Application Data
Surface preparation

Surface preparation generally refers to the stripping of coatings & corrosion using Ultra High Pressure (UHP) water jetting equipment at 2000-3000bar (30,000-43,500psi). At these pressures the velocity of the water jet is 500-600m/sec (Mach 1/speed of sound is 340 m/sec) which will strip the toughest of coatings with plain, fresh water.

Hughes Pumps manufactures a range of UHP pumps to cater for various surface preparation tasks, from the compact UB10, single gun unit for blasting small areas typically offshore on oil & gas platforms or on ships during voyage where space & fresh water are at a premium, through to the larger UB24 which can be used with single or twin jetting guns or with an automated crawler for stripping large areas, typically ships hulls & oil storage tanks.

Benefits of Water Jetting
• Dust free allowing other trades to work in the vicinity
• Minimal waste disposal, 98% less than grit blasting
• Environmentally friendly
• No contamination of sensitive rotating equipment
• In marine environments removes all chlorides from substrate leaving a perfect surface for new paint
• Unlike grit blasting does not profile steel so does not trap chloride contaminants in the substrate
• Minimal water consumption, most of which evaporates
• Reduces time during dry-docking
• Sheetig not required
• Can be used in wet & windy conditions
• The pump is versatile & can be used for other cleaning & cutting applications

Typical Pumps & Performances

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<tr>
<th>Pump</th>
<th>Performance</th>
<th>Application</th>
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<tbody>
<tr>
<td>Ultrabar 10</td>
<td>10lpm at 2600bar (2.8gpm at 38,000psi)</td>
<td>Single gun, spot blasting small areas, typically offshore</td>
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<tr>
<td>Ultrabar 15</td>
<td>14lpm at 2750bar (3.7gpm at 40,000psi)</td>
<td>Single gun, medium duty industrial surface preparation</td>
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<tr>
<td>Ultrabar 24</td>
<td>23lpm at 2750bar (6.1gpm at 40,000psi)</td>
<td>Single or twin gun or with a crawler, heavy duty industrial surface preparation</td>
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This information is intended to be a guide only. The required pump size & performance can vary depending on many factors including rate of work required, hardness of deposit or work piece, operator skill, site access etc.