The Swift-Jet Range

Thanks to Swift-Cut, it’s never been more affordable or achievable to own a water jet cutting system. Waterjet technology produces excellent fine-feature cuts with low edge taper, no heat-affected zones, a narrow kerf, and dross-free cutting.

It also offers the ability to process nearly any material and a thickness range capability unmatched by other cutting technologies.

The Swift-Jet machine with its easy-to-use software and powered by Hypertherm HyPrecision pumps provides high-sector leading cutting on a wide range of materials at a low-cost investment. Easy to use with exceptional aftercare and support, the Swift-Jet is the answer to affordable, high precision, high quality in-house cutting.

Swift-Jet is our new, affordable and easy-to-use waterjet profiling solution. Offering precision cutting and superior build quality, this smart machine can be used to cut textiles, rubber, foam, plastics, leather, composites, stone, tile, glass, metals, food, paper and much more. Our machines are calibrated using the very latest Renishaw ballbar testing equipment, ensuring outstanding dynamic positioning and repeatability.

- Collision probe
  - Protects the cutting head in the event of a crash.

- Enclosed drag chains
  - Fully enclosed cable drag chains reduce potential downtime.

- Splash guard
  - Prevents ingestion for component protection.

- Linear rails
  - Precision linear rails on all axes provide repeatable positioning across the entire cutting area.

- Dual Y Axis
  - Dual driven Y axis maintains gantry squareness for the most accurate parts.

- Water tank
  - Fully coated heavy-duty steel water tank is easy to clean and ensures stability for precise cutting.

- AC servos
  - Omron AC servos with high resolution encoders drive precision high-speed axes for unmatched positioning accuracy.

- EtherCAT communication
  - EtherCAT communication throughout machine and Hypertherm pumps ensures high-speed communication for motion and I/O control.

- Operators console
  - Ergonomic standalone console with touch, keyboard and mouse inputs.

- Software
  - Omron industrial CNC control system provides a robust and dynamic controller with online diagnostic functionality.

- Bellows & cover
  - Prevents ingress for component protection.

- Enclosed drag chains
  - Fully enclosed cable drag chains and cables reduce potential downtime.

- Hopper
  - Adjustable abrasive mini hopper at head for optimisation of abrasive flow.

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**SwiftCAM**
SwiftCAM easy to use software guarantees that anyone with a basic knowledge of computers will be capable of operating the Swift-Jet cutting system. Minimal training means the table will be operational almost immediately, maximising output from the start.

**Automatic nesting**
Automatically nests parts for economical sheet usage.

**Automatic lead in/out**
Software automatically applies lead ins/out for quicker programming.

**Micro joints**
Tabs to prevent parts moving whilst cutting.

**Bridges**
Continuous cutting between parts to reduce cycle times.

**Common line cuts**
Cut along shared edges of parts.

**Sheet Alignment**
Align the cutting path with misaligned sheets on the cutting bed.

**Reference points**
User configurable reference points for jig fixtures.

**Cut Quality**
5 cut quality modes from fine to rough.

**Parameter shape library**
Over 80 configurable shapes.

**Part in part nesting**
Nest parts in scrap areas to fully utilise the sheet.

**Customisable cutting rules**
Optimise cutting parameters for best cutting performance.

**Toolsets**
Pre-programmed toolsets for common materials.

**Customisable toolsets**
Modify or create toolsets for new materials.

**Job reporting**
Export job reports displaying scrap percentage and cutting times.

**3D Cut Simulation**
Play a 3D machine simulation of the cutting operation.

**3D part preview**
Preview the part in 3D before cutting.

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**Power Options**

<table>
<thead>
<tr>
<th>Source: Hypertherm</th>
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**Model**  | **Power**  | **Pressure**  | **Max. output flow**  | **Max. orifice size** |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>HyPrecision 30hp</td>
<td>30hp/22kw</td>
<td>60,000psi</td>
<td>2.3l/min</td>
<td>0.28mm</td>
</tr>
<tr>
<td>HyPrecision 50hp</td>
<td>50hp/37kw</td>
<td>60,000psi</td>
<td>3.8l/min</td>
<td>0.35mm</td>
</tr>
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**Available in 2 sizes**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cutting area (in x in)</th>
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<tbody>
<tr>
<td>SJ1500</td>
<td>1600mm x 1600mm (5' x 5')</td>
</tr>
<tr>
<td>SJ3000</td>
<td>1600mm x 3100mm (5' x 10')</td>
</tr>
</tbody>
</table>

**Optional Extras**

**Water Treatment System**
Reverse Osmosis System (Must include Softener and Boost Pump)

**Benefits of Water jet cutting**
- No heat ingress into material
- Precise repeatable cuts
- Ideal for exotic materials
- Can cut a range of materials including metals, stone, plastic, wood and foam
- Weld ready parts

**Machine Performance**

<table>
<thead>
<tr>
<th>Maximum traverse speed</th>
<th>Maximum Z clearance</th>
<th>Positional accuracy</th>
<th>Tank Depth</th>
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</thead>
<tbody>
<tr>
<td>15m/min (590 ipm)</td>
<td>250mm (9.8 inches)</td>
<td>0.0150mm (0.006 inches)</td>
<td>840mm (33 inches)</td>
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For more information contact swift-cut.com