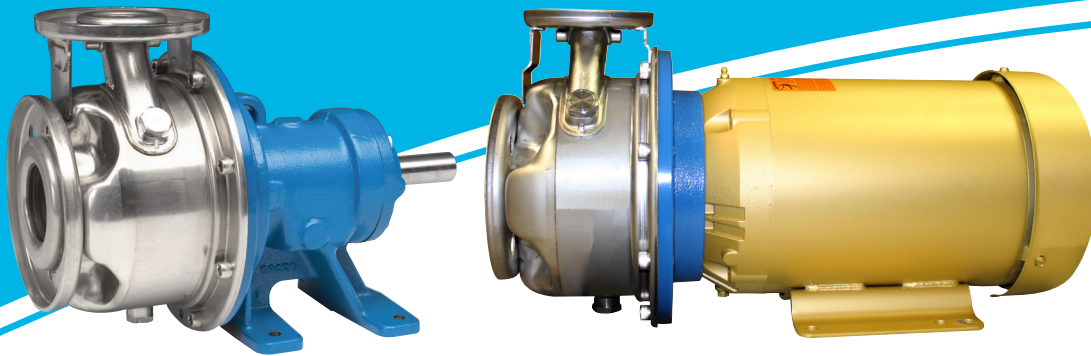




# e-SH 316 Stainless Steel End Suction Centrifugal Pump (60 Hz)

INCREASED EFFICIENCY WITH PROVEN RELIABILITY AND PERFORMANCE



BReSH

# EFFICIENCY AND PERFORMANCE FOR A WIDE RANGE OF APPLICATIONS

The e-SH 316 stainless steel (SS) end suction pump is a new centrifugal pump featuring a corrosion resistant 316 SS impeller. It is specially designed to handle water, non-aggressive or moderately aggressive liquids in commercial building, industrial and a diverse range of OEM applications.

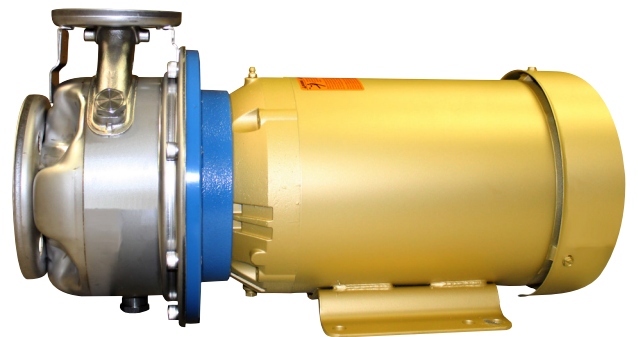
The e-SH pump replaces the model SSH centrifugal pumps and provides better efficiency to help you reach your operational goals. With standard back pull-out design, maintenance can be done without disconnecting the pump body from the piping.

## Expert support

Since the proper selection and configuration of your e-SH pump is critical to long-term efficiency and dependability, give us a call. Our experienced application engineers will ensure your pump is optimized for your application and designed to deliver the long-lasting, reliable service that you expect.

## Online selection tool

Simplify selection with Intellitronic X, our user-friendly online selection tool. Easily configure your pump based on your application. We'll assemble your pump and get it on its way.



The e-SH centrifugal pump is available in the following configurations:

<b>Close-coupled</b>	compact design that saves space and simplifies maintenance
<b>Frame mounted</b>	flexible-coupled with cast iron power frame (grease lubricated ball bearing assembly)
<b>Bare shaft pump</b>	bare pump suitable to be coupled with a standard electric motor

