

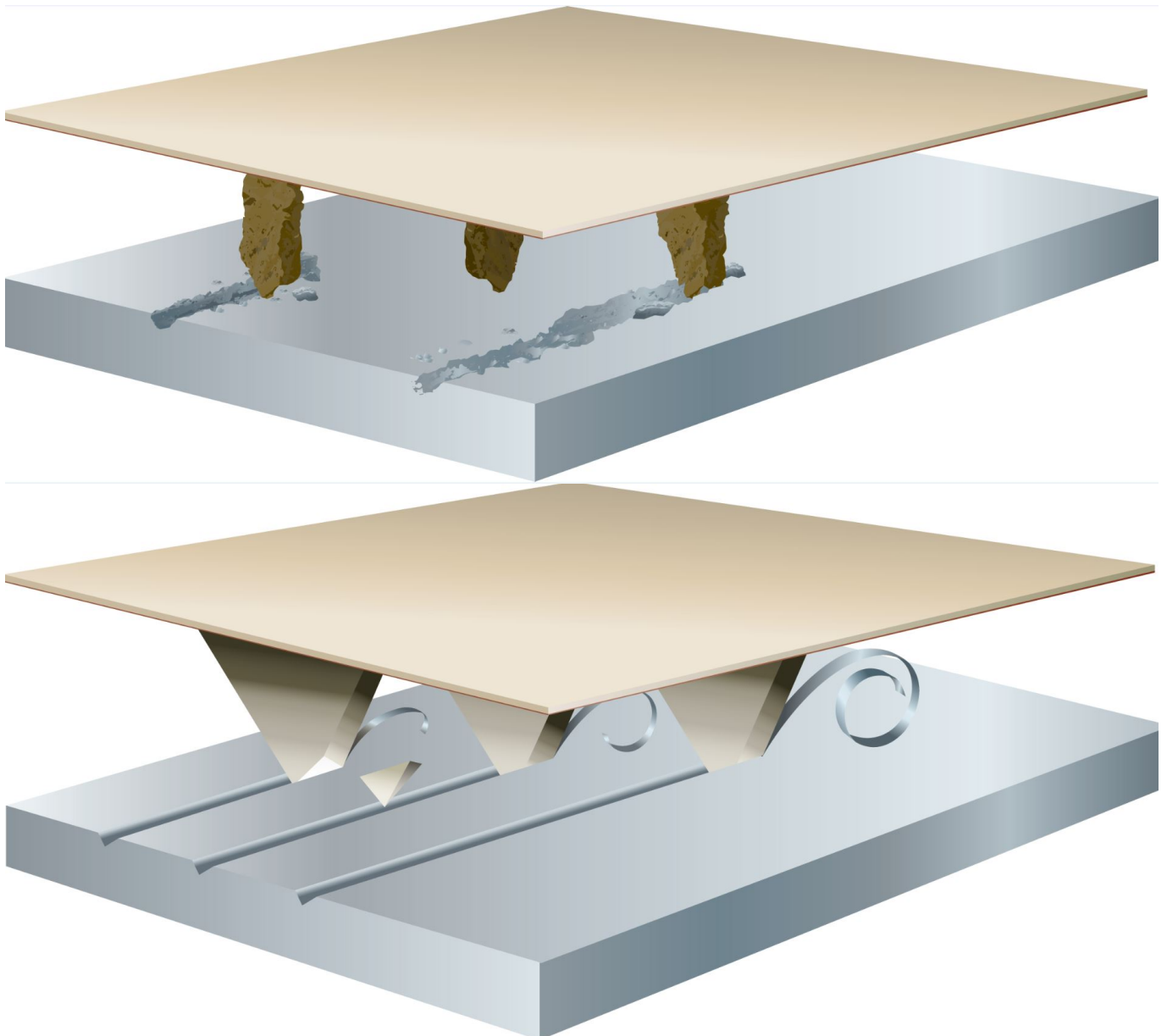
Training

## Shaping a New Era of Grinding Performance

Brought To You by 3M Abrasives | Jan 01, 2017

The secret behind the revolutionary performance of new Cubitron™ II belts lies in their proprietary triangular-shaped abrasive grain. The precision-shaped grain found in 3M™ Cubitron™ II combines the advanced material properties of our original Cubitron grain with the precise microreplicated structures pioneered in 3M™ Trizact™ Abrasives. As the triangular shaped grain wears, it continuously fractures to form sharp points and edges.

Conventional ceramic abrasive grain is irregular and blocky in shape. Instead of a clean, machining action, the grain tends to “plow” through the metal, causing heat to build up in the workpiece and the abrasive — resulting in a slower cut, shorter belt life and undesirable effects, such as burnishing.



Trizact™

Derived from patented 3M microreplication technology, 3M™ Trizact™ Abrasives consist of precisely-shaped three-dimensional structures distributed uniformly over the substrate. Unlike conventional abrasives, which are constructed from randomly-spaced and irregular-shaped minerals, the uniform configuration of Trizact abrasives helps deliver consistent performance.



*Conventional abrasives start out sharp, but dull quickly.*

*The three-dimensional structures of 3M™ Trizact™ Abrasives contain multiple layers of mineral. As these structures wear, fresh, sharp mineral is constantly exposed to the workpiece, resulting in faster, more consistent cutting throughout the life of the belt.*

## Tech Tip

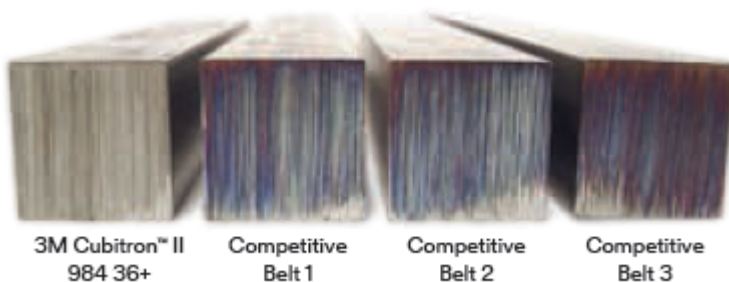
Keep things cool - When working on heat sensitive alloys like stainless steel, nickel alloys and cobalt alloys, choose a product with a grinding aid.

## 3M™ Agglomerate Abrasive Belts

Newly designed 3M precision shaped agglomerate belt for deburring, centerless grinding, cylindrical grinding and flat finishing offers you unprecedented performance on a wide range of metals including carbon steel, stainless steel and other alloys – for outstanding quality, throughput and cost savings. Long lasting abrasive technology helps you achieve desired dimensions and finishes – right from the start!

How cool is this?

3M™ Cubitron II™ Belts are engineered to run cooler eliminating metal discoloration/oxidation and reducing the chances 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 were ground using conventional ceramic abrasive belts show varying degrees of oxidation, the bar ground with a Cubitron II belt is free of burnishing.

***Browse all of 3M's Abrasives Belts.***

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