

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 prioritizes operator safety, maximizes sustainability, and amplifies time and labor efficiency.

3M[™] Cubitron[™] 3 Fibre Disc 1182C, 36+

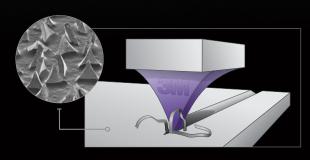
Up to

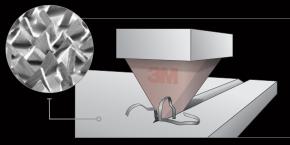
60%

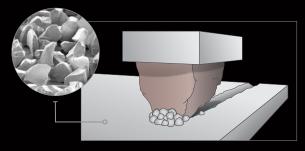
- → Faster sustained cut rate
- → More total material removed

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

Enhanced mineral orientation







Re-shaping the way work gets done.



Cubitr⇒n™ 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.



Stainless steel grinding

Grade

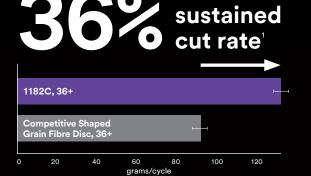
36+

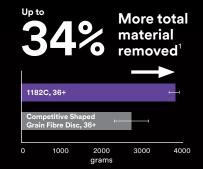
Coated with a grinding aid

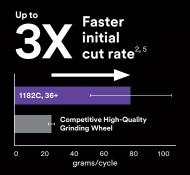
Reduces the risk of discoloration from thermal damage in heat sensitive metals.





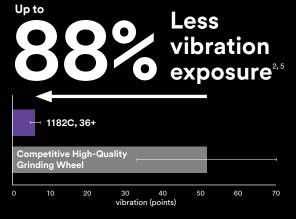


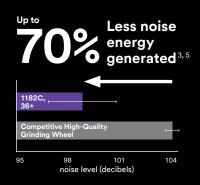




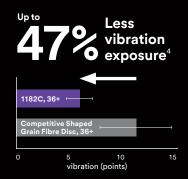
Helps improve workplace safety without compromising productivity.

Faster





Safety Built In



nce testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre disc average compared to the average result of 5 globally available high-quality

Independent hazards testing performed by:



3M[™] Cubitron[™] 3 Fibre Disc 1182C

Carbon steel grinding

Grades

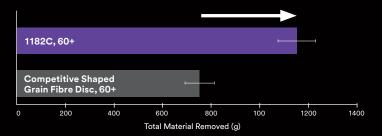
60+ & 80+

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

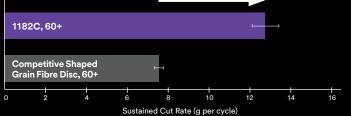
Grade 60+

53%

More total material removed¹



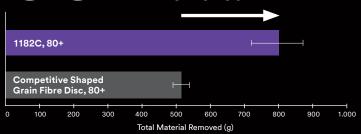
Faster sustained cut rate²



Grade 80+

Up to

More total material removed



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

Faster sustained cut rate² 1182C, 80+ Competitive Shaped Grain Fibre Disc, 80+ 0 2 4 6 8 10 12 14 Sustained Cut Rate (g 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+

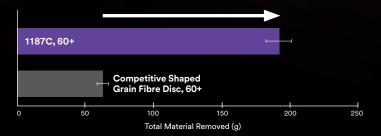
We tested 3M™ Cubitron™ 3 Fibre Disc 1187C 60+ and 80+. and here are the results:

Productivit Delivered

Grade 60+

Up to

More total material removed



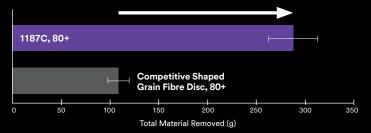
Up to **Faster** sustained cut rate²



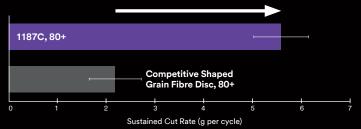
Grade 80+

Up to

More total material removed¹



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



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)

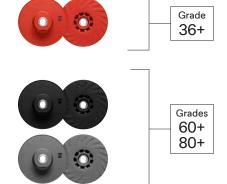


Get the full system advantage.

