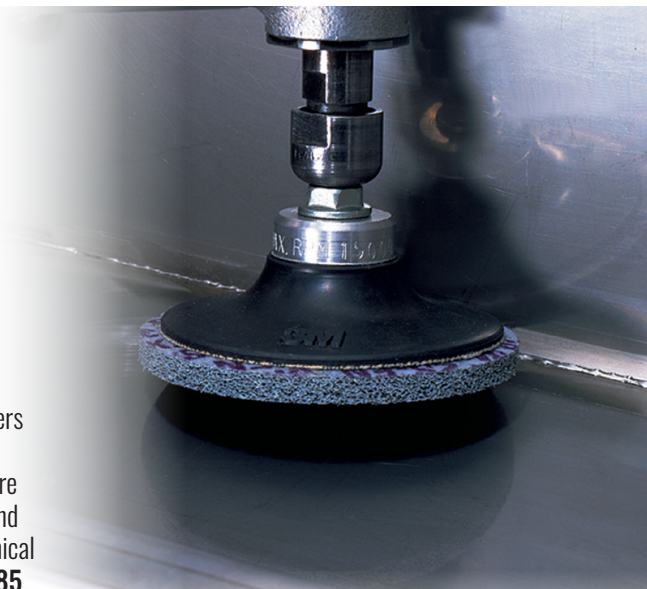




ABRASIVE SOLUTIONS:

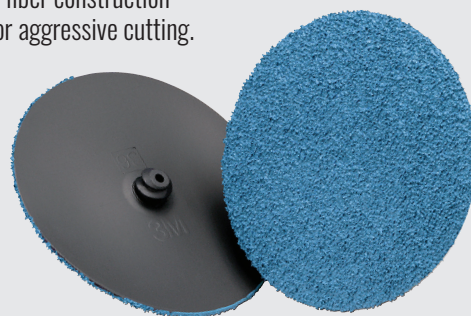
3M keeps manufacturers on the cutting edge of competitiveness with abrasive solutions and surface modifying systems that add efficiency, productivity and high performance to industrial applications. 3M brings the power of new ideas to the “science of smooth,” helping manufacturers save time and money in every phase of finishing. 3M Abrasive Wheels offer innovative solutions for tackling a range of applications on aluminum, carbon steel and stainless steel. Whether you’re cutting, grinding or finishing, 3M’s innovative technology allows you to push your productivity and efficiency further. Use the information below or contact one of Travers Tool’s experienced technical advisors for product selection assistance at tech@travers.com or via phone at **800.234.9985**



3M ROLOC DISCS:

The Scotch-Brite™ Roloc™ Surface Conditioning Disc combines durable, non-woven disc with the efficient 3M Roloc™ quick-change attachment system for an effective disc that cleans, finishes, blends, and deburrs. Non-woven fiber construction conforms well to help preserve irregular or contoured surfaces and the Roloc™ backing supports the disc for aggressive cutting.

- Tough non-woven disc aggressively deburrs and finishes
- Conformable, non-woven disc combined with Roloc backing allows for aggressive cutting
- Open-web construction resists loading and runs cool, allowing for consistent finishes
- Convenient 3M Roloc™ attachment system offers quick and easy disc change-out for multi-step finishing processes



MATERIAL	PRODUCT ID	MINERAL TYPE	FEATURES	METAL TYPE	GRINDING	LIGHT GRINDING	BLENDING	DEBURRING
Good	361F	Aluminum Oxide	General purpose grinding, light grinding, blending, and deburring on all metals.	All Metals	X	X	X	X
	461F	Silicon Carbide	Ideal for grinding glass, titanium and non-ferrous metals.	Titanium	X	X	X	X
Better	777F	Ceramic Aluminum Oxide Blend	Durable Y wt. Cloth backing; Grinding aid.	Stainless Steel, Nickel Alloy	X	X	X	X
Best	963G	Ceramic Abrasive	Durable backing.	Carbon Steel	X	X	X	X
	977F	Grain	Durable 2-ply backing; Grinding aid.	Stainless Steel, Nickel Alloy	X	X	X	X
Premium	984F	Precision Shaped Ceramic Grain	Durable 2-ply backing; Grinding aid; fastest cutting	All Metals	X	X	X	X

