

**3M** Science.  
Applied to Life.™

# Grind Less, Weld More.

**3M Winning Combinations  
for Weld Preparation & Removal**

Welder's Choice

3M™ Adflo™ Powered  
Air Purifying Respirator

3M™ Speedglas™  
G5-01 Welding Helmet

3M™ Cubitron™ Fibre Disc

3M™ Electric  
Angle Grinder

Transform your work with 3M's total solution of abrasives and Personal Protective Equipment for welders and help your team reach new levels of productivity, confidence, and safety.

**Scotch-Brite™**

**3M**

**Cubitron™ 3**  
Performance Abrasives

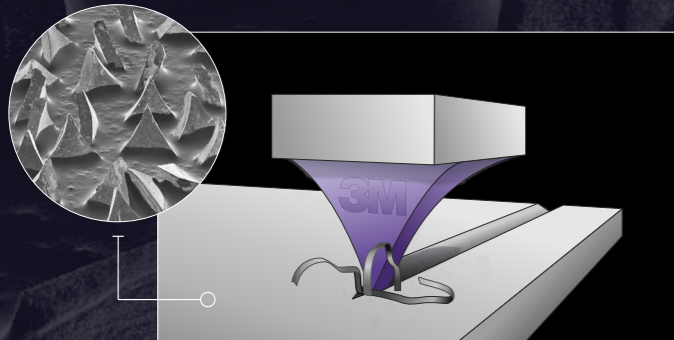
**3M**

**Speedglas™**  
Welding Safety

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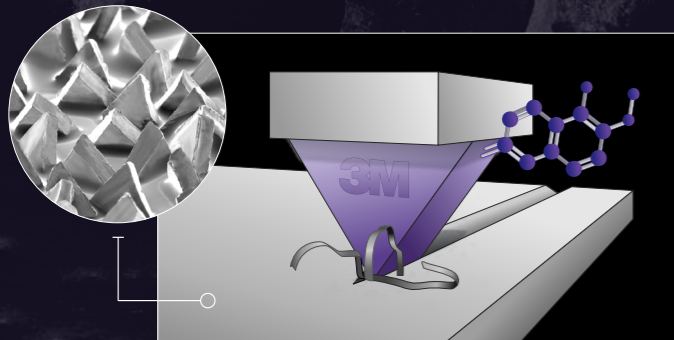
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# Technology That Transforms How Work Gets Done

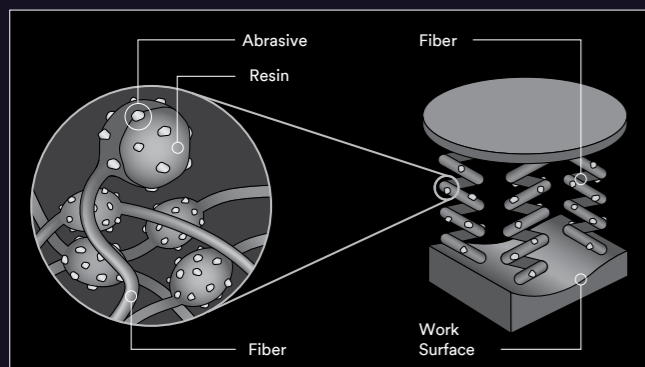


## 3M Cubitron™ 3 Performance Abrasives

Re-engineered precision-shaped ceramic grain using a proprietary breakthrough in grain shape with curved sides.



Re-engineered precision-shaped ceramic grain using proprietary breakthrough in molecular bonded technology.



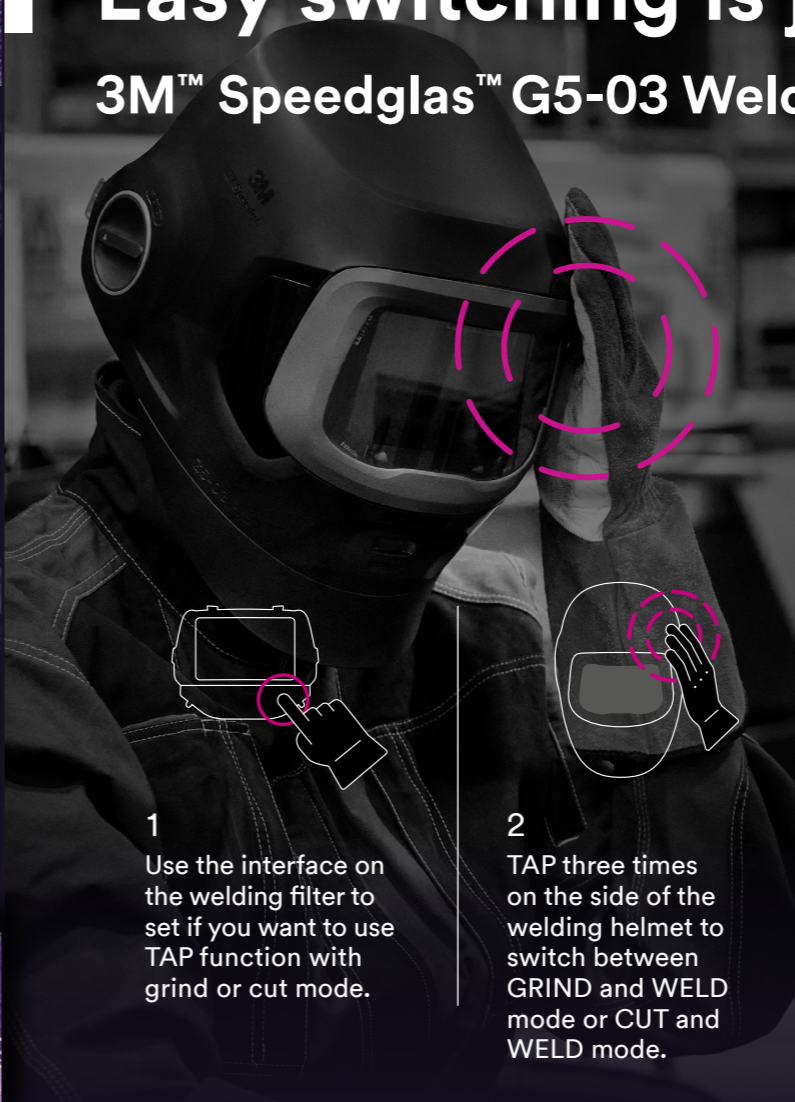
## Scotch-Brite™

3M™ Precision-Shaped Grain and nonwoven abrasives combine the benefits of two 3M technologies. A transformation in speed and life without sacrificing the smooth finish expected from Scotch-Brite™ products.

