



Cubitron™ 3
Performance Abrasives

Portable Grinding and Cut-Off Wheels

Produce more. With less.

3M™ Cubitron™ 3 Portable Grinding and Cutting Wheels feature 3M Precision-Shaped Ceramic Grain, which cuts faster and lasts longer than conventional grain. Designed for everyday high performance, helping you to reduce your manufacturing costs without compromising on performance.

A new era of heavy
grinding and cutting:
3M™ Cubitron™ 3
Performance Abrasives.



Lasts longer



Cuts faster



Cuts cooler

Launched in 2012, this was the first range of cutting and grinding products using 3M's precision-shaped triangular grain abrasives. **This range has now been replaced by our latest and best offering.**



Cubitron™ 3
Performance Abrasives

Significantly raising the benchmark for cut rate and product life in heavy grinding and cutting applications.

3X
Longer
lasting

Responding to industry requirements for better product productivity, worker safety and sustainability, 3M has developed abrasive wheel technologies that make portable grinding and cutting wheels work even faster and last even longer than our current best performing range. Performance is so good compared to existing 3M™ Cubitron™ II Performance Abrasives that we've established a new generation of products called 3M™ Cubitron™ 3 Performance Abrasives.

Elevated experience

To maximize simplicity and value to our customers, the current 3M™ Cubitron™ II Portable Grinding and Cutting Wheel range will be discontinued and replaced by 3M™ Cubitron™ 3 Performance Abrasives. Customers will benefit from a wider product choice, better performance and optimized sustainability with no change in list price.

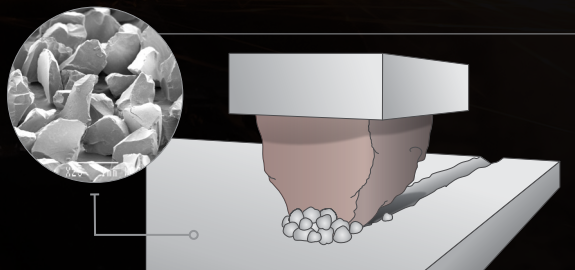
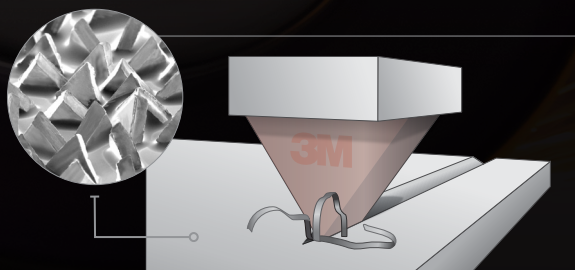
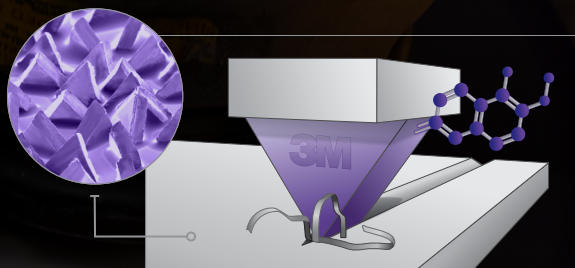
3M

Cubitron™ 3
Performance Abrasives

We've re-engineered precision-shaped ceramic triangular grain using proprietary breakthroughs in **molecular bonding technology**.

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.

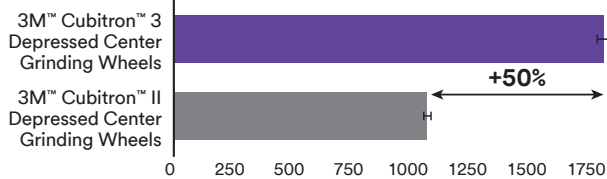
Conventional ceramic abrasive grain tends to “plow” through metal, causing heat to build up in the workpiece and abrasive, resulting in a slower cut and shorter abrasive life compared to our latest precision-shaped grain.



