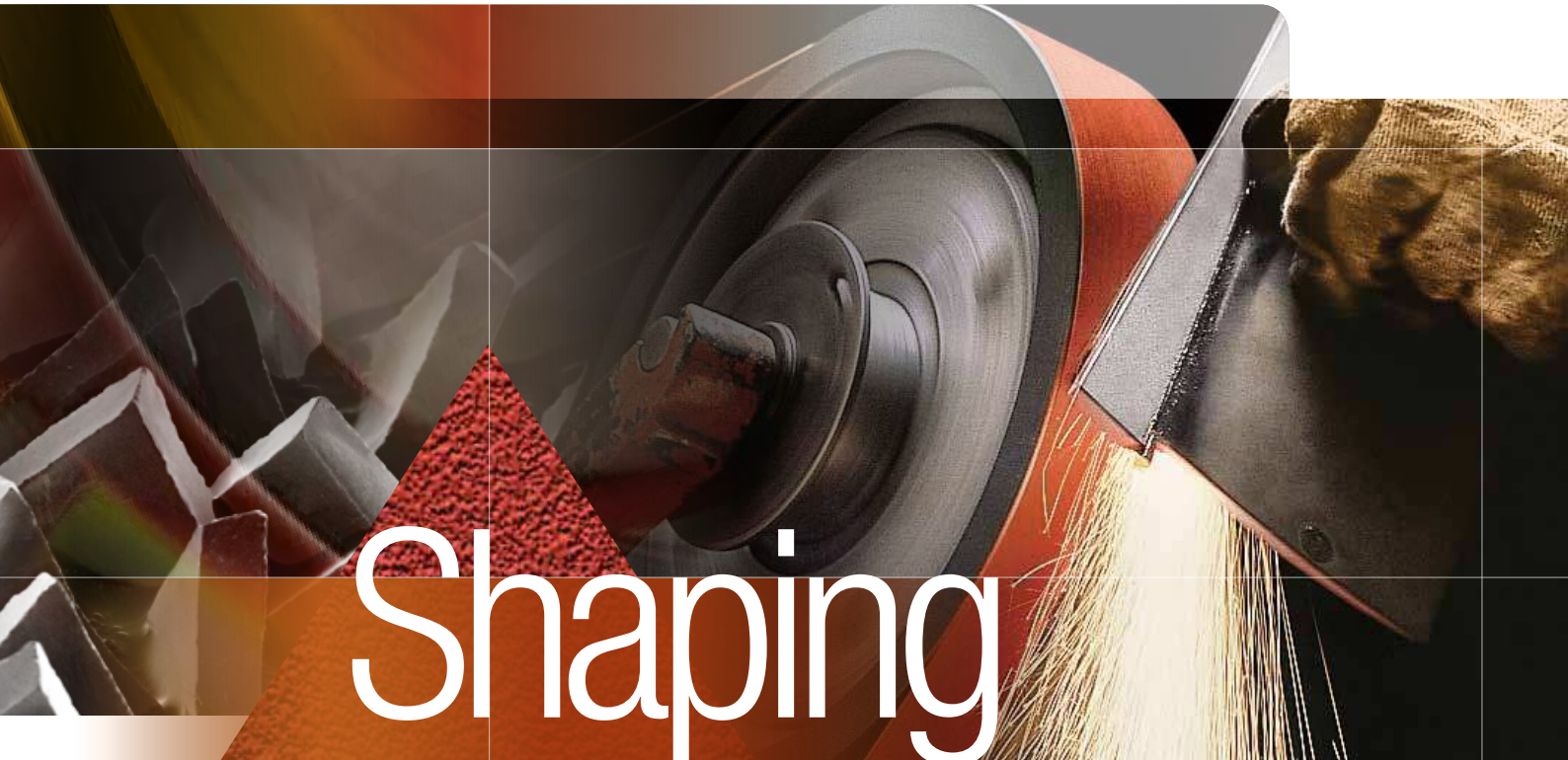


**NEW!** 3M™ Cubitron™ II  
Belt 984F



# Shaping the Future



Revolutionary shaped abrasive grain  
grinds cooler – and dramatically faster!  
Up to 4X belt life.

**CUBITRON™ II**

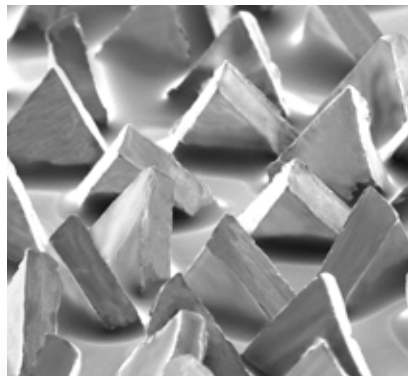
**3M**

# Shaping a new era of grinding performance

## ▲ Improved Productivity

*"With Cubitron II belts, we've reduced belt changeover time by over 50%."*

– Casting House



The secret behind the revolutionary performance of new Cubitron II belts lies in their proprietary triangular mineral shape.