3M ROLOC FIBRE DISC SELECTION GUIDE:

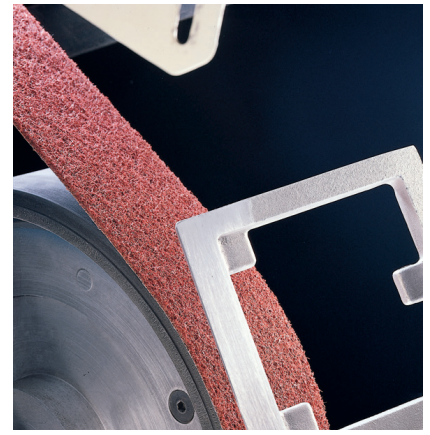
Roloc™ Fibre Discs Stiff fiber backing provides the durability needed for weld removal and other medium pressure applications such as deburring or rust removal.

MATERIAL	PRODUCT ID	MINERAL	FEATURES	METAL TYPE	GRINDING	LIGHT GRINDING	BLENDING	DEBURRING
Good	501C	Aluminum Zirconia	Versatile disc for use on a wide variety of metals; General purpose grinding, blending and finishing on all metals.	All Metals	X	X	—	X
Better	785C	Ceramic Aluminum Oxide Blend	Excellent for stainless steel; Grinding aid.	Stainless Steel	X	X	—	X
Best	988R	Ceramic Abrasive Grain	Unique single-piece construction that can eliminate button delamination and enhance disc performance; Cut through metal stock to quickly level welds and take on tough jobs in small areas.	Mild Steel	X	X	—	X
Premium	982C	Precision Shaped Ceramic Grain	Fastest cutting; Longest life	All Metals	X	X	X	X

3M COATED ABRASIVE BELT SELECTION GUIDE:

3M offers a full line of abrasive belts for use in sanding, grinding, deburring, blending, finishing and polishing applications. The combination of several minerals, resin systems and backings results in a wide variety of products to meet requirements for use on most wood, metal, or hard-to-grind surfaces. Follow the steps noted to use the abrasive belt selection guide, below.

1. Find the machine type that you will run this belt on.
2. Move down to the metal type that is being worked on.
3. Select the product from the list of Good – Better – Best and Finishing belts.
4. Check the Availability Guide for the grade.
5. Find the product on the following pages for available sizes.
6. If your size is not listed, please contact us.



METAL TYPE	PORTABLE/ FILE TOOL	COARSE GRADE POWER GRINDING/ HIGH PRESSURE	SLACK OF BELT SANDER	STROKE SANDER	BENCH TOP BELT MACHINE	BACKSTAND/ OFF HAND	CENTERLESS & ROLL GRINDING		FLAT FINISHING	
							DRY	WET	DRY	WET
Carbon Steel										
Good	241E	577F	341D	—	341D	341D	—	—	341D	361F
Better	577F	963G	577F	—	577F	577F	577F	577F	577F	577F
Best	984F/ 947A	984F/994F/ 997F	947A	—	984F/947A	984F/947A	966F	966F	966F	966F
Finishing	—	—	341D/ Trizact	—	341D/ Trizact	3XXD*/ Trizact	777F/ Trizact	Trizact	461F	461F
Stainless Steel										
Good	—	—	577F	341D	577F	577F	—	—	341D	361F
Better	577F	577F	777F	—	777F	777F	577F	577F	577F	577F
Best	984F/947A	984F/994F/ 997F	947A	747D/ 947A	984F/ 947A	984F/ 947A	977F	966F	984F	984F
Finishing	—	—	Trizact	—	Trizact	3XXD*/ Trizact	777F/ Trizact	Trizact	461F/ Trizact	461F/ Trizact
Aluminum, Brass & Bronze										
Good	241E	577F	—	—	—	—	—	—	341D	361F
Better	577F	963G	577F	—	577F	577F	577F	577F	577F	577F
Best	984F/ 947A	984F/994F/ 997F	947A	—	984F/ 947A	984F/ 947A	—	—	—	—
Finishing	—	—	341D/ Trizact	—	341D/ Trizact	3XXD*/ Trizact	341D/ Trizact	461F	461F	461F
Cobalt and Nickel Alloys										
Good	—	—	577F	—	577F	577F	—	—	577F	577F
Better	577F	577F	777F	—	777F	777F	577F	577F	777F	777F
Best	984F/ 947A	984F/994F/ 997F	947A	—	984F/947A	984F/947A	977F	966F	984F	984F
Finishing	—	—	Trizact	—	Trizact	3XXD*/ Trizact	777F/ Trizact	Trizact	461F	461F
Titanium										
Good	—	—	461F	—	461F	461F	—	—	—	461F
Better	577F	577F	577F	—	577F	577F	—	577F	—	577F
Best	984F	984F/994F/ 997F	—	—	984F	984F/	—	966F	—	966F
Finishing	—	—	461F	—	461F/ Trizact	3XXD*/ Trizact	—	Trizact	—	461F

