

LittleGIANT®

WASTEWATER PRODUCT CATALOG



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For the most up-to-date product information, visit littlegiant.com.

PONY PUMP® SERIES - 1/10 HP

APPLICATIONS

Commercial, industrial, and home uses where liquid must be transferred

FEATURES

- Self-priming for instant delivery or dewatering up to 6 ft (1.8 m)
- Non-submersible stainless steel or plated brass pump body
- Rugged metallic handle for easy portability
- Dual threaded intake and discharge with both 3/4" male garden hose thread and 3/8" FNPT
- Model 360K includes pump, hose, strainer, and suction adapter
- Separate kit options available
- Includes 2 extra impellers and gasket
- Model 365 and 365S include 6 ft (1.8 m) lead wires with battery alligator clips
- Models 360 and 365 have a nitrile shaft seal
- Model 370 has a fluoroelastomer shaft seal for improved temperature and abrasion resistance



SERIES SPECIFICATIONS

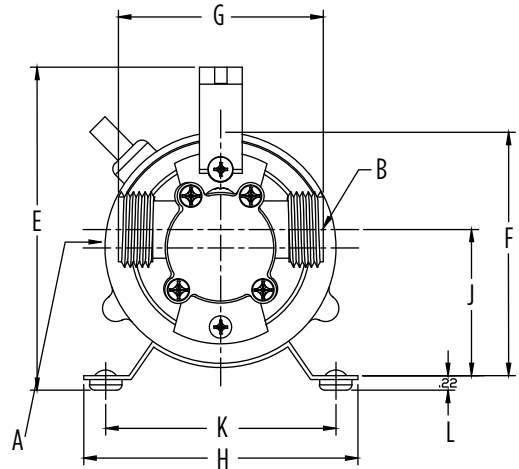
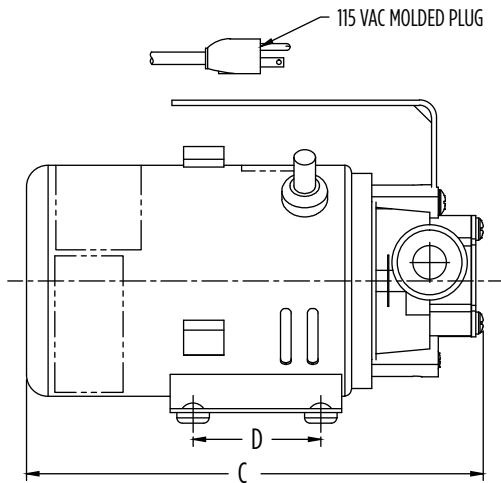
| Volts | Hz | Amps | | Watts | Performance (GPH @ Height in Feet) | | | | Shut-Off (ft) | PSI |
|--------|----|------|-------|-------|------------------------------------|-----|-----|-----|---------------|------|
| | | FLA | Start | | 1' | 5' | 10' | 20' | | |
| 115 | 60 | 1.6 | 2.4 | 91 | 360 | 330 | 300 | 250 | 25' | 10.8 |
| 12 VDC | - | 7 | 14 | 84 | 300 | 270 | 240 | 202 | 25' | 10.8 |

| Item No. | Model | HP | Volts | Material | Operation | Cord | Weight |
|----------|-------|------|--------|-----------------|--------------|---------------------------|--------------------|
| 555112 | 360 | 1/10 | 115 | Plated Brass | Self-Priming | 6' 1.8 m | 3.4 lbs 1.54 Kg |
| 555110 | 360S | 1/10 | 115 | Stainless Steel | Self-Priming | 6' 1.8 m | 3.4 lbs 1.54 Kg |
| 555113 | 370 | 1/10 | 115 | Plated Brass | Self-Priming | 6' 1.8 m | 4.7 lbs 2.12 Kg |
| 555602 | 365 | 1/10 | 12 VDC | Plated Brass | Self-Priming | 6' Leads w/clips 1.8 m | 4.7 lbs 2.12 Kg |
| 555606 | 365K | 1/10 | 12VDC | Plated Brass | Self-Priming | 6' Leads w/clips 1.8 m | 7.0 lbs 3.2 Kg |
| 555203 | 365S | 1/10 | 12 VDC | Stainless Steel | Self-Priming | 6' Leads w/clips 1.8 m | 4.7 lbs 2.12 Kg |
| 555111 | 360K | 1/10 | 115 | Plated Brass | Self-Priming | 6' 1.8 m | 8.0 lbs 3.6 Kg |