3M[™] Pneumatic Angle Grinder or 3M[™] Pneumatic Sander



3M™ Disc Back-up Pads



TECH TIP:

Combine 3M™ Pneumatic
Angle Grinder or Sander and
3M™ Disc Back-up Pad to
maximize your productivity
improvements. Each
component of this system has
been engineered to optimize
abrasive life, cut rate and
consistency—helping to
improve productivity and
lower overall costs.

Get more value from your automation investment.



There are many reasons to invest in automating your abrasive processes: gains in productivity, improved consistency, enhanced quality and safety, and a solution to labor shortages. And to provide maximized ROI (Return On Investment) 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 optimized 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 optimize 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.

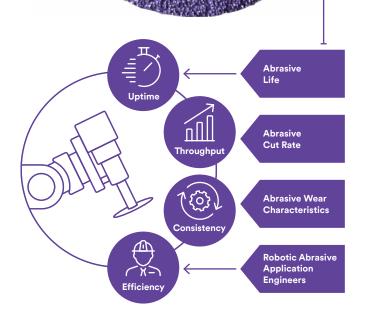
At 3M, we have a deep understanding of the factors that affect an automated abrasive process. Our 100+ years of abrasive experience and 35+ years of abrasive automation experience is accessible through our Technical Experts, our 17 Global Proof of Concept automation labs, and deployed into how we engineer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



3M™ Cubitron™ 3 Roloc™ Fibre and Cloth 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

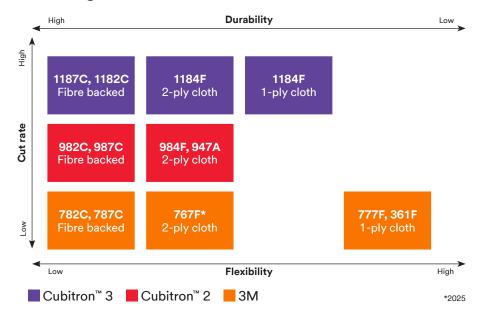
attachment even for heavy-duty applications. Easy grade selection (product family name and grade are printed at the back of each Roloc™ disc) to facilitate the right choice for different applications:

- Remote applications
- Retain extra control
- Localized, refining, finishing
- Corner or curved surfaces
- Intricate, difficult to reach areas

Remove weld splatter on small areas



Grinding and stock removal





3M™ Roloc™ Disc button color/grade guide

3M™ Cubitron™ 3 Disc	Color	Grade
1184F Durable edge	○ White	All
1184F	Brown*	36+
1182C	Orange*	60+
1187C	• Yellow*	80+

^{*}Note: Colored buttons will gradually be replaced by white buttons in all grades at the same time we print product family and grade at the back of each disc.

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

	Substrate			
Disc size	Carbon Steel	Stainless Steel	Titanium	Aluminum
1-1/2 in	30,000 RPM	20,000 RPM	9,000 RPM	30,000 RPM
2 in	20,000 RPM	15,000 RPM	7,000 RPM	20,000 RPM
3 in	15,000 RPM	10,000 RPM	4,500 RPM	15,000 RPM
4 in	9,000 RPM	8,000 RPM	3,000 RPM	9,000 RPM

3M™ Roloc™ Attachment System

3M™ Cubitron™ 3 Disc	Size (in.)	TR	TSM	TS
	1-1/2	•	•	
1184F	2	•	•	
1104F	3	•	•	
	4	•		•
	2	•	•	
1182C	3	•	•	
	4	•		•
	1-1/2	•	•	
1187C	2	•		
	3	•	•	
	4	•		•