# Easy switching is just a tap away

## 3M™ Speedglas™ G5-03 Welding Helmets

Tap on the side of the welding helmet, with or without a glove, to easily switch between grind (or cut) mode and weld mode.



1 Use the interface on the welding filter to set if you want to use TAP function with grind or cut mode.

2 TAP three times on the side of the welding helmet to switch between GRIND and WELD mode or CUT and WELD mode.

3 The welding filter will switch to desired setting.

4 Tap three times again and the welding filter switches back to welding mode.

## 3M Speedglas™ Welding Safety



With 3M™ Speedglas™ Natural Colour Technology colours appear brighter and more realistic in both the light and dark states. A more realistic view may enable:

### Accuracy

Recognize color and contrast and see more details when using the welding filter.

### Productivity

Better focus on the welding setup, welding technique and inspection of just-completed welds.

### Quality

May help to increase the quality and precision of the welds.

# Key Performance Essentials

Up to **40%** MORE SPEED\*

When using these products together to undertake an end-to-end welding process

Up to **81%** REDUCTION IN VIBRATION (HAV)\*\*

When using these products together to undertake an end-to-end welding process

Up to **68%** REDUCTION IN NOISE\*\*

When using these products together to undertake an end-to-end welding process

\*Process time recorded during testing in a selected metal fabrication processes. Performance solution of 3M™ Cubitron™ fibre disc and 3M™ Adflo™ Powered Air Purifying Respirator System with 3M™ Speedglas™ GS-01 Series Welding Helmet and hearing protection compared to a conventional solution of high-quality ceramic grinding wheel and 3M™ Speedglas™ 100 Series Welding Helmet with separate half face piece respirator, grinding shield, hearing protection, and safety glasses.

\*\*Exposure to hand-arm vibration and noise recorded during testing in a selected metal fabrication process has been based on 3M™ Cubitron™ fibre disc testing vs. high-quality ceramic grinding wheel - also in line with independent testing by Fraunhofer Institute.

This story captures hand-arm vibration and noise levels, and completion times during a single challenge. Other welding and grinding activities may produce different experiences - results may vary.

Always follow local regulation and guidance when selecting PPE and follow the specific User instructions of your PPE.

# Finish it Faster.

with winning combinations from 3M.

# Superior Protection and Welder Safety

The advantages of our cutting edge abrasive grain technology delivers measurable benefits for our customers.

Paired with 3M's advanced PPE—such as Speedglas™ welding helmets and Adflo™ respirators—welders get superior protection from sparks, particulates, and UV exposure. Comfortable, ergonomic designs enhance safety and visibility, enabling longer, more effective work sessions. Together, 3M abrasives and PPE streamline stock removal with unmatched performance and protection.



**Productivity Delivered**

## Enhanced Productivity

With a significantly faster cut rate, this technology helps manufacturers to process more parts with smaller workforces, helping boost efficiency and output.

**Safety Built In**

## Improved Worker Safety

Reduced hand-arm vibration and noise prioritize the well-being of employees, helping employers develop better working conditions.

**Sustainably Forward**

## Sustainability at the Core

Longer-lasting abrasives and eco-friendly packaging align with the industry's sustainability objectives, helping to reduce carbon footprints and waste.

# Weld Preparation and Removal

## – Process Map



Fast Cut



Long Life



Increased Productivity



Increased Safety

**STEP 1 A** Weld Preparation: Cleaning and Removal

**STEP 1 B** Weld Preparation: Beveling (If Needed)

**STEP 2** Weld Removal

Cutting

Thick Gauge

**Scotch-Brite™**



Scotch-Brite™ Clean and Strip XT Pro Disc

**3M | Cubitron™ 3**  
Performance Abrasives



3M™ Cubitron™ 3 Depressed Centre Grinding Wheel



3M™ Cubitron™ 3 Fibre Disc 1182C

**3M | 3M | Cubitron™ 3**  
Performance Abrasives



3M™ Cubitron™ 3 Depressed Centre Grinding Wheel



3M™ Cubitron™ 3 Fibre Disc 1182C



3M™ Flap Disc 769F

**3M | Cubitron™ 3**  
Performance Abrasives



3M™ Cubitron™ 3 Cut-Off Wheel

Welding

Thin Gauge

**Scotch-Brite™**



Scotch-Brite™ Clean and Strip XT Pro Disc



**3M | 3M | Cubitron™ 3**  
Performance Abrasives



3M™ Flap Disc 769F



3M™ Cubitron™ 3 Fibre Disc 1182C

**3M | Cubitron™ 3**  
Performance Abrasives



3M™ Cubitron™ 3 Cut-Off Wheel



**Cubitron™ 3**  
Performance Abrasives

# Fibre Discs

Breakthroughs in technology are redefining the limits of cut rate and total stock removal, with a focus on prioritizing productivity, safety, sustainability and optimizing automation.



