TECHNI WATERJET™ IS COMMITTED TO MANUFACTURING WATERJET CUTTING MACHINES THAT ARE EASY TO OPERATE, RELIABLE, ACCURATE AND WILL LAST BEYOND OUR CUSTOMERS’ EXPECTATIONS.

Our machines incorporate unique features that have been developed and implemented through our commitment to Research & Development. Features such as:

1. We were the first company to incorporate a Crash Sensing Break Away Head to a production abrasive waterjet cutting machine.

2. We incorporate a unique drive system which utilizes a highly-tensioned, precision stainless steel band, which allows us to achieve very fast cutting and traverse speeds (more than twice as fast as other major brands), while maintaining extremely high tolerances, and being able to withstand the very harsh waterjet environment in the case of water and abrasive coming into contact with the drive system.

3. We developed the patented Tech-Sense™ monitoring system that notifies an operator if the cutting head isn’t working efficiently. When connected with the latest mobile phone technology, you can remotely communicate with your machine - ideal for “lights out” operation.

4. We incorporate a linear scale feedback on our premium product range “Techjet-X3®”. The linear scales give positional feedback to .001mm (0.00004”), making them the most accurate waterjet machines within their price range by far.

5. The patented EZY-Load series of material handling has revolutionized the Glass and Stone industries. The EZY-Loader allows for rapid loading/unloading of these brittle materials with ease.

6. TECHNI Waterjet™ is the only waterjet manufacturer to offer the patented “MPG” technology which allows the operator to automatically step through the program - forwards and reverse.

7. The PAC 60 is the most advanced 5 axis cutting head available in the World of Profile Cutting Machines. The patented design incorporates Direct Servo Technology that enables the highest level of precision to eliminate taper, while enabling beveling of up to +/- 60 degrees.
ABOUT WATERJET

Waterjet cutting is an amazing technology. By utilizing some of Earth’s most common resources, water and stone, we are able to cut almost any material in thicknesses up to 8” (200mm). Modern developments in waterjet cutting technology, software, and the machines that drive them has made waterjet cutting the fastest growing machine tool industry on Earth. This is largely due to the fact that waterjet is by far the most versatile cutting process, and with the latest developments has now become very economical. Add to this its simplicity, reliability, and environmental credentials, it’s no wonder waterjet is rapidly becoming the cutting process of choice throughout most industries.

VERSATILE

Waterjet is capable of cutting "any" material including; Stainless Steel, Aluminum, Glass, Marble, Plastic, Rubber, Cork and Wood, just to name a few.

POWERFUL

Capable of cutting up to 200mm (8") thick steel.

ACCURATE

With waterjet cutting, part deformation is avoided and high cutting accuracy is achieved without leaving any frayed edges or burrs.

NO HEAT AFFECTED ZONE

Resulting in less warping of components, increased cutter life on secondary operations and no grinding for weld preparation.

FLEXIBLE

Any two-dimensional shape can be cut by a simple program done on the machine CAD system or from any DXF file either networked, downloaded through the inbuilt modem, or from a USB disk or CD.

CLEAN

Waterjet produces no smoke or toxic gases because there is no burning process.

FAST

Rapid set up times, no tooling and reduced need for secondary operations due to its accuracy and quality of the cut edge.
WATERJET IS A “COLD CUTTING” PROCESS THAT PRODUCES NO HEAT AFFECTED AREAS OR BURNT EDGES.

Waterjet is **Versatile, Powerful & Accurate.**

Due to its very small stream size (approximately 1 mm or 0.040”) even the most intricate patterns can be cut out.

With its extremely high pressure (up to 90,000 psi) materials up to 8” thick are easily cut.

**Stainless Steel**  
**Aluminium**  
**Glass**  
**Marble**  
**Plastic**  
**Rubber**  
**Cork**  
**Wood**  
**Exotic Metals**  
**Foam**  
**Granite**  
**Copper**  
**Stone**  
and more...

