



PRECISION ABRASIVE WATERJET SYSTEMS

# 120X SERIES



## OMAX 120X Series JetMachining Center

The large format bridge-style 120X Series JetMachining Centers are ideal for full scale production of large or multiple part projects. Available in a variety of machine lengths, each model features the advanced patent-pending high-precision Intelli-TRAX® linear drive technology designed exclusively for the abrasive waterjet environment. With innovative accessories such as the DualBRIDGE, Tilt-AJet®, A-Jet®, and Rotary Axis, the 120X Series is a robust and versatile system that provides superior performance to maximize productivity and profitability.

### FEATURES

- Fastest 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
- Increase machining capacity with optional DualBRIDGE system
- Low maintenance, high reliability scissor-style hard plumbing
- Drive system sealed against water, dirt, and grit.
- High efficiency Generation 4 EnduroMAX pump systems available up to 100 hp with operating efficiencies up to 90%
- Rapid Water Level Control for quiet and clean submerged cutting
- Bulk Abrasive Feed Assembly transports garnet from the assembly's large hopper into the Zero Downtime Hopper located at the Motorized Z-Axis
- Shipped pre-assembled and factory-tested

### BENEFITS

- Machines a wide range of materials and thicknesses, from metals to glass
- Does not create heat-affected zones or mechanical stresses
- No tool changes and minimal fixturing reduces setup by 50% or more
- No additional water required for pump cooling
- Small, efficient footprint for minimal floorspace utilization
- Leaves behind a satin-smooth edge, reducing secondary operations
- No noxious gases, liquid and oils used in, or caused by, the machining process
- EnduroMAX pump technology delivers the highest nozzle horsepower in the industry for faster and more efficient cutting
- Completes most work below 80 dBA at one meter for submerged cutting
- Environmentally "green" system with quiet and clean operation with low electrical consumption
- Highly robust and reliable pump design capable of over 1000 hours between maintenance

# 120X SERIES

## MACHINE DIMENSIONS

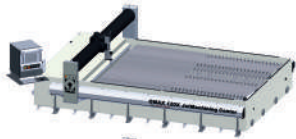
|                                |   |
|--------------------------------|---|
| Footprint (with controller)    | 21'8" x 17'3" to 48'9" x 19'2"<br>(6,604 mm x 5,258 mm to 14,859 mm x 5,842 mm) |
| Weight (tank empty)            | 12,000 lbs to 30,000 lbs<br>(5,443 kg to 13,607 kg)                             |
| Height (with scissor plumbing) | 14'0" (4,267 mm)  |
| Operating Weight               | 48,630 lbs to 117,160 lbs<br>(22,060 kg to 53,142 kg)                           |

## WORK ENVELOPE

|                     |   |
|---------------------|---|
| X-Y Cutting Travel* | 13'4" x 10'0" to 40'0" x 10'0"<br>(4,064 mm x 3,048 mm to 12,192 mm x 3,048 mm)   |
| Z-Axis Travel*      | 8" (203mm)  |
| Table Size          | 14'11" x 11'5" to 41'10" x 11'5"<br>(4,547 mm x 3,480 mm to 12,751 mm x 3,480 mm) |

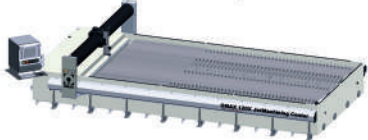
## DRIVE DESCRIPTION

- Closed loop, digital drives
- Brushless servo motors
- Intelli-TRAX drive technology with linear encoders in X-Axis
- Precise Motorized Z-Axis



### 120X/S

X-Y Cutting Travel:  
13'4" x 10'0"



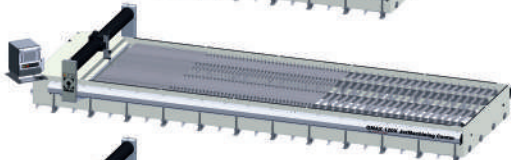
### 120X

X-Y Cutting Travel:  
20'0" x 10'0"



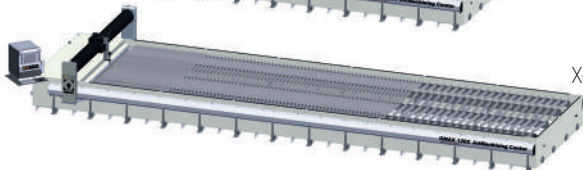
### 120X-1

X-Y Cutting Travel:  
26'8" x 10'0"



### 120X-2

X-Y Cutting Travel:  
33'4" x 10'0"



### 120X-3

X-Y Cutting Travel:  
40'0" x 10'0"

## 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)                          |                        |
| Electrical Requirements         | 3-Phase, 380-480 VAC ±10%, 50-60 Hz                        |                        |
| Noise Level                     | Below 80 dBA at one meter for submerged cutting            |                        |
| Speed                           | 180 in/min to 350 in/min<br>(4,572 mm/min to 8,890 mm/min) |                        |
| Accuracy of Motion at 70° F     | Ballbar Circularity (Over 12")                             | ±0.005"<br>(±0.127mm)  |
|                                 | Repeatability  | ±0.002"<br>(±0.051 mm) |

## OPTIONAL ACCESSORIES

- DualPUMP Package (redundant dual EnduroMAX option up to 100 hp)
- Tilt-A-Jet Cutting Head
- Variable Speed SRS (VS-SRS)
- Collision Sensing Terrain Follower (with Tilt-A-Jet only)
- Z-Axis Drill
- Precision Optical Locator (POL)
- Water-only MAXJET 5 for cutting soft materials
- OMAX Mini MAXJET 5i Nozzle Assembly
- Manual Tilt Z
- DualBRIDGE second bridge option
- Second MAXJET 5i with Motorized Z-Axis and all necessary hard plumbing (requires second Y-Axis carriage)
- Laminar Filter
- Waterjet Brick Kit
- Rotary Axis
- Air and Water Conditioning Kit
- A-Jet
- Terrain Follower/A-Jet
- Material Holding Kit
- Laser Feature Finder

\*Optional accessories may reduce travel. Photos may show optional accessories. For a complete list of accessories, contact an OMAX sales representative. Pumps are built to meet UL and CE specifications. Contact OMAX for detailed utility requirements.

## 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 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 JetMachining Center can save you time and money, call or visit our website and request a free part analysis today.



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

Specifications subject to change without notice.  
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