

OMAX abrasive waterjet technology







Contents

- 5 OptiMAX JetMachining Centers
- 9 OMAX JetMachining Centers
- 17 GlobalMAX JetMachining centers
- 21 Direct drive technology
- 25 DynaMAX intensifier technology



OptiMAX JetMachining Centers



Maximum performance, maximum productivity

The OMAX OptiMAX® is the culmination of three decades of engineering expertise and experience, resulting in the world's most accurate waterjet designed for maximum uptime in any manufacturing environment. The OptiMAX jet machine center includes:

- IntelliTRAX®, the high precision traction drive technology designed exclusively for the abrasive waterjet environment for maximum accuracy and minimal maintenance.
- IntelliMAX® software that enhances automation capabilities with direct control of the advanced 5-Series EnduroMAX® pump, rapid auto-homing of the waterjet and more.
- EnduroMAX pump with a simple yet robust design that is specifically engineered to simplify maintenance through innovative features while maximizing nozzle horsepower.

The power of the IntelliMAX software and OptiMAX innovation results in more uptime, expanding the possibilities of the OptiMAX.

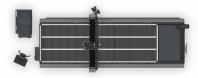
OptiMAX model specifications

Family Specs	
X-Y Speed	8890 mm/min.
Linear positional accuracy	0,025 mm
Repeatability	0,025 mm
Ballbar circularity	0,0635 mm

OptiMAX machine specifications







Dimensions	60X	80X	80X-1	
Standard layout footprint*	6,9 m x 3,6 m	7,9 m x 3,9 m	9.9 m x 3,9 m	
Weight (tank empty)	3856 kg	4151 kg	5638 kg	
Height (with scissor plumbing)	3 m	3,1 m	3,1 m	
Operating weight	16383 kg	22487 kg	29892 kg	
X-Y Cutting travel*	3,3 m x 1,6 m	4,3 m x 2 m	6,3 m x 2 m	
Z-Axis travel*	305 mm	305 mm	305 mm	
Table size	5,6 m x 3,6 m	6,6 m x 3,9 m	8,6 m x 3,9 m	

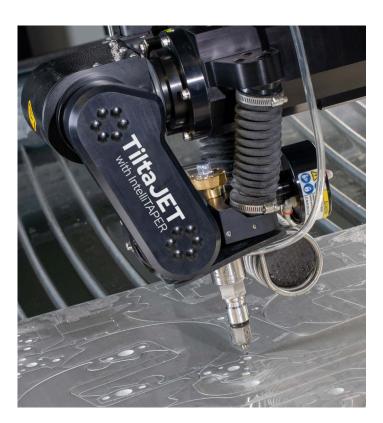
^{*}Optional accessories may reduce cutting travel. Standard Layout Footprint includes table and pump in an optimal layout configuration. Photos may show optional accessories. For a complete list of accessories, contact an OMAX sales representative. Accuracy specifications are at 22° C). Pumps are built to meet UL and CE specifications. Contact OMAX for detailed utility requirements. Specifications subject to change without notice.



The OMAX Technology Guarantee entitles you, as the original owner, to free OMAX software upgrades for the life of the machine.

Customizable with accessories

State of the art accessory options configure the OptiMAX to perform your jobs, your way. Customize your waterjet with options to enhance productivity such as multi-axis cutting, automated garnet removal, secondary operations assistance, water recycling, and more.



IntelliMAX software advantages

For decades, we have invested in extensive research and development to provide the most advanced abrasive waterjet software possible. Through software enhancements, your OptiMAX 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.

