

Abrasive waterjet system



Waterjets and abrasivejets are becoming a standard tool in machine shops around the world. This is because they are fast, flexible, precise, and easy to use. Abrasive/waterjet machines are not "weird" specialty machines for niche applications. They are general purpose tools that are useful in any machine shop / job shop.

Abrasive/waterjet machines use the technology of high pressure water typically between 20,000 and 55,000 psi, being squirted through a small opening to create extremely concentrated force in a small area to cut stuff. Waterjet systems pressurize a stream of water, powerful enough to cut through many materials such as wood and plastic. Abrasive waterjet adds an abrasive to the water stream to cut harder and/or thicker materials. Some of the examples are: pre-hardened steel, mild steel, exotics like titanium and hastalloy, gummy 304 stainless, copper, brass, aluminum, brittle materials like glass, ceramic and quartz, stone, laminates, and flammable materials.

Advantages:

- Good control and cutting accuracy
- Small kerf size, efficient use of material
- Provide excellent edge finish
- No heat build up – can cut plastic and rubber
- Capable of cutting complicated geometry
- Easy setup and program – cost effective and quick turn around.
- No noxious gases, liquids or oils are used

Applications:

Abrasive waterjet systems are widely used in many industries including:

- General purpose machine shops
- Artists to cut stained glass, marble, metal sculpture
- Aerospace industry to cut aluminum, and exotic metals
- Marine/shipyard

- Metal work services, EDM/Laser shops, prototyping, and tools
- Automobile and transportation
- Architectural



Technical Data:

Standard cutting tables	1.5m x 2.0m (5ft x 7ft), 1.2m x 1.2m (4ft x 4ft), 2.0m x 3.0m (7ft x 10ft) or custom design
Control Accuracy	±0.01mm (0.00039 inches)
Cutting Accuracy	±0.1mm (0.0039 inches)
Cutting materials	metal and metal alloy, multi-layer composite material, granite, marble etc.
Metal cutting thickness	up to 50mm (2 inches)
Repeatability	3,000mmpm(10,000 mmpm*)
Traverse speed	2.5 to 1,200mmpm
Control system	SqMaster®
Z-axis adjustability	150mm (6 inches)
Cutting pressure	300MPa (43,500 psi)
Integrated pumps	22 and 37Kw (30 and 50 hp)

*AC Servo Motors

Ordering information:

Three models are available:

- AG-WJ-0404 ----- cutting table size 4ft x 4ft
- AG-WJ-0507 ----- cutting table size 5ft x 7ft
- AG-WJ-0710 ----- cutting table size 7ft x 10ft

Some samples:

