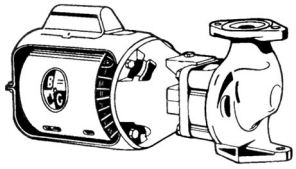
Bell & Gossett®

SUBMITTAL

A-120G

JOB:	**REPRESENTATIVE:**	
UNIT TAG:	**ORDER NO.**	**DATE:**
ENGINEER:	**SUBMITTED BY:**	**DATE:**
CONTRACTOR:	**APPROVED BY:**	**DATE:**



Iron & Bronze* Booster Pump

*Where potable water is supplied, use a bronze pump.

DESCRIPTION

Bell & Gossett in-line three-piece booster pumps are designed for hydronic systems. Series 100 and HV are Listed with Underwriter's Laboratories.

CONSTRUCTION

Body: Cast Iron or Bronze

Seal: Mechanical, Carbon on Ceramic

Shaft: Carbon Steel, Heat Treated

Pump and Motor Bearings:
- –All except PD-38 and PD-40: Bronze Sleeve, Oil Lubricated
- –PD-38 and PD-40: Ball Bearing, Permanently Lubricated

Coupler:
- –All except PD38 and PD40: Flexible, Spring type
- –PD38 and PD40: Flexible, sleeve type.

Motor: Bell & Gossett 1/12 hp thru 1-1/2 hp standard single and three phase drip-proof motors are Recognized under the Component Program of Underwriter's Laboratories, Inc. Bell & Gossett boosters with their respective Bell & Gossett manufactured standard 60 hertz single and three phase motors are Certified by CSA.

OPERATIONAL DATA

Maximum Working Pressure: 125 PSI (682 kPa)
Maximum Operating Temperature:
- Standard Seal: 225°F (107°C) continuous
- Special Seals: 250°F (121°C) continuous (consult local B&G Representative)

Maximum Motor RPM: 1750

IMPELLER:

PUMP MODEL NO.	IRON BODY	BRONZE BODY
Series 100® Pump	Polypropylene* or Brass	Polypropylene* or Brass
Series HV & 2	Phenolic* or Brass	Phenolic* or Brass
PR, 2-1/2, LD3	Steel, Zinc Plated or Brass	Brass
HD3, PD35, PD37	Steel, Zinc Plated or Brass	Brass
PD38 & PD40	Cast Iron or Brass	Brass

* System temperatures above 225 °F (107 °C) require a brass impeller.

SCHEDULE

MODEL NO.	FLANGE SIZE NPT INCHES	**STANDARD 60 CYCLE CHARACTERISTICS					TAGGING INFORMATION	QUANTITY			
								Iron Body		Bronze Body	
		HP	PH	VOLTAGE*	F.L. AMPS	RPM		STD	BI	BI	NFI
Series 100	3/4, 1, 1-1/4 & 1-1/2	1/12	1	115	1.75	1725					
Series PR	3/4, 1, 1-1/4 & 1-1/2	1/6	1	115	1.9	1725					–
Series HV	1, 1-1/4 & 1-1/2	1/6	1	115	1.9	1725					
2	2	1/6	1	115	1.9	1725					
2-1/2	2-1/2	1/4	1	115	3.0	1725					–
LD3	3	1/4	1	115	3.0	1725					–
HD3	3	1/3	1	115/230	4.2/2.1	1725					–
PD-35S	3	1/2	1	115/230	5.2/2.6	1725					–
PD-35T	3	1/2	3	208-230/460	1.8-1.7/.85	1750					–
PD-37S	3	3/4	1	115/230	7.0/3.5	1725					–
PD-37T	3	3/4	3	208-230/460	2.45-2.4/1.2	1750					–
PD-38S	3	1	1	115/230	9.8/4.5	1725					–
PD-38T	3	1	3	208-230/460	3.4-3.4/1.7	1725					–
PD-40S	3	1-1/2	1	115/230	18.0/9.0	1725					–
PD-40T	3	1-1/2	3	208-230/460	4.8-4.8/2.4	1725					–

**Motors with special electrical characteristics are available on request at additional cost.

*1 PH Motors: Built-in overload protection
3 PH Motors: Overload protection must be provided
Bell & Gossett Booster Pumps equipped with a drip-proof motor are recommended for indoor use only.