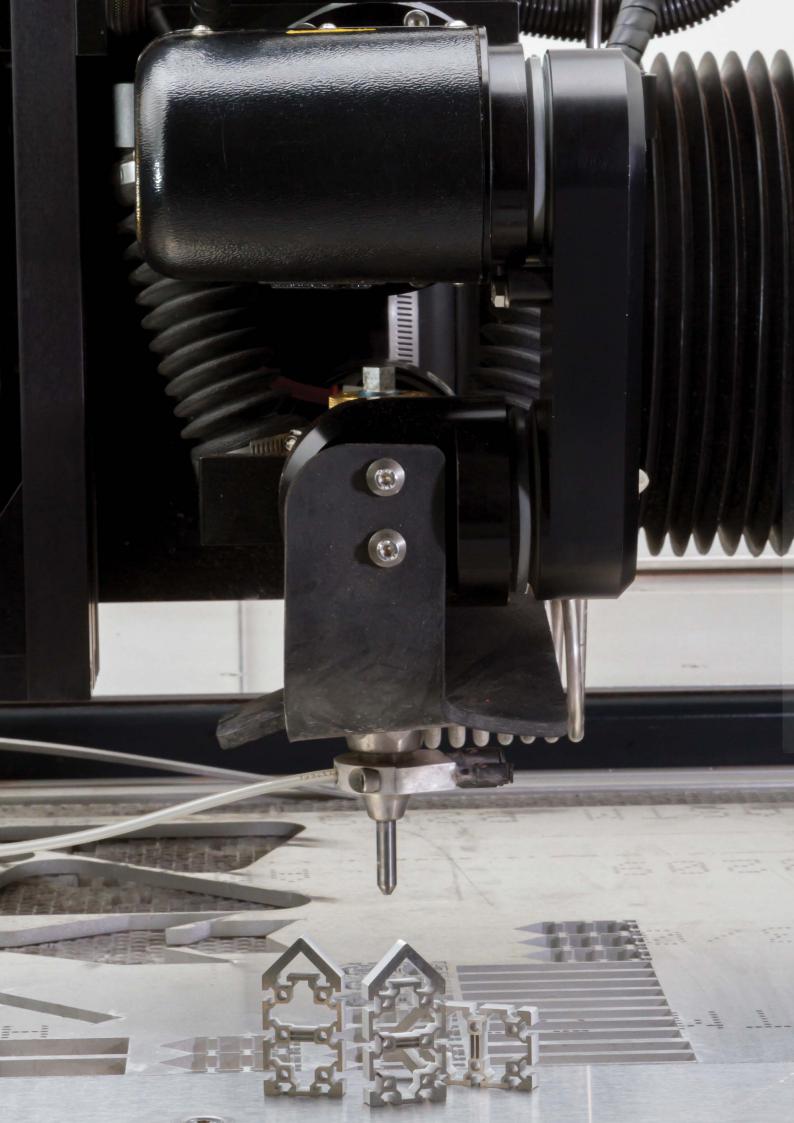
The IntelliMAX Software Suite includes:

- LAYOUT, a full-featured CAD design program
- MAKE, the highly powerful machine controller software
- IntelliVISOR®, the comprehensive system monitoring package

The IntelliMAX Software Suite offers:

- 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.
 - 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.





OMAX JetMachining Centers



Premium high-precision waterjet cutting

The premier OMAX JetMachining® Center is designed for advanced facilities where the desire for performance and results are paramount. A production workhorse in any manufacturing environment, the OMAX JetMachining Center delivers:

- High precision multi-axis parts quickly and consistently with OMAX IntelliMAX® software
- Improved efficiency with EnduroMAX® pumps delivering the highest nozzle horsepower
- Reduced maintenance through long-life and hard-wearing materials
- Increased uptime with enhanced IntelliVISOR® system monitoring
- Improved bottom line through maximized productivity

So it is no surprise that over 90% of all OMAX JetMachining Centers are still being used today.

Factory tested, field proven

All OMAX JetMachining Centers are extensively tested at the factory, including a ballbar circularity test and test cuts to ensure precision. With thousands of machines installed and operating worldwide, the OMAX JetMachining Center is proven to be fast, precise, and reliable, with low maintenance and high production rates.

EnduroMAX pump innovation

The EnduroMAX pump is the advanced direct drive pump that delivers the most horsepower to the nozzle. With 1000 hours between maintenance cycles, the EnduroMAX is the best choice for reliable and robust ultra high pressure waterjet pumps.

■ 22 kW, 4138 bar■

30 kW, 4138 bar

- 37 kW, 4138 bar
- 75 kW, 4138 bar









Cantilever specifications

	Model 2626	Model 2652	Model 5555	Model 55100
Machine footprint	3 m x 1.8 m	3,5 m x 1,7 m	3,3 m x 2,4 m	3,9 m x 2,4 m
X-Y cutting travel	0,7 m x 0,7 m	1,3 m x 0,7 m	1,4 m x 1,4 m	2,5 m x 1,4 m
Linear positional accuracy	±0,025 mm	±0,025 mm	±0,025 mm	±0,025 mm
Ballbar circularity	±0,076 mm	±0,076 mm	±0,076 mm	±0,076 mm
Repeatability	±0,025 mm	±0,025 mm	±0,025 mm	±0,025 mm

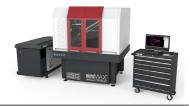




The OMAX Technology Guarantee entitles you, as the original owner, to free OMAX software upgrades for the life of the machine.

