

Applications

- Hydronic heating & cooling systems
- Light industrial process
- General service

Advantages

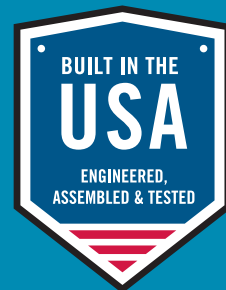
- Best in class hydraulic performance
- Low operating and maintenance cost
- Optional flange mounting supports
- Low maintenance
- Horizontal or vertical installation
- Several seal options
- Integrated Variable Speed Drive
- Sensorless Control Capability



Shown with optional variable speed drive

Series e-80

In-Line Mounted Centrifugal Pump



Series e-80 an efficient rugged close coupled pump designed for vertical and horizontal in-line mounting.

The Series e-80 is a highly efficient, heavy duty, close coupled pump designed for horizontal and vertical in-line mounting. The Series e-80 features "best in class" hydraulic performance and optimized performance improvements, delivering a broad efficiency range for fixed or variable speed operation. Available in sizes 1.5" through 8", with motors from .75 to 50 HP at 1750 RPM and 5 to 60 HP at 3500 RPM. The e-80 is available in stainless steel fitted construction, with flows to 2500 GPM, heads to 380 ft. The Series e-80 is available in 175#, 250#, and 300# working pressure designs.

Motor Bracket

Precisely machined rigid cast iron motor bracket ensures positive concentric alignment between motor and pump components. This helps promote maintenance free operation and contributes to pump longevity.

Volute

Standard construction is for 175 psi working pressure, with flanges drilled to mate with 125# ANSI companion flanges. 250 psi and 300 psi working pressure* with 250# flange drilling is optionally available!

*250 psi working pressure requires e-80-S construction.
300 psi working pressure requires e-80-S construction with silicon carbide seal.

Motors

Standard NEMA Premium JM vertical solid shaft motors in dripproof enclosures are utilized on B&G Series e-80 pumps when standard mechanical seal is selected. NEMA Premium JP motors will be utilized with stuff box configurations. Premium efficient motors with TEFC enclosures are available options. Motor may be rotated on its bracket at 90 degree intervals to allow convenient positioning of the junction box.

Integrated Variable Speed Drives

The IT & ITSC option from Bell & Gossett can be packaged with the Series e-80 pumps. The IT & ITSC option is the energy efficient and economical way to provide variable flow pumping for the broadest range of applications. The Integrated Technologic (IT) is designed for sensed or building automation system control. The IT package is a great alternative for applications that do not require sensorless control. The Integrated Technologic Sensorless Control (ITSC) combines the energy savings of variable flow with sensorless technology to eliminate the cost and time of using wired transducers and sensors.

Convenient To Install

The B&G built in mechanical seal chamber has anti-vortex baffles and armored flush line from discharge to assure seal cooling and lubrication. The bottom of the volute is tapped with four bolt holes to accept an ANSI/ASME flange which provides temporary support while installing the pump. B&G recommends optional flange mounting supports which are available in sizes ranging from 1.5" to 8".

Horizontal Mounting

Pump may be mounted horizontally in vertical piping if desired.

Convenient To Service

Back pullout design allows servicing without disturbing the piping. Repairs can be made quickly and easily. Thus down-time is kept to a minimum.

Impeller Balanced to ANSI/HI Grade G6.3

The Series e-80 includes stainless steel impellers to improve sustainable hydraulic performance & chemical resistance. The impellers are balanced to HI Grade G6.3 which provides quiet, vibration free operation.

Internally Flushed Mechanical Seal

The B&G built in mechanical seal chamber has anti-vortex baffles and armored flush line from discharge to assure seal cooling and lubrication.

Seal Selection Guide

Standard Seals (Built-In)

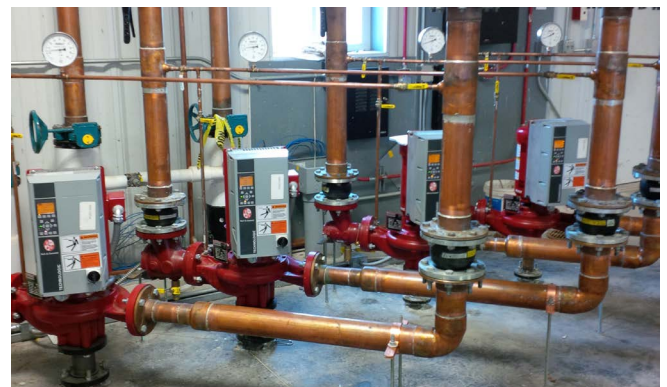
Buna Carbon-Ceramic: Temperature Range -20 to +225°F
EPR Carbon-Tungsten Carbide, Temperature Range -20 to +250°F For use on open or closed clear water systems.
Maximum working pressure 175 psi.

