



e-SVI Series

IMMERSIBLE MULTISTAGE PUMPS

TAKING RELIABILITY AND PERFORMANCE TO NEW DEPTHS

Taking reliability and performance to new depths

The e-SVI is an energy saving, vertical multistage pump with an immersible hydraulic end providing an ideal solution for top mount applications. Coupled models are equipped with standard NEMA premium efficient motors and are offered in both Cast Iron and Stainless Steel Versions. With flows up to 625 GPM (144 m³/h) and sizes from 1 to 92, the e-SVI meets the demands of a wide variety of applications in the industrial, OEM and commercial building services markets.

The e-SVI can be built with a variable number of stages to cover a wide range of duty points. To accommodate different suction depths, the e-SVI pump is configured to allow an additional number of blank stages to ensure the immersed part can reach the fluid within the tank design. It is an interchangeable drop-in replacement for .75", 1.25" and 2" NPT threaded and 2.5" and 3" flange discharge connections.

Built in Auburn, NY, the e-SVI is a powerful complement to the existing e-SV multistage pump family. In addition, the e-SVI can be paired with the Hydrovar® drive or the ultra-premium efficient Smart Motor in order to optimize the performance of the pump through variable speed.



A depth of knowledge, expertise and innovation

Why choose Xylem? When you choose Xylem as your pump solution partner, we offer you the support you need to build your confidence in us.

Pump expertise and expert advice

Each pump is designed based on Xylem's 170-plus years of pump experience, to ensure that you always have the best solution for the job at hand.

Reliability and performance

Our pump experts will ensure that your pump is optimized for your application and designed to deliver the long-lasting, reliable service that you expect.

Leading edge technology

The e-SVI pump features laser-welded impellers that reduce friction and optimize pump efficiency. Sizes 1-92 feature an inducer as part of our standard offering. The inducer helps protect against dry run and allows for reliable low-level pumping. The e-SVIE features the Xylem Smart Motor, an ultra-premium IE5 permanent magnet motor, providing efficiency well above a standard IE3 NEMA premium efficient synchronous motor.

Easy pump selection

The online selection tool simplifies ordering, allowing you to easily configure hydraulics, pump materials, motors and seals based on your application.



An immersible top tank solution

The e-SVI is specially designed to be mounted on the top of a tank, with the pump unit immersed in the liquid to be pumped. The length of the immersed pump unit can vary, depending on the solution your application requires.



1. Sizes 1-3-5, coupled, cast iron
2. Close-coupled (compact)
3. e-SVIE (with Xylem Smart Motor)
4. Sizes 1-3-5, coupled, stainless steel
5. Sizes 10-15-22, cast iron, coupled (shown with Hydrovar)
6. Sizes 10-15-22, coupled, stainless steel
7. Sizes 33-92, coupled, stainless steel

An abundance of features and benefits



Performance

- Flows up to 625 GPM (144 m³/h), meet the demands of a wide variety of applications.
- The e-SVI features an inducer as part of our standard offering. The inducer helps protect against dry run and allows for reliable low-level pumping.
- An assortment of materials and configurations let you create the right pump for the job at hand.
- An all-316SS version is available, to handle aggressive liquids and more demanding applications.
- A compact close-coupled option is available in three sizes, for applications with limited overhead clearance.
- A drain-back-to-tank design feature that comes standard on close coupled configurations allows pumped liquid to return to the tank, which minimizes spillover.
- The e-SVI can be built with a variable number of impellers, to cover a wide range of duty points.
- The e-SVI can be configured to allow an additional number of blank stages, to ensure the immersed part can reach the fluid within the tank designs.



Mechanical seal options

- An assortment of mechanical seals and materials are available, which are designed to handle a wide range of temperatures, high pressures and aggressive liquids with ease.



Efficiency

- Precision laser welded impellers reduce hydraulic losses and optimize pump efficiency.
- NEMA premium-efficient motors, combined with the optimized hydraulic design of the e-SVI pump, reduce energy consumption and operating costs.
- Xylem Hydrovar[®] drives and ultra-premium efficient Smart Motors are available, optimize the performance of the pump through variable speed.



