

Job/Project: ST1250 / Boiler Selection Guide	Representative: R.D. Bitzer Company	
ESP-Systemwise: WIZE-82E800	Created On: 07/08/2020	Phone: (215) 604-6600
Location/Tag: Single Speed 20FdT	Email: sales@rdbitzer.com	
Engineer:	Submitted By:	Date:
Contractor:	Approved By:	Date:

## Small Close Coupled In-Line Centrifugal Pump

**Series: e-90 Stock**

**Model: 2AAB**

### Features & Design

- Designed to be mounted in the piping
- Installed wither horizontally or vertically
- Bolted Flange Connections
- Internally Self-Flushing Mechanical Seal



\*The Bell & Gossett Series e-90 is available in 116 standard pre-configured designs and can be built-to-order in bronze fitted or all bronze construction. The e-90 pump offers proven hydraulic performance which provides an efficiency improvement of 2%-18% at BEP.

<http://bellgossett.com/pumps-circulators/in-line-pumps/e-90/>

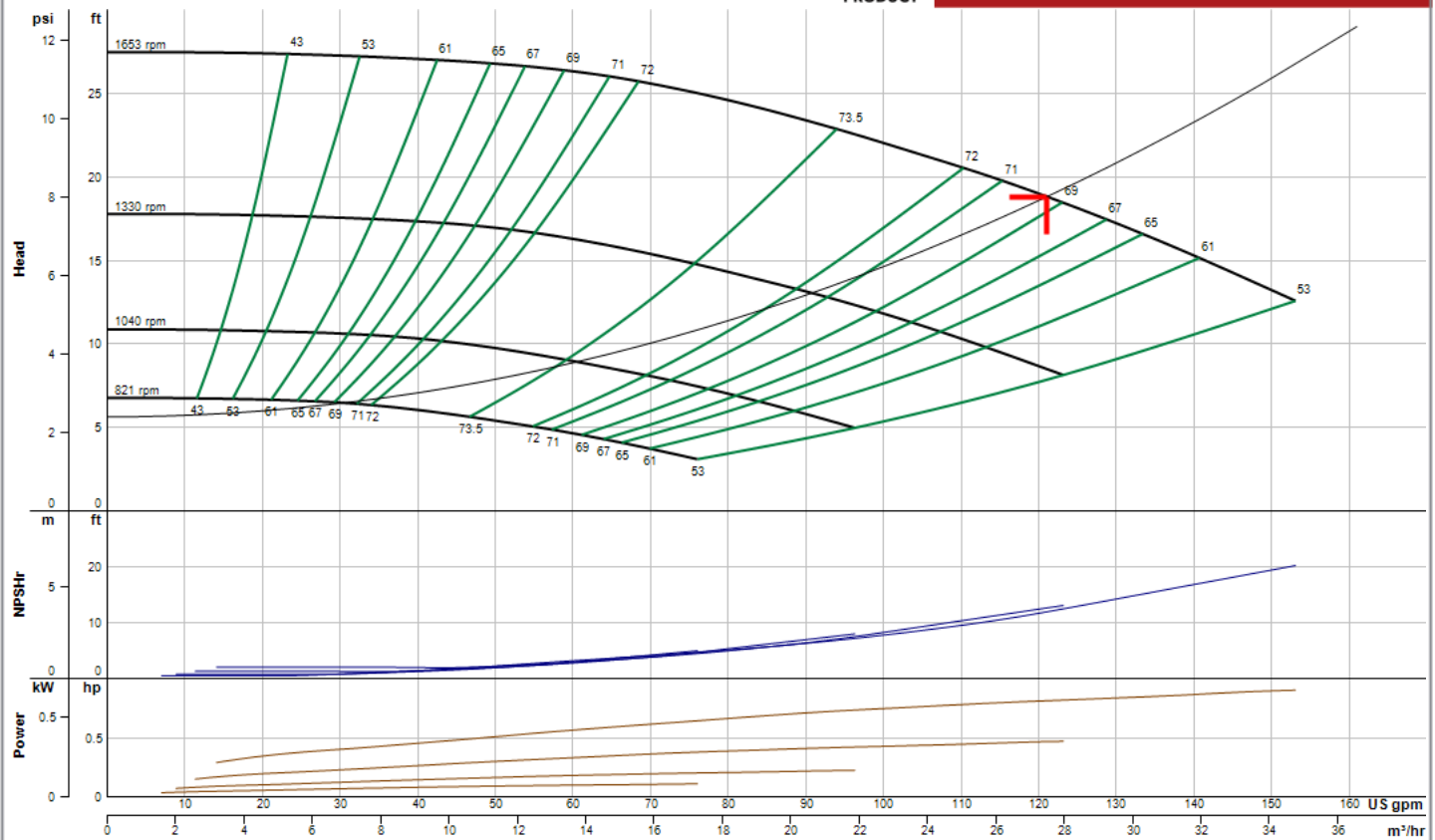
### Pump Selection Summary

Duty Point Flow	121 US gpm
Duty Point Head	18.8 ft
Control Head	5.64 ft
Duty Point Pump Efficiency	69.3 %
Part Load Efficiency Value (PLEV)	72.0 %
Impeller Diameter	5.25 in
Motor Power	1 hp
Duty Point Power	0.813 bhp
Motor Speed	--- rpm
RPM @ Duty Point	1653 rpm
NPSHr	12 ft
Minimum Shutoff Head	27.5 ft
Minimum Flow at RPM	14.1 US gpm
Flow @ BEP	94 US gpm
Fluid Temperature	140 °F
Fluid Type	Water
Weight (approx. - consult rep for exact)	70 lbs
Pump Floor Space Calculation	N/A ft²

