



PRECISION ABRASIVE WATERJET SYSTEMS

Equipment Specifications **80X Series**



OMAX® 80X JetMachining® Series

The 80X Series comprise of bridge-style waterjet machines ideal for cutting larger or multiple part projects. Each model features the Intelli-TRAX® linear drive technology designed exclusively for the abrasive waterjet environment. The 80X Series JetMachining Centers are all robust, reliable systems maximizing both machine time and profit margins.

OMAX® 80X JetMachining® Center*

Machine Dimensions

Footprint (with controller)	22' 1" x 12' 8"	(6,731 mm x 3,861 mm)
Weight (tank empty)	9,000 lbs	(4,082 kg)
Height (with scissor plumbing)	144"	(3,658 mm)
Operating Weight	34,000 lbs	(15,422 kg)

Work Envelope

X-Y Cutting Travel	13' 4" x 6' 8"	(4,064 mm x 2,032 mm)
Table Size	15' 0" x 7' 5"	(4,572 mm x 2,261 mm)

Patent Pending Drive Description

- Closed loop, digital drives
- Brushless servo motors
- Intelli-TRAX linear drive technology in X-axis
- Pre-loaded ball screw with recirculating ball bearings and hardened precision ground ways in Y-axis bridge
- Motor controlled precision Z-axis

Speed

180 inches per minute standard (4,572 mm/min)

* See specific X-Y features for each model in the "Standard Features" section.

Standard Features

- OMAX offers the highest cutting speeds and best precision compared to any abrasivejet in the industry and is backed by our exclusive Intelli-MAX® software with real world cutting data
- Programmable Motorized Z-Axis with a precision OMAX MAXJET®5i Nozzle Assembly can boost cutting productivity and process efficiency
- DualBRIDGE option available for all models in this series to increase machining capacity
- Scissor-style hard plumbing
- Component protection increases flow rate, decreases pressure loss, and enhances cutting efficiency
- Highly efficient, engineer-proven EnduroMAX® pumps available in 30, 40, 50, 60, 70, 80, and 100 hp with pressures up to 60,000 psi
- Rapid Water Level Control for quiet and clean submerged cutting
- Bulk Abrasive Feed Assembly transports garnet from the assembly's large hopper into the small hopper located at the Z-axis
- Shipped pre-assembled and factory-tested

Standard Features on 80X and 80X-1

- Ball screw drive inside the Y-axis bridge fully enclosed inside bellows
- Intelli-TRAX linear drive technology inside the X-axis beams fully enclosed inside coated steel covers

Standard Feature on 80X-2 through 80X-5

- Intelli-TRAX linear drive technology inside the X and Y-axis beams fully enclosed inside coated steel covers



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

80X Series

OMAX 80X Series JetMachining Centers

Abrasivejet Benefits

- Machines a wide range of materials and thicknesses
- Does not create heat-affected zones or mechanical stresses
- Rapid setup, no tool changes required
- Minimal fixturing required
- Leaves behind a satin-smooth edge, reducing secondary operations
- No noxious gases, liquids or oils used in (or caused by) the machining process
- Completes most work below 80 dBA at 1 meter for submerged cutting
- Environmentally "green" system with quiet and clean operation, low electrical and abrasive consumption

OMAX® 80X-1 JetMachining® Center*

Machine Dimensions

Footprint (with controller)	28' 1" x 12' 8"	(8,560 mm x 3,861 mm)
Weight (tank empty)	11,000 lbs	(4,990 kg)
Height (with scissor plumbing)	144"	(3,658 mm)
Operating Weight	44,000 lbs	(19,958 kg)

Work Envelope

X-Y Cutting Travel	20' 0" x 6' 8"	(6,096 mm x 2,032 mm)
Table Size	21' 8" x 7' 5"	(6,604 mm x 2,261 mm)