Easy repair

- Easy-to-replace, pre-assembled cartridge seals are available, to help ensure correct assembly.
- The standard mechanical seal (coupled, sizes 1-92) can be replaced without removing the motor, to simplify repair and minimize downtime.
- The e-SVI is an interchangeable drop-in replacement for pumps with .75", 1.25" and 2" NPT threaded and 2.5" and 3" flange discharge connections.



Reliability

- Our pump experts ensure that your pump is optimized for your application and designed to deliver the long-lasting, reliable service that you expect.
- The reduced axial thrust design makes it possible to use motors with standard bearings. This allows easy selection of standard motors reducing cost and increasing availability.

A wide selection of mechanical seal options

The e-SVI pump is available in a wide assortment of mechanical seals designed to handle high temperatures, high pressures and aggressive liquids with ease. Durable materials prevent downtime and prolong the life of the seal.

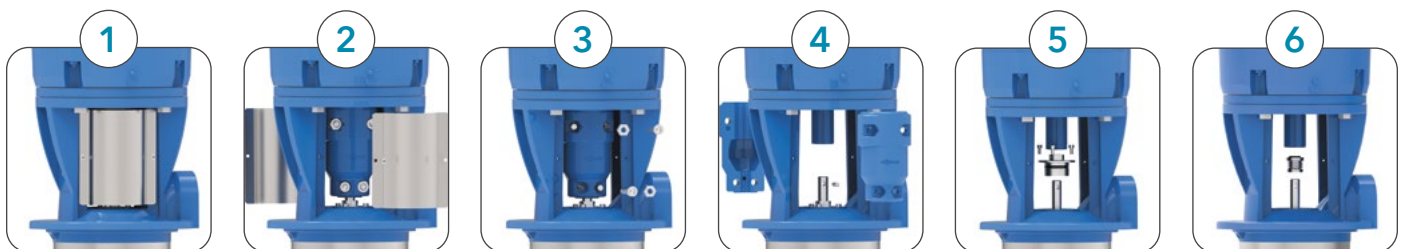
Standard mechanical seals

The e-SVI pump comes standard with a durable silicon carbide/carbon seal with an FKM elastomer. This pairing enhances durability and is compatible with a wide range of applications. For more aggressive applications, select the silicon carbide/silicon carbide with FKM or EPDM elastomers. Choose the seal option that best meets the unique demands of your application.

Easy access and repair

When it's time to repair your pump, the design of the e-SVI allows the standard mechanical seal (coupled, sizes 1-92) to be removed without having to remove the motor, thus reducing repair time.

Access the standard mechanical seal without removing the motor and replace it in a few simple steps:



Pre-assembled cartridge seals

An easy-to-replace pre-assembled cartridge seal configuration is available, which ensures that the seal components will never be assembled incorrectly. Our pre-assembled seal option is a reliable, efficient, time-saving alternative to standard seals. It is designed for reliability and built for durability, using materials that last. Plus, it's balanced to eliminate axial movement, which further minimizes wear. The pre-assembled cartridge seal comes in a range of durable materials to meet the demands of your unique applications.

Easy repair

Once the motor is removed, the pre-assembled cartridge seal can be quickly and easily replaced in a few simple steps.



Balanced cartridge seal



Seal material options

1-3-5 e-SVI Close-Coupled (Compact)

Rotating Part	Stationary Part	Elastomers	Springs	Other Components	Temperature (°F)
Standard Mechanical Seal					
Silicon carbide	Carbon	FKM	AISI 316	AISI 316	14° to 140°
Other Types of Mechanical Seals					
Silicon carbide	Silicon carbide	EPDM	AISI 316	AISI 316	-22° to 140°
Tungsten carbide	Tungsten carbide	FKM	AISI 316	AISI 316	14° to 140°

1-22 e-SVI Coupled

Rotating Part	Stationary Part	Elastomers	Springs	Other Components	Temperature (°F)
Standard Mechanical Seal					
Silicon carbide	Carbon	FKM	AISI 316	AISI 316	14° to 194°
Other Types of Mechanical Seals					
Silicon carbide	Silicon carbide	FKM	AISI 316	AISI 316	14° to 194°
Silicon carbide	Silicon carbide	EPDM	AISI 316	AISI 316	-22° to 194°
Tungsten carbide*	Tungsten carbide*	FKM	AISI 316	AISI 316	14° to 194°

* For cartridge seal only.