*3XXD: Choose from 302D, 332D and 341D depending upon backing flexibility needed for application.

3M EXL VS. EXL PRO DEBURRING WHEELS:

3M EXL WHEELS:

- Solid, dense, and conformable wheel produces a professional finish
- Effective for all types of metals, composites and glass
- Conformability allows abrasive to stay in contact with complex-shaped parts in robotic processing
- Convolute construction keeps the wheel running smooth

3M EXL PRO WHEELS:

- Wheel design achieves 30-50% longer life than the EXL wheel
- Effective for all types of metals, composites and glass
- Extra tough wheel composition quickly removes burrs and radiuses sharp edges but requires less pressure than standard EXL wheels
- Unique resin system minimizes smearing

3M General Deburring	Scotch-Brite EXL	Scotch-Brite EXL PRO
<ul style="list-style-type: none"> • General purpose • Single packaging • Value pricing 	<ul style="list-style-type: none"> • Improved consistency • Versatile and broad product line • Trusted performance 	<ul style="list-style-type: none"> • Longest life without sacrificing feel or conformability • Extra cut without sacrificing finish • Ideal in off-hand applications



EXL



EXL PRO

3M SCOTCH BRITE™ DEBURRING WHEEL SELECTION GUIDE:

3M's versatile Scotch Brite™ line of deburring wheels feature a strong, durable unitized construction good for blending, making this line a popular choice for cleaning, deburring, finishing and polishing applications.

SCOTCH-BRITE™ CONVOLUTE WHEELS

Get high performance and durability in a variety of cleaning, deburring, finishing and polishing applications. Used on right angle grinders and bench tools, Scotch-Brite™ Wheels produce great results on all types of metal, composites and glass.

CONVOLUTE WHEELS SELECTION GUIDES

Scotch-Brite™ Convolute Wheel performance differences can be attributed to mineral (aggressiveness) and density (hardness). The combination of these two characteristics and subtle variations determine if the wheel will cut more aggressively or will be more durable and less conformable.

Least Aggressive	
↑	Light Deburring Wheels (FIN)
	General Deburring Wheel (9S FIN*)
	EXL/EX2/EX3 Deburring Wheels (8S FIN*, 9S FIN*, A MED)
	EXL-PRO Deburring Wheels (S FIN)
	Multi-Finishing Wheels (FIN, MED, CRS)
	Metal Finishing Wheels (MED, CRS)
	↓
Most Aggressive	
Cut and Polish Wheels (VFN, FIN, MED, CRS)	

*Numeric designators (8/9) represent mineral aggressiveness: not density.

Mineral Abbreviations (prefix to grade)	
A — Aluminum Oxide mineral	S — Silicon Carbide mineral

Scotch-Brite™ Convolute Wheel	Application				
	Cleaning	Deburring	Blending	Finishing	Polishing
3M General Deburring		•		•	
EXL/EX2/EX3 Deburring		•	•	•	
Metal Finishing	•		•	•	
Cut and Polish			•	•	•
Multi-Finishing	•		•	•	
Light Deburring				•	•
EXL-PRO Deburring		•			

Softest	
↑	Multi-Finishing Wheels (2, 3, 4)
	Metal Finishing Wheels (4, 5, 6)
	Light Deburring Wheels (6, 7, 8)
	EXL-PRO Deburring Wheels (9, 10, 11)
	General Deburring Wheel
	EXL/EX2/EX3 Deburring Wheels
	↓
Hardest	
Cut and Polish Wheels (5, 7, 9)	

Density Number (prefix to mineral)							
soft ←				→ hard			
2	4	6	7	8	9	10	11

SCOTCH-BRITE™ UNITIZED WHEELS

Get high performance and durability in a variety of cleaning, deburring, finishing and polishing applications. Used on right angle grinders and bench tools, Scotch-Brite™ Wheels produce great results on all types of metal, composites and glass.

