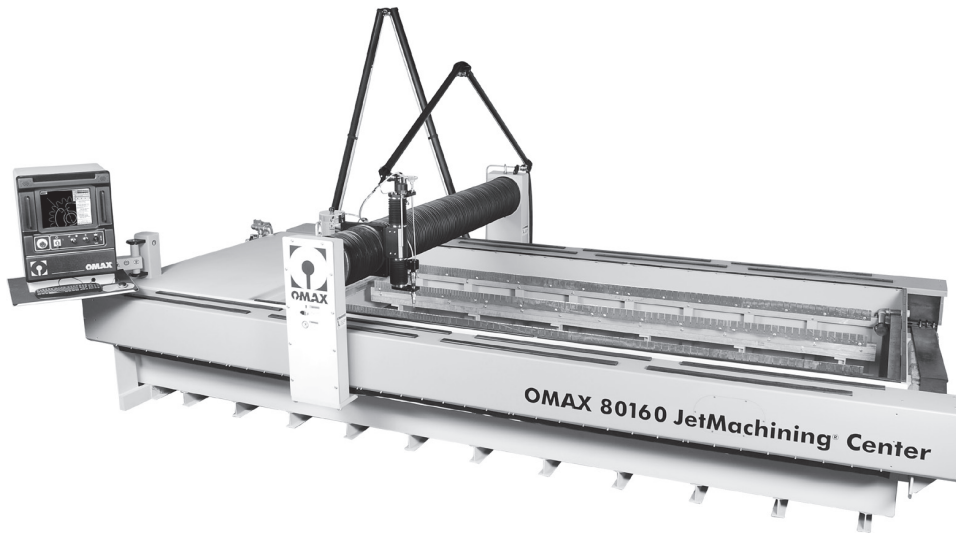




## PRECISION ABRASIVE WATERJET SYSTEMS

### Equipment Specifications

# 80160



## OMAX® 80160 JetMachining® Center

Large scale precision machining: For larger parts or multiple parts from large stock up to 6' x 12'.

This model 80160 JetMachining Center cuts complex flat parts out of most materials including metal, plastic, glass, ceramics, stone, and composites directly from a CAD drawing or DXF file. Extremely hard, reflective and nonconductive materials can also be cut, making it a valuable addition to existing shop capabilities. No tool changes or complex fixturing dramatically reduces setup times, and the smooth finish often eliminates the need for secondary machining.

# 80160

### Standard Features

- OMAX Intelli-MAX® software offers higher average cutting speeds and greater precision with free upgrades for the life of the machine
- Programmable Motorized Z-Axis with precision OMAX MAXJET® 5i Nozzle Assembly
- Ball screw drive inside the Y-axis bridge fully enclosed inside bellows
- Ball screw drive inside X-axis fully enclosed inside coated steel covers
- Scissor-style hard plumbing
- Component protection against water, dirt, and grit
- High efficiency direct drive pump systems available in 30, 40, 60, 70 and 80 hp with pressures up to 55,000 psi and 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
- Solids Removal System (SRS) designed for tough industrial use (available as an option)
- Tilt-A-Jet® taper compensating abrasivejet cutting head (available as an option)
- Shipped as a completely pre-assembled and factory-tested system