33-92 e-SVI Coupled

Rotating Part	Stationary Part	Elastomers	Springs	Other Components	Temperature (°F)
Standard Mechanical Seal					
Silicon carbide	Resin impregnated carbon	FKM	AISI 316	AISI 316	14° to 140°
Other Types of Mechanical Seals					
Silicon carbide	Silicon carbide	FKM	AISI 316	AISI 316	14° to 194°
Silicon carbide	Silicon carbide	EPDM	AISI 316	AISI 316	22° to 194°
Tungsten carbide	Tungsten carbide	Viton	AISI 316	AISI 316	14° to 194°

An in-depth look at the e-SVI

- 1. Motor** - High-efficiency motors reduce costs. NEMA premium-efficient motors are standard on coupled versions. Ultra-premium efficient Smart Motors are also available. ODP, TEFC, explosion proof, washdown, and other enclosures are available to suit the application.
- 2. Wear ring** - The floating, self-aligning, glass filled, high temperature polymer diffuser wear ring withstands corrosive, aggressive and high temperature liquids, and protects against abrasion and debris.
- 3. Mechanical seal duct** - In case of leakage from the mechanical seal, this duct collects the liquid back to the storage tank to avoid stagnation and crystallization of liquid close to the mechanical seal. In the case of pressurized tank applications, an optional plug is available.
- 4. Impeller design** - Reduced axial thrust design provides long bearing life with standard motors.
- 5. Casing/Tie rods** - The 316 stainless steel resists corrosion and pitting, making it durable.
- 6. Discharge connection** - Standard NPT threaded .75", 1.25" and 2" on sizes 1-22 and 2.5" and 3" flange discharge connections on sizes 33-92 coupled, allow for easy drop-in replacement and is available in cast iron or stainless steel.



Compact close-coupled e-SVI with IEC motor

7. **Mechanical seal** - An assortment of shaft seals is available, with options to handle high temperatures, high pressures and aggressive liquids.
8. **Impeller** - Laser-welded impellers optimize the pump's efficiency.
9. **Tungsten carbide bushing** - The bushing resists wear, so it can withstand heavy duty applications.
10. **Inducer** - An inducer is part of our standard offering on on sizes 1-92. The inducer protects against dry run and allows for reliable low-level pumping.
11. **Inlet strainer** - The bottom suction design, with a 316 stainless steel inlet strainer, prevents unwanted particles from entering the pump.
12. **Variable number of stages** - The e-SVI can employ a variable number of stages, to cover many duty points.
13. **Drain back to tank** - The close-coupled (compact) version has a standard design feature that minimizes spills from mechanical seal failures.
14. **Blank stages** - Additional blank stages can vary immersion depths to meet your application requirements.

e-SVI series immersible multistage pumps

- Flow: up to 625 gpm (144 m³/h)
- Head:
 - up to 830 ft. (260 m) for sizes 1-92
- Temperature of the pumped liquid (with a standard mechanical seal):
 - from 14°F to 194°F (-10°C to 90°C) for coupled version
 - from 14°F to 140°F (-10°C to 60°C) for close-coupled version
- Discharge connections and maximum operating pressure:
 - 75" NPT for sizes 1-3-5 close-coupled (compact), up to 145 psi (10 bar)
 - 1.25" or 2" NPT for sizes 1-22 coupled, up to 362 psi (25 bar)
 - 2.5" and 3" flange discharge connections for sizes 33-92 coupled, up to 435 psi (30 bar)

Published hydraulic performance is compliant with ISO 9906/HI 14.6 Grade 2B.

Direction of rotation marked with an arrow on the adapter and coupling: clockwise (looking at the pump from the top down).

