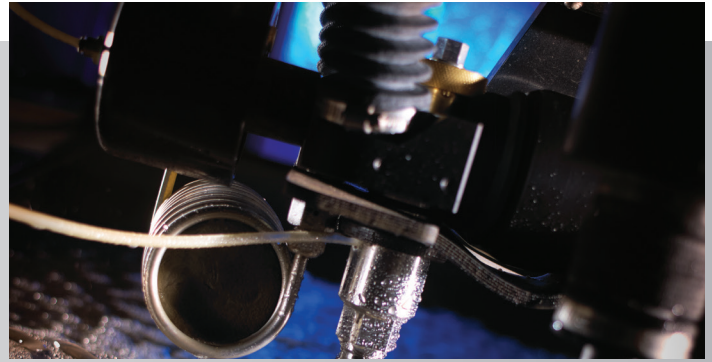




OMAX®

A Hypertherm Associates Brand

TiltaJET



The industry's premier precision abrasive cutting head, the TiltaJET® lets the OMAX JetMachining® Center achieve virtually zero taper with most materials. The TiltaJET positions the nozzle at a precise angle calculated by the industry-leading IntelliMAX® software to exactly offset the natural taper from the abrasivejet. Taper doesn't disappear. It is moved to the scrap part of the material, leaving your part with square, taper-free edges. The TiltaJET can be retrofitted to any OMAX machine, enabling precise taper-free machining for all JetMachining System owners. Once installed, there is no additional effort on your part, just press start and the TiltaJET does all the work automatically to produce taper-free high precision parts. Even squaring the Z-axis so it is exactly perpendicular to the slats is done in seconds with a single click in the IntelliMAX software. The TiltaJET is the ideal solution for your taper-free machining needs.

The IntelliMAX advantage

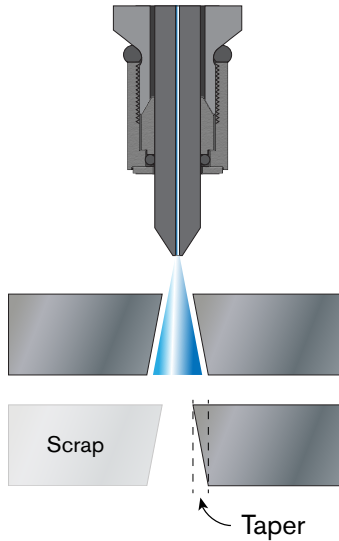
The TiltaJET takes full advantage of IntelliMAX enhancements to minimize cutting times while maximizing part quality. The innovative Tilt Forward feature adjusts the jet geometry to minimize jet lag and can result in faster cutting even in straight-line cutting. The IntelliCORNER optimization results in faster and more precise outside corners, as well as improved precision on inside corners. Rather than estimate an average taper along a path, the highly sophisticated IntelliTAPER® system examines the entire tool path and calculates at thousands of points per inch the exact amount of taper compensation needed at every position along the path. The IntelliMAX software can then fully utilize the motion range and flexibility of the TiltaJET to automatically cut taper-free parts quickly and precisely.

Features & benefits

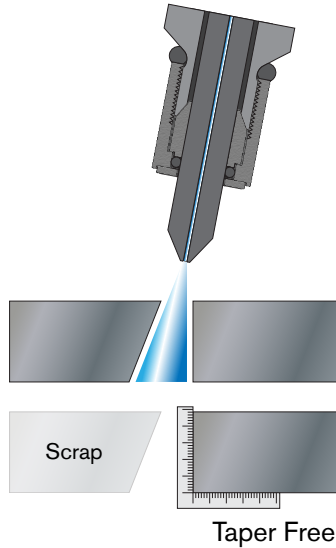
- Easily make interlocking pieces, dovetail fittings, and lead ins without taper to reduce secondary machining
- Tilting point positioned at material surface to reduce X-Y motion
- Easy to use, with no special programming required
- Continuously adjusts at thousands of points per inch along path
- Can be used on OMAX machines from the 2626 to the 160X
- Automatic re-squaring feature ensures nozzle is square to the table
- Ability to change angles quickly, further enhancing cutting speed
- Compatible with Precision Optical Locator and Rotary Axis
- Faster cutting of high precision taper free parts with no need to slow down to eliminate taper
- Servo-controlled programmable precision Z-axis with 6" of travel
- Faster cutting due to "tilt forward" capability
- Advanced servo design results in virtually zero backlash
- Programmable manual tilt up to $\pm 9^\circ$ for the maximum tilt angle
- Automatic taper elimination without any programming



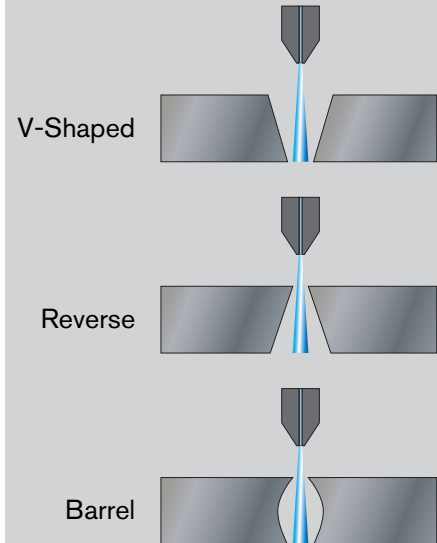
Standard Cutting Head



Tilt-A-Jet Cutting Head



Types of Taper



What is taper?

Taper is the inherent difference in the width of the cut from top to bottom found in all abrasive waterjets. There are several types of taper found in cutting. The V-shaped taper is the most common, where the top of the cut is wider than the bottom. Reverse taper is often found in soft materials, where the bottom is eroded more than the top. In very thick materials, barrel taper can occur where the middle is wider than both the top or the bottom. Many factors affect taper, including material type and thickness, abrasive size, distance of nozzle from the material, and the speed of cutting. Some materials can even exhibit multiple forms of taper in the same edge, such as simultaneous reverse and barrel taper.

World-class service, support and innovation for advanced abrasive waterjet systems

OMAX, part of Hypertherm Associates, sets the standard for service and support in the waterjet machine tool industry. It starts with a rigorous certification program at OMAX in Kent, Washington where OMAX direct and distributor technicians are trained to install, operate and maintain OMAX abrasive waterjet systems. OMAX engineers continue to innovate technology for abrasive waterjet machining, from proven 4th generation pump designs to cutting edge drive systems with micron-level accuracy. Customers have a number of contact options to suit their schedules and needs, including an extensive library of online resources. With the largest abrasive waterjet support network in the world, OMAX continues to shape the future of waterjets.

To see how an OMAX abrasive waterjet system can save you time and money, call or visit our website and request a free part analysis today.



UL 508A, CAN/CSA C22.2 No. 14,
CAN/CSA C22.2 No. 73
ISO 9001:2015 Certified

For more information, visit: www.omas.com

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