

Wheel Selection in 3 Easy Steps

Step 1

Select the type of wheel that will work with your equipment.

Convolute wheels are typically bigger and used on stationary equipment.

Unitized wheels are generally smaller wheels used on portable tools.

Step 2

What are you trying to do with the wheel?

There are two main applications for surface conditioning wheels: deburring and finishing. If you are deburring parts or radiusing edges, use a deburring wheel (see pg. 4 for convolute, pg. 6 for unitized). To create an aesthetic finish, use an appropriate finishing wheel (see pg. 5).

If your part requires both deburring and aesthetic finishing, start with a deburring wheel. If necessary, follow up with a finishing wheel to create the required finish.

Step 3

Use the next 4 pages to select your wheel.

Wheel descriptions include many pieces of relevant information, from wheel composition to size.

Use this key to read Scotch-Brite wheel descriptions:

9	S	FIN	8"	×	1"	×	3"	١
Density	Mineral	Grade	ö Diameter		Width		Core	

Getting Startea

For over 50 years, 3M has made your toughest jobs easier with a broad portfolio of surface conditioning wheels. Now, we're making it even easier to choose the best option for your application – from aesthetic finishing to weld blending, deburring and more!



Convolute Wheels

Scotch-Brite™ EXL PRO

UPC (051125)	Grade	Max RPM	Size
94904-5	9S FIN		C = 1/0 = 1!
94926-7	10S FIN	0.000	6×1/2×1"
94905-2	9S FIN	6,000	C 1 1"
94917-0	10S FIN		6×1×1"
94907-1	9S FIN		0 4 1 /0 4 0!
94927-4	10S FIN	4.500	8 × 1/2 × 3"
94908-8	9S FIN	4,500	8×1×3"
94918-7	10S FIN		0 × 1 × 3
94913-2	9S FIN		12 × 1 × 5"
94902-6	10S FIN	3,000	12 × 1 × 5
94914-9	9S FIN		12 × 2 × 5"

3M™ General Deburring Wheels

UPC (048011)	Grade	Max RPM	Size
64899-6	9S FIN	0.000	6 × 1/2 × 1'
64900-9	9S FIN	6,000	6×1×1"
64901-6	9S FIN	4.500	6×1/2×1"
64902-3	9S FIN	4,500	8×1×3"

Scotch-Brite™ EXL Deburring Wheels

UPC (048011)	Grade	Max RPM	Size
13616-5	8A MED		
09548-6	8S FIN		6×1/2×1"
05790-3	9S FIN	0.000	
13617-2	8A MED	6,000	
09549-3	8S FIN		6×1×1"
05132-1	9S FIN		
17459-4	8A MED		
14629-4	8S FIN		8 × 1/2 × 3"
05791-0	9S FIN		
13619-6	8A MED		
09551-6	8S FIN	4,500	8×1×3"
05135-2	9S FIN		
13620-2	8A MED	Ä	
09552-3	8S FIN		8×2×3"
05136-9	9S FIN		

Most Opular

Products

Scotch-Brite™ Metal Finishing Wheels

UPC (048011)	Grade	Max RPM	Size
01862-1	5A MED		6×1×1"
01863-8	5A CRS		
01869-0	5A MED	6,000	6 × 2 × 1"
01888-1	5A CRS		
01871-3	5A MED		0 4 0"
01872-0	5A CRS	1.500	8×1×3"
01876-8	5A MED	4,500	000
01904-8	5A CRS		8 × 2 × 3"

Scotch-Brite™ Multi-Finish Wheels

UPC (048011)	Grade	Max RPM	Size
13170-2	2S CRS		
13171-9	2S MED	6,000	6×1×1"
13172-6	2S FIN		
13176-4	2S CRS		
13177-1	2S MED		6 × 2 × 1"
13178-8	2S FIN		
13183-2	2S MED		8×1×3"
13184-9	2S FIN	4,500	8×1×3
13185-6	2S CRS		000!
13186-3	2S MED		8×2×3"

