or when the brush is being used in a wet environment. Stainless steel wire is not any more durable or aggressive than the highest grades of steel wire. All Weiler stainless steel brushes are manufactured with Type 302 stainless wire, but select items are also available with Type 316 wire by special order.



Non-Ferrous Wire - Brass, bronze and aluminum wire are available in assorted Weiler industrial grade power brush items. These non-ferrous materials will not generate a spark in use, but they lack the durability of carbon steel and stainless steel wire. Due to their soft brushing action, these materials may also be used in special applications such as decorative finishing.



Animal Hair - Natural hair bristle is used primarily in miniature power brushes for scratch-free cleaning and polishing. Depending on the animal species and type of hair, this fill material can range from relatively stiff to relatively soft, making it suitable for a variety of applications from removing dust from optical lenses to buffing precious metals using abrasive compounds.



Vegetable Fiber - Tampico, a natural fiber produced from the Mexican agave plant, is a common natural fill material used in wet scrubbing and cleaning applications as well as buffing and polishing metals. It is heat, alkali and acid resistant. Its natural color is offwhite but it may be dyed or bleached.



Synthetic - Nylon is typically the most durable synthetic bristle material for use in power brushes and can be used in a variety of applications due to its flexibility, high fatigue strength and resistance to abrasion, heat, acids and alkali. Polypropylene is less durable and used primarily in strip brushes.

STAINLESS STEEL BRUSHES

Weiler's stainless steel wire brushes are manufactured using wire drawn from Type 302 stainless steel. Although 302 stainless is typically a non-magnetic material, it is important to remember that the amount of cold-working that it experiences during the wire-drawing process causes it to become magnetic. For this reason, proper storage and handling of stainless steel brushes is critical to prevent crosscontamination and "after rust" issues. Type 302 is widely used in the manufacture of power brushes for its relative durability

and aggressive action as well as for its austenitic properties that insure the corrosion resistance of the materials on which it is applied. The use of a different grade of stainless steel wire is typically required in critical weld preparation and cleaning applications, but it will not address "after rust" and other cross-contamination issues. To insure the corrosion resistance of any stainless steel surface after brushing, passivating it with a 10-20% solution of nitric acid is recommended.

WORK SAFER WITH PROPER BRUSH USAGE

Weiler products are designed and manufactured to the strictest standards to ensure the highest level of quality and safety. But safety doesn't stop there; raising awareness of basic safety practices and thinking about safety before the job starts — and after the job is complete — can help curb accidents and injuries in the shop. That's why Weiler offers customers a Safety Training Program based on the **SPOT (Speed & Size, Pressure, Orientation, Time)** methodology to help promote safe and proper product usage.

Deploying our **SPOT Safety Training Program** in your facility helps improve safety, regardless of your application or work environment.



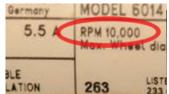
For **SPOT Safety Training** contact your Weiler representative.

SPEED & SIZE

- Power brushes, operate most effectively when the speed and pressure of the operation are properly matched to the demands of the application. In most operations, the highest speed and lightest pressure will ensure the fastest brushing action and longest brush life.
- Increasing brush speed increases the face hardness and brushing action; therefore, a fine wire brush rotating at a higher speed will often produce the same results as a coarser wire brush rotating at a slower speed. Finer wire operating at a higher speed is generally preferred and will provide a longer brush life.
- MSFS Maximum Safe Free Speed (RPM) is the maximum speed at which the brushes may be used safely but is not necessarily the optimum speed for a given application. Operating speed should be determined by the application. When running a wire

brush, a rule of thumb is to run it a "mile a minute" or a minimum of 5,000 Surface Feet Per Minute (SFPM). However, never exceed the Maximum Safe Free Speed of the brush.

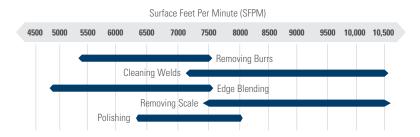
 Make sure spindle size and motor of machine are large enough to accommodate the diameter of brush to be used (see table on pg. 61).





Match the RPM rating of the power brush to the tool being used. The RPM of the tool should never exceed the RPM of the power brush.

RECOMMENDED SURFACE SPEEDS FOR BRUSHING APPLICATIONS



 $\frac{\mathsf{SFPM} = \pi \, \mathsf{Dia.} \, (\mathsf{Inches}) \, \mathsf{x} \, \mathsf{RPM}}{\mathsf{12}}$

SURFACE SPEEDS (PERIPHERAL SPEED IN FT./MIN.)

	Diameter (Inche	es)						
RPM	2	3	4	6	8	10	12	15
1000 1500 1750 2500 3000 3450 4000 6000 10,000 15,000 20,000	525 785 915 1,300 1,575 1,800 2,100 3,125 5,250 7,850 10,450	785 1,175 1,375 1,950 2,350 2,700 3,150 4,700 7,850 11,775 15,700	1,050 1,575 1,850 2,625 3,125 3,600 4,175 6,275 10,500 15,750 20,950	1,575 2,350 2,750 3,925 4,725 5,400 6,275 9,425 —	2,100 3,150 3,650 5,250 6,275 7,200 8,375 — —	2,625 3,925 4,550 6,550 7,850 9,000 10,475 — —	3,150 4,725 5,500 7,850 9,425 11,000 — — — —	3,925 5,900 6,800 9,825 11,775 13,500 — — — —

Example: A 6" diameter wheel running at 3,450 RPM has a surface speed of 5.400 SFPM.

MINIMUM RECOMMENDED SPINDLE DIAMETER (From ANSI Standard B165.1)

Outside Dia. of Wheel Brush	Maximum Face Width of Wheel Brush	Minimum Outside Dia. of Spindle (Shaft)
2"	1/4"	1/4"
3"	3/4"	1/4"
3" (heavy-duty)	1"	3/8"
4"	1"	3/8"
6"	1-1/4"	1/2"
8"	1-1/4"	5/8"
10"	2"	3/4"
12"	3"	1"
14"	3"	1-1/4"
15"	3"	2"
16"	3"	2"

Note: These diameters are based on the wheel brush being mounted next to the supported end of the shaft rather than the unsupported end in order to minimize overhang.

RECOMMENDED MOTOR SIZES

(Based on 1" Brush Face)

Brush Diameter	Motor Size	RPM
4"	1/4 HP	3,450
6"	1/2 HP	3,450
8"	3/4 HP	3,450
10"	1 HP	1,750
12"	1 HP	1,750
15"	1-1/2 HP	1,750

PRESSURE

Avoid excessive pressure when using a wire brush. Excessive pressure causes over-bending of the filaments and heat build-up resulting in filament breakage, rapid dulling and reduced brush life.

INSTEAD OF GREATER PRESSURE, TRY:

- A brush with more aggressive action (increase filament diameter, decrease trim length, different brush type, i.e.; knot type instead of crimped type.
- Higher surface speed (increase RPM or brush diameter)

Never exceed the recommended Maximum Safe Free Speed or RPM rating of the brush.



CorrectWire Tips Doing the Work

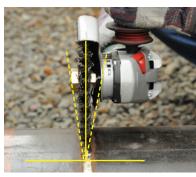


Incorrect
Excessive Pressure Causes Wire
Breakage

ORIENTATION

WORKING ANGLE BY BRUSH TYPE

Never stray more than 15° from the suggested working angles of the brush configurations below.



WHEEL +/- 15°



CUP +/- 15°



BEVEL +/- 15°

TIME

Reduce the time it takes to get the job done by choosing the most appropriate product configuration. (See page 56 for product selection information.)

SELF-SHARPENING OF WIRE WHEEL BRUSHES

When using wire wheel brushes without nuts, periodically reverse the direction of rotation to take advantage of the self-sharpening action that will result. Remove the brush from the spindle, flip the wire brush 180° and remount the brush securely.



Remount Securely

POWER BRUSH TROUBLESHOOTING GUIDE

There are many variables in power brush applications. If the power brush 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	Recommended Solutions
Brush works too fast	Select a brush with longer filaments and/or lower fill density
	Select a brush with a smaller diameter wire
	Select a brush with a narrower face and/or lower fill density
	Select a brush with a smaller outside diameter
	Operate the brush at a slower RPM
Brush works too slowly	Select a brush with shorter filaments and/or higher fill density
	Select a brush with a larger diameter wire
	Select a brush with a wider face and/or higher fill density
	Select a brush with a larger outside diameter
	Operate the brush at a faster RPM
Brushing action rolls or peens the burr over	Select a brush with a larger diameter wire
instead of removing burr	Select a brush with shorter filaments and/or higher fill density
	Operate the brush at a faster RPM
	Replace the crimped wire brush with a knot wire brush
Finer final finish required	Select a brush with longer filaments
	Select a brush with a smaller diameter wire
	Operate the brush at a higher RPM
	Replace the wire brush with a nylon abrasive brush (Nylox _®)
Coarser final finish required	Select a brush with shorter filaments
	Select a brush with a larger diameter wire
	Operate the brush at a slower RPM
Non-uniform brushing action	Select a brush with longer filaments
	Select a brush with a larger diameter wire
	Automate the operation to reduce human variables
Filaments break off	Reduce applied pressure or engagement
	Select a brush with a smaller diameter wire
	Select a brush with a lower fill density
Short brush life	Reduce applied pressure or engagement
	Select a brush with a smaller diameter wire
	Select a brush with a higher fill density

NEED HELP?

Call our Application Engineering Hotline at 888-299-APPS (2777). If the problem is too complex to be solved over the phone, we will determine if an evaluation should be conducted at our in-house lab or your facility. Either way, Weiler will provide the most cost-effective solution for your specific application.

Knot wire wheels with arbor holes are intended for use on straight grinders and stationary machines such as bench or pedestal grinders and buffing lathes. Featuring Weiler's individual knot hole construction, these radial brushes are available in heat-treated steel, Type 302 stainless steel, and bronze wire for use in a wide variety of applications.

APPLICATIONS

- Removing rust, scale and heavy corrosion
- Surface roughening and preparation
- Coating removal
- Removing excess molded rubber or plastic
- Heavy deburring



Removing rubber coating from a hydraulic hose.

STANDARD TWIST WHEELS provide heavy-duty brushing action with some flexibility; ideal for demanding cleaning applications on somewhat irregular surfaces.



	140		N	F	T	Max.	Thickness		0.1	Item N	Number
Dia.	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	AH Avail.	at Face Plates	Max. RPM	Std. Pack	Steel	Stainless
3"	.0118	1/2"-3/8"	20	3/8"	5/8"	1/2"	7/16"	25,000	10	08004	08254
	.014									08014 ■	08264 ■
	.020									08024 🔺	08274
4"	.0118	1/2"-3/8"	24	1/2"	7/8"	1/2"	7/16"	20,000	10	08034	08284
	.014									08044 ■	08294
	.020									08064	08314
4"	.014	5/8"-1/2"	24	1/2"	7/8"	7/8"	7/16"	20,000	10	08045	-
6"	.0118	5/8"-1/2"	24	1/2"	1-3/8"	1-1/4"	9/16"	9,000	10	08075	08325
	.014									08085 ■	_
	.016									08095	08345
	.023									08105	_
6"	.016	5/8"-1/2"	30	5/8"	1-1/4"	1-1/4"	5/8"	9,000	5	08975	_
7"	.014	5/8"	24	5/8"	1-7/8"	1-1/4"	9/16"	9,000	2	08835	_
8"	.0118	5/8"	38	5/8"	1-5/8"	2"	1/2"	6,000	2	08125	08375
	.014									08135	_
	.016									08145	08395
	.023									08155	_
8"	.014	3/4"	38	5/8"	1-5/8"	2"	1/2"	6,000	2	08138	_
10"	.014	3/4"	52	3/4"	1-3/4"	2-1/2"	3/4"	4,500	2	08178	-
10"	.014	1-1/4"★	52	3/4"	1-3/4"	2-1/2"	3/4"	4,500	2	08179	_
	.016									08189	_
12"	.014	1-1/4"★	52	3/4"	2-3/4"	2-1/2"	11/16"	3,600	1	08209	_
	.016									08219	_
12"	.014	2"◆	52	3/4"	2-3/4"	2-1/2"	11/16"	3,600	1	08200-14	_
12"	.020	1-1/4"★	56	5/8"	2-3/4"	3"	13/16"	4,500	2	09719	
12"	.023	2"◆	66	3/4"	2-1/4"	3"	13/16"	5,000	2	09870	-
15"	.016	1-1/4"★	52	7/8"	4-1/4"	2-1/2"	3/4"	3,600	2	08249	_
▲ F/10″	F /00" Davida			/0" - 1 /4" D	auhla Varariari		A A 1 - 1 - 1 -				04 OF for Jose 11-



◆ 1/2" x 1/4" Double Keyway

▲ Available in non-sparking bronze wire, see page 94-95 for details.







08189

WOLVERINE™ STANDARD TWIST WHEELS provide aggressive brushing action for general-purpose surface cleaning applications.

						Max.	Thickness			Item N	lumber
Dia.	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	AH Avail.	at Face Plates	Max. RPM	Std. Pack	Steel	Stainless
3"	.014	1/2"-3/8"	20	3/8"	3/8"	1/2"	7/16"	25,000	10	36290	_
4"	.014	1/2"-3/8"	20	5/8"	7/8"	1/2"	9/16"	20,000	10	36226 ■	_
	.014		24							_	36293
6"	.014	5/8"-1/2"	24	1/2"	1-1/4"	5/8"	9/16"	9,000	10	36227 ■	_
8"	.014	5/8"	34	9/16"	1-5/8"	5/8"	1/2"	6,000	2	36228 ■	_
	.023		38							36279	_

■ Packaged product available. See pages 131-141 for details.



NOTE

If a different arbor hole is required (than listed in the tables) refer to Arbor Hole Table shown on Pg. 57.

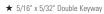


STANDARD TWIST WHEELS - High Density & Extra High Density - Engineered for maximum performance in production applications; for use on automated equipment such as dedicated gear deburring machines.





Wire Size	Arbor Hole	Face Width	Trim Length	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
			80 KNOTS				
.0118	1-1/4"★	3/4"	2-1/2"	5/8"	5,000	2	08309
.0118	2"◆						08300
.014	1-1/4"★						08319
.014	2"◆						08310
.020	1-1/4"★						08339
.020	2"◆						08330
.0118	1-1/4"★	3/4"	3"	5/8"	5,000	2	09969
.0118	2"◆						09960
.014	1-1/4"★						09989
.014	2"◆						09980
.020	1-1/4"★						09999
.020	2"◆						09990
			90 KNOTS				
.014	2"◆	3/4"	1-1/2"	5/8"	5,000	2	09020*
.016	2"◆						09790
.016	1-1/4"★						09799
.020	2"◆						09800
.020	1-1/4"★						09809
.020	1-1/4"★						09049*
.020	2"◆	3/4"	2"	5/8"	5,000	2	09840
.020	2"◆						09080*
.020	1-1/4"★						09089*
	.0118 .0118 .0114 .014 .020 .020 .0118 .0118 .0114 .014 .014 .020 .020 .016 .016 .020 .020 .020 .020	Size Hole .0118 1-1/4"★ .014 1-1/4"★ .014 2"♠ .020 1-1/4"★ .020 2"♠ .0118 1-1/4"★ .014 2"♠ .014 1-1/4"★ .020 1-1/4"★ .020 1-1/4"★ .020 2"♠ .016 2"♠ .020 1-1/4"★ .020 2"♠ .020 1-1/4"★ .020 2"♠ .020 2"♠ .020 2"♠ .020 2"♠ .020 2"♠	Size Hole Width .0118 1-1/4"★ 3/4" .0118 2"◆ .014 .014 1-1/4"★ .020 .020 1-1/4"★ .020 .0118 1-1/4"★ .3/4" .0118 2"◆ .014 .014 2"◆ .020 .014 2"◆ .020 .020 1-1/4"★ .020 .016 2"◆ .016 .016 1-1/4"★ .020 .020 2"◆ .020 .020 1-1/4"★ .020 .020 1-1/4"★ .020 .020 2"◆ .024 .020 2"◆ .024 .020 2"◆ .024	Size Hole Width Length 80 KNOTS .0118 1-1/4"★ 3/4" 2-1/2" .014 1-1/4"★ .014 2"◆ .020 1-1/4"★ .020 .02 .0118 1-1/4"★ 3/4" 3" .0118 2"◆ .014 3" .014 2"◆ .020 .020 .020 1-1/4"★ .020 .020 .020 .014 2"◆ 3/4" 1-1/2" .016 2"◆ .020 .020 .020 .020 2"◆ .020	Wire Size Arbor Hole Face Width Trim Length at Face Plates .0118 1-1/4"★ 3/4" 2-1/2" 5/8" .0118 2"◆ .014 2-1/2" 5/8" .014 1-1/4"★ .002 2.1/4" ★ .002 .002 2.1/4" ★ .002 <t< td=""><td>Wire Size Arbor Hole Face Width Trim Length at Face Plates Max. RPM .0118 1-1/4"★ 3/4" 2-1/2" 5/8" 5,000 .0118 2"◆ .014 2-1/2" 5/8" 5,000 .014 1-1/4"★ .020 1-1/4"★ .020 .0118 1-1/4"★ .020 .0118 .014" .014" .014" .014" .014" .020" .</td><td>Wire Size Arbor Hole Face Width Trim Length at Face Plates Max. RPM Standard Pack .0118 1-1/4"★ 3/4" 2-1/2" 5/8" 5,000 2 .0118 2"◆ .014 2-1/2" 5/8" 5,000 2 .014 2"◆ .020 1-1/4"★ .020 2"◆ .0118 .014"★ .0018 2"◆ .0018 .014"★ .0014 2"◆ .0014 .020 2 .0014 .002</td></t<>	Wire Size Arbor Hole Face Width Trim Length at Face Plates Max. RPM .0118 1-1/4"★ 3/4" 2-1/2" 5/8" 5,000 .0118 2"◆ .014 2-1/2" 5/8" 5,000 .014 1-1/4"★ .020 1-1/4"★ .020 .0118 1-1/4"★ .020 .0118 .014" .014" .014" .014" .014" .020" .	Wire Size Arbor Hole Face Width Trim Length at Face Plates Max. RPM Standard Pack .0118 1-1/4"★ 3/4" 2-1/2" 5/8" 5,000 2 .0118 2"◆ .014 2-1/2" 5/8" 5,000 2 .014 2"◆ .020 1-1/4"★ .020 2"◆ .0118 .014"★ .0018 2"◆ .0018 .014"★ .0014 2"◆ .0014 .020 2 .0014 .002