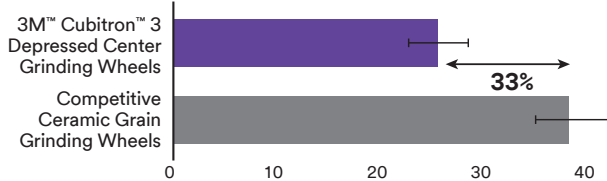
3M™ Cubitron™ 3 Depressed Center Grinding Wheels



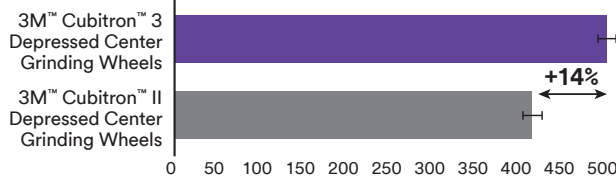
50% Longer life¹



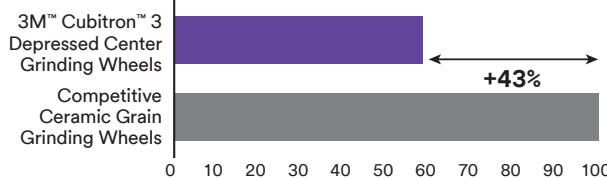
33% Less hand-arm vibration¹



14% Faster cut¹



43% Less noise^{1,2}



Fast cutting, long lasting wheels that require less pressure for heavy grinding and weld removal.

3M™ Cubitron™ 3 Depressed Center Grinding Wheels

Part Number	3M ID	Type	Diameter (in)	Thickness (in)	Center Hole (in)
90001	7100303965	T27	4	1/4	3/8
88989	7100303964	T27	4	1/4	5/8
90003	7100303966	T27	5	1/4	7/8
90007	7100303967	T27	5	1/4	7/8
90005	7100313193	T27	6	1/4	7/8
90008	7100313198	T27	7	1/4	7/8
90010	7100313202	T27	9	1/4	7/8

Quick Change Attachment

90002	7100312968	T27	4.5	1/4	5/8-11
90004	7100312967	T27	5	1/4	5/8-11
90006	7100312966	T27	6	1/4	5/8-11
90009	7100312965	T27	7	1/4	5/8-11
90011	7100312964	T27	9	1/4	5/8-11

Single Packs

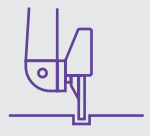
66203	7100317727	T27	4.5	1/4	7/8
66202	7100316886	T27 QC	4.5	1/4	5/8-11

1. Results are based on an automated beveling of 1018 carbon steel bars. Grinding wheel geometry is 115mm outer diameter mounted on a servo motor with an applied force of 12 lbs. Cut speed is defined by metal removed after 10 minutes of testing. The total material removal is estimated based on the amount of wheel used for 10 minutes of testing life. End of life is assumed to be 50% of the initial wheel mass.

2. Noise level operator exposure testing in a typical weld preparation process; 3M™ Cubitron™ 3 Depressed Center Grinding Wheels average compared to the average result of the high-quality ceramic bonded wheels tested, according to independent testing by Fraunhofer Institute, August 2023. Noise is measured in dB(A) and is a logarithmic number, a reduction of 3dB(A) is a halving of the noise intensity. Above 80dB(A) hearing protection should be provided. 105 decibels for high-quality grinding wheels, 102 decibels for 3M™ Cubitron™ 3 Depressed Center Grinding Wheels.

Range Expansion

Specific product lines have been introduced where wheel construction and grain type are optimized for applications such as gouging and back grinding where the wheel is used on its edge.



3M™ Cubitron™ 3 Cut-Off Wheels



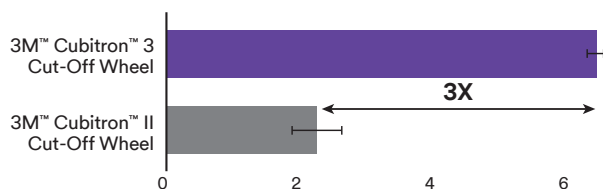
Designed to provide high cut rates and long life to help reduce cost.