## Forget everything you know about grinding with abrasive belts.

New 3M™ Cubitron™ II Abrasive Belts have raised the bar for grinding performance and productivity – thanks to a breakthrough 3M technology that re-writes the rules for speed, consistency and belt life.

- Average up to 30% faster cutting on hard-to-grind metals than the next-best competitive belt
- Cuts cooler – diverts heat from the work piece and belt to the swarf
- Helps eliminate burnishing and heat stress
- Lasts up to 4 times longer than conventional ceramic aluminium oxide belts

Cubitron II abrasives are comprised of precisely-shaped, uniformly-sized and vertically-oriented triangles of ceramic aluminium oxide. These self-sharpening triangles are designed to fracture as they wear, continuously forming new, super-sharp points and edges that slice cleanly through the metal like a knife, instead of gouging or ploughing. This prevents heat from building up in the work piece – reducing heat-related stress cracks and discoloration. And, because the abrasive itself stays cooler and sharper, it lasts up to four times as long as conventional ceramic grain belts!



As the triangular shaped grain wears, it continuously fractures to form sharp points and edges that result in faster, cooler cutting action.

In contrast, conventional ceramic abrasive grain is irregular and blocky in shape. Instead of a clean, machining action, the grain tends to "plough" through the metal, causing heat to build up in the work piece and the abrasive – resulting in a slower cut, shorter belt life and undesirable effects, such as burnishing.



## ▲ Higher Cut Rates

*"It took our operator 60 minutes to complete a work order using a competitor's belt. He completed the same size work order in just 45 minutes, using a Cubitron II belt."*

– Precision Casting Company

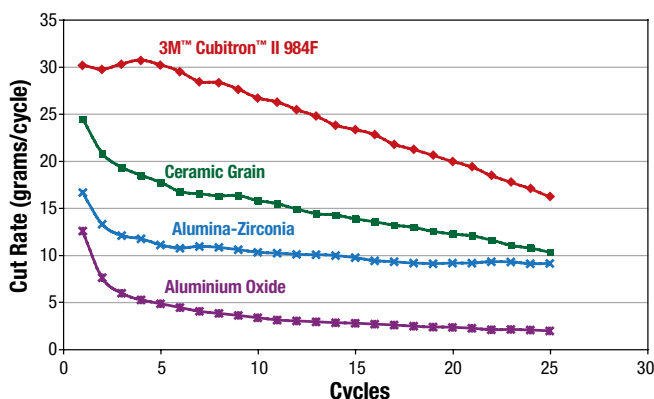
As shown by the sparks in this photo, Cubitron II abrasives divert heat to the swarf, keeping both the work piece and the belt cooler.



## Taking productivity to the next level

Unlike conventional abrasives, made up of irregular-shaped, randomly-placed minerals, Cubitron II abrasives employ 3M's new Precision Shaped Grain technology to form precisely shaped triangles of ceramic aluminium oxide. Engineered to be self-sharpening, the consistent shape and size of the grain within Cubitron II belts help achieve dramatically faster cuts – even on tough-to-grind materials like stainless steel, nickel alloy and cobalt chrome.

### 3M™ Cubitron™ II Abrasive Belts **CUT FASTER!**

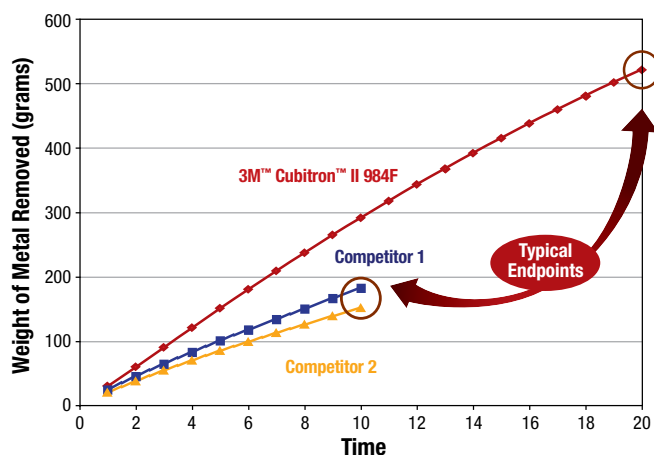


#### The evolution of high-performance grinding abrasives

In their day, each of the three competitive abrasive technologies shown on this graph represented a major advance in grinding performance. Now, in side-by-side comparisons of cutting rates on stainless steel, Cubitron II sets a new standard in productivity.