UTILITY PUMPS

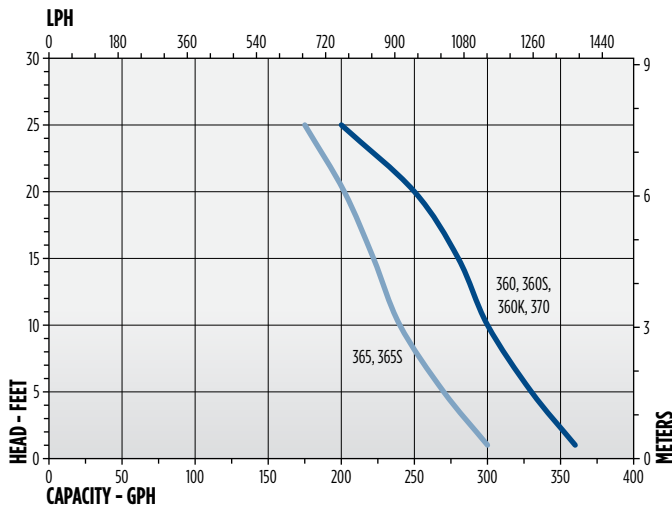
PONY PUMP® SERIES - 1/10 HP

ENGINEERING DATA



| Model | A | B | C | D | E | F | G | H | J | K | L |
|--------|---------------------|--------------------|-------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-----------------|
| 115 V | 3/4" GHT 1.91 cm | 3/8" NPT 9.5 mm | 6.73" 17.09 cm | 1.87" 4.75 cm | 4.68" 11.89 cm | 3.90" 9.91 cm | 3.00" 7.62 cm | 4.25" 10.80 cm | 2.26" 5.74 cm | 3.37" 8.56 cm | 0.22" 5.6 mm |
| 12 VDC | 3/4" GHT 1.91 cm | 3/8" NPT 9.5 mm | 5.93" 15.06 cm | 1.87" 4.75 cm | 4.18" 10.62 cm | 3.13" 7.95 cm | 3.00" 7.62 cm | 3.37" 8.56 cm | 1.82" 4.62 cm | 3.37" 8.56 cm | 0.22" 5.6 mm |

PERFORMANCE DATA



OPTIONAL KITS

| Item No. | Model | Includes | Kit Used On |
|----------|-----------|--|--------------------------------|
| 555702 | HRK-360S | (2) Each - Buna Impeller with SST Insert, Buna Cover Gaskets (1) Each - SST Cam, SST Cam Screws, SST Volute Cover, Cam Gasket (4) Each - Volute Cover Screws | All Models |
| 555706 | IRK-360 | (2) Each - Buna Impellers with Brass Insert, Buna Cover Gaskets | 555111, 555112, 555602 |
| 555710 | HW-360 | (1) Each - 10 ft Garden Hose, SST Spring Strainer, Suction Adapter | All Models |
| 555713 | IRK-360S | (2) Each - Buna Impellers with SST Insert, Buna Cover Gaskets | 555110, 555203 |
| 555714 | ISRK-360S | (2) Each - Buna Impellers with SST Insert, Buna Cover Gaskets (1) Each - Slinger, Viton U-Cup Seal, Felt Washer, Retainer Ring | All Models |
| 555705 | WB-360 | Brush Kit: (2) Each - White Caps, Brushes, Covers with Springs | 555502, 555103, 555507, 555122 |

