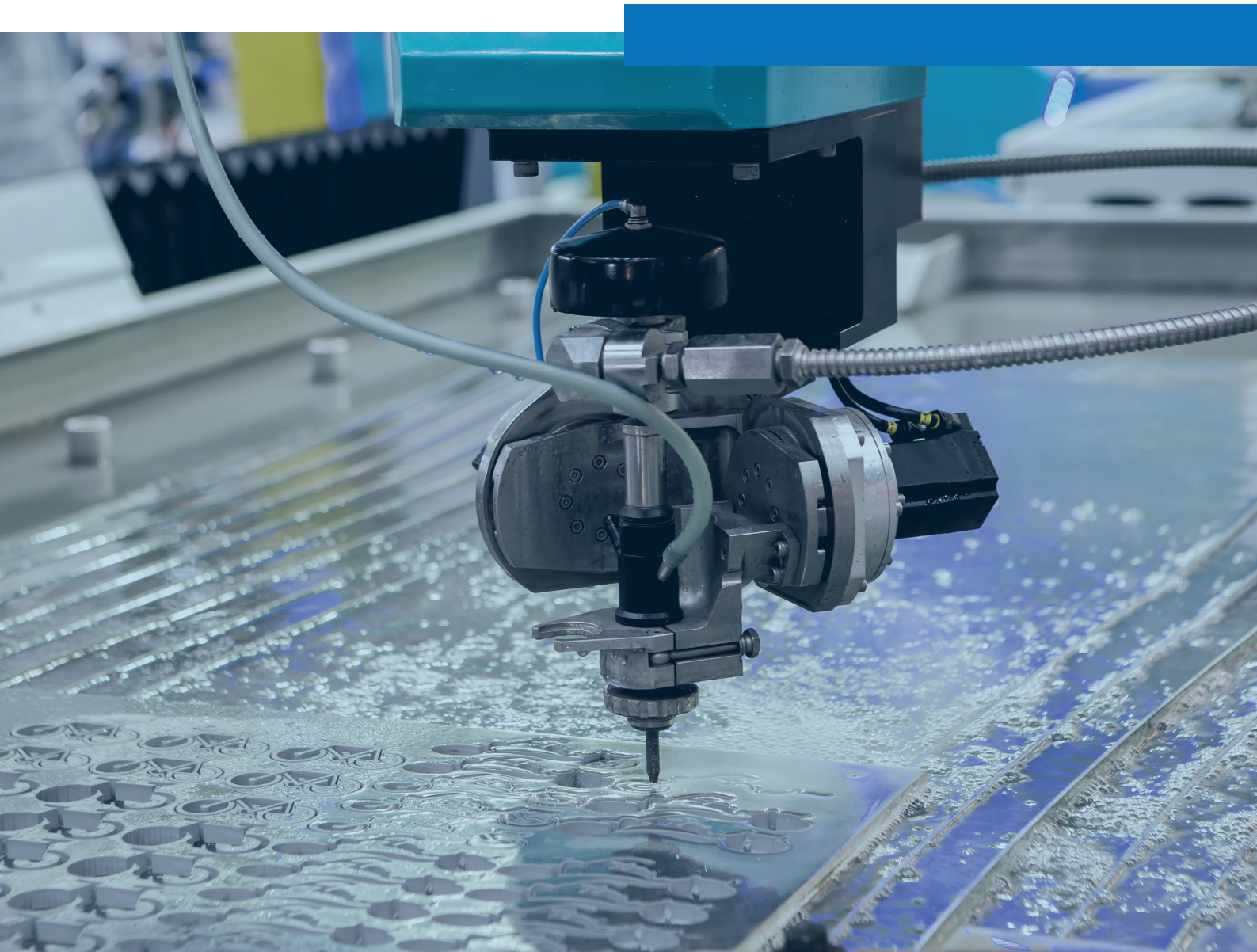




SHIV WATERJET
SEE FEEL BELIEVE DESIGN

Manufacturer and Supplier of

WATER JET CUTTING MACHINES



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ABOUT COMPANY

SHIV WATER JET

Since 2008, "Shiv Water Jet" has become a leading manufacturer and supplier of Water Jet Cutting Machines, renowned for quality and high demand in various industries. Our dedicated team of experienced professionals ensures efficient business operations, supported by advanced infrastructure and a well-equipped quality testing lab. Guided by Mr. Hareh Bhai Jogani, our mentor, we've gained client satisfaction and a reputable position in the industry.