**3M™ Cubitron™ 3 Fibre Disc 1182C**  
For carbon steel



**3M™ Cubitron™ 3 Fibre Disc 1187C**  
Includes grinding aid for stainless steel

11-Series Discs & Roloc™		
Grade	36+	60+ 80+

- ✓ Beveling
- ✓ Surface Grinding
- ✓ Flame Cut Smoothing
- ✓ Weld Grinding

1182C, 36+ up to  
**3X**  
Faster Initial Cut Rate<sup>1</sup>  
vs. Competitive High-Quality Grinding Wheel

1182C, 36+ up to  
**60%**  
More Life  
More Speed<sup>2</sup>  
vs. 3M™ Cubitron™ 2 Fibre Disc 982C, 36+

1182C up to  
**88%** Less Vibration Exposure<sup>3</sup>  
**70%** Less Noise Energy<sup>4</sup>  
vs. Competitive High-Quality Grinding Wheel

Scan for more detailed product ordering info



1182C



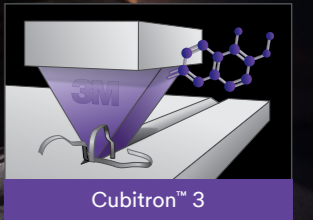
1187C



**Cubitron™ 3**  
Performance Abrasives

# Cut-Off and Grinding Wheels

Using re-engineered Precision-Shaped Grain with new molecular bonding technology and sharp, angular structures that continuously fracture to form sharp points to wear evenly, run cool and optimize mineral breakdown.



**3M™ Cubitron™ 3 Cut-Off Wheels**  
For carbon and stainless steel

Up to  
**3X** More Life<sup>7</sup>  
**10%** More Speed<sup>7</sup>  
vs. 3M™ Cubitron™ 2 Cut-Off Wheels

Up to  
**33%**  
Less Vibration<sup>8</sup>  
vs. Competitive Ceramic Grain Wheels

- ✓ For ultra-fast cutting through sheet metal, metal tubing and more

Scan for more detailed product ordering info



**3M™ Cubitron™ 3 Depressed Centre Grinding Wheels**  
For carbon and stainless steel

Designed for exceptional life and speed in heavy-duty grinding applications on stainless steel, mild steel and other specialist alloys.

Up to  
**50%** More Life<sup>9</sup>  
**14%** More Speed<sup>9</sup>  
vs. 3M™ Cubitron™ 2 Depressed Centre Grinding Wheels

Up to  
**33%**  
Less Vibration<sup>10</sup>  
vs. Competitive Ceramic Grain Wheels

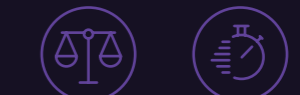
- ✓ Beveling
- ✓ Surface Grinding
- ✓ Weld Grinding
- ✓ Gouging
- ✓ Flame Cut Smoothing



**3M™ Cubitron™ 3 Cut & Grind Wheels**  
For carbon and stainless steel

Fast and versatile — designed to be used both as a grinding wheel and as a cut-off wheel on stainless steel, mild steel and other specialist alloys.

Up to  
**5%** More Speed<sup>11</sup>  
vs. 3M™ Cubitron™ 2 Cut & Grind Wheels



Better Balance More Speed

We've reformulated the product to further improve ergonomics vs. Cubitron™ 2

- ✓ All the combined applications of grinding and cut-off wheels



# Flap Discs



**3M™ Flap Disc 769F**

Ideal for use on carbon steel, stainless steel, and other heat-sensitive alloys

- ✓ Weld Removal
- ✓ Finishing
- ✓ Blending
- ✓ Deburring
- ✓ Surface Preparation
- ✓ Deburring Edges
- ✓ Weld Preparation
- ✓ Sanding
- ✓ Edge Beveling
- ✓ Weld Grinding

Grade	40+	60+	80+	120+
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Scan for more detailed product ordering info





# Surface Conditioning Discs



For surface finishing after heavy grinding.

Contains 3M Precision-Shaped Grain for fast cut and long life.

Expanded grades for a large range of applications.

Balance of conformability and durability.

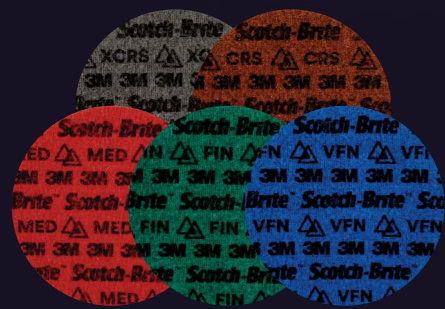
Bright, vivid colours help to identify easier.

Up to **40% More Speed<sup>12</sup>** vs. Competitive CRS Discs

Up to **2X More Life<sup>13</sup>**

- ✓ Light Grinding
- ✓ Deburring
- ✓ Blending
- ✓ Refining
- ✓ Cleaning
- ✓ Finishing

Scan for more detailed product ordering info



Scotch-Brite™ Precision Surface Conditioning Discs

3M Precision-Shaped Grain

Grades	VFIN	FIN	MED
	CRS	XCRS	

Attachment Types

Roloc™ TN Quick Change 7/8 Center Hole Hook and Loop



Scotch-Brite™ Precision Heavy Duty Surface Conditioning Discs

3M Precision-Shaped Grain

Grades	MED	CRS
	XCRS	XCRS

Grinds and blends in one step.

Fast aggressive cut, long life and consistent finish.

Durable construction resists edge wear.

Attachment Types

Roloc™ TN Quick Change 7/8 Center Hole Hook and Loop

- ✓ Light Grinding
- ✓ Blending
- ✓ Deburring
- ✓ Edge Break

Scan for more detailed product ordering info



# Stripping Discs

For cleaning after heavy grinding.



Safety Built In

No steel wires or high impact particles that could injure workers.

Quickly removes rust, paint, mill scale, coatings from metal and leaves a fine finish.

Silicon carbide mineral cuts aggressively with low sparking.

Maintains work piece shape.

Up to **90% Less Vibration<sup>14</sup>** vs. Crimped Wire Cup Brushes

Up to **54% More Speed<sup>14</sup>**

- ✓ Finishing
- ✓ Surface Preparation
- ✓ Light Scale Removal
- ✓ Coating Removal

Scan for more detailed product ordering info



Scotch-Brite™ Clean and Strip XT Pro Disc

Silicon Carbide Mineral

Grade	S XCS
-------	-------

Attachment Types

Roloc™ TN Quick Change Center Hole 5/8-11



Scotch-Brite™ Clean and Strip XT Pro Extra Cut Disc

Aluminum Oxide Mineral

Grade	A XCS
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Heavy rust / rust pit removal without leaving divots, ideal for weld refinement and removing weld discoloration.

