



*Condensate Systems/Pumps*

**GENERAL INFORMATION**

**BURKS PARTS**

**I&O MANUALS**

## 5. CONDENSATE PUMPS/UNITS

### PUMP TYPES:

GV

GV6



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## Condensate Systems/Pumps

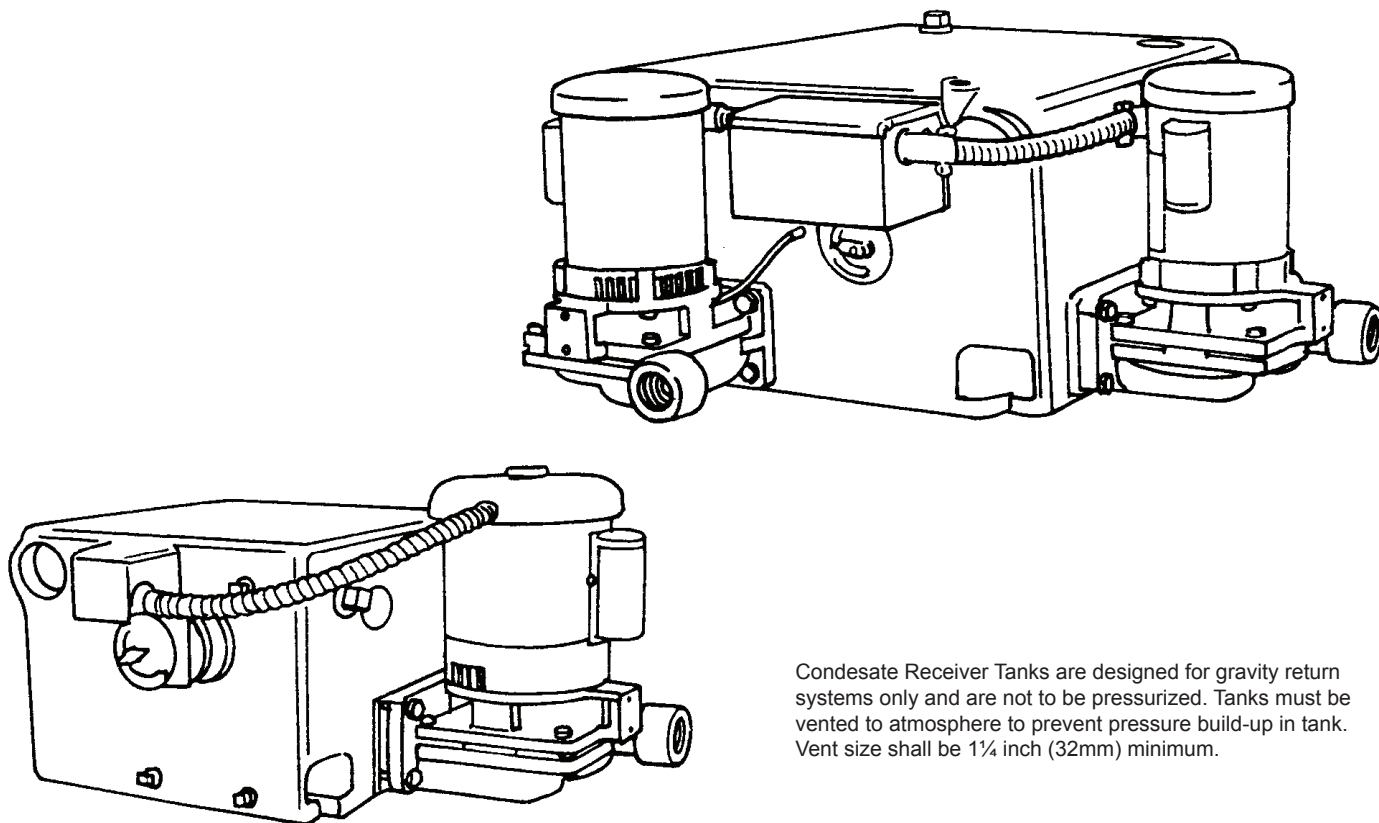
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## Series: GV

### Features

### Condensate Systems



Condensate Receiver Tanks are designed for gravity return systems only and are not to be pressurized. Tanks must be vented to atmosphere to prevent pressure build-up in tank. Vent size shall be 1¼ inch (32mm) minimum.

#### PUMPS

Vertically flange-mounted centrifugal pumps are of bronze fitted construction with mechanical shaft seal for temperatures to 200°F (93°C).

Seal area is automatically vented and flushed. Back pull-out design allows servicing without disturbing piping.

Bronze impellers are precision balanced for smooth, quiet operation.

Efficient hydraulic design for non-overloading performance at all ratings shown.

#### RECEIVER TANKS

Rugged cast iron receivers for lifetime service under the most sever conditions. Low return inlet. Available in 9, 14, 20 and 36 gallon (34, 53, 87, and 136 Liters) sizes.