UNITIZED WHEELS SELECTION GUIDES

Scotch-Brite™ Unitized Wheel performance differences can be attributed to mineral (aggressiveness) and density (hardness). The combination of these two characteristics and subtle variations determine if the wheel will cut more aggressively or will be more durable and less conformable.

Least Aggressive	
↑	EXL Deburring Wheels (VFN, FIN, MED, CRS, XCS)
	Cut and Polish Wheels (FIN, MED, CRS)
	Roloc EXL Wheels (FIN, MED)
	Rapid Cut Wheels (CRS, XCS)
	↓
Most Aggressive	

Mineral Abbreviations (prefix to grade)	
A — Aluminum Oxide mineral	S — Silicon Carbide mineral
C — Ceramic	

Softest	
↑	EXL Deburring Wheels (2, 3, 4, 6, 8)
	Cut and Polish Wheels (5, 7, 9)
	Roloc EXL Wheels (2, 6, 8)
	Rapid Cut Wheels (7, 9)
	↓
Hardest	

Density Number (prefix to mineral)					
soft ←			→ hard		
2	4	6	7	8	9

Scotch-Brite™ Unitized Wheel	Application			
	Deburring	Blending	Finishing	Polishing
EXL Deburring	•	•	•	•
Cut and Polish	•	•		•
Roloc EXL	•	•		
Rapid Cut	•	•		

3M FLAP WHEELS

Coated abrasive flap wheels are the ideal choice for light grinding, blending, graining and scale removal on a variety of metals. The abrasive flaps offer a long lasting supply of fresh abrasives and a load resistant design. Available in both flange mounted and spindle mounted constructions with general purpose aluminum oxide or high performing 3M ceramic aluminum oxide blend abrasive grain.

Product	Mineral	Grade	Performance	Stainless Steel	Carbon Steel
241E	Aluminum Oxide	50–320	Better		□
244E	Aluminum Oxide	60–120	Better		□
741A	Ceramic Aluminum Oxide Blend	50–120	Best	■	■

Product	Mineral	Grade	Performance	Stainless Steel	Carbon Steel
244D	Aluminum Oxide	60–120	Better		□
747D	Ceramic Aluminum Oxide Blend	36–150	Best	■	■

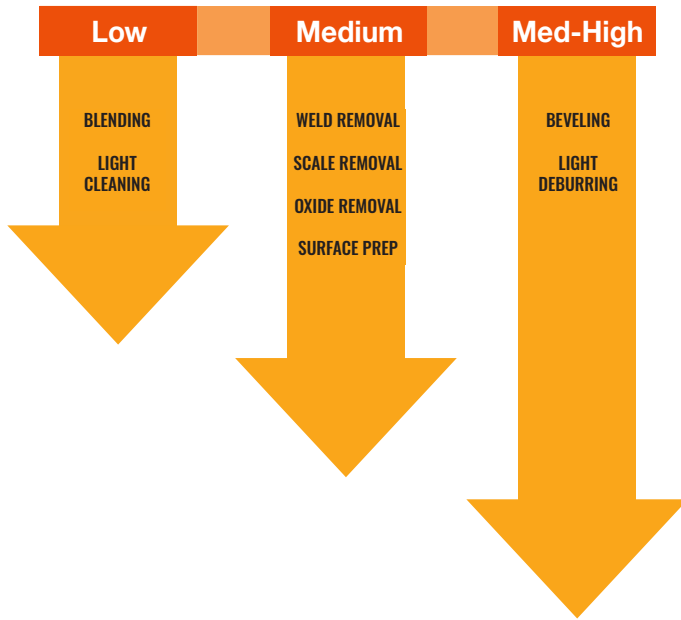
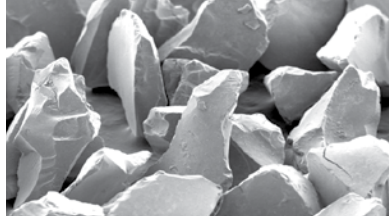
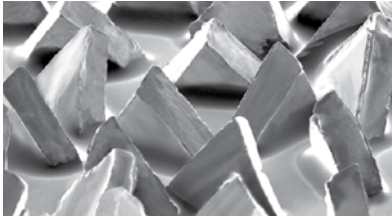