Unitized Wheels

Scotch-Brite™ EXL Unitized Wheel

Size	Max RPM	Grade	UPC (048011)
	25,100	2A MED	15527-2
	30,100	2S FIN	13713-1
1×1×3/16"		6A MED	14063-6
	35,100	8A MED	13753-7
		8A CRS	13752-0
	10 100	2A MED	16054-2
	12,100	2S FIN	14750-5
3 × 1/4 × 3/8"		6A MED	15118-2
	18,100	8A MED	14753-6
		8A CRS	13766-7

Scotch-Brite™ Roloc™ EXL Unitized Wheels

Unitized	vviieeis		
UPC (048011)	Grade	Max RPM	Size
17185-2	2A MED	2A MED	
17183-8	2S FIN	22 100	2"×NH
17190-6	6A MED	22,100	
17192-0	8A MED		
17186-9	2A MED		0
17184-5	2S FIN	15 100	
17191-3	6A MED	15,100	3" × NH
17193-7	8A MED		

Scotch-Brite™ Rapid Cut Unitized Wheels

UPC (051115)	Density	Grade	Max RPM	Size
66699-5	7	CRS+	25 100	1×1×
66725-1	7	XCS+	35,100	3/16"
66722-0	9	CRS+	10.100	3 × 1/4 × 3/8"
66748-0	9	XCS+	18,100	
66704-6	7	CRS+		4 × 1/4 ×
66730-5	7	XCS+	12,100	
66721-3	9	CRS+		5/8"
66747-3	9	XCS+		

Scotch-Brite[™] Roloc[™] Rapid Cut Unitized Wheels

UPC	Density	Grade	Max RPM	Size
051115-66759-6	9	CRS+	22,100	2"×NH
048011-64859-0	9	CRS+	15,100	3"×NH
051115 -66760-2	9	XCS+	15,100	3"×NH

Deburring with Convolute Wheels

Scotch-Brite Deburring Wheels are typically used for removing the metal burrs left by fabrication activities. They are also used for radiusing sharp edges, cleaning and light blending.

3M General Deburring

General purposeSingle packaging

Scotch-Brite™ EXL

- Improved consistency
 Versatile and broad product line
- Trusted performance

Scotch-Brite™ EXL PRO

- Longest life without sacrificing feel or conformability
- Extra cut
 without
 sacrificing finish
- Ideal in off-hand applications

Performance



Scotch-Brite™ EXL PRO

The new EXL PRO Deburring Wheel was designed with the operator in mind. It provides longer life and extra cut, but is not too hard and does

not finish too coarse. It runs smoothly and requires less pressure to get

the job done. For operators who can feel the difference, this is the wheel of choice.

Density	Mineral	Grade	Diameter	Width
9 & 10 Ideal startin	g	FIN	4-24"	1/2-42"

High Performance

- 30-50% longer life than original EXL
- More total cut with less operator pressure
- Soft and smooth
- Operator friendly

Scotch-Brite™ EXL, EX2 & EX3 Deburring Wheels

The original EXL, EX2 and EX3 Deburring Wheels offer good value and the most versatile product portfolio. For years these wheels have provided customers with an easy solution for deburring, radiusing and blending their metal parts. This line provides versatility and consistent performance.

Density	Mineral	Grade	Diameter	Width
EXL (Soft)				
EX2 (Med)	A/O & S/C	FIN & MED	4-24"	1/2-42"
EX3 (Hard)				

Good Performance

- Broad range of products and sizes (many stocked items)
- Consistent performance



This General Deburring Wheel provides basic performance at competitive prices and order quantities. This wheel provides the performance required for light to medium deburring applications, as well as for cleaning and finishing applications.

Basic Use

- Single package quantities
- Strong overall value
- Value priced





Finishing with Convolute

The easiest way to achieve the look you're going for!