UPSP-5 SERIES - 1/2 HP

APPLICATIONS

Pressure boosting for washing vehicles, flooded basements, watering lawns, draining water heaters

FEATURES

- Non-submersible, inline, portable, all cast iron utility transfer pump with integral carrying handle
- Self-priming to 15 ft (4.6 m) when priming chamber is filled
- Priming chamber plug can be removed and installed by hand and features an o-ring seal
- Can also be used to boost water pressure for washing vehicles, sidewalks, and more
- Convenient 3/4" (19 mm) brass garden hose adapters on intake and discharge
- Engineered thermoplastic impeller
- 3/4" (19 mm) FNPT discharge
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed
- Includes wire form stainless steel suction strainer accessory



SERIES SPECIFICATIONS

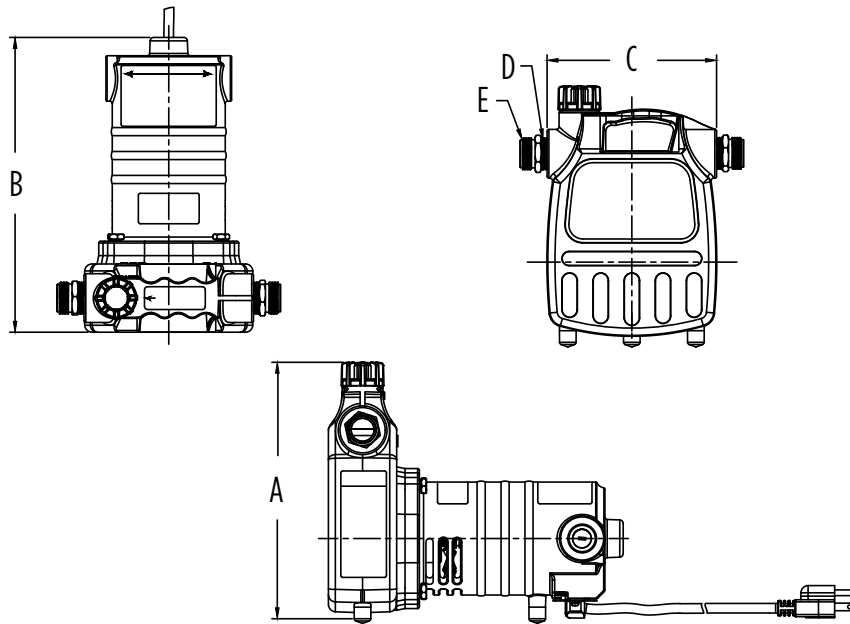
| Volts | Hz | Amps | Watts | GPM / Liters per Minute @ Height | | | | | Cord Length ft / m | Shut-Off ft / m | PSI |
|-------|----|------|-------|----------------------------------|--------------|--------------|--------------|---------------|-----------------------|--------------------|------|
| | | | | 20 ft / 6 m | 40 ft / 12 m | 60 ft / 18 m | 80 ft / 24 m | 100 ft / 30 m | | | |
| 115 | 60 | 10 | 1020 | 1600 / 6057 | 1400 / 5300 | 1200 / 4542 | 1000 / 3785 | 800 / 3028 | 8 / 2.4 | 145 / 44 | 62.9 |

| Item No. | Model | Volts | Operation | Cord | Weight |
|----------|--------|-------|--------------|------------|----------------------|
| 555104 | UPSP-5 | 115 | Self-Priming | 10' 3 m | 21.25 lbs 9.64 Kg |

