

Advantage UHP Pumps

Merging innovative ideas with real world demands



H2O Jet continues to set the standard with the **Advantage** UHP pump series. This industrial workhorse provides the best solution to your waterjet needs. The Advantage Pump maintains maximum pressure and flow rate with the lowest pressure fluctuation throughout the complete ultra high pressure range of cutting parameters. This insures minimum downtime and increases productivity.

The **Advantage** is ideal for both water-only and abrasive waterjet cutting applications. The operator friendly features provide real time diagnostics; quiet operation and easy access to all internal pump components, and the intensifiers are mounted at tabletop height for ease of maintenance.



INTENSIFIER MODELS:

H100D: Dual intensifier, 60K and 40K psi
100 hp motor

H50R: Redundant, two intensifiers, 60K and 40K psi
50 hp motor

H50S: Single intensifier, 60K and 40K psi
50 hp motor

Additional Options:

Electric or Mechanical Shift intensifiers
Remote Control with Start-Stop, High-Low Pressure
and E-Stop features

Advantage Pump Features:

- 1) Six models supporting orifice sizes up to .025"
- 2) Up to two gpm flow rate at 60,000 psi
- 3) Ergonomic, accessible design with removable doors and covers, **tabletop intensifier height**
- 4) Constant maximum pressure with minimum pressure fluctuation
- 5) Quiet operation, less than 80 dB
- 6) User friendly operator interface with touch-screen controls and diagnostics
- 7) Motor Starter included (Optional Wye-Delta)
- 8) **Superior Reliability**

ERGONOMIC DESIGN

- * Designed for maintenance accessibility
- * Forklift ports on front, rear and sides
- * Drip pan collects and transfers any leak to a removable reservoir
- * Sealed base captures up to 30 gallons in case of a major oil spill
- * Covers swing open with lift-off hinges for easy, unobstructed access
- * Rugged powder-coated finish on frame and covers for lasting durability

QUIET OPERATION

- * Sound dampening insulation on all doors and panels
- * Less than 80 dB
- * Motor and pump unit is mounted on sound/vibration isolation bars

ATTENUATOR

- * Large 135 cu. in. volume minimizes pressure spikes
- * Mounted in sound-dampening brackets
- * Minimizes pressure fluctuations at the cutting head
- * Provides consistent jet stream flow
- * Enhances crisp, clean cuts for high quality results
- * Adds life to downstream, fatigue prone components

HYDRAULICS

- * Variable displacement, pressure-compensated axial piston pump
- * Oil recirculation pump continuously cycles oil through the filter and high efficiency heat exchanger
- * Oversized suction and pressure lines for increased oil flow with less pressure drop
- * Large 80 gallon reservoir enhances the life of the operating oil

CONTROLS

- * Automatic **resettable** stroke counters provide precise information for performance analysis
- * Allen Bradley PLC Controller
- * Touch screen operator interface
- * Diagnostic messaging provides continual monitoring of all critical operating parameters
- * Electronic Pressure Control

WATER

- * Custom dual-filtration manifold
- * **Stainless steel** water booster pump
- * Automatic high pressure water bleed down

Designed for maintenance accessibility with lift-off sound dampening covers



Unique "Tabletop" intensifier height for greater safety and efficiency.



Only 33" from floor to intensifiers

SPECIFICATIONS

Model Intensifiers	H100D Dual	H50S or R Single or Redundant
Maximum Operating Pressure	60,000 psi (4150 bar)	60,000 psi (4150 bar)
Flow Rate	2 gpm (7.6 l/min)	1 gpm (3.8 l/min)
Maximum Orifice Size	.020" (.508 mm)	.014" (.36 mm)
Horsepower	100 hp (74.57 kw)	50 hp (37.29 kw)
Hydraulic Reservoir Capacity	80 gal (302.8 l)	80 gal (302.8 l)
Cooling Water Flow	3-5 gpm (11.4-20 l/min)	3-5 gpm (11.4-20 l/min)
Length	79" (201 cm)	79" (201 cm)
Width	49" (124.5cm)	49" (124.5cm)
Height	51" (129.5 cm)	51" (129.5 cm)
Weight	4,500 lb (2041.14 kg)	4,000 lb (1814.36 kg)