### 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

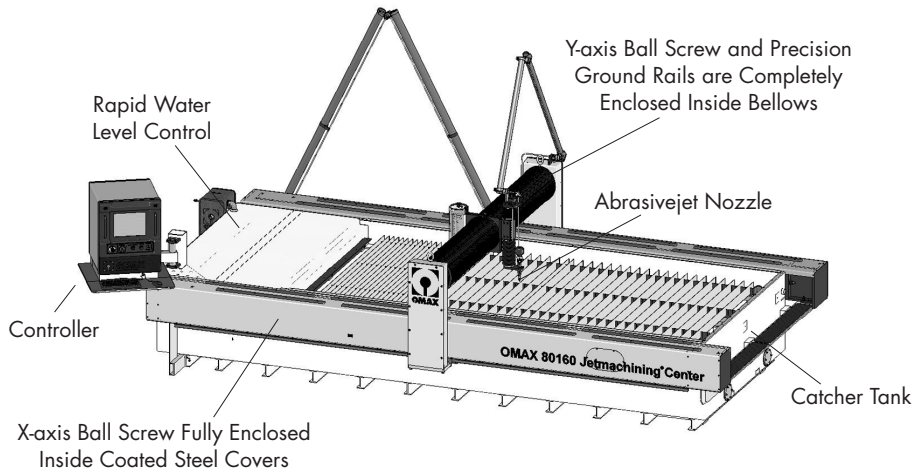


Connect and follow OMAX for the latest news in waterjet technology.



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

# OMAX 80160 JetMachining Center



## Options

- EnduroMAX™ Direct Drive Pump P3060V, P4060V, or P5060V
- DualPUMP Package (redundant 30 hp, 40 hp, or dual EnduroMAX option)
- Tilt-A-Jet Cutting Head for taper compensation
- Solids Removal System (SRS)
- Z-axis Drill
- Precision Optical Locator (POL)
- Water-only MAXJET 5 for cutting soft materials
- OMAX MAXJET 5 MiniJet Nozzle Assembly
- Second MAXJET 5 with Motorized Z-axis and all necessary hard plumbing (requires second Y-axis carriage)
- Manual Tilt Z
- Stone Cutting Kit
- Weir Tank
- Tall Slit Package
- Waterjet Brick Kit
- Catcher Tank Armor Plating
- A-Jet™
- Material Holding Kit
- A-Jet/Terrain Follower
- Collision Sensing Terrain Follower (CSTF)
- Laser Feature Finder

## Machine Dimensions

<b>Footprint</b> (with controller)	243" x 134"	(6,170 mm x 3,405 mm)
Footprint with optional SRS	288" x 134"	(7,315 mm x 3,405 mm)
<b>Weight</b> (tank empty)	10,000 lbs	(4,500 kg)
<b>Height</b> (with scissor plumbing)	144"	(3,660 mm)
<b>Operating Weight</b>	35,000 lbs	(15,900 kg)

## Work Envelope

<b>X-Y Travel</b>	168" x 80"	(4,267 mm x 2,030 mm)
<b>Table Size</b>	174" x 89"	(4,419 mm x 2,261 mm)
<b>Material Support Slats</b>	4" x 1/8" Galvanized Steel	
<b>Maximum Supported Material Load</b>	400 lbs/sq ft	(1,950 kg/sq meter)

(Optional accessories may reduce travel. Contact OMAX for information.)

## Computer Control System

<b>Hardware</b>	Personal computer
<b>Control Software</b>	Integrated CAD/CAM system directly uses DXF files

## Drive Description

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

## Accuracy of Motion at 70° F

<b>Ballbar Circularity (Over 12")</b>		
<b>At Max. Traverse Velocity</b>	±0.003"	(±0.08 mm)
<b>Repeatability</b>	±0.002"	(±0.051 mm)
<b>Squareness</b>	0.002" per foot	(0.17 mm/m)
<b>Straightness</b>	0.003" per foot	(0.25 mm/m)
<b>Backlash</b>	0.0007" maximum	(0.018 mm)

## Speed

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

## Electrical Requirements

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

## Pump Options

- 30 horsepower, 55,000 psi (3,850 bar)
- 40 horsepower, 55,000 psi (3,850 bar)
- DualPUMP Package (redundant 30 hp, 40 hp, or dual EnduroMAX option)
- EnduroMAX Direct Drive Pump P3060V, P4060V, or P5060V (delivers 60,000 psi)

## Noise Level

- Below 80 dBA at 1 meter for submerged cutting

## 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](http://www.omax.com).



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