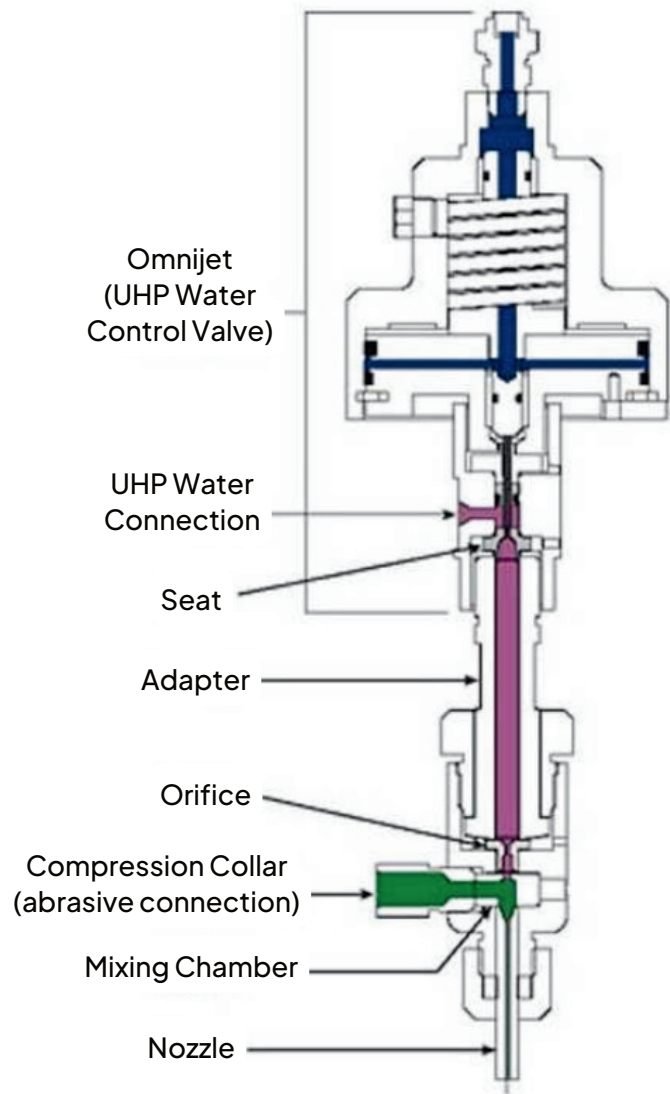
OUR TEAM

We have cast a team of highly motivated and industry-best professionals in our organization. This team of professionals holds vast industry experience and expertise. In addition to this, these professionals are equipped with essential technical aids that enable them to ensure a smooth and sophisticated production of our quality products. Moreover, this team is segregated into various sections and sub-sections per their systematic position in the organization. It assists us in the easy distribution of responsibilities as per the roles of personnel.

OUR TEAM COMPRISES:

- Engineering Professionals
- Technocrats
- Quality Testing Professionals
- Finance Professionals
- Sales & Marketing Personnel's
- Administration Staff

WHAT IS WATER JET ?

