



Waterjet Systems  
INTERNATIONAL

# High-Pressure Waterjet Cutting Pumps

**MODEL E30**  
**MODEL E50**  
**MODEL E60**

## THE E-SERIES PUMP

E-Series pumps are heavy duty, no frills, industrial intensifiers specially designed with the OEM in mind. These systems utilize the same industrially proven intensifier as our flagship WS series pumps.

An in-line shaft configuration uses the main motor to power both the oil recirculation pump and the low pressure water booster pump. Therefore, only one main power connection is necessary.

The E-Series comes with a small junction box for easy integration of OEM controls and offers the option of either air/oil or water/oil cooling. Cooling options are interchangeable based on customer preference.

These systems add value for OEMs and end-users by offering the performance and durability of WSI's WS-Series intensifiers, at a price point that makes ownership a reality to the maximum number of users. Call WSI today to discuss how the E-Series pumps can expand your product line and broaden your sales base.



For businesses both large and small, WSI Waterjet Systems International is defined by its commitment to quality, value, and service, which continues long after the sale. WSI takes pride in being the globally established, recommended, and trusted designer, manufacturer and servicer of ultra-high-pressure and high-performance waterjet cutting pumps and replacement parts. Only WSI delivers hand-crafted, patented technology, reduced operation costs, a longer running life, and a truly unique approach to providing customers with the long-term relationship necessary for the successful operation and maintenance of its waterjet cutting pumps.

## Features and Advantages



- Proven, heavy-duty industrial, high-pressure intensifier with ceramic plungers.
- Slow intensifier speed (22 to 26 cycles per minute). This slow speed reduces both the number of pressure spikes in the system and the number of pressure reversals. Slow speed virtually doubles the fatigue life as compared to other waterjet pumps.
- One large (6" OD) accumulator ensures low pulsations in the high-pressure system.
- A pneumatic bleed-down assembly provides for depressurization of the high-pressure system immediately upon shutdown.
- All high-pressure tubing and fittings are Autoclave.
- Highly reliable proximity switches control the sequencing of the intensifier.
- Low hydraulic oil pressure – 2,900 psi / 200 bars.
- Oversized, low-loaded motor.
- A dial-type control is included for simple control of the cutting water pressure.
- A dual compensator provides lower, alternative, preset cutting pressures for tasks such as piercing or drilling.
- Hydraulic oil cooling system with full-flow oil heat exchangers.
- The oil reservoir has two access doors for easy maintenance.
- Brass fittings are used on the entire inlet water system to protect against corrosion.
- A complete set of spares, special tools, comprehensive manuals, and maintenance training CD are included with each unit.



Waterjet Systems  
INTERNATIONAL

**UNRIVALED DEPENDABILITY IN CUTTING PUMPS, PARTS AND SERVICE**



Waterjet Systems  
INTERNATIONAL

# High-Pressure Waterjet Cutting Pumps

**MODEL E30**  
**MODEL E50**  
**MODEL E60**

## TECHNICAL SPECIFICATIONS

specifications subject to change without notice

### Design Pressure: **E30**

60,000 psi (4,140 bars)  
**Maximum Operating Pressure:**  
55,000 psi (3,800 bars)  
**High-Pressure Flow Rate:**  
0.60 gpm (2.27 lpm)  
**Intensifier Cycle Rate:**  
22 cycles/min. at max. flow rate

#### Electrical System:

Main Motor: 30 hp / 22 kW (TEFC)  
208 VAC / 3 ph. / 60 Hz  
230 VAC / 3 ph. / 60 Hz  
460 VAC / 3 ph. / 60 Hz  
190 VAC / 3 ph. / 50 Hz  
380 VAC / 3 ph. / 50 Hz  
Air/Oil Heat Exchanger Motor:  
1/4 hp / 0.18 kW  
120 VAC / 1 ph. / 60-50 Hz  
208 VAC / 1 ph. / 60-50 Hz  
230 VAC / 1 ph. / 60-50 Hz

#### Motor Speeds:

1800 rpm @ 60 Hz  
1500 rpm @ 50 Hz

#### Controls:

120 VAC / 24 VDC

#### Safety Shutdown Circuits:

High Oil Temperature  
Low Oil Level  
Low Water Pressure  
Intensifier Over-speed  
Intensifier Stall

#### Hydraulic System:

2.75 cu. in. (45 cu. cm) Axial Piston Pump  
Max. Operating Pressure:  
3,000 psi (207 bars)  
Cooling Water Flow Rate: 2 gpm (7.56 lpm)

#### Low Pressure Cutting Water System:

Optimum Inlet Pressure: 65 psi (4.50 bars)  
Booster Pump Setting: 225 psi (15.5 bars)

#### Orifice Capacity at 55,000 psi (3,800 bars):

Quantity / Orifice Diameter  
1 – 0.011 in. (0.28 mm)  
2 – 0.007 in. (0.17 mm)  
4 – 0.005 in. (0.12 mm)