Performance enhancing packaging

When cut-off wheels are properly protected from atmospheric moisture, **product life can be extended by up to 66%.**⁴ All 3M™ Cubitron™ 3 Cut-Off Wheels will come in re-sealable bags made of recycled (>30% PCR content) and/or chemically recyclable material.

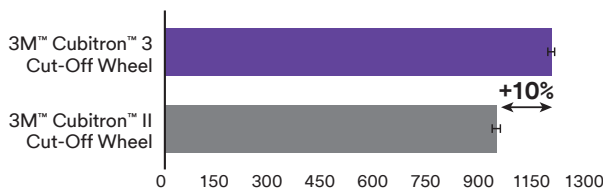
3X Longer life³



33% Less hand-arm vibration³



10% Faster cut³



3. Results are based on an automated cutting of a 3mm thick 304 stainless steel sheet. Cut-off wheel geometry is 125mm x 1.6mm x 22mm mounted on a 1.5 hp angle grinder with an applied force of 9 lbs. Cut speed is defined by time needed to cut 1 meter of stainless steel. The number of cuts is 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.

4. 3M Internal Data.

3M™ Cubitron™ 3 Cut-Off Wheels

Part Number	3M ID	Type	Diameter (in)	Thickness (in)	Center Hole (in)
90033	7100303857	T1	4	0.035	3/8
90034	7100304004	T1	4	0.045	3/8
90035	7100304005	T1	4	1/8	3/8
90051	7100304307	T1	4.5	0.04	7/8
90036	7100304006	T1	4.5	0.045	7/8
90030	7100303860	T1	5	0.035	1/4
90031	7100303859	T1	5	0.035	3/8
90032	7100303858	T1	5	0.045	3/8
90037	7100304007	T1	5	0.045	7/8
90038	7100313190	T1	6	0.045	7/8
90039	7100313189	T1	7	0.09	7/8
90053	7100304308	T27	4.5	0.04	7/8
90041	7100304008	T27	4.5	0.045	7/8
90052	7100303856	T27	5	0.04	7/8
90045	7100304010	T27	5	0.045	7/8
90046	7100304011	T27	5	0.09	7/8
90044	7100304009	T27	5	1/8	7/8
90048	7100313201	T27	6	0.045	7/8
90050	7100313191	T27	7	0.09	7/8
Quick Change Attachment					
90043	7100313187	T27	4.5	1/8	5/8-11
90042	7100313200	T27	4.5	0.09	5/8-11
90040	7100313192	T27	4.5	0.045	5/8-11
90047	7100313188	T27	6	0.045	5/8-11
90049	7100312963	T27	7	0.09	5/8-11
Single Packs					
66199	7100317466	T27	4.5	0.045	7/8
66198	7100317566	T27	6	0.045	7/8

3M

Cubitron™ 3

ANSI #7-1

89160

Bond & Grind
Meule à rectifier et à tronçonner
Staco de Corte e Bastarda.

Ø Interno 4.188 Pol.
7.76 Pol.
125 mm x 3.2 mm
x 22.2 mm

80 m/s
12,500 Max.
RPM (Vmax)

U.S. Patent:
www.3m.com/patents

3M-ACTON-40023 ©
Marché des produits d'abrasif de la Région
du C.A.B. - 1000 rue du Commerce - St-John

ISO 9001



5% Faster cut⁵

Product	Cut Length (mm)
3M™ Cubitron™ 3 Cut & Grind Wheel	~295
3M™ Cubitron™ II Cut & Grind Wheel	~280

The chart shows that the 3M™ Cubitron™ 3 Cut & Grind Wheel achieves a cut length of approximately 295 mm, while the 3M™ Cubitron™ II Cut & Grind Wheel achieves a cut length of approximately 280 mm. The difference is a 5% increase in cut length for the Cubitron 3 wheel.



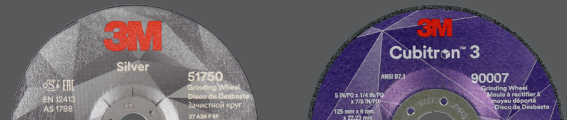
Diagram illustrating the subtraction of $\frac{1}{8}$ from $\frac{5}{32}$. The fractions are shown as $\frac{5}{32}$ and $\frac{1}{8}$, with arrows indicating the subtraction operation.

