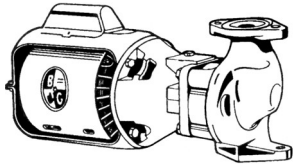


|                                                                                       |                                                                                                       |                                              |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>JOB:</b><br><br><br><br><b>UNIT TAG:</b><br><b>ENGINEER:</b><br><b>CONTRACTOR:</b> | <b>REPRESENTATIVE:</b><br><br><br><br><b>ORDER NO.</b><br><b>SUBMITTED BY:</b><br><b>APPROVED BY:</b> | <b>DATE:</b><br><b>DATE:</b><br><b>DATE:</b> |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------|



## Iron & Bronze<sup>\*</sup> Booster Pump

<sup>\*</sup>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.**  
Series 100® Pump

Series HV & 2

PR, 2-1/2, LD3

HD3, PD35, PD37

PD38 & PD40

<sup>\*</sup> System temperatures above 225 °F (107 °C) require a brass impeller.

#### IRON BODY

Polypropylene\* or Brass

Phenolic\* or Brass

Steel, Zinc Plated or Brass

Steel, Zinc Plated or Brass

Cast Iron or Brass

#### BRONZE BODY

Polypropylene\* or Brass

Phenolic\* or Brass

Brass

Brass

Brass



### SCHEDULE

| MODEL NO.  | FLANGE SIZE NPT INCHES | **STANDARD 60 CYCLE CHARACTERISTICS |    |             |              |      | TAGGING INFORMATION | QUANTITY  |    |             |     |
|------------|------------------------|-------------------------------------|----|-------------|--------------|------|---------------------|-----------|----|-------------|-----|
|            |                        | HP                                  | PH | VOLTAGE*    | F.L. AMPS    | RPM  |                     | Iron Body |    | Bronze Body |     |
|            |                        |                                     |    |             |              |      |                     | 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 | 1.8-1.7/1.85 | 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

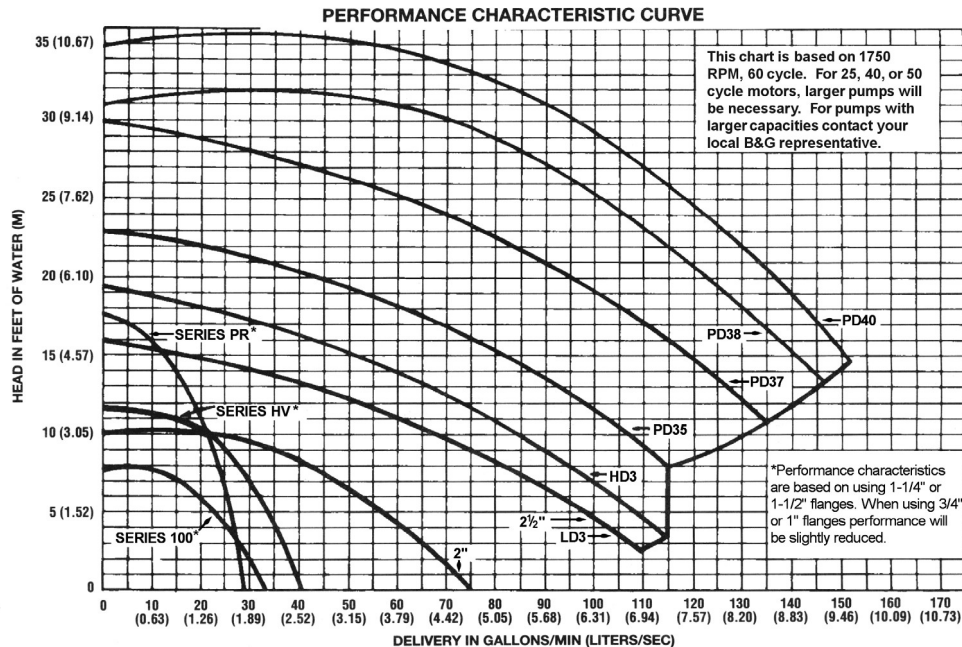
3 PH Motors: Overload protection must be provided

Bell & Gossett Booster Pumps equipped with a drip-proof motor are recommended for indoor use only.

Bell & Gossett

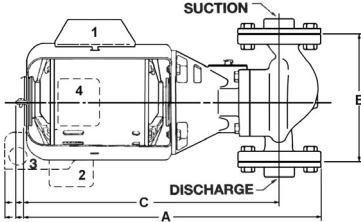


**ITT Industries**  
Engineered for life



| 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<br>110 & 220Volt 50Hz 1PH | -   | -   | -   |
| Series HV, PR & 2 | 115 & 230Volt 60Hz 1PH<br>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:

- 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.
- 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.
- 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.)
- 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.



**Bell & Gossett**

Bell & Gossett  
8200 N. Austin Avenue, Morton Grove, IL 60053  
Phone (847)966-3700  
Facsimile (847)966-9052  
www.bellgossett.com

