



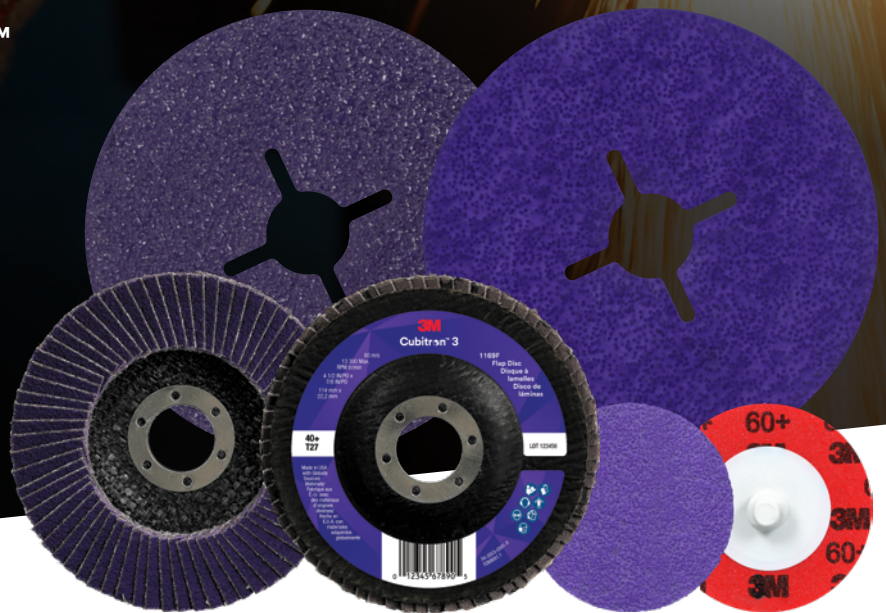
Cubitron™ 3

Performance Abrasives

Produce more. With less.

3M™ Cubitron™ 3 Fibre Discs, Roloc™ and Flap Discs

Breakthroughs in technology that
redefine the limits of cut rate and
stock removal, with priority on
productivity, safety, sustainability,
and optimizing automation.



3M™ Cubitron™ 3 Fibre Discs 1182C and 1187C
3M™ Cubitron™ 3 Roloc™ 1184F, 1182C and 1187C
3M™ Cubitron™ 3 Flap Discs 1169F





Produce more. With less.

3M™ Cubitron™ 3 Fibre Discs, Roloc™ and Flap Discs

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A new era of abrasive performance is here.

Introducing 3M re-engineered Precision-Shaped Grain, boosting the speed and life of 3M™ Cubitron™ Performance Abrasives to new heights. This advancement prioritises operator safety, maximises sustainability, and amplifies time and labour efficiency.

3M™ Cubitron™ 3 Fibre Disc 1182C, 36+

Up to

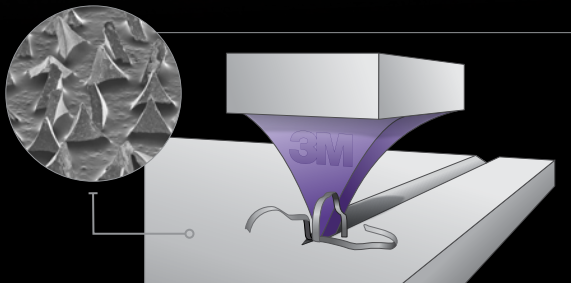
60%

- **Faster sustained cut rate**
- **More total material removed**

vs. 3M™ Cubitron™ II Fibre Disc 982C, 36+

Enhanced mineral orientation

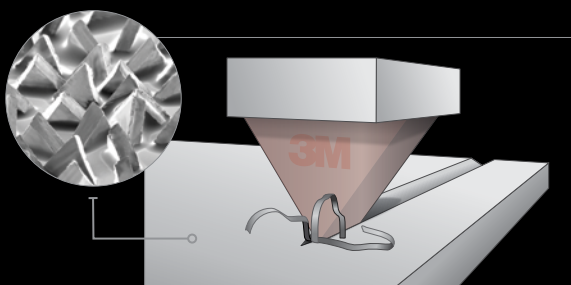
Re-shaping the way work gets done.



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

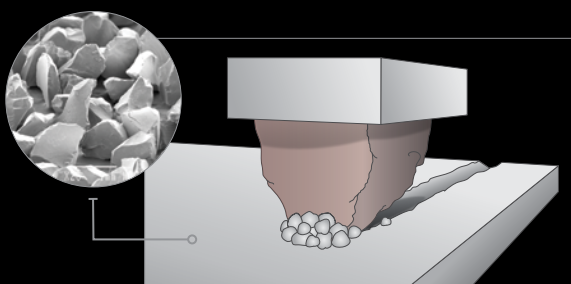
Our latest 3M Precision-Shaped Grain

Re-engineered precision-shaped ceramic grain using a proprietary breakthrough in grain shape with curved sides. This helps increase productivity and lower overall grinding costs.



