

OMAX JetMachining® Centers

Typical Users and Applications



OMAX JetMachining Center Applications:

Works with many types of materials:

- Aluminum
- Stainless Steel
- Inconel®
- Titanium
- Glass
- Brass
- Composites
- Ceramics
- Natural Stone
- Hardened Tool Steel



Comparison with Other Machining Processes

Abrasive Machining Versus Wire EDM

- 5–10 times faster
- Cuts conductive and nonconductive material
- No heat-affected zone

Abrasive Machining Versus Laser

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

Abrasive Machining Versus Machining Centers

- Less set-up time
- No preprocessing of materials
- Better use of material

Typical Users of Abrasivejet Technology

Job Shops

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

Wire EDM Shops

- Save valuable machine time where ± 0.001 " is acceptable (2626 lxp)

Laser Shops

- Can cut thicker and reflective materials

Aerospace Industry

- Work with materials that are affected by heat such as titanium, and aluminum

Tooling Shops

- Work with heat-treated/hardened tool steel

Prototype and R&D Shops

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

Maintenance and Repair Shops

- Quickly produce one-off parts

Original Equipment Manufacturers

- Control Just-in-Time inventory requirements

Metal Fabricators

- Offer "clean edge" plate work, such as brackets, machine parts and weldments

Architectural Fabricators

- Lets you create complex designs in glass, stone, tile and metal

Abrasivejet Specialty Shops

- Makes parts with higher tolerance than any other abrasivejet system, and makes them faster

Industrial Manufacturing

- Minimize scrap when working with expensive materials
- Work with materials that are difficult to machine conventionally
- Free up conventional machine tools and skilled labor

Why buy an OMAX?

Only OMAX offers the fastest cutting speeds and dynamic positioning accuracy to within ± 0.001 ". The user-friendly system machines virtually any material to a smooth finish with little or no setup necessary. With free software upgrades for the life of your machine, and our ongoing commitment to advance the efficiency of our technology and software, OMAX saves you time and money.

Precision:	Machines parts with a dynamic positioning accuracy of ± 0.001 "
Speed:	Use the OMAX software to quickly create the tool path. Minimal machine set-up time—no complex fixturing needed
Versatile:	Create parts in a wide variety of materials
Quality:	Finished parts need no secondary processes



Ease of Use

OMAX software is flexible and easy to use. Whether you load a file from your favorite CAD program or create it completely in **Layout**, the software makes it easy, while helping to prevent machining errors later on.

When it's time to machine the part, the **Make** software handles all the complex calculations. All you do is tell it what type of material, the thickness, and **Make** calculates a precision tool path at up to 4,000 points per inch, using OMAX's patented "Compute First, Move Later" motion control system.

Fixturing the material is simple too—in many cases, it takes only a few minutes to get everything ready to machine. Once machining starts, the **Make** software takes care of everything—you don't have to adjust the machining process, change feed rates, or pump pressure.

Ease of Use = Lower Expenses

- Parts are created faster
- Less time spent training employees
- Personnel are more productive



Model 80160

Typical Users of Abrasivejet Technology

Job Shops

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

Wire EDM Shops

- Save valuable machine time where ± 0.001 " is acceptable (2626 lxp)

Laser Shops

- Can cut thick and reflective materials

Aerospace Industry

- Work with materials that are affected by heat such as titanium and aluminum

Tooling Shops

- Work with heat-treated/hardened tool steel

Prototype and R&D Shops

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

Maintenance and Repair Shops

- Quickly produce one-off parts

Original Equipment Manufacturers

- Control Just-in-Time inventory requirements

Metal Fabricators

- Offer "clean edge" plate work, such as brackets, machine parts and weldments

Architectural Fabricators

- Lets you create complex designs in glass, stone, tile and metal

Abrasivejet Specialty Shops

- Makes parts with higher tolerance than any other abrasivejet system, and makes them faster

Industrial Manufacturing

- Minimize scrap when working with expensive materials
- Work with materials that are difficult to machine conventionally
- Free up conventional machine tools and skilled labor