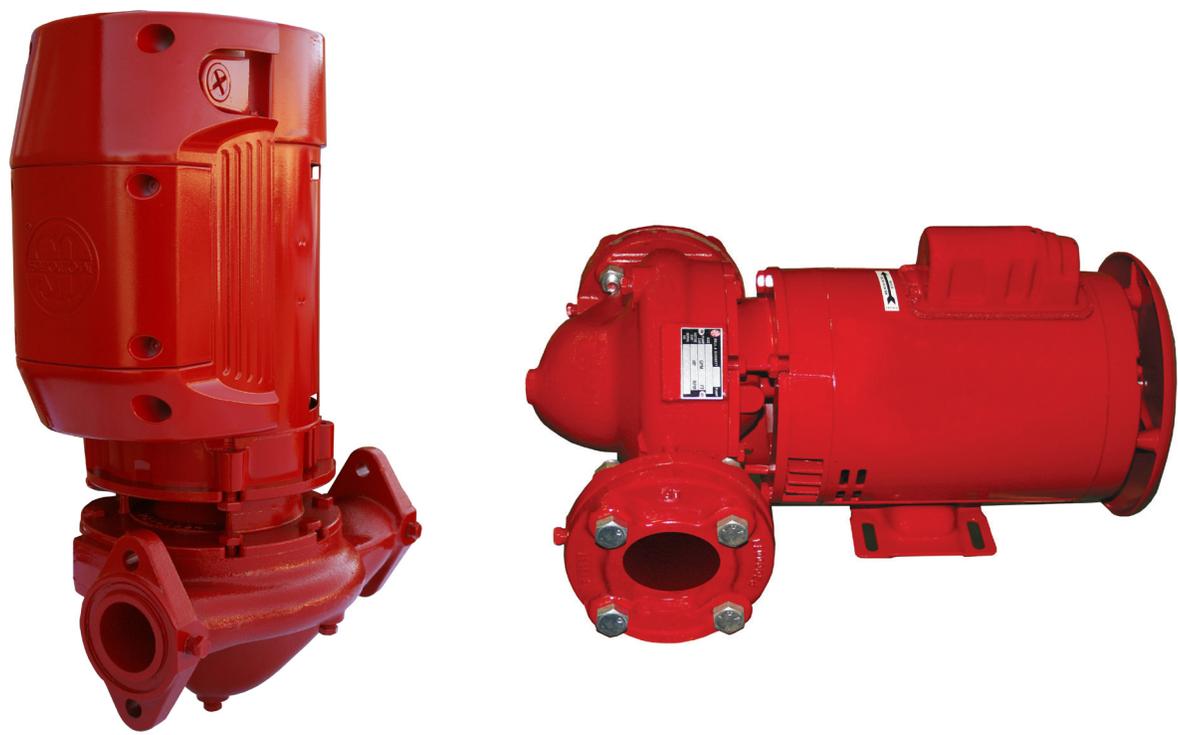


Available  
with ECM motor



Shown with optional ECM motor

# Series e-90

## Close Coupled In-Line Centrifugal Pumps



B-117D

 **Bell & Gossett**  
a xylem brand

# e-90 Series

## Close Coupled Centrifugal Pumps



The e-90 pump is a versatile in-line pump that offers wide hydraulic coverage well suited for the small commercial HVAC market. This pump is designed for heating and cooling applications with a temperature range of -10° to 250°F (-23 to 121°C) with a maximum pressure limit of 175 psi. The e-90 has eight models with connection sizes from 1"x 1" through 3"x 3". The hydraulic coverage is from 20 GPM to 250 GPM with a motor offering from 1/4 through 5 HP.

- Close-coupled, horizontal or vertical installation
- Space saving back-pull-out design, low maintenance, long life, quick shipment
- Wide range of applications; hydronic heating and cooling, pressure boosting, refrigeration and heat exchanger circulation
- Premium efficiency motors 1-5 HP, 3 phase (optional for Series e-90)
- Seven standard e-90 models available with ECM Permanent Magnet smart motors (1/2 HP & 1 HP, single phase)

### Features and Benefits:

#### Ease of Selections

The e-90 is available in 116 standard pre-configured designs or built-to-order in bronze fitted or all bronze construction to meet a wide range of pump needs. This pump is also available as a header pump, (less-volute) that will mount directly onto boilers for recirculation.

#### Ease of Installation

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

#### High Hydraulic Efficiency

The e-90 pump offers proven hydraulic performance which provides an efficiency improvement of 2%-18% at BEP.

#### Robust Design

The e-90 pump is designed on the close-coupled platform eliminating a bearing frame and coupler. The pump design eliminates the need for a stub-shaft or shaft sleeve. This pump incorporates an EPR/Carbon/Silicon-Carbide mechanical seal for long service life. The motor has a 303 stainless steel shaft for corrosion resistance, double sealed ball bearings for greater water resistance, and longer bearing life.

#### Motors

Series e-90 motors utilize NEMA standard 56J in ODP enclosures with vertical drip covers.

