

Imagine the possibilities...

**WATERJETS UNLIMITED
INTRODUCES THE ALL-NEW
DYNAMIC WATERJET SYSTEM.**

Improved Cutting Accuracy!

A Breakthrough Waterjet Cutting Process!

Dynamic Waterjet Systems involve revolutionary technology that reduces cost per inch and greatly increases cutting speed for all abrasive waterjet cutting applications.

With active tolerance control, Dynamic Waterjets produce more accurate parts at significantly higher cutting speeds than parts cut with a conventional waterjet. The system utilizes a newly developed advanced motion system that incorporates unique mathematical cutting models, which control a small, articulated wrist attached to the cutting head. The wrist allows the cutting head to tilt in any direction, compensating for the stream lag and taper experienced with conventional waterjet cutting machines.

The result is an accurate part with even higher tolerances than ever before and at extremely high speeds.



 **WATERJETS UNLIMITED**
Quality Has No Competition.

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Visit us Online: www.waterjetsunlimited.com

How Dynamic Waterjet Improves Cutting

With Dynamic Waterjet, the system virtually eliminates taper and compensates for geometry errors created by traditional 2D cutting systems. Inside corners improve by altering the entrance angle and exit point to ensure the stream does whatever necessary while in the material to produce an accurate corner with minimal speed reduction.

Angling the jet properly produces the **best geometry** at the **fastest** possible cycle time. Accuracy is improved to .001" to .003", rather than .005" to .020" at cutting speeds up to four times faster.

A waterjet operates similar to a "**beam**" process. As the beam cuts material, it loses energy and the stream begins to lag. The exit point of the jet trails behind the entrance point. The solution on conventional machines is to slow down the travel speed to 15% as the abrasive jet approaches and leaves corners. Dynamic Waterjet systems can cut a part accurately at 60% to 80% of maximum cut speed improving the quality of parts and cost of manufacturing.

Benefits

- Parts are cut up to 400% faster than conventional flat stock waterjet cutting machines.
- Improved cut part tolerances and geometry at significantly higher speeds.
- Virtually eliminates taper; taper is ≤ 1 degree in straight-line geometry.
- Reduced part cost.
- True part-stacking ability with consistent tolerance layer-to-layer.
- No secondary finishing required.
- Cuts a variety of materials, such as metal, stone, glass, and composites.



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