^{♦ 1/2&}quot; x 1/4" Double Keyway







Diameter	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
3"	.0118	1/2"-3/8"	40	3/4"	5/8"	3/4"	22,000	5	09104
4"	.0118	1/2"-3/8"	48	3/4"	7/8"	3/4"	20,000	5	09134
6"	.0118	2"	60	7/8"	1-3/8"	7/8"	8,000	5	09160
	.016								09180
8"	.0118	2"	76	1"	1-5/8"	1"	6,000	1	09410
	.016								09430
	.023								09440
10"	.0118	2"	104	1-1/4"	1-3/4"	1-1/4"	4,500	1	09460
	.016								09480
	.023								09490
12"	.0118	2"	104	1-1/4"	2-3/4"	1-1/4"	3,600	1	09510
	.016								09530
	.023								09540

See Metal Adapters on page 72 for brushes with 2" arbor holes.



94000

P	STANDARD cleaning processes	TWIS'	ΓWHEELS -	Four Sec	tion - Featur	ing four rows	of knotted wi	re; for use ir	automated
•	cleaning processe	s such as	removing light mi	II scale fro	m metal rod	and wire.			

	Wire	Arbor	No. of	Face	Trim	Thickness at Face	Max.	Standard	Item Number
Diameter	Size	Hole	Knots	Width	Length	Plates	RPM	Pack	Steel
12"	.0118	2"	208	2"	2-3/4"	1-3/4"	3,600	1	94098
	.014								94000

See Metal Adapters on page 72 for brushes with 2" arbor holes.

^{*} Economy

P

CABLE TWIST WHEELS provide maximum brushing action with minimal flexibility; ideal for demanding cleaning and coating removal applications on relatively smooth surfaces.



	Wire	Arbor	No. of	Face	Trim	Max. AH	Thickness at Face	Max.	Std.	Item N	lumber
Dia.	Size	Hole	Knots	Width	Length	An Avail.	Plates	RPM	Pack	Steel	Stainless
4"	.020	1/2"-3/8"	24	1/4"	7/8"	1/2"	7/16"	20,000	10	08534 ■	_
6"	.023	5/8"-1/2"	24	3/8"	1-3/8"	1-1/4"	9/16"	9,000	10	08565 ■	08695*
8"	.023	5/8"	38	1/2"	1-5/8"	2"	1/2"	6,000	2	08615	_
10"	.023	3/4"	52	1/2"	1-3/4"	2-1/2"	3/4"	4,500	2	08878	_
		1-1/4"★								08879	_
12"	.023	1-1/4"★	52	7/16"	2-3/4"	3"	3/4"	3,600	2	09379	_



If a different arbor hole is required (than listed) refer to the Arbor Hole Variations Table on page 57.

■ Packaged product available. See pages 131-141 for details.

★ 5/16" x 5/32" Double Keyway

*Standard Pack 2



CABLE TWIST WHEEL - Four Section - Featuring four rows of tightly knotted wire; for use in demanding automated applications such as cleaning the OD of drill pipe and other oilfield tubular goods.

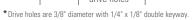
Dia.	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	Max. AH Avail.	Thickness at Face Plates	Max. RPM	Std. Pack	Item Number Steel
10"	.023	2"	208	1-3/4"	1-3/4"	2"	1-7/8"	4,500	1	94008



P

JOINT & CRACK CLEANING WHEELS feature heavy-duty construction and an extra long trim length for cleaning expansion joints and cracks in concrete and asphalt.

Dia.	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
10"	.035	1" with two drive holes*	38	3/8"	2-5/8"	1/2"	5,000	2	94199
12"	.035	1" with two drive holes*	38	3/8"	3-5/8"	1/2"	5,000	2	94224
12"	.035	1" with two drive holes*	52	3/8"	2-3/4"	3/4"	6,000	2	94026





ADAPTER for mounting Joint & Crack Cleaning Wheels onto a 20mm arbor.

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



Cleaning a crack on an airport runway with a joint & crack cleaning brush prior to filling.



Key:





NOTE

If a different arbor hole is required (than listed in the tables) refer to Arbor Hole Table shown on Pg. 57.



Cleaning a corner weld with a bevel brush.

KNOT WIRE WHEELS WITH NUT

Knot wire wheels with a threaded nut are intended for use primarily on small and large right angle grinders. Featuring Weiler's individual knot hole construction, these radial brushes are available in heat-treated steel, Type 302 stainless steel and bronze wire for use in a wide variety of applications.

APPLICATIONS

- Removing powder-coating, epoxy-based paints, and rubberized coatings
- Weld preparation and cleaning
- Cleaning scale and heavy corrosion
- Removing heavy burrs from large pieces after cutting



STANDARD TWIST WHEELS provide heavy-duty brushing action with some flexibility; ideal for deburring and demanding cleaning applications on somewhat irregular surfaces.





Ü					. •				_
	Wire	Arbor	No. of	Face	Trim	Max.	Std.	Item N	lumber
Dia.	Size	Hole	Knots	Width	Length	RPM	Pack	Steel	Stainless
3"	.014	3/8"-24 UNF	20	3/8"	5/8"	25,000	5	13201	13208
4"	.014	M10 x 1.25	24	1/2"	7/8"	20,000	5	13100	13107
		M10 x 1.50						13101	13108
		M14 x 2.0						13102	13109
		3/8"-24 UNF						13103	13110
		1/2"-13 UNC						13105	_
		5/8"-11 UNC						13106 ■	13113 ■
4"	.020	M10 x 1.25	24	1/2"	7/8"	20,000	5	13114	-
		M10 x 1.50						13115	_
		M14 x 2.0						13116	_
		3/8"-24 UNF						13117	
		1/2"-13 UNC						13119	_
		5/8"-11 UNC						13120 ▲ ■	_
6"	.016	5/8"-11 UNC	24	1/2"	1-3/8"	9,000	2	_	08346
	.023						5	08106	_

- Packaged product available. See pages 131-141 for details.
- ▲ Available in non-sparking bronze wire, see page 94-95 for details.





WOLVERINE™ STANDARD TWIST WHEELS provide an aggressive brushing action for general purpose deburring, cleaning, and surface preparation applications.



	Wire	Arbor	No. of	Face	Trim	Max.	Std.	Item N	Item Number	
Dia.	Size	Hole	Knots	Width	Length	RPM	Pack	Steel	Stainless	
4"	.014	5/8"-11 UNC	20	1/2"	7/8"	20,000	5	36212 ■	36213 ■	
		M10 x 1.25						36215 ■	_	
		M10 x 1.50						36216 ■	_	
		M14 x 2.0						36217 ■	_	
6"	.025	5/8"-11 UNC	24	3/4"	1-1/4"	11,000	10	36224 ■	_	

[■] Packaged product available. See pages 131-141 for details.





CABLE TWIST WHEELS provide maximum brushing action with minimal flexibility; ideal for demanding cleaning and surface preparation applications on relatively smooth surfaces.



	Wire	Arbor	No. of	Face	Trim	Max.	Std.	Item N	lumber
Dia.	Size	Hole	Knots	Width	Length	RPM	Pack	Steel	Stainless
4"	.020	M10 x 1.25	24	1/4"	7/8"	20,000	5	13261	-
		M10 x 1.50						_	13272
		5/8"-11 UNC						13266 ■	13276

[■] Packaged product available. See pages 131-141 for details.



WOLVERINE CABLE TWIST WHEELS provide the most aggressive brushing action for general purpose cleaning and surface preparation applications.



	Wire	Arbor	No. of	Face	Trim	Max.	Std.	Item Number
Dia.	Size	Hole	Knots	Width	Length	RPM	Pack	Steel
4"	.020	5/8"-11 UNC	20	1/4"	7/8"	20,000	5	36255 ■
		M10 x 1.50						36257
		M10 x 1.25						36258

■ Packaged product available. See pages 131-141 for details.

STANDARD TWIST BEVEL BRUSHES are saucer-shaped radial wheels that provide a heavy-duty brushing action with some flexibility; ideal for cleaning fillet welds and into corners.



	Wire	Arbor	No. of	Face	Trim			Trim	Max.	Std.	Item I	Number
Diameter	Size	Hole	Knots	Width	Length	RPM	Pack	Steel	Stainless			
4"	.014	M10 x 1.25	20	3/8"	3/4"	12,500	1	13401	-			
		M10 x 1.50						13402	_			
		5/8"-11 UNC						13406	13416			
4"	.020	M14 x 2.0	20	3/8"	3/4"	12,500	1	13423	_			
		5/8"-11 UNC						13426	13436			
4-1/2"	.014	5/8"-11 UNC	20	3/8"	1"	12,500	1	13456	13466			
4-1/2"	.020	5/8"-11 UNC	20	3/8"	1"	12,500	1	13476	13486			



THREADED ADAPTERS for mounting brushes with a 5/8"-11 UNC nut to other threaded spindles.

Fixed Thread Size	Adapted Thread Size	Standard Pack	Item Number
5/8"-11 UNC	M10 x 1.25	10	07771 ■
5/8"-11 UNC	M10 x 1.50	10	07772 ■
5/8"-11 UNC	3/8"-16 UNC	10	07769
5/8"-11 UNC	3/8"-24 UNF	10	07746



■ Packaged product available. See pages 131-141 for details.

KNOT WIRE WHEELS WITH STEM

Knot wire wheels with a permanently attached 1/4" stem or shank are primarily intended for use on high-speed die grinders. Although they can also be mounted onto a drill, the speed and power of that tool will limit the effectiveness of the brush. Featuring Weiler's individual knot hole construction, these radial wheels are available in heat-treated steel and Type 302 stainless steel wire.

APPLICATIONS

- Removing powder-coating, epoxy-based paints, and rubberized coatings
- · Weld preparation and cleaning
- Cleaning scale and heavy corrosion
- Removing heavy burrs from large pieces after cutting



	Wire	No. of	Face	Trim	Max.	Standard	Item N	lumber
Diameter	Size	Knots	Width	Length	RPM	Pack	Steel	Stainless
3-1/4"	.0118	20	3/8"	5/8"	25,000	5	17680	_
	.014						17681 ■	17684
	.020						17682	_
4"	.0118	24	1/2"	7/8"	20,000	5	17686	_
	.014						17687 ■	17691
	.020						17689	_



■ Packaged product available. See pages 131-141 for details.

"We get a competitive edge with Weiler because their prices are competitive but they last far longer."

- Jim Martin, Vice President, Karnel Incorporated







WELD CLEANING BRUSHES

Weiler's stringer bead wheels are the most effective weld cleaning tools for the most demanding users. Our premium weld cleaning brushes are manufactured to the most stringent quality standards, utilizing the highest quality wire available. The twist puts all the sharp tips at the end of the knots, making them the fastest, most aggressive weld cleaning tools on the market.





ROUGHNECK. MAX



NEW! Roughneck Max wheels have been re-engineered to MAXimize life, efficiency and consistency. But that is only a small part of what makes this brush better...

- Smooth & Responsive Improved feel and comfort during use makes brush operation effortless
- No Long Wire Breakage Stronger, sharper wire delivers consistency and performance you can count on
- Cleans 40% Faster Unmatched cleaning power compared to competitors
- Less Force Required The operator can apply less pressure to clean, letting the wire do the work

NEW!



ROUGHNECK MAX STRINGER BEAD WHEELS deliver unmatched weld cleaning performance by maximizing life, efficiency and consistency. The 4" brushes are recommended for cleaning root pass welds, surface prep and other cleaning applications.



	Wire	Arbor	No. of	Face	Trim	Thickness	Max.	Std.	ltem l	Number
Diameter	Size	Hole	Knots	Width	Length	at Face Plates	RPM	Pack	Steel	Stainless
4"	.020	5/8"-11 UNC	32	3/16"	7/8"	7/16"	20,000	5	13131 🔳	13138 ■

[■] Packaged product available. See pages 131-141 for details.

ROUGHNECK.







NOTE

If a different arbor hole is required (than listed in the tables) refer to Threaded Adapter Chart shown on Pg. 67.

ROUGHNECK STRINGER BEAD WHEELS are the standard for high-performance weld cleaning brushes. Narrow face brushes are suitable for cleaning root and hot passes and reaching into corners; wider face wheels can be used for cleaning filler and cap passes as well as for other surface prep and cleaning applications.



						Thickness			Item	Number
Diameter	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	at Face Plates	Max. RPM	Std. Pack	Steel	Stainless
			,	Root	Pass Brus	shes				
4"	.020	1/2"-3/8"	32	3/16"	7/8"	7/16"	20,000	5	13124	08954*
		M10 x 1.25							13125 ■	13132
		M10 x 1.50							13126	_
		M14 x 2.0							13127	13134
		3/8"-24 UNF							13128	13135
		1/2"-13 UNC							13130	13137
4-1/2"	.020	5/8"-11 UNC	38	3/16"	13/16"	3/8"	15,000	5	13232	13238
		7/8"							13234	13249
5"	.020	5/8"-11 UNC	38	3/16"	7/8"	3/8"	12,500	5	08756	08806
		7/8"							08750	_
6"	.020	5/8"-11 UNC	48	3/16"	1-1/8"	3/8"	12,500	10	08766 †	_
			38		1-3/8"	3/8"			_	08786+•
			56		1-1/8"	7/16"			09400 ■	09500
7"	.020	5/8"-11 UNC	56	3/16"	1-1/8"	7/16"	9,000	10	09000 🔳	09200
			76						09100	_
				Fille	r Pass Bru	shes				
5"	.023	5/8"-11 UNC	24	1/2"	7/8"	3/8"	12,500	5	09856	09866
6"	.023	5/8"-1/2"	24	1/2"	1-3/8"	9/16"	12,500	10	08775	_
		5/8"-11 UNC	24	1/2"	1-3/8"	9/16"			08776 ■	08796•
		5/8"-11 UNC	30	1/2"	1-1/4"	5/8"			08916	08926•
		5/8"-11 UNC	30	5/16"	1-3/8"	1/2"			09386	09396•

THE DUALLY®





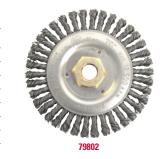
- Maximum Cleaning Action Featuring a knot twist with the most aggressive cutting action, the new dual-hex
 nut makes it easier for the user to regularly switch mounting position and keep the brush running at peak performance.
- Long Wheel Life Utilizing the highest quality heat-treated Steel wire and construction that virtually eliminates
 knot movement, the Dually delivers smooth operation and long life for the lowest cleaning costs in demanding multi-pass
 welding applications such as pipeline construction.
- Improved User Safety The one-piece, dual-hex nut is designed to provide adequate tool clearance so there is no
 need to remove the guard from the grinder in order to change the position of the wheel.