UTILITY PUMPS

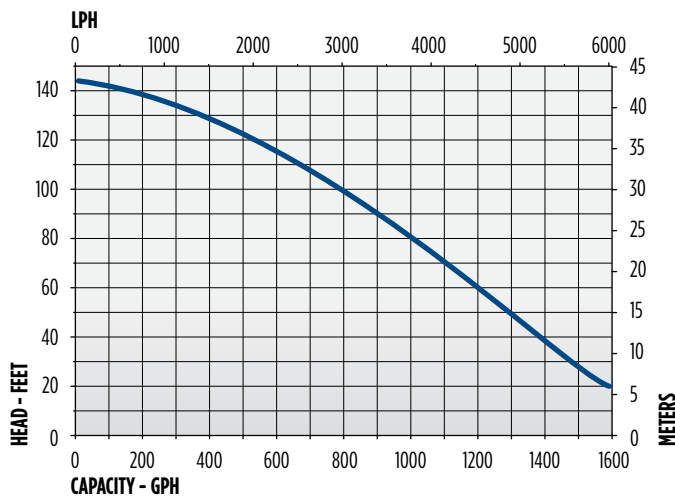
UPSP-5 SERIES - 1/2 HP

ENGINEERING DATA



| A | B | C | D | E |
|----------------|-----------------|----------------|---------------------|---------------------|
| 8.6" (22.0 mm) | 10.0" (25.4 mm) | 5.6" (14.0 mm) | 3/4" MNPT (1.91 cm) | 3/4" MGHT (1.91 cm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|------------------------------|
| Motor Housing | Cast iron |
| Impeller Material | Thermoplastic |
| Impeller Type | Semi-open |
| Volute | Cast iron |
| Motor Shaft | Carbon steel |
| Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Bearings | Front and back ball bearings |
| Power Cord | SJT |

5 SERIES - 1/6 HP

APPLICATIONS

Commercial, industrial, and home uses where water must be transferred or recirculated

FEATURES

- 1/6 hp shaded pole motor with overload protection
- Designed for continuous duty
- Pumps down to 1/8" (3.2 mm)
- 1" FNPT (25.4 mm) discharge (includes garden hose adapter)
- Removable inlet screen for easy cleaning
- Multiple switch options for automatic operation
- Multiple power cord lengths available
- 120 °F (49 °C) liquid temperature rating
- cCSAus on models 505300, 505350, 505400, 505486, 505000, 505025, and 505176



SERIES SPECIFICATIONS

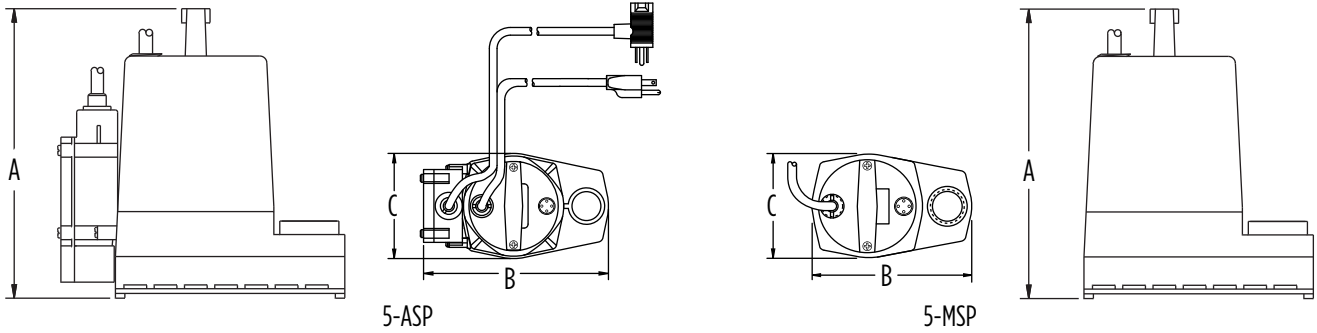
| Volts | Hz | Amps | | Watts | Performance (GPH @ Height in Feet) | | | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|-------|---------------------------------------|------|------|------|-----|---------------|------|
| | | FLA | Start | | 1' | 3' | 5' | 10' | 20' | | |
| 115 | 60 | 5 | 6.4 | 380 | 1200 | 1170 | 1100 | 1000 | 520 | 26.3' | 11.4 |
| 230 | 60 | 2.5 | 3.2 | 380 | 1200 | 1170 | 1100 | 1000 | 520 | 26.3' | 11.4 |