 $\label{lem:ask} \textit{Ask for other dimensions availability.}$





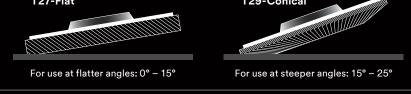
Maximizing productivity and flexibility

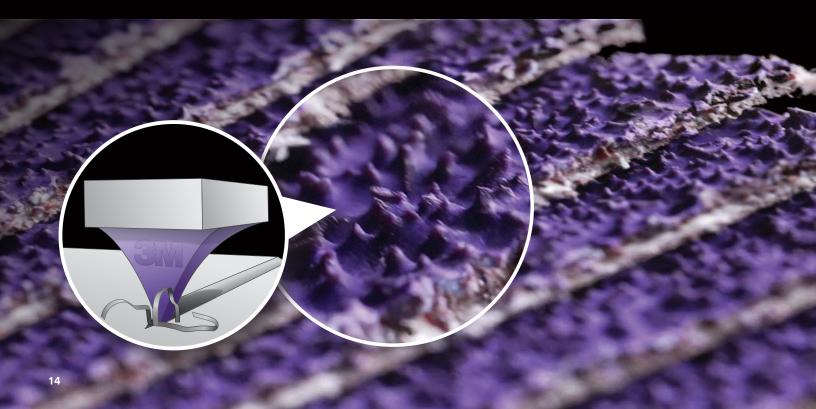
Powered by 3M re-engineered precision-shaped grain technology, the Cubitron 3 product line now includes flap discs available in grades 40+, 60+, 80+.

Built with a durable polyester backing, these versatile flap discs offer long life, increased productivity and consistent performance resulting in less abrasive spend. There are two styles of flap disc shape, conical and flat, that can work in your application. Choose the one that contacts the workpiece with the full width of the flap material to maximize flap disc service.

T27-Flat

T29-Conical





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 consistency

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



Increased versatility

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



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



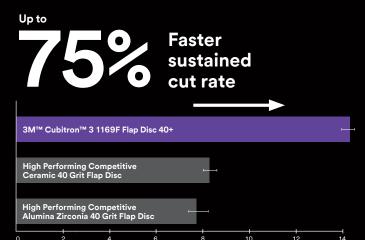
3M[™] Cubitron[™] 3 Flap Disc 1169F

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 the competition:

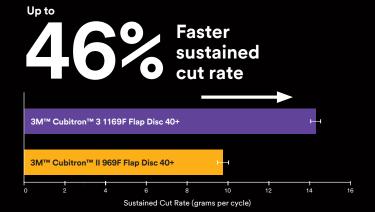




Sustained Cut Rate (grams per cycle)

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







Upgrade <u>now</u> from the 3M™ Cubitron™ II Flap Disc 969F!

Up to



Product Ordering Information



3M™ Cubitron™ 3 Fibre Disc 1182C				
SAP ID	Grade	Diameter (in.)	Max RPM	Unit/Case
Standard Round	Hole			
7100309791	36+	4 × 5/8	15,000	25/100
7100309797	36+	4 × 7/8	15,000	25/100
7100309799	36+	4-1/2 × 7/8	13,300	25/100
7100309793	36+	5×7/8	12,000	25/100
7100309903	36+	6 × 7/8	10,000	25/100
7100309904	36+	7×7/8	8,600	25/100
7100310797	36+	9-1/8 × 7/8	6,600	25/100
7100349591	60+	4-1/2 × 7/8	13,300	25/100
7100349588	60+	5 × 7/8	12,000	25/100
7100349577	60+	6 × 7/8	10,000	25/100
7100349579	60+	7×7/8	8,600	25/100
7100349565	60+	9-1/8 × 7/8	6,600	25/100
7100349584	80+	4-1/2 × 7/8	13,300	25/100
7100349603	80+	5×7/8	12,000	25/100
7100349578	80+	7 × 7/8	12,000	25/100
7100349575	80+	9-1/8 × 7/8	6,600	25/100
TN Quick Chang				
7100310727	36+	4-1/2	13,300	25/100
7100310728	36+	5	12,000	25/100
7100310729	36+	7	8,600	25/100
7100349673	60+	4-1/2	13,300	25/100
7100349678	60+	5	12,000	25/100
7100349568	60+	7	8,600	25/100
7100349669	80+	4-1/2	13,300	25/100
7100349675	80+	5	12,000	25/100
7100349580	80+	7	8,600	25/100
GL Quick Chang	е			
7100310730	36+	4-1/2	13,300	25/100
7100310795	36+	5	12,000	25/100
7100309796	36+	7	8,600	25/100
7100349574	60+	5	12,000	25/100
7100349674	60+	7	8,600	25/100
7100349576	80+	5	12,000	25/100
7100349677	80+	7	8,600	25/100

