

# LANCASTER

4" Submersible Well Pumps  
 SERIES "PP" - PREMIER PRESSURE  
 Using Franklin Electric Constant Pressure Controller

| PUMP MODEL NO.                                           |     | 1.5 H.P.          |      |      |      |      | 1.5 H.P.          |      |      |      |      | 1.5 H.P.         |      |      |      |      |
|----------------------------------------------------------|-----|-------------------|------|------|------|------|-------------------|------|------|------|------|------------------|------|------|------|------|
| LENGTH— WEIGHT<br>(pump and motor assy.)                 |     | 27.5" — 31.8 lbs. |      |      |      |      | 27.8" — 32.2 lbs. |      |      |      |      | 27.0" — 31.5 lbs |      |      |      |      |
| Stages—Discharge                                         |     | 13 - 1.25" NPT    |      |      |      |      | 12 - 1.25" NPT    |      |      |      |      | 10 - 1.25" NPT   |      |      |      |      |
| Constant Pressure<br>PSI at Pressure Sensor              |     | 30                | 40   | 50   | 60   | 70   | 30                | 40   | 50   | 60   | 70   | 30               | 40   | 50   | 60   | 70   |
| DEPTH<br>TO<br>WATER<br>IN<br>FEET                       | 40  | 10.9              | 10.7 | 10.5 | 10.3 | 10.1 | 15.7              | 15.4 | 15.0 | 14.7 | 14.4 | 17.6             | 17.4 | 17.3 | 17.1 | 16.9 |
|                                                          | 80  | 10.6              | 10.4 | 10.2 | 9.9  | 9.7  | 15.1              | 14.8 | 14.5 | 14.2 | 13.8 | 17.3             | 17.2 | 17.0 | 16.5 | 16.0 |
|                                                          | 120 | 10.2              | 10.0 | 9.8  | 9.5  | 9.3  | 14.6              | 14.3 | 13.9 | 13.5 | 13.1 | 17.0             | 16.7 | 16.2 | 15.5 | 14.9 |
|                                                          | 160 | 9.8               | 9.6  | 9.4  | 9.2  | 8.9  | 14.0              | 13.6 | 13.2 | 12.8 | 12.4 | 16.3             | 15.7 | 15.1 | 14.4 | 13.7 |
|                                                          | 200 | 9.4               | 9.2  | 9.0  | 8.7  | 8.5  | 13.3              | 12.9 | 12.5 | 12.1 | 11.6 | 15.2             | 14.6 | 13.9 | 13.2 | 12.6 |
|                                                          | 240 | 9.0               | 8.8  | 8.6  | 8.3  | 8.1  | 12.6              | 12.2 | 11.7 | 11.2 | 10.7 | 14.1             | 13.4 | 12.7 | 12.1 | 11.3 |
|                                                          | 280 | 8.6               | 8.4  | 8.1  | 7.9  | 7.6  | 11.8              | 11.3 | 10.8 | 10.3 | 9.7  | 12.9             | 12.3 | 11.5 | 10.8 | 10.1 |
|                                                          | 320 | 8.2               | 7.9  | 7.7  | 7.4  | 7.2  | 10.9              | 10.4 | 9.9  | 9.3  | 8.7  | 11.7             | 11.0 | 10.3 | 9.4  | 8.6  |
|                                                          | 360 | 7.7               | 7.5  | 7.2  | 7.0  | 6.6  | 10.1              | 9.5  | 8.9  | 8.3  | 7.6  | 10.5             | 9.7  | 8.8  | 7.9  | 7.0  |
|                                                          | 400 | 7.3               | 7.0  | 6.7  | 6.4  | 6.0  | 9.0               | 8.4  | 7.8  | 7.2  | 6.6  | 9.0              | 8.2  | 7.3  | 6.4  | 5.4  |
|                                                          | 440 | 6.8               | 6.4  | 6.1  | 5.7  | 5.3  | 8.0               | 7.3  | 6.7  | 6.1  | 5.4  | 7.5              | 6.6  | 5.7  | 4.7  | 3.5  |
|                                                          | 480 | 6.2               | 5.8  | 5.4  | 5.0  | 4.6  | 6.9               | 6.3  | 5.6  | 4.9  | 4.3  | 5.9              | 4.9  | 3.9  | 2.6  |      |
|                                                          | 520 | 5.5               | 5.1  | 4.7  | 4.3  | 4.0  | 5.8               | 5.1  | 4.5  | 3.8  | 3.0  | 4.2              | 2.9  |      |      |      |
|                                                          | 560 | 4.8               | 4.4  | 4.1  | 3.6  | 3.2  | 4.6               | 4.0  | 3.2  | 2.4  | 1.6  |                  |      |      |      |      |
|                                                          | 600 | 4.2               | 3.8  | 3.3  | 2.8  | 2.2  | 3.4               | 2.6  | 1.8  |      |      |                  |      |      |      |      |
|                                                          | 640 | 3.4               | 3.0  | 2.4  | 1.6  |      | 2.1               | 1.1  |      |      |      |                  |      |      |      |      |
| 680                                                      | 2.5 | 1.9               |      |      |      |      |                   |      |      |      |      |                  |      |      |      |      |
| 720                                                      | 1.2 |                   |      |      |      |      |                   |      |      |      |      |                  |      |      |      |      |
| MAXIMUM CAPACITY IN GPM ( Maintaining Constant Pressure) |     |                   |      |      |      |      |                   |      |      |      |      |                  |      |      |      |      |