## Performance Curve



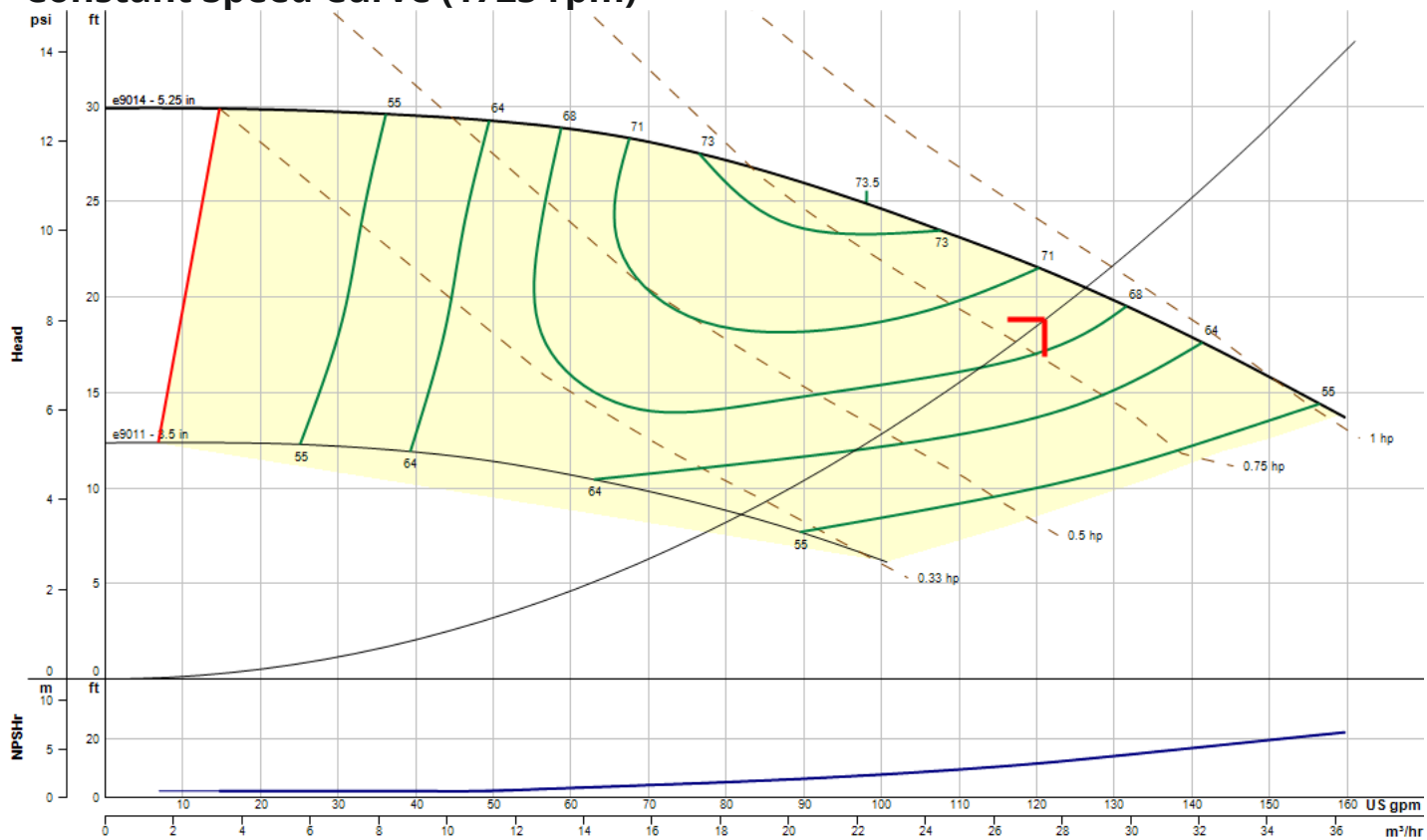
**e-90 Stock  
2AAB**



Performance curve meets 14.6 / ISO 9906 acceptance criteria

WIZE-82E800

## Constant Speed Curve (1725 rpm)



### Operating Point

**Flow:** 121 US gpm **Head:** 18.8 ft **Speed:** 1653 **Efficiency:** 69.3% **Point BHP:** 0.813 **End Of Curve:** 79%

### Maximum Duty Point (at rated motor speed)

**Flow:** 126 US gpm **Head:** 20.5 ft **Speed:** 1725 **Efficiency:** 69.4% **Point BHP:** 0.924 **NOL Flow:** 160 US gpm **Runout Flow:** 160 US gpm **NOL (BHP):** 1.03



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### Standard Materials of Construction \*contact your local rep for configuration

Construction:	Bronze Fitted	All Bronze
<b>Volute</b>	Cast Iron ASTM A159	Cast Bronze ASTM B584
<b>Impeller:</b>	ASTM B584	ASTM B584
<b>Shaft</b>	Stainless Steel	Stainless Steel
<b>Bracket</b>	Cast Iron ASTM #A159	CF8 Stainless ASTM #A351
<b>Companion Flange</b>	1", 1 1/4", 1 1/2" - Steel SAE1006 2", 3" - Cast Iron ASTM #A159	1", 1 1/4", 1 1/2" - Bronze ASTM #36 2", 3" - Cast Bronze ASTM #B584

### Pump Options \*contact your local rep to configure

TEFC enclosures for non-ECM motors	Single and Three Phase motors
Available as a Header pump for boiler recirculation	ECM Permanent Magnet Smart Motor Option
FKM and EPR seals	

### Standard Mechanical Seal Assembly

Elastomer:	EPR
Spring	Stainless Steel
Seat Insert	Silicon-Carbide
Seal Ring	Carbon
Seal Housing	Stainless Steel

### Maximum Operating Tolerances

Max Working Pressure (standard)	175 psi (12 bar)
Max fluid Temperature	250°F