Bell & Gossett
ITT Industries
Engineered for life

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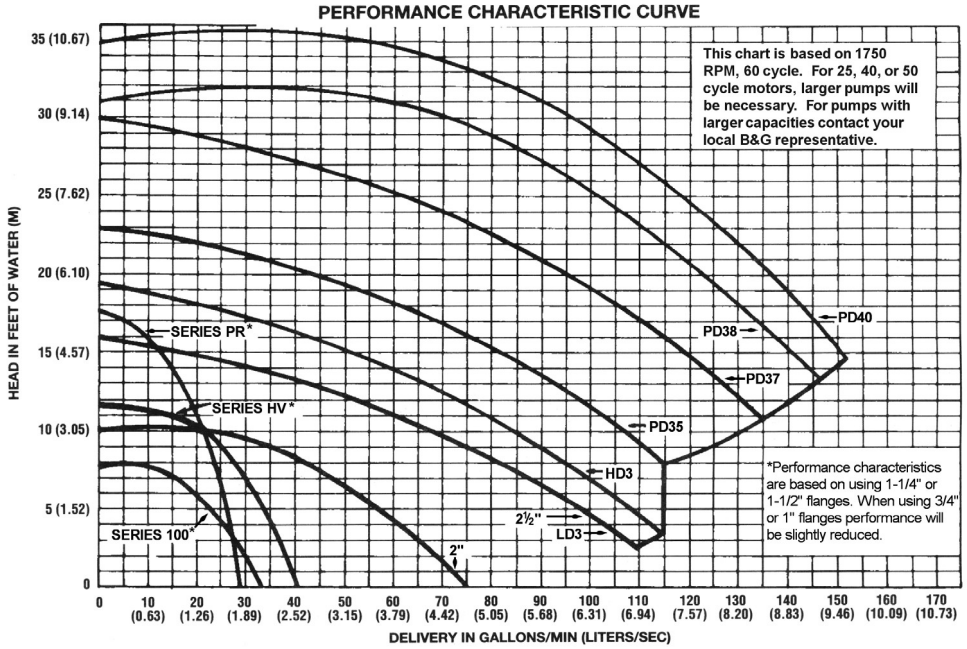
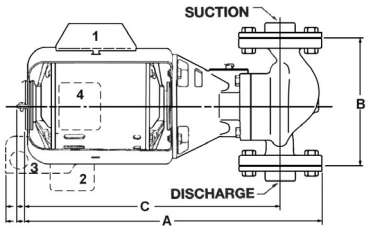
PERFORMANCE CHARACTERISTIC CURVE



MODEL NO.	FLANGE SIZE NPT INCHES	DIMENSIONS IN INCHES (MM)			APPROX. SHPG. WT. LBS. (Kg)	
		A	B	C	IRON BODY	BRONZE BODY
Series 100	3/4, 1, 1-1/4 & 1-1/2	14-7/8 (378)	6-3/8 (162)	12-3/4 (324)	20 (9)	21 (10)
Series PR	3/4, 1, 1-1/4 & 1-1/2	15-1/4 (387)	8-1/2 (216)	12-3/4 (324)	30 (14)	32 (15)
Series HV	1, 1-1/4 & 1-1/2	15-3/8 (391)	8-1/2 (216)	13 (330)	28 (13)	30 (14)
2	2	16-5/8 (422)	8-1/2 (216)	14 (356)	36 (16)	39 (18)
2-1/2	2-1/2	17-1/4 (438)	10 (254)	14 (356)	54 (24)	58 (26)
LD3	3	17-1/4 (438)	10 (254)	14 (356)	53 (24)	57 (26)
HD3	3	17-1/2 (444)	10 (254)	14-1/4 (362)	55 (25)	59 (27)
PD-35S	3	20-1/4 (514)	12 (305)	16-7/8 (429)	75 (34)	80 (36)
PD-35T	3	20-1/4 (514)	12 (305)	16-7/8 (429)	75 (34)	80 (36)
PD-37S	3	20-1/4 (514)	12 (305)	16-7/8 (429)	75 (34)	80 (36)
PD-37T	3	20-1/4 (514)	12 (305)	16-7/8 (429)	75 (34)	80 (36)
PD-38S	3	22-11/16 (576)	14-1/2 (368)	18-15/16 (481)	128 (58)	138 (63)
PD-38T	3	23-15/16 (608)	14-1/2 (368)	20-3/16 (513)	125 (57)	135 (61)
PD-40S	3	24-3/4 (629)	14-1/2 (368)	21 (533)	130 (59)	140 (64)
PD-40T	3	21-7/8 (556)	14-1/2 (368)	18-1/8 (460)	127 (58)	137 (62)

Dimensions are subject to change.
Not to be used for construction purposes unless certified.



Electrical Box Arrangement for pumps with B&G Manufactured Motors

MODEL NO.	#1	#2	#3	#4
Series 100	115 & 230Volt 60Hz 1PH 110 & 220Volt 50Hz 1PH	–	–	–
Series HV, PR & 2	115 & 230Volt 60Hz 1PH 110 & 220Volt 50Hz 1PH	–	3PH	–
2-1/2", LD3 & HD3	–	1PH	–	–
PD35 & PD37	–	–	ALL	–
PD38 & PD40	–	–	–	ALL

TYPICAL SPECIFICATIONS

The Contractor shall furnish and install In-The-Line pumps as illustrated on the plans and in accordance with the following specifications:

1. The pumps shall be of the horizontal, oil-lubricated type. (Except PD-38, PD-40 are permanently lubricated) Specifically designed and guaranteed for quiet operation. Suitable for 125# (862 kPa) working pressure.

2. The pumps shall have a ground and polished steel shaft with a hardened integral thrust collar. The shaft shall be supported by two horizontal sleeve bearings designed to circulate oil. (Except PD-38, PD-40 are grease lubricated ball bearing design) The pumps are to be equipped with a mechanical seal with carbon seal face rotating against a ceramic seat. The motor shall be non-overloading at any point on pump curve.

3. The motor shall be of the drip-proof, sleeve-bearing, (Except PD-38, PD-40 are ball bearing) quiet operating, rubber-mounted construction. Motors shall have built-in thermal overload protectors. (Exception - PD models with 3-phase motors, see paragraph 4.)

4. For PD models with 3-phase motors, add the following: The Contractor shall furnish and install a magnetic starter for each booster pump with at least two thermal overload protectors. The starter shall be equipped with manual reset buttons.

All Units must be ITT Bell & Gossett Model No. _____, or approved equal with capacity of _____GPM at _____ft. head when directly driven through a self aligning flexible coupling by an oil lubricated motor, _____volts ____cycle___phase.

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