

Series e-90E Smart Pump

Close Coupled, In-Line Centrifugal Smart Pump Systems

A complete system offering market leading efficiency and performance

Series e-90E Smart Pumps are close coupled, in-line centrifugal pumps combining the wide hydraulic coverage of the e-90 pump and the efficiency of Xylem's Smart Motor in a pre-assembled package. Each e-90E Smart Pump provides power, intelligence and performance right out of the box.

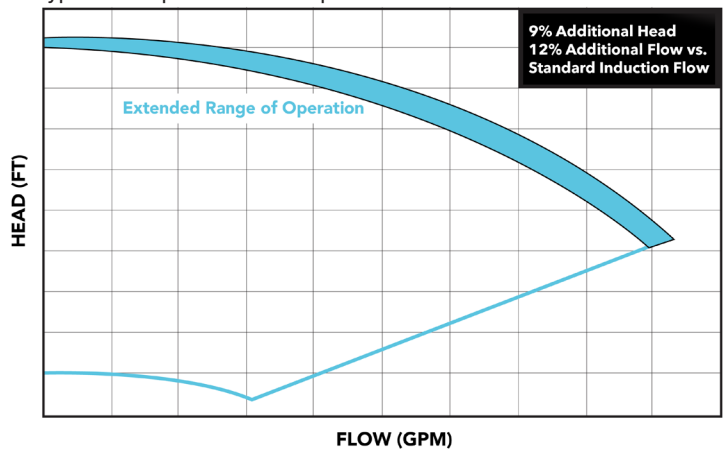
Xylem's permanent magnet Smart Motor is highly efficient, minimizing power loss while transferring maximum energy to the hydraulic parts of the pump. The refined control system with integrated microprocessor adjusts the motor speed, matching the required operating point of the pump or system requirements. This reduces demand on electricity according to the required working conditions. Built-in pump protection controls and monitoring help optimize pump operations, increasing energy savings up to 70% (vs. fixed speed) while reducing installation time.

Series e-90E Smart Pumps are designed for small commercial HVAC systems with a wide range of applications including hydronic heating and cooling, pressure boosting, refrigeration and heat exchanger circulation. They are available in bronze fitted or all bronze construction to meet a wide range of pump needs.

- Pre-programmed package
- High performance, low energy use
- Robust pump design
- Best-in-class efficiency
- Ease of installation



Typical example of increased performance



Features and benefits

Pre-programmed package

Series e-90E Smart Pumps feature the 1) motor; 2) variable speed drive; and 3) hydraulic pump in pre-programmed packages with built in pump protection controls and monitoring to help optimize pump performance. The pre-assembled package does not require an external control panel or programmable logic controller (PLC).

High performance, low energy use

High efficiency hydraulics combined with permanent magnet motor technology and variable speed drive provide the lowest possible operating cost. The refined control system with integrated microprocessor adjusts the motor speed to match the demand of the operating system. This results in significant energy savings while also extending the life cycle of the equipment.

Robust pump design

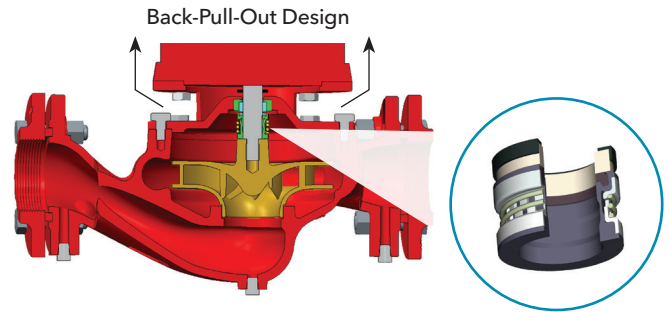
The compact, close coupled platform eliminates the need for a bearing frame or coupler. A stub-shaft or shaft sleeve is not required. The modern unitized EPR/Carbon/Silicon-Carbide mechanical seal is standard, offering easy removal and long service life. The back-pull-out design allows service access without disturbing the piping.