Motor

For coupled configurations:

- NEMA premium-efficient motors, with either open drip proof or totally enclosed fan cooled enclosures
- Standard voltage: See options in the nomenclature

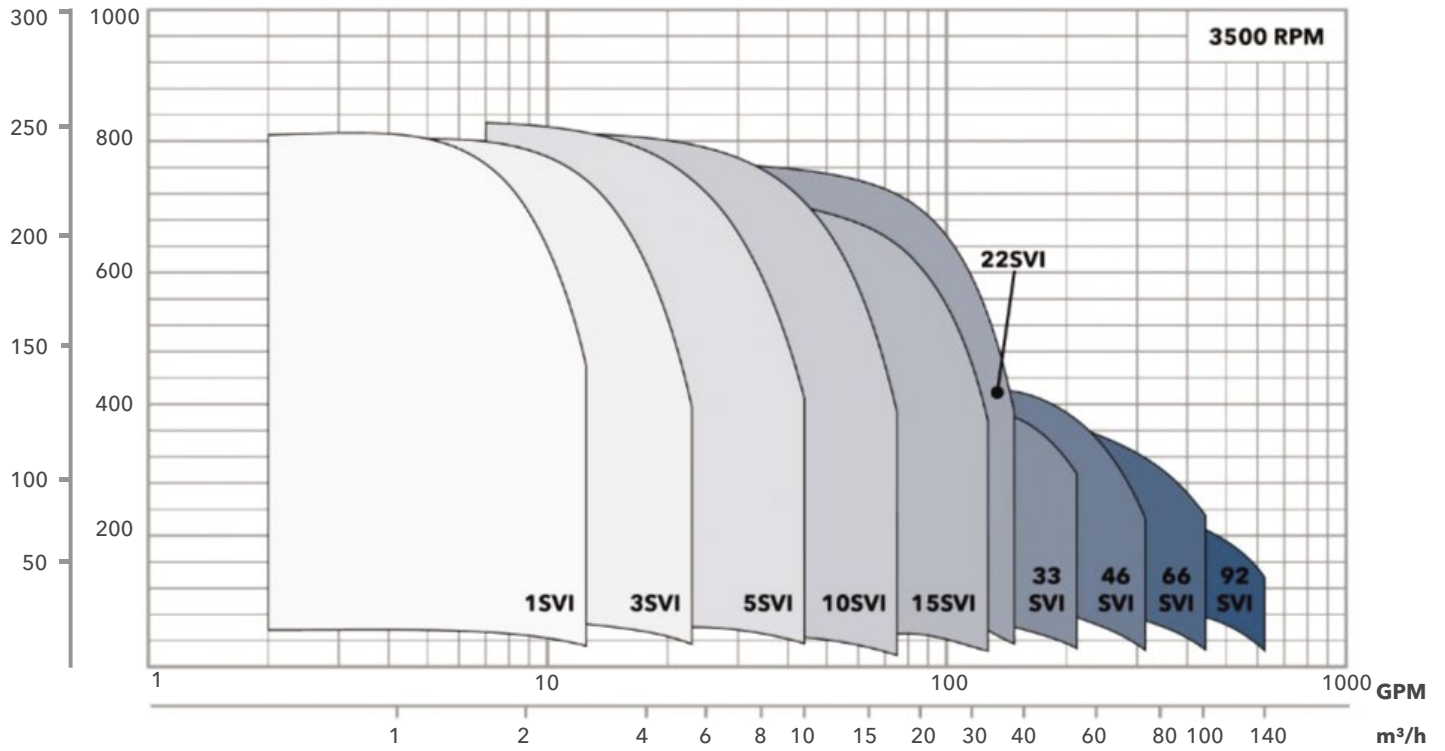
For close-coupled configurations:

- 2 pole motors with enclosed construction and external ventilation
- Standard supplied IE2/IE3 motors, compliant with Regulation (EC) no. 640/2009 and IEC 60034-30
- IP55 protection
- Class 155 (F) insulation
- Performances according to EN 60034-1
- Standard voltage: See options in the nomenclature
- Operating temperature:
 - Single-phase from 32 to 104°F (0 to 40°C)
 - Three-phase from 32 to 131°F (0 to 55°C)