3M [™] Pneumatic Angle Grinder				
SAP ID	Diameter (in.)	Max RPM	Unit/Case	
7100250449	4.5-5	11,500	1/1	
3M [™] Electric Angle Grinder				
7100336788	6, Paddle Switch	9,300	1/1	
7100337004	4.5-5, Slide Switch	11,500	1/1	
7100336685	4.5-5, Paddle Switch	11,500	1/1	
3M™ Pneumatic Sander				
7100250448	4.5-5	11,500	1/1	

	3 Fibre Disc			_
SAPID	Grade	Diameter (in.)	Max RPM	Unit/Case
Standard Round H	lole			
7100309792	36+	4 × 5/8	15,000	25/100
7100309788	36+	4-1/2 × 7/8	13,300	25/100
7100308532	36+	5 × 7/8	12,000	25/100
7100309906	36+	7 × 7/8	8,600	25/100
7100310792	36+	9-1/8 × 7/8	6,600	25/100
7100349589	60+	4-1/2 × 7/8	13,300	25/100
7100349499	60+	5 × 7/8	12,000	25/100
7100349566	60+	7 × 7/8	8,600	25/100
7100349569	60+	9-1/8 × 7/8	6,600	25/100
7100349592	80+	4-1/2 × 7/8	13,300	25/100
7100349604	80+	5 × 7/8	13,300	25/100
7100349567	80+	7 × 7/8	8,600	25/100
7100349501	80+	9-1/8 × 7/8	6,600	25/100
TN Quick Change				
7100310793	36+	4-1/2	13,300	25/100
7100310731	36+	5	12,000	25/100
7100310732	36+	7	8,600	25/100
7100349670	60+	4-1/2	13,300	25/100
7100349680	60+	5	12,000	25/100
7100349582	60+	7	8,600	25/100
7100349592	80+	4-1/2 × 7/8	13,300	25/100
7100349604	80+	5 × 7/8	12,000	25/100
GL Quick Change				
7100310796	36+	4-1/2	13,300	25/100
7100310803	36+	5	12,000	25/100

3M [™] Disc Back-up Pad - One piece				
SAP ID	Hardness	Diameter (in.)	Max RPM	Unit/Case
7100363168	Extra Hard - Red	4	15,000	10/10
7100258731	Extra Hard - Red	4-1/2	13,300	10/10
7100258733	Extra Hard - Red	5	12,000	10/10
7100362486	Extra Hard - Red	6*	10,000	10/10
7100258730	Extra Hard - Red	7	8,600	10/10
7100363075	Hard - Black	4	15,000	10/10
7100363248	Hard - Black	4-1/2	13,300	10/10
7100362591	Hard - Black	5	12,000	10/10
7100362609	Hard - Black	6*	10,000	10/10
7100360002	Hard - Black	7	8,600	10/10
7100363273	Medium - Gray	4	15,000	10/10
7100362772	Medium - Gray	4-1/2	13,300	10/10
7100362610	Medium - Gray	5	12,000	10/10
7100362920	Medium - Gray	6*	10,000	10/10
7100362838	Medium - Gray	7	8,600	10/10
*Coming soon				

^{*}Coming soon

	up Pad Mounting Kit se with 3M™ Pneumatic Angle Grinder or Sander)	
7100265315	3M™ Retainer Nut PN 02618, 3/16" PG Wheel Spacer and 1/8" Spacer	1/1