Aluminium oxide mineral cuts to bare metal quickly.

Resists chunking and loading, and performs well on edges.

Attachment Types

Roloc™ TN Quick Change Center Hole 5/8-11

- ✓ Cleaning
- ✓ Surface Preparation
- ✓ Finishing





# Scotch-Brite™ Precision HD Surface Conditioning Discs



Watch introduction and demo videos at [Youtube.com/3MAbrasives](https://www.youtube.com/3MAbrasives)

Tough enough for heavy duty use.

**1**  
**2X Longer Lasting on Mild Steel**  
compared to competitive premium nonwoven abrasives — while offering edge durability and shape retention during edge wear\*

**2**  
**3X More Parts Processed on Mild Steel**  
than competitive premium nonwoven abrasives\*

**3**  
**Fast and Durable Long-lasting on parts with sharp edges**  
Heavy duty discs for applications that require a more aggressive and durable product

## High-Pressure Applications

An extension of 3M's Precision Surface Conditioning Disc family, this heavy duty option is designed for durability, long product life, and consistent performance. These discs last longer than competitive premium nonwoven abrasives while offering edge durability and shape retention during edge wear.

- Light Grinding
- Blending
- Deburring
- Refining
- Edge Breaking



The heavy duty family identified by the black backing and white font.

PSG technology built into the product.

### Tech Tip

Ever wondered what grit mineral is in your nonwoven?

Now including the size of PSG to better understand the positioning of our grades of Precision Heavy Duty Surface Conditioning Discs.

### Tech Tip

Try hook and loop discs with our new **Scotch-Brite™ Universal Surface Conditioning Back-up Pad**. Designed to optimize the performance of nonwoven abrasive discs. It comes packaged with everything you need for quick and easy tool attachment, including three attachment nuts and an optional snap-in centre post. Low-profile design fits within most grinder guards.



## CUTTING POWER FOR HEAVY DUTY JOBS.



MED  
150+

CRS  
120+

XCRS  
80+

XXCRS  
60+

3M™ Hook and Loop – No Hole Disc

3M™ Hook and Loop – Center Hole Disc

TN Quick Change

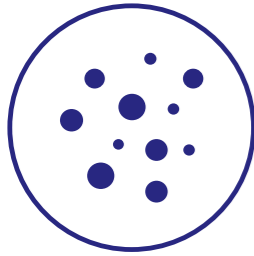
Roloc™ TS

Roloc™ TR

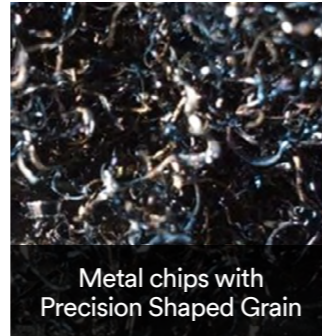
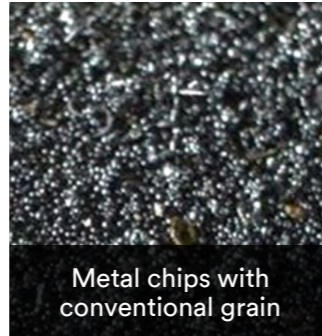
Roloc™ TSM

# How Our Technology Supports the Mitigation of Specific Hazards – Grinding Applications

## Airborne particles



By slicing not ploughing through metal, the chips produced by 3M Precision Shaped Grain are larger, longer and heavier – meaning particles stay airborne for less time.



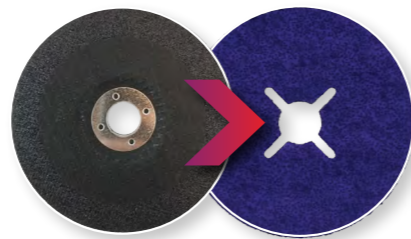
## Hand-arm vibration



Up to **88%** reduction in vibration exposure\*

Less vibration generated by the abrasive disc itself  
Reduced trigger time on the vibrating tool due to cut speed  
Less applied pressure is required due to cutting efficiency

**3M** Cubitron™ 3  
Performance Abrasives



Switch from a depressed centre grinding wheel to a 3M™ Cubitron™ 3 Fibre Disc for grinding tasks.

The change in form and the speed of getting the job done can significantly reduce vibration and noise exposure.

## Noise



Up to **70%** reduction in noise energy\*

Less vibration leads to less noise generated  
Reduced trigger time on the noisy tool  
Different abrasive construction lowers noise levels

# Tools that take it to the next level.

The new 3M™ Electric Grinder is available in 115mm, fixed speed. Designed with robust components, this grinder is built for durability in the harshest industrial conditions. A powerful and long-lasting tool you need to get more done.

- ▶ 1900 W power
- ▶ Available in fixed speed
- ▶ Excellent ergonomic design
- ▶ Restart protection
- ▶ Direct cooling for a long service life
- ▶ Overload protection
- ▶ Kickback control
- ▶ Adjustable guard
- ▶ Robust design and components provide durability in industrial conditions
- ▶ Accessories for maximum functionality and flexibility



## Get the full system advantage.

3M™ Electric Grinder



3M™ Disc Back-up Pad ideal use



Grades  
60+  
80+

### TECH TIP:

Combine with 3M™ Fibre Disc Back-up Pads and 3M™ Electric Grinder to optimise performance of 3M™ Cubitron™ 3 Fibre Discs 1182C and 1187C including abrasive life, cut rate and consistency.

\*Performance testing is a typical weld preparation process; 3M Cubitron 3 Fibre Disc average compared to the average result of 10 globally selected high-quality competitive Type 27 grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute – January 2024.