| PUMP MODEL NO.                                           |     | 1.5 H.P.          |      |      |      |      | 1.5 H.P.          |      |      |      |      |
|----------------------------------------------------------|-----|-------------------|------|------|------|------|-------------------|------|------|------|------|
| LENGTH— WEIGHT<br>(pump and motor assy.)                 |     | 24.8" — 30.1 lbs. |      |      |      |      | 24.5" — 29.9 lbs. |      |      |      |      |
| Stages—Discharge                                         |     | 6 - 1.25" NPT     |      |      |      |      | 5 - 1.25" NPT     |      |      |      |      |
| Constant Pressure<br>PSI at Pressure Sensor              |     | 30                | 40   | 50   | 60   | 70   | 30                | 40   | 50   | 60   | 70   |
| DEPTH<br>TO<br>WATER<br>IN<br>FEET                       | 40  | 28.5              | 27.2 | 25.8 | 24.6 | 23.3 | 34.6              | 32.7 | 30.5 | 28.1 | 25.8 |
|                                                          | 80  | 26.2              | 25.0 | 23.7 | 22.2 | 20.4 | 31.1              | 28.8 | 26.5 | 23.9 | 20.6 |
|                                                          | 120 | 24.1              | 22.6 | 20.9 | 18.9 | 16.6 | 27.1              | 24.7 | 21.6 | 17.8 | 14.1 |
|                                                          | 160 | 21.4              | 19.4 | 17.2 | 15.0 | 12.7 | 22.5              | 18.8 | 15.1 | 11.5 |      |
|                                                          | 200 | 17.9              | 15.6 | 13.4 | 10.7 | 7.8  | 16.1              | 12.5 | 2.2  |      |      |
|                                                          | 240 | 14.0              | 11.5 | 8.6  | 4.7  |      | 8.5               |      |      |      |      |
|                                                          | 280 | 9.4               | 6.3  |      |      |      |                   |      |      |      |      |
| MAXIMUM CAPACITY IN GPM ( Maintaining Constant Pressure) |     |                   |      |      |      |      |                   |      |      |      |      |

\* Friction losses in discharge pipe and fittings are not included in these tables

## Lancaster Pump-End Specifications:

Depending on the specific Premier Pressure system, the Pump-End will be one of the following ¾ HP Survivor designs: **SJ7513** from our **SJ** series, **SL7512** from our **SL** series, **ST7510** from our **ST** series, **SU7506** from our **SU** Series, or the **SW7505** from our **SW** Series.

