



# Technology: SmoothGrind®



## Sharpness & Lubricity

Σημειώσεις & Λυπητικότητα

### SmoothGrind®

Micro-Polished Surface Finishes Exclusively by Tool Alliance®

**SmoothGrind Application Tip:** Many times we've received feedback from customers like guitar manufacturers and other woodworkers commenting on how SmoothGrind allows them to make clean cuts, unlike competing brands. In fact, many of our tools were so sharp that they were unsuitable for hardened die steels and similar materials. That discovery led us to the introduction of SmoothEdge, a complimentary edge prep technology that allows us to deliver the perfect cutting edge for practically any type of work piece. Combined with SmoothCoat and SmoothConcricity, Tool Alliance offers the ability for our customers to maximize their shop floor productivity.

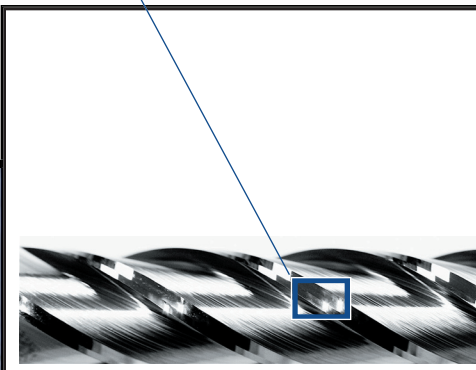
### The Grinding Process

After selecting the best material available, Tool Alliance has perfected the manufacturing technology to optimize 100% of its physical properties. We call this process SmoothGrind®. Years in development, SmoothGrind is the result of a proprietary combination of material, abrasive, coolant, machine-tool, software, and grinding method technologies that produce cutting tools with superior qualitative characteristics. Sharper and longer lasting cutting edges, enhanced work piece finishes, and improved lubricity are just some of the benefits brought to you by the latest solid carbide rotary tooling advances from Tool Alliance. The following photographs display an Ultra-Tool end mill primary relief featuring SmoothGrind (left) versus a major competitor's product (right). To fully demonstrate the difference, the Ultra end mill is shown at double the magnification. Note the straight line of our end mill's primary relief in comparison to the jagged edge of the competing product. Keep in mind the competitive end mill is a very good product that has a large following, yet the difference is substantial.