**Cubitron™ 3**  
Performance Abrasives

Available in additional sizes, grades, and attachment types.  
Scan the code for full product details.

**Scotch-Brite™**

Available in additional sizes, grades, and attachment types.  
Scan the code for full product details.

## Cut-Off Wheels

3M™ Cubitron™ 3  
Cut-Off Wheels



3M ID	Dia x Thk x Ah (mm)	Grade	Max RPM
<b>T41</b>			
7100304123	75 mm x 1 mm x 10 mm	60+	21.000 rpm
7100303861	75 mm x 1 mm x 6.35 mm	60+	21.000 rpm
7100304124	75 mm x 1 mm x 8 mm	60+	21.000 rpm
7100304121	75 mm x 1 mm x 9.53 mm	60+	21.000 rpm
7100303830	100 mm x 2 mm x 15.88 mm	36+	15.300 rpm
7100304305	115 mm x 0.8 mm x 22.23 mm	80+	13.300 rpm
7100304120	115 mm x 1 mm x 22.23 mm	60+	13.300 rpm
7100304003	115 mm x 1.6 mm x 22.23 mm	36+	13.300 rpm
7100304127	125 mm x 0.8 mm x 22.23 mm	80+	12.250 rpm
7100304306	125 mm x 1 mm x 22.23 mm	60+	12.250 rpm
7100304304	125 mm x 1.3 mm x 22.23 mm	60+	12.250 rpm
7100303829	125 mm x 1.6 mm x 22.23 mm	36+	12.250 rpm
7100304000	125 mm x 2 mm x 22.23 mm	36+	12.250 rpm
7100305353	150 mm x 1.6 mm x 22.23mm	60+	10.200 rpm
7100304056	150 mm x 2 mm x 22.23 mm	60+	10.200 rpm
7100305230	180 mm x 1.6 mm x 22.23mm	60+	8.500 rpm
7100303999	180 mm x 2 mm x 22.23 mm	36+	8.500 rpm
7100303998	230 mm x 2 mm x 22.23 mm	36+	6.650 rpm
7100303997	230 mm x 2.5 mm x 22.23 mm	36+	6.650 rpm
7100303832	230 mm x 3 mm x 22.23 mm	36+	6.650 rpm
<b>T42</b>			
7100303996	115 mm x 2.5 mm x 22.23 mm	36+	13.300 rpm
7100303995	125 mm x 2.5 mm x 22.23 mm	36+	12.250 rpm
7100303831	125 mm x 3 mm x 22.23 mm	36+	12.250 rpm
7100303994	180 mm x 2.5 mm x 22.23 mm	36+	8.500 rpm
7100303993	230 mm x 2.5 mm x 22.23 mm	36+	6.650 rpm

## Fibre Discs

3M™ Cubitron™ 3  
Fibre Disc 1182C



3M ID	Dia x Thk x Ah (mm)	Grade	Max RPM
7100309905	100 mm x 16 mm	36+	15.300 rpm
7100349563	100 mm x 16 mm	60+	15.300 rpm
7100349570	100 mm x 16 mm	80+	15.300 rpm
7100308530	115 mm x 22 mm	36+	13.300 rpm
7100349583	115 mm x 22 mm	60+	13.300 rpm
7100349564	115 mm x 22 mm	80+	13.300 rpm
7100308531	125 mm x 22 mm	36+	12.250 rpm
7100349498	125 mm x 22 mm	60+	12.250 rpm
7100349571	125 mm x 22 mm	80+	12.250 rpm
7100309790	150 mm x 22 mm	36+	10.200 rpm
7100349676	150 mm x 22 mm	60+	10.200 rpm
7100348572	150 mm x 22 mm	80+	10.200 rpm
7100309794	180 mm x 22 mm	36+	8.500 rpm
7100349667	180 mm x 22 mm	60+	8.500 rpm
7100349585	180 mm x 22 mm	80+	8.500 rpm

3M™ Cubitron™ 3  
Fibre Disc 1187C



3M ID	Dia x Thk x Ah (mm)	Grade	Max RPM
7100309905	100 mm x 16 mm	36+	15.300 rpm
7100349563	100 mm x 16 mm	60+	15.300 rpm
7100349570	100 mm x 16 mm	80+	15.300 rpm
7100308530	115 mm x 22 mm	36+	13.300 rpm
7100349583	115 mm x 22 mm	60+	13.300 rpm
7100349564	115 mm x 22 mm	80+	13.300 rpm
7100308531	125 mm x 22 mm	36+	12.250 rpm
7100349498	125 mm x 22 mm	60+	12.250 rpm
7100349571	125 mm x 22 mm	80+	12.250 rpm
7100309790	150 mm x 22 mm	36+	10.200 rpm
7100349676	150 mm x 22 mm	60+	10.200 rpm
7100348572	150 mm x 22 mm	80+	10.200 rpm
7100309794	180 mm x 22 mm	36+	8.500 rpm
7100349667	180 mm x 22 mm	60+	8.500 rpm
7100349585	180 mm x 22 mm	80+	8.500 rpm

## Grinding Wheels

3M™ Cubitron™ 3  
Depressed Centre  
Grinding Wheel



3M ID	Dia x Thk x Ah (mm)	Max RPM
<b>T27</b>		
7100303983	115 mm x 7 mm x 22 mm	13.300 rpm
7100303982	125 mm x 7 mm x 22 mm	12.250 rpm
7100303981	150 mm x 7 mm x 22 mm	10.200 rpm
7100303980	180 mm x 7 mm x 22 mm	8.500 rpm
7100303979	230 mm x 7 mm x 22 mm	6.650 rpm
<b>Gouge Special</b>		
7100312955	125 mm x 7 mm x 22 mm	12.250 rpm
7100303963	150 mm x 7 mm x 22 mm	10.200 rpm
7100305453	180 mm x 7 mm x 22 mm	8.500 rpm
7100373501	230 mm x 7 mm x 22 mm	6.650 rpm
7100349585	180 mm x 22 mm	8.500 rpm