Introducing the These wheels are primarily used for producing "Finishing Four." various aesthetic finishes on metal. Each wheel creates a different finish, as described below.

Width				3	/8 - 4	2"			
Core Size	1	1	3	5	5	8	10	12	12
Diameter	4	6	8	10	12	14	16	20	24



Scotch-Brite™ Light Deburring Wheels

Produces a bright and consistent finish with a tight scratch pattern. These very soft, conformable wheels can be used for finishing and light deburring.

Density	Mineral	Grade	Diameter	Width
6,7&8	S/C	FIN	4-24"	1/2-42"



Scotch-Brite™ Cut and Polish Wheels

Produces a dull finish with a tight scratch pattern. This denser, harder wheel can be used for aggressive finishing applications, and is good for defect removal and scratch blending.

Density	Mineral	Grade	Diameter Width		
5&7 A	A/O & S/C	FIN, MED & CRS	4-24"	1/2-42"	



Scotch-Brite™ Multi-Finishing Wheels

For creating a bright finish with a wide scratch pattern. This multi-purpose wheel is often used on inline sanding tools for large surface repair.

Density	Mineral	Grade	Diameter	Width
2,3&4	S/C	FIN, MED & CRS	4-24"	1/2-42"



Scotch-Brite™ Metal Finishing Wheels

Creates a satin finish that is somewhat coarser and duller than our Light Deburring Wheels.

Density	Mineral	Grade	Diameter	Width
4,5&6	A/O	MED & CRS	4-24"	1/2-42"

Deburring, Blending & Finishing with Unitized Wheels

Unitized wheels are typically smaller for use with portable tools, and are perfect for a variety of applications. The EXL product line offers the most versatile range of products, starting from a soft 2 density (great for delicate and intricate work) to a hard 8 density (for durability in deburring applications).

Scotch-Brite™ EXL Unitized Wheels

Mineral Density 2,4,6&8 A/O & S/C

Grade Diameter Width VFN, FIN, MED, CRS, 1/16 - 1" XCS

Scotch-Brite™ EXL Roloc™ Unitized Wheels

Density	Mineral	Grade	Diameter	Width
2, 4, 6 & 8	A/O & S/C	FIN, MED, CRS, XCS	2 & 3"	1/8 - 1/4"

Broadest Offering

- Long lasting
- Smear resistant
- Outstanding consistency
- Available with center hole or 3M™ Roloc™ attachment



Heavy Deburring & Weld Blending with Unitized Wheels



Scotch-Brite™ Rapid Cut Wheels combine the proven nonwoven abrasive technology used in all our Scotch-Brite products with 3M's proprietary precision-shaped grain. Now you can get everything you love about Scotch-Brite abrasives – including consistent finishes and ease of use – with up to 3 times higher cut rates than the leading competitive wheels. Makes tough jobs like weld blending and heavy deburring fast and easy!

Scotch-Brite™ Rapid Cut Unitized Wheels

Density	Mineral	Grade	Diameter	Width
7* & 9	Ceramic Precision Shaped Grain	CRS+ and XCS+	1–14"	1/8-1"

*7 density not available in 3" diameter

Scotch-Brite™ Roloc™ Rapid Cut Unitized

vvneeis			PPRODUCTION OF	
Density	Mineral	Grade	Diameter	Width
9	Ceramic Precision	CRS+ and XCS+	2 & 3"	1/8 - 1/4"

Fast Cutting

- High cut rate
- Long life
- Helps improve productivity





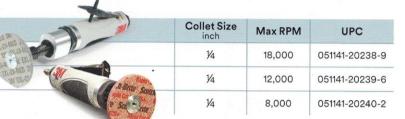
Tools & Accessories

These are just a few of the many specialized tools and accessories optimized for use with Scotch-Brite™ Abrasives. For product recommendations on your specific application, contact your Authorized 3M Abrasives Distributor or 3M Representative.

