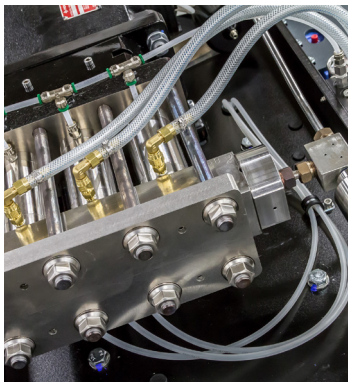
OMAX®
A Hypertherm Associates Brand

MAXIEM Direct Drive Pump

With thousands installed worldwide, the MAXIEM® Direct Drive Pump is proven to provide reliable performance in any work environment. Utilizing the same variable frequency drive technology as the market-leading OMAX EnduroMAX® pump, the MAXIEM Direct Drive Pump has the flexibility to vary the motor RPM to cover both low and high pressure operation. The pump's three cylinders are coordinated to provide a smooth high pressure output flow, without significant pressure fluctuations. The cutting power of any waterjet system is not motor horsepower or even pump pressure, but nozzle horsepower, or JetPower™. The MAXIEM Direct Drive Pump, due to its high efficiency, delivers some of the highest JetPower in the industry. The pump's simple design with a minimum footprint makes it easy to install and maintain, while its eco-friendly design provides quiet and clean operation.

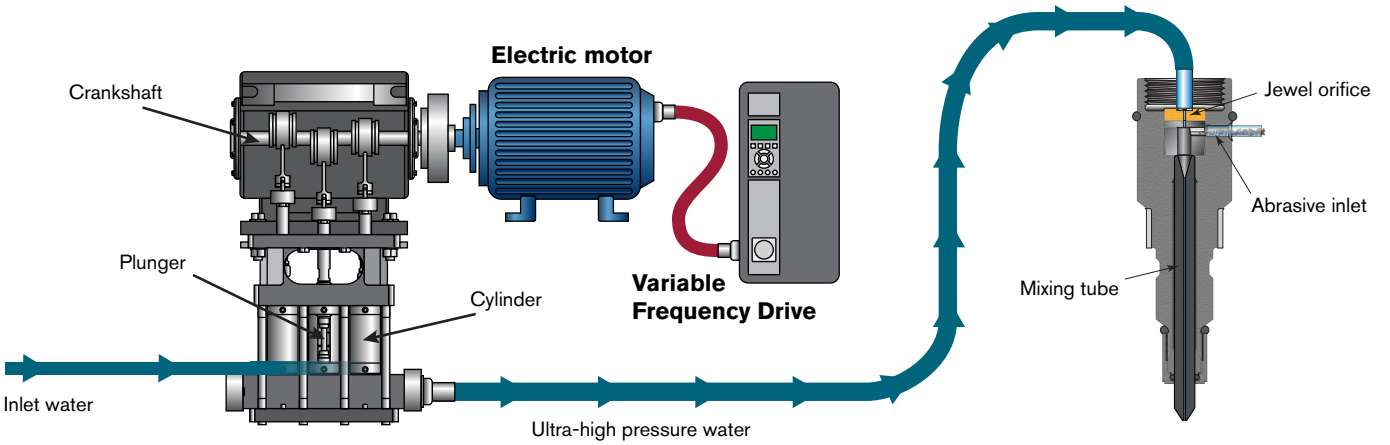
Enhanced VFD technology

By incorporating Variable Frequency Drive technology, the MAXIEM pump can maximize production potential and achieve substantial energy savings by altering the speed of the motor based on demand. With the VFD, the MAXIEM pump can operate throughout a wide range of motor RPMs, resulting in precise pressure control. Varying the speed and torque of the electric motor also means there is less wear and tear on the motor itself, as well as the pump crankcase, reducing maintenance overhead. Whether adjusting for low pressure piercing of delicate materials or dialing in pump pressure for maintenance longevity, the MAXIEM pump with VFD technology provides the user the flexibility to adapt to their specific needs and requirements.



Features & benefits

- Simple industry-proven and robust pump design
- Highly reliable design capable of over 500 cutting hours between maintenance cycles
- Variable Frequency Drive reduces startup power consumption and maximizes operating flexibility
- Continuous 50,000 psi operation for faster part processing
- One of the lowest pump operating noise levels in the industry
- Optional Water Recycling System for closed loop operation
- Integrated charge pump with pressure tank
- Available in 20 hp, 30 hp, and 40 hp models
- Increased productivity with operating efficiencies up to 85%
- Advanced direct drive pump technology lowers operating costs and increases pump operating life
- Continuously adjustable VFD technology significantly expands pump capabilities by controlling output flow rate and pressure
- Lower overall energy costs compared to inefficient intensifier pump designs
- Simple design provides easy access to all major components
- Direct drive pump technology delivers the highest JetPower in the industry for faster and more efficient cutting
- Environmentally "green" system with quiet and clean operation and low electrical consumption
- Manufactured alongside the MAXIEM JetMachining® Center for maximum compatibility



	Motor Power	Maximum Jet Power[1]	Output Pressure	Orifice & Flow Rate[2]	Dimensions
M20	20 HP (15 kW)	17 HP 12.5 kW)	50,000 psi (3,450 bar)	0.011" / 0.52 gpm (0.28mm / 1.97 lpm)	52.5" x 31" x 42" (1,334mm x 787mm x 1,067mm)
M30	30 HP (22 kW)	25.5 HP (19 kW)		0.014" / 0.84 gpm (0.36mm / 3.18 lpm)	
M40	40 HP (30 kW)	34 HP (25 kW)		0.016" / 1.09 gpm (0.41mm / 4.13 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.

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.

TÜVRheinland® ANAB ACCREDITED ISO/IEC 17021 MANAGEMENT SYSTEMS CERTIFICATION BODY c UL us LISTED CE

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

For more information, visit: www.omax.com

Unless otherwise noted in the collateral, all trademarks are property of Hypertherm, Inc. and may be registered in the United States and/or other countries. All other trademarks are the properties of their respective owners.

Please visit www.omax.com/patents for more details about Hypertherm Associates patent numbers and types.

© 4/2025 Hypertherm, Inc. Revision 1
MKT117

HYPERTHERM ASSOCIATES®

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

100% Associate-owned Greener Cuts