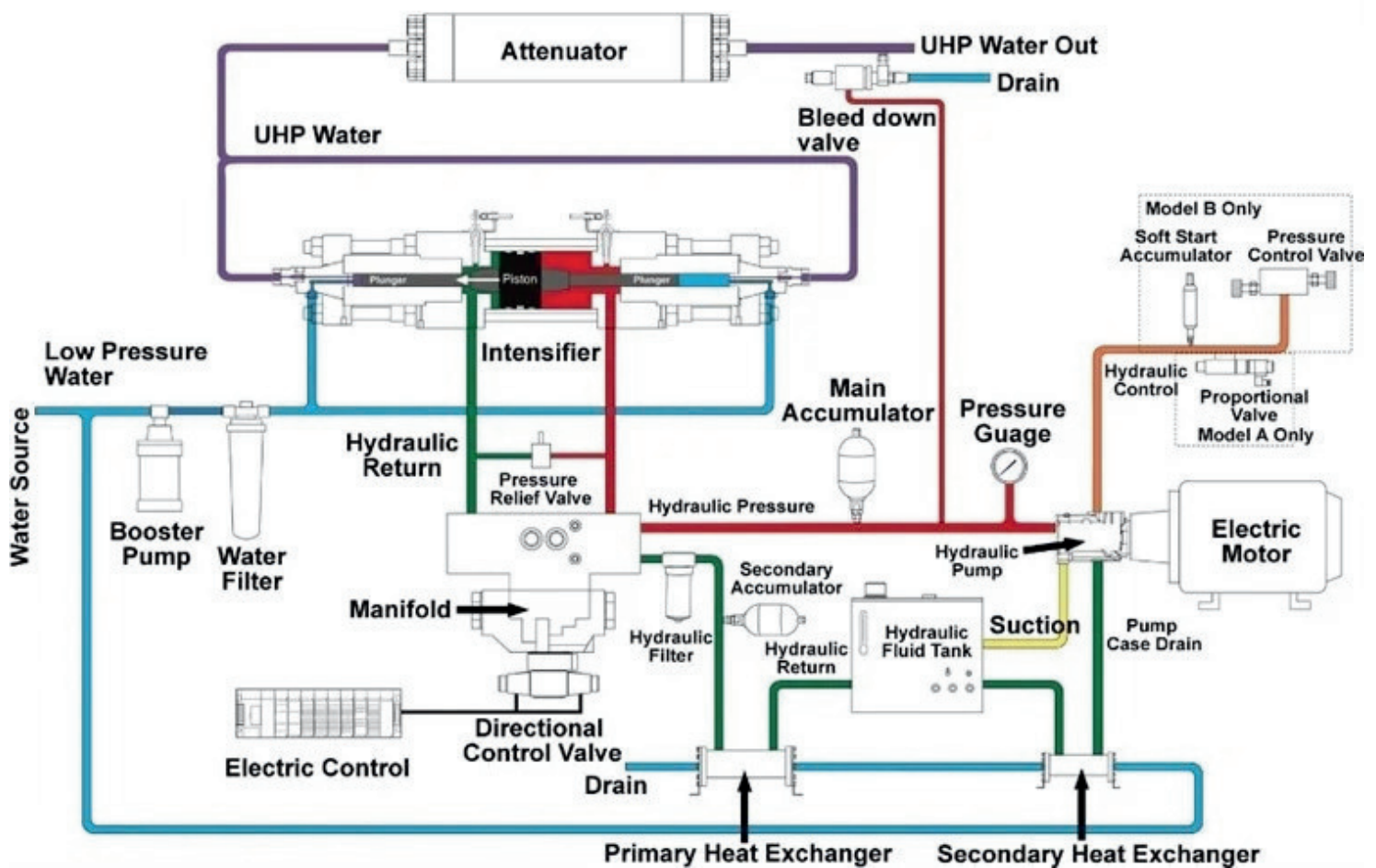


Water jet cutting machine is an industrial tool capable of cutting a wide variety of materials using a very high-pressure jet of water and abrasive. It is the most versatile cutting machine, which is able to provide through cut in almost any material. The highly pressurized water stream is forced through a tiny hole which carries abrasive garnet to erode away the material. It can be used to cut steel, stainless steel, aluminum titanium marble granite tile aluminum, titanium, marble, granite, tile ceramic, glass, rubber, foam and many other materials.

WATER JET WORKING PRINCIPLE

Electric motor drives the hydraulic pump to push the Hydraulic oil into the intensifier.

Directional control valve controls the oil flow to push the piston in the intensifier



The piston moves back and forth to press the ultra-high pressure water into the attenuator and then transported to the cutting head with extremely high pressure. the oil flow to push the piston in the intensifier

MAIN BENEFITS OF WATERJET CUTTING

- Extremely fast transition from drawing to cutting
- Faster setup - with low tangential forces often eliminates the need for clamping
- High accuracy - eliminates secondary cutting
- Fast cutting speed
- Eliminates the need to sharpen tools
- Safer for operators and the environment - Avoids vapor, dust and smoke and does not require expensive coolants
- Cold cutting process - eliminates heat-affected zones, hardened material and material stresses
- Clean finished product eliminates secondary cleaning operations
- Burr-free finish eliminates any need for secondary surface finishing for most applications
- Small kerfs
- Ideal for quick prototype, flexible production and proven for high volume production
- Optimum material utilization with CAD/CAM software
- Customized system solutions





WATER JET CUTTING MACHINE

Shiv Water Jet's Water Jet machining center boasts a large bed area and utilizes the latest CNC controls, ensuring high-quality and efficient cutting. With a 30 horsepower pump delivering 60,000 psi to the cutting head, the advantages of Water Jet cutting include its ability to cut non-machinable materials, serving as an alternative to casting forged blanks. This versatile and environmentally friendly process offers ultra-precise cutting, fast setup, minimal fixturing, and eliminates the need for start holes, making it a reliable and superior choice over competing methods like routers, hi-def plasma, laser cutting, and EDM.

Model	X- axis	Y- axis	Z - axis	Controller	Positioning Accuracy	Repeat Accuracy	Travel Speed
1515 SW	1500mm	1500mm	200mm	CNC Controller OR PC Based	0.01mm	0.01mm	Upto 5000mm/ min.
1525 SW	1500mm	2500mm	200mm				
1535 SW	1500mm	2000mm	2000mm				
3020 SW	3000mm	2000mm	210mm				
3025 SW	3000mm	2500mm	210mm				
3030 SW	3000mm	3000mm	210mm				
3040 SW	3000mm	4000mm	210mm				

ABRASIVE WATER JET CUTTING MACHINE

Shiv Water Jet is a leading international company specializing in Abrasive Water Jet Cutting Machines. Our innovative machines use high-pressure water mixed with abrasive garnet to precisely cut through a variety of materials. Known for their design, execution, and durability, our products offer satisfactory services at reasonable rates. We prioritize clear communication with clients to meet their specific requirements and ensure customer satisfaction.