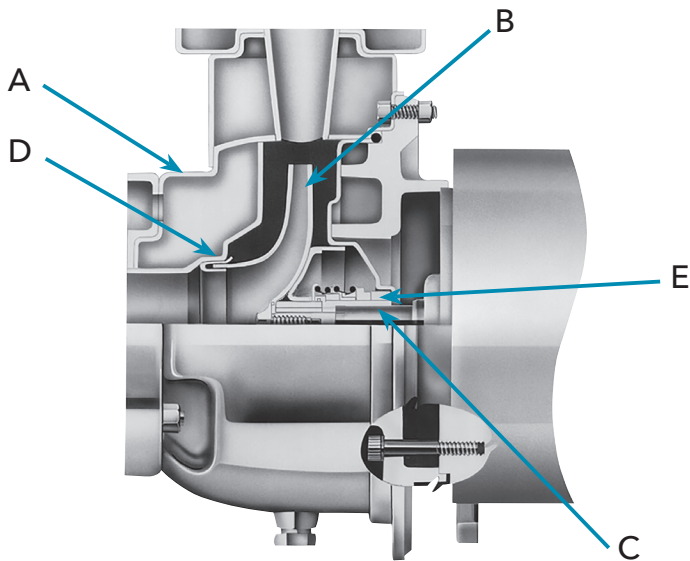
# BUILT TO PERFORM

e-SH pumps feature AISI 316 stainless steel construction for reduced corrosion and improved strength and ductility. Each pump comes equipped with interchangeable John Crane Type 21 mechanical seals and NEMA premium efficient motors. The back pull-out design simplifies maintenance by allowing the impeller, bracket and motor to be extracted without disconnecting the pump body from the piping. Suction and discharge flanges mate easily with ANSI class 150 flanges. Rigid carbon steel bedplate, sheet metal coupling guard (designed to OSHA specifications) and, T.B. Woods type "SC" spacer couplings are standard on all frame mounted units.

The e-SH can handle liquid temperatures up to 250° F. Pumps assembled at the factory are certified to the NSF/ANSI 61 Drinking Water System Components Standard.

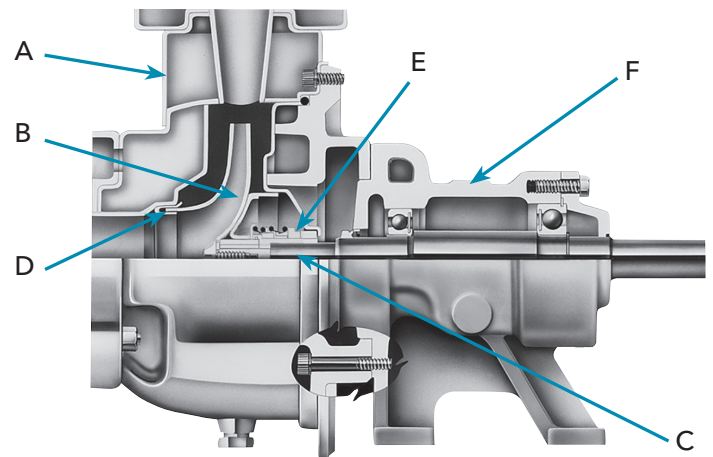
## Close-coupled design:

Compact design saves space and simplifies maintenance



## Frame mounted design:

Bare shaft pump or fully assembled to rigid carbon steel baseplate



- A. Casing** - durable 316 SS to handle a diverse range of pumped fluids
- B. Stainless steel impeller** - resists corrosion to maintain performance and minimize downtime
- C. Shaft sleeve** - replaceable 316 SS sleeves minimize shaft wear
- D. Replaceable wear rings** - to maximize efficiency through the total life of the pump

- E. Mechanical seal** - interchangeable John Crane Type 21 mechanical seals with a variety of materials for multiple applications
- F. Bearing frame** - features a cast iron power frame, rigidly supported, grease lubricated ball bearing assembly

# APPLICATIONS

For more than a century, Xylem’s pump technologies and solutions have satisfied customers all over the world. The e-SH pump continues that tradition, with higher efficiencies and proven performance. Here are just a few of the markets and applications in which we’re helping customers solve their water and fluid management challenges.