3M Precision-Shaped Grain

3M pioneered the first precision-shaped grain using 3M microreplication technology to form consistent sharp peaks that easily “slice” through metal—cutting cooler, faster, and lasting longer than conventional abrasive grain.



Conventional ceramic abrasive

Conventional ceramic abrasive grain tends to “plow” through metal, causing heat to build up in the workpiece and abrasive, resulting in a slower cut and shorter abrasive life compared to 3M precision-shaped grain.

3M™ Cubitron™ 3 Fibre Discs 36+

Ideal for heavy grinding applications.

By using long-lasting, fast-cutting 3M™ Cubitron™ 3 Fibre Discs grade 36+, you can minimize abrasive changeover to save money over time. Stiff Fibre backing and a strong resin bond provide durability and tear-resistance for heavy grinding applications from beveling, weld grinding, surface grinding to deburring, and flame cut smoothing. In each application the product grinds more freely and at lower temperatures, helping to reduce job times, operator fatigue and minimize rework.



Industries: ▶ Metal fabrication ▶ Machinery manufacturing ▶ Shipyards

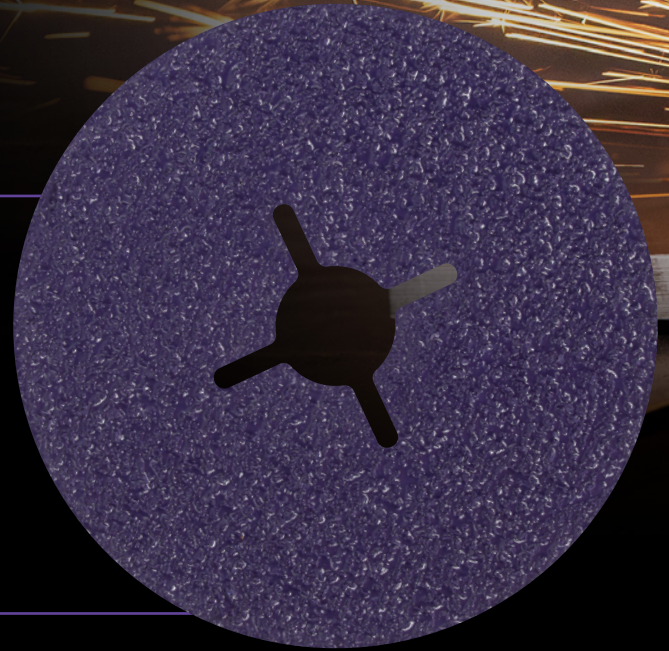


Proven to change the game for your process.

3M™ Cubitron™ 3 Fibre Disc 1182C

Carbon steel grinding

Grade 36+



More total material removed

Longer lasting abrasives with fewer changeouts needed and less downtime



Less operator fatigue

Prioritize workplace wellbeing and motivation with less pressure required on the tool



Cool cutting

Helps to reduce metal discoloration and stress cracks — ultimately minimizing re-work



Faster cut rate

Incredibly fast cut rate helps to increase throughput, maximize productivity and boost your bottom line



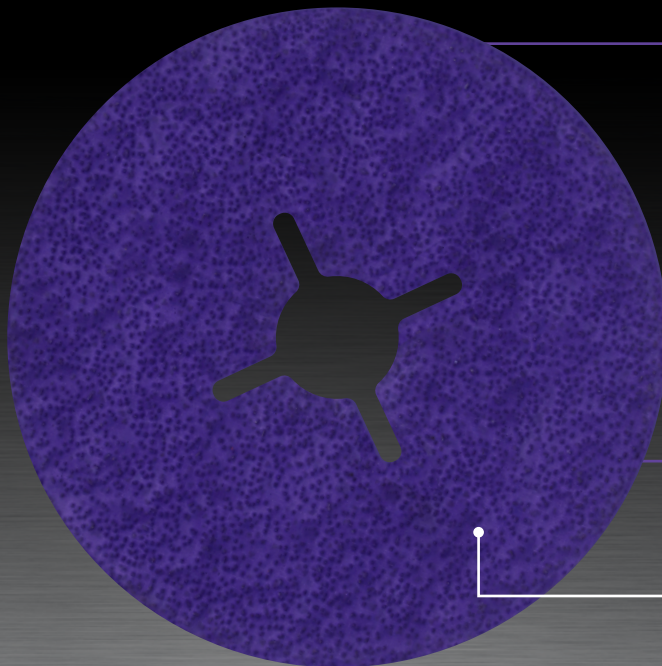
Less vibration exposure

Helps improve workplace safety without compromising productivity



Sustainability at the core

Longer-lasting abrasives and recycled shipper packaging helps reduce carbon footprints and waste