What Materials Can Be Cut with Abrasive Water Jet Cutting?

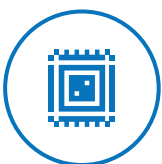
Metals (steel, aluminum, brass, copper, etc.), Plastics, Glass, Stone (granite, marble, etc.), Ceramics, Composites, Fabrics, Food (for intricate cake decorations!)



FOAM WATER JET CUTTING MACHINE

We offer a diversified gamut of quality approved Foam Water Jet Cutting to our esteemed clients. We take utmost care in our manufacturing process and follow all the quality guidelines to provide a defect-free range to our clients. We use premium quality raw materials to provide the offered range. Clients can avail of the offered range at very impressive prices.

Features



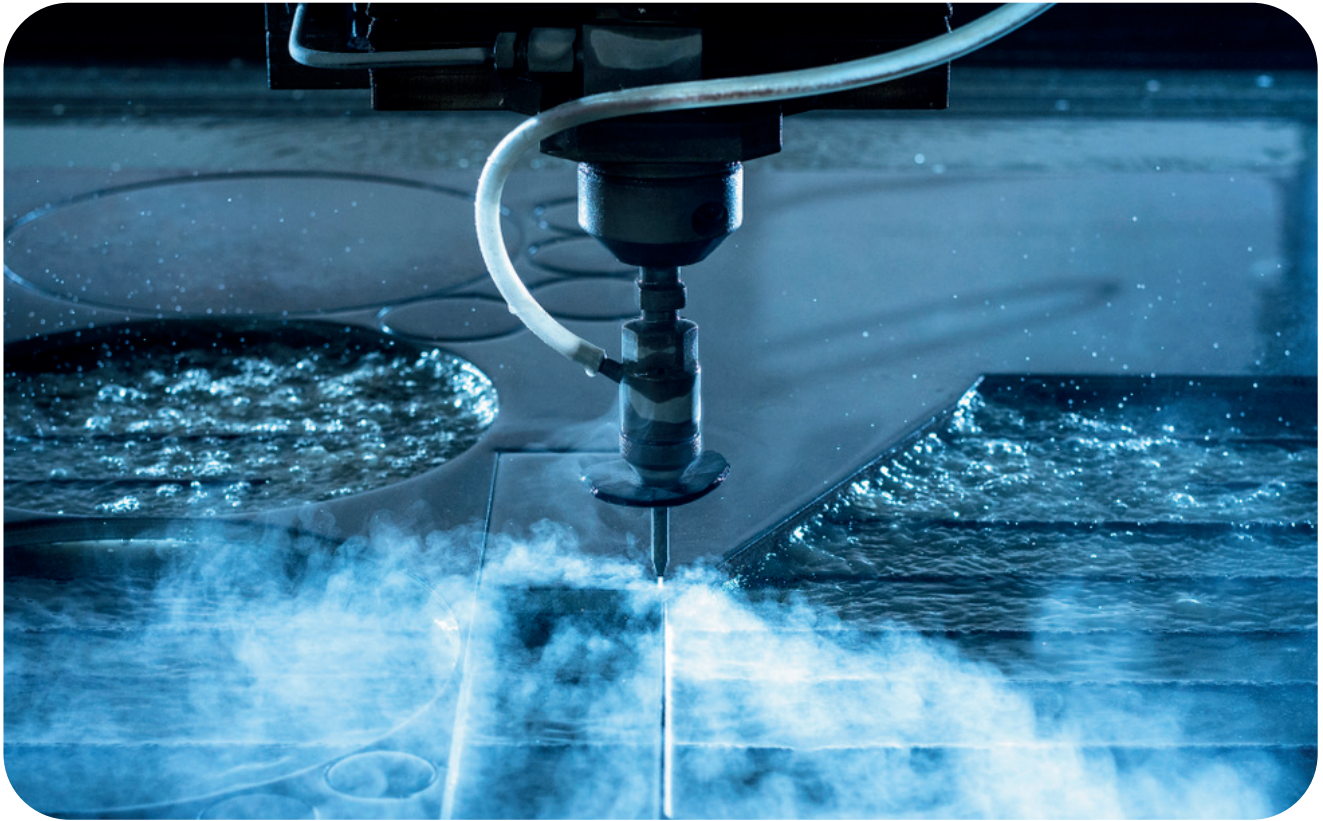
Rugged
Design



Abrasion
resistance



Perfect
Finish



MILD STEEL WATER JET CUTTING

We bring forth for our clients non-corrosive Mild Steel Water Jet Cutting at a very nominal price. These services are the hard efforts of our team and are tested by them on all the relevant quality parameters. Considering the client's satisfaction supreme, we have incorporated the basic raw material that is above par across the industry, in our manufacturing process. Clients can avail of the offered services at very impressive prices.