Removing weld slag before the next weld pass.

DUALLY STRINGER BEAD WHEELS feature a dual-hex nut design that simplifies periodic flipping of the wheel for maximum cleaning action, long life, and safer use.

	Wire	Arbor	No. of	Face	Trim	Thickness at Face	Max.	Standard	Item Number		
Diameter	Size	Hole	Knots	Width	Length	Plates	RPM	Pack	Steel	Stainless	
				Roo	t Pass Bru	shes					
4-1/2"	.020	5/8"-11 UNC	38	3/16"	13/16"	3/8"	15,000	5	79801	79811	
5"	.020	5/8"-11 UNC	38	3/16"	7/8"	3/8"	12,500	5	79802	79812	
6"	.020	5/8"-11 UNC	56	3/16"	1-1/8"	7/16"	12,500	5	79805	79815	
7"	.020	5/8"-11 UNC	56	3/16"	1-1/8"	7/16"	9,000	5	79800	79810	
				Fille	r Pass Bru	shes					
5"	.023	5/8"-11 UNC	24	1/2"	7/8"	3/8"	12,500	5	79803	79813	
6"	.023	5/8"-11 UNC	30	1/2"	1-1/4"	5/8"	12,500	5	79804	79814	



P

POLYFLEX™ ENCAPSULATED WELD CLEANING WHEELS Black Elastomer*

Feature a heat-stabilized encapsulation that gradually wears away to expose a consistent short trim for higher aggression, controlled brushing action, and longer life; suitable for cleaning hot welds.

3 %	
Item	
Minimalo	

Arbor Hole	No. of Knots	Face Width	Trim Length	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
'8"-11 UNC	32	3/16"	7/8"	7/16"	20,000	5	35800 ▲
'8"-11 UNC	_	3/16"	1-7/16"	3/8"	9,000	5	35206
'8"-11 UNC	56	3/16"	1-1/8"	7/16"	9,000	10	35600 ▲
	_		1-15/16"	3/8"		5	35216







Wire

Size

.020

.014

.020

.014

5/8"-

5/8"-

5/8"-

Diameter

Previously known as Vortec Pro®, Wolverine wheels offer professional grade quality and performance at a great value. Re-engineered, these 32 knot wheels deliver 20% MORE life while maintaining aggressive cleaning power for weld cleaning applications.

NEW!



WOLVERINE™ STRINGER BEAD WHEELS have upgraded to 32 knots to deliver 20% longer life. The 4" wheels are manufactured using similar product construction and to the same exacting standards as other Weiler weld cleaning brushes; they have been engineered for cost-effective use in less demanding cleaning applications.

	Wire	Arbor	No. of	Face	Trim	Thickness	Max.	Standard	Item I	Number
Diameter	Size	Hole	Knots	Width	Length	at Face Plates	RPM	Pack	Steel	Stainless
4"	.020	5/8"-11 UNC	32	3/16"	7/8"	7/16"	20,000	5	36218 ■	36219

■ Packaged product available. See pages 131-141 for details.



WOLVERINE STRINGER BEAD WHEELS are manufactured using similar product construction and to the same exacting standards as other Weiler weld cleaning brushes; they have been engineered for cost-effective use in less demanding applications.

	Wire	Wire	Arbor	No. of	Face	Trim	Max.	Item N	umber
Dia.	Size	Туре	Hole	Knots	Width	Length	RPM	Steel	Stainless
5"	.020	Stainless	5/8"-11 UNC	38	3/16"	7/8"	12,500	36295	36296
6"	.020	Carbon	5/8"-11 UNC	48	1/4"	1-1/4"	12,500	36225	-
		Carbon		38	3/16"	1-3/8"		36307 †	_
7"	020	Carbon	5/8"-11 UNC	56	3/16"	1-1/8"	9.000	36297	_





36297

Removing heat discoloration from a stainless steel canister.

CRIMPED WIRE WHEELS WITH ARBOR HOLE

Crimped Wire Wheels with Arbor Hole are intended for use on straight grinders and stationary machines such as bench or pedestal grinders and buffing lathes. Featuring Weiler's solid ring construction, these radial brushes are available in heat-treated steel, Type 302 stainless steel and brass wire for use in a wide variety of applications.

APPLICATIONS

- Removing rust and light corrosion
- · Paint removal and surface cleaning
- Decorative finishing
- Removing heat discoloration
- Light deburring



CRIMPED WIRE WHEELS - Narrow Face - provide a flexible brushing action and consistent performance for demanding light-duty cleaning and deburring applications.





00184



NOTE

If a different arbor hole is required (than listed in the tables) refer to Arbor Hole Table shown on Pg. 57.

	Mina	Aubau	F	Tuine	Max. AH	Thickness	Mari	644	Item N	lumber
Dia.	Wire Size	Arbor Hole	Face Width	Trim Length	AH Avail.	at Face Plates	Max. RPM	Std. Pack	Steel	Stainless
3"	.006	1/2"-3/8"	7/16"	1/2"	3/4"	7/16"	12,500	2	00204	00244
	.008								00214	_
	.0118								00234	00264
	.014								00274	_
4"	.006	1/2"-3/8"	1/2"	7/8"	3/4"	7/16"	12,500	2	00104	00154
	.006	5/8"-1/2"							00105	_
	.008	1/2"-3/8"							00114	_
	.0095								00124	_
	.0118								00134	00184
	.0118	5/8"-1/2"							00135	_
	.014	1/2"-3/8"	- /						00144	-
6"	.006	5/8"-1/2"	3/4"	1-7/16"	1-1/4"	7/16"	6,000	10	01035 🛦	01675*
	.008								01045	_
	.008	1-1/4"★							01049	
	.0104	5/8"-1/2"							01055	01695*
	.0118								01065 🛦	01705*
011	.014	0./4#	0 /4 !!	4.7/40	4 4 (41)	7 /4 0	0.000	40	01075 =	_
6" 8"	.0118	3/4" 5/8"	3/4"	1-7/16" 2-1/16"	1-1/4" 1-1/4"	7/16"	6,000	10	01068	01775
8	.006	5/8	3/4	Z-1/1b	1-1/4	1/2	6,000	2	01135	017/5
	.008 .0104								01145 01155	01795
	.0104								01165	01795
	.014								01105	01003
8"	.006	3/4"	3/4"	2-1/16"	1-1/4"	1/2"	6,000	2	01173	
U	.008	3/ 4	3/4	2-1/10	1-1/4	1/2	0,000	-	01148	_
	.0104								01158	_
	.0118								01168	_
	.014								01178	_
8"	.0118	1-1/4"★	3/4"	2-1/16"	1-1/4"	1/2"	6,000	2	_	01809
	.014	,	,	, ,	,		,,,,,,,		01179	_
10"	.006	3/4"	3/4"	2-1/2"	2"	5/8"	4,000	2	01228	_
	.0104	-,	,	,					01238	_
	.0118								01248	_
	.014								01258	01898
	.014	1" •							01250-12	_
10"	.014	1-1/4"★	3/4"	2-1/2"	2"	5/8"	4,000	2	01259	_
12"	.006	1-1/4"★	3/4"	2-15/16"	2-1/2"	1/2"	3,000	2	01299	01939
	.0104	•							01309	01949
	.0118								01319	_
	.014								01329	_
12"	.014	2"◆	3/4"	2-15/16"	2-1/2"	1/2"	3,000	2	01320-14	_
15"	.0118	1-1/4"★	3/4"	4-7/16"	2-1/2"	1/2"	3,000	2	01339	_
	.014	•							01349	_

- ◆ 1/2" x 1/4" Double Keyway
- ★ 5/16" x 5/32" Double Keyway
- 1/4" x 1/8" Double Keyway
- ▲ Available in non-sparking brass wire, see page 94-95 for details. * Standard Pack 2 Packaged product available. See pages 131-141 for details.

WOLVERINE™ CRIMPED WIRE WHEELS - Narrow Face - provide a flexible

brushing action and cost-effective performance in general purpose cleaning and deburring applications.

	Wire Size	Arbor	Face	Trim	Max. AH	Max.RPM	Std.	Item N	lumber
Dia.	wire Size	Hole	Width	Length	Avail.	IVIAX.KPIVI	Pack	Steel	Stainless
4"	.014	1/2"-3/8"	1/2"	3/4"	1/2"	6,000	2	36262 ■	_
6"	.014	5/8"-1/2"	3/4"	1-1/4"	5/8"	6,000	2	36200 ■	36201 ■
8"	.014	5/8"	3/4"	2"	5/8"	6,000	2	36205 ■	-

[■] Packaged product available. See pages 131-141 for details.



36205

POLYFLEX[™] ENCAPSULATED CRIMPED WIRE WHEELS feature an encapsulation that gradually wears away to expose a consistent short trim for higher aggression, controlled brushing action, and longer life.

Dia.	Wire Size	Arbor Hole	Face Width	Trim Length	Max. AH Avail.	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
	0.20	11010			Elastomer*			Tuok	31001
				Durgunuy	Elastolliel				
4"	.0095	1/2"-3/8"	3/8"	7/8"	3/4"	7/16"	6,000	2	35084
6"	.0104	5/8"-1/2"	1/2"	1-7/16"	1-1/4"	7/16"	6,000	2	35105
	.014								35117
8"	.014	5/8"	1/2"	2-1/16"	1-1/2"	1/2"	6,000	2	35135
			Ora	nge Elastom	er* - Heavy	-Duty			
6"	.0104	5/8"-1/2"	1/2"	1-7/16"	1-1/4"	7/16"	6,000	2	35520
Fl									

^{*} See Elastomer Color Code chart on page 57 for more information.

- 1



35105

P BENCH GRINDER WHEELS feature a shorter trim length, narrower face width, and the same durable construction as other Weiler crimped wire wheels; designed specifically for use on small bench grinders for reduced flaring and long life in a broad range of applications.

-	-	_							_
Dia.	Wire Size	Arbor Hole	Face Width	Trim Length	Max. AH Avail.	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
6"	.006	5/8"-1/2"	1/2"	1-1/16"	1-1/4"	7/16"	6,000	10	01085
	.008								01095
	.0118								01115
	.014								01125



01115

P CRIMPED WIRE WHEELS - High Density - Feature an increased fill density for greater brushing action, more consistent performance, and longer life in the most demanding applications requiring the flexibility of a crimped wire wheel.

	Wire	Aubau	F	Tuinn	Max.	Thickness	Man	Ctrl	Item N	Number
Dia.	Size	Arbor Hole	Face Width	Trim Length	AH Avail.	at Face Plates	Max. RPM	Std. Pack	Steel	Stainless
4-1/4"	.0118	5/8"-1/2"	3/4"	5/8"	3/4"	9/16"	6,000	1	01501	_
	.014								01502	-
6"	.008	5/8"-1/2"	3/4"	1-1/8"	1"	9/16"	6,000	1	01503	_
	.0118								01504	01508
	.014								01505	01509
	.020								01506	_
7"	.014	5/8"	7/8"	1-5/8"	1"	9/16"	6,000	1	01511	_
8"	.006	5/8"	7/8"	1-1/2"	1-1/4"	11/16"	4,500	1	01512	_
	.0104								01513	_
	.0118								01514	_
	.014								01515	_
10"	.0118	3/4"	1"	2-1/2"	1-1/4"	11/16"	4,500	2	01517	_
	014								01518	_



01515





06150



CRIMPED WIRE WHEELS - Medium Face - Provide a flexible brushing action and consistent performance for demanding light-duty cleaning and deburring applications; feature a wider face width to cover more area.



	Wine	Aubau	Face	Trim	Thickness	Mass		Item N	lumber
Dia.	Wire Size	Arbor Hole	Width Length		at Face Plates	Max. RPM	Standard Pack	Steel	Stainless
4-1/2"	.0118	2"	15/16"	3/4"	7/8"	6,000	1	06020	_
6"	.006	2"	1"	1-1/8"	15/16"	6,000	1	06040	_
	.008							06050	_
	.0104							06060	06440
	.0118							06070	06450
	.014							06080	_
8"	.006	2"	1"	1-3/8"	1"	4,500	1	06090	_
	.0104							06100	_
	.0118							06110	06490
	.014							06120	_
	.020							06620	_
10"	.0118	2"◆	1-1/8"	2"	1"	3,600	1	06150	06530
	.014							06160	_
	.020							06170	_
12"	.0118	2"◆	1-1/4"	3"	1"	3,600	1	06180	_
	.014							06190	_
	.020							06200	_

^{◆ 1/2&}quot; x 1/4" Double Keyway

For arbor hole reducing adapters, see Metal Adapter Table below.



02325



WOLVERINE™ CRIMPED WIRE WHEELS - Medium Face - Provide a flexible brushing action and cost-effective performance in general purpose cleaning and deburring applications; feature a wider face width to cover more area.



Dia.	Wire Size	Arbor Hole	Face Width	Trim Length	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Steel
6"	.014	5/8"-1/2"	5/8"	1-1/16"	1/2"	6,000	1	02325 ■
			3/4"	1-7/16"	7/16"			36203 ■
7"	.014	5/8"	3/4"	1-9/16"	1/2"	6,000	1	02335 ■

[■] Packaged product available. See pages 131-141 for details.



METAL ADAPTERS for Medium & Wide Face Brushes. Used in pairs & priced per pair.





PLATER'S WIRE WHEELS feature a longer trim length and very small diameter fill material for producing fine satin and antique finishes on non-ferrous and precious metals.



Dia.	Wire Size	Arbor Hole	Face Width	Trim Length	Number of Rows	Max. RPM	Std. Pack	Item Number Brass*
3"	.003	1/4"	1/2"	1"	2	6,000	12	22021
4"	.004	1/4"	1"	1-1/4"	4	4,000	5	22061
6"	.005	1/4"	1"	1-7/8"	4	3,600	1	22241

^{*} Also available in carbon steel, stainless steel and nickel silver wire.

CRIMPED WIRE WHEELS - Wide Face - Provide a flexible brushing action and consistent performance for demanding light-duty cleaning and deburring applications; feature a wider face width to cover more area. Thickness



	VA/:	Arbor	F	Tuinn	Thickness			Item N	lumber
Dia.	Wire Size	Hole	Face Width	Trim Length	at Face Plates	Max. RPM	Standard Pack	Steel	Stainless
4-1/2"	.006	2"	1-1/4"	3/4"	7/8"	6,000	1	03000	_
	.0118							03010	_
	.014							03020	_
6"	.006	2"	1-1/4"	1-1/8"	1"	6,000	1	03030	03480
	.008							03040	_
	.0104							03050	_
	.0118							03060	03510
	.014							03070	03520
7"	.0118	2"	1-1/4"	1-5/8"	1"	6,000	1	03090	_
	.014							03100	_
8"	.006	2"	1-1/2"	1-3/8"	1-3/8"	4,500	1	03110	_
	.0095							03130	_
	.0118							03140	03590
	.014							03150	_
	.020							03160	_
10"	.0104	2"	2"	1-7/8"	1-5/8"	4,000	1	03180	_
	.0118							03190	_
	.014							03200	_
	.020							03210	_
12"	.0118	2"	2"	2-7/8"	1-9/16"	3,000	1	03220	_
	.014							03230	03680
	.020				1-11/16"			03240	_
For arhor hole re	ducing adapters	see Metal Adant	ter Table on nage	72					



03110

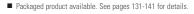
For arbor hole reducing adapters, see Metal Adapter Table on page 72.



WOLVERINE CRIMPED WIRE WHEELS - Wide Face - Provide a flexible brushing action and cost-effective performance in general purpose cleaning and deburring applications; feature a wider face width to cover more area.



	Wire	Arbor	Face	Trim	Thickness	Max.	Standard	Item Number
Dia.	Size	Hole	Width	Length	at Face Plates	RPM	Pack	Steel
6"	.014	2"-5/8"-1/2"	7/8"	1-1/8"	7/8"	6,000	1	06645 ■
								36204 ■
7"	.014	2"-5/8"-1/2"	7/8"	1-5/8"	7/8"	6,000	1	06655 ■
8"	.014	2"-5/8"-1/2"	1"	1-3/8"	1"	4,000	1	36206 ■
10"	.014	2"-3/4"	1-1/8"	2"	1"	3,600	1	36265 ■





POLYFLEX™ ENCAPSULATED CRIMPED WIRE WHEEL - Wide Face - Burgundy*

Elastomer* - Features an encapsulation that gradually wears away to expose a consistent short trim for higher aggression, controlled brushing action, and longer life. Wider face width covers more area.

igner aggress	ner aggression, controlled brushing action, and longer life. Wider lace width covers more area.											
	Wire	Arbor	Face	Trim	Thickness at Face	Max.	Std.	Item Number				
Dia.	Size	Hole	Width	Length	Plates	RPM	Pack	Steel				
6"	.0118	2"	1"	1-1/8"	1"	6,000	1	35160				







Removing casting flash from ductile-iron housing with an encapsulated brush.