3M™ Cubitron™ 3 Fibre Disc 1187C

Stainless steel grinding

Grade 36+

Coated with a grinding aid

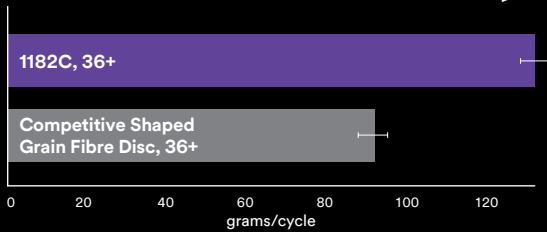
Reduces the risk of discoloration from thermal damage in heat sensitive metals

Grade 36+

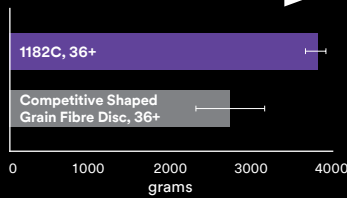
We tested 3M™ Cubitron™ 3 Fibre Disc 1182C, 36+ and here are the results:

Productivity Delivered

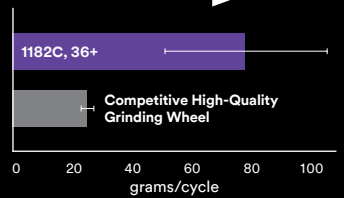
Up to **36%** Faster sustained cut rate¹



Up to **34%** More total material removed¹



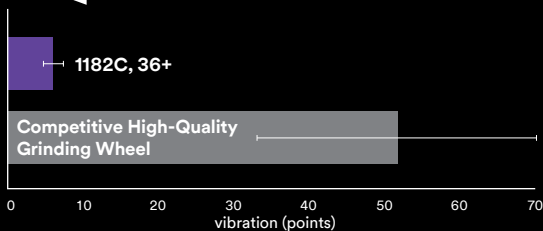
Up to **3X** Faster initial cut rate²



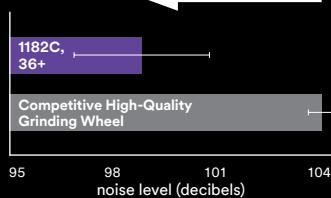
Helps improve workplace safety without compromising productivity.

Safety Built In

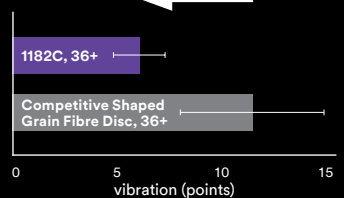
Up to **88%** Less vibration exposure²



Up to **70%** Less noise energy generated³



Up to **47%** Less vibration exposure⁴



Error bars represent the results with a 95% confidence level.

¹ Compared to Competitive Shaped Grain Fibre Disc. Results are based on an automated, 30-minute, high pressure test on 1018 steel using 7 inch, 36+ grit fibre discs and 3M™ Disc Pad Face Plate Ribbed 80514 on a servo motor.

² Performance testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre disc average compared to the average result of 10 globally available high-quality competitive shape type-27 Grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024. **

³ Noise energy operator exposure testing in a typical weld preparation process; Cubitron™ 3 Fibre disc average compared to the average result of 10 globally available high-quality competitive shape type-27 Grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024.

⁴ Performance testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre disc average compared to the average result of 5 globally available high-quality competitive Fibre discs including ceramic shaped grain products, according to independent testing by Fraunhofer Institute. January 2024.

⁵ Average result from 10 high-quality globally represented competitive Grinding wheels including ceramic grain products. Error bars shows a range of likely values for the mean with a confidence level of 95%.

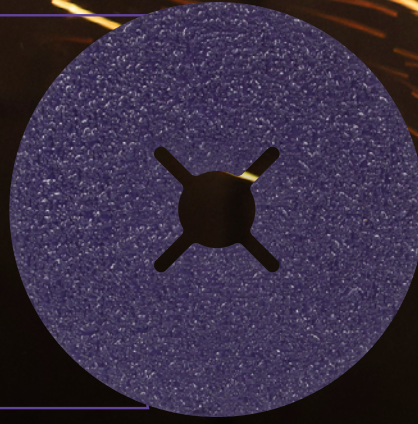
Independent hazards testing performed by:



3M™ Cubitron™ 3 Fibre Disc 1182C

Carbon steel grinding

Grades 60+ & 80+

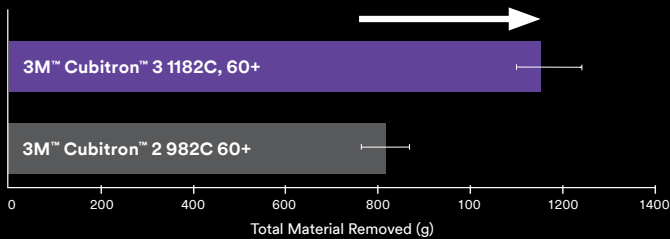


We tested 3M™ Cubitron™ 3
Fibre Disc 1182C 60+ and 80+,
and here are the results:

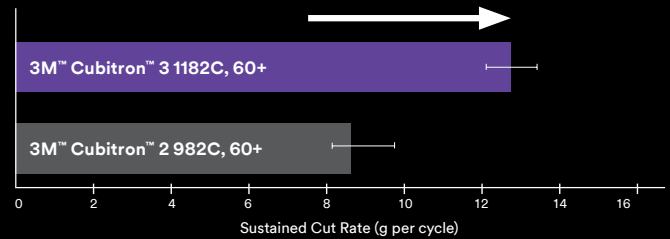
**Productivity
Delivered**

Grade 60+

Up to
38% More total
material
removed¹

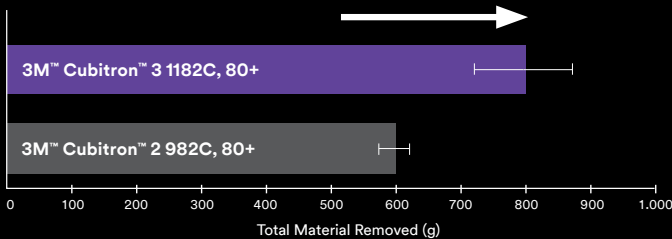


Up to
42% Faster
sustained
cut rate²

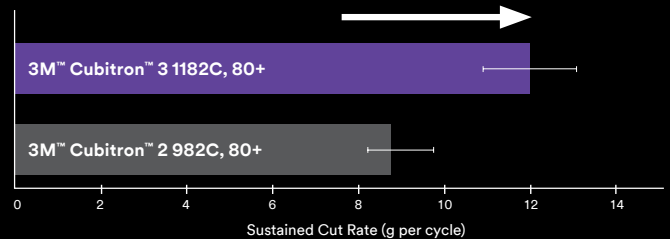


Grade 80+

Up to
29% More total
material
removed¹



Up to
32% Faster
sustained
cut rate²



Total Material Removed:

60+ Carbon Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 100 cycles, approximately 42 minutes of grinding

80+ Carbon Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 70 cycles, approximately 30 minutes of grinding

Units for carbon steel will be Grams
Each cycle for the carbon steel test method = 25.3 seconds of grinding per cycle

Sustained Cut Rate:

60+ & 80+ Carbon Steel: The 'sustained cut rate' claim is determined from averaging the cut/cycle from cycles 11-50 (40 cycles total, which is approximately 17 minutes of grinding)

3M™ Cubitron™ 3 Fibre Disc 1187C

Stainless steel grinding

Grades **60+ & 80+**

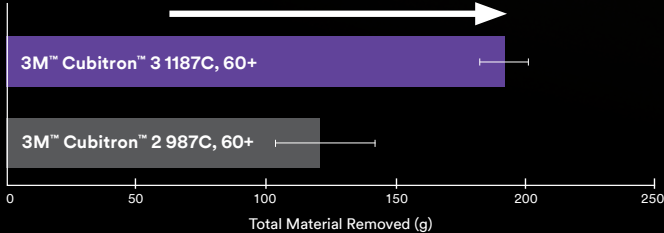


We tested 3M™ Cubitron™ 3
Fibre Disc 1187C 60+ and 80+,
and here are the results:

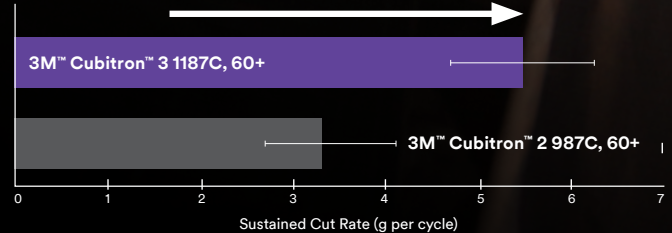
**Productivity
Delivered**

Grade 60+

Up to
57% More total
material
removed¹

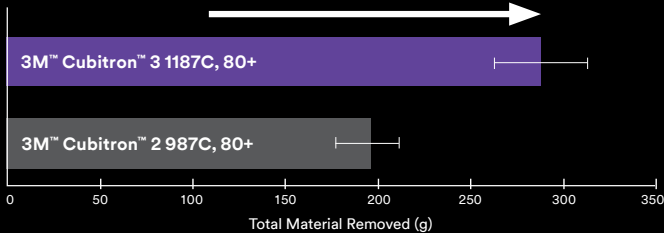


Up to
58% Faster
sustained
cut rate²

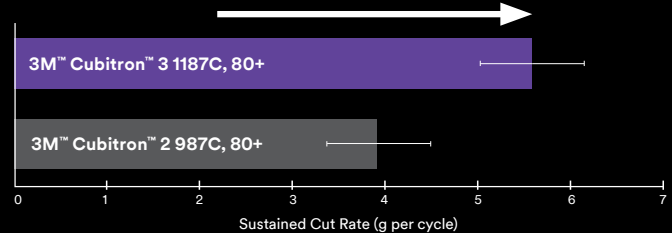


Grade 80+

Up to
48% More total
material
removed¹



Up to
42% Faster
sustained
cut rate²



Total Material Removed:

60+ Stainless Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 40 cycles, approximately 8.5 minutes of grinding

80+ Stainless Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 72 cycles, approximately 15 minutes of grinding

Units for stainless steel will be Grams
Each cycle for the stainless steel test method = 12.7 seconds of grinding per cycle

Sustained Cut Rate:

60+ & 80+ Stainless Steel: The 'sustained cut rate' claim is determined from averaging the cut/cycle from cycles 5-24 (20 cycles total, which is approximately 4 minutes of grinding)

Units for stainless steel will be (Grams/cycle)

Tools that take it to the next level.