Product Ordering Information



3M [™] Cubitron [™] 3 Roloc [™] Disc				
SAP ID (Button TR)	SAP ID (Button TSM)	Size (in.)	Grade	Unit/Case
3M™ Cubitron™ 3 Role	oc™ Durable Edge Disc 1°	184F		
7100331411	7100331752	1-1/2	36+	50/200
7100332562	7100331747	1-1/2	60+	50/200
7100331726	-	1-1/2	80+	50/200
7100331727	7100331748	2	36+	50/200
7100331410	7100331732	2	60+	50/200
7100332404	7100331743	2	80+	50/200
7100331731	7100331744	3	36+	50/200
7100331725	7100331750	3	60+	50/200
7100332405	7100331751	3	80+	50/200
7100332084	-	4	36+	25/100
7100332083	-	4	60+	25/100
3M™ Cubitron™ 3 Role	oc™ Fibre Disc 1182C			
7100332086	-	2	36+	50/200
7100332343	7100332352	2	60+	50/200
7100332356	-	2	80+	50/200
7100332346	7100332354	3	36+	50/200
7100332232	-	3	60+	50/200
7100332357	7100332348	3	80+	50/200
7100332344	-	4	36+	25/100
7100332350	-	4	60+	25/100
3M™ Cubitron™ 3 Role	oc™ Fibre Disc 1187C			
7100332836	7100332837	1-1/2	60+	50/500
7100331754	-	2	36+	50/200
7100331745	-	2	60+	50/200
7100331753	-	2	80+	50/200
7100331749	7100332091	3	36+	50/200
7100332087	7100332095	3	60+	50/200
7100332088	7100332092	3	80+	50/200
7100332089	-	4	80+	25/100



Pads for Roloc [™] Discs				
SAP ID (Button TR)	SAP ID (Button TSM or TS)	Grade	Hardness	Size (in.)
7000045286*	7100132673*			1-1/2
7000045284	7000119314*	36+	Extra Hard	2
7000045285	7000119315*	36+	or Hard*	3
7010362517	7010362527*			4
7000000441	7000119314			2
7100002305	7000119315	60+	Hard	3
7000144108	7010362527			4
7000045280	7010308594			1-1/2
7000045282	7000045283	80+	Medium	2
700000602	7000119310	& 120+	or Hard*	3
7100007033	7010362527*			4



3M™ Roloc™ Sander				
SAP ID	Diameter (in.)	Max RPM	Box/Case	
7100142325	3	15,000	1/1	
7100075504	2	20,000	1/1	



3M™ Cubitron™ 3 Flap Disc 1169F					
SAPID	Shape	Grade	Diameter (in.) x Bore (in.)	Max RPM	Unit/Case
7100404320	T29	40+	4 × 5/8	15,300	10
7100403690	T29	40+	4 × 3/8-24	15,300	10
7100380474	T27	40+	4-1/2 × 7/8	13,300	10
7100380484	T29	40+	4-1/2 × 7/8	13,300	10
7100380178	T27	40+	4-1/2 × 5/8-11	13,300	10
7100379929	T29	40+	4-1/2 × 5/8-11	13,300	10
7100380493	T27	40+	5 × 7/8	12,000	10
7100380494	T29	40+	5 × 7/8	12,000	10
7100380207	T29	40+	5 × 5/8-11	12,000	10
7100380317	T27	40+	6 × 5/8-11	10,000	5
7100379978	T27	40+	7 × 7/8 in	8,600	5
7100380485	T27	40+	7 × 5/8-11	8,600	5
7100380208	T29	40+	7 × 7/8 in	8,600	5
7100380495	T29	40+	7 × 5/8-11	8,600	5
7100403689	T29	60+	4 × 5/8	15,300	10
7100404345	T29	60+	4 × 3/8-24	15,300	10
7100380348	T27	60+	4-1/2 × 7/8	13,300	10
7100380209	T29	60+	4-1/2 × 7/8	13,300	10
7100380307	T27	60+	4-1/2 × 5/8-11	13,300	10
7100380349	T29	60+	4-1/2 × 5/8-11	13,300	10
7100380496	T29	60+	5×7/8	12,000	10
7100380168	T27	60+	5×7/8	12,000	10
7100380505	T27	60+	6 × 5/8-11	10,000	5
7100404321	T29	60+	4 × 5/8	15,300	10
7100403601	T29	80+	4 × 3/8-24	15,300	10
7100380218	T27	80+	4-1/2 × 7/8	13,300	10
7100380288	T29	80+	4-1/2 × 7/8	13,300	10
7100380300	T27	80+	4-1/2 × 5/8-11	13,300	10
7100380219	T29	80+	4-1/2 × 5/8-11	13,300	10
7100380316	T29	80+	5×7/8	12,000	10
7100380309	T27	80+	5×7/8	12,000	10
7100380338	T27	80+	6 × 5/8-11	10,000	5
7100380504	T29	80+	7 × 5/8-11	8,600	5

 $^{{}^{\}star}\!\mathsf{Ask}$ for other dimensions availability.





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