## Motor Specifications:

- HP: 1.5
  - Phase: Three Phase
  - Voltage: 230 Volt
  - Frequency: 60 Hz
  - SF: 1.3, SFA: 5.9 Amps
  - Duty Rating: Continuous
- Use only Franklin Electric 3 phase motor provided with system.  
Use of this system with any other Franklin Electric motor or with motors from other manufactures may result in damage to both motor and electronics.

## Franklin Electric CP Water SubDrive 75:

### NEMA 1 Controller Specifications:

- Input Phase: Single Phase
  - Input Voltage: 190 - 260 VAC
  - Input Frequency: 50/60 Hz
  - Input Maximum Current :11 Amps RMS
  - Output Phase (to motor): Three Phase
  - Output Voltage (to motor): Adjusts with Frequency
  - Output Frequency (to motor): Variable (30-80 Hz)
  - Output Maximum Current (to motor): 5.9 Amps RMS (each phase)
  - Location: Indoor use; operation in ambient temperatures -13 to 125 °F (at 230 VAC input)
  - Circuit Breaker: 15 Amp (at 208 or 230 VAC nominal input)
  - Weight: 13.8 lbs., Height: 14.25", Width: 9.75", Depth: 5.25"
- Note— a NEMA 4 (outdoor use) Controller is available-consult factory.*

### Pressure Sensor Specifications:

Factory preset: 50 psi

Adjustable range: 25 to 80 psi

A 10 foot section of cable is provided with the system to connect the pressure sensor

### Wire Size - Controller to Motor:

|                     |     |     |      |      |
|---------------------|-----|-----|------|------|
| AWG Copper Size     | 14  | 12  | 10   | 8    |
| Max. Length in Feet | 420 | 670 | 1060 | 1670 |

AWG copper wire, 140°F/60°C insulation. Aluminum wires should not be used with the Premier Pressure series.

### Minimum Pressure Tank Size (tank not included with system)

Flow rate less than 12 gpm...2 gallon tank

Flow rate 12 gpm and higher...4 gallon tank

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# LANCASTER

4" Submersible Well Pumps  
 SERIES "PP" - PREMIER PRESSURE  
 Using Franklin Electric Constant Pressure Controller

