

OMAX Reverse Osmosis System

Water quality varies depending on location. In some areas, total dissolved solids (TDS) can be sustained at or below 250 parts per million (ppm), eliminating pre-treatment measures for effective abrasive waterjet operation. However, in areas where the TDS is in excess of 250 ppm, an OMAX Reverse Osmosis System can provide the assurance you need to supply clean, pure water to your high performance abrasive waterjet system. Optimized for waterjet applications and designed to fit between your incoming water supply and the abrasive waterjet pump, the OMAX Reverse Osmosis System works with both OMAX and MAXIEM JetMachining Centers.

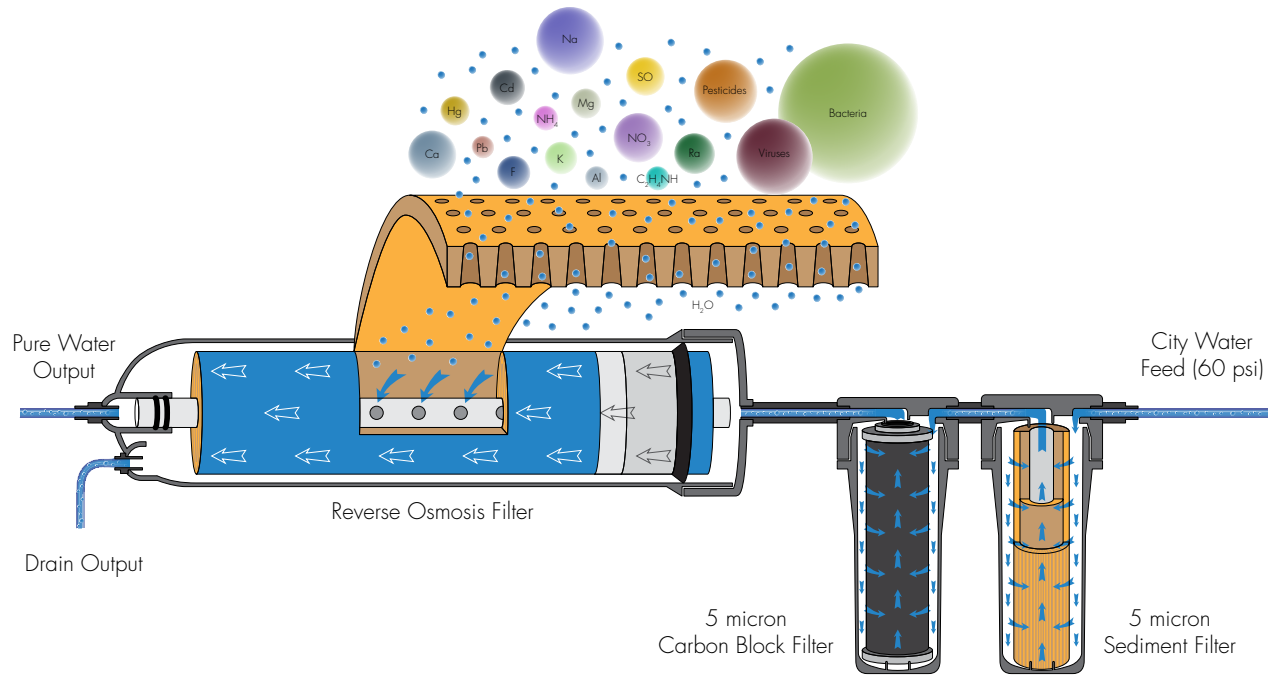
FEATURES

- Two types of pre-treatment filters: 5-micron and carbon black
- Includes a digital total dissolved solids meter for quick visual review
- Time clock initiated water softener system capable of a 10 gpm flow rate with 45,000 grains removed
- Sturdy powder-coated steel frame designed for out of the way wall mounting
- Two 4" x 40" membranes capable of handling over 4,000 gallons per day at 77 psi

BENEFITS

- Can remove up to 90% of total dissolved solids in water
- Protects OMAX and MAXIEM abrasive waterjet systems to maximize machine uptime
- Virtually hands-free operation
- Excess pure water output can be used for other equipment in a shop (such as EDM, etc.)
- Inexpensive monthly filter changes

RO



WHAT IS REVERSE OSMOSIS

During natural osmosis, water flows from a less concentrated solution through a semi-permeable membrane to a more concentrated saline solution until concentrations on both sides of the membrane are equal.

Reverse osmosis uses external pressure to reverse this natural osmotic flow. As pressure is applied to the saline solution, water flows from a more concentrated saline solution through the semi-permeable membrane to produce output water that has a higher purity level.

REVERSE OSMOSIS MEMBRANE

A reverse osmosis membrane has a thin microporous surface that rejects impurities, but allows water to pass through. Reverse osmosis is a percent rejection technology, and the membrane rejects 80-90% of inorganic solids. The purity of the product water depends on the purity of the inlet water, with the result being that the reverse osmosis product water has a much higher purity than the inlet feedwater.

WHEN TO CONSIDER A WATER SOFTENER

In some locations you will find the hardness (calcium and magnesium) in your water to be high but the TDS to be below 250 ppm. In situations like this a water softener is recommended over the full OMAX Reverse Osmosis System. With a water softener you will gain many of the same benefits that the OMAX RO System provides, but at a lower cost.

SPECIFICATIONS

Power Requirements	110V, 60 Cycle, 10AMP
Dimensions	Overall: 18"H x 38"W x 6"D Resin Tank: 10" x 54" Brine Tank: 18" x 30"
Pre-Treatment Filters	20" 5-Micron, 20" Carbon Black
Membranes (4" x 40")	Max operating pressure: 125 psi Feed temperature: 95° Recommended pH: 6 to 12 Free chlorine tolerance: <0.1ppm Average rejection: 85% Reject Rate: 2.5 gpm Product Rate: 2.8 gpm Gallons per day: 4,032 (77 psi)
Water Softener	Type: Time clock initiated Grains Removed: 45,000 Flow Rate: 10 gpm Resin: 1.5 cubic feet total

ABOUT OMAX

OMAX is the global total solutions provider in advanced abrasive waterjet systems. Our intuitive Intelli-MAX Software Suite simplifies programming and reduces setup times, increasing your productivity. 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. With the largest abrasive waterjet support network in the world, OMAX continues to shape the future of waterjets.

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

ABRASIVE WATERJET
v.s. OTHER METHODS

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