Patent Pending Drive Description

- Closed loop, digital drives
- Brushless servo motors
- Intelli-TRAX linear drive technology in X-axis
- Pre-loaded ball screw with recirculating ball bearings and hardened precision ground ways in Y-axis bridge
- Motor controlled precision Z-axis

Speed

180 inches per minute standard (4,572 mm/min)

OMAX® 80X-2 JetMachining® Center*

Machine Dimensions

Footprint (with controller)	35' 0" x 15' 0"	(10,668 mm x 4,572 mm)
Weight (tank empty)	13,000 lbs	(5,897 kg)
Height (with scissor plumbing)	144"	(3,658 mm)
Operating Weight	54,000 lbs	(24,494 kg)

Work Envelope

X-Y Cutting Travel	26' 8" x 6' 8"	(8,128 mm x 2,032 mm)
Table Size	28' 3" x 7' 5"	(8,611 mm x 2,261 mm)

Patent Pending Drive Description

- Closed loop, digital drives
- Brushless servo motors
- Motor controlled precision Z-axis
- Intelli-TRAX linear drive technology in X and Y-axis

Speed

350 inches per minute standard (8,890 mm/min)

OMAX® 80X-3 JetMachining® Center*

Machine Dimensions

Footprint (with controller)	41' 8" x 15' 0"	(12,700 mm x 4,572 mm)
Weight (tank empty)	15,000 lbs	(6,804 kg)
Height (with scissor plumbing)	144"	(3,658 mm)
Operating Weight	64,000 lbs	(29,030 kg)

Work Envelope

X-Y Cutting Travel	33' 4" x 6' 8"	(10,160 mm x 2,032 mm)
Table Size	34' 11" x 7' 5"	(10,643 mm x 2,261 mm)

Patent Pending Drive Description

- Closed loop, digital drives
- Brushless servo motors
- Motor controlled precision Z-axis
- Intelli-TRAX linear drive technology in X and Y-axis

Speed

350 inches per minute standard (8,890 mm/min)

* See specific X-Y features for each model in the "Standard Features" section.

OMAX® 80X-4 JetMachining® Center*

Machine Dimensions

Footprint (with controller)	48' 4" x 15' 0"	(14,732 mm x 4,572 mm)
Weight (tank empty)	17,000 lbs	(7,711 kg)
Height (with scissor plumbing)	144"	(3,658 mm)
Operating Weight	74,000 lbs	(33,566 kg)

Work Envelope

X-Y Cutting Travel	40' 0" x 6' 8"	(12,192 mm x 2,032 mm)
Table Size	41' 10" x 7' 5"	(12,751 mm x 2,261 mm)

Patent Pending Drive Description

- Closed loop, digital drives
- Brushless servo motors
- Motor controlled precision Z-axis
- Intelli-TRAX linear drive technology in X and Y-axis

Speed

350 inches per minute standard (8,890 mm/min)

OMAX® 80X-5 JetMachining® Center*

Machine Dimensions

Footprint (with controller)	55' 0" x 15' 0"	(16,764 mm x 4,572 mm)
Weight (tank empty)	19,000 lbs	(8,618 kg)
Height (with scissor plumbing)	144"	(3,658 mm)
Operating Weight	84,000 lbs	(38,102 kg)