Standards	AISI(American Iron and Steel Institute)
Orifice	Sapphire, Ruby

Features



High shear strength



Rust-free



Durability



CNC WATER JET CUTTING MACHINE

CNC water jet cutting machines are incredibly versatile tools that can be used to cut a wide variety of materials, from delicate fabrics to thick steel plates. They use a high-pressure stream of water, mixed with an abrasive for harder materials, to precisely cut through the material.

Some of the benefits of using a CNC water jet cutting machine include:

- **Versatility:** Can cut a wide variety of materials, including metals, plastics, glass, stone, and more.
- **Precision:** Can cut intricate shapes with high accuracy.
- **No heat-affected zone:** The cold cutting process does not create any heat, which can damage or warp the material.
- **Minimal waste:** The narrow kerf width of the water jet minimizes waste material.
- **Environmentally friendly:** Water jet cutting is a clean and environmentally friendly process that does not produce any harmful fumes or emissions.



Here are some of the common applications for CNC water jet cutting

- Metal fabrication: Cutting sheet metal, plates, and tubes for various applications.
- Gasket and seal cutting: Cutting intricate shapes for gaskets and seals used in various industries.
- Stone and tile cutting: Cutting countertops, flooring, and other decorative elements.
- Art and design: Creating sculptures, signs, and other artistic pieces.

Overall, CNC water jet cutting machines are a powerful and versatile tool that can be used for a wide variety of applications. If you are looking for a cutting tool that can handle a variety of materials and produce high-quality results, then a CNC water jet cutting machine is a great option.



WATER JET CUTTING SOFTWARE

Waterjet cutting software revolutionizes manufacturing by providing complete control over waterjet machines, allowing precise regulation of nozzles across 2D to 5-axis capabilities. This technology enables the production of intricate features on various materials, ensuring high-quality components with exceptional precision and efficiency. We offer both software and machines for this innovative process.

Waterjet cutting software can cut a variety of materials such as wood, stone, ceramics (organics), steel, Inconel, Titanium, Aluminum (metals), and advanced composites like ballistic materials, plastics, and carbon fiber.

Features

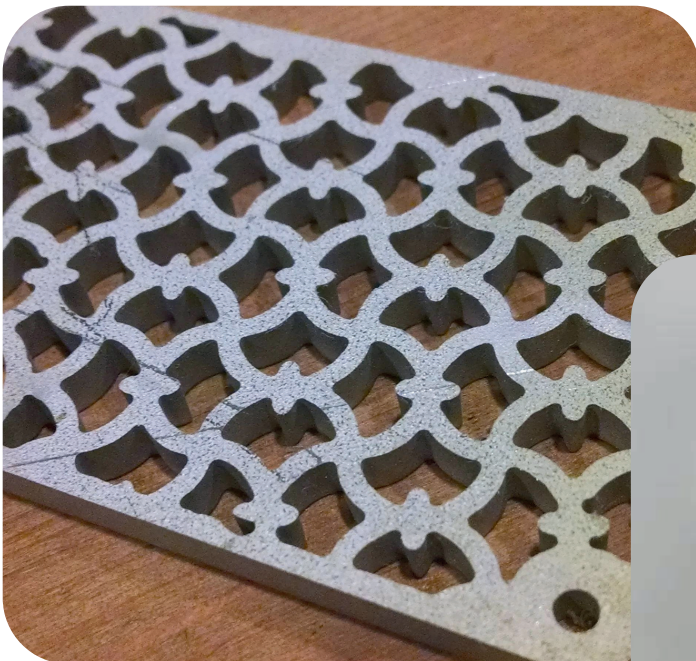
- Seamless G-code generation
- Powerful design tools
- Integrated CAM capabilities
- Realistic simulation & verification
- Nesting and fabrication

METAL CUTTING

For cutting metals, water jet cutting is the most versatile cutting method compared to laser and plasma cutting. Water jet cutting can be used to cut thicker metals including titanium and aluminum. Abrasive water jet systems are also less expensive than laser systems, making them a solid choice for metal cutting and steel cutting in the fabrication industry.