EVERY pump is factory tested.

#### MOTORS

Drip-proof NEMA standard motors have dual ball bearings and threaded stainless steel shaft. All single phase motors have built-in overload protection. All three phase motors must be installed with a magnetic starter which provides full overload protection. Failure to use correct starter and overload protectors will void warranty.

Single phase motors thru 2 HP are 115/230 Volt, 60 Hz. 3 HP is 230 Volt only.

Three phase motors are 230/460 Volt, 60 Hz.

#### CONTROLS

Simplex systems are equipped with a heavy duty adjustable float switch with stainless steel float and rod.

Duplex systems are equipped with a mechanical alternator.



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# Series: GV

Cast Iron

Performance and Selection



## Condensate Systems

| Max. EDR Sq. Ft. | Equiv. Boiler H.P. | Max. GPM (Liters) Req'd | Discharge Pressure PSIG (kpa) | Simplex Catalog No. | Duplex Catalog No. | Motor H.P. | Pump Discharge Size (NPT) | RECEIVER                         |                  |
|------------------|--------------------|-------------------------|-------------------------------|---------------------|--------------------|------------|---------------------------|----------------------------------|------------------|
|                  |                    |                         |                               |                     |                    |            |                           | Size Gals. (Liters)              | Inlet Size (NPT) |
| 6,000            | 40                 | 9 (34)                  | 10 (69)                       | 3GV6-9              | 3GV6-14D           | 1/3        | 1 1/4"                    | 9 (34) Simplex<br>14 (53) Duplex | 2"               |
|                  |                    |                         | 20 (138)                      | 5GV6-9              | 5GV6-14D           | 1/2        |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 10GV6-9             | 10GV6-14D          | 1          |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 20GV6-9             | 20GV6-14D          | 2          |                           |                                  |                  |
|                  |                    |                         | 50 (345)                      | 30GV6-9             | 30GV6-14D          | 3          |                           |                                  |                  |
| 10,000           | 70                 | 15 (57)                 | 10 (69)                       | 3GV6-14             | 3GV6-14D           | 1/3        | 1 1/4"                    | 14 (53)                          | 2"               |
|                  |                    |                         | 20 (138)                      | 5GV6-14             | 5GV6-14D           | 1/2        |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 10GV6-14            | 10GV6-14D          | 1          |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 20GV6-14            | 20GV6-14D          | 2          |                           |                                  |                  |
|                  |                    |                         | 50 (345)                      | 30GV6-14            | 30GV6-14D          | 3          |                           |                                  |                  |
| 15,000           | 100                | 22 1/2 (85.2)           | 10 (69)                       | 3GV6-20             | 3GV6-20D           | 1/3        | 1 1/4"                    | 20 (76)                          | 2"               |
|                  |                    |                         | 20 (138)                      | 7GV6-20             | 7GV6-20D           | 1/2        |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 10GV6-20            | 10GV6-20D          | 1          |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 20GV6-20            | 20GV6-20D          | 2          |                           |                                  |                  |
|                  |                    |                         | 50 (345)                      | 30GV6-20            | 30GV6-20D          | 3          |                           |                                  |                  |
| 20,000           | 140                | 30 (114)                | 10 (69)                       | 3GV6-36             | 3GV6-36D           | 1/3        | 1 1/4"                    | 36 (136)                         | 3"               |
|                  |                    |                         | 20 (138)                      | 7GV6-36             | 7GV6-36D           | 3/4        |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 10GV6-36            | 10GV6-36D          | 1          |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 20GV6-36            | 20GV6-36D          | 2          |                           |                                  |                  |
|                  |                    |                         | 50 (345)                      | 30GV6-36            | 30GV6-36D          | 3          |                           |                                  |                  |
| 30,000           | 215                | 45 (170)                | 10 (69)                       | 3GV6-36             | 3GV6-36D           | 1/3        | 1 1/4"                    | 36 (136)                         | 3"               |
|                  |                    |                         | 20 (138)                      | 7GV6-36             | 7GV6-36D           | 3/4        |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 15GV6-36            | 15GV6-36D          | 1 1/2      |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 20GV6-36            | 20GV6-36D          | 2          |                           |                                  |                  |
|                  |                    |                         | 50 (345)                      | 30GV6-36            | 30GV6-36D          | 3          |                           |                                  |                  |
| 40,000           | 285                | 60 (227)                | 10 (69)                       | 7GV6-36             | 7GV6-36D           | 3/4        | 1 1/4"                    | 36 (136)                         | 3"               |
|                  |                    |                         | 20 (138)                      | 10GV6-36            | 10GV6-36D          | 1          |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 20GV6-36            | 20GV6-36D          | 2          |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 30GV6-36            | 30GV6-36D          | 3          |                           |                                  |                  |
| 50,000           | 360                | 75 (284)                | 10 (69)                       | 15GV6-36            | 15GV6-36D          | 1 1/2      | 1 1/4"                    | 36 (136)                         | 3"               |
|                  |                    |                         | 20 (138)                      | 20GV6-36            | 20GV6-36D          | 2          |                           |                                  |                  |
|                  |                    |                         | 30 (207)                      | 30GV6-36            | 30GV6-36D          | 3          |                           |                                  |                  |
|                  |                    |                         | 40 (276)                      | 30GV6-36            | 30GV6-36D          | 3          |                           |                                  |                  |