MicroMAX

The industry standard for high precision abrasive waterjet micromachining.



Machine footprint	1,9 m x 2,1 m
X-Y cutting travel	0,64 m x 0,64 m
Ballbar circularity	±13 microns
Repeatability	±2,5 microns

Specifications subject to change without notice.



IntelliMAX software advantages

For decades, we have invested in extensive research and development to provide the most advanced abrasive waterjet software possible. Through software enhancements, your OMAX 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:

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- MAKE, the highly powerful machine controller software
- IntelliVISOR, the comprehensive system monitoring package

The IntelliMAX Software Suite offers:

- Ease of use:
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 - In MAKE, detailed reporting provides highly precise estimates on cut times, allowing for accurate job costing.
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 - Advanced notification features send alerts to email or a smartphone, keeping the operator aware of the machine operation at all times.









Bridge specifications

	Model 60120 80X Series		120X Series	160X Series	
Machine footprint	5,7 m x 2,8 m	6,7 m x 3,9 m to 10,7 m x 4,6 m	6,6 m x 5,3 m to 14,9 m x 5,8 m	8,9 m x 6,6 m to 17,1 m x 6,6 m	
X-Y cutting travel	3,2 m x 1,6 m	4,1 m x 2,0 m to 8,1 m x 2,0 m	4,1 m x 3,0 m to 12,2 m x 3,0 m	6,1 m x 4,1 m to 14,2 m x 4,1 m	
Linear positional accuracy	±0,025 mm	±0,025 mm	±0,025 mm	±0,025 mm	
Ballbar circularity	±0,076 mm	±0,076 mm	±0,127 mm	±0,127 mm	
Repeatability	±0,025 mm	±0,025 mm	±0,025 mm	±0,025 mm	

NOTE: For larger table sizes, ask an OMAX sales representative for optional dimensions available in a model series. Optional accessories may reduce travel. Check with OMAX Sales for availability.

DualBRIDGE system

OMAX DualBRIDGE System available on 80X and larger models.

Available accessories

- A-Jet® for cutting beveled edges at specific angles
- Tilt-A-Jet® for advanced taper removal for perfectly square part edges
- Terrain Follower automatically adjusts to accommodate uneven part surfaces. Collision sensing capability is available with Tilt-A-Jet and Programmable Z cutting heads.
- Rotary Axis for creating complex 3D parts and tube & pipe cutting

Visit the OMAX website for a complete list of available accessories.



MAXIEM JetMachining Centers



High performance abrasive waterjet cutting

Fast, smooth, and accurate, the MAXIEM® JetMachining® Center is ideal for the ambitious shop where new challenges are a permanent driving force. The MAXIEM waterjet system was developed, tested, and built in keeping with OMAX technology standards to deliver:

- Superior performance with its innovative IntelliTRAX® drive system
- Expanded versatility with multi-axis cutting head options
- High productivity with powerful and durable OMAX direct drive pumps
- Affordable price point across the entire MAXIEM product line
- Customized options to tailor your MAXIEM system for your specific needs
- Easy-to-use IntelliMAX® Software Suite simplifies operation while maximizing production

However you customize your MAXIEM, remember that there are no limits to its potential.

A system designed for your needs

Whether you need a small machine for rapid prototyping, or a large system capable of working with standard sheet and plate sizes for full-scale production, the MAXIEM JetMachining Center is customizable to fit your needs. Regardless of system size, every MAXIEM machine brings the same great performance and high reliability, maximizing your potential.

MAXIEM model specifications

Family Specs	
X-Y Speed	12700 mm/min
Linear positional accuracy	0,076 mm
Repeatability	0,025 mm
Ballbar circularity	0,127 mm









MAXIEM machine specifications

Machine Specs	1515	1530	2030 4,3 m x 3,7 m	
Standard Layout Footprint	2,8 m x 3,3 m	4,3 m x 3,3 m		
Weight (tank empty)	1361 kg	1814 kg	2041 kg	
Height	3,2 m	3,2 m	2,7 m	
Operating Weight	4763 kg	7121 kg	9399 kg	
X-Y Cutting travel	1,6 m x 1,6 m	3,1 m x 1,6 m	3,1 m x 2 m	
Z-Axis travel	305 mm	305 mm	305 mm	
Table size	2,2 m x 1,7 m	3,7 m x 1,7 m	3,7 m x 2,1 m	

NOTE: For larger table sizes, ask an OMAX sales representative for optional dimensions available in a model series. Optional accessories may reduce travel. Check with OMAX Sales for availability.