SMALL DIAMETER "COPPER CENTER" WHEELS

Weiler's small diameter crimped wire wheels feature a plain arbor hole for use on a variety of portable tools and stationary machines. Featuring Weiler's solid ring construction for high-speed use, these radial brushes are available in heat-treated steel, Type 302 stainless steel, and brass wire.

APPLICATIONS

- Removing carbon build-up and deposits
- Removing rust and light corrosion
- Cleaning and finishing ID's and recessed areas
- Cleaning boiler tubes and internal passages
- Cleaning threads
- Wire stripping
- Light deburring



SMALL DIAMETER WHEELS provide a flexible brushing action and consistent performance for light-duty cleaning and deburring applications requiring a small wheel.







15563

	Wire	Arbor	Face	Trim	Max.	Standard	ltem l	Number
Dia.	Size	Hole	Width	Length	RPM	Pack	Steel	Stainless
1"	.003	1/4"	3/16"	1/4"	20,000	10	-	16461
	.005						_	16471
	.006						15071	_
1-1/4"	.003	1/4"	1/4"	3/8"	20,000	10	15101	-
	.006						15111	16511
	.008						_	16521
	.008	3/8"		5/16"			15732	_
1-3/8"	.006	1/4"	1/4"	3/8"	20,000	10	15131	_
	.008						15141	_
	.0104						15151	_
1-1/2"	.006	3/8"	1/4"	7/16"	20,000	10	15302 ▲	16702
	.008	3/8"		7/16"			15312	16712
	.008	1/2"		1/4"			15753	_
	.0104	3/8"		7/16"			15322	_
	.0118	3/8"		7/16"			15332	_
	.014	3/8"		7/16"			15762	_
2"	.003	1/4"	3/8"	3/4"	20,000	10	99307	_
	.003	1/2"		1/2"			15863	_
	.005	1/2"					_	16833
	.006	1/2"					15433 ▲	_
	.008	1/2"					15443	16843
	.0104	1/2"					15453	16853
	.0118	1/2"-3/8"					15463 ▲	_
	.014	1/2"-3/8"					15473	16873
2-1/2"	.0118	1/2"-3/8"	1/2"	3/4"	20.000	10	15513	_
	.014						15523	_
3"	.003	1/2"	5/8"	1"	20,000	10	99551	_
	.006	1/2"-3/8"		1"			15533	16933
	.006	5/8"		15/16"			15637	_
	.008	1/2"-3/8"		1"			15543	16943
	.008	5/8"		15/16"			15647	_
	.0104	1/2"		1"			15553	_
	.0118	1/2"-3/8"		1"			15563	16963
	.0118	5/8"		15/16"			15667	_
	.014	1/2"-3/8"		1"			15573 ▲	16973
	.014	5/8"		15/16"			15677	_
4"	.006	1/2"	1/2"	1-1/2"	20,000	10	99553	_

[▲] Available in non-sparking brass wire, see page 94-95 for details.

POLYFLEX™ ENCAPSULATED SMALL DIAMETER WHEELS -

Burgundy Elastomer* - Feature an encapsulation that gradually wears away to expose a consistent short trim for higher aggression, controlled brushing action, and longer life.



	Wire	Arbor	Face	Trim	Max.	Standard	Item Number
Diameter	Size	Hole	Width	Length	RPM	Pack	Steel
1-1/4"	.008	3/8"	3/16"	5/16"	20,000	10	35293
	.014						35294
2"	.0104	1/2"	1/4"	1/2"	20,000	10	35240
	.014						35070
3"	.008	1/2"	1/4"	1"	20,000	10	35808
	.0118						35250
	.014						35260



WIRE STRIPPING BRUSHES

Used for removing insulation from electrical wire. These brushes are made to order according to the specifications needed for the specific application.

When ordering, please specify:

- Brush diameter
- Arbor hole size
- Brush face width
- Wire size

For application assistance, call our Application Engineering Hotline toll-free at: 888-299-APPS (2777)



NOTE

- The adapters and drive arbors listed on this page are for use with small diameter wheel brushes only; do not attempt to use them with cutting or grinding wheels, buffing wheels, or any type of abrasive wheel or disc.
- Do not adapt a wheel brush for use on a shaft diameter less than that specified by ANSI B165.1 (see page 53) or exceed the maximum wheel diameter specified for a drive arbor.
- Never mount a drive arbor onto a tool that operates above the maximum RPM rating of either the arbor or the brush (whichever may be lower) and be sure that the stem of the arbor is properly secured in the collet or chuck before use.

























DRIVE ARBORS for mounting small diameter wheels into a collet or chuck.

Arbor Dia.	Stem Dia.	Stem Length	Length of Shaft	For Brushes with a Max. Dia. of	Overall Length	Max. RPM	Standard Pack	Item Number			
	Unthreaded Shaft										
1/4"	1/4"	1-1/8"	3/16"	2"	2-1/16"	20,000	5	07723			
3/8"	1/4"	1-1/8"	3/16"	4"	1-15/16"	20,000	5	07722			
	Threaded Shaft										
1/4"	1/4"	1-1/16"	1-1/8"	2"	2-9/16"	20,000	5	07725			
3/8"	1/4"	3/4"	3/4"	3"	1-9/16"	25,000	5	07727			
3/8"	1/4"	1"	1-1/8"	3"	2-9/16"	20,000	5	07726			
1/2"	1/4"	3/4"	3/4"	3"	1-3/4"	25,000	5	07724			
1/2"	1/4"	7/8"	3/4"	3"	1-11/16"	20,000	5	07721			
5/8"	1/4"	3/4"	3/4"	3"	1-13/16"	25,000	5	07729			



PLASTIC ADAPTERS for mounting small diameter wheels onto various arbor sizes.

Fixed Arbor Hole Size	Adapted Arbor Hole Size	Standard Pack	Item Number
3/8"	1/4"	10	04403
1/2"	1/4"	10	04400
1/2"	3/8"	10	04401
5/8"	1/2"	10	04402

^{*} See Elastomer Color Code chart on page 57 for more information.



Removing flash from a sand-cast iron engine block.

CRIMPED WIRE WHEELS WITH NUT OR STEM

Crimped wire wheels with a threaded nut are intended for use primarily on small angle grinders. Featuring Weiler's solid ring construction, these radial brushes are available in heat-treated steel and Type 302 stainless steel wire.

APPLICATIONS

- Removing rust and light corrosion
- Surface prep prior to welding
- · Removing heat discoloration and welding residuals



CRIMPED WIRE WHEELS provide a flexible brushing action and consistent performance for demanding light-duty cleaning and deburring applications.



	Wire	Arbor	Face	Trim	Max.	Std.	Item N	lumber
Dia.	Size	Hole	Width	Length	RPM	Pack	Steel	Stainless
4"	.006	5/8"-11 UNC	1/2"	7/8"	14,000	5	-	00156
4"	.014	M14 x 2.0	1/2"	7/8"	14,000	5	13077	_
		3/8"-24 UNF					13078	_
		5/8"-11 UNC					13081	13085
4"	.014	5/8"-11 UNC	1/2"	7/8"	14,000	5	35416*	_

^{*} Polyflex™ encapsulated - Burgundy elastomer. See Elastomer Color Code Chart on page 57 for more information.



13085

WOLVERINE™ CRIMPED WIRE WHEEL provides a flexible brushing action and cost-effective performance in general purpose cleaning and deburring applications.



	Wire	Arbor	Face	Trim	Max.	Standard	Item Number
Diameter	Size	Hole	Width	Length	RPM	Pack	Steel
4"	.014	5/8"-11 UNC	1/2"	3/4"	14,000	5	36207

Crimped wire wheels with a permanently attached 1/4" stem or shank are primarily intended for use on high-speed die grinders. Although they can also be mounted onto a drill, the speed and power of that tool will limit the effectiveness of the brush. Featuring Weiler's solid ring construction, these radial wheels are available in heat-treated steel, Type 302 stainless steel, and brass wire.

APPLICATIONS

- Cleaning and finishing ID's and recessed areas
- Paint removal and surface cleaning
- Cleaning threads
- Light deburring



CONFLEX BRUSHES Narrow Face - 1/4" Stem - Provide a very flexible brushing action.



	Wire	Face	Trim	Max.	Standard	Item N	umber
Diameter	Size	Width	Length	RPM	Pack	Steel	Stainless
2"	.006	3/8"	1/2"	20,000	10	17609	_
	.0118					17610 ■	17611 ■
2-1/2"	.006	3/8"	3/4"	20,000	10	17612	_
	.014					17614	_
3"	.008	1/2"	1"	20,000	10	17615 ■	_
	.0118					17616 ▲ ■	_
	.014					17617	17618 ■

Packaged product available. See pages 131-141 for details.



35310

P

POLYFLEX™ ENCAPSULATED CONFLEX BRUSHES - Burgundy Elastomer* -

1/4" Stem - Feature an encapsulation that gradually wears away to expose a consistent short trim for higher aggression, controlled brushing action, and longer life.

	Wire	Face	Trim	Max.	Standard	Item Number
Diameter	Size	Width	Length	RPM	Pack	Steel
2"	.0118	1/4"	1/2"	20,000	10	35305
3"	.008	1/4"	1"	20,000	10	35310
	.0118					35315

^{*} See Elastomer Color Code Chart on page 57 for more information.

[▲] Available in non-sparking brass wire, see page 94-95 for details.

P

CONFLEX BRUSHES - Wide Face - 1/4" Stem - Provide a flexible brushing action and consistent performance for demanding light-duty cleaning and deburring applications; feature a wider face width to cover more area.



	Wire	Face	Trim	Max.	Standard	Item Number	
Diameter	Size	Width	Length	RPM	Pack	Steel	Stainless
1-1/4"	.006	1/2"	3/8"	20,000	10	17600	_
	.008					17601	_
1-1/2"	.006	1/2"	1/2"	20,000	10	17602	_
	.008					17603	_
	.0118					17604	_
1-3/4"	.006	1/2"	5/8"	20,000	10	17605	_
	.008					_	17608
2"	.0118	3/4"	7/16"	20,000	10	17619	-
2-1/2"	.014	3/4"	11/16"	20,000	10	17620	_
3"	.008	1"	15/16"	20,000	10	17621	17637
	.0118					17622	_
	.014					17623	_



17603

CRIMPED WIRE RADIAL WHEELS 1/4" Stem - Feature side plates for a shorter trim length and more controlled brushing action in a stem-mounted crimped wire wheel.



	Wire	Face	Trim	Max.	Standard	Item N	lumber
Diameter	Size	Width	Length	RPM	Pack	Steel	Stainless
1-1/2"	.006	1/4"	3/8"	20,000	10	17950	17971
	.008					17951	17972
	.0118					17952	17973
	.014					17953	_
2"	.006	3/8"	7/16"	20,000	10	17954	-
	.008					17955	17974
	.0118					17956	_
	.014					17957	17975
	.020					17958	_
2-1/2"	.008	7/16"	9/16"	20,000	10	17959	17976
	.0118					17961	_
	.014					17962	17977
	.020					17963	_
3"	.008	1/2"	13/16"	20,000	10	17964	17978
	.0118					17965	_
	.014					17966	17979
	.020					17967	_
4"	.008	9/16"	1-5/16"	15,000	10	17968	17981
	.014					17969	17982



17971

WOLVERINE CRIMPED WIRE RADIAL WHEELS 1/4" Stem - Designed to be a flexible and economic small diameter brushing tool for a broad range of general purpose applications.

		0	0 0			
Diameter	Wire Size	Face Width	Trim Length	Max. RPM	Standard Pack	Item Number Steel
1-1/2"	.0118	1/4"	3/8"	20,000	10	36208 ■
2"	.014	3/8"	7/16"	20,000	10	36209 ■
3"	.008	7/16"	13/16"	20,000	10	36259 ■
	N14					36211 ■



36211

■ Packaged product available. See pages 131-141 for details.





	Wire	Face	Trim	Max.	Standard	Item I	Number
Diameter	Size	Width	Length	RPM	Pack	Steel	Stainless
1-1/2"	.006	1/4"	3/8"	20,000	10	17901	17930
	.008					17902	_
	.0118					17903	17931
2"	.008	3/8"	1/2"	20,000	10	17906	_
	.014					17907	17933
2-1/2"	.006	7/16"	5/8"	20,000	10	17909	_
	.014					17912	17935
3"	.006	1/2"	15/16"	20,000	10	17914	17936
	.008					17915	_
	.014					17917	17937
4"	.008	9/16"	1-1/4"	20,000	10	17922	_
	.014					17923	_



Deburring a plastic part using a nylon brush.

NYLON AND TAMPICO WHEELS

NYLON WHEELS

Wheel brushes filled with non-metallic filaments are primarily intended for light-duty surface cleaning and scrubbing applications as well as scratch-free finishing and polishing. Synthetic filaments such as nylon are durable and provide a very flexible brushing action in applications requiring less aggression than a wire brush. The softer fill material allows them to be used on materials that a wire brush would scratch or gouge.

APPLICATIONS

- Wet or dry cleaning and scrubbing
- Removing burrs and die flash from plastic parts
- Sweeping loose chips and debris





20490

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NYLON WHEELS feature a chemical-resistant synthetic fill material with excellent bend recovery for use in applications requiring a soft, durable fill material.



Diameter	Fill Diameter	Arbor Hole	Face Width	Trim Length	Max. RPM	Standard Pack	Item Number
2"	.010	1/2"	3/8"	1/2"	20,000	10	17223
	.014						17233
2-1/2"	.022	5/8"	3/8"	11/16"	20,000	10	99346
3"	.010	1/2"	3/8"	1"	20,000	10	29070
	.016						17263
6"	.016	2"	3/4"	1-1/2"	6,000	2	20490
8"	.020	2"	3/4"	2-1/2"	5,000	2	20510

For arbor hole reducing adapters, see Metal Adapter Table below and plastic adapters on page 75.

Wheel brushes filled with non-metallic filaments are primarily intended for light-duty surface cleaning and scrubbing applications as well as scratch-free finishing and polishing. Natural vegetable fibers such as Tampico hold abrasive compounds well and can be used for deburring, edge blending, and polishing applications.

APPLICATIONS

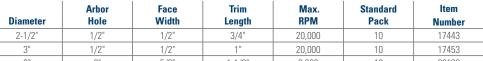
- · Wet or dry cleaning and scrubbing
- · Buffing and polishing non-ferrous and precious metals
- · Removing burrs and blending edges with abrasive compounds



17453

20180

TAMPICO WHEELS feature a durable vegetable fiber fill material that is chemical and heat resistant and also holds abrasive compounds well.





For arbor hole reducing adapters, see Metal Adapter Table below and plastic adapters on page 75.



METAL ADAPTERS for 6" & 8" Brushes. Used in pairs & priced per pair.



For Brush Arbor Hole Size	Adapted Arbor Hole Size	Standard Pack	Item Number
2"	1/2"	1 pair	03809
	5/8"	1 pair	03810
	3/4"	1 pair	03811
	7/8"	1 pair	03824
	1"	1 pair	03812
	1-1/4"	1 pair	03813
	1-1/2"	1 pair	03814

Cup brushes are for use on portable power tools for addressing larger surface areas more efficiently than a wheel brush. Cup brushes featuring a threaded nut are designed for smooth, efficient operation on angle grinders to make quick work of large jobs. Utility cup brushes featuring a permanentlyattached 1/4" stem are more suitable for smaller jobs and are recommended for use on high-speed air tools for the most effective brushing action and longest life. Cup brushes are manufactured with individual knot hole and solid ring construction for high performance and long life.

APPLICATIONS

- Removal of slag from the edges of plasma-cut or flame-cut plates
- Removing paint and coatings
- Cleaning rust, scale, and corrosion
- Deburring
- Weld prep and cleaning

CUP BRUSH SIZE SELECTION GUIDE

Brush Sizes	Angle Grinder Si
2-3/4" & 3"	4"
2-3/4", 3" & 3-1/2"	4-1/2"
2-3/4", 3" & 3-1/2"	5"
3-1/2" & 4"	6"
4", 5" & 6"	7"
4", 5" & 6"	9"



Removing slag from a flame-cut steel plate.