Part Number	3M ID	Type	Diameter (in)	Thickness (in)	Center Hole (in)
89157	7100305149	T27 thin	4.5	1/8	7/8
89160	7100305151	T27 thin	5	1/8	7/8
89162	7100313586	T27 thin	6	1/8	7/8
89163	7100313588	T27 thin	7	1/8	7/8
89164	7100313759	T27 thin	9	1/8	7/8
90012	7100305152	T27	4	5/32	3/8
90014	7100303968	T27	4.5	5/32	7/8
90018	7100305444	T27	5	5/32	7/8
90019	7100313552	T27	6	5/32	7/8
90021	7100313206	T27	7	5/32	7/8
90023	7100313199	T27	9	5/32	7/8

89158	7100313760	T27 thin	4.5	1/8	5/8-11
88990	7100313204	T27 thin	5	1/8	5/8-11
88991	7100313205	T27 thin	6	1/8	5/8-11
88992	7100313195	T27 thin	7	1/8	5/8-11
88993	7100313197	T27 thin	9	1/8	5/8-11
90016	7100313194	T27	4.5	5/32	5/8-11
90017	7100313550	T27	5	5/32	5/8-11
90020	7100313196	T27	6	5/32	5/8-11
90022	7100313551	T27	7	5/32	5/8-11
90024	7100313203	T27	9	5/32	5/8-11

66200	7100316747	T27	6	5/32	5/8-11
66201	7100317773	T27 thin	6	1/8	5/8-11

3M™ Portable Grinding and Cut-Off Wheel product performance comparisons



Attributes	Aluminum oxide	Alumina zirconia	3M™ Silver	3M™ Cubitron™ 3
Durability / life	★★	★★★	★★★★★	★★★★★
Speed of cut	★	★★	★★★★	★★★★★
Feel: smooth	★★	★★★	★★★★★	★★★★★
Contaminant-free* (for stainless/inox)	varies	varies	yes	yes
Mineral	aluminum oxide	alumina zirconia	blend of precision-shaped ceramic grain	precision-shaped ceramic grain
Abrasive cost per job	\$\$\$	\$\$	\$	\$\$
Total cost of job (abrasive, labor, processes)	\$\$\$\$	\$\$\$	\$\$	\$

*Contains less than 0.1% Fe, S and Cl.

3M™ Portable Grinding and Cut-Off Wheels

3M™ Cut and Grind Wheels					
UPC (638060-)	Type	Diameter×Center Hole (in)	Max RPM	Max Speed (m/s)	Box/ Case
06459-7	T1	4 × 1/8 × 3/8	15,300	80	10/20
06460-3	T27	4 × 1/8 × 3/8	15,300	80	10/20
06461-0	T27	4 × 1/8 × 5/8	15,300	80	10/20
06462-7	T27	4-1/2 × 1/8 × 7/8	13,300	80	10/20
06463-4	T27	5 × 1/8 × 7/8	12,500	80	10/20
06469-6	T27	6 × 1/8 × 7/8	10,200	80	10/20
06470-2	T27	7 × 1/8 × 7/8	8,500	80	10/20
06471-9	T27	9 × 1/8 × 7/8	6,650	80	10/20
Quick Change Attachment					
06464-1	T27	4-1/2 × 1/8 × 5/8-11	13,300	80	10/20
06465-8	T27	5 × 1/8 × 5/8-11	12,500	80	10/20
06466-5	T27	6 × 1/8 × 5/8-11	10,200	80	10/20
06467-2	T27	7 × 1/8 × 5/8-11	8,500	80	10/20
06468-9	T27	9 × 1/8 × 5/8-11	6,650	80	10/20