Available accessories*

- A-Jet® 5-Axis cutting head with smart taper control
- Rapid water level control for submerged cutting
- IntelliMAX Premium software
- Additional seats of IntelliMAX Software Suite
- Bulk abrasive delivery assembly
- Terrain follower for A-Jet
- Collision sensing terrain follower

- High-pressure universal swivel plumbing
- Variable speed solids removal system (VS-SRS)
- Laser feature finder
- Z-Axis pneumatic drill
- Access control circuit interface for safety interlocks
- Laminar filter
- Water recycling system



^{*}Optional accessories may reduce travel. Photos may show optional accessories. For a complete list of available accessories, contact an OMAX sales representative.

IntelliMAX software advantages

For decades, we have invested in 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 (available with the IntelliMAX Premium upgrade)

The IntelliMAX Software Suite benefits:

• 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.
- Included with the IntelliMAX Premium upgrade, the IntelliVISOR system monitoring application lets the operator 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.









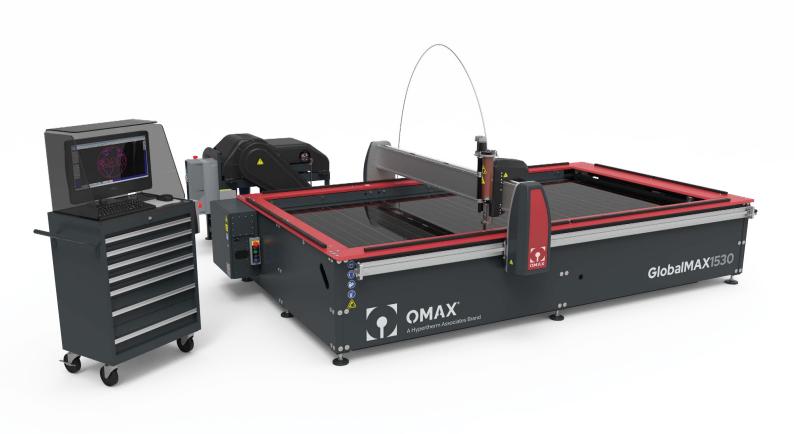
2040	2060	2080	3060
5,5 m x 3,7 m	7,5 m x 3,7 m	9,5 m x 3,7 m	7,5 m x 4,8 m
2495 kg	3266 kg	3946 kg	3946 kg
2,7 m	2,7 m	3,1 m	2,9 m
11975 kg	16329 kg	20865 kg	24040 k
4,2 m x 2 m	6,2 m x 2 m	8,3 m x 2 m	6,3 m x 3,1 m
305 mm	305 mm	305 mm	305 mm
4,9 m x 2,1 m	6,9 m x 2,1 m	8,4 m x 2,1 m	6,9 m x 3,2 m





OMAX®
A Hypertherm Associates Brand

GlobalMAX JetMachining centers



High performance abrasive waterjet cutting

The OMAX GlobalMAX® is ideal for the facility looking to add basic waterjet cutting capabilities to their production. The robust and straightforward GlobalMAX design delivers:

- Dependable performance based on decades of OMAX abrasive waterjet expertise
- Easy serviceability through product design that maximizes system access
- Maximum uptime with robust and long-lasting system components
- Easy-to-use IntelliMAX® Software Suite simplifies operation while maximizing production

A system designed for your needs

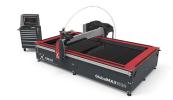
Whether you need a small-sized machine for rapid prototyping, or a large system capable of working with standard sheet and plate sizes for full-scale production, the GlobalMAX line offers options for both. Regardless of system size, every GlobalMAX machine brings the same great performance and high reliability, maximizing your potential.