KNOT WIRE CUP BRUSHES - Single Row - Provide heavy-duty brushing action with some flexibility; ideal for demanding cleaning applications on relatively flat surfaces.



	Wire	Arbor	Trim	Max.	Standard	Item I	Vumber
Diameter	Size	Hole	Length	RPM	Pack	Steel	Stainless
2-3/4"	.014	M10 x 1.25	1"	14,000	1	13015	_
		M10 x 1.50				13016	_
		M14 x 2.0				13020	_
		3/8"-24 UNF				13021	_
		5/8"-11 UNC				13025 ■	13009
2-3/4"	.020	M10 x 1.25	1"	14,000	1	13281 ■	13253
		M10 x 1.50				13282	13254
		M14 x 2.0				13283	13255
		3/8"-24 UNF				13284	13256
		1/2"-13 UNC				13285	13257
		5/8"-11 UNC				13286 ▲ ■	13258 ■
3-1/2"	.023	M10 x 1.25	7/8"	13,300	1	13150	_
		M10 x 1.50				13151	_
		M14 x 2.0				13152	13159
		3/8"-24 UNF				13153	13160
		1/2"-13 UNC				13155	_
		5/8"-11 UNC				13156 ■	13163 ■
3-1/2"	.014	5/8"-11 UNC	1-1/4"	9,000	1	12736	_
	.020					12746	_
4"	.014	5/8"-11 UNC	1-1/4"	10,200	1	12306 ▲	12406
	.023					12316 ■	12416
	.035					12326	_
4"	.023	5/8"-11 UNC	1-1/4"	10,200	1	12206 �	_
4"	.023	5/8"-11 UNC	1-1/4"	10,200	1	12826*	_
5"	.014	5/8"-11 UNC	1-3/8"	7,000	1	12256*	_
	.023					12276 ■*	_
6"	.014	5/8"-11 UNC	1-3/8"	6,600	1	12356 ■	12456
	.023					12376 ■	12476
	.035					12396	_
6"	.023	5/8"-11 UNC	1-3/8"	6,600	1	12816*	_
6"	.014	5/8"-11 UNC	1-5/8"	6,000	1	12846	_
	.023					12856	12886
	.035					12866	_





13156

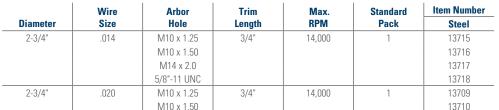


- * With internal nut ❖ Cable Twist Packaged product available. See pages 131-141 for details. ▲ Available in non-sparking bronze wire, see page 94-95 for details.

M14 x 2.0

5/8"-11 UNC







13711

13712

13711

NOTE If a different arbor hole is required (than listed in the tables) refer to Threaded Adapter Chart shown

on Pg. 67.



WOLVERINE™ KNOT WIRE CUP BRUSHES - Single Row

Provide an aggressive brushing action for general-purpose surface cleaning applications.

	Wire	Arbor	Trim	Max.	Standard	Item N	lumber
Dia.	Size	Hole	Length	RPM	Pack	Steel	Stainless
3"	.020	5/8"-11 UNC	1"	14,000	1	36238 ■	36239 ■
4"	.025	5/8"-11 UNC	1-1/4"	10,200	1	36244 ■	_
6"	.025	5/8"-11 UNC	1-3/8"	6,600	1	36245 ■	_

[■] Packaged product available. See pages 131-141 for details.

KNOT WIRE CUP BRUSHES - Banded - Single Row - Feature a removable metal band around fill material to reduce the exposed trim length and limit brush flaring at operating speed to provide a very aggressive, controlled brushing action.



	Wire	Arbor	Trim	Max.	Standard	Item N	Item Number	
Diameter	Size	Hole	Length	RPM	Pack	Steel	Stainless	
2-3/4"	.014	5/8"-11 UNC	5/8"	12,500	1	13300		
	.020					13301	13302	
4"	.023	5/8"-11 UNC	7/8"	10,200	1	12301		
5"	.023	5/8"-11 UNC	7/8"	6,600	1	12120	_	



KNOT WIRE CUP BRUSH - 1-1/2 Rows - Features an internal nut for use on dedicated equipment such as line traveling machines that clean and prep OD of pipe prior to coating.



	Wire	Arbor	Trim	Max.	Standard	Item Number
Diameter	Size	Hole	Length	RPM	Pack	Steel
4"	.023	5/8"-11 UNC	1-1/4"	7,000	1	94012





KNOT WIRE CUP BRUSHES - Double Row - Provide very aggressive brushing while still maintaining some flexibility; ideal for severe cleaning applications.



	Wire	Arbor	Trim	Max.	Standard	Item N	lumber
Diameter	Size	Hole	Length	RPM	Pack	Steel	Stainless
4"	.014	5/8"-11 UNC	1-1/4"	9,000	1	12756	_
	.020					12766	12726
6"	.014	5/8"-11 UNC	1-3/8"	6,600	1	12536	_
	.023					12556	12636
	.035					12576	_
6"	.014	5/8"-11 UNC	1-1/2"	6,000	1	12906	_
	.023					12916	_
	.035					12926	_





KNOT WIRE CUP BRUSHES - Banded - Double Row - Feature a removable metal band around fill material to reduce the exposed trim length and limit brush flaring to provide an extremely aggressive, controlled brushing action for the most severe applications.



	Wire	Arbor	Trim	Max.	Standard	Item Number
Diameter	Size	Hole	Length	RPM	Pack	Steel
4"	.020	5/8"-11 UNC	7/8"	9,000	1	12796
6"	.023	5/8"-11 UNC	7/8"	6,600	1	12676
	.035					12686
	1	I .	I	I	I	1



POLYFLEX™ ENCAPSULATED CRIMPED WIRE CUP BRUSHES feature fill material that has been encapsulated in an elastomer that gradually wears away to keep only the wire tips exposed; ideal

for applications on flat surfaces that require maximum aggression but no flexibility in the brushing action.

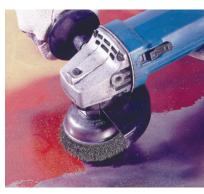
	Wire	Arbor	Trim	Max.	Standard	Item Number			
Diameter	Size	Hole	Length	RPM	Pack	Steel			
3-1/2"	.014	5/8"-11 UNC	7/8"	12,000	1	35406			
4"	.020	5/8"-11 UNC	1-1/8"	9,000	1	35186			
6"	.020	5/8"-11 UNC	1-1/4"	6,000	1	35006			
		Orange	Elastomer* - Hea	vy-Duty					
6"	.020	5/8"-11 UNC	1-1/4"	6,000	1	35530			
Black Elastomer* - Heavy-Duty - Heat-Resistant									
6"	.020	5/8"-11 UNC	1-1/4"	6,000	1	35760			

^{*} See Elastomer Color Code Chart on page 57 for more information.

CRIMPED WIRE CUP BRUSHES provide very flexible brushing action and the most consistent performance for demanding light-duty cleaning applications; feature a threaded nut for use on angle grinders.



	Wire	Arbor	Trim	Max.	Standard	Item N	lumber
Diameter	Size	Hole	Length	RPM	Pack	Steel	Stainless
3"	.014	M10 x 1.25	1"	14,000	1	13240 ■ ▲	-
		M10 x 1.50				13241	_
		M14 x 2.0				13242	_
		3/8"-24 UNF				13243	_
		1/2"-13 UNC				13244	_
		5/8"-11 UNC				13245 ■	_
3-1/2"	.014	M10 x 1.25	7/8"	13,300	1	13175	13182
		M10 x 1.50				13176	_
		M14 x 2.0				13177	13184
		3/8"-24 UNF				13178	13185
		1/2"-13 UNC				_	13187
		5/8"-11 UNC				13181 ■	13188
4"	.0118	5/8"-11 UNC	1-3/8"	10,200	1	14016	-
	.014					14026 ■	_
	.020					14036 ■ ▲	14126
5"	.014	5/8"-11 UNC	1-1/4"	9,000	1	14206 ■ ▲	_
	.020					14216	14256
6"	.014	5/8"-11 UNC	1-1/4"	6,600	1	14066 ■*	_
	.020					14076 ■ ▲*	14166*



Removing paint from a steel surface with a crimped wire cup brush.



13245

Diameter

3"

4"

6"

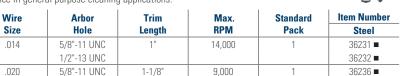
▲ Available in non-sparking brass & bronze wire, see page 94-95 for details. ■ Packaged product available. See pages 131-141 for details.

5/8"-11 UNC

36237 ■



WOLVERINE CRIMPED WIRE CUP BRUSHES provide flexible brushing action and cost-effective performance in general purpose cleaning applications.



6,600

Size

.014

.020

.020



NOTE

If a different arbor hole is required (than listed in the tables) refer to Threaded Adapter Chart shown on . Pg. 59.

Designed primarily for use on high speed die grinders, cup brushes with permanently attached stems can also be used on drills.

1-1/2"



UTILITY CRIMPED WIRE CUP BRUSHES are smaller diameter cup brushes which provide flexible brushing action and consistent performance for more demanding light-duty cleaning applications; featuring a 1/4" stem for use on air tools.

	Wire	Trim	Overall	Max.	Standard	Item N	Item Number	
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless	
1-3/4"	.006	3/4"	2-5/16"	13,000	10	14300 ▲	14303	
	.0118					14301 ▲ ■	14304	
2"	.008	5/8"	2-7/8"	13,000	10	14313	14318	
	.0118					14306	14319	
2-1/2"	.008	7/8"	3-1/8"	13,000	10	14315	14320	
	.014					14317	14321	
2-3/4"	.0118	7/8"	2-1/2"	6,000	1	14302 ▲ ■	_	

[■] Packaged product available. See pages 131-141 for details. ▲ Available in non-sparking brass wire, see page 94-95 for details.



WOLVERINE UTILITY CRIMPED WIRE CUP BRUSH is a flexible and economic small diameter brushing tool for a broad range of general purpose applications using air tools or drills. 1/4" Stem.

Diameter	Wire	Trim	Overall	Max.	Standard	Item Number
	Size	Length	Length	RPM	Pack	Steel
3"	.014	1"	3-1/4"	13,000	1	36230 ■

[■] Packaged product available. See pages 131-141 for details.





36230

[■] Packaged product available. See pages 131-141 for details.



Cleaning hard-to-reach fillet welds on a gusseted base plate.

STEM-MOUNTED END BRUSHES

Wire end brushes are for use on high-speed portable power tools for addressing smaller surfaces and recessed areas. End brushes feature an integral 1/4" steel stem for safe operation at high speed and quick mounting into the collet or chuck of either electric or pneumatic die grinders.

End brushes are available in a variety of knot wire and crimped wire configurations for use in a broad range of applications, and they are manufactured with the highest quality construction for smooth, efficient performance and long life. Weiler's end brushes are available in heat-treated steel, Type 302 stainless steel, and bronze or brass wire.

APPLICATIONS

- Cleaning ID's, internal passages and recessed areas
- Removal of die flash and excess molded material
- Deburring internal edges and crosshole intersections
- Spot facing



KNOT WIRE END BRUSHES feature a hollow end and heavy-duty brushing action with some flexibility; ideal for more demanding cleaning applications in recessed areas.



* *		0 0					C:
	Wire	Trim	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
1/2"	.006	1-1/8"	2-7/8"	20,000	10	_	10215
	.0104					10208	10216
	.014					10217	10218
3/4"	.006	1-1/8"	2-7/8"	20,000	10	_	10220
	.0104					10210	10211
	.014	7/8"	2-5/8"	22,000		10025 ■	10029 ■
	.020					10026 ■	10030
1-1/8"	.006	1-1/8"	2-9/16"	20,000	10	10141 ■	10142 •
	.0104		2-7/8"			10212	10213
	.0118					10187	_
	.014	7/8"	2-5/8"	22,000		10027 ■	10031 ■
	000	1	1	1	1	10000	10000







KNOT WIRE END BRUSHES - Nickel-plated Cup compliant with DOD MIL STD 2041D(SH)

Feature a hollow end and heavy-duty brushing action with some flexibility; ideal for more demanding cleaning applications in recessed areas.





	Wire	Trim	Overall	Max.	Standard	Item Number
Diameter	Size	Length	Length	RPM	Pack	Stainless
3/4"	.014	7/8"	2-5/8"	22,000	10	10387
	.020					10388
1-1/8"	.014	7/8"	2-5/8"	22,000	10	10392
	.020					10393



WOLVERINE™ KNOT WIRE END BRUSHES feature similar hollow-end

construction and heavy-duty brushing action, but they have been engineered to provide cost-effective use for less demanding applications.





	Wire	Trim	Overall	Max.	Standard	Item N	umber
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
3/4"	.014	7/8"	2-5/8"	22,000	10	36286	36287
	.020		2-9/16"			36250 ■	_
1"	.014	7/8"	2-5/8"	22,000	10	36288	36289
	.020		2-9/16"			36251 ■	_

Packaged product available. See pages 131-141 for details.



11141



KNOT WIRE END BRUSHES - Banded - Feature a pair of bands around the fill to reduce the exposed trim length and limit brush flaring to provide a very aggressive, controlled brushing action.



Diameter	Wire Size	Trim* Length	Overall Length	Max. RPM	Standard Pack	Item Number Steel
1-1/8"	.014	3/8"	2-5/8"	18,000	10	11140
	.020					11141

^{*} Trim length from bands

CRIMPED WIRE END BRUSHES feature a solid end construction and very flexible brushing action ideal for more demanding light-duty cleaning applications in corners and hard-to-reach areas.

-6:0
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	Wire	Trim	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
3/8"	.0118	7/8"	2-1/2"	20,000	10	10188	
1/2"	.006	7/8"	2-9/16"	25,000	10	10001 🛦 🔳	10013 ■
	.0104					10002	10014
	.014					10003	10015
	.020					10004	10016
3/4"	.006	7/8"	2-9/16"	22,000	10	10005 ■	10017 ■
	.0104					10006	10018
	.014					10007	10019
	.020					10008 ■	10020
1"	.006	1"	2-3/16"	22,000	10	10009 ▲ ■	10021 ■
	.0104					10010 ■	10022 ■
	.014					10011 🔺	10023
	.020	1-1/8"	2-15/16"			10012 ■	10024





Cleaning the exhaust port of a gasoline engine.



CRIMPED WIRE END BRUSHES - Coated Cup - Feature a solid end construction and very flexible brushing action ideal for more demanding light-duty cleaning applications in corners and hard-to-reach areas. The plastic sleeve covering the cup protects the work surface from being scratched or marked.



	Wire	Trim	Overall	Max.	Standard	Item N	lumber -
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
1/2"	.006	7/8"	2-9/16"	25,000	10	11000	11010
	.0104					11001	11011
3/4"	.006	7/8"	2-9/16"	22,000	10	11003	11013
	.0104					11004	11014
1"	.006	7/8"	2-3/4"	22,000	10	11006	11016
	.0104	1"				11007	11017



CRIMPED WIRE END BRUSHES - Nickel-plated Cup - Feature a solid end construction and very flexible brushing action ideal for more demanding light-duty cleaning applications in corners and hard-to-reach areas. The nickel-plated cup is compliant with DOD MIL STD 2041D(SH).



36248 ■

	Wire	Trim	Overall	Max.	Standard	Item Number
Diameter	Size	Length	Length	RPM	Pack	Stainless
1/2"	.006	7/8"	2-9/16"	25,000	10	10370
	.0104					10371
	.014					10372
	.020					10373
3/4"	.006	7/8"	2-9/16"	22,000	10	10374
	.0104					10375
	.014					10376
	.020					10377
1"	.006	1"	2-7/8"	22,000	10	10378
	.0104					10379
	.014					10380
	.020	1-1/8"	2-15/16"			10381



WOLVERINE CRIMPED WIRE END BRUSHES feature similar solid end construction and flexible brushing action, but they have been engineered to provide cost-effect

construction and flexible brushing action, but they have been engineered to provide cost-effective use for less demanding applications.





.014 Packaged product available. See pages 131-141 for details.



CRIMPED WIRE END BRUSHES - Banded - Feature bands around the fill to reduce the exposed

trim length and limit brush flaring at operating speed to provide an aggressive, controlled brushing action.





	Wire	Trim	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Length*	Length	RPM	Pack	Steel	Stainless
1/2"	.006	9/16"	2-9/16"	20,000	10	11100	11110
	.0104			25,000		11101	_
3/4"	.006	7/16"	2-11/16"	20,000	10	11102	11112
	.0104	3/8"				11103	11113
1"	.006	3/8"	2-5/8"	13,000	10	_	11114
	.0104					11105	11115

^{*} Trim length from bands



*CONTROLLED FLARE END BRUSHES feature uniquely trimmed crimped wire fill for more effective brushing action and greatly enhanced durability when cleaning corners and fillet welds.