The upgraded 3M™ Pneumatic Angle Grinder is designed for effective performance and operator comfort. Powered by a high-output 1.5HP pneumatic motor, this tool helps you get the job done quicker and more efficiently — whether you're grinding large welds, beveling or doing heavy deburring.

- ▶ 1.5 HP (1,100 W power)
- ▶ Wheel autobalancer
- ▶ Adjustable guard
- ▶ Vibration-reducing side handle with added padding; interchangeable for right or left hand usage
- ▶ Available accessories provide maximum functionality and flexibility
- ▶ Rear exhaust directs exhaust and swarf away from the workpiece



Get the full system advantage.

**3M™ Pneumatic Angle Grinder,
88566**



**3M™ Fibre Disc Back-up
Pads, Ribbed, Extra Hard**



TECH TIP:

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

Get more value from your automation investment.

Automation Ready

There are many reasons to invest in automating your abrasive processes: improvement gains in productivity; increase in consistency, quality and safety; and an answer to your labour shortage. To ensure maximised ROI from your investment, the best path comes from automating correctly from the start. That's where 3M products and engineering expertise come in.

The limitations of manual operation.

Manual operators are constrained by the amount of force they can apply and the angles they can hold a tool. Automation removes many of these constraints, working consistently and repeatedly at targeted angles and an optimised level of force and speed. A robot however, is still constrained by the abrasives it's running.

The vital importance of the right abrasives and process parameters in automation.

To realize the full ROI on your automation investment, you want to optimise your abrasive products and parameters for these four key elements:

- ▶ **Uptime:** Determined by abrasive life and full utilization of abrasive, change-over frequency is a key factor here.
- ▶ **Throughput:** Determined by abrasive performance, faster processing leads to more part throughput.
- ▶ **Consistency:** Determined by performance through the life of the abrasive product, resulting in, increased finished good quality and less change-over.
- ▶ **Efficiency:** 3M Robotic Application Engineers can help design a process that utilizes the full width of the abrasive. Reducing abrasive waste and cost.

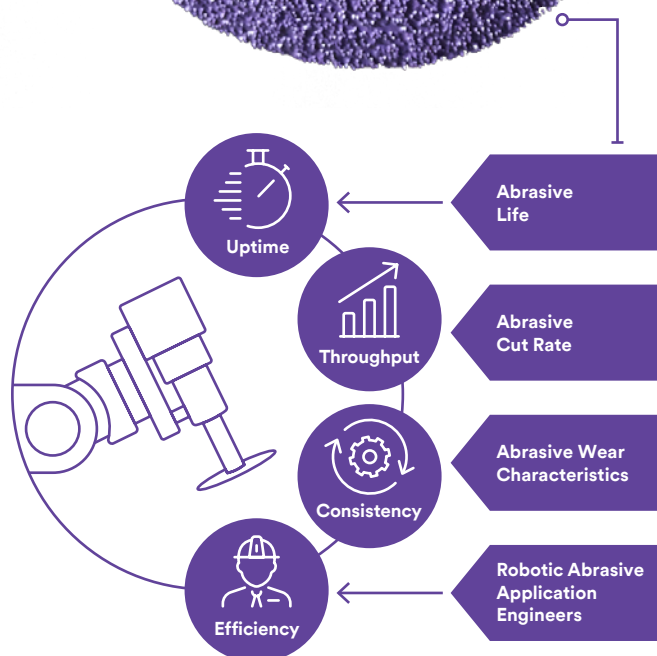
At 3M, we have a deep understanding of the factors that affect an automated abrasive process. Our 100+ years of abrasive experience and 35+ years of abrasive automation experience is accessible through our Technical Experts, our 17 Global Proof of Concept automation labs, and deployed into how we engineer our products.

Products engineered with automation in mind.

3M™ Cubitron™ 3 Performance Abrasives elevate product life, cut rate, and wear consistency. This enhances processes that are already automated or increases the appeal of automating current manual ones.

Start your journey with 3M.

We know abrasive automation. We start with your part requirements in mind and offer consultation on the entire cell system; including recommendations on hardware and software, connections to partners in our 3M System Integrator Network, and running proof of concept projects in our labs; to meet the needs of your process.