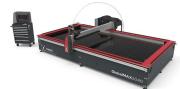
GlobalMAX model specifications

Family Specs	
X-Y Speed	12700 mm/min
Linear positional accuracy	0.076 mm
Repeatability	0.025 mm
Ballbar circularity	.178 mm









GlobalMAX machine specifications

	GlobalMAX 1508	GlobalMAX 1530	GlobalMAX 2040	
Standard Layout Footprint	1,6 m x 3,5 m	3,8 m x 3,5 m	4,8 m x 4,1 m	
Weight (tank empty)	1488 kg	2177 kg	2903 kg	
Height	2,2 m	2,7 m	2,8 m	
Operating Weight	2400 kg	5490 kg	7940 kg	
X-Y Cutting travel	0,8 m x 1,5 m	3,1 m x 1,5 m	4,0 m x 2,0 m	
Z-Axis travel	125 mm	125 mm	125 mm	
Table size	0,9 m x 1,6 m	3,1 m x 1,6 m	4,1 m x 2,1 m	



Available accessories*

- Terrain follower
- Pneumatic drill
- Laser feature finder
- Air and water spray down kit
- Bulk feed hopper

^{*}Optional accessories may reduce travel. Photos may show optional accessories. For a complete list of available accessories, contact an OMAX sales representative. Contact OMAX for detailed utility requirements.



GlobalMAX direct drive pumps

Our direct drive pumps efficiently deliver horsepower (cutting power) to the machine nozzle. Designed to operate 500 hours between maintenance cycles, the GlobalMAX pump provides dependable performance. Pumps are available in 10, 20 and 30 horsepower.

GlobalMAX direct drive pump specifications

	GlobalMAX 10	GlobalMAX 20	GlobalMAX 30
Pressure	2070 bar	100 bar	3100 ba45,000 psi
Motor power	7,5 kW	15 kW	22 kW
Jet power*	5,2 kW	12,5 kW	19 kW
Orifice & flow rate	0,28 mm/1,51 lpm	0,30 mm/2,35 lpm	0,38 mm/3,63 lpm

^{*}Jet power is directly proportional to the water pressure at the nozzle times the volume flow rate of the waterjet stream.

IntelliMAX software advantages

For decades, we have invested in extensive research and development to provide the most advanced abrasive waterjet software possible. Through software enhancements, your GlobalMAX JetMachining Center is capable of advanced 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

The IntelliMAX Software Suite offers:

- 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.



Direct drive technology



Maximum efficiency with minimum downtime

OMAX Corporation's advanced direct drive technology delivers the most nozzle horsepower, or Jet Power, of any waterjet pump. This translates to more production and less downtime. OMAX direct drive pumps provide:

- Faster and smoother cutting due to reduced pressure ripples
- Maximized operating cycles thanks to advanced hardened materials
- Simplified maintenance thanks to service-friendly design
- Reduced user involvement through automation and advanced pump monitoring

All this combined makes OMAX direct drive pumps the most efficient and cost-effective waterjet pump technology in the world.

EnduroMAX technology

System uptime is a critical requirement for waterjet operators. EnduroMAX® technology:

- Extends pump life
- Reduces maintenance cycles
- Simplifies maintenance
- Reduces downtime

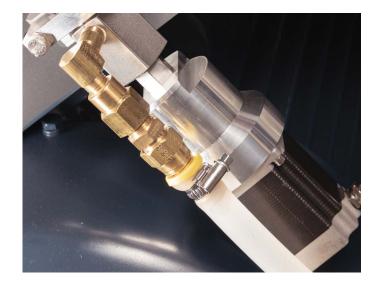


Pump specifications

	EnduroMAX 5-series³				Endur	oMAX4
Motor power	22 kW	30 kW	37 kW	22 kW	30 kW	37 kW
Maximum jet power¹	18,7 kW	25,5 kW	31,5 kW	18,7 kW	25,5 kW	31,5 kW
Output pressure		4138 bar (60,000 psi)			4138 bar (60,000 psi)
Orifice and flow rate ²	0,30 mm/2,54 lpm	0,36 mm/348 lpm	0,41 mm/4,54 lpm	0,30 mm/2,54 lpm	0,36 mm/3,48 lpm	0,41 mm/4,54 lpm

¹ Jet Power is directly proportional to the water pressure at the nozzle times the volume flow rate of the waterjet stream.

Specifications subject to change without notice.



5-Series: beyond direct drive

Developed alongside the OptiMAX® JetMachining Center, the EnduroMAX 5-Series takes all the benefits of the previous generation of EnduroMAX and dials them up. The motorized adjustable dump orifice and complete software control:

- Further reduces operator involvement
- Automatically adjusts pressure settings
- Reduces fluctuations
- Extends pump life
- Reduces operator dependency
- Maximizes production

² Recommended maximum orifice size. Smaller orifice sizes have a corresponding lower flow rate.

³ EnduroMAX 5-Series pumps are only available on OptiMAX JetMachining Centers.

⁴ EnduroMAX pumps are standard on all OMAX JetMachining Centers and optional on MAXIEM® systems.