## Surface Conditioning Discs

Scotch-Brite™  
Precision Heavy  
Duty Surface  
Conditioning Disc



3M ID	Dia x AH (mm)	Grade	Max RPM
<b>Hole</b>			
7100358887	102 mm x 16 mm	X-Extra Coarse	15.000 rpm
7100358861	102 mm x 16 mm	Extra Coarse	15.000 rpm
7100358855	102 mm x 16 mm	Coarse	15.000 rpm
7100358860	102 mm x 16 mm	Medium	15.000 rpm
7100359467	102 mm x 22 mm	X-Extra Coarse	13.300 rpm
7100359465	102 mm x 22 mm	Extra Coarse	13.300 rpm
7100358856	102 mm x 22 mm	Coarse	13.300 rpm
7100358896	102 mm x 22 mm	Medium	13.300 rpm
7100359469	127 mm x 22 mm	X-Extra Coarse	12.000 rpm
7100359474	127 mm x 22 mm	Extra Coarse	12.000 rpm
7100359468	127 mm x 22 mm	Coarse	12.000 rpm
7100359473	127 mm x 22 mm	Medium	12.000 rpm
7100359475	180 mm x 22 mm	X-Extra Coarse	8.600 rpm
7100358899	180 mm x 22 mm	Extra Coarse	8.600 rpm
7100358886	180 mm x 22 mm	Coarse	8.600 rpm
7100358893	180 mm x 22 mm	Medium	8.600 rpm

## Stripping Discs

Scotch-Brite™  
Clean and Strip  
XT Pro Disc



3M ID	Dia x AH (mm)	Grade	Max RPM
<b>XO-DC (Centre hole)</b>			
7100176374	100 mm x 13 mm	S Extra Coarse	6.000 rpm
7100176347	150 mm x 13 mm	S Extra Coarse	6.000 rpm
7100176348	200 mm x 13 mm	S Extra Coarse	4.500 rpm
<b>XO-DB (Fibre backing)</b>			
7100192333	115 mm x 22 mm	S Extra Coarse	10.000 rpm
7100192334	180 mm x 22 mm	S Extra Coarse	6.500 rpm
<b>XO-RD (Roloc disc)</b>			
7100192330	115 mm x 22 mm	S Extra Coarse	13.000 rpm
7100192331	125 mm x 22 mm	S Extra Coarse	12.250 rpm
7100192335	125 mm x M14	S Extra Coarse	12.250 rpm
7100192332	180 mm x 22 mm	S Extra Coarse	8.500 rpm

Scotch-Brite™  
Clean and Strip  
XT Pro Extra Cut Disc



3M ID	Dia x AH (mm)	Grade	Max RPM
<b>XC-DC</b>			
7100175138	100 mm x 13 mm	A Extra Coarse	8.000 rpm
7100175139	150 mm x 13 mm	A Extra Coarse	6.000 rpm
7100191877	150 mm x 22 mm	A Extra Coarse	6.000 rpm
7100175140	200 mm x 13 mm	A Extra Coarse	4.500 rpm
<b>XC-ZS</b>			
7100192735	75 mm x 13 mm x 6 mm	A Extra Coarse	8.000 rpm
7100192737	100 mm x 13 mm x 6 mm	A Extra Coarse	8.000 rpm
7100192738	150 mm x 13 mm x 8 mm	A Extra Coarse	6.000 rpm
<b>XC-ZR</b>			
7100192712	100 mm x 13 mm x 6 mm	S Extra Coarse	8.000 rpm
7100192733	125 mm x 13 mm x 6 mm	S Extra Coarse	7.000 rpm
7100192734	150 mm x 13 mm x 6 mm	S Extra Coarse	6.000 rpm
<b>XC-DB (fibre backing)</b>			
7100192339	115 mm x 22 mm	A Extra Coarse	10.000 rpm
7100192340	180 mm x 22 mm	A Extra Coarse	6.500 rpm
<b>XC-RD (Roloc)</b>			
7100192336	115 mm x 22 mm	A Extra Coarse	13.000 rpm
7100192337	125 mm x 22 mm	A Extra Coarse	12.250 rpm
7100192341	125 mm x M14	A Extra Coarse	12.250 rpm
7100192338	180 mm x 22 mm	A Extra Coarse	8.500 rpm



Available in additional sizes, grades, and attachment types.  
Scan the code for full product details.

## Flap Discs

3M™ Flap Disc 769F



3M ID	Dia x Thk x Ah (mm)	Grade	Max RPM
7100196818	115 mm x 22 mm	40+	13.300 rpm
7100196816	115 mm x 22 mm	60+	13.300 rpm
7100196789	115 mm x 22 mm	80+	13.300 rpm
7100196539	115 mm x 22 mm	120+	13.300 rpm
7100196812	125 mm x 22 mm	40+	12.000 rpm
7100196797	125 mm x 22 mm	60+	12.000 rpm
7100196791	125 mm x 22 mm	80+	12.000 rpm
7100196815	125 mm x 22 mm	120+	12.000 rpm
7100239219	150 mm x 22 mm	40+	10.200 rpm
7100239223	150 mm x 22 mm	60+	10.200 rpm
7100240279	150 mm x 22 mm	80+	10.200 rpm
7100239224	150 mm x 22 mm	120+	10.200 rpm
7100197061	180 mm x 22 mm	40+	8.600 rpm
7100196798	180 mm x 22 mm	60+	8.600 rpm
7100196794	180 mm x 22 mm	80+	8.600 rpm
7100196793	180 mm x 22 mm	120+	8.600 rpm