► Advantages of Cutting Metal with Water jet:

- No material deformation caused by heat
- No hardening of the material along the cut edge
- No changes to the metal structure
- No heat affected zones (HAZ)
- No hazardous fumes or vapors
- None or minimal need for reworking

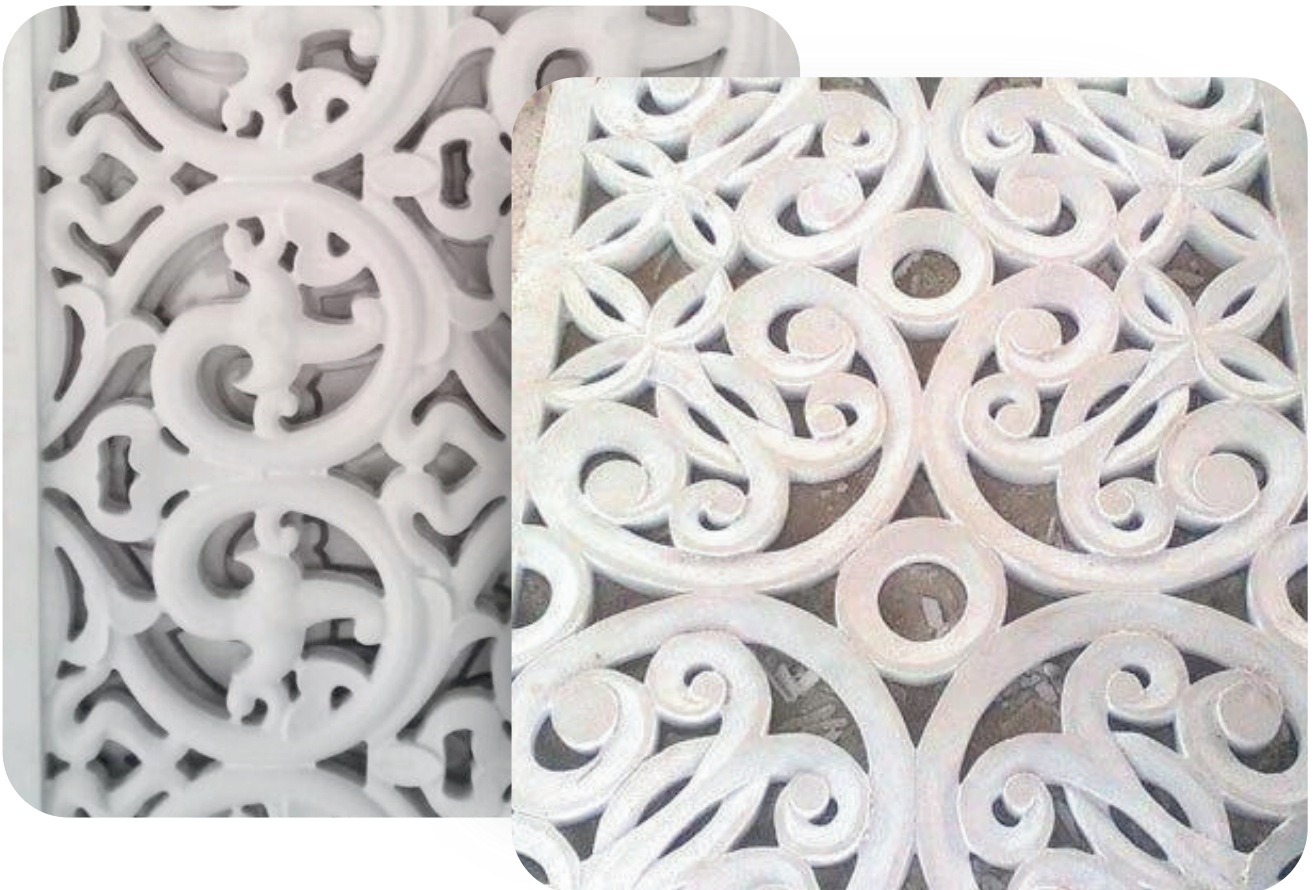


STONE CUTTING

Water jet machines are perfect for creating corporate logos in decorative designs on walls or inlaid into floors, countertop parts, faucets, and sinkholes as well as a smoother radius off sharp edges of slabs cut with saws.

Ideal for Job Shop owners, stone cutting, marble cutting, granite Cutting and Tile can all be fabricated by designers, for nontraditional "Zero gaps" cutting circular, square, oval, tile rugs, stone rugs, Borders, murals, entry ways, kitchens, bathrooms, octagon patterns, Medallion designs, border and accent tiles, polished, unpolished and textured porcelain.

Most of the interior designers specify the use of water jet because of the Intricate patterns and inlays in the hotels.