| PUMP MODEL NO.                                           |      | 3<br>H.P. |      |      |      |      | 3<br>H.P. |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
|----------------------------------------------------------|------|-----------|------|------|------|------|-----------|------|------|------|------|-------------------|--|--|--|--|-------------------|--|--|--|--|
| LENGTH— WEIGHT<br>(pump and motor assy.)                 |      |           |      |      |      |      |           |      |      |      |      | 2-3ST30017-3PP    |  |  |  |  | 2-3SU30011-3PP    |  |  |  |  |
| Stages—Discharge                                         |      |           |      |      |      |      |           |      |      |      |      | 36.5" — 44.0 lbs. |  |  |  |  | 33.5" — 41.8 lbs. |  |  |  |  |
| Constant Pressure<br>PSI at Pressure Sensor              |      | 30        | 40   | 50   | 60   | 70   | 30        | 40   | 50   | 60   | 70   |                   |  |  |  |  |                   |  |  |  |  |
| DEPTH<br>TO<br>WATER<br>IN<br>FEET                       | 40   | 18.7      | 18.6 | 18.5 | 18.4 | 18.4 | 33.7      | 32.9 | 32.1 | 31.3 | 30.6 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 80   | 18.5      | 18.5 | 18.4 | 18.3 | 18.2 | 32.3      | 31.5 | 30.8 | 30.0 | 29.2 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 120  | 18.4      | 18.3 | 18.2 | 18.2 | 18.1 | 31.0      | 30.2 | 29.4 | 28.6 | 27.7 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 160  | 18.3      | 18.2 | 18.1 | 18.0 | 17.9 | 29.6      | 28.8 | 28.0 | 27.1 | 26.3 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 200  | 18.1      | 18.1 | 17.9 | 17.7 | 17.5 | 28.2      | 27.3 | 26.5 | 25.7 | 24.8 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 240  | 18.0      | 17.8 | 17.5 | 17.3 | 17.1 | 26.7      | 25.9 | 25.1 | 24.1 | 23.1 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 280  | 17.6      | 17.4 | 17.1 | 16.9 | 16.7 | 25.3      | 24.4 | 23.3 | 22.3 | 21.3 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 320  | 17.2      | 17.0 | 16.8 | 16.5 | 16.3 | 23.6      | 22.6 | 21.6 | 20.6 | 19.4 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 360  | 16.8      | 16.6 | 16.4 | 16.1 | 15.9 | 21.9      | 20.8 | 19.7 | 18.4 | 17.0 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 400  | 16.4      | 16.2 | 16.0 | 15.6 | 15.3 | 20.1      | 18.7 | 17.3 | 15.9 | 14.6 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 440  | 16.0      | 15.7 | 15.4 | 15.1 | 14.7 | 17.7      | 16.3 | 14.9 | 13.6 | 12.2 |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 480  | 15.5      | 15.2 | 14.8 | 14.5 | 14.2 | 15.3      | 13.9 | 12.6 | 11.2 | 9.8  |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 520  | 14.9      | 14.6 | 14.3 | 13.9 | 13.5 | 13.0      | 11.6 | 10.3 | 8.0  | 5.5  |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 560  | 14.3      | 14.0 | 13.6 | 13.3 | 12.9 | 10.6      | 8.6  | 6.1  |      |      |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 600  | 13.7      | 13.4 | 13.0 | 12.6 | 12.2 | 6.8       |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 640  | 13.1      | 12.7 | 12.3 | 11.9 | 11.5 |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 680  | 12.4      | 12.0 | 11.6 | 11.1 | 10.7 |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
|                                                          | 720  | 11.7      | 11.3 | 10.8 | 10.4 | 9.9  |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 760                                                      | 10.9 | 10.5      | 10.0 | 9.6  | 9.1  |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 800                                                      | 10.2 | 9.7       | 9.2  | 8.7  | 8.3  |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 840                                                      | 9.4  | 8.9       | 8.4  | 7.9  | 7.3  |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 880                                                      | 8.5  | 8.0       | 7.5  | 6.9  | 6.2  |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 920                                                      | 7.6  | 7.0       | 6.4  | 5.3  |      |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 960                                                      | 6.6  | 5.9       |      |      |      |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| 1000                                                     | 4.2  |           |      |      |      |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |
| MAXIMUM CAPACITY IN GPM ( Maintaining Constant Pressure) |      |           |      |      |      |      |           |      |      |      |      |                   |  |  |  |  |                   |  |  |  |  |