Work Envelope

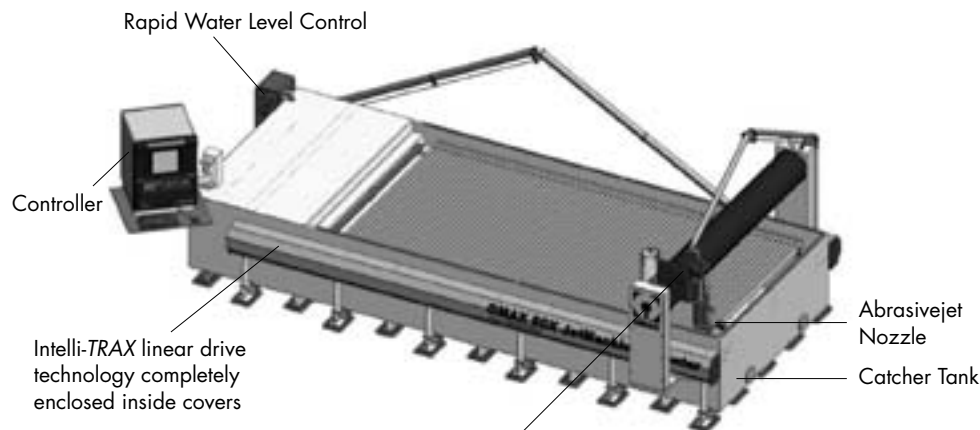
X-Y Cutting Travel	46' 8" x 6' 8"	(14,224 mm x 2,032 mm)
Table Size	48' 6" x 7' 5"	(14,783 mm x 2,261 mm)

Patent Pending Drive Description

- Closed loop, digital drives
- Brushless servo motors
- Motor controlled precision Z-axis
- Intelli-TRAX linear drive technology in X and Y-axis

Speed

350 inches per minute standard (8,890 mm/min)



Y-axis Ball Screw and Precision Ground Rails are completely enclosed inside bellows for the 80X and 80X-1 models. Intelli-TRAX linear drive technology completely enclosed inside Y-axis bellows for the 80X-2 through 80X-5 models.

Options

- EnduroMAX Direct Drive Pump P3060V, P4060V, or P5060V
- DualPUMP Package (dual EnduroMAX option)
- Tilt-A-Jet® Cutting Head for ultra-high precision taper compensation
- Variable Speed SRS (VS-SRS)
- Collision Sensing Terrain Follower with a Tilt-A-Jet only
- Z-axis Drill
- Precision Optical Locator (POL)
- Water-only MAXJET 5 for cutting soft materials
- OMAX MAXJET 5i MiniJet Nozzle Assembly
- Second MAXJET 5i with Motorized Z-Axis and all necessary hard plumbing (requires second Y-axis carriage)
- Manual Tilt Z
- Stone Cutting Kit
- Weir Tank
- Waterjet Brick Kit
- Catcher Tank Armor Plating
- Air & Water Conditioning Kit
- A-Jet®
- Terrain Follower/A-Jet
- Material Holding Kit
- Laser Feature Finder

For a complete list of accessories, contact an OMAX Sales Representative.

OMAX 80X Series JetMachining Centers

Standard Model Specifications

Material Support Slats 4" x 1/8" Galvanized Steel

Maximum Supported Material Load 400 lbs/sq ft (1,950 kg/sq meter)
(Optional accessories may reduce travel. Contact OMAX for information.)

Electrical Requirements 3-Phase, 380-480 VAC $\pm 10\%$, 50-60 Hz
(Note: Contact OMAX for detailed utility requirements. Pumps are built to meet UL and CE specifications.)

Noise Level Below 80 dBA at 1 meter for submerged cutting

Accuracy of Motion at 70° F

Ballbar Circularity (Over 12")	$\pm 0.003"$	(± 0.076 mm)
At 180 inches per minute (4,572 mm/m)	$\pm 0.002"$	(± 0.051 mm)
Repeatability	0.002" per ft	(0.17 mm/m)
Squareness	0.003" per ft	(0.25 mm/m)
Straightness	0.0007" maximum	(0.018 mm)
Backlash		

About OMAX

OMAX has the industry leading patented abrasivejet controller with a built-in expert system. Our exclusive "Compute First-Move Later" motion control system automates most programming and tool setup work, virtually eliminating the need for extensive operator training. Plus, with free OMAX Intelli-MAX® Software upgrades for the life of the machine and our ongoing commitment to advance the efficiency of our technology and software, OMAX saves you time and money.

For information on what other OMAX products and accessories can do for you, call us today at 800-838-0343 or visit our website at www.omax.com.



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Note: Specifications subject to change without notice. Check for the latest version at www.omax.com.