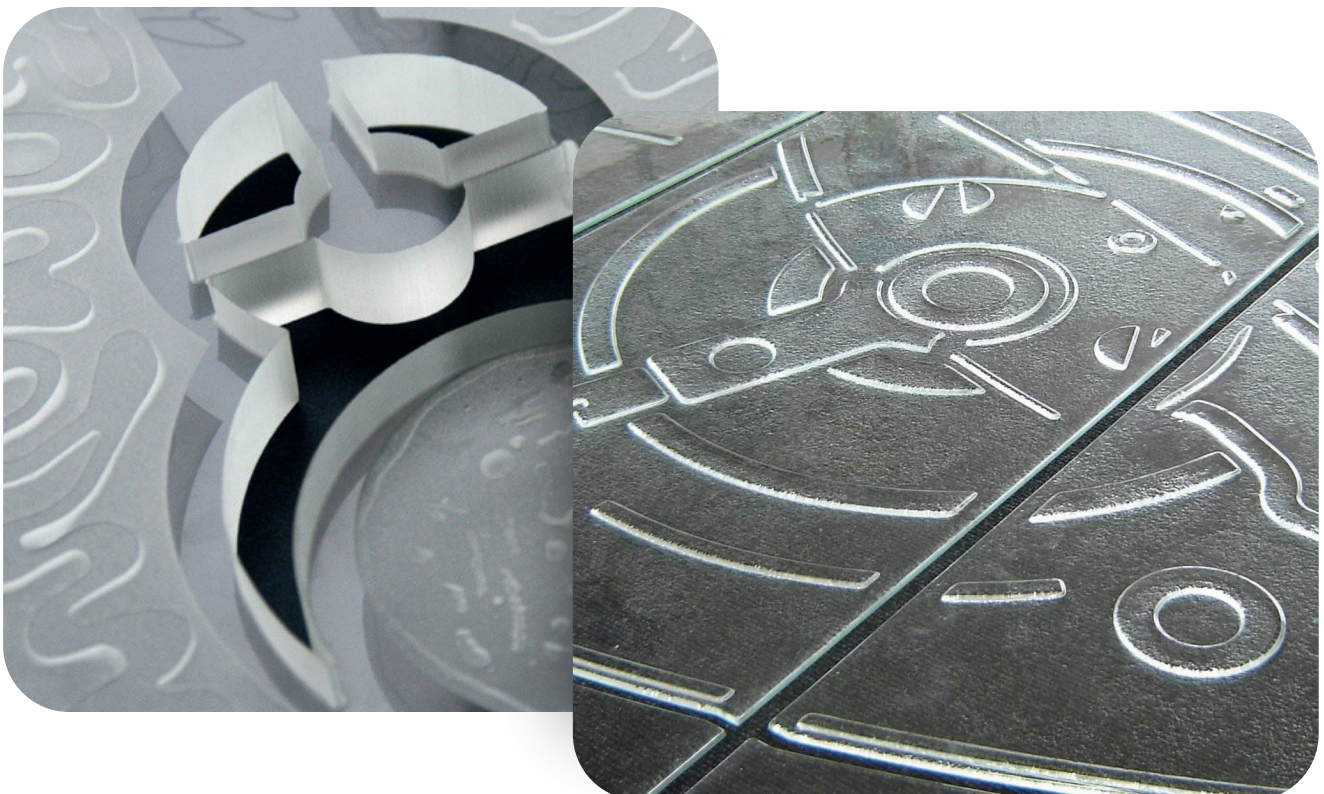


GLASS CUTTING

Abrasive water jet cutting technology is a great method for cutting glass because it allows for contours and shapes that cannot be achieved with other cutting machines at a reasonable cost. From artistic tabletop inlays to detailed stained glass designs, mirrors, glass ornaments, replacement windows for antique cars, and more, there's almost no glass cutting application that a water jet-cutting machine can't tackle.

Glass tends to crack, so the initial holes must be produced with a reduced pressure of 80Mpa. Subsequently, the pressure must be increased to a cost-effective cutting speed.

For glass, ceramics and other brittle materials, you must gradually increase and reduce the cutting pressure by means of proportional pressure control of the intensifier pump, otherwise the material would be destroyed. Is or inlaid into floors, countertop parts, faucets, and sinkholes as well as a smoother radius off sharp edges of slabs cut with saws.





WATER JET NOZZLE

The water jet nozzle is the unsung hero of the water jet-cutting world. This seemingly simple piece of equipment plays a crucial role in transforming powerful streams of water into precise cutting tools. Imagine it as the “business end” of a water jet, where raw force meets focused direction.