All selections are based on pump capacities of 1.5 gpm per 1000 sq. ft. of Equivalent Direct Radiation (EDR).  
Catalog Numbers shown are for units with single phase motors.  
For three phase, add prefix "3" to Catalog No. Example: 35GV6-9

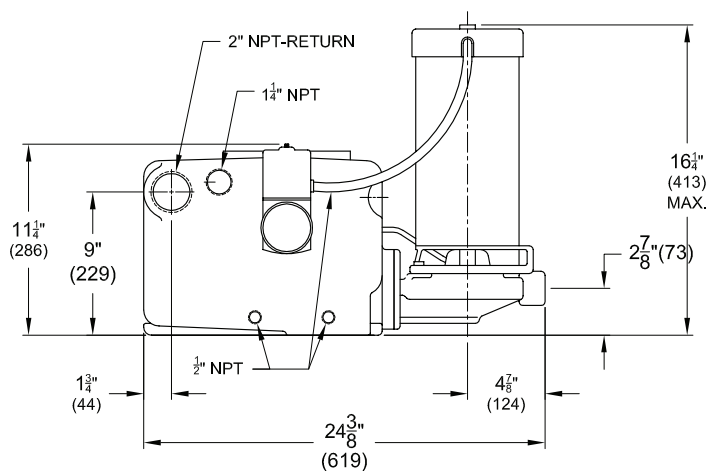
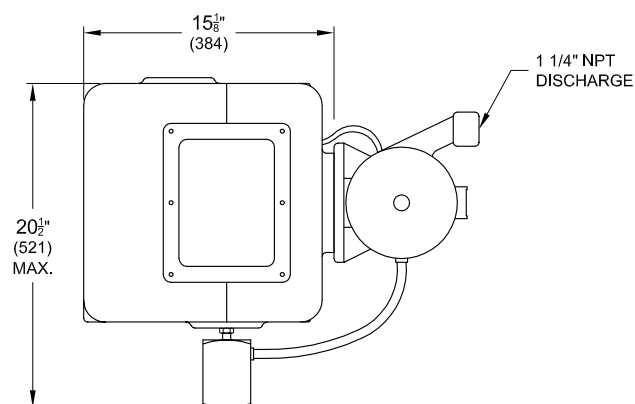


## Series: GV

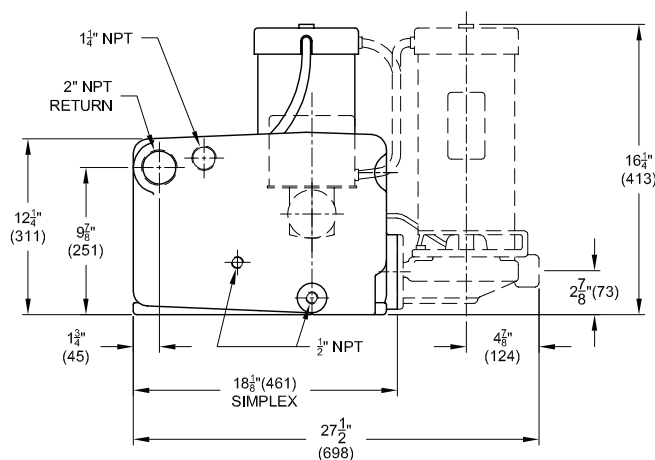
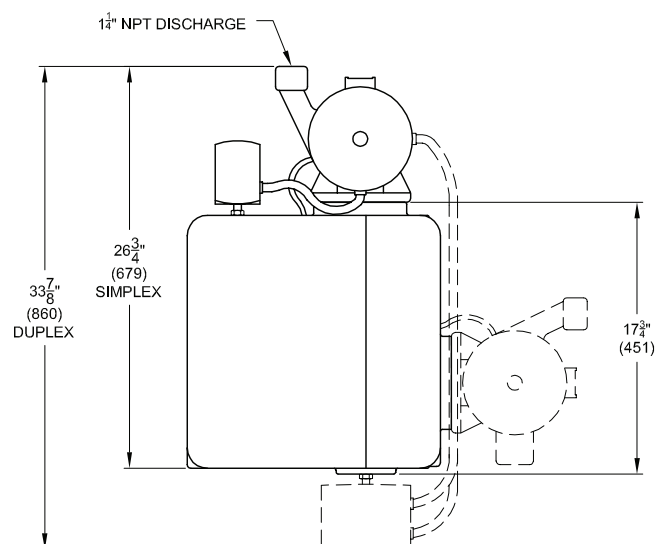
Cast Iron  
Dimensions