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**GLASS**

Glass cutting is an ideal application for waterjet. Without any tooling or set up changes you can go from cutting the most delicate lead light glass, through to the strongest 100mm (4”) thick laminated bullet resistant glass. The very fine cutting stream (approx. 1 mm or 0.040”) enables cutting of almost any shape, no matter how fine or intricate, with almost no load from the cutting process being applied to the glass. As long as you can handle it, waterjet can cut it.

“Waterjet cutting has revolutionized how we process our flat glass. No longer do we tie up our expensive, and slow CNC machines with work that can be done much faster on the waterjet.”

Dennis Loudoun  
BEVELLITE GLASS IN SYDNEY

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**STONE**

Waterjet Cutting of all natural and man-made stones is simple, fast and highly effective. The very small stream size (approximately 0.040” or 1mm) allows for intricate patterns, while the extremely high pressure (up to 90,000 psi) ensures thick materials (up to 8” thick) can be cut. Softec™ Software enables you to go from design to finished part in minutes with very little training and experience.

“Since installing our Waterjet Cutting Machine we have dramatically improved our processing time, while reducing our rejects and making the workshop so much cleaner and quieter. I don’t know how we got by without it.”

Stewart Macciolli  
SCELTA MARBLE IN MELBOURNE

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**GASKETS**

The versatility of Waterjet Cutting makes it ideal for the manufacture of gaskets. Capable of cutting anything from hardened spring steels, to non-ferrous materials such as brass and copper to delicate graphite composites and softer materials like rubber and paper. It is ideal for low volume, “one-offs” and prototypes.

“Our waterjets have enabled us to significantly reduce our production and delivery time, while also making savings on materials and producing gaskets of the highest quality.”

David Nordeen  
PIPELINE SEAL AND INSULATORS, TEXAS, USA AND LONDON UK
Waterjets are extremely powerful, capable of cutting up to 200mm (8") thick stainless steel. Waterjets don’t care how hard the material is, and whether it’s ferrous or non-ferrous, makes no difference to a waterjet. The very small kerf (approx. 1mm or 0.040") allows it to produce tight corners, with very high tolerances. Waterjet is a “Cold Cutting” process that produces no heat affected areas or burnt edges. These factors mean that there is little or no secondary operation required for most applications.

“At Merrill Tool and Die we process all types of steel and aluminum materials, in a range of thickness with varying degrees of accuracies. The waterjet lets us take on virtually anything. In fact we were so successful with the first one, we purchased a second one.”

Lee Opsahl
MERRILL TOOL AND DIE IN WISCONSIN

Waterjet Cutting is ideal for many foam, rubber, plastic, insulation and woven materials. With an extremely fine cutting stream (down to 0.004” or 0.1mm) very tight nesting and therefore good material yields can be obtained. The high cutting speeds of waterjet (up to 60m/min or 2500”/min) also means that it is extremely fast, especially when combined with automated loading/unloading equipment.

“In my shop, it’s all about speed, versatility and quick response time to our customers, and nothing delivers better than a waterjet.”

Cotton Davis
UNIVERSAL RUBBER PRODUCTS IN NORTH CAROLINA
The Intec-G2® Value Series of Water Jet Cutting Systems represents the greatest “VALUE” for money available in the world of profile abrasive Waterjet cutting.

The Intec-G2® can cut almost any material to 8” thick at maximum cutting speeds with minimum Capital outlay. The Intec-G2® is based on the same design platform as the Techjet-X3®. It is these same design solutions that will provide each Intec-G2® customer with a Waterjet machine that lasts longer and requires less maintenance, while delivering an easy to use, fast and accurate system at a very competitive price. This series of machines are particularly well-suited for industries with slightly lower tolerances such as metal fabricating; marble and granite and glass.