Factory tested, field proven

All EnduroMAX direct drive pumps are extensively tested at the factory, first in a standalone testing rig and then connected to your machine for a final test. With thousands of machines installed and operating worldwide, our direct drive pump technology is the premier abrasive waterjet pump solution for maximum productivity.



	MAXIEM			GlobalMAX		
75 kW	15 kW	22 kW	30 kW	7,5 kW	15 kW	22 kW
63 kW	125 kW	19 kW	25 kW	5,2 kW	12,5 kW	19 kW
	3447 bar (50,000 psi)			2069 bar (30,000 psi)	3103 bar (45,000 psi)	
0,56 mm/8,52 lpm	028 mm/1,97 lpm	0,36 mm/3,18 lpm	0,41 mm/4,13 lpm	0,28 mm/1,51 lpm	0,30 mm/2,35 lpm	0,38 mm/3,63 lpm



Enhanced technology

Variable Frequency Drive technology:

- Maximizes production potential
- Provides substantial energy savings by altering motor speed based on demand
- Provides precise pressure control by operating throughout a wide range of motor RPMs
- Reduces wear and tear on motor and pump crankcase resulting in limited maintenance costs by varying the speed and torque of the electric motor
- Flexibility to adapt to specific needs and requirements



DynaMAX intensifier technology



The right tool for the right job

By rethinking the way the intensifier pump works, we were able to make the DynaMAX® with Advanced Intensifier Technology (AIT) work harder and last longer. The DynaMAX delivers:

- Significantly reduced service time through streamlined access and simpler design
- · Optimum cut quality and pump performance because of smooth, reliable shifting
- Maximized uptime due to intuitive software package
- Simplified maintenance thanks to service-friendly design
- Faster routine service and quicker evaluation due to innovative valve design

All this combined makes DynaMAX the most cost effective intensifier pump in the world.

Small footprint, large performance

DynaMAX 3-series pumps:

- Eliminate soft static, high-pressure seals, increasing intensifier robustness
- Enable rapid replacement of common consumables by incorporating industry-leading cartridge seal design
- Provide consistent cut quality and optimum cutting speeds due to a closed-loop proportional pressure control system that adjusts for ambient pressure and temperature, oil viscosity and hydraulic system wear
- Offer reduced footprint design







DynaMAX machine specifications

	DynaMAX 315	DynaMAX 330	
Motor power	11 kW	22 kW	
Maximum jet power¹	7.5 kW	15.1 kW	
Output pressure	4138 bar	4138 bar	
Orifice and flow rate ²	0.18 mm/1.1 lpm	0.28 mm/2.3 lpm	

- 1 JetPower is directly proportional to the water pressure at the nozzle times the volume flow rate of the waterjet stream.
- 2 Recommended maximum orifice size. Smaller orifice sizes have a corresponding lower flow rate.
- 3 DynaMAX 575P and DynaMAX 5100 are only available on OMAX JetMachining Centers. Not available on the OMAX 2626 JetMachining Center.
- Specifications subject to change without notice.



5-Series predictive technology

DynaMAX 5-Series pumps are the first waterjet pumps to incorporate predictive maintenance capabilities that substantially reduce maintenance costs and disruption caused by non-planned service. Equipped with standard features such as our proven Advanced Intensifier Technology (AIT) and a closed-loop proportional pressure control system, DynaMAX pumps offer you even more consistent cut quality while ensuring trouble-free operation and reliability.





Patented Seal Maintenance Technology

- Eliminates guess work, messy spills and unplanned downtime due to seal failure
- Boosts productivity
- Improves shop safety
- Monitors and maximizes effective seal usage
- Lowers operating costs
- Reduces downtime
- Assists in scheduled maintenance







DynaMAX 350	DynaMAX 575P ³	DynaMAX 5100°	
37 kW	56 kW	75 kW (100 hp)	
25.3 kW	7.9 kW	53.1 kW (72.2 hp)	
4138 bar	4138 bar	4138 bar	
0.35 mm/3.8 lpm	0.43 mm/5.7 lpm	0.51 mm/9.5 lpm	



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.

SHAPING POSSIBILITY®

PLASMA | LASER | WATERJET | AUTOMATION | SOFTWARE | CONSUMABLES



ISO 9001:2015 Certified

For more information, visit: www.omax.com

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As 100% Associate owners, we are all focused on delivering a superior customer experience. www.hyperthermassociates.com/ownership

Environmental stewardship is one of Hypertherm Associates' core values. www.hyperthermassociates.com/environment