A VAN	
10310	

	Wire	Trim	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
1/2"	.0104	7/8"	2-9/16"	25,000	10	10301	10313
	.014					10302	10314
	.020					10303	10315
3/4"	.0104	7/8"	2-9/16"	22,000	10	10305	10317
	.014					10306	_
	.020					10307	10319
1"	.0104	1"	2-7/8"	22,000	10	10309	10321
	.014					10310	10322
1"	.020	1-1/8"	2-15/16"	22,000	10	10311	10323

^{*}Patent #8,186,000 B2

The unique trim of a controlled flare end brush is designed specifically to address hard-to-reach areas, reducing filament fatigue and breakage typically associated with a standard end brush when cleaning corners and fillet welds.



Standard Crimped Wire End Brush









CRIMPED WIRE PILOT BONDING BRUSHES - Banded - Solid end.

Originally designed to clean around rivet holes in aluminum aircraft panels but may be used in other similar applications.



	Wire	Trim	Overall	Pilot	Max.	Standard	Item Number
Diameter	Size	Length	Length	Diameter	RPM	Pack	Stainless
1/2"	.005	3/8"	2-1/4"	3/32"	20,000	10	10056
				1/8"			10057
				5/32"			10058
				3/16"			10059



POLYFLEX® ENCAPSULATED CRIMPED WIRE END BRUSHES

Burgundy Elastomer* - Feature fill material that has been encapsulated in an elastomer that gradually wears away to keep only the wire tips exposed; ideal for applications such as spot facing that may require maximum aggression and no flaring.





	Wire	Trim	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
1/2"	.0104	7/8"	2-9/16"	18,000	10	35340	35500
3/4"	.0104	7/8"	2-9/16"	16,000	10	35345	35505
1"	.0104	7/8"	2-3/4"	14,000	10	35350	_
			Orange Elastom	er* - Heavy-Dut	у		
1/2"	.0104	7/8"	2-9/16"	18,000	10	35535	_
3/4"	.0104	7/8"	2-9/16"	16,000	10	35540	-
1"	.0104	7/8"	2-3/4"	14,000	10	35545	_

^{*} See Elastomer Color Code Chart on page 57 for more information.

CIRCULAR FLARED END BRUSHES feature crimped wire fill that has been "pre-flared" to match the working angle of the brush at operating speed; suited for addressing broad and slightly contoured surfaces.



	Wire	Max.	Standard	Item N	umber
Diameter	Size	RPM	Pack	Steel	Stainless
1"	.006	25,000	1	10033	10042
	.008			10034	10043
	.020			10099	_
1-1/4"	.006	20,000	1	10076	_
	.008			10035	_
1-1/2"	.006	20,000	1	10044	10045
	.008			10037	10046
	.020			10038	10047
2"	.014	25,000	2	11142	_
2-3/4"	.008	16,000	2	10039	10048
	.020			10040	_
3"	.006	16,000	2	10150	10151
	.008			10041 ■	10050
	.014			10134	_
	.020			10073	10074
4"	.008	15,000	1	-	96705
rkanad product avail	able See names 131-1/1 for	dotails			



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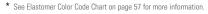
Packaged product available. See pages 131-141 for details.

POLYFLEX® ENCAPSULATED CIRCULAR FLARED END BRUSHES

Black Elastomer* - Crimped wire fill that has been encapsulated in a heavy-duty elastomer that gradually wears away to keep only the wire tips exposed. Their saucer-shape, narrow face, and aggressive brushing action make them suitable for addressing edges, corners, and confined areas.



O.D.	Wire	Cup	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Size	Length	RPM	Pack	Steel	Stainless
1-3/4"	.006	3/4"	2"	25,000	2	35222	_
	.0104					35223	35226
	.020					35224	_
2"	.0104	3/4"	1-1/8"	20,000	2	35233	-
	.020					35234	_







PENCIL END BRUSHES contain straight wire fill material retained in a small diameter steel tube. They provide a light-duty brushing action suitable for very small recessed areas.

14	_

Tube	Wire	Trim	Overall	Max.	Standard	Item Number	
Diameter	Size	Length	Length	RPM	Pack	Steel	Stainless
1/4"	.0104	3/4"	3-3/4"	8,000	10	99825	99823

When brushing a recessed area or the inside diameter of a tube, use an End Brush in the following manner: Insert the brush, start the brush rotating. Turn off the power before removing the brush. This will prevent the brush from flaring out and enable it to fit into the recessed area again.



1. Insert Brush



2. Apply Power



3. Shut-Off Power



4. Remove Brush



MOUNT END BRUSHES SAFELY

When mounting end brushes, the amount of overhang from the tool should be minimized by clamping on as much of the straight portion of the stem as possible. However, the collet or chuck should NOT clamp on the radius at the base of the stem to insure a secure hold before use. See photo above for the correct brush orientation.



Deburring intersecting oil passages in an engine block.

BORE-RX™ CROSSHOLE DEBURRING BRUSHES

Designed for automated use in CNC machining centers and dedicated equipment. They are densely filled for high aggression and long tool life and feature a 3/8" diameter steel stem with a flat for use in a collet or end-mill holder.

Bore-Rx brushes are ideal tools for removing burrs from internal edges. Since they can eliminate manual deburring operations, these internal brushing tools help to improve part-to-part consistency and reduce direct labor costs. Bore-Rx brushes are available in sizes ranging from 3/4" to 4" in diameter, and they are designed to be interpolated within bore sizes that are larger than the brush diameter.

Operating Parameters For Wire Bore-Rx Brushes

Brush	Recommended	Recommended
Diameter	RPM	Feed Rate
5/8" - 7/8"	8,000	20"/min
1" - 1-1/2"	8,000	20"/min
2" - 2-1/2"	6,000	20"/min
3" - 4"	3,000	20"/min

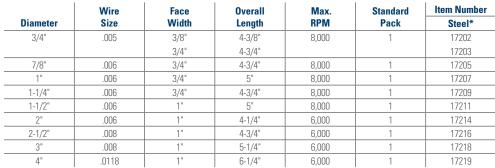
Tool Paths for Crosshole Deburring

An effective tool path for most crosshole deburring jobs is circular interpolation using the following guidelines to determine diameter of interpolation. The interpolation should be performed at a depth where the center of the brush face is at the center of the intersecting hole.

• Diameter of Interpolation = Hole Diameter - Brush Diameter



BORE-RX BRUSHING TOOLS - Crimped wire fill - Feature dense wire fill for aggressive deburring action on ductile metals and other hard-to-deburr materials.



^{*} Stainless Steel fill is available by special order.

Note: All Bore-Rx brush stems have a 2" long flat for use in end mill holders. Alternatively, they can be mounted in 3/8" collets. Bore-Rx extension holder is available. Contact Application Engineering at 888-299-APPS (2777).





CUSTOMIZABLE CROSSHOLE DEBURRING SOLUTIONS

Replacement Bore-Rx Brush Heads and Reusable Bore-Rx Arbors

In high production applications, reusable arbors reduce manufacturing costs by allowing the use of inexpensive brush head replacements. Brush heads are made-to-order in diameters ranging from 3/4" to 1-1/2" with face widths of 1/4" to 1". They are available on 3/16" and 1/4" pins. The pin diameter is based on the application and determines brush density. Contact Application Engineering at 888-299-APPS (2777) for more information.



Replacement Head







POWER AND HAND TUBE BRUSHES

Weiler offers a comprehensive line of power and hand tube brushes for internal cleaning and deburring applications in tubing, pipe, drilled-and-tapped holes, and machined bores and passages. Due to their twisted-in-wire construction, the use of power tube brushes is limited to low-speed power tools such as drills and drill presses and to CNC and manual machine tools in which the RPM can be precisely programmed or set. In addition, they should not be used in reverse rotation to prevent unraveling of the stem wire. Available in a wide variety of brush configurations and fill materials, Weiler can supply a tube brush for any application. If you do not see what you need in this catalog, see the Special Tube Brush Design Specification Sheet on page 83, or call our toll-free Application Engineering Hotline at 888-299-APPS (2777) for assistance.

APPLICATIONS

- Deburring and cleaning drilled-and-tapped holes and other internal threads
- Cleaning and finishing the ID of tubing and pipe
- Crosshole deburring
- Removing burrs and chips from internal keyways, slots, and grooves
- Removing paint, coatings, and build-up other foreign material from the surfaces of bores and passages

POWER AND HAND TUBE BRUSH SELECTION TIPS

- A flat burrite style tube brush is most effectively used with a holder on blind, threaded holes.
- · A round tube brush is most effectively used fully chucked on smooth or threaded blind holes.
- A single stem, single spiral tube brush is most effectively used for manual or hand cleaning applications.
- A double stem, double spiral tube brush is most effectively used with power tools for heavy-duty cleaning and deburring.
- A polyflex encapsulated double stem, double spiral tube brush is most effectively used on power tools for very aggressive cleaning and deburring applications.









DOUBLE STEM, DOUBLE SPIRAL feature four stem wires and a double spiral of straight wire fill material to provide aggressive cleaning and deburring action.

	Wire	Brush	Stem	Overall	Max.	Standard	Item N	lumber
Diameter	Size	Part	Diameter	Length	RPM	Pack	Steel	Stainless
3/8"	.003	1-1/2"	1/8"	4"	2,000	10	21342	_
	.006	2-1/8"		6"			21232	_
1/2"	.004	2"	5/32"	5"	2,000	10	21106	21116
	.006						21107 🛦 🔳	21117
	.0104						21252	_
5/8"	.005	2"	7/32"	5"	2,000	10	21108 =	21118
	.008						21109 🔺	21119
	.0104						21184	_
3/4"	.006	2-1/2"	1/4"	5-1/2"	2,000	10	21110 🛦 🔳	21120
	.008						21247	_
	.0104						21111	21121
7/8"	.006	2-1/2"	1/4"	5-1/2"	2,000	10	21112	21122
	.0104						21113	21123
1"	.006	2-1/2"	1/4"	5-1/2"	2,000	10	21114 ▲ ■	21124
	.0104						21115	21125
1-1/4"	.006	2-1/2"	1/4"	5-1/2"	2,000	10	21164	21245
	.0104						21167 *	21236
1-1/2"	.014	2-1/2"	1/4"	5-1/2"	2,000	10	_	21413

- Packaged product available. See pages 131-141 for details. ★ 5" Overall length
- ▲ Available in non-sparking brass wire, see page 94-95 for details.



Removing zinc coating from holes in a

brake bracket.





POLYFLEX™ ENCAPSULATED DOUBLE STEM, DOUBLE SPIRAL

Burgundy Elastomer*- Encapsulated with an elastomer that leaves only the sharp wire tips exposed for maximum aggression and a very rigid brushing action.





	Wire	Brush	Stem	Overall	Max.	Standard	Item Number
Diameter	Size	Part	Diameter	Length	RPM	Pack	Steel
1/2"	.006	2"	5/32"	5"	2,000	10	35821
5/8"	.0104	2"	7/32"	5"	2,000	10	35822
3/4"	.0104	2-1/2"	1/4"	5-1/2"	2,000	10	35823
1"	.0104	2-1/2"	1/4"	5-1/2"	2.000	10	35825

^{*} See Elastomer Color Code Chart on page 57 for more information.



ROUND - Feature a single continuous length of stainless steel stem wire and a single spiral of crimped wire fill for a more flexible brushing action; for use on smooth or threaded blind holes.





Diameter	Wire Size	Brush Part	Stem Diameter	Overall Length	Max. RPM	Standard Pack	Item Number	
							Steel	Stainless
1/4"	.004	1"	1/8"	3-1/2"	2,000	10	21072 🛦	21081
5/16"	.005	1"	1/8"	3-1/2"	2,000	10	21175	_
3/8"	.004	1"	1/8"	3-1/2"	2,000	10	21073 ■	21082
	.006						21282	_
	.008						21264	21240
7/16"	.005	1"	1/8"	3-1/2"	2,000	10	21142	21181
1/2"	.005	1"	3/16"	3-1/2"	2,000	10	21074 ▲ ■	21083
9/16"	.005	1"	3/16"	3-1/2"	2,000	10	21143	_
	.0104						_	21404
5/8"	.005	1"	3/16"	3-1/2"	2,000	10	21075 ■	21084
	.008						21265	_
11/16"	.005	1"	3/16"	3-1/2"	2,000	10	21144	_
3/4"	.006	1"	7/32"	3-1/2"	2,000	10	21076	21085
	.008						21266	
13/16"	.005	1"	7/32"	3-1/2"	2,000	10	21146	_
7/8"	.006	1"	7/32"	3-1/2"	2,000	10	21077 =	21086
	.008						21267	
15/16"	.005	1"	7/32"	3-1/2"	2,000	10	21148	_
1"	.005	1"	1/4"	3-1/2"	2,000	10	21149	21340
	.008						21078 ■	21087
1-1/8"	.005	1"	1/4"	3-1/2"	2,000	10	21150	_
	.008						21079	21088
1-1/4"	.008	1"	1/4"	3-1/2"	2,000	10	21080	21089
1-1/2"	.008	1"	1/4"	3-1/2"	2,000	10	21203 🔺	-
	.0104						21269	_
2-1/4"	.008	1"	1/4"	3-1/2"	2,000	10	21322	_

[■] Packaged product available. See pages 131-141 for details. ▲ Available in non-sparking brass wire, see page 94-95 for details.

Correct Mounting in Chuck



Incorrect Mounting in Chuck



TUBE BRUSH OPERATING RECOMMENDATIONS

The stems in power tube brushes are not as strong as the stems in most other brushes. Therefore, it is very important to avoid any load conditions and brush speeds that can cause excessive stem deflections and destructive bending.

A suggested guideline to avoid this unsafe condition is minimizing the overhang of the stem to under an inch, and running the brush at speeds below 2,000 RPM.

Increasing overhang could decrease the safe speed at which the brush can operate. To reach into deeper holes, use drill extension rods instead of increasing stem overhang.

BEFORE STARTING THE BRUSH:

- Secure brush in chuck.
- Ensure clockwise brush rotation (running the brush counter-clockwise could cause the brush to fall apart.)
- Clamp work securely.
- Position all guards in place.
- Align brush with the work so the brush rotates on its true centerline to prevent any stem deflections.
- Guide the brush into the hole before starting the brush rotation.
- Always wear eye protection.

P

BURRITE - Feature a single continuous length of stainless steel stem wire and filled with a tuft of crimped wire to provide an aggressive flat side action; ideal for cleaning and deburring internal threads.



	Wire	Brush	Stem	Overall	Max.	Standard	Item I	Number
Diameter	Size	Part	Diameter	Length	RPM	Pack	Steel	Stainless
1/4"	.003	9/16"	3/32"	2-1/8"	2,000	10	21000	_
	.005						21001	21050
5/16"	.003	9/16"	3/32"	2-1/8"	2,000	10	21004	_
	.005						21005	_
3/8"	.003	9/16"	3/32"	2-1/8"	2,000	10	21008	_
	.005						21009	21051
	.005		1/8"				21023	_
7/16"	.003	9/16"	3/32"	2-1/8"	2,000	10	21014	-
	.005						21015	_
1/2"	.003	9/16"	3/32"	2-1/8"	2,000	10	21020	_
	.005						21021	21053
	.005		1/8"				21025	_
9/16"	.003	5/8"	1/8"	2-1/4"	2,000	10	21027	_
	.005						21028	_
5/8"	.003	5/8"	1/8"	2-1/4"	2,000	10	21030	_
	.005						21031	21055
3/4"	.005	5/8"	1/8"	2-1/4"	2,000	10	21034	21056
	.008						21035	_
7/8"	.005	5/8"	1/8"	2-1/4"	2,000	10	21036	21057
1"	.005	5/8"	1/8"	2-1/4"	2,000	10	21040	21058
	.008						21041	_
1-1/8"	.005	5/8"	1/8"	2-1/4"	2,000	10	21044	_



Deburring the threads of a tapped hole using a burrite brush in a holder.





BURRITE HOLDERS - Feature a 1/4" stem for convenient mounting into the chuck of a drill or the collet of a machine tool and allow the brush to be used in either direction of rotation. They allow the brush

to be used in a standard tapping cycle for deburring threaded holes in CNC machining centers.



For Brush Stem Dia.	Holder Diameter	Overall Length	Standard Pack	Item Number
3/32"	1/4"	3-1/8"	5	95202
1/8"	3/8"	3-3/8"	5	95203



SINGLE STEM, SINGLE SPIRAL - Feature a single continuous length of galvanized steel stem wire with a formed eye loop for convenient hand use. The single spiral of straight wire fill allows for easy manual insertion into the ID.