### Condensate Systems

9 Gallon System



14 Gallon System



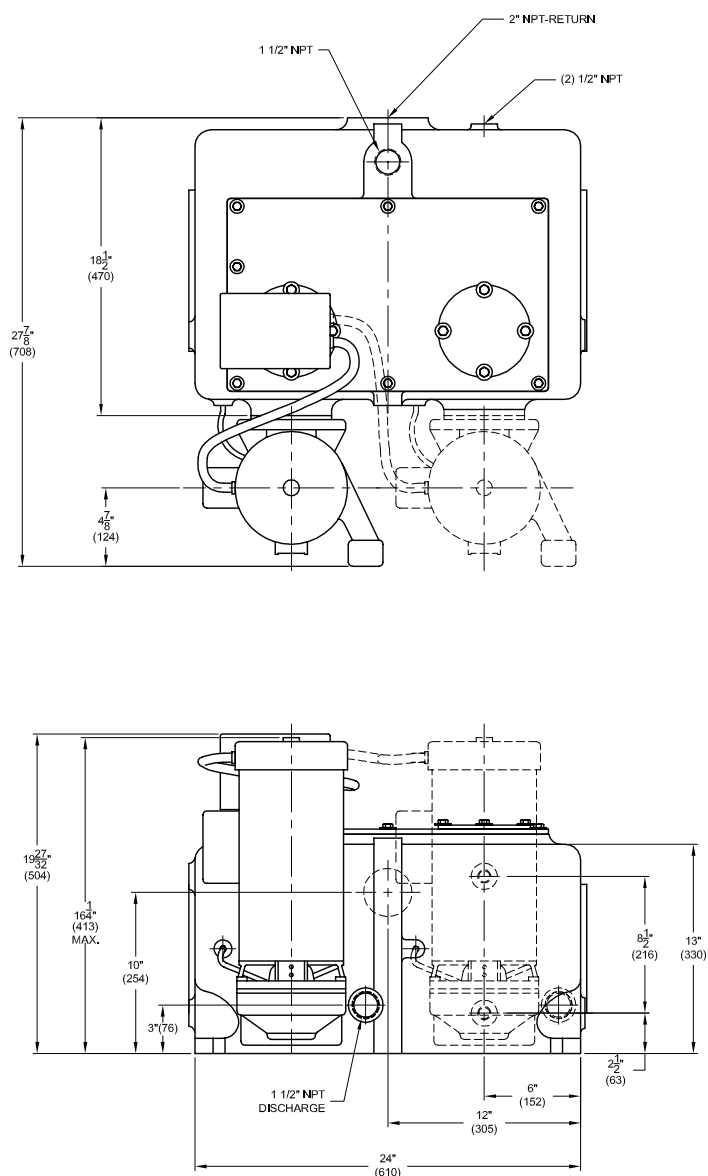
## Series: GV

Cast Iron  
Dimensions

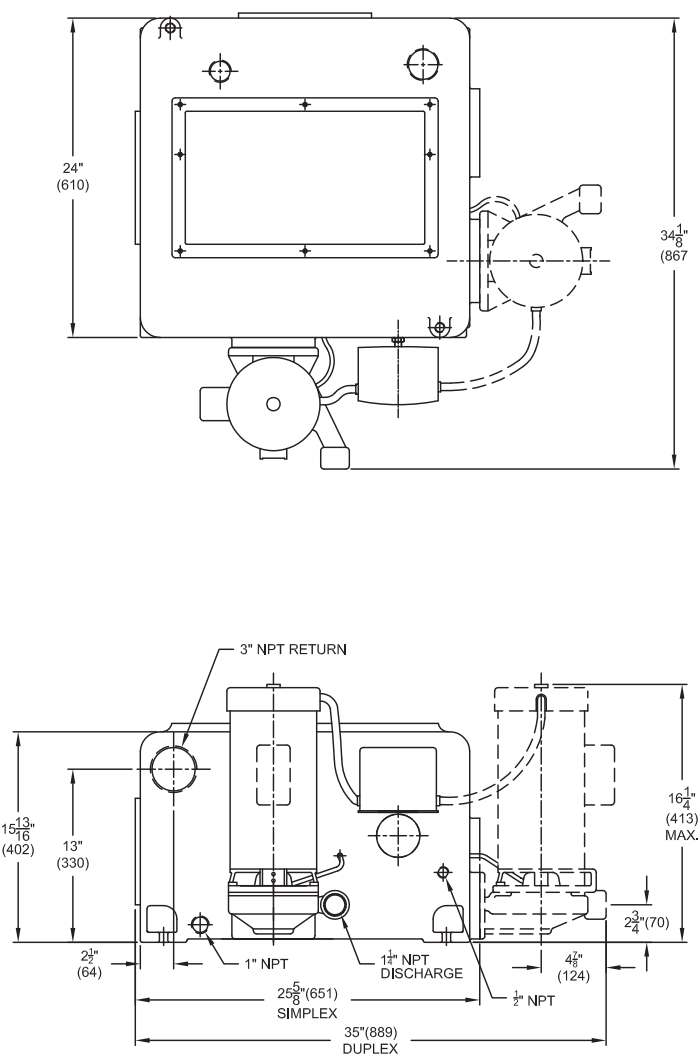
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### Condensate Systems