3M CUBITRON II FLAP DISCS

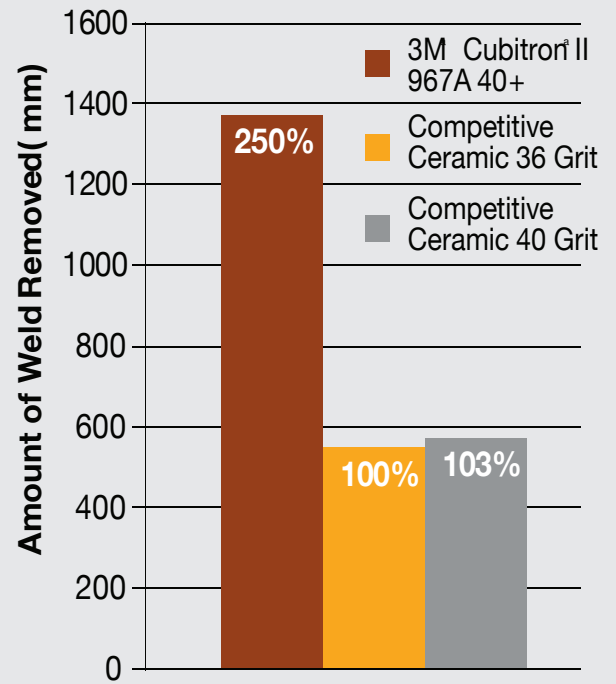
3M's Cubitron™ II Flap Discs are designed for one-step grinding and finishing. These versatile flap discs cut fast and last longer – to help you get more done!

MORE POWER = MORE PARTS PER HOUR

3M Cubitron II Flap Discs let you breeze through a wide range of tough jobs around the shop, including grinding, weld removal, deburring and more. Grinds and blends in a single step! Plus, they cut with less pressure, for greater operator comfort. Cubitron II flap discs are flexible, so they easily follow curves and contours. They are less prone to gouging, and include a grinding aid, to help keep the disc cool on heat-sensitive metals. Because their unique construction allows more abrasive material to be loaded on, they keep on cutting – long after other discs are dull.



15 Minute Grind Test

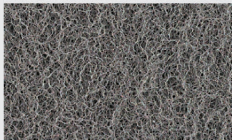


SCOTCH-BRITE HAND PAD SELECTION GUIDE

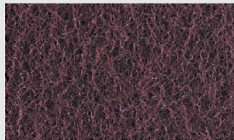
	Blending	Finishing	Deburring	Cleaning
Good	3M Multi-Flex	3M Multi-Flex	—	3M Multi-Flex
Better	7446, 7447	7440, 7447, 7448	—	7447
Best	7440, 8447	7446, 8447	7440	8447

Less Aggressive/Finer Finish

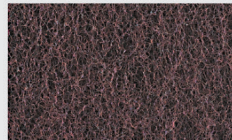
More Aggressive/Coarser Finish



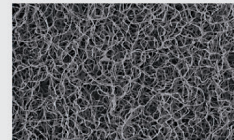
Scotch-Brite™ Ultra Fine Hand Pad 7448 (Gray)



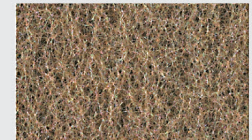
Scotch-Brite™ General Purpose Hand Pad 7447 (Maroon)



Scotch-Brite™ Production Hand Pad 8447 (Maroon)



Scotch-Brite™ Blending Hand Pad 7446 (Gray)



Scotch-Brite™ Heavy Duty Hand Pad 7440 (Tan)