### 3M™ Cubitron™ II Abrasive Belts **LAST LONGER!**

Cumulative Cut, SS304: Typical End Point



3M surveys indicate that most operators stop using a belt when performance drops to 2/3 of its initial cut rate. As this graph shows, Cubitron II belts take twice as long to reach that end point as conventional ceramic abrasive belts. In addition, Cubitron II belts cut faster throughout their entire life. Bottom line? Not only is more work done per unit of time, but also much more total work per belt.

#### ▲ Cuts Cooler, for Improved Part Quality

*"We processed 24 parts with no heat stress using a single Cubitron II belt, versus a competitive belt that showed signs of heat stress on the very first part."*

– Investment Casting Company

#### ▲ Less Operator Fatigue

*"Because Cubitron II belts cut faster, nearly all operators report that much less pressure is required throughout the life of the belt."*

– Aerospace Parts Manufacturer

### No contest.

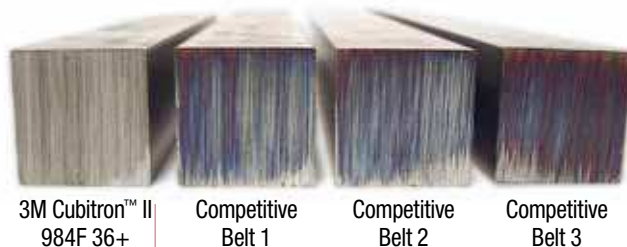
**Cubitron II vs. Conventional Grain Competitors**



This photo shows three identical 304 stainless steel bars after nine grinding cycles of ten seconds per cycle using equal pressure. In that time, the Cubitron II 984F belt removed more than 50% more metal than the so-called "next-generation" ceramic grain abrasive.

### How cool is this?

3M Cubitron II Belts are engineered to run cooler, eliminating metal discoloration/oxidation and reducing the chance of heat-related stress cracks.

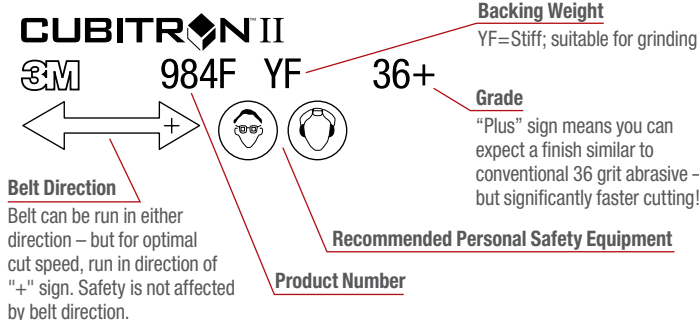


This photo shows four identical 304 stainless steel bars after nine grinding cycles of ten seconds each. While the three bars that were ground using conventional ceramic abrasive belts show varying degrees of heat stress, the bar ground with a Cubitron II belt is free of burnishing.



## A new way to describe a new level of performance

### How to read the back of the Cubitron II belt



### ▲ Reduced Consumables Cost

*"One Cubitron II belt lasts an entire shift, versus 2 to 3 competitor's belts per shift."*

– Medical Implant Manufacturer

## 3M™ Cubitron II™ Belt 984F Range

Size (mm)	36+	60+	80+	MOQ
10 x 330	XC002065982	XC002066154	XC002066329	20
12 x 457	XC002065990	XC002066162	XC002066337	20
20 x 457	XC002066006	XC002066170	XC002066345	20
20 x 520	XC002066014	XC002066188	XC002066352	20
30 x 533	XC002066022	XC002066196	XC002066360	20
50 x 915	XC002066030	XC002066204	XC002066378	10
50 x 1220	XC002066048	XC002066212	XC002066386	10
50 x 1520	XC002066055	XC002066220	XC002066394	10
50 x 2440	XC002066063	XC002066238	XC002066402	10
75 x 2000	XC002066071	XC002066246	XC002066410	10
100 x 915	XC002066089	XC002066253	XC002066428	10
100 x 1520	XC002066097	XC002066261	XC002066436	10
100 x 1600	XC002066105	XC002066279	XC002066444	10
100 x 2440	XC002066113	XC002066287	XC002066451	10
100 x 3000	XC002066121	XC002066295	XC002066469	10
100 x 4270	XC002066139	XC002066303	XC002066477	10
150 x 2000	XC002066147	XC002066311	XC002066485	10



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