Recommended Tools

3M™ Die Grinders, 1HP (744W)

Model No.	Weight lbs. (kg)	Length inch (mm)	Air Inlet Thread inch
20238	1.69 (0.77)	7.75 (196.9)	1/4 NPT
20239	2.06 (0.93)	10 (254)	1/4 NPT
20240	2.06 (0.93)	10 (254)	1/4 NPT



3M™ Grinders - Type 27, 1 HP (744W)

Tool Dia. inch (mm)	Length	Air Inlet Thread inch
4 (100)	Standard	3/8 NPT*
4 (100)	Extended	3/8 NPT*
4 1/2 (114.3)	Standard	3/8 NPT*
4 1/2 (114.3)	Extended	3/8 NPT*
	inch (mm) 4 (100) 4 (100) 4 ½ (114.3)	inch (mm) 4 (100) Standard 4 (100) Extended 4 ½ (114.3) Standard

	Thread Size	Max RPM	UPC
Standard	3/8-24 EXT	12,000	051141-29403-3
	3/8-24 EXT	12,000	051141-28413-2
The state of the s	5/8-11 EXT	12,000	051141-28405-7
*	5/8-11 EXT	12,000	051141-28414-9

*Includes 3/8" to 1/4" reducer

3M™ Inline Sanders 1HP (744W)

Generate straight line scratches for finishing stainless steel and other metals. These straight shaft sanders can be used with inflatable or slotted wheel accessories and many other wheel products.

Model No.	Weight lbs. (kg)	Length inch (mm)	Air Inlet Thread inch	A 50	Collet Size inch	Max RPM	UPC
28338	3.32 (1.51)	9.88 (251)	1/4 NPT	0	5/8-11	1,600	051141-28338-8
28339	2.64 (1.20)	8.50 (216)	1/4 NPT		5/8-11	3,500	051141-28339-5

Recommended Accessories

3M™ Unitized Wheel Mandrels

4	Part No.	Description	Shank Size inch	Overall Length inch	Outside Flange Dia. inch	Max RPM	MOQ	UPC
	936	Use with wheels 1" diameter × 1" wide × 3/16" center hole Plastic mandrel self taps into wheel	1/4	21/16	3/4	22,200	1	048011- 04018-9
	990	Plastic mandrel self taps into wheel Use with high speed or easy loading Unitized Wheels 2" to 3" diameter × 1/8" to 1/2" wide x 3/8" center hole Includes silver cap for 1/8" and 1/4" wide wheels Includes black cap for 3/8" and 1/2" wide wheels	1/4	13/4	1	25,100	1	048011-15012- 3

3M™ Flange Adapters

Part No.	Description	Use With	UPC
16860-9	3M" Flange Adapter #5, 1" wide telescoping wheel adapter. Reduce 1" I.D. core to ½", 5/8", 3/4", 7/8"	1/2" wide wheels	040811-16860-9
16859-3	3M" Flange Adapter #5, ½" wide telescoping wheel adapter. Reduce 1" I.D. core to ½", 5/8", ¾", ½"	1/2" wide wheels	040811-16859-3

3M™ Roloc™ Disc Pad TR Assembly

	Part No.	Description	Dia. inch	Thread Size inch	Color	Density Rating	Max RPM	MOQ	UPC
	05539	Includes a 3M™ Roloc™ shank and adapter	2	1/4 - 20 INT	Black	Hard	25,000	1	051144-05539-5
08	05540	Includes a 3M™ Roloc™ shank and adapter	3	1/4 - 20 INT	Black	Hard	20,000	1	051144-05540-1

Recommendations & Maximum Operating Speeds

Convolute Wheels

Maximum Operating Speeds (RPM)

	Diameter (inch)	All Wheels (RPM)
Scotch-Brite™ EXL,	4	9,000
EX2, EX3, EXL PRO, _	6	6,000
General Deburring, _	8	4,500
Light Deburring,	10	3,600
Cut & Polish, Multi-	12	3,000
Finish & Metal	14	2,550
Finishing Wheels	16	2,250
rillistillig vvileels —	18	2,000
	20	1,800
	24	1,500

This information is for summary purposes only. For detailed recommendations on a specific Scotch-Brite product, consult your Authorized 3M Abrasive Products Distributor or your local 3M representative.