#### 20 Gallon System



#### 36 Gallon System

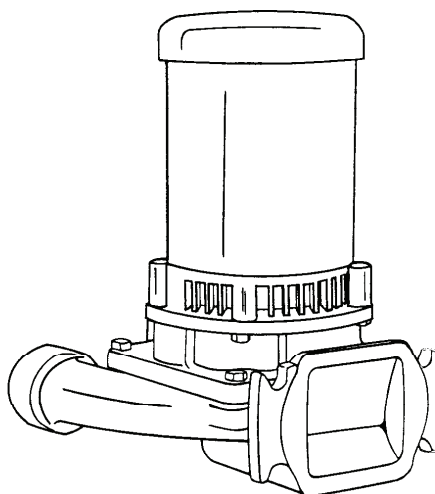




## Series: GV6

### Features

#### Condensate Pumps



Ideal for OEM applications requiring a pump with inlet flange for mounting to tank or other vessel.

Flanged and gasketed inlet will adapt to any flat mounting surface.

Pump may be installed vertically or horizontally.

May be used as replacement pump on Burks Series GV Condensate Return Systems.

1/3 thru 3 hp - seven stock sizes.

Capacities to 80 GPM (5 L.P.S.) - Heads to 130 feet (39.6M).

Efficient hydraulic design.

Enclosed bronze impeller threaded onto stainless steel motor shaft.

Impeller balanced for smooth, quiet operation.

Replaceable bronze casing wear ring.

Back pull-out design allows servicing without disturbing piping. Pump casing stays in place.

Mechanical shaft seal is self-adjusting - for temperatures to 225°F (107°C) and pressures to 150 PSI (1034kpa).

Special seals available for higher temperatures and fluids other than water.

Tappings provided for venting and flushing seal area.

Bronze fitted, close grain cast iron construction is standard. All Iron available.

ODP motors are standard. Drip cover provided for vertical installation.

EVERY pump is factory tested.

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# Series: GV6

## Features and Dimensions



### Condensate Pumps

#### MAXIMUM OPERATING CONDITIONS

|                                           |                    |
|-------------------------------------------|--------------------|
| TEMPERATURE<br>(For Standard Buna-N Seal) | 225°F (107°C)      |
| INLET PRESSURE                            | 100 PSI (690 kpa)  |
| CASE WORKING PRESSURE                     | 200 PSI (1379 kpa) |

#### MOTORS

Standard pump motors have open drip proof construction and are rated with jet pump service factors for continuous duty operation. Open Drip Proof motors are 56 frame size with NEMA standard mounting flange, one piece threaded stainless steel shaft and ball bearing construction.

#### MOTOR INFORMATION

60 Hz - 3500 RPM - ODP

50 Hz - 2900 RPM - ODP

**Single Phase:** 1/3 thru 2Hp - 115/230 Volt.

3Hp is 230 Volt only

**Three Phase:** 1/3 thru 3 Hp - 230/460 Volt.

Voltages may differ from some suppliers. Consult factory.

#### OVERLOAD PROTECTION:

All single phase ODP and Totally Enclosed motors have built-in

overload protection. All three phase motors and all explosion proof motors must be installed with a magnetic starter which provides full 3-leg protection. Failure to use correct starter and overloads will void motor warranty.

#### MATERIALS OF CONSTRUCTION

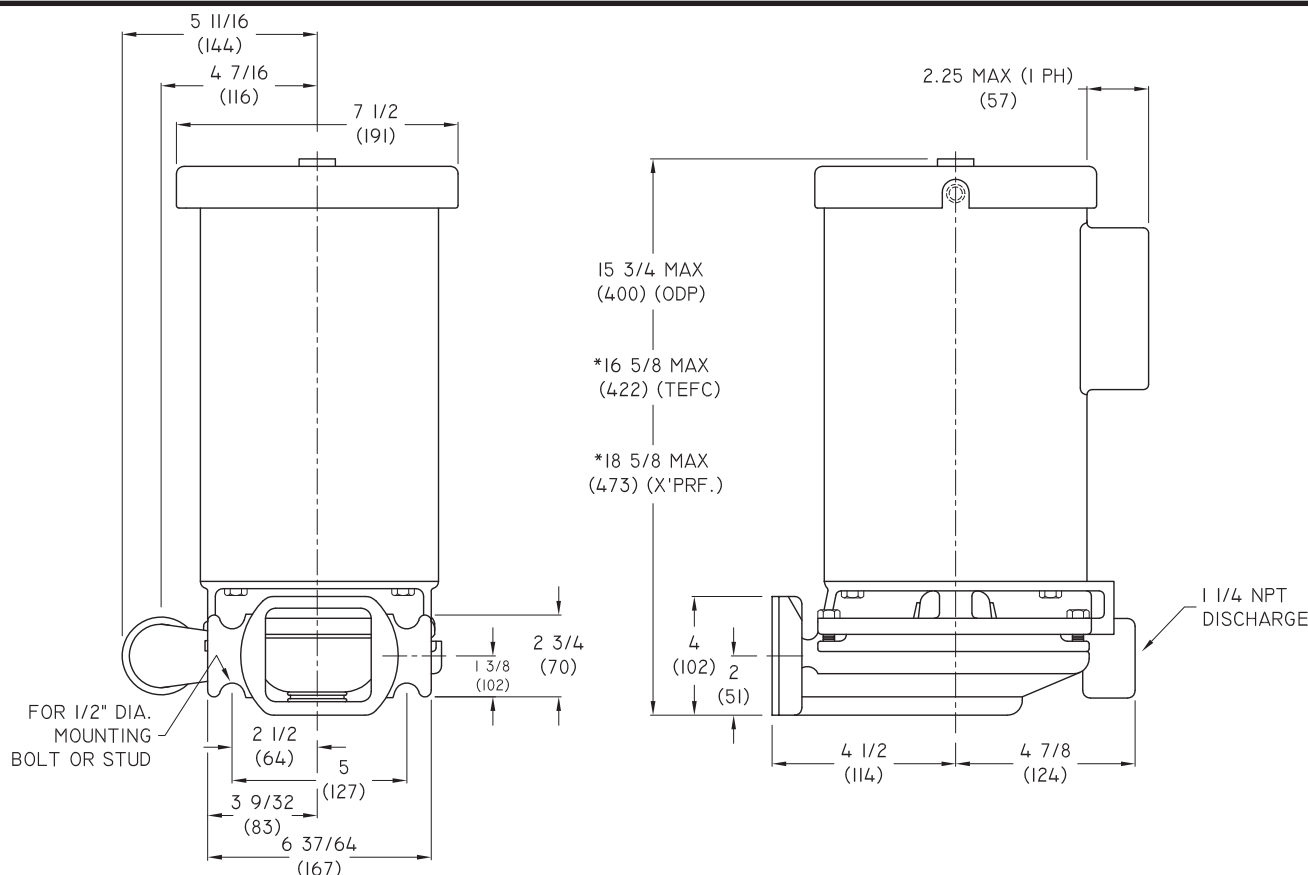
| PART       | ALL IRON                          | BRONZE FITTED                     |
|------------|-----------------------------------|-----------------------------------|
| Adapter    | Cast Iron                         | Cast Iron                         |
| Casing     | Cast Iron                         | Cast Iron                         |
| Shaft      | #303 Stainless                    | #303 Stainless                    |
| Impeller   | Cast Iron                         | Bronze                            |
| Wear Ring  | Steel                             | Bronze                            |
| Shaft Seal | Carbon-Ceramic<br>S. Steel-Buna-N | Carbon-Ceramic<br>S. Steel-Buna-N |

Series GV6-11/4 pumps are not available with 3 HP Single Phase TEFC motors.



#### WARNING:

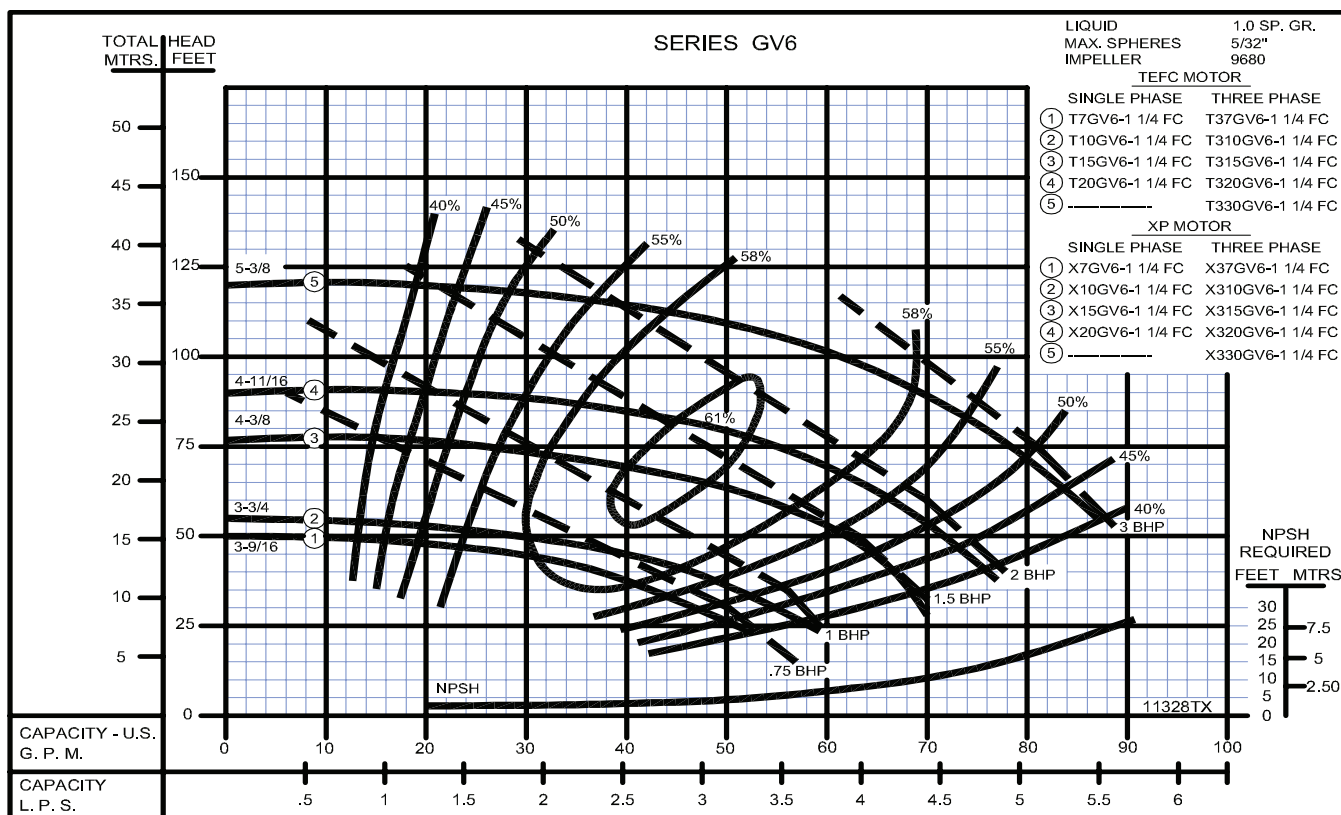
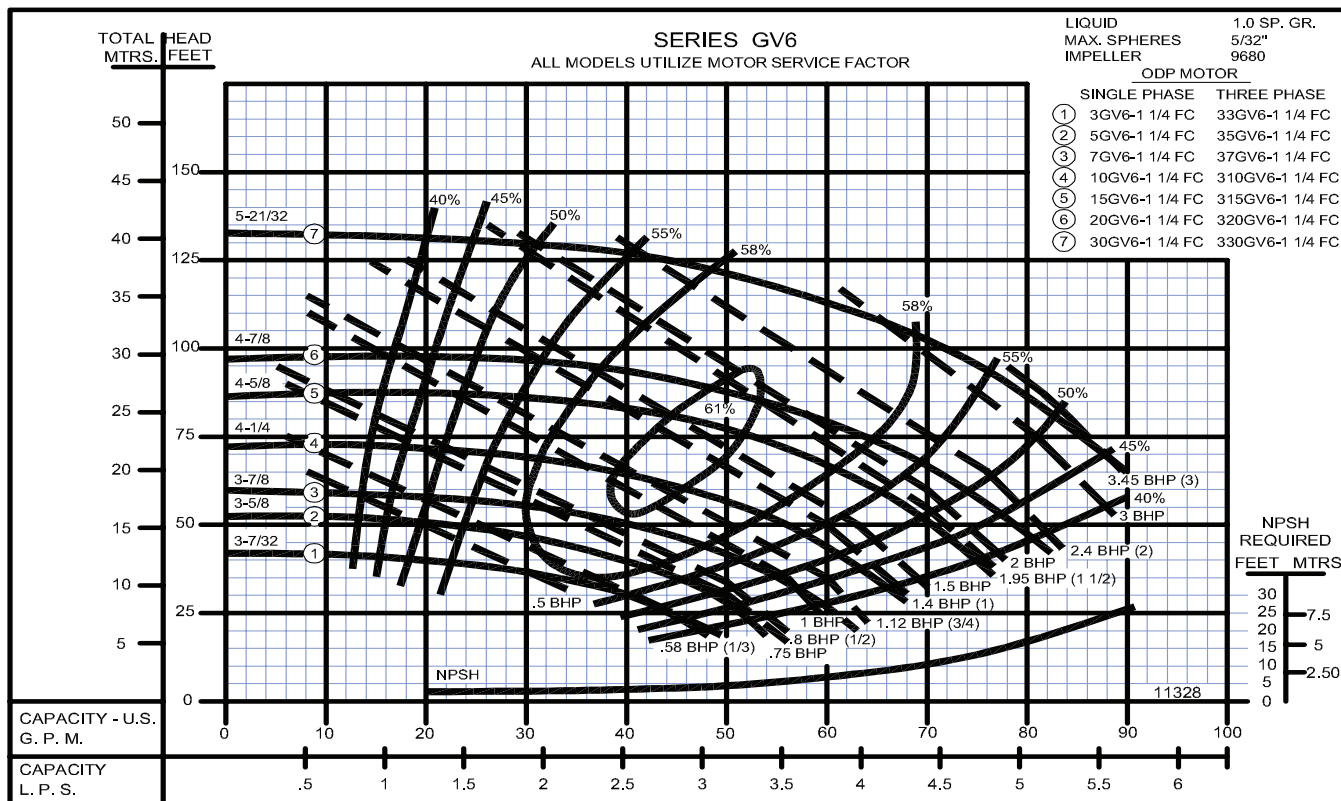
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**Series: GV6**  
60 Hz. Performance

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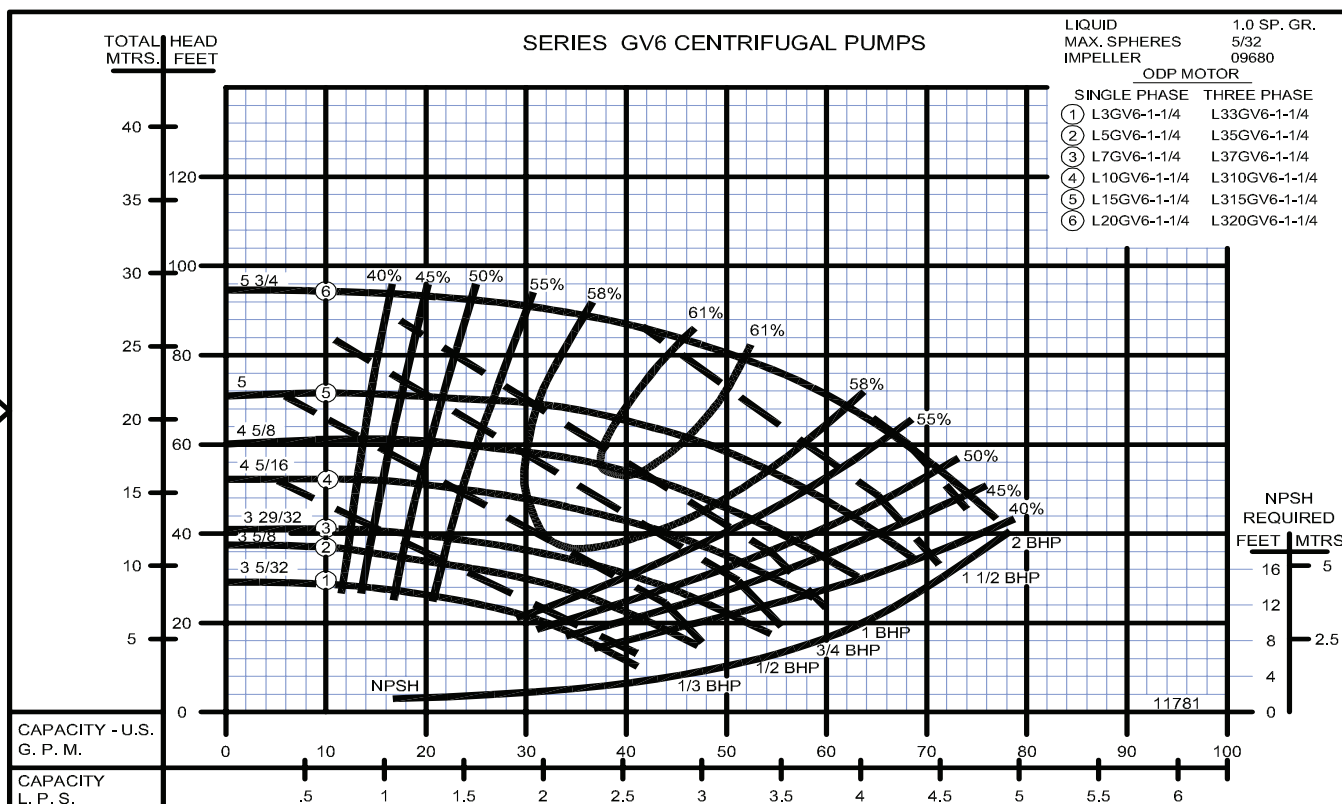
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## Series: GV6 50 Hz. Performance



### Condensate Pumps

2900  
RPM



2900  
RPM