| Item No. | Model | HP | Volts | Switch Type/ Operation | On Level | Off Level | Cord | Weight |
|----------|---------------------|-----|-------|---------------------------|--------------------------------|---------------------------------|-------------------------|----------------------|
| 505300 | 5-ASP | 1/6 | 115 | Piggyback Diaphragm | 6" - 9" 15.2 cm - 23 cm | 1" - 4" 2.5 cm - 10 cm | 10' 3 m | 9 lbs 4.08 Kg |
| 505350 | 5-ASP-LL | 1/6 | 115 | Piggyback Diaphragm | 2" - 3" 5 cm - 7.6 cm | 0.5" - 1.5" 1.27 cm - 3.8 cm | 18' 5.5 m | 10.25 lbs 4.65 Kg |
| 505400 | 5-ASP-FS | 1/6 | 115 | Integral Float Switch | 10" - 12" 24.5 cm - 30.5 cm | 2" - 4" 5.1 cm - 10.2 cm | 10' 3 m | 9 lbs 4.08 Kg |
| 505486 | 5-MSPR (black pump) | 1/6 | 115 | Manual | - | - | 10' 3 m | 9 lbs 4.08 Kg |
| 505000 | 5-MSP | 1/6 | 115 | Manual | - | - | 10' 3 m | 8.25 lbs 3.74 Kg |
| 505500 | 5-MSP | 1/6 | 127 | Manual | - | - | 10' 3 m | 8.25 lbs 3.74 Kg |
| 505025 | 5-MSP | 1/6 | 115 | Manual | - | - | 25' 7.6 m | 8.75 lbs 3.97 Kg |
| 505176 | 5-MSP | 1/6 | 115 | Manual | - | - | 18' 5.5 m | 8.75 lbs 3.97 Kg |
| 505202 | 5-MSP | 1/6 | 230 | Manual | - | - | 12' 3.6 m (w/o plug) | 8.25 lbs 3.74 Kg |

UTILITY PUMPS

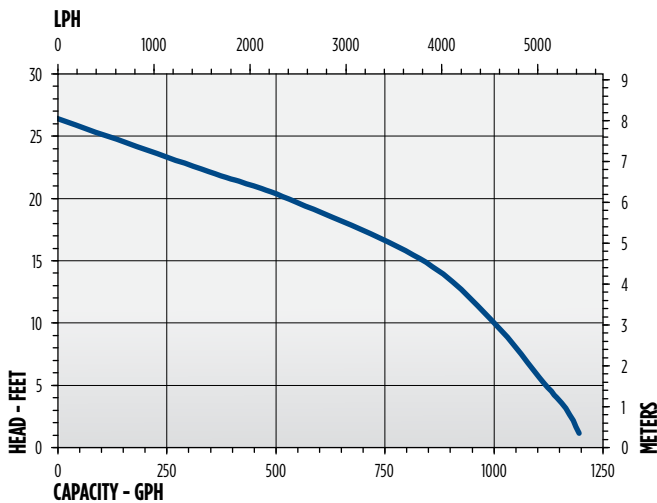
5 SERIES - 1/6 HP

ENGINEERING DATA



| Model | A | B | C |
|-------|-------------------|-------------------|-------------------|
| 5-MSP | 7.78" 19.76 cm | 6.1" 15.49 cm | 4.13" 10.49 cm |
| 5-ASP | 7.78" 19.76 cm | 7.75" 19.69 cm | 4.13" 10.49 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|----------------------------|
| Motor Housing | Epoxy-coated cast aluminum |
| Impeller Material | Nylon |
| Impeller Type | Semi-open |
| Volute | Nylon |
| Motor Shaft | Stainless steel |
| Shaft Seal | Fluoroelastomer (FKM) |
| Fasteners | Stainless steel |
| Bearings | Bronze sleeve |
| Power Cord | SJTW |