### Module Intec® TECH SPECS

<table>
<thead>
<tr>
<th>Module</th>
<th>i35-G2</th>
<th>i510-G2</th>
<th>i612-G2</th>
<th>i713-G2</th>
<th>i1015-G2</th>
<th>i1020-G2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Machine Size (L x W x H)</strong></td>
<td>1700 x 2600 x 2050 mm</td>
<td>4200 x 2350 x 2050 mm</td>
<td>4900 x 2650 x 2100 mm</td>
<td>5800 x 3100 x 2100 mm</td>
<td>4200 x 6000 x 2000 mm</td>
<td>4200 x 8000 x 2000 mm</td>
</tr>
<tr>
<td>Does not include pumps or control cabinet</td>
<td>(5' 5&quot; x 8' 6&quot; x 6' 6&quot;)</td>
<td>(14' x 7' 8&quot; x 6' 8&quot;)</td>
<td>(16' x 8' 6&quot; x 6' 8&quot;)</td>
<td>(19' x 10' 2&quot; x 6' 10&quot;)</td>
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<td><strong>Cutting Table Size</strong></td>
<td>1060 x 1670 mm (3' 6&quot; x 5' 6&quot;)</td>
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<td><strong>Accuracy of Motion</strong>*</td>
<td>± 0.1mm (0.004&quot;)</td>
<td>± 0.12mm (0.005&quot;)</td>
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**IMPORTANT NOTICE:** Due to a constant endeavour to improve the machine, the specifications may change without prior notice. All the above accuracy tolerances are correct at the calibration temperature of 20° ± 1° C.

*Linear/Axis/Meter. **115 mm (4.5") with PAC60 cutting head option fitted.
The Techjet-X3® series is the latest in our evolution of innovative products to create a precision, easy-to-operate, safe and highly reliable Waterjet Cutting Machine.

The Techjet-X3® is built to the highest tolerances and incorporates Linear Scale Feedback to ensure the highest accuracy of motion in the industry. By mapping the entire cutting area with a laser-calibrated digital encoder, the motion system can deliver positional accuracy of 0.0005” (0.01mm) and high cutting speeds of up to 1000ipm or 25m/min.

<table>
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<tr>
<th>Module</th>
<th>TJ1500-X3</th>
<th>TJ3000-X3</th>
<th>TJ4000-X3</th>
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** MOST EFFICIENT WATERJET PUMP **
Up to 60% more efficient than standard hydraulic intensifiers

** LOWEST COOLING WATER REQUIREMENT **
Up to 75% less cooling water than standard hydraulic intensifiers

** QUIETEST **
<68dBA with almost silent operation

** SMALLEST FOOTPRINT **
Over 50% less space required than an average hydraulic intensifier, with a lower profile and is more ergonomic

** LONGEST LIFE FITTINGS AND TUBING **
Due to the elimination of “dead head” pressure spikes

** EASIEST MAINTENANCE **
Easy access and improved visual diagnostics

** SUPERIOR DESIGN **
Quick-change seal components for the fastest seal change in the industry

** SMARTERTEST **
Intelligent Diagnostic Control reduces maintenance and increases uptime

** ENVIRONMENTALLY FRIENDLY **
Significantly less consumption of water & power, and minimal oil usage compared to standard hydraulic intensifiers

"TECHNI Waterjet™ is proud to introduce the Quantum NXT®, another TECHNI “first” in the waterjet industry. This revolutionary product follows in line behind our other industry “firsts” including Breakaway Head, Precision Stainless Steel Band Drive (PSSBD), Techjet-X3® Linear Magnetic Scales Feedback, Tech-Sense™ Abrasive Monitoring System and the PAC60™ 5-axis bevel cutting with taper elimination. The Quantum NXT™ demonstrates TECHNI Waterjet’s™ commitment to developing innovative products that truly benefit the customer."

Darren Reukers
MANAGING DIRECTOR
Quick Change Threaded Cylinder Retaining Sleeve for Increased Safety and Fast Maintenance

Hard Wearing HDPE Work Bench that Resists Chipping, Scratching and will not Damage or Dent Components during Maintenance

Automatic Lubrication System with Filtration and Cooling

- Quantum NXT™ is capable of producing 20% more power than the original ESP
- Can be connected to any waterjet machine
- 20% quieter than the original ESP
- Far superior pressure signal (resulting in smoother edges at a given cutting speed)
- Improved lubrication and cooling system
- On board diagnostics via a larger colour touch screen HMI

*International Patents Pending

INNOVATION THROUGH PASSION

DUAL PUMP

Quantum Electric Servo Pump (ESP)
Most Innovative Product in the Category

NXT 52

Winner of the Innovation Award “Euroblech 2010 Germany”
**FEATURES**

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**Softec™ Waterjet Cutting Software**

The AM2000 Servo Control System utilizes the very latest CNC and Digital Servo Drive system. Developed by our control system partner, ANCA, the world leader in CNC Tool and Cutter Grinders. The AM2000 has a Touch screen interface as well as a pointing mouse.