Best-in-class efficiency

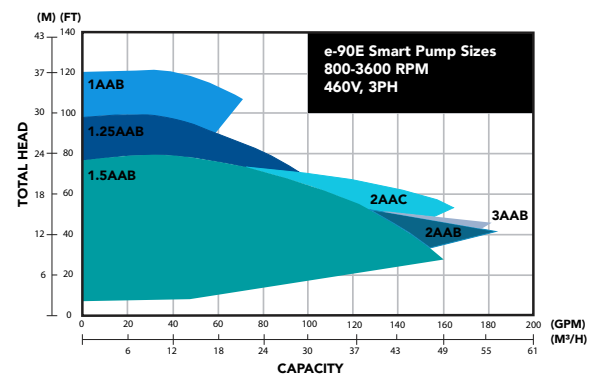
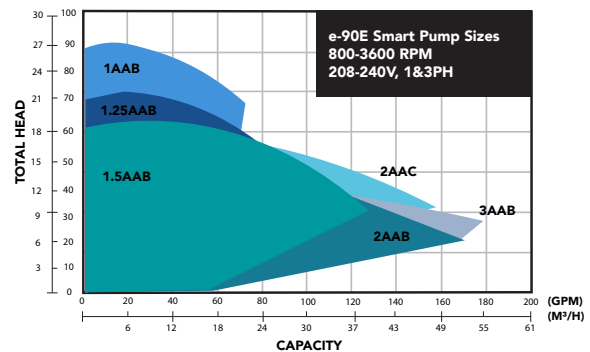
The ultra-premium efficient permanent magnet motor delivers the highest efficiency level for motors designed to not operate directly on-line. Each e-90E Smart Pump features Xylem's IE5 Smart Motor, providing efficiency levels well above the standard IE3 NEMA Premium efficient asynchronous induction motor.

Ease of installation

The pre-assembled, pre-programmed package simplifies installation. The in-line mounted, close coupled pump is compact and versatile, designed to be mounted in the piping and can be installed either horizontally or vertically.



e-90E Smart Pump family curves



Series e-90E Smart Pump specifications

Pump

- **Hydraulic range:** 460V 3ph: 10 to 180 GPM (2.25 to 41 m³/hr)
208-230V 1ph: 5 to 175GPM (1.15 to 40 m³/hr)
- **Head:** 460V 3ph: 120' TDH (36.5m)
208-230v 1ph: 85" TDH (26m)
- **Liquid temperature:** -10° to 250°F (-23 to 121°C)
- **Maximum operating pressure:** 175 psi (12 bar)
- **Construction:** Available in bronze fitted or all bronze
- **Horizontal or vertical mounting**

Xylem Smart Motor

- **Phase/voltage:** 3PH - 208-240/460V, 1PH-208-240V
- **Power:** 3 HP (2.2 kW) and 2HP (1.5kW)
- **Multipump capacity:** Up to 3 units
- **Power supply:** 50/60 Hz
- **Communication:** BACnet and MODBUS® standard in single pumps
- **Motor:** IES2 package with IE5 motor
- **Enclosure rating:** IP55/NEMA 3R
- **Ambient temperature:** -4°F / 122°F (-20°C / +50°C) full power
- **Shut down protections:** No flow, broken pipe and dry run
- **Controls:** Constant pressure, system curve match and external signal
- **Other features:** Automatic test starts, auto smart cycle, change of lead and lag pump units, inverter fault signal memory and operating-hours run counter. Optional - failure and over-temperature sensors.

Xylem Product Cybersecurity

Xylem values system security and resilience. Defending against cybersecurity threats is a shared responsibility. Xylem builds products that are secure by design. Our customers have a responsibility to understand the risks inherent in their processes and take steps to operate and maintain their solutions securely. For details and updates on Xylem product cybersecurity visit xylem.com/security.

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Learn more about
Series e-90 Pumps

