



Waterjet Systems  
INTERNATIONAL

# High-Pressure Waterjet Cutting Pumps

## THE E-SERIES PUMP

Trusted around the world in the most demanding applications, WSI's E-Series pumps are heavy-duty industrial intensifiers designed to run twenty-four hours a day, seven days a week. It is this legendary dependability that has made WSI one of the few manufacturers approved for worldwide use by the major Tier One automotive suppliers.

### GAME-CHANGING PATENTED TECHNOLOGY

With patented technology not available on other waterjet systems, WSI's intensifiers are at the heart of our industry-leading waterjet pump performance. It is this proprietary technology that offers real-world benefits and cost savings, such as longer working hours and WSI's exclusive fail-safe seal head assembly, which rescues expensive internal components from damage in what is a traditionally difficult-to-diagnose area for other waterjet manufacturers. All of this backed by top-of-the-line support components, such as Bosch Rexroth hydraulics, Allen-Bradley electrical components, and Autoclave Engineers high-pressure tubing and fittings.

### TRUSTED PERFORMANCE

Company owners and production managers alike report WSI pumps and replacement parts are consistently requested by the technicians who maintain their waterjet systems. We are proud to have earned the trust of these individuals, who base their decisions on real-world performance and ease of use.

### FLEXIBILITY

Built with design options to meet the needs of OEMs and end-users alike, E-Series pumps are flexible modular systems. Choose between air/oil and water/oil cooling, a junction box or full Allen-Bradley control panel, and 1.2 or 2.4 liters of accumulator capacity. Sound-dampening covers and dual compensation are also optional. A full complement of upgraded features always comes standard, such as a power-saving Allen-Bradley soft starter, a safety dump valve, and an adjustable booster pump.

**Contact WSI Waterjet Systems International to learn more about the waterjet pumps chosen by companies who run them the hardest and ask for them by name.**

## 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 a maintenance training CD are included with each unit.

**MODEL E30c**  
**MODEL E50c**  
**MODEL E60c**



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 handcrafted, 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.



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



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# High-Pressure Waterjet Cutting Pumps

**MODEL E30c**  
**MODEL E50c**  
**MODEL E60c**

## TECHNICAL SPECIFICATIONS

specifications subject to change without notice

### Design Pressure: **E30c**

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: 175 psi (12 bars)

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

Quantity / Orifice Diameter

1 – 0.010 in. (0.25 mm)

2 – 0.007 in. (0.17 mm)

4 – 0.005 in. (0.12 mm)

### Physical Dimensions:

Height: 46 inches (1.17 meters)

Width: 32 inches (0.80 meters)

Length: 80 inches (2.03 meters)  
without control panel

Length: 92 inches (2.34 meters)  
with control panel

Weight: 2,400 pounds (1,089 kg)

### Design Pressure: **E50c**

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: 175 psi (12 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: 46 inches (1.17 meters)

Width: 32 inches (0.80 meters)

Length: 80 inches (2.03 meters)  
without control panel

Length: 92 inches (2.34 meters)  
with control panel

Weight: 2,700 pounds (1,225 kg)

### Design Pressure: **E60c**

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:

24 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: 175 psi (12 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: 46 inches (1.17 meters)

Width: 32 inches (0.80 meters)

Length: 80 inches (2.03 meters)  
without control panel

Length: 92 inches (2.34 meters)  
with control panel

Weight: 2,800 pounds (1,270 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

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