3M™ Cubitron™ 3 Roloc™ Fibre Discs

The benefits of the Roloc™ attachment

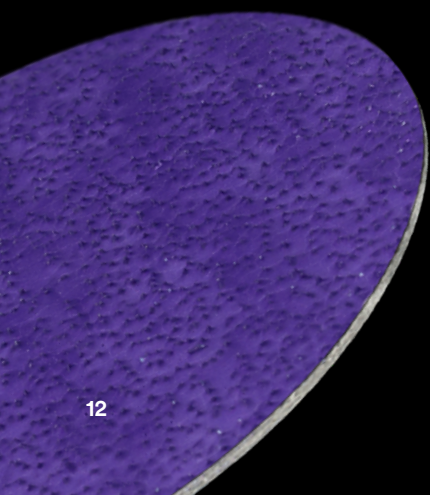
3M™ Roloc™ Abrasive Discs are smaller discs that quickly attach onto a Roloc™ disc pad so that you can conveniently and rapidly change discs as needed. Our system provides a secure attachment even for heavy-

duty applications. Disc buttons are also color-coded when needed to identify its grade, making it easy to select the grade required for different applications.

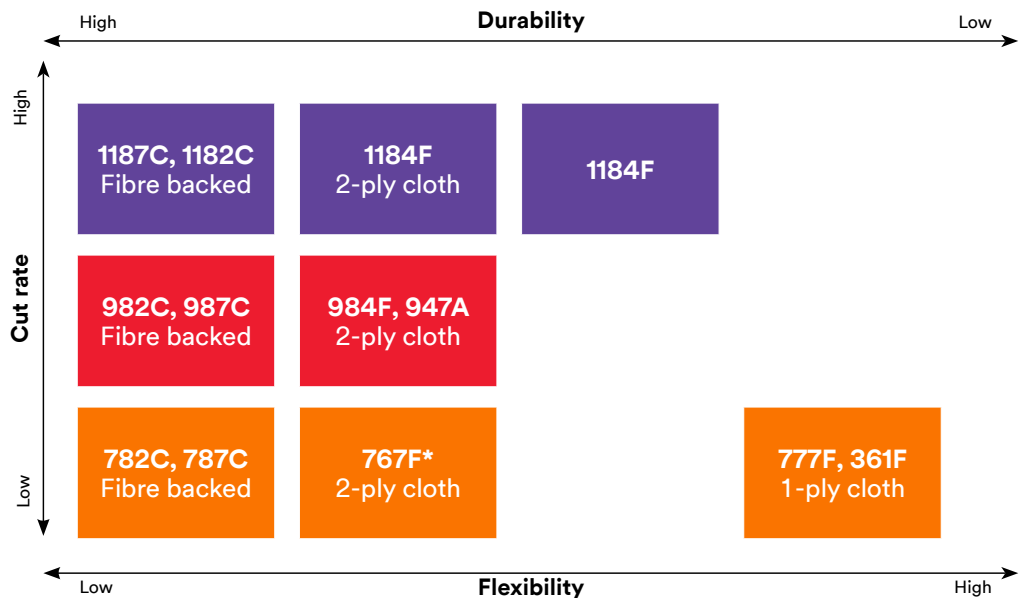
- ▶ Remote applications
- ▶ Retain extra control
- ▶ Localized, refining, finishing
- ▶ Corner or curved surfaces
- ▶ Intricate, difficult to reach areas
- ▶ Remove weld splatter on small areas



**Productivity
Delivered**



Grinding and stock removal





3M™ Cubitron™ 3 Roloc™ Durable Edge Disc 1184F

Stainless steel and other heat-sensitive alloys.

Designed for metalworking applications where flexibility is required and wear resistance in edge work is needed as well as weld grinding, beveling, and deburring.

Grades 36+, 60+ & 80+

3M™ Roloc™ Disc button color/grade guide

CB3 Fibre Disc	Color	Grade
1184F Durable edge	○ White	All*

3M™ Roloc™ Attachment System

CB3 Fibre Disc	Size (in.)	TR
1184F	2	●
	3	●

*Ask for other dimensions availability.

Optimum tool speed to maximize 3M™ Roloc™ Disc cut rates and life

Disc size	Substrate			
	Carbon Steel	Stainless Steel	Titanium	Aluminium
2in	20.000rpms	15.000rpms	7.000rpms	20.000rpms
3in	15.000rpms	10.000rpms	4.500rpms	15.000rpms



TR
plastic button

3M™ Cubitron™ 3 Flap Discs 1169F

Grades

40+, 60+ & 80+

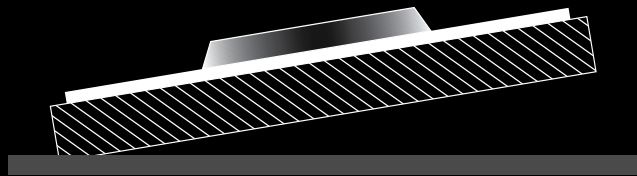


Maximizing productivity and flexibility

Powered by 3M re-engineered precision-shaped grain technology, the Cubitron 3 product line now includes flap discs available in grades 40+, 60+, 80+.

