ELECTRIC SERVO PUMP
THE SMARTEST AND MOST EFFICIENT PUMP ON THE MARKET

CYLINDER
Change threaded cylinders in under 10 min for reduced downtime and fast maintenance.

HMI
Advanced Diagnostics System diagnoses maintenance issues before they occur, and advises on solutions.

WORK BENCH
HDPE work bench resists chipping, scratching and will not damage or dent components during maintenance.

TOOL KIT
Easy access spare parts and maintenance tools.

FILTERS
Automatic lubrication system with filtration and cooling.

SERVO TECHNOLOGY
Reduces dead-head pressure spikes plus prolongates life of high pressure components.
The TECHNI Waterjet™ Quantum NXT™ (Electric Servo Pump) incorporates core "direct servo" technology that was first applied by NASA for the Space Shuttle Program by replacing old-fashioned hydraulic cylinders with new, highly compact, efficient, reliable and infinitely controllable Servo Linear Actuators. This same style actuator is used today in many high end machine tools and presses replacing inefficient hydraulic systems. Similarly, TECHNI Waterjet™ is the first water jet pump manufacturer to utilize "direct servo" technology in an ultrahigh pressure waterjet pump and has developed patented designs to integrate the core technology into the most efficient, reliable and controllable ultra-high pressure (UHP) waterjet cutting pump.

**QUANTUM NXT™ G4**

**ADVANCED DIAGNOSTICS (option)** - The most complete control system

Waterjet pumps are designed to operate at pressures high enough to cut through steel, so unless they are maintained correctly, they have the power to self-destruct. This is because once leaks develop, the water is at such high pressure that it will erode away the very parts which are designed to contain the water.

The combination of information from the Advanced Diagnostic sensors and the Servo Drive technology are fed into a computer, where 30 years of waterjet experience have been used to develop algorithm’s to accurately predict which parts are close to failure.

Advanced Diagnostics System capabilities:

- To ensure the ESP continues to perform at its capacity without unplanned downtime due to maintenance issues.
- To protect the ESP against damage due to poor maintenance practices and unforeseen utility failures.
- To minimize the risk of ESP failure, even if maintenance routines are neglected.
- To protect the ESP if the incoming utilities fall below the minimum requirements to ensure safe operation.
- To help an operator maximise the output of the ESP without causing unnecessary maintenance downtime.
- To diagnose potential maintenance issues before the ESP fails, and then advise the operator how to perform the maintenance.

### SPECIFICATIONS

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<tr>
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<th>ESP30/55</th>
<th>ESP37/66</th>
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<tr>
<td>Max Output Pressure PSI</td>
<td>55,000 (3790)</td>
<td>66,000 (4550)</td>
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<tr>
<td>Max Output Volume GPM (LPM)*</td>
<td>1.0 (3.8)</td>
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<td>Physical Dimensions (L x W x H) (m)</td>
<td>73&quot;(1.8) x 26&quot; (0.66) x 50&quot; (1.27)</td>
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<tr>
<td>Weight Lbs (Kg)</td>
<td>1390 (630)</td>
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<td>Max Noise Level</td>
<td>70 dBA</td>
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<tr>
<td>Power Requirements*</td>
<td>3 PH 380-480 VAC, 50-60 Hz, 60 Amp</td>
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<td>Cooling Water Requirement</td>
<td>1.6 GPM (6 LPM) @ 57°F (14°C)</td>
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* * Due to constant endeavour to improve the machine, the specification may be changed without prior notice

* Output volume based on 480 vac electrical supply