#### Physical Dimensions:

Height: 44 inches (1.12 meters)  
Width: 32 inches (0.80 meters)  
Length: 81 inches (2.06 meters)  
Weight: 2,000 pounds (910 kg)

### Design Pressure: **E50**

60,000 psi (4,140 bars)  
**Maximum Operating Pressure:**  
55,000 psi (3,800 bars)  
**High-Pressure Flow Rate:**  
1.00 gpm (3.78 lpm)  
**Intensifier Cycle Rate:**  
22 cycles/min. at max. flow rate

#### Electrical System:

Main Motor: 50 hp / 37 kW (TEFC)  
208 VAC / 3 ph. / 60 Hz  
230 VAC / 3 ph. / 60 Hz  
460 VAC / 3 ph. / 60 Hz  
190 VAC / 3 ph. / 50 Hz  
380 VAC / 3 ph. / 50 Hz  
Air/Oil Heat Exchanger Motor:  
1/4 hp / 0.18 kW  
120 VAC / 1 ph. / 60-50 Hz  
208 VAC / 1 ph. / 60-50 Hz  
230 VAC / 1 ph. / 60-50 Hz

#### Motor Speeds:

1800 rpm @ 60 Hz  
1500 rpm @ 50 Hz

#### Controls:

120 VAC / 24 VDC

#### Safety Shutdown Circuits:

High Oil Temperature  
Low Oil Level  
Low Water Pressure  
Intensifier Over-speed  
Intensifier Stall

#### Hydraulic System:

4.33 cu. in. (71 cu. cm) Axial Piston Pump  
Max. Operating Pressure:  
3,000 psi (207 bars)  
Cooling Water Flow Rate: 2 gpm (7.56 lpm)

#### Low Pressure Cutting Water System:

Optimum Inlet Pressure: 65 psi (4.50 bars)  
Booster Pump Setting: 225 psi (15.5 bars)

#### Orifice Capacity at 55,000 psi (3,800 bars):

Quantity / Orifice Diameter  
1 – 0.014 in. (0.35 mm)  
2 – 0.010 in. (0.25 mm)  
4 – 0.007 in. (0.17 mm)  
8 – 0.005 in. (0.12 mm)

#### Physical Dimensions:

Height: 44 inches (1.12 meters)  
Width: 32 inches (0.80 meters)  
Length: 81 inches (2.06 meters)  
Weight: 2,250 pounds (1,022 kg)

### Design Pressure: **E60**

60,000 psi (4,140 bars)  
**Maximum Operating Pressure:**  
55,000 psi (3,800 bars)  
**High-Pressure Flow Rate:**  
1.10 gpm (4.15 lpm)  
**Intensifier Cycle Rate:**  
26 cycles/min. at max. flow rate

#### Electrical System:

Main Motor: 60 hp / 45 kW (TEFC)  
208 VAC / 3 ph. / 60 Hz  
230 VAC / 3 ph. / 60 Hz  
460 VAC / 3 ph. / 60 Hz  
190 VAC / 3 ph. / 50 Hz  
380 VAC / 3 ph. / 50 Hz  
Air/Oil Heat Exchanger Motor:  
1/4 hp / 0.18 kW  
120 VAC / 1 ph. / 60-50 Hz  
208 VAC / 1 ph. / 60-50 Hz  
230 VAC / 1 ph. / 60-50 Hz

#### Motor Speeds:

1800 rpm @ 60 Hz  
1500 rpm @ 50 Hz

#### Controls:

120 VAC / 24 VDC

#### Safety Shutdown Circuits:

High Oil Temperature  
Low Oil Level  
Low Water Pressure  
Intensifier Over-speed  
Intensifier Stall

#### Hydraulic System:

4.33 cu. in. (71 cu. cm) Axial Piston Pump  
Max. Operating Pressure:  
3,000 psi (207 bars)  
Cooling Water Flow Rate: 2 gpm (7.56 lpm)

#### Low Pressure Cutting Water System:

Optimum Inlet Pressure: 65 psi (4.50 bars)  
Booster Pump Setting: 225 psi (15.5 bars)

#### Orifice Capacity at 55,000 psi (3,800 bars):

Quantity / Orifice Diameter  
1 – 0.015 in. (0.38 mm)  
2 – 0.011 in. (0.28 mm)  
5 – 0.007 in. (0.17 mm)  
9 – 0.005 in. (0.12 mm)

#### Physical Dimensions:

Height: 44 inches (1.12 meters)  
Width: 32 inches (0.80 meters)  
Length: 81 inches (2.06 meters)  
Weight: 2,350 pounds (1,068 kg)



www.wsi-waterjet.com  
info@wsi-waterjet.com

Joplin, Missouri USA  
US/Int'l Phone: 417-781-7778  
US/Int'l Fax: 417-781-7982

Bioggio / Switzerland  
Europe Phone: +41.91.2204184  
Europe Fax: +41.91.2204185