3M ID	Dia x Thk x Ah (mm)	Grade	Max RPM
<b>Flat</b>			
7100196540	115 mm x 22 mm	40+	13.300 rpm
7100196817	115 mm x 22 mm	60+	13.300 rpm
7100196820	115 mm x 22 mm	80+	13.300 rpm
7100196819	115 mm x 22 mm	120+	13.300 rpm
7100196813	125 mm x 22 mm	40+	12.000 rpm
7100196799	125 mm x 22 mm	60+	12.000 rpm
7100196790	125 mm x 22 mm	80+	12.000 rpm
7100196821	125 mm x 22 mm	120+	12.000 rpm
7100196538	180 mm x 22 mm	40+	8.600 rpm
7100196800	180 mm x 22 mm	60+	8.600 rpm
7100197431	180 mm x 22 mm	80+	8.600 rpm
7100196792	180 mm x 22 mm	120+	8.600 rpm

## Tools

3M™ Electric Angle Grinders



SAP	Model	Speed	Tool Diameter	RPM	Name
7100249666	14253	Fixed	115	11.500	Electric Angel Grinder 1900W 115mm
7100249667	14281	Variable	115	11.500	Electric Angle Grinder Variable Speed 1900W 115mm
7100249665	14273	Fixed	125	11.500	Electric Angle Grinder 1900W 125mm
7100249668	14291	Variable	125	11.500	Electric Angle Grinder Variable Speed 1900W 125mm

## Accessories

3M™ Fibre Disc Back-up Pad



3M ID	Diameter (mm)	Part Number	Max RPM
7000032409	115	64860	13.300
7000032410	125	64861	12.000
7100242134	150	64829	10.200
7000032411	180	64862	8.500



**Speedglas™**  
Produits de sécurité pour soudeurs



## 3M™ Speedglas™ Heavy Duty Welding Helmet G5-01

Component		Part number	Description
Welding filter	Outer protection plates	52 60 00	Outer protection plate (standard)
		52 70 00	Outer protection plate (scratch)
		52 70 01	Outer protection plate (scratch+)
		52 70 70	Outer protection plate (heat)
	Inner cover plates	52 80 25	Inner cover plate
		52 80 28	Inner cover plate anti-fog
Welding helmet	Visor plate	61 30 00	Visor plate, anti-fog and hard coated
	Face seal	61 40 00	Face seal
	Sweatbands	19 80 16	Sweatband, towelling
		19 80 18	Sweatband, leather
		19 80 17	Sweatband, fleecy cotton
Air duct breathing tube	61 37 00	Air duct breathing tube (short) incl. Holder	

### Additional accessory options for G5-01 and G5-03 Pro/Pro Air



**A** Task light.

**B** To better enable you to weld when looking down, replace the rigid neck protection with, for example the smaller fabric neck protection.

**C** Increase coverage of your head, neck and chest by adding the larger fabric head cover and/or the extended fabric neck protection.

**D** For increased visibility, add the fluorescent yellow extended head cover.

**E** When you need the durability of leather, attach the leather head cover and the leather neck protection.

**F** To maximise coverage from sparks add the fabric shroud and the extended or larger fabric head cover.



## 3M™ Speedglas™ Welding Helmets G5-03 Pro/Pro Air

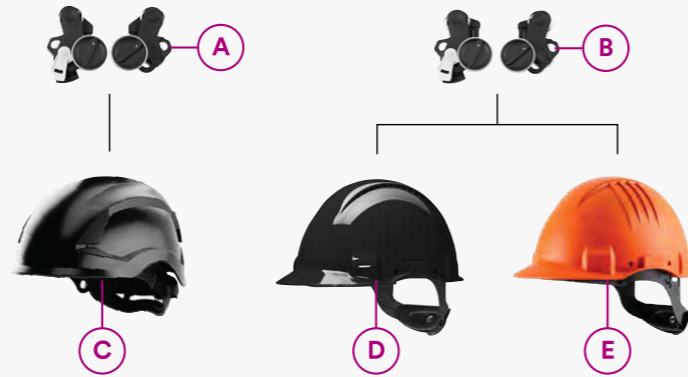


Component	Part number	Description
Outer protection plates	52 60 00	Outer protection plate (standard)
	52 70 00	Outer protection plate (scratch)
	52 70 01	Outer protection plate (scratch+)
	52 70 70	Outer protection plate (heat)
	Inner cover plates	52 80 25
52 80 28		Inner cover plate anti-fog
Face seal	61 40 00	Face Seal
Sweatbands	19 80 16	Sweatband, Towelling
	19 80 18	Sweatband, Leather
	19 80 17	Sweatband, fleecy cotton
Airduet breathing tube	61 37 00	Airduet Breathing Tube (short) incl. holder

We recommend use of 3M welding fume disposable or re-usable respirators together with standard welding helmets

### Additional accessory options for G5-03 Pro

- A** Safety helmet adaptor G5-03 Pro for X5500NVE
- B** Safety helmet adaptor G5-03 Pro for G3001NVE and G3501MOR
- C** 3M™ Safety Helmet X5500NVE (non-vented)
- D** 3M™ G3001NVE Safety Helmet
- E** 3M™ G3501MOR High Heat Safety Helmet



<https://www.cdc.gov/niosh/topics/hierarchy>

### Before you choose your protective equipment

The Hierarchy of Controls can be used as a guide through the process of mitigating exposures to welding fume.\* The measures towards the top of the list are normally considered to be the most preferable.