	Wire	Brush	Stem	Overall	Standard	Item N	lumber
Diameter	Size	Part	Diameter	Length	Pack	Steel	Stainless
1/8"	.003	1"	3/32"	6"	10	21246	21249
3/16"	.003	1-1/2"	3/32"	7"	10	21090 🔺	21098
	.005					21091	21099
1/4"	.003	1-1/2"	3/32"	7"	10	21092 🔺	21100
	.005					21093 🔺	21101
	.006					21161	_
3/8"	.004	2"	1/8"	8"	10	21094 🔺	21414
	.006					21095	21103
1/2"	.004	2"	1/8"	8"	10	21096 🔺	21104
	.006					21097	21105
	.008					21162	_
9/16"	.005	2-1/2"	5/32"	9"	10	21233	_

▲ Available in non-sparking brass wire, see page 94-95 for details.







P

NYLON HAND TUBE BRUSHES feature a single continuous length of galvanized steel stem wire with a formed eye loop for convenient hand use. The single spiral of straight nylon fill allows for easy manual insertion and scratch-free cleaning of the ID.

44113

	Fill	Brush	Stem	Overall	Standard	Item Number
Diameter	Diameter	Part	Diameter	Length	Pack	Nylon
1/4"	.005	2"	3/32"	6-1/4"	36	44110
3/8"	.005	2"	3/32"	6-1/4"	36	44213
1/2"	.010	3"	1/8"	8-1/2"	36	44111
3/4"	.012	3"	1/8"	8-1/2"	36	44112
1"	.014	4"	5/32"	12-1/4"	36	44113
1-1/4"	.014	4"	5/32"	13"	36	44114
0.11	04.4		0./4.011	40.0/41	00	44445

P

PERCOLATOR BRUSH features single stem, single spiral construction with an eye loop and straight white nylon fill. Intended for cleaning the internal passages in coffee percolators, this brush can be also be used in other similar manual cleaning applications.

	Fill	Brush	Stem	Overall	Standard	Item Number
Diameter	Diameter	Part	Diameter	Length	Pack	Nylon
7/16"	.010	3-1/2"	5/32"	11-1/2"	10	44316

P

VALVE GUIDE BRUSHES are made with single stem, single spiral construction and have a permanently-attached 1/4" diameter long steel handle for convenient hand use or for mounting into a chuck. Intended for removing heavy deposits from valve guides in gas and diesel engines, these brushes can also be used in a range of other similar applications.



95567

44316

Diameter	Fill Diameter / Material	Brush Part	Overall Length	Max. RPM	Standard Pack	Item Number
1/4"	.0104 Steel	2"	10"	2,000	10	95563
5/16"						95027
11/32"						95566
3/8"						95028
7/16"						95665
1/2"						95029
11/32"	.008 Nylon	2-1/2"	10"	2,000	10	95660
3/8"	.012 Nylon					95567



GUN CLEANING BRUSHES - Rifle Brushes - Constructed using a continuous piece of stem wire and fine bronze wire fill for a scratch-free cleaning action in gun barrels, these flexible tube brushes are designed to be attached to extension rods using the 8-32 male coupling.



	Brush	Overall	Coupling	Standard	Item Number	
Caliber	Part	Length	Size	Pack	Bronze	
22	2-1/4"	3-1/4"	8-32	10	95301	
30	2-1/4"	3-1/4"	8-32	10	99786	
35	2-1/4"	3-1/4"	8-32	10	99788	
45	2-1/4"	3-1/4"	8-32	10	99791	



GUN CLEANING BRUSHES - Shotgun Brushes -Constructed using a continuous piece of stem wire and fine bronze wire fill for a scratch-free cleaning action in gun barrels, these flexible tube brushes are designed to be attached to extension rods using the 5/16"-27 male coupling.

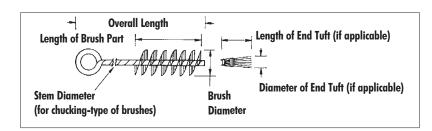


	Brush	Overall	Coupling	Standard	Item Number Bronze	
Gauge	Part	Length	Size	Pack		
12	1-5/8"	2-7/8"	5/16-27	10	99714	
16	1-5/8"	2-7/8"	5/16-27	10	99694	
20	1-5/8"	2-7/8"	5/16-27	10	95084	
410	1-5/8"	2-7/8"	5/16-27	10	95129	

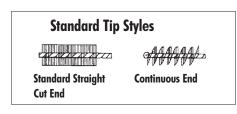
SPECIAL TUBE BRUSH SPECIFICATION SHEET:

(Use the illustration on this page as a guide)

1.	Brush diameter	7.	Brush fill material:
2.	Length of brush part		☐ Steel wire ☐ Stainless wire
3.	Overall brush length		☐ Nylon Abrasive Filament (Nylox [®])
4.	Special stem diameter (if required)		☐ Brass wire ☐ Other
5.	Stem material:	8.	Fill material diameter
	☐ Galvanized Steel ☐ Stainless ☐ Other	9.	Special tip style (if required)
6.	Application	10.	☐ Single stem ☐ Double stem
			Order Quantity
Nar	* Special tube brushes are not ret		they are manufactured to orderUser Name:
Con	npany Name:	City	·
Add	dress:	Stat	e: Zip:
Pho	one: ()		
_			







Single Spiral	Double Spiral
Single Stem _	Double Stem
(%)	(80)
\/	`~L-/

FOR ADDITIONAL INFORMATION CALL:

E-mail: _

Weiler's Application Engineering Hotline toll free at: 888-299-APPS (2777)

FAX SPECIFICATION SHEET TO:

Application Engineering Fax: 800-635-3615



Removing galled spots from a metal forming die.

MINIATURE BRUSHES

THE WEILER FAMILY began producing miniature brushes for the jewelry industry in 1898, and their tradition of providing the highest quality, most cost-effective products continues to this day.

Weiler's line of miniature brushes are designed for precision cleaning, light deburring, and finishing applications in a variety of crafts, trades, and industries. In addition to use in jewelry production and in dental and optical labs, miniature brushes have many applications in modern industries such as electronics and instrumentation production, aerospace and aircraft manufacture, and precision tool and die shops. They are permanently mounted on 1/8" or 3/32" stems for quick mounting and efficient use on high-speed electric rotary tools and air-powered pencil die grinders.

APPLICATIONS

- Decorative finishing
- Light deburring and edge blending
- Buffing and polishing of small parts
- Light-duty cleaning





WIRE WHEEL BRUSHES - Fine crimped wire fill for light-duty cleaning and deburring.









BRISTLE WHEEL BRUSHES - Natural hair fill for scratch-free cleaning of small parts or for buffing and polishing of features such as slots and grooves using abrasive compounds.





^{*} Double thick



WIRE CUP BRUSHES - Fine crimped wire fill for light-duty cleaning or deburring in confined areas.



	Wire	Trim	Stem	Stem	Overall	Max.	Standard	Item Number		r
Dia.	Size	Length	Size	Length	Length	RPM	Pack	Steel	Stainless	Brass
5/8"	.003	1/4"	1/8"	1-1/2"	2"	37,000	144	26071		26072
	.005							26074	26076	26075



26041







Dia.	Fill Type	Trim Length	Stem Size	Stem Length	Overall Length	Max. RPM	Standard Pack	Item Number
1/2"	Stiff Hair	7/32"	3/32"	1-1/2"	2"	37,000	144	26091
9/16"	Stiff Hair	1/4"	1/8"	1-1/2"	2"	37,000	144	26093
	Soft Hair							26094
1"	Stiff Hair	7/16"	1/8"	1-1/2"	2-3/8"	25,000	144	26095
	Soft Hair							26096

WIRE END BRUSHES - Fine crimped wire fill for light-duty cleaning or deburring in very small recessed areas or ID's.



	Wire	Trim	Stem	Stem	Overall	Max.	Standard	l	Item Number		
Dia.	Size	Length	Size	Length	Length	RPM	Pack	Steel	Stainless	Brass	
3/16"	.003	1/4"	1/8"	1-1/4"	1-7/8"	37,000	144	26098	26099	26097	
			3/32"					26101	_	_	
1/4"	.005	7/16"	1/8"	1-1/4"	2-1/8"	37,000	144	26107	26108	26106	
5/16"	.005	9/16"	1/8"	1-1/4"	2-3/8"	25,000	144	26113	26114	_	



P

BRISTLE END BRUSHES - Natural hair fill for scratch-free cleaning or for buffing and polishing of very small recesses using abrasive compounds.



Dia.	Fill Type	Trim Length	Stem Size	Stem Length	Overall Length	Max. RPM	Standard Pack	Item Number
3/16"	Stiff Hair	1/4"	1/8"	1-1/4"	1-7/8"	37,000	144	26115
	Soft Hair							26122
	Stiff Hair		3/32"					26116
1/4"	Stiff Hair	3/8"	1/8"	1-1/4"	2-1/8"	37,000	144	26119
5/16"	Stiff Hair	9/16"	1/8"	1-1/4"	2-3/8"	25,000	144	26121



P

BRISTLE END BRUSHES - Plastic Ferrule

Feature a plastic ferrule or cup to protect internal surfaces during use.

Dia,	Fill Type	Trim Length	Stem Size	Stem Length	Overall Length	Max. RPM	Standard Pack	Item Number
3/16"	Stiff Hair	1/4"	1/8"	1-1/4"	1-7/8"	37,000	144	26128
1/4"	Stiff Hair	3/8"	1/8"	1-1/4"	2-1/8"	37,000	144	26131
E /4 OII	0	0./4.011	4 (01)	4 4 / 4 !!	0.0./0#	05.000	444	00400



P

ABRASIVE NYLON END BRUSHES - Plastic Ferrule - Nylox[®] abrasive nylon fill for buffing and polishing without compounds. They can also be used in automated applications for precision deburring and finishing of small part features.



Dia.	Filament Dia./Grit	Trim Length	Stem Size	Stem Length	Overall Length	Max. RPM	Standard Pack	ltem Number
3/16"	.018/500	1/4"	1/8"	1-1/4"	1-7/8"	37,000	144	26136
1/4"	.018/500	3/8"	1/8"	1-1/4"	2-1/8"	37,000	144	26138
5/16"	.018/500	9/16"	1/8"	1-1/4"	2-3/8"	25,000	144	26146



Deburring the I.D. of a small machined part with miniature wire end brush.











Creating an antique finish on a brass plate.

NON-SPARKING BRUSHES

Weiler offers an assortment of wire non-sparking brushes featuring high-quality bronze or brass wire that offer a very soft brushing action in comparison to steel and stainless steel and will not generate a spark when used on metal surfaces. These products are available in a variety of knot wire and crimped wire configurations for use in a broad range of surface cleaning applications, and they are manufactured with individual knot hole and solid ring construction for high performance and long life. Weiler's non-sparking power brushes are available with plain arbor holes, nuts, and permanently-attached stems for use on a variety of tools.

APPLICATIONS

- Light to medium duty cleaning of surfaces, recesses, and ID's
- Deburring component parts machined from soft, non-ferrous metals
- Cleaning molds and dies in the injection-molding and extrusion of plastics
- Maintenance activities in areas where flammable or potentially explosive materials are present, such as refineries and petrochemical plants.







	Wire	Arbor	No. of	Face	Trim	Max. AH	Thickness at Face	Max.	Std.	Item Number
Dia.	Size	Hole	Knots	Width	Length	Avail.	Plates	RPM	Pack	Bronze
3"	.020	1/2"- 3/8"	20	3/8"	5/8"	1/2"	7/16"	25,000	10	08271
4"	.020	5/8" - 11	24	1/2"	7/8"	_	7/16"	20.000	5	13121

For threaded arbor hole adapters see page 67.



1475

CRIMPED WIRE WHEELS provide a flexible brushing action and consistent performance for light-duty cleaning and deburring applications.



Diameter	Wire Size	Arbor Hole	Face Width	Trim Length	Max. AH Avail.	Thickness at Face Plates	Max. RPM	Standard Pack	Item Number Brass
6"	.005	5/8"-1/2"	1/2"	1-7/16"	1-1/4"	7/16"	6,000	2	01415
	.0118								01475

For arbor hole adapters see page 72. For other available arbor holes, see Arbor Hole Variations Table on page 57.



29078

P SMALL DIAMETER CRIMPED WIRE WHEELS provide a flexible brushing action and consistent performance for light-duty cleaning and deburring applications requiring a small wheel.



	Wire	Arbor	Face	Trim	Max.	Standard	Item Number
Diameter	Size	Hole	Width	Length	RPM	Pack	Brass
1-1/2"	.005	3/8"	1/4"	7/16"	20,000	10	29178
2"	.005	1/2"	3/8"	1/2"	20,000	10	29059
	.0118						29086
3"	.014	1/2"	5/8"	1"	20,000	10	29078

For adapters and drive arbors see page 75.

Diameter

3"



176/1

CONFLEX BRUSH - Small diameter wheels permanently mounted onto a 1/4" stem to provide a very flexible brushing action.



■ Packaged product available. See pages 131-141 for details.



13299

KNOT WIRE CUP BRUSHES provide heavy-duty brushing action with some flexibility for more demanding cleaning applications on relatively flat surfaces.

	Wire	Arbor	Trim	Max.	Standard	Item Number
Diameter	Size	Hole	Length	RPM	Pack	Bronze
2-3/4"	.020	5/8"-11 UNC	1"	14,000	1	13299
Δ"	020	5/8"-11 LINC	1-1/4"	10.200	1	12776

For threaded arbor hole adapters see page 67.

P CRIMPED WIRE CUP BRUSHES provide a very flexible brushing action for light-duty cleaning applications on somewhat irregular surfaces.

Arhor

Hole

5/8"-11 UNC

5/8"-11 UNC

5/8"-11 UNC

5/8"-11 UNC

ces.				
Trim	Max.	Standard	Item N	lumber
Length	RPM	Pack	Bronze	Brass
7/8"	14,000	1	13231	_
1-3/8"	10,200	1	14616	
1-1/4"	8,000	1	_	14606



Wire

Size

.020

.020

.014

.020

Wire

Size

.020

Diameter

3"

4"

5"

6"

Diameter

1-1/8"

UTILITY CRIMPED WIRE CUP BRUSHES - Smaller diameter cup brushes that provide a flexible brushing action for light-duty cleaning applications.

1-1/4"

بنگ	
	~ <i>II</i>

Diameter	Wire Size	Trim Length	Stem Diameter	Overall Length	Max. RPM	Standard Pack	Item Number Brass
1-3/4"	.006	3/4"	1/4"	2-5/16"	13,000	10	14310
	.0118						14314
2-3/4"	.0118	7/8"	1/4"	2-1/2"	6,000	1	14311

6,600

Overall

Length

2-5/8"

Max.

RPM

22,000



14314

P KNOT WIRE END BRUSH features a hollow end and heavy-duty brushing action with some flexibility; ideal for more demanding cleaning applications in recessed areas.

Trim

Length

7/8"

ideal for light-duty cleaning applications in corners and hard-to-reach areas.



Item Number

Bronze

10067

Standard

Pack

10



10067

CRIMPED WIRE END BRUSHES feature a solid end and very flexible brushing action

Stem

Diameter



Diameter	Wire Size	Trim Length	Stem Diameter	Overall Length	Max. RPM	Standard Pack	Item Number Brass
1/2"	.005	7/8"	1/4"	2-9/16"	25,000	10	10158
1"	.005	7/8"	1/4"	2-5/8"	20,000	10	10128
1"	.0118	1"	1/4"	2-5/8"	22,000	10	10091



10158

P DOUBLE STEM, DOUBLE SPIRAL POWER TUBE BRUSHES - Constructed with four stem wires and a double spiral of straight wire fill material to provide a more aggressive internal cleaning action.



	Wire	Brush	Stem	Overall	Standard	Item Number
Diameter	Size	Part	Diameter	Length	Pack	Brass
1/2"	.006	2"	5/32"	5"	10	21178
5/8"	.008	2"	7/32"	5"	10	21219
3/4"	.006	2-1/2"	1/4"	5-1/2"	10	21179
1"	.006	2-1/2"	1/4"	5-1/2"	10	21218



P ROUND POWER TUBE BRUSHES feature a single continuous length of stainless steel stem wire and a single spiral of crimped wire fill for a more flexible brushing action; suitable for use on smooth or threaded blind holes.