**Single phase motors** are 115/230 volt with optional ECM Permanent Magnet Variable Speed motors with motor mounted user interface available in 1/2-1 HP. ECM motors adjust motor speed to match flow and head requirements thus substantially reducing power consumption. The user interface allows for manual adjustment or remote control via 10 VDC input/output.

**Three phase motors** are 208-230/460 volt with optional premium efficiency design motors available in 1-5 HP.

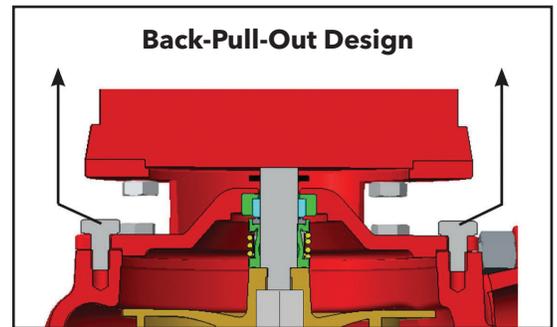
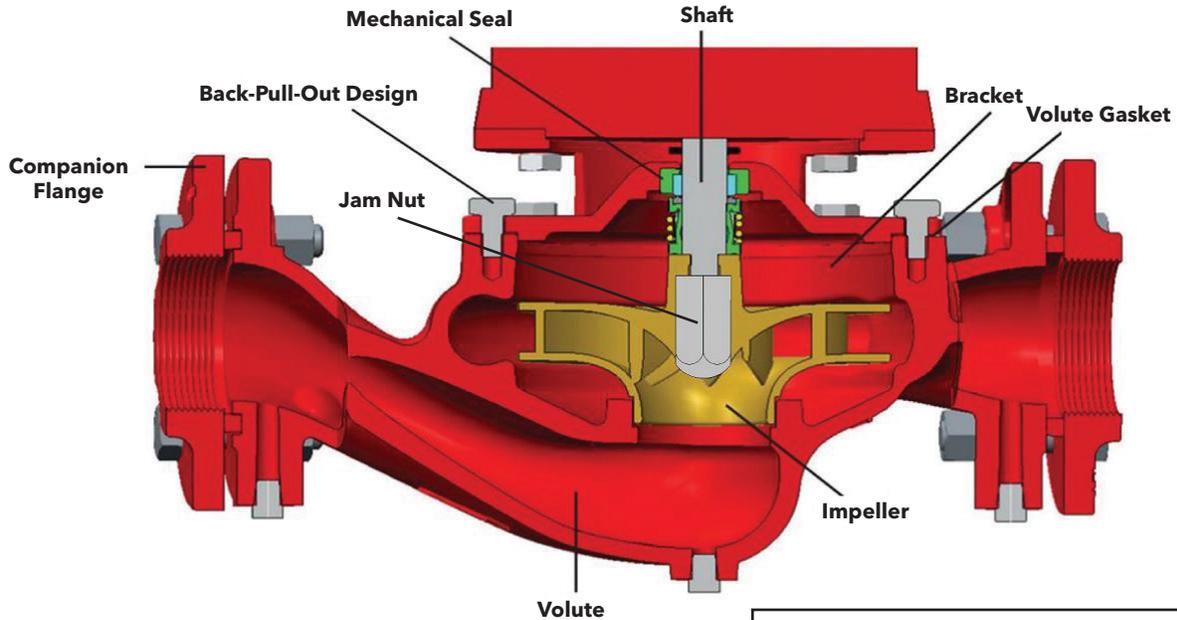
TEFC enclosures are optional for non-ECM motors in both single and three phase.



**Series e-90 with ECM motor**

## Construction Material For Parts In Contact With Fluid

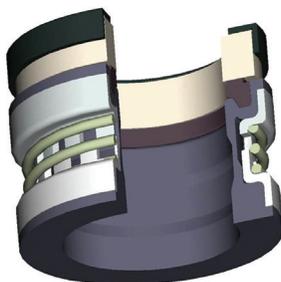
Pump Series e-90	Volute	Impeller	Volute Gasket	Shaft	Bracket	Companion Flange
<b>Bronze Fitted Pump</b>	Cast Iron ASTM #A159	ASTM #B584	Cellu-Fiber	Stainless Steel	Cast Iron ASTM #A159	1", 1 1/4", 1 1/2" - Steel SAE1006 2", 3" - Cast Iron ASTM #A159
<b>All Bronze Pump</b>	Cast Bronze ASTM #B584	ASTM #B584	Cellu-Fiber	Stainless Steel	CF8 Stainless ASTM #A351	1", 1 1/4", 1 1/2" - Bronze ASTM #36 2", 3" - Cast Bronze ASTM #B584



### Ease of Maintenance

Back-pull-out design allows the pump to be serviced without disturbing the piping. Motors include sealed for life bearings. This pump design requires no coupler or stub-shaft to install. The one-piece unitized mechanical seal simplifies seal removal and replacement.

