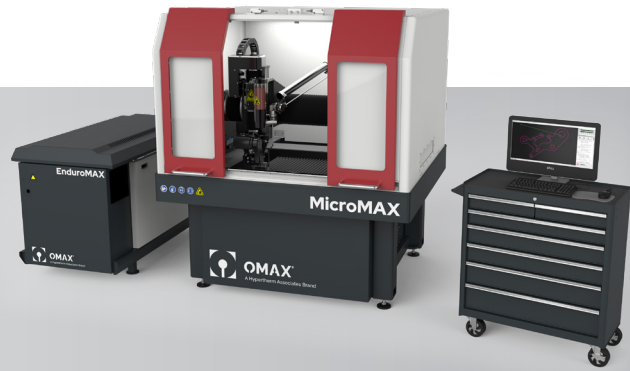


# MicroMAX

## JetMachining Center



The MicroMAX<sup>®</sup> JetMachining<sup>®</sup> Center is the ideal solution for ultra-precision abrasive waterjet machining. Utilizing advanced high precision linear encoders, innovative vibration isolation, and proven IntelliMAX<sup>®</sup> software control systems, the MicroMAX is capable of a positioning accuracy of less than five microns while retaining all the advantages of abrasive waterjet machining. The MicroMAX can machine stainless steel, titanium, carbon fiber, PEEK, glass, nitinol, graphite, copper, composites, laminates, and more, with high precision and smooth finishing, for either prototyping or production.

### MicroMAX EnduroMAX pump innovation

The unique EnduroMAX direct drive pump paired with the MicroMAX adds an attenuator to deliver the smoothest pressure output to the nozzle for maximum precision. With all the easy maintenance benefits of EnduroMAX technology, the MicroMAX EnduroMAX pump combines consistent uptime with a precision-oriented high pressure output.

### A system designed for ultimate waterjet precision

The MicroMAX JetMachining Center was designed from the beginning to be the ultimate in high precision abrasive waterjet machining. A highly rigid structure with vibration isolation of the table and gantries feature matched thermal expansion to reduce positional variances and maximize system accuracy. A full enclosure with environmental controls help maintain consistent and optimal operating temperatures, significantly reducing thermal impact on fixtured materials. The result is the pinnacle in abrasive waterjet machining.

### Advanced IntelliTRAX drive system

The ultimate in durable high-precision motion control, the OMAX IntelliTRAX<sup>®</sup> drive system used on the MicroMAX JetMachining Center incorporates a magnetic linear encoder and an electronic drive control for precise positioning. With a location resolution of one micron, the IntelliTRAX system provides extremely accurate positioning with an innovative feedback/feed-forward control loop. All combined makes IntelliTRAX the ideal motion control system for abrasive waterjets.

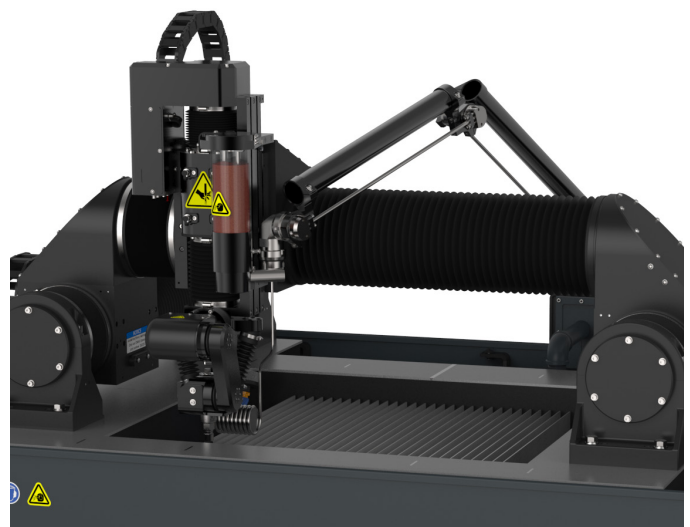
## Specifications

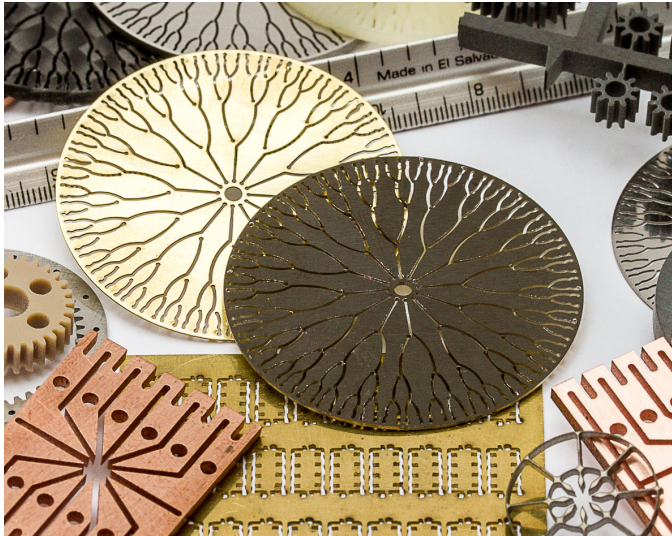
Machine dimensions	
Footprint (with pump & controller)	10' 2" x 7' 2" (3.10 m x 2.18 m)
Weight (tank empty)	3,700 lbs (1,678 kg)
Height	7' 6" (2.29 m)
Operating weight	7,372 lbs (3,344 kg)

Work envelope	
X-Y cutting travel*	2' 1" x 2' 1" (0.63 m x 0.63 m)
Z-Axis travel (with motorized Z-Axis)*	4.5" (114 mm)
Table size	2' 11" x 3' 0" (6.93 m x 3.25 m)

Standard model specifications	
Material support slats	4" x 11 gauge (102 mm x 2.9 mm) galvanized steel
Maximum supported material load	400 lbs/sq ft (1,953 kg/sq meter)
Electrical requirements	3-Phase, 380-480 VAC $\pm$ 10%, 50-60 Hz
Noise level	Below 80 dBA at one meter for submerged cutting
Speed	100 in/min (2.54 m/min)
Linear axis accuracy*	$\pm$ 0.0001" ( $\pm$ 0.0025 mm)
Linear axis repeatability*	$\pm$ 0.0001" ( $\pm$ 0.0025 mm)
Ballbar circularity*	$\pm$ 0.0005" ( $\pm$ 0.013 mm)

\*Optional accessories may reduce cutting travel. Accuracy specifications are at 72° F (22° C).





### Available accessories

- Rotary axis for tube and pipe micro abrasive waterjet machining.
- Precision Optical Locator for accurate material alignment and positioning.
- Collision Sensing Terrain Follower automatically adjusts to accommodate uneven part surfaces.
- Rapid water level control for clean and quiet submerged cutting.
- Variable Speed Solids Removal System (VS-SRS) for automated solids removal from the catcher tank.
- Bulk abrasive delivery hoppers to minimize production downtime.

Optional accessories may reduce cutting travel. Photos may show optional accessories. For a complete list of accessories, contact an OMAX sales representative.



For more information, visit: [www.omax.com](http://www.omax.com)

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Please visit [www.omax.com/patents](http://www.omax.com/patents) for more details about Hypertherm Associates patent numbers and types.

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### IntelliMAX Software Suite

For over 20 years, OMAX has invested extensive research and development to provide the most advanced abrasive waterjet software possible. Through software enhancements, your MAXIEM JetMachining Center is capable of advanced 5-axis machining in virtually any material, from aluminum and steel to carbon fiber, titanium, copper, glass, composites, and more.

The IntelliMAX® Software Suite includes LAYOUT, a full-featured CAD design program; MAKE, the highly powerful machine controller software; IntelliVISOR®, the comprehensive system monitoring package; and much more.

- Ease of use: with LAYOUT, the user, whether a novice or an expert, can quickly and easily create a part file. With one click, that part file can be converted into a tool path that is ready for machining.
- Built-in intelligence: in MAKE, detailed reporting provides highly precise estimates on cut times, allowing for accurate job costing.
- Advanced monitoring: included with the IntelliVISOR system monitoring application, the operator can set up detailed maintenance reminders that minimize downtime and maximize production. Advanced notification features send alerts to email or a smartphone, keeping the operator aware of the machine operation at all times.

### 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.

As 100% Associate owners, we are all focused on delivering a superior customer experience. [www.hyperthermassociates.com/ownership](http://www.hyperthermassociates.com/ownership)

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