Electrical Options: 415/3/50, 208/3/60, 240/3/60, 480/3/60, 575/3/60; Wye-Delta Starter
40K Dual Options: Flow Rate of 2.72 gpm, and .025" maximum orifice size
40K Single and Redundant Options: Flow Rate of 1.36 gpm, and .018" maximum orifice size



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The H2O Jet Advantage comparison

Feature Comparison	Flow 7X	Flow 20XW	H2O Advantage
Removable swing open doors		■	■
Rugged lift-off steel panels			■
Dual-entry fork pockets			■
Sound insulated panels		■	■
Less than 80 db		■	■
Vibration isolators on pump/motor		■	■
Leakage container			■
Sealed base (30 gal. capacity)			■
Two inlet water filters	■	■	■
Tabletop intensifier height			■
Electronic shift	■	■	■
Mechanical shift option			■
Multiple-function touchscreen for all controls			■
Integrated motor starter			■
80 gallon oil tank for cooling aid			■
Axial piston variable displacement hydraulic pump	■	■	■
Epoxy coated oil tank			■
Easy access for oil reservoir drain	■	■	■
Large, easy access, oil tank inspection covers			■
Oil/water heat exchanger	■	■	■
Oil/Air heat exchange option			■
Hydraulic piston with oil seal and guide bands			■
Low-cost rebuildable water booster pump			■
Custom manifold filter housing			■
Stainless steel intensifier quick-connect inlet water fittings			■
Oil level and oil over-temp sensor	■	■	■

Any reference to the OEM names is for identification purposes only.
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SMP PUMPS

30HP & 50HP



SMP Pump Features

- * 1 & 10 Micron Inlet Water Filters with Outlet Pressure Gauge
- * Low Inlet water Pressure Safety Switch (30psi)
- * Return Line Oil Filter with Service Indicator
- * Electronic Shift
- * Electronic Pressure Control
- * Hi-Temp/Low Level Oil Safety Switch

- * Oil/Water Heat Exchanger
- * Auto Bleed Down Valve
- * Sealed Base Captures Oil in Case of Major Spill
- * Rugged Powder-Coated Finish
- * Epoxy Coated Oil Tank
- * Vibration Isolation Pads on Motor

Options

- * Mechanical Shift
- * Mechanical Pressure Control
- * Air/Oil Heat Exchanger (Oil Temp Controlled)
- * Cooling Water Solenoid Valve (100 F)
- * Remote Start/Stop, E-Stop, Hi/Low
- * 40KPSI Intensifier
- * Inlet Water Booster Pump
- * 135 cu. In (2 Liter) Attenuator (SMP-50 Only)

Specifications

	SMP-30	SMP-50
Max Operating Pressure	60,000 psi (4150 bar)	60,000 psi (4150 bar)
Flow Rate	0.6 gpm (2.27 L/min)	1 gpm (3.81 L/min)
Max Orifice Size	.011 in. (.28mm)	.014 in. (.36mm)
Horsepower	30HP (22 kw)	50HP (37 kw)
Hydraulic Reservoir Capacity	35 gal (132 L)	50 gal (189 L)
Cooling Water Flow	3-5 gpm (11.4-20 L/min)	3-5 gpm (11.4-20 L/min)
Attenuator Volume	61 cu. in. (1L) Standard	61 cu. in. (1L) Standard 135 cu. in. (2L) Optional
Length	47" (119 cm)	51.5" (131 cm)
Width	37" (94 cm)	43" (109 cm)
Height	41" (104 cm)	46.4" (118cm)
Weight	1500 lbs (680 kg)	1800 lbs (816 kg)



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