- Water intake
- Water transfer and circulation
- Pressure boosting
- Process cooling and heating
- Fluid transfer and transport
- Produced water transfer and boosting
- Boiler feed booster

## PUMPED FLUIDS

- Groundwater
- Potable water
- Process water
- Gray/used water
- Heat transfer fluids
- Produced water

## SPECIFICATIONS

<b>Maximum flow</b>	1,140 gpm
<b>Maximum head</b>	464 ft. TDH
<b>Maximum working pressure</b>	230 psi
<b>Maximum temperature</b>	250 °F
<b>Hydraulic performance</b>	compliant with ANSI/HI 14.6 Grade 2B
<b>Suction and discharge flanges</b>	1" - 4" ANSI class 150 flanges
<b>Motor</b>	Standard 60 HZ NEMA premium efficient motors

### POWER GENERATION



### OIL AND GAS



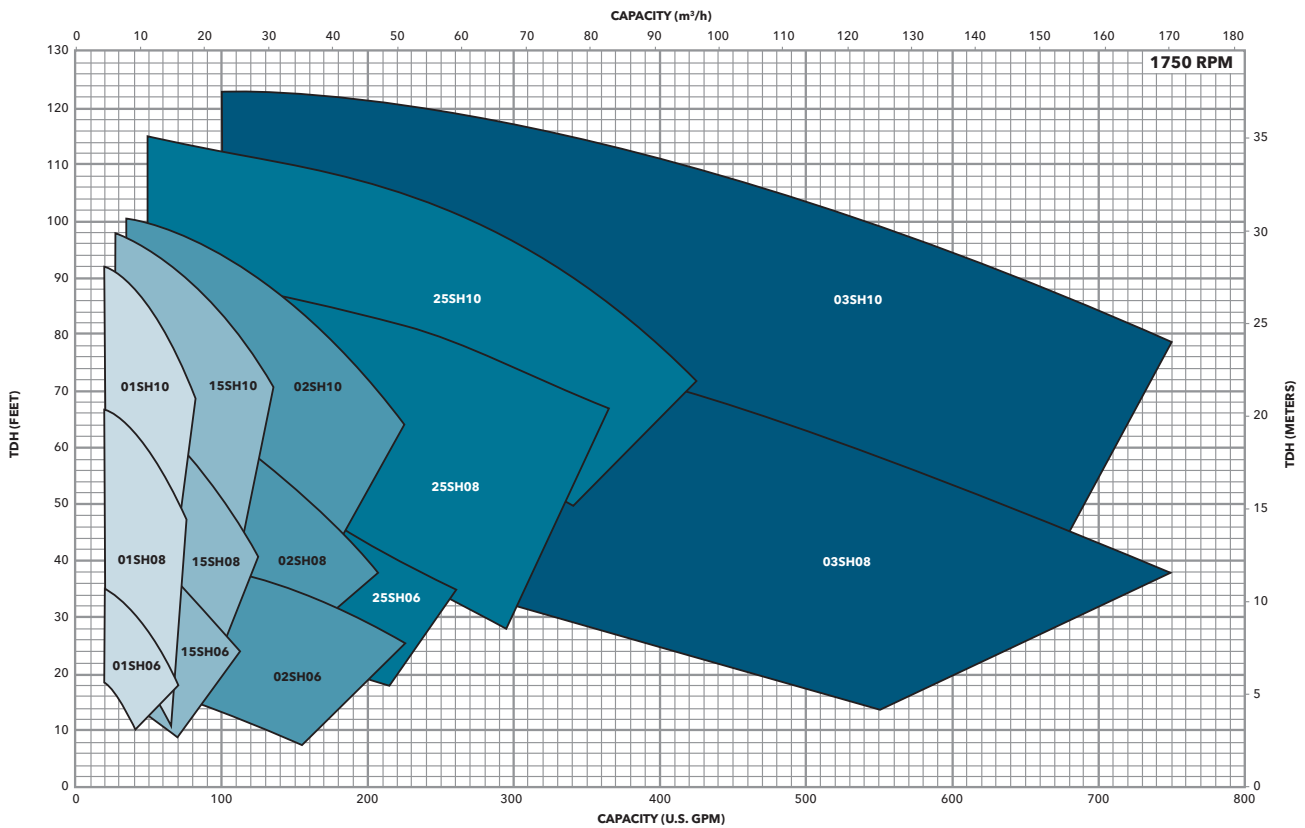
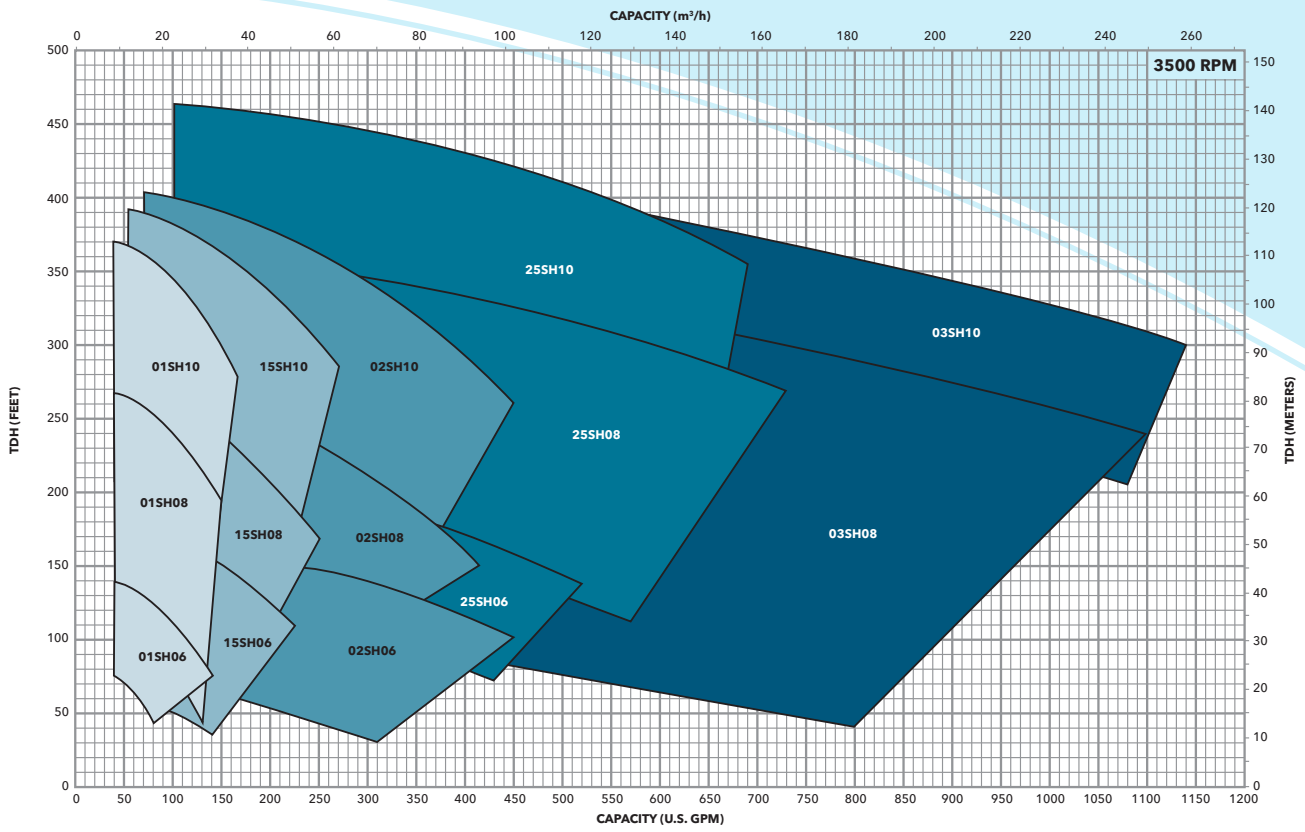
### GENERAL MANUFACTURING