Built with a durable polyester backing, these versatile flap discs offer long life, increased productivity and consistent performance resulting in less abrasive spend.

T27-Flat



For use at flatter angles: 0° – 15°



Proven performance that takes your process to the next level



Increased productivity

Long life and fast cut mean more work done with every single flap disc, less time spent changing discs and less abrasive spend.



Increased versatility

Easy to use flap disc nature helps lower the risk of gouging compared to bonded wheels.



Increased consistency

Individual flaps break down, exposing fresh mineral throughout the life of the disc.



Increased safety and sustainability

Requires less operator pressure, and long life service helps reduce landfill waste.

Works best on:

Carbon steel

Stainless steel

Compliant with Contaminant-Free and INOX criteria to reduce risks of galvanic corrosion.

Abrasive flaps include grinding aid for high performance and long life on stainless steel and other heat-sensitive alloys.

More applications than before!

Ideal for medium to high pressure jobs where the quality and finish are crucial.

Automation Ready



Grinding

Deburring

Blending

Surface Prep

Refining

Finishing

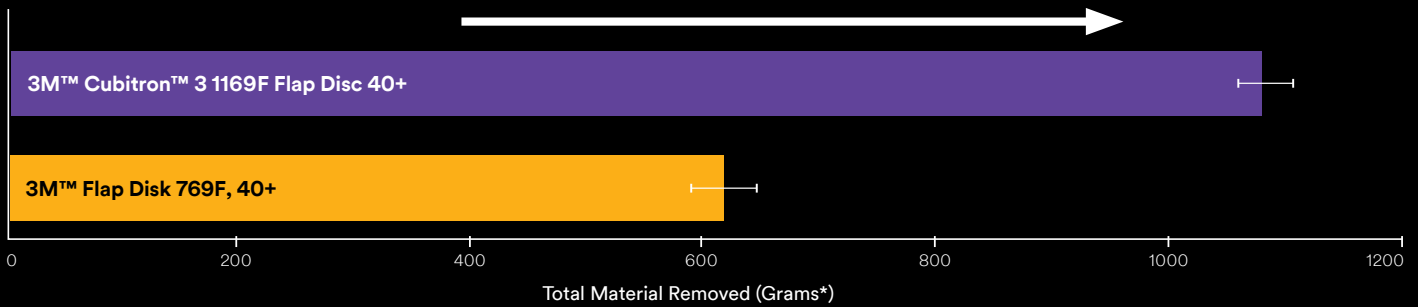
3M™ Cubitron™ 3 Flap Disc 1169F

Carbon steel grinding Grade 40+

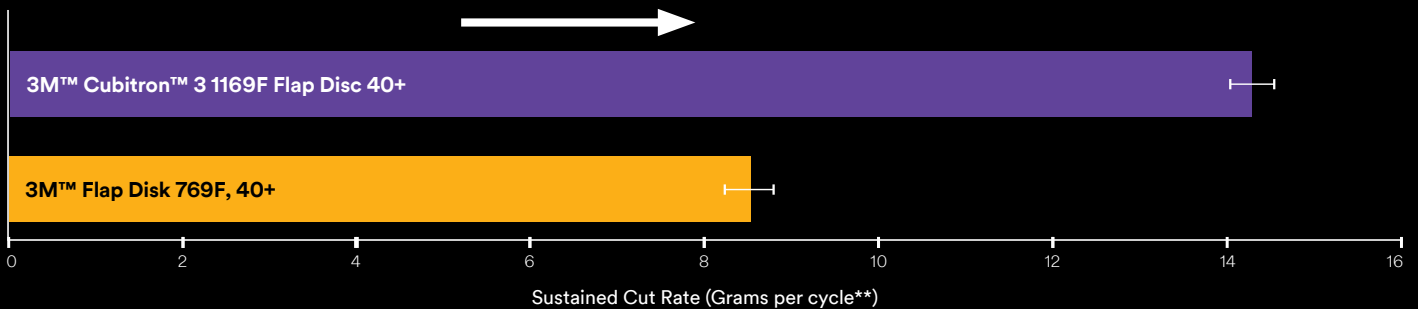
We tested 3M™ Cubitron™ 3 Flap disc 1169F grade 40+ on carbon steel and here are the results:

3M™ Cubitron™ 3 Flap Disc 1169F against other 3M products:

Up to **66%** More material removed compared to 3M™ Flap Disk 769F, 40+



Up to **65%** Faster sustained cut rate compared to 3M™ Flap Disk 769F, 40+



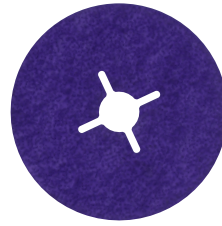
Note: Results are based on an automated, 37.5 minute, medium pressure test on 1045 steel using 4.5 inch 40 grit flap discs on a servo motor.

* Total material removed claim is determined by averaging the amount of metal ground over the entire 75 cycles. Units is grams.