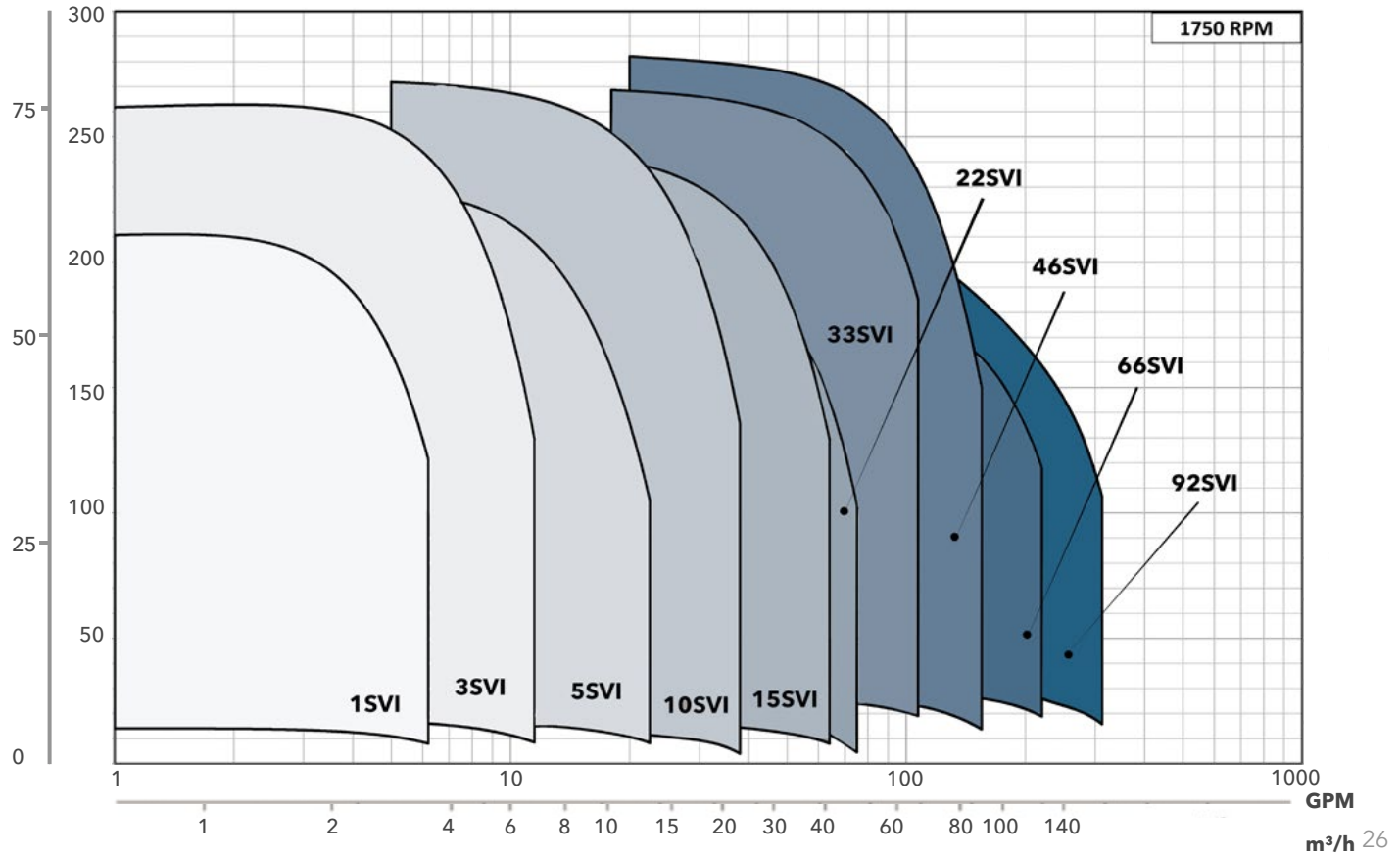


e-SVI pump coverage curves

METERS FEET



METERS FEET



e-SVIE: stainless steel immersible multistage pumps with Xylem Smart Motor

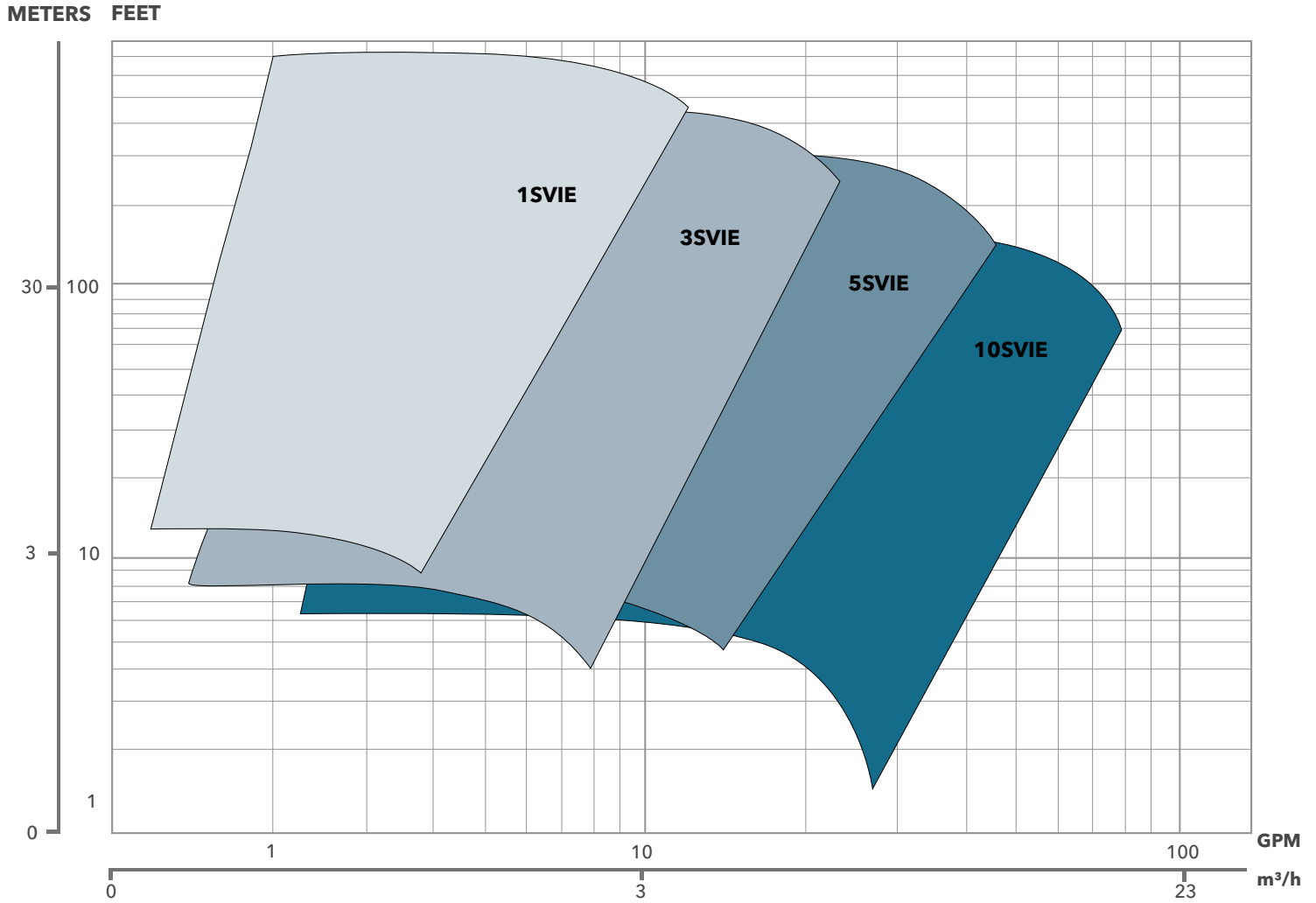
Smart high-efficiency hydraulics yield the lowest possible operating costs for a variety of applications, including industrial, OEM, and commercial building services. The e-SVIE offers ranges with multiple construction designs. Special versions are also available.