What it does:

- Focuses the water stream: The nozzle channels the high-pressure water into a concentrated jet, amplifying its cutting power.
- Controls the flow rate and shape: Different nozzle designs create varying water jet shapes, like thin streams for intricate cuts or wider jets for faster material removal.
- Protects internal components: The nozzle acts as a barrier, shielding delicate parts from the abrasive materials used in cutting.

Types of nozzles:

- Straight nozzles: For basic, straight cuts.
- Abrasive nozzles: Contain a chamber for mixing water with abrasive garnet for cutting harder materials.
- Orifice nozzles: Feature a small, precise opening for high-velocity, focused cuts.
- Angle nozzles: Direct the water jet at an angle for bevel cuts or reaching tight spaces.

Material

Stainless steel | Carbide | Diamond



Motor Horsepower	30 HP, 50HP
Power Source	Hydraulic
Discharge Pressure	2.5L per/min, 3.7L per/Min

HIGH PRESSURE PUMP 30/50HP

Water jet machines use high-speed jets to cut materials with great accuracy and a smooth finish. They are used for cutting metals, glass, marble, ceramic tiles, and granite. The machine consists of a CNC cutting table and ultra-high-pressure pump, and uses a cold supersonic abrasive erosion process to cut materials without creating a heat-affected zone. The pressurized water stream carries an abrasive garnet to erode the material.

Reference Cutting speed

Materials	Thickness (mm)	Cutting speed (mm/min)	Cutting Pressure (Mpa)
Steel/ Stainless steel	2	800-1200	350
	5	300-500	
	10	100-200	
	20	50-90	
	40	25-40	
	80	10-18	
	100	2-6	
Aluminum	6	500-1000	350
	20	130-260	
	50	50-70	
Copper	5	400-700	350
	10	150-250	
Titanium	2	800-1200	350
	5	300-500	
Glass	6	1000-1500	350
	12	500-700	
	20	240-400	
Marble	10	700-1200	350
	20	300-800	
	30	150-300	
Granite	10	500-1000	350
	20	250-650	
	30	125-260	
Ceramic	10	1200-1500	350

SPARE PARTS



Water Pump Spare parts

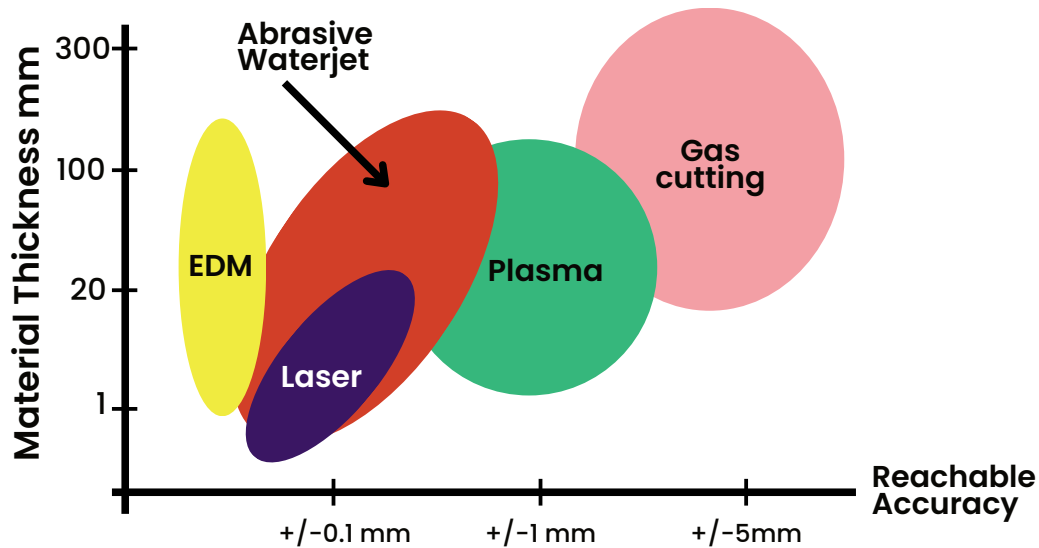


Water Jet Spare parts



High Pressure Fittings

WATERJET VS OTHER CUTTING TECHNOLOGIES



TECHNOLOGY - COMPARISON

	Waterjet	EDM	Laser	Plasma	Gas Cutting
Thickness	++	++	-	++	++
Diversity	++	-	+	--	-
Quality - Surface Finished	++	++	+	-	--
Saving Finishing Operation	+	++	+		--
Speed	-	--	++	++	+
University	++		+	-	
Environmental Friendliness	++	--	--	--	--
Flexibility	++	-	+	-	--
Heat affected Zone	++	++		-	--
Metallurgical Damage	++	++		--	--
Total Processing Time	++	++	+	-	
Operation Cost		+		+	++
Investment Cost	100%	60%	200%	80%	40%



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THANK YOU

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