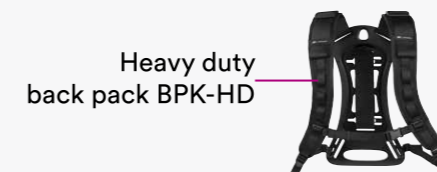
 <b>Eliminate the hazard</b> E.g. Use different bonding solutions or find ways to minimise the amount of welding.	 <b>Substitute the hazard</b> E.g. Use a different metal or welding technique that produces less contaminants	 <b>Engineering controls</b> Use engineering controls to isolate workers from the hazard. E.g. local exhaust ventilation (LEV) or on-tool extraction.	 <b>Administrative controls</b> E.g. Introduce dedicated welding areas and regular testing of LEV.	 <b>Personal Protective Equipment (PPE)</b> PPE will still be required for most manual welding due to the hazards involved and the limitations of other controls
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## 3M™ Adflo™ Powered Air Purifying Respirator System



Component	Part number	Description
Filters	83 60 10	Prefilter
	83 70 12	Particle filter
	83 75 42	Gas filter A2
	83 72 42	Gas filter A1B1E1
	83 71 10	Odor filter
	83 71 20	Odor filter pad
Breathing tubes	83 40 16	Breathing tube
	83 40 17	Breathing tube heavy-duty rubber
	83 40 18	Breathing tube cover, flame retardant
	83 40 19	Breathing tube, long
Spark arrestor	83 60 00	Spark arrestor

### Additional accessory options for Adflo



### Batteries and charger

- A** Standard battery
- B** Heavy duty battery
- C** Battery charger

### What is welding fume?

All welding fume contains particles as well as gases. Welding fume particles vary in size, from particles that are large like grains of sand through to tiny particles that cannot be seen by the naked eye and can easily be inhaled. Welding fume has been reclassified as carcinogenic<sup>1)</sup>, and exposure to welding fume and other gases associated with welding can cause a range of health issues.

**Fast fact:**  
Poor respiratory protection is the 4th most common workplace violation.<sup>2)</sup>

1) IARC2017 2) Top 10 Most Frequently Cited Standards, OSHA, U.S. Department of Labour, for 2020.

### Assess the risk

☺ The type and quantity of welding fume, gases and vapours are determined by the material, welding process, amperage and the welding electrode used.

👤 Consult an expert to identify the hazards levels against country safety standards.

**Fast fact:**  
A qualified health & safety professional or consultant can conduct area and personal exposure monitoring to determine type and concentration of contaminants.

Our range of products, models and colours may vary depending on region and year. For an accurate list of available products visit [www.3M.com](http://www.3M.com) or contact your local supplier.

# 3M helps large casting company improve safety and productivity



Pam Building specialize in the manufacture of cast iron drainage systems for commercial, public, and residential buildings. Operator safety is paramount, and productivity improvements are vital to stay competitive in their market

Up to

# 87%

LESS vibration exposure



**3M** Cubitron™ 3  
Performance Abrasives

“

*We were mainly focused on new tools to reduce hand-arm vibration and hadn't considered the significant impact abrasives could deliver before 3M came to see us.*

Matthew Hoar - QEHS & Systems Manager

3M™ Cubitron™ 3 Cut & Grind Wheels reduced vibration magnitude and shortened the time to process each casting; these combined to help significantly mitigate operator exposure. Furthermore, this lower part processing time meant improved throughput – an important outcome for the production manager.

1. Performance testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre Disc 1182C, 36+ average compared to the average result of 10 globally selected high-quality competitive type 27 grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024.
2. The 'total material removed' claim is determined by averaging the amount of metal ground over the entire test method (30 cycles or 30 minutes of grinding). Error bars represent the results with a 95% confidence level.
3. Performance testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre disc average compared to the average result of 10 globally selected high-quality competitive type 27 Grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024.
4. Noise energy operator exposure testing in a typical weld preparation process; Cubitron™ 3 Fibre disc average compared to the average result of 10 globally selected high-quality competitive type 27 Grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024.
5. Results are based on an automated, 10-minute grinding test on 304 stainless steel using 36" long belts. The total material removed claim is determined by averaging the amount of metal ground over the entire test method (40 cycles or 10 minutes of grinding). Error bars represent the results with a 95% confidence level.
6. Results based on an automated, 10-minute grinding test on 304 stainless steel using 36" long belts. The sustained cut rate claim is determined by averaging the total material removed after 10 cycles minus total material removed after 3 cycles divided by seven cycles. Error bars represent the results with a 95% confidence level.
7. Results are based on an automated, cutting of a 3 mm thick 304 stainless steel sheet. Cut-off wheel geometry was T41 125 mm x 1.6 mm x 22 mm mounted on a 1.5 hp angle grinder with an applied force of 9 lbs. Cut speed was defined by time needed to cut 1 meter of stainless steel. The number of cuts was estimated by the amount of wheel that was used after cutting a distance of 1 meter. End of life is assumed to be 50% of initial wheel mass.
8. Performance testing in a typical weld preparation process or cutting operation; 3M™ Cubitron™ 3 Cut-Off Wheels average compared to the average results of the high-quality competitive ceramic grain competitive wheels tested,

according to independent testing, August 2023.

9. Results are based on an automated bevelling of 1018 carbon steel bars. Grinding wheel geometry was 115 mm outer diameter mounted on a servo motor with an applied force of 12 lbs. Cut speed was defined by metal removed after 10 minutes of testing life. End of life is assumed to be 50% of the initial wheel mass.
10. Performance testing in a typical weld preparation process or cutting operation; 3M™ Cubitron™ 3 Depressed Centre Grinding Wheels average compared to the average results of the high-quality competitive ceramic grain competitive wheels tested, according to independent testing, August 2023.
11. Results are based on an automated bevelling of 1018 carbon steel bars. Grinding wheel geometry was 115 mm outer diameter mounted on a servo motor with an applied force of 12 lbs. Cut speed was defined by metal removed after 10 minutes of testing. The total material removal was estimated based on the amount of wheel that was used for 10 minutes of testing life. End of life is assumed to be 50% of the initial wheel mass.
12. Based on 3M Internal Testing: CRS 3" discs were tested robotically on 304 series stainless steel for 12 minutes, using a 3" 3M™ Hard Back-Up, part number: 45091. One part is equivalent to 20 g of material removed.
13. Based on 3M internal testing: MED 3" discs were tested robotically on 6061 aluminium until the end of life (end of life is determined to be 50% of the averaged cut rate of the first three minutes) using a 3" 3M™ Hard Back-Up, part number: 45091. One part is equivalent to 20 g of material removed.
14. Hand-arm vibration compared to listed competitor and Scotch-Brite™ Clean and Strip XT Pro Disc, Type 27, according to independent testing by Fraunhofer Institute on October 2021.

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