- Features the Xylem Smart Motor, an ultra-premium IE5 permanent magnet motor, providing efficiency well above a standard IE3 NEMA premium efficient asynchronous motor
 - Includes a wide range of monitoring, control and safety features right out of the box with no need to configure
 - Can operate single or multipump systems of up to three pumps, with no need for an external control panel or PLC
 - Exceeds hydraulic performance of fixed speed versions in a more compact design
- Designed for fast, easy maintenance with a balanced mechanical seal
- Reduced impeller axial thrust for longer standard motor bearing life



Specifications	
Phase and voltage	Single phase 208-230V to 2 HP, three phase 208-230/460V to 3 HP
Power	Up to 3 HP (2.2 kW)
Multipump capability	Up to 3 units
Power supply	50/60 Hz
Communication	BACnet and MODBUS® standard in single pumps
Motor	IES2 package with IE5 motors
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	Standard - 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 overtemperature sensors.

e-SVIE pump coverage curves



e-SVIE specifications

- Delivery: Up to 85 GPM (19 m³/h)
- Head: Up to 710 feet (215 m)
- Temperature of the pumped liquid (with standard mechanical seal):
 - from 14°F to 194°F (-10°C to 90°C) for coupled versions
 - from 14°F to 140°F (-10°C to 60°C) for close-coupled version
- Discharge connections and maximum operating pressure:
 - NPT for sizes 1-3-5 close-coupled (compact): up to 145 psi
 - NPT for sizes 1-10 coupled: up to 362 psi
- Published hydraulic performance is compliant to ISO 9906/HI 14.6 Grade 2B

Xylem Hydrovar® pump mounted variable speed controller

Hydrovar is the intelligent pump controller that matches performance to system demand. Xylem Hydrovar is efficient and easy to install and operate, making it the ideal variable speed controller for new and retrofit applications. The Hydrovar controller works with any standard AC motor and can be direct mounted or wall mounted. The built-in application software makes it one of the easiest drives to commission, program and operate, enabling virtually any configuration of pumps.



Features

- Easy to setup and commission
- Energy savings (up to 70%)
- Large LCD display
- Pre-programming for standard motors
- Twenty-eight (28) language sets
- 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 life 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

Specifications	
Input supply (from 2 hp to 30 hp):	<ul style="list-style-type: none"> • 1Ø input 208/230 V, 2-5 hp (208-240 V ± 10%) • 3Ø input 208/230 V, 2-15 hp (208-240 V ± 10%) • 3Ø input 460 V, 2-30 hp (380-460 V ± 10%)
Speed	From 30-60 Hz
Power supply	Single or three phase 50 or 60 Hz
Motor requirements	<ul style="list-style-type: none"> • 3 phase, TEFC, 208-230 V or 460 V, 0-60 Hz, Class F insulation, NEMA design A or B • Motor to fan cover of TEFC motor for a packaged unit with a small footprint
Maximum ambient temperature	104° F (40°C)
Indoor enclosure	NEMA 1. Avoid excessive dust, corrosives, salts and direct sunlight
Communication	RS485 interface, BACnet, MODBUS

Applications

Typical applications

Designed with flexibility and reliability in mind, e-SVI immersible multistage pumps are the ideal choice for top mount tank applications. The pump design is an effective solution to many needs in the industrial, OEM and commercial building services markets, and covers a wide variety of applications.

- Cooling and tool lubrication circuits
- Cooling systems
- Machine tooling
- Process temperature control
- Industrial washing systems (degreasing of mechanical components)
- Pressurization of clean liquids
- Transfer of condensation
- Filtering systems (reverse osmosis)
- Heat exchange
- Washing and cleaning systems (washing wells, and washing cars and trucks)
- Electronics circuit washing
- Commercial washing machines

Pumped liquids

- Cooling and lubricating fluids
- Emulsions
- Cutting, hydraulic and motor oil
- Condensation
- Water with detergents
- Desalinated water
- Water and glycol

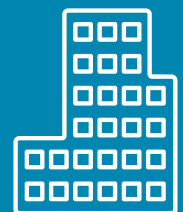
INDUSTRIAL



OEM



COMMERCIAL BUILDING



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

Learn more about the full
e-SVI product line



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