---

**Rotary Axis**

The Rotary Axis is a Direct Drive motor assembly capable of accurately (±0.1 degrees) positioning and contouring a work piece under the cutting stream.

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**Softec™ Nest**

Softec Nest utilizes advanced nesting algorithms which have been developed by one of the world’s largest and most awarded CAD and nesting software developers – Geometric Global.

**Benefits Include:**

- Improves profitability by minimising rapid feed times
- Increases both nesting speed and material yield

---

**PAC60**

---

**60 Degree Bevel Cutting**

Capable of producing parts with true angle up to ±60 degrees with continuous rotation without having to re-position the cutting head.

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**Taper Elimination**

Compensate for predicted taper and produce parts with “Precision Angle Control” with square edges at all cutting speeds.

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**Multi-Pass Cutting**

Quick and easy chamfers, weld preparations, and countersinks on either or both sides of the plate.

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**Terrain Mapping**

Capable of maintaining an exact standoff distance between the nozzle and the work piece, even on plate that is not flat.

---

**Extremely Accurate Direct Drive Technology**

Capable of producing parts to tolerances of ±0.1 degrees.

*International Patents Pending*
## TECH-SENSE

**Potential Problems Detected:**
- Low abrasive being delivered to the cutting head
- Plugged focusing tube
- Damaged orifice
- Water pressure drop
- Worn or damaged focusing tube
- Inefficient cutting head set up

## BREAK AWAY HEAD

**Benefits Include:**
- Restored focusing tubes and bent nozzle tubes
- Reduces waste and scrap parts due to lost position
- Protects machine from major damage
- Restarts in the exact same place

## SKIP & FLOAT

**Benefits Include:**
- Allows machine to accept warped material
- Ensures efficient cutting due to minimized, constant standoff
- Reduces risk of crashing on warped materials
- Clamping reduced, with no need to pull the material flat.

## ABRASIVE PUMP AND HOPPER

**Benefits Include:**
- Ease of loading, due to its height and hinged lid.
- Continuous operation with no down time, as there is no need to de-pressurize.
- Minimized cutting head blockages, thanks to the built in filter screen.
- Multiple machines can be run from a single pump/hopper system (up to 5).
- Safer, as only a very small amount of abrasive requires pressurization.
- Virtually NO MAINTENANCE, as no mechanical moving parts come into contact with the abrasive.

## WATER RAISE & LOWER

**Reduced noise**
By raising the water level and submerging the material, “the operating noise level” is reduced below safety limits.

**Less mess**
If the material is not submerged, that diffused stream shoots back into the environment, and literally gets everywhere including on the beams, rails, bearings, controller, electronics and anywhere else.

## DUAL HEAD CUTTING

For maximum productivity in high production applications, a Dual Cutting Head optional set up is available to allow two (or more) cutting heads to operate at the same time and simultaneously cut identical parts.

## WASTE REMOVAL SYSTEM

**Benefits include:**
- Eliminates third-party cleaning costs and time
- Saves labour and down time costs
- Minimizes risk of damaging machine during cleaning
- Simple and clean to operate
- Eliminates laborious manual cleaning of waterjet tank

## REMOTE CONTROL PENDANT (M.P.G)

The Remote Control Pendant makes setting up your waterjet machine fast, simple and accurate. The RCP gives the operator full jogging control in X-Y & Z, as well as along the programmed cut path. This function makes it ideal for finding the exact position to restart cutting if required for any reason.

## MATERIAL HANDLING SOLUTIONS

Electrically actuated tilting arms allow for vertical loading of fragile materials such as glass and stone. The adjustable arms will support the material at the critical areas for loading and unloading, up to a maximum weight of 250kg (550lb).