Recommended Operating Speeds

Application	Surface Feet Per Minute (SFPM)			
Decorative Finishing	500-3000			
Composites/Soft Materials	1200-2700			
Deburring	5000-6500			
Blending/Polishing	6000-8000			

Unitized Wheels

Maximum Operating Speeds (RPM)

Size (Diameter × Width)	CP-UW	EXL- UW 2S, 3S	EXL-UW 2A MED, 2A XCS, 4A XCS	EXL-UW 4 6, 8 Except 4A XCS
Less than 1"	40,100	35,100	30,100	40,100
1" × All	35,100	30,100	25,100	35,100
11/2" × All	30,100	20,100	18,100	30,100
2 × 1/4-1/2"	22,100	16,100	16,100	22,100
2 × 3/4-1"	22,100	16,100	14,100	22,100
21/2×1/8"	20,100	-	-	20,100
21/2×1/4"	20,100	14,100	14,100	20,100
21/2×3/8"	20,100	14,100	12,100	20,100
21/2×1/2"	18,100	14,100	12,100	18,100
2½×3/4-1"	18,100	12,500	10,000	18,100
3×1/8"	18,100	-		18,100
3×1⁄4"	18,100	12,100	12,100	18,100
3×3/8"	18,100	12,100	10,000	18,100
3×1/2	15,100	10,000	10,000	15,100
3 × 3/4-1"	15,100	10,000	9,000	15,100
4×1/8"	12,100	-	-	_
4 × 1/4-1/2"	12,100	8,500	8,000	12,100
4 × 3/4-1"	12,100	8,000	7,000	12,100
5"×AII	9,000	6,000	5,500	9,000
6"×AII	7,500	5,000	4,500	7,500
7"×AII	6,000	4,500	4,000	6,000
8"×AII	5,500	4,000	3,500	5,500
9"×AII	5,000	3,500	3,000	5,000
10" × AII	4,500	3,200	2,800	4,500
11" × All	4,000	2,900	2,500	4,000
12" × All	3,750	2,600	2,300	3,750
13"×AII	3,450	2,400	2,100	3,450
14" × All	3,200	2,200	2,000	3,200

Products with "Dual" Ratings & Higher Maximum Operating Speeds (MOS)

Product Name	Density/ Grade	Size (Diameter × Width)	RPM		
Clean and Strip Unitized Wheel	7S XCS	3"×1⁄4"	18,100		
	5A FIN	3×½" 3×3⁄4"			
	7A MED	3×½" 3×3⁄4"	18,100		
	7S MED	3×½" 3×¾"			
Cut and Polish Unitized Wheel	7A CRS	3×1⁄2"			
Unitized vyneei	5A FIN	2 ½ × ½" 2 ½ × ¾			
	7A MED	2 ½ × ¼" 2 ½ × ½"	22,100		
	7S MED	2½×¼" 2½×½"			
	4A FIN				
	4S FIN				
	6A FIN				
	6S FIN	3×1⁄2"	18,100		
EXL Unitized Wheel	6A MED				
	8A MED				
	8A CRS				
	6A MED	21/2×1/2"	20,100		
	8A MED	212×12	20,100		

The Unitized Wheels listed above (in either $^{1}4"$ or $^{3}.8"$ I.D.) have been certified to run at higher maximum operating speeds when using the following hardware (or their equivalents): #990 or #991 Mandrel – or used with $^{1}2"$ O.D. and $^{3}8"$ I.D. flat washers.

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