### COMMERCIAL BUILDING



# PERFORMANCE COVERAGE AT 60 HZ, 2-POLES AND 4-POLES



# MAKE YOUR SYSTEM EVEN MORE EFFICIENT

To build and operate an efficient water system, you need both the right products and experts who know the application. Aquavar® IPC and Hydrovar® controllers have been designed by Xylem's engineers with these things in mind. The Aquavar® IPC or Hydrovar® variable speed controller provide built in pump protection controls and monitoring to help you optimize pump operations and increase energy savings up to 70% (vs. fixed speed) while reducing installation time.



## AQUAVAR® IPC VARIABLE SPEED CONTROLLER

### FEATURES

- Easier start-up and programming with Start-Up Genie
- Wide range of standard and permanent magnet motors with power up to 600 hp
- Multi-pump configuration for up to four (4) pumps - no need for programmable logic controller (PLC)
- Remote commissioning and monitoring with USB connectivity and software
- Two wire multi-pump connection for faster installation
- Hand on, off, and auto-on buttons available for easy pump operation at the keypad. No toggling between local and remote operation
- System redundancy with multi-master control in case of drive failure
- BACnet and Modbus as a standard for seamless BMS integration
- Submersible and above ground applications
- Wide range of voltage and enclosure options
- True 208 V coverage
- Dedicated single phase input
- Remote commissioning and monitoring with USB connectivity and software
- In-panel or handheld keypad with backlit display
- Alarm Log for last 5 alarms and maintenance events
- EMC/RFI filters and dual DC-link reactors to reduce drive noise emissions and interference
- I/O expansion cards, factory installed or field configured

### SPECIFICATIONS

<b>Indoor enclosures</b>	IP20 Open, TYPE 1, TYPE 12
<b>Outdoor enclosures</b>	TYPE 3R, TYPE 4X
<b>Input supply</b>	1.5 - 600 hp (frame A - D) wall or base mounted
<b>Ambient temperature</b>	14° F - 113° F (-10° C - 45° C) Higher temperatures can be achieved by derating the output amperage of the drive 10% for up to 122° F (50° C)
<b>Communication</b>	Modbus® RTU, Metasys N2, FLN, and BACnet standard Others available with option cards
<b>Altitudes</b>	At altitudes from 0 to 1,000 meters (0 to 3,300 ft) Nameplate rated current is available Derate for altitudes above 1,000 (3,300 ft) with a maximum operating altitude of 3,000 m (9,900 ft) Consult factory for applications above 3,000 m (9,900 ft)
<b>Relative humidity</b>	Lower than 95% without condensation
<b>Electrical - input power</b>	3 phase 380 V to 480 V ±10% 1 phase 200 V to 240 V ±10% 3 phase 200 V to 240 V ±10% 3 phase 525 V to 600 V ±10% Frequency 50 or 60 Hz, ±2 Hz
<b>Electrical - output power</b>	3 phase from 0 to V supply

# HYDROVAR® PUMP MOUNTED VARIABLE SPEED CONTROLLER



## SPECIFICATIONS

<b>Input supply (from 2 hp to 30 hp):</b>	<ul style="list-style-type: none"> <li>• 1Ø Input, 2 - 5 hp (208-240 V ± 10%)</li> <li>• 3Ø Input, 2 - 15 hp (208-240 V ± 10%)</li> <li>• 3Ø Input, 2 - 30 hp (380-460 V ± 10%)</li> </ul>
<b>Speed</b>	from 15-70 Hz
<b>Power supply</b>	single or three phase 50 or 60 Hz
<b>Motor requirements</b>	<p>3 phase, TEFC, 208 - 230 V or 460 V, 0 - 60 Hz, Class F insulation, NEMA design A or B</p> <p>Motor to fan cover of TEFC motor for a packaged unit with a small footprint</p>
<b>Maximum ambient temperature</b>	104° F
<b>Indoor enclosure</b>	NEMA 1. Avoid excessive dust, corrosives, salts and direct sunlight.
<b>Communication</b>	RS485 interface, BACnet, Modbus

## FEATURES

- Easy to setup and commission
- Large LCD display
- Pre-programming for standard motors
- Twenty-eight (28) language sets
- Optional Wi-Fi card for the flexibility of wireless connection
- Advanced motor control to reduce heating and extend the lifetime of the motor
- Embedded THDi filter for better electricity quality from the grid, extending the lifetime of the equipment
- Standard multi-pump capability of up to eight (8) pumps with no single failure point
- Premium card option for extended I/O
- Backward compatibility to existing Hydrovar products
- BACnet and Modbus as a standard for seamless BMS integration

# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

**For more information on how Xylem can help you, go to [www.xylem.com](http://www.xylem.com)**



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