	Wire	Brush	Stem	Overall	Standard	Item Number
Diameter	Size	Part	Diameter	Length	Pack	Brass
1/4"	.004	1"	1/8"	3-1/2"	10	21332
1/2"	.005	1"	3/16"	3-1/2"	10	21182
1-1/2"	.008	1"	1/4"	3-1/2"	10	21152



SINGLE STEM, SINGLE SPIRAL HAND TUBE BRUSHES - Constructed using a single continuous length of galvanized steel stem wire and feature a formed eye loop for convenient hand use. The single spiral of straight wire fill allows for easy manual insertion into the ID.

	Wire	Brush	Stem	Overall	Standard	Item Number
Diameter	Size	Part	Diameter	Length	Pack	Brass
3/16"	.003	1-1/2"	3/32"	7"	10	21221
1/4"	.003	1-1/2"	3/32"	7"	10	21270
	.005					21139
3/8"	.004	2"	1/8"	8"	10	21191
1/2"	.004	2"	1/8"	8"	10	21165



^{*} With internal nut For threaded arbor hole adapters see page 67.

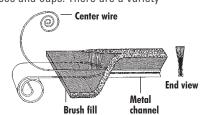


Straight strip brush used as a guard to prevent chips from flying.

STRIP BRUSHES

METAL CHANNEL STRIP BRUSHES consist of natural, synthetic or wire bristles, held securely in place by a U-shaped metal channel and center wire, as illustrated. All Weiler brushes are first manufactured into a straight strip brush. The strip can then be coiled into cylinder brushes, or other shapes such as discs and cups. There are a variety

of brush fills and virtually an infinite number of brush specifications within each metal channel size. All strip brushes are manufactured to our customers' individual requirements. This provides the proper filament stiffness, and allows for customers' unique modification of length and trim, enabling us to provide the ideal brush for the application.



APPLICATIONS

- Spreading powdered materials
- Dusting tires, tile, paper, etc.
- Splash guard on grinders and machine tools
- Conveyor belt cleaning assembled on hubs to form rotary brushes
- Lag brushes
- Eliminating static electricity
- · Curtains to prevent chips from flying



GENERAL FIBER CHARACTERISTICS

Characteristic	6.6 Nylon	6.12 Nylon	Polypropylene	Horse Hair	Tampico
Heat Distortion (°F)	300	250	225	370	283
Melting Point	500	405	330		
Bend Recovery (%)	90	90	70-80	excellent	poor
Shelf Life	excellent	excellent	good	poor	fair
Abrasion Resistance	excellent	excellent	good	good	poor
Specific Gravity (G/CC)	1.13-4	1.04-5	.90-1	1.3	.6
Tensile Strength (PSI)	60-70M	50-60M	50-80M	_	_

CHEMICAL AND ENVIRONMENTAL RESISTANCE

Characteristic	6.6 Nylon	6.12 Nylon	Polypropylene	Horse Hair	Tampico
Dilute Alkali	excellent	excellent	excellent	poor	good
Dilute Acids	good	good	excellent	poor	good
Strong Acids	fair	good	good	good-poor	good-poor
Alcohols	good	good	excellent	poor	good
Petroleum Distillates	excellent	excellent	good	poor	good
Hot Water	good	good	fair	poor	good
Alcohols, Vegetable Oils	good	good	excellent	poor	good

STRIP BRUSHES - STRAIGHT

Can be mounted on metal or wood back-up plates or on rotary hubs with machine or wood screws.

FILL MATERIALS

- Hair (horse, goat, etc.)
- Carbon steel
- Type 302 stainless steel
- Non-ferrous metals (brass, bronze, etc.)
- Nylon abrasive filament (Nylox®)
- Natural fibers (tampico)
- Synthetics (nylon, polypropylene)



STRIP BRUSHES - STRAIGHT

Metal				Channel Materia	ls			
Channel	Before	After Forming	Galvanized	Stainle	ss Steel	Max.	Max. Bristle	Max. Bristle
Size	Forming	(width x height)	Steel	400 Seres	300 Seres	OAH	Diameter (nylon)	Diameter (wire)
#2.5	5/16" x .025	1/8 (.125) x 1/8" (.125)	XXX	XXX	_	1-1/2"	.012	.006*
#3	3/8" x .025	5/32" (.156) x 5/32" (.156)	XXX	XXX	_	3-1/2"**	.014	.006*
#4	1/2" x .030	3/16" (.187) x 3/16" (.187)	XXX	XXX	XXX	4"	.025	.008
#5	5/8" X .040	7/32" (.218) X 1/4" (.250)	XXX	XXX	_	4-1/2"	.030	.008
#7	7/8" X .040	5/16" (.312) X 5/16" (.312)	XXX	XXX	XXX	6"	.050	.020
#10	1-1/4" X .050	7/16" (.437) X 7/16" (.437)	XXX	XXX	_	6"	.060	.020

^{*} Available in brass or bronze only.

STRAIGHT STRIP BRUSHES SPECIFICATIONS:

/1.1 .1	211 4 42	41.5		
// lea the	illustration	on thic	nage ag	obilin c

(Use	the illustration on this page as	a guide)			
1.	Overall brush height:				
2.	Overall brush length:				
3.	Channel size:				
	2.5 3 #3	4 4			1. Overall height 2
	□ #5 □ #7	4 10			2. Overall length Retaining
4.	Channel material:	Galvanized Steel	☐ Stainless Steel		3. Channel size wire
5.	Brush fill material:				
	Horsehair	■ Nylon	☐ Carbon Steel	Bronze	
	Polypropylene	■ Brass	☐ 302 Stainless	□ Tampico	
	Nylon Abrasive Filam	ent (Nylox)	■ Other		
6.	Fill material: Crimpe	d 🖵 Straight			
	Diameter:	Color (if app	licable):		
7.	Application:	☐ Dry	Operating Temp.:	°F	
8.	Quantity required:				

Name:	End-User Name:
Company Name:	City:
Address:	State: Zip:
Phone: ()	
_ , , , , ,	

FOR ADDITIONAL INFORMATION CALL:

E-mail: _____

Weiler's Application Engineering Hotline toll free at: 888-299-APPS (2777)

FAX SPECIFICATION SHEET TO:

Application Engineering Fax: 800-635-3615

^{**} Max. wire OAH 1-1/2".

^{*} Strip brushes are not returnable, as they are manufactured to order.

STRIP BRUSHES - COIL WOUND

clips that have tabs at each end to be attached to customers' mandrel.

Can be supplied as an unmounted refill coil, mounted on disposable tubing or wound on a customer's shaft.

FILL MATERIALS

- Hair (horse, goat, etc.)
- Carbon steel
- Type 302 stainless steel
- Non-ferrous metals (brass, bronze, etc.)
- Nylon abrasive filament (Nylox[®])
- Natural fibers (tampico)
- Synthetics (nylon, polypropylene)







L.H. Tang

Straight Tang

OPEN WOUND COIL

STRIP BRUSHES - COIL WOUND

Metal			CI	hannel Materia	nel Materials			Max.	Max.
Channel	Before	After Forming	Galvanized	Stainle	ss Steel	Min.	Max.	Bristle	Bristle
Size	Forming	(width x height)	Steel	400 Seres	300 Seres	I.D.	0.D.	Dia. (nylon)	Dia. (wire)
#2.5	5/16" x .025	1/8 (.125) x 1/8" (.125)	XXX	XXX	_	3/8"	3-3/8"	.012	.006*
#3	3/8" x .025	5/32" (.156) x 5/32" (.156)	XXX	XXX	_	3/8"	7"	.014	.006*
#4	1/2" x .030	3/16" (.187) x 3/16" (.187)	XXX	XXX	XXX	1/2"	7"	.025	.008
#7	7/8" X .040	5/16" (.312) X 5/16" (.312)	XXX	XXX	XXX	1"	11"	.050	.020

^{*} Available in brass or bronze only.

COIL WOUND STRIP BRUSHES SPECIFICATIONS:

(Use 1. 2. 3	Outside diameter size Inside diameter size Brush face Channel size:				1. Outside Diameter 2. Inside Diameter 3. Brush Face 4. Pitch between spirals
4.	□ #2.5 □ #3	□ #4	□ #7		
5. 6.	Channel material: Ga Brush fill material:				CLOSE WOUND COIL 3 1. Outside
	☐ Horsehair	■ Nylon	□ Carbon Steel	■ Bronze	Diameter 2. Inside Diameter
	Polypropylene	■ Brass	☐ 302 Stainless	□ Tampico	3. Brush Face
	Nylon Abrasive Filamen	t (Nylox)	Other		
7.	Fill material: 🗖 Crimped	Straight			
	Diameter:	_ Color (if appli	cable):		
8.	□ Close wound	Open wound	Specify	pitch between	spirals
9.	Mounting Clips:	□ No			
10.	Application:	☐ Dry	Operating Temp.:	•	F
11.	Quantity required:				
		* Strip brushes	are not returnable, a	as they are ma	nufactured to order.
Nar	me:			End-User Na	me:
	npany Name:				
	lress:				Zip:
Pho	one: ()				

FOR ADDITIONAL INFORMATION CALL:

E-mail: _____

Fax: (_

Weiler's Application Engineering Hotline toll free at: 888-299-APPS (2777)

FAX SPECIFICATION SHEET TO:

Application Engineering Fax: 800-635-3615



STRIP BRUSHES - DISC BRUSHES

Outside Disc: A circular single loop brush with the bristles facing OUTWARD, and the metal channel on the inside.

Inside Disc: A circular single loop brush with the bristles facing INWARD, and the metal channel on the outside.

STRIP BRUSHES - FORMED CUPS

These strip brushes are formed into a circle with the bristles facing down, commonly found in vacuum cleaning applications.

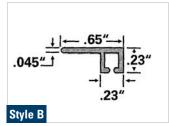


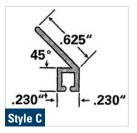


HOLDERS FOR METAL CHANNEL SIZE #2.5

Max. length 12'

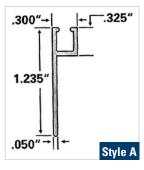


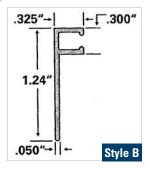


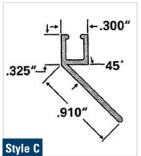


HOLDERS FOR METAL CHANNEL SIZE #4

Max. length 12'

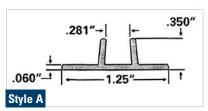


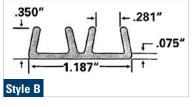


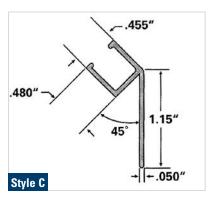


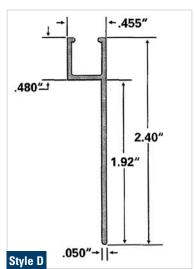
HOLDERS FOR METAL CHANNEL SIZE #7

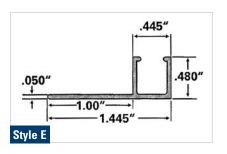
Max. length 12'











NOTE

All holder styles are constructed of aluminum



Removing light corrosion and mill scale from coiled steel.





WIDE FACE BRUSHES

Cylindrical brush assemblies have proven to be reliable and economical tools for a wide variety of industrial surface conditioning applications. In addition to gang-mounting a series of individual wheel brushes onto a shaft or reusable arbor, one-piece wide face brush units can be manufactured to cover broad surfaces or provide maximum brushing action in a minimum amount of space.

Cylindrical brushes can be manufactured using several different styles of construction, and the characteristics of each style of construction can significantly affect brush performance. Weiler will custom-design a wide face brush in the most appropriate type of construction for your specific application. Please call our Application Engineering Team at 888-299-APPS (2777) to discuss your requirements.

APPLICATIONS

- Scrubbing debris from the surface of material during processing
- · Removing corrosion, surface contamination, mill scale, or heat discoloration
- Roughening surfaces to promote adhesion or bonding
- · Removing applied finishes and coatings
- Producing decorative surface finishes
- Deburring or finishing cylindrical parts
- Deburring the cut ends of tubing and extrusions

DISPOSABLE BRUSH ASSEMBLIES - Wide face assemblies for brushing flat surfaces can be manufactured as disposable units with a variety of available fill materials depending on the specific application. Available fills include; metallic filaments such as steel, stainless steel, or brass crimped wire; Nylox® nylon abrasive filaments; synthetic filaments such as nylon or heat-stabilized polypropylene; or natural fibers such as tampico.

Disposable mountings can be constructed of carbon steel or stainless steel components, and "flow-through" mountings which allow coolant to be circulated through the core and out the face of the brush are available for wet applications.

REFILLABLE BRUSH ASSEMBLIES - Wide face assemblies for brushing flat surfaces can also be manufactured as a replaceable brush unit wound onto a permanent and reusable arbor. Depending on the specific application and production environment, refilling reusable arbors may be a more economical option than using disposable units. Reusable mountings can be designed by Weiler or supplied by the customer.

In addition to the secondary operations such as nibbling and grinding of the brush face and dynamic balancing of the completed unit. Weiler also offers maintenance services on mounting hardware like collars and bearings.

TUBE END DEBURRING BRUSHES - Cylindrical rotary brushes are an ideal media for production applications involving the batch deburring of the ends of tubing that has been cut-to-length. Automated brushing systems are readily available and considerably less expensive to purchase and operate than chamfering machines.

Brush deburring machines can be integrated with cut-off operations to eliminate work-in-process and increase throughput, and they are flexible enough to be quickly adjusted for various shapes, sizes, and lengths of tubing. Unlike chamfering operations, brush deburring does not leave secondary burrs, brushing equipment is more tolerant of slight variations in machine set-up and tube length, and quality brushes last much longer than cutting inserts on double-end finishers.

Tube end deburring brushes are most commonly manufactured as disposable assemblies that are then mounted onto keyed shafts. High-tensile steel, hard-drawn steel, and Type 302 stainless steel wire are the most common fill materials used in tube end deburring brushes. Weiler offers high quality brushes with wire sizes from .006 to .020 and four available levels of fill density so that the brushing performance can be tailored to the material, burr condition, and budget of the end-user.

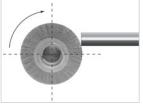
CUSTOM TUBE END DEBURRING BRUSHES - Please use the appropriate specification sheet on the next page when requesting a quotation on a custom tube end deburring brush.

NEED HELP?

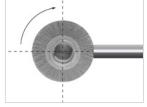
Call our Application Engineering Hotline at 888-299-APPS (2777). If the problem is too complex to be solved over the phone, we will determine if an evaluation should be conducted at our in-house lab or your facility. Either way, Weiler will provide the most costeffective solution for your specific application.

BRUSH-TUBE ORIENTATION

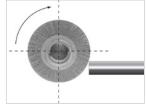
Brush-tube orientation determines which edges of the tube are deburred. The illustrations below show three orientations and the target edge.



Deburring Tube I.D.



Deburring Tube I.D. and O.D.



Deburring Tube O.D.

WIDE FACE BRUSH SPECIFICATION SHEET:To help us accurately quote a wide face brush for your application, please provide the following information:

	Fac	e Width			
Brush Diamete	Adap	ter Width	Sideplate Diameter		Double Keyway Arbor Hole Diameter
		I-to-Roll stance			
	И	stance			
	Brush Diameter (Note: Tolera	nco is 1/- 1/16")			
	Fill Material Fill Di				
	Fill Density: 🗖 Economy 📮	General Purpose 🖵	Heavy-Duty 🖵 High Perfo	ormance	
	Face Width (Note: Tolerance	is +/- 1/4")			
	Roll-to-Roll Distance - Throug				
	Brush can be manufacture	d holding the face w	idth dimension or the roll-	to-roll distance, not both.	
	Sideplate Diameter				
	Standard sizes:				
	6" brush = 3-3/4" O.D.				
	8" brush = 5-1/4", 5-1/2" or 6				
	>8" brush = 5-1/2" or 6-1/2"	0.D.			
	Maximum Operating RPM				
	Adapter Width (Note: Adapter				
	Arbor Hole Diameter (Note: Cl	learance of 0.003" wit	th additional tolerance of	+ 0.004" - 0 will be added)	
	☐ Keyway(s) Required ☐	Single 🗖 Double	Keyway Width	Keyway Depth	
ntended	Brush Use:				
				:	
	Name:				
Addrage.			State:	7in·	

FOR ADDITIONAL INFORMATION CALL:

Phone: (

Fax: (_ E-mail:

Weiler's Application Engineering Hotline toll free at: 888-299-APPS (2777)

FAX SPECIFICATION SHEET TO:

Application Engineering Fax: 800-635-3615