

# Typical Users & Applications

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The Waterjet Machine Tool Market has emerged as the fastest growing special machine tool market segment, with a growth rate forecast at 9.1% for the years 1997-2004, according to research by Frost & Sullivan.

## OMAX JetMachining Centers are Used Everyday for These Applications:

### Machines virtually any materials

- Inconel
- Titanium
- Stainless Steel
- Glass
- Brass
- Composites
- Ceramics
- Aluminum
- Mild Steel
- Hardened Tool Steel

## Comparison with Other Machine Processes:

### ABRASIVE MACHINING VS. WIRE EDM

1. 5-10 times faster
2. Cuts conductive and nonconductive material
3. No heat-affected zone

### ABRASIVE MACHINING VS. LASER

1. One-third the initial investment
2. Cuts reflective materials and parts up to 2" thick
3. No thermal distortion

### ABRASIVE MACHINING VS. MACHINING CENTERS

1. Less set up time
2. No preprocessing of materials
3. No tool wear
4. Better material utilization

## Typical Users of Abrasivejet Technology:

### JOB SHOPS

Produce a wide variety of short-run parts  
Complements CNC Milling Machines & Flame Cutters

### WIRE EDM SHOPS

Save valuable machine time where  $\pm 0.005$  is acceptable

### LASER SHOPS

Capitalize on the ability to cut thicker materials & reflective materials

### AEROSPACE SHOPS

Work with materials that are affected by heat (titanium, aluminum)

### TOOLING SHOPS

Work with heat-treated/hardened tool steel

### PROTOTYPE & R&D SHOPS

Work directly from CAD drawings  
Make quick changes in part geometry or dimensions

### MAINTENANCE & REPAIR SHOPS

Produce one-off parts on a quick turnaround basis

### MANUFACTURERS

Control Just-in-Time inventory requirements

### METAL FABRICATORS

Offer "clean edge" plate work, i.e., brackets, machine parts & weldments, etc.

### ARCHITECTURAL FABRICATORS

Glass, Stone, Tile & Metal

### ABRASIVEJET ONLY SHOPS

### OTHER SHOP APPLICATIONS

Work with expensive materials and want to minimize scrap  
Work with materials that are difficult to machine conventionally  
Free up conventional machine tools and skilled labor

## Equipment Features

### Model 80160



**Dynamic Positioning Accuracy:**  $\pm 0.005"$  ( $\pm 0.13$  mm)  
**Precision Machining of Prototypes to Production Runs**  
**Table Size:** 175" x 88" (4445 mm x 2235 mm)  
**Footprint:** 243" x 134" (6170 mm x 3405 mm)  
**Weight:** 10,000 lbs (table only) (4500 kg table only)  
**Height:** 144" (3660 mm)  
**X-Y Travel:** 160" x 80" (4060 mm x 2030 mm)

### Model 55100



**Dynamic Positioning Accuracy:**  $\pm 0.005"$  ( $\pm 0.13$  mm)  
**Precision Machining for Larger Stock:** For larger parts or multiple parts from large stock (up to 5' x 10') (up to 1.5 m x 3 m)  
**Table Size:** 126" x 65" (3200 mm x 1650 mm)  
**Footprint:** 126" x 90" (3200 mm x 2300 mm)  
**Weight:** 8,000 lbs (table only) (3629 kg table only)  
**Height:** 70" (1780 mm)  
**X-Y Travel:** 100" x 55" (2540 mm x 1400 mm)

### Model 2652



**Dynamic Positioning Accuracy:**  $\pm 0.003"$  ( $\pm 0.08$  mm)  
**Quick Turn-Around:** For more precise machining and for tool-and-die work.  
**Table Size:** 69" x 30" (1750 mm x 760 mm)  
**Footprint:** 89" x 61" (2260 mm x 1550 mm)  
**Weight:** 3,320 lbs (table only) (1505 kg table only)  
**Height:** 77" (1960 mm)  
**X-Y Travel:** 52" x 26" (1320 mm x 660 mm)

### Model 2626



**Dynamic Positioning Accuracy:**  $\pm 0.003"$  ( $\pm 0.08$  mm)  
**Smaller Work Envelope:** Compact size, precision machining of smaller parts.  
**Table Size:** 40" x 29" (1020 mm x 730 mm)  
**Footprint:** 57" x 55" (1450 mm x 1400 mm)  
**Weight:** 2,810 lbs (table only) (1275 kg table only)  
**Height:** 92" (2340 mm)  
**X-Y Travel:** 24" x 24" (610 mm x 610 mm)

### Direct Drive Pumps:



**P2040V:** 20 hp, 40,000 psi (2760 bar)  
**P3050V:** 30 hp, 50,000 psi (3450 bar)  
**P4055V:** 40 hp, 55,000 psi (3790 bar)



The **OMAX Technology Guarantee** entitles you as the original owner to Free OMAX Software Upgrades for the life of the machine.

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"It's a perfect complement to Wire EDM for short-run and prototyping—any time you need to turn out a part fast. I can save up to 75% of the normal processing time. With an OMAX you can machine virtually any kind of geometry with any kind of material—no heat affected zone."

Steve Miller, President  
Milco Wire EDM  
Huntington Beach, CA



LMS uses the OMAX for in-house die parts such as bridge strippers and blank holders. "Instead of waiting 3 days for an outside tool and die shop to replace a broken bridge stripper," Charnegie says, "we draw it up, cut it out, and we're back in operation in an hour."

Sam Charnegie, Operations Manager  
LMS Stamping  
Bethlehem, PA

OMAX also offers a complete line of accessories to enhance the JetMachining® Center.