Flushed Single Seals (Stuffing Box Design)

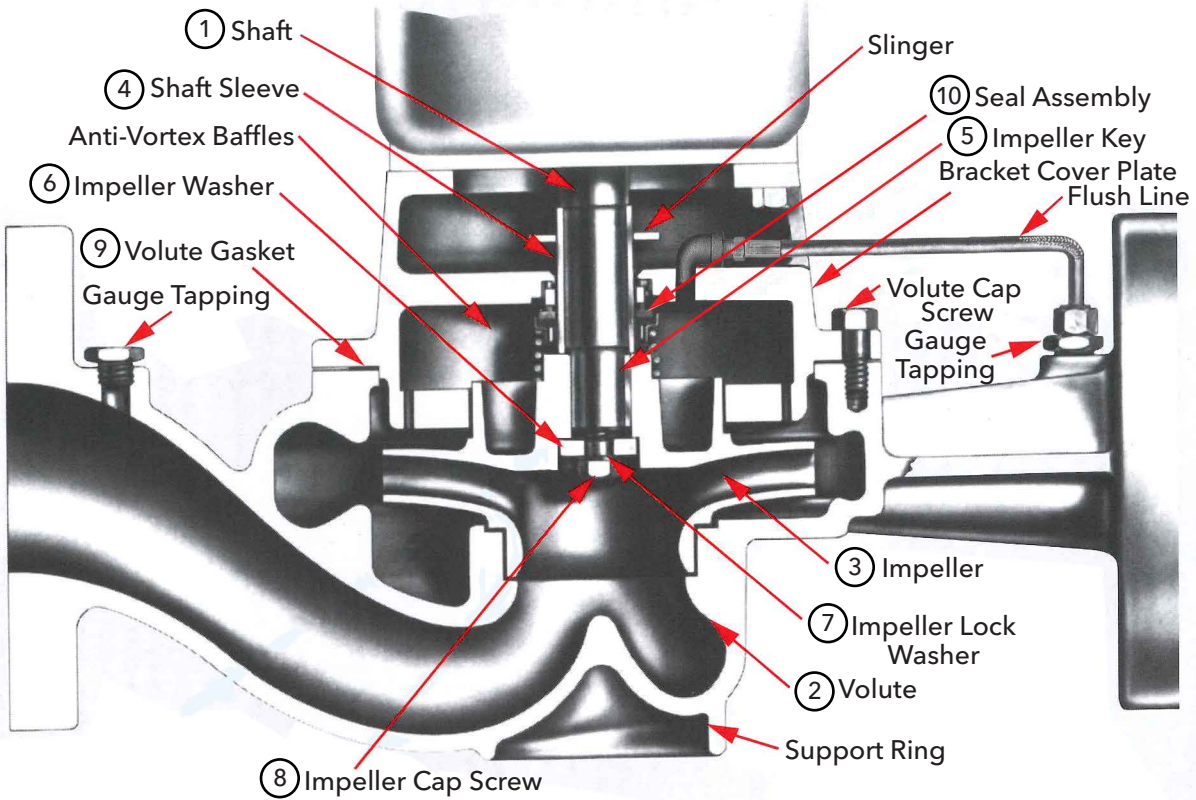
Carbon-Tungsten Carbide, Temperature Range -20 to +300°F**
For use on closed or open systems where the temperature or pressure requirements exceed the limitations of the standard seal. Available in 175 psi or 300 psi working pressures.

**For operating temperatures above 250°F, a cooled flush is required - and is recommended for temperatures above 225°F for optimum seal life. On closed systems, cooling is accomplished by inserting a small heat exchanger in the flush line to cool the fluid.

Flush-line Filters and Sediment Separators are available on special request.