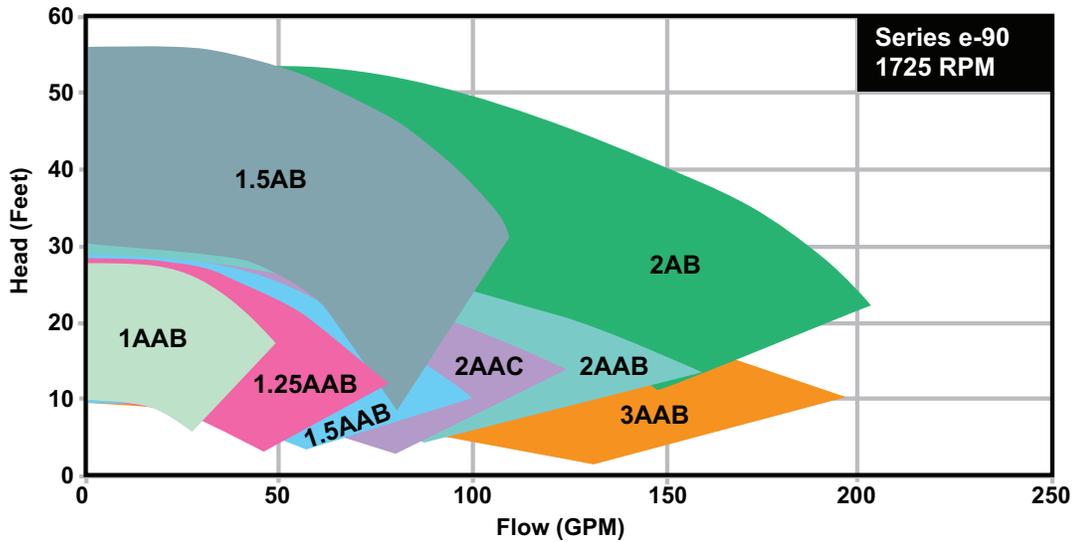
Pump Series e-90	Mechanical Seal					
	Seal Housing	Seal Elastomer	Seal Ring	Spring	Seat Insert	Maximum Temperature
<b>Standard</b>	Stainless Steel	EPR	Carbon	Stainless Steel	Silicon-Carbide	250°F
<b>Optional</b>	Stainless Steel	FKM	Carbon	Stainless Steel	Silicon-Carbide	225°F
<b>Optional</b>	Stainless Steel	EPR	Graphite Silicon-Carbide	Stainless Steel	Graphite Silicon-Carbide	250°F



### Mechanical Seal

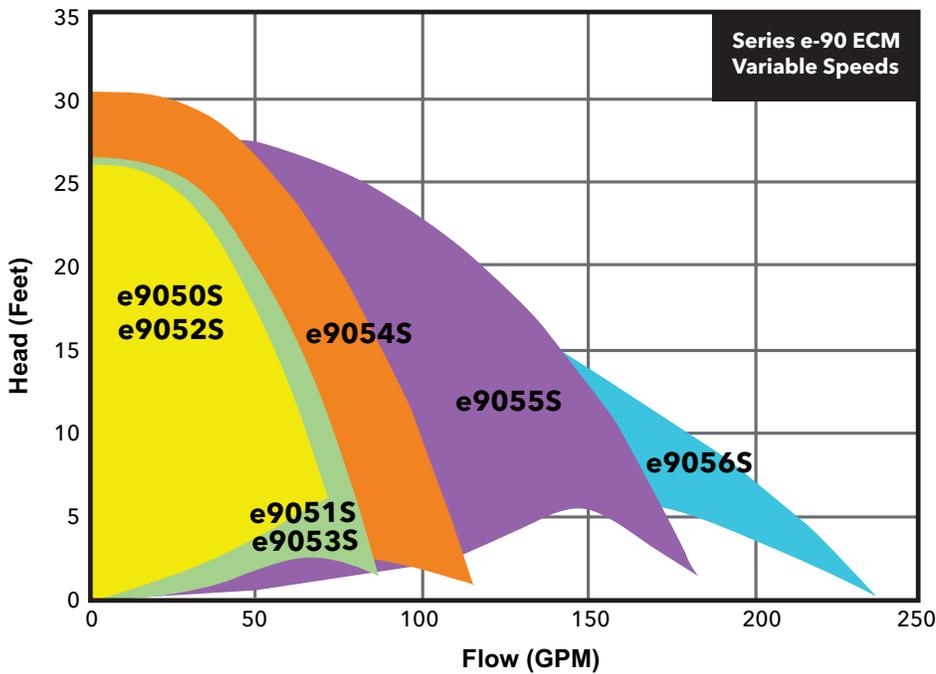
The e-90 pump uses a modern unitized mechanical seal with a stainless steel drive mechanism that puts less torsional stress on the seal bellows, allowing for longer mechanical seal life.

## Standard Performance Curves



## ECM Performance Curves

### Hydraulic Curve Performance Range Series e-90 with ECM



We value your feedback. Please take our 3 question survey at [bellgossett.com/survey](http://bellgossett.com/survey) to let us know how we are doing.



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