3M™ Silver Depressed Center Grinding Wheel				
UPC (051125-)	Type	Diameter×Thickness × Arbor Hole (in)	Max RPM	Box/ Case
87455-7	T27	4 × 1/4 × 3/8	15,300	10/20
87456-4	T27	4 × 1/4 × 5/8	15,300	10/20
87453-3	T27	4-1/2 × 1/4 × 7/8	13,300	10/20
87454-0	T27	5 × 1/4 × 7/8	12,250	10/20
87450-2	T27	6 × 1/4 × 7/8	10,200	10/20
87451-9	T27	7 × 1/4 × 7/8	8,500	10/20
87452-6	T27	9 × 1/4 × 7/8	6,650	10/20
Quick Change Attachment				
87397-0	T27	4-1/2 × 1/4 × 5/8-11	13,300	10/20
87446-5	T27	5 × 1/4 × 5/8-11	12,250	10/20
87447-2	T27	6 × 1/4 × 5/8-11	10,200	10/20
87448-9	T27	7 × 1/4 × 5/8-11	8,500	10/20
87449-6	T27	9 × 1/4 × 5/8-11	6,650	10/20



3M has you covered when it comes to portable grinding and cutting. Offering a wide range of options tailored to your unique needs.

3M™ Silver Cut-Off Wheels				
UPC (051125-)	Type	Diameter×Thickness × Arbor Hole (in)	Max RPM	Box/ Case
87457-1	T1	3 × 0.035 × 1/4	25,465	25/50
87458-8	T1	3 × 0.035 × 3/8	25,465	25/50
87459-5	T1	3 × 0.060 × 3/8	25,465	25/50
87460-1	T1	4 × 0.035 × 1/4	19,100	25/50
87461-8	T1	4 × 0.035 × 3/8	19,100	25/50
87462-5	T1	4 × 0.060 × 3/8	19,100	25/50
87657-5	T1	4 × 0.125 × 3/8	19,100	25/50
87464-9	T1	4.5 × 0.040 × 7/8	13,300	25/50
87465-6	T1	4.5 × 0.045 × 7/8	13,300	25/50
87467-0	T1	5 × 0.045 × 7/8	12,250	25/50
87469-4	T1	6 × 0.045 × 7/8	10,200	25/50
87471-7	T1	7 × 0.045 × 7/8	8,500	25/50
87466-3	T27	4.5 × 0.045 × 7/8	13,300	25/50
87659-9	T27	4.5 × 0.093 × 7/8	13,300	25/50
87468-7	T27	5 × 0.045 × 7/8	12,250	10/20
87470-0	T27	6 × 0.045 × 7/8	10,200	10/20

Tools that take it to the next level.

The new 3M™ Pneumatic Angle Grinders is a powerful tool that features superior performance and world-class ergonomic design. Built with robust components for durability and reliability in the harshest industrial conditions.

- ▶ 1.5HP (1100W power)
- ▶ Wheel autobalancer
- ▶ Spindle lock
- ▶ 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
- ▶ Adjustable guard



3M™ Pneumatic Angle Grinder				
UPC (638060-)	Diameter (in)	Motor HP (W)	Max RPM	Box/ Case
88566-6	5	1.5 (1100)	12,000	1/1



TECH TIPS

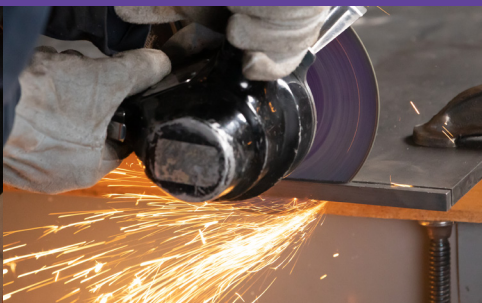
Powering up for performance

- ▶ Portable bonded products perform better the faster they run, so having a tool able to maintain speed is crucial
- ▶ The higher the tool power, the easier it can maintain speed, resulting in faster cut time and longer wheel life
- ▶ When the tool speed decreases, wheel wear typically increases
- ▶ **Do not** exceed the maximum operating speed listed on the wheel!
- ▶ Always use a tool guard

Industries: Metal fabrication ▶ Machinery manufacturing ▶ Shipyards



Ideal for applications: Beveling ▶ Cutting ▶ Weld grinding



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



Learn more at 3M.com/Cubitron3



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St. Paul, MN 55144 USA

Phone 1-866-279-1235
Web 3M.com/abrasives

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