e-80 with ITSC VSD installed



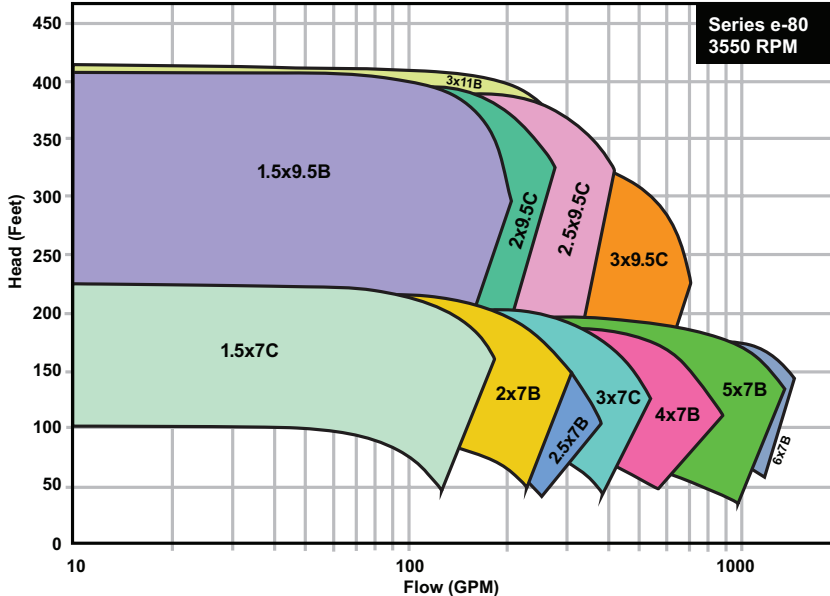
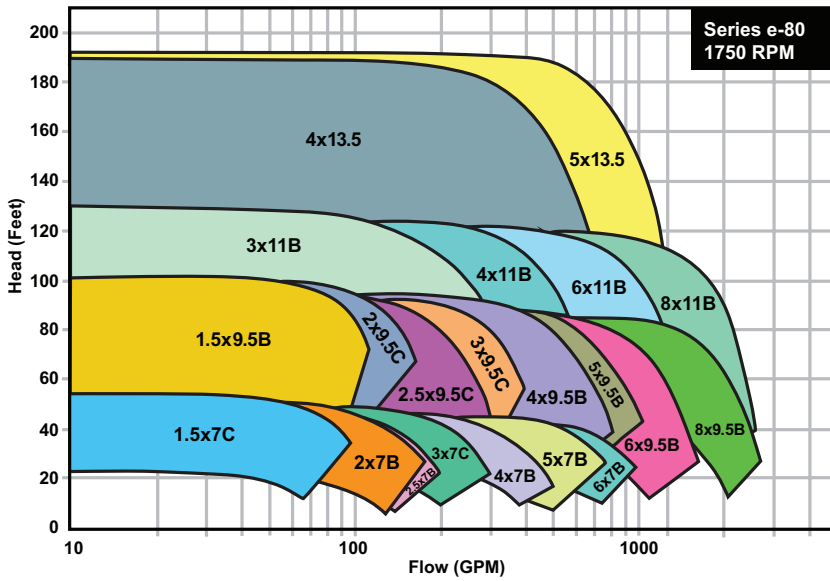
Standard Mechanical Seal

Construction Materials

(For parts in contact with fluid pumped)

Description	Stainless Steel Fitted Pump
1. Shaft	Carbon Steel
2. Volute	Cast Iron ASTM A48 Class B
3. Impeller	ASTM A743 Grade CF8 (304SS)
4. Shaft Sleeve	Stainless Steel
5. Impeller Key	#304 Stainless Steel
6. Impeller Washer	Carbon Steel
7. Impeller Lock Washer	#304 Stainless Steel
8. Impeller Capscrew	#304 Stainless Steel
9. Volute Gasket	Cellulose Fiber
10. Seal Assemblies	
Standard Seal	
Bellows	Buna N
Faces	Carbon-Ceramic
Metal Parts	Brass or Stainless Steel
Spring	Stainless Steel
For Stuffing Box Design - Single Seal	
O-Rings	EPR
Faces	Carbon-Tungsten Carbide
Metal Parts	Stainless Steel
Spring	Stainless Steel

Standard Performance Curves



Typical Specifications

Furnished and installed with capacities as shown on plans. Pumps are in-line type, close-coupled single stage design, for installation in vertical or horizontal position and capable of being serviced without disturbing piping connections.

Pump casing is Class 30 cast iron. The impeller is stainless steel, closed type, balanced to ANSI/HI Grade G6.3, keyed to the shaft and secured by locking capscrew.

The liquid cavity is sealed off at the motor shaft by an internally-flushed mechanical seal with ceramic seal seat and carbon seal ring, suitable for continuous operation at 225°F.

A stainless steel shaft sleeve completely covers the wetted area under the seal.

The pumps are rated for minimum of 175 psi working pressure (optional 250 psi and 300 psi working pressure). The pump case has gauge tappings at the suction and discharge nozzles and includes drain ports.

The motor meets NEMA specifications, size, voltage and enclosure called for on the plans. It has a heavy-duty, grease lubricated ball bearings, completely adequate for the maximum load for which the pump is designed.

Each pump is factory pressure tested per Hydraulic Institute standards. It is thoroughly cleaned and painted with at least one coat of high-grade machinery enamel prior to shipment.

Series e-80 are manufactured by Bell & Gossett.

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



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