** Sustained cut rate claim is determined from averaging the cut/cycle from cycle 66-75 (which is 5 minutes of grinding). Units is Grams/cycle.



Product Ordering Information



3M™ Cubitron™ 3 Fibre Disc 1182C

Product ID	Grade	Diameter (in)	Max RPM	Box/Case
60440613077	36+	4 in x 5/8 in	13,300	25/100
60440612970	36+	5 in x 7/8 in	12,250	25/100
60440612996	36+	7 in x 7/8 in	8,600	25/100
NEW 60440616013	60+	4 in x 5/8 in	13,300	25/100
NEW 60440615924	60+	5 in x 7/8 in	12,250	25/100
NEW 60440615940	60+	7 in x 7/8 in	8,500	25/100
NEW 60440616153	80+	4 in x 5/8 in	13,300	25/100
NEW 60440616070	80+	5 in x 7/8 in	12,250	25/100
NEW 60440616088	80+	7 in x 7/8 in	8,500	25/100

3M™ Cubitron™ 3 Fibre Disc 1187C

Product ID	Grade	Diameter (in)	Max RPM	Box/Case
60440613234	36+	4 in x 5/8 in	13,300	25/100
60440613135	36+	5 in x 7/8 in	12,250	25/100
60440613143	36+	7 in x 7/8 in	8,600	25/100
NEW 60440616278	60+	4 in x 5/8 in	13,300	25/100
NEW 60440616211	60+	5 in x 7/8 in	12,250	25/100
NEW 60440616229	60+	7 in x 7/8 in	8,500	25/100
NEW 60440616393	80+	4 in x 5/8 in	13,300	25/100
NEW 60440616336	80+	5 in x 7/8 in	12,250	25/100
NEW 60440616344	80+	7 in x 7/8 in	8,500	25/100

DISCS TECH TIP:

Keep discs in the closed, resealable foil bag to help maintain disc shape and quality when not in use.



3M™ Fibre Disc Back-up Pad

Product ID	Diameter (in)	Max RPM	Box/Case
Hard Red Grade 36+			
WX300923892	4 in	13,300	10
WX300925012	5 in	12,000	10
WX300923744	7 in	10,200	10



3M™ Pneumatic Angle Grinder, 88566

Product ID	Diameter (mm)	Max RPM	Box/Case
60440406472	115-125 (4.5-5.0)	12,000	1/1

PADS TECH TIP:

If higher performance (faster stock removal) is required when working on flat surfaces with grades: 60+ & 80+, use black ribbed or red ribbed.

Product Ordering Information



3M™ Cubitron™ 3 Roloc™ Durable Edge Disc 1184F

	Product ID	Diameter (in)	Grade	Box/Case
NEW	60440617441	2	36+	50/200
NEW	60440617466	2	60+	50/200
NEW	60440617482	2	80+	50/200
NEW	60440617508	3	36+	50/200
NEW	60440617524	3	60+	50/200
NEW	60440617540	3	80+	50/200

Pads for Roloc™ discs

Product ID	Diameter (in)	Attachment thread	Grade	Hardness
60440237737	2	1/4-20INT	36+	Extra Hard or Hard*
60440237745	3	1/4-20INT		
60440237786	2	1/4-20INT	60+	Hard
60440237778	3	1/4-20INT		
60980025278	4	M14-2		
60440237653	2	1/4-20INT	80+ & 120+	Medium or Hard*
60440237661	3	1/4-20INT		



3M™ Cubitron™ 3 Flap Disc 1169F

3M ID	Parts No.	Shape	Grade	Diameter x Bore (mm)	Max RPM	Discs per Box/ Case
100mm						
UU014768525	12694	T27	40+	100 × 16	15,300	10/100
UU014768483	12710	T27	60+	100 × 16	15,300	10/100
UU014758997	12724	T27	80+	100 × 16	15,300	10/100
115mm						
UU014767048	12700	T27	40+	115 × 22.23	13,300	10/100
UU014761488	12714	T27	60+	115 × 22.23	13,300	10/100
UU014759789	12728	T27	80+	115 × 22.23	13,300	10/100
125mm						
UU014768814	12702	T27	40+	125 × 22.23	12,250	10/100
UU014761595	12716	T27	60+	125 × 22.23	12,250	10/100
UU014768822	12730	T27	80+	125 × 22.23	12,250	10/100



Sustainability matters to 3M Abrasives.

When you buy from the SEAM value chain, you are helping to build a sustainable future for our industry, for people and for the planet.

3M is a founding member of the SEAM abrasives manufacturers program and aligns to the world's highest standards of quality, safety and performance in a sustainable environment. We commit to transparency, accountability, innovation and progress.

When buying from the SEAM value chain, customers are helping to build themselves a sustainable future.



Sustainable European Abrasive Manufacturers

Find out more at
www.seam.earth



Get the discs that get more done at go.3m.com/FibreDiscsIN



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Karnataka- 560100

Phone 1-800-425-3030
Web go.3M.com/INabrasives

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