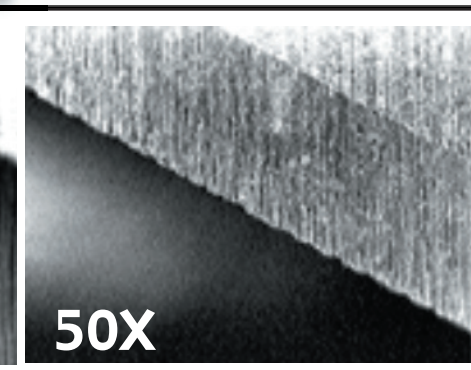
Area of Magnification

SmoothGrind®

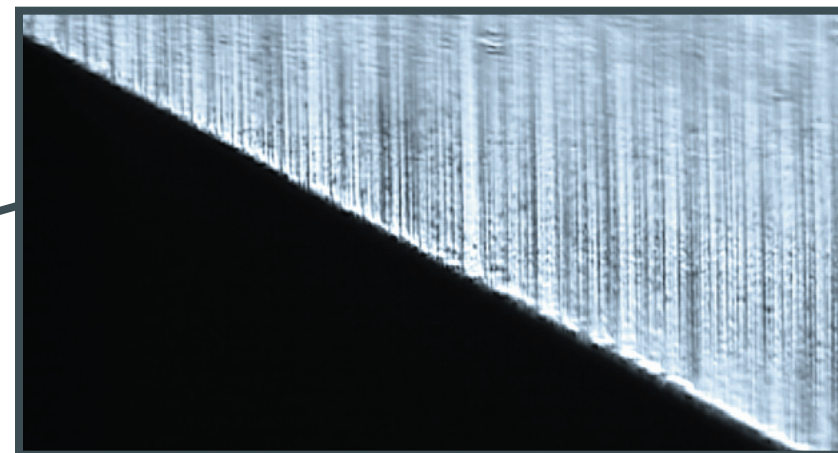
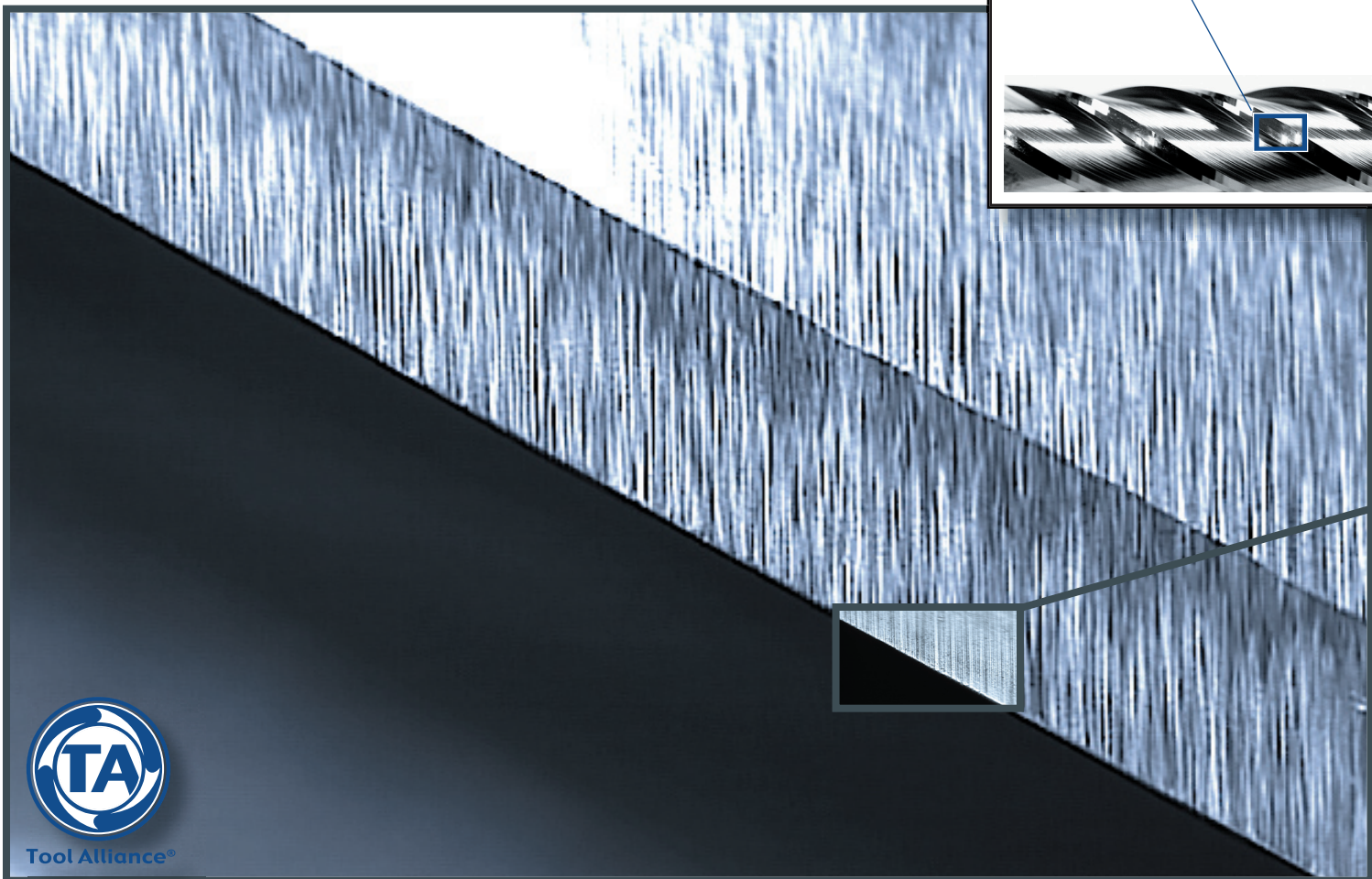
Competitor's



100X ULTRATOOL®



50X



SmoothGrind's polished cutting edges yield extreme sharpness and lubricity.



Tool Alliance®