



Series e-82SC

SPLIT-COUPLED TWIN VERTICAL IN-LINE CENTRIFUGAL PUMP
Compact parallel pumping solution for increased capacity and redundancy



Series e-82SC Split-Coupled Twin Vertical In-line Centrifugal Pump

The Series e-82SC twin vertical in-line centrifugal pump expands on our focus to provide energy efficient pumping solutions. A wide hydraulic range is covered with eleven split coupled models available from 2.5" to 6" suction and discharge. The pumps are stainless steel fitted, matching the hydraulics and the flange to flange dimensions of the single e-82SC pumps, with double the power in a compact footprint. The option of parallel pumping provides redundant capacity and the capability to meet duty requirements with smaller horsepower motors & drives and improved pump efficiency at reduced flow. As system load is reduced, pumps can be de-staged to achieve higher motor and drive efficiencies.

The Series e-82SC pumps feature a patented shaft jacking coupling design to simplify maintenance. This allows one serviceman to replace the mechanical seal without the need for an additional person to help lift the pump shaft during re-assembly. This feature can reduce labor cost and pump down time by 40%*.

*Depending on mechanical room layout and availability of lifting equipment.

Applications

- Hydronic heating and cooling systems
- Light industrial process
- General service
- Pressure boosting
- OEM applications

Product Overview

- 11 models from 2.5" to 6" suction and discharge
- Min. impeller diameter = 7" & Max. impeller diameter = 11"
- NEMA Motors & motor brackets - TC and TSC motors
- Stainless steel fitted construction - Stainless steel impellers resist chemicals and reduce corrosion
- Internally flushed mechanical seals (including optional external seal)
- Back pull-out design for easy installation, service, and maintenance in a compact footprint
- Option for parallel or duty standby operation
- Flows up to 1600 GPM
- Head up to 130' TDH
- 175 psi (standard)

Motor and Motor Bracket

The Series e-82SC pump accepts 60 hz TC/TSC-face NEMA Premium motors. Its combination motor bracket / volute cover plate assures positive concentric alignment of the motor to the pump casing, which improves efficiency and reduces wear. Plus, the brackets feature a wide access area for easy seal removal.

Shaft Jacking Coupling

The Series e-82SC pumps feature a patented shaft jacking coupling design to simplify maintenance. This allows one serviceman to replace the mechanical seal without the need for an additional person to help lift the pump shaft during reassembly. In the reassembly process, as you tighten the two coupling halves, the tapered washer moves up into the angled groove and the pump shaft with impeller are raised back to the correct height setting. This innovative feature is a major benefit for service contractors and building owners as it reduces labor cost and pump downtime.

Stainless Steel Impellers

The Series e-82SC pump incorporates stainless steel impellers to improve sustainable hydraulic performance, resist chemicals and reduce corrosion. They're balanced to ANSI Grade G6.3, to provide years of quiet performance and trouble-free service.

Mechanical Seal

The seal of the Series e-82SC pump has a compact Unitized Seal Head design for easy seal replacement. It features a positive metal-to-metal drive system that reduces the torsional stress on the bellows. In addition, the bellows are pressure supported without creases or folds, which creates lower stress and extends the life of the seal. The e-82SC pump includes a standard internally flushed mechanical seal with a maximum working pressure of 175 psi.

Reliable Flapper Valve

The flapper valve provides positive shutoff to one side of the pump in duty/standby operation. In parallel operation, pressure guides the free flowing valve into a position where both sides of the pump operate together to optimize hydraulic performance. The valve is composed of EPDM rubber, which is enclosed in a stainless steel body. Self-sealing bolts are used during assembly to ensure leak-free operations.

Easy Installation, Service and Maintenance

The bottom of the volute is tapped with four bolt holes to accept an ANSI/ASME flange, which provides additional support while installing the Series e-82SC pump. A patented shaft jacking coupling design enables a single person to remove and replace the mechanical seal without disturbing the pump or motor. Flush-line filters and sediment separators are available on request.

Integrated Variable Speed Drives

Optional Bell & Gossett variable speed drives provide variable flow pumping for the broadest range of applications. The Integrated Technologic Sensorless Control drive (ITSC) combines the energy savings of variable flow with sensorless curve control to provide turn down at low flow, while eliminating the cost and time of using wired transducers and sensors. The Integrated Technologic drive (IT) is another variable speed option designed for building automation system control. It's an energy efficient and economical alternative for applications that don't require sensorless control. A third is the Technologic Intelligent Pump Controller (IPC), which has a start-up genie, making it easy to commission and easy to integrate with any BMS.

PPS Controller

Series e-82SC pumps can be integrated in parallel operation for sensorless control using an optional Technologic sensorless controller. It features a large display screen that shows actual system performance via real-time graphical displays of the hydraulic pump curve, system curve and control curve. As pumps are added to the parallel pumping system, efficiency increases because each pump works less. Plus, individual pumps can be staged ON/OFF more effectively, thanks to the controller's wide hydraulic efficiency range.

Drop-in Replacement

In retrofit installations, the Series e-82SC pump is a drop-in replacement for a Series 80SC or a Series e-80SC pump, to immediately increase capacity or to serve as a standby. It has a flapper valve, for instant changeover between the two pumps. In addition, a blanking plate is included, to isolate the stand-by head for maintenance while the primary pump is in use. The Series e-82SC provides approximately 40% space saving and piping reduction over traditional parallel installations.

Construction Materials

(For parts in contact with fluid pumped)

| Description | Stainless Steel Fitted Pump |
|---------------------------------|---------------------------------------|
| Shaft | 416 Stainless Steel |
| Volute | Cast Iron ASTM A48 Class 30B |
| Impeller | ASTM A743 Grade CF8 (304SS) |
| Impeller Key | Stainless Steel |
| Impeller Lock Washer | Stainless Steel |
| Impeller Capscrew | Stainless Steel |
| Volute Gasket | Cellulose Fiber |
| Throttle Bushing | Carbon Graphite |
| Flapper Valve | #316 Stainless Steel with EPDM gasket |
| Seal Assemblies | |
| • Standard Seal-Inside Flushed | |
| Bellows | EPR |
| Faces | Carbon-Ceramic |
| Metal Parts | Stainless Steel or Brass |
| Spring | Stainless Steel or Brass |
| • Optional Seal-Inside Flushed | |
| Bellows | EPR |
| Faces | Carbon-Tungsten Carbide |
| • Optional Seal-Outside Flushed | |
| O-Rings | EPR |
| Faces | Carbon-Ceramic |
| Metal Parts | Stainless Steel |

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, and agricultural settings. With its October 2016 acquisition of Sensus, Xylem added smart metering, network technologies and advanced data analytics for water, gas and electric utilities to its portfolio of solutions. 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

We value your feedback. Please take our 3 question survey at **bellgossett.com/survey** to let us know how we are doing.



Xylem Inc.
Phone: (847) 966-3700
Fax: (847) 965-8379
www.xylem.com/bellgossett

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