| PUMP MODEL NO.                                           |      | 3<br>H.P. |      |      |      |      | 2-3SW30009-3PP |  |  |  |  |                   |  |  |  |  |
|----------------------------------------------------------|------|-----------|------|------|------|------|----------------|--|--|--|--|-------------------|--|--|--|--|
| LENGTH— WEIGHT<br>(pump and motor assy.)                 |      |           |      |      |      |      |                |  |  |  |  | 32.8" — 41.3 lbs. |  |  |  |  |
| Stages—Discharge                                         |      |           |      |      |      |      |                |  |  |  |  | 9 - 1.25" NPT     |  |  |  |  |
| Constant Pressure<br>PSI at Pressure Sensor              |      | 30        | 40   | 50   | 60   | 70   |                |  |  |  |  |                   |  |  |  |  |
| DEPTH<br>TO<br>WATER<br>IN<br>FEET                       | 40   | 41.9      | 41.2 | 40.5 | 39.6 | 38.4 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 80   | 40.7      | 39.9 | 38.7 | 37.5 | 36.3 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 120  | 39.0      | 37.8 | 36.7 | 35.5 | 34.0 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 160  | 37.0      | 35.8 | 34.4 | 32.7 | 31.0 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 200  | 34.9      | 33.2 | 31.5 | 29.7 | 28.0 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 240  | 31.9      | 30.2 | 28.5 | 26.7 | 25.0 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 280  | 28.9      | 27.2 | 25.5 | 23.1 | 20.5 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 320  | 25.9      | 23.8 | 21.2 | 18.7 | 16.5 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 360  | 21.9      | 19.4 | 17.1 | 14.8 | 12.5 |                |  |  |  |  |                   |  |  |  |  |
|                                                          | 400  | 17.7      | 15.4 | 13.1 | 10.9 |      |                |  |  |  |  |                   |  |  |  |  |
| 440                                                      | 13.8 | 11.5      | 7.1  |      |      |      |                |  |  |  |  |                   |  |  |  |  |
| 480                                                      | 9.3  |           |      |      |      |      |                |  |  |  |  |                   |  |  |  |  |
| MAXIMUM CAPACITY IN GPM ( Maintaining Constant Pressure) |      |           |      |      |      |      |                |  |  |  |  |                   |  |  |  |  |

\* Friction losses in discharge pipe and fittings are not included in these tables

## Lancaster Pump-End Specifications:

Depending on the specific Premier Pressure system, the Pump-End will be one of the following 1½ HP Survivor designs: **ST15017** from our **ST** series, **SU15011** from our **SU** series, **SW15009** from our **SW** series.

### Motor Specifications:

- HP: 3
- Phase: Three Phase
- Voltage: 230 Volt
- Frequency: 60 Hz
- SF: 1.15, SFA: 10.9 Amps
- Duty Rating: Continuous

Use only Franklin Electric 3 phase motor provided with system.

Use of this system with any other Franklin Electric motor or with motors from other manufactures may result in damage to both motor and electronics.

### Franklin Electric CP Water SubDrive 150:

#### NEMA 1 Controller Specifications:

- Input Phase: Single Phase
- Input Voltage: 190 - 260 VAC
- Input Frequency: 50/60 Hz
- Input Maximum Current: 23 Amps RMS
- Output Phase (to motor): Three Phase
- Output Voltage (to motor): Adjusts with Frequency
- Output Frequency (to motor): Variable (30-80 Hz)
- Output Maximum Current (to motor): 10.9 Amps RMS (each phase)
- Location: Indoor use; operation in ambient temperatures –13 to 125°F (at 230 VAC input)
- Circuit Breaker: 25 Amp (at 230 VAC nominal input), 30 Amp (at 208 VAC nominal input)
- Weight: 17 lbs., Height: 14.25", Width: 9.75", Depth: 5.25"

*Note— a NEMA 4 (outdoor use) Controller is available-consult factory.*

#### Pressure Sensor Specifications:

Factory preset: 50 psi

Adjustable range: 25 to 80 psi

A 10 foot section of cable is provided with the system to connect the pressure sensor

#### Wire Size - Controller to Motor:

|                     |     |     |     |     |      |
|---------------------|-----|-----|-----|-----|------|
| AWG Copper Size     | 14  | 12  | 10  | 8   | 6    |
| Max. Length in Feet | 240 | 390 | 620 | 990 | 1540 |

AWG Copper Wire, 140°F/60°C insulation. Aluminum wires should not be used with the Premier Pressure series.

#### Minimum Pressure Tank Size (tank not included with system)

Flow rate less than 12 gpm...4 gallon tank

Flow rate 12 gpm and higher...8 gallon tank

### **LANCASTER PUMP** A DIVISION OF C-B TOOL CO.

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