FLS/FS SERIES - 1/2 HP, 1 HP

APPLICATIONS

Water transfer or recirculation and general construction dewatering

FEATURES

- 1/2 hp or 1 hp permanent split capacitor (PSC) motor with overload protection
- Designed for continuous duty
- 2" MNPT discharge
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



FLS-400

FS-750

SERIES SPECIFICATIONS

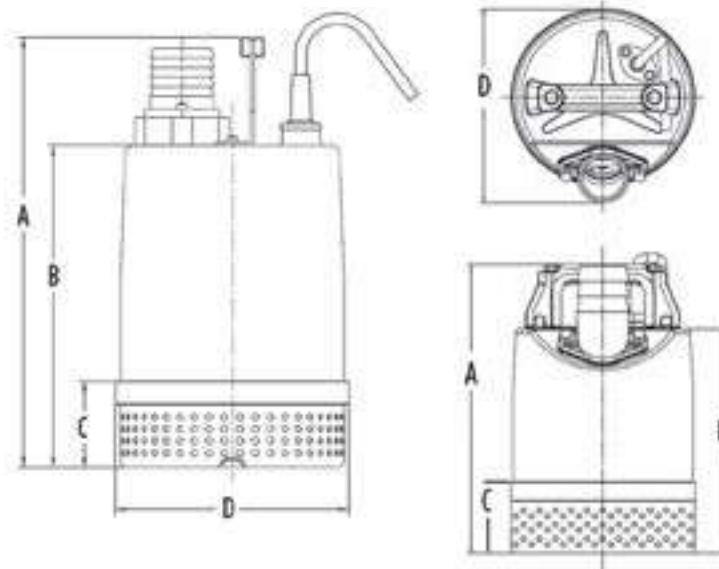
| HP | Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | | Shut-Off (ft) | PSI |
|-----|-------|----|------|-------|-------|------------------------------------|-----|-----|-----|-----|-----|---------------|------|
| | | | FLA | Start | | 5' | 10' | 15' | 20' | 30' | 40' | | |
| 1/2 | 115 | 60 | 5 | 24 | 488 | 60 | 54 | 42 | 20 | - | - | 37 | 16 |
| 1 | 115 | 60 | 10 | 47.6 | 950 | 80 | 76 | 73 | 68 | 54 | 38 | 52 | 22.5 |

| Item No. | Model | HP | Volts | Switch Type/Operation | Cord | Weight |
|----------|---------|-----|-------|-----------------------|--------------|--------------------|
| 620240 | FLS-400 | 1/2 | 115 | Manual | 20' 6.1 m | 24 lbs 10.89 Kg |
| 620241 | FS-750 | 1 | 115 | Manual | 20' 6.1 m | 35 lbs 15.88 Kg |

UTILITY PUMPS

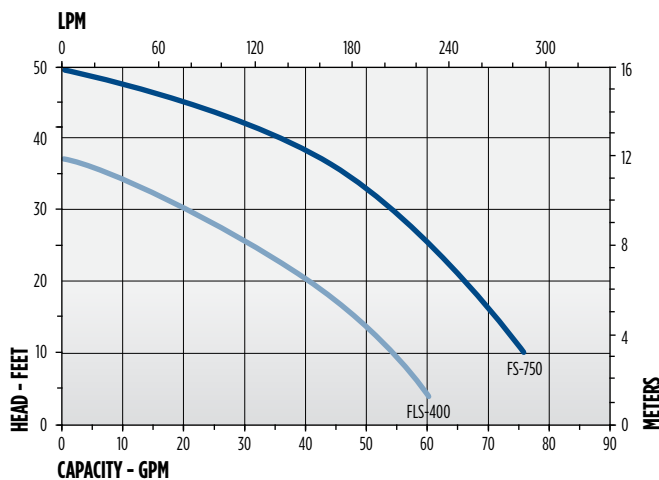
FLS/FS SERIES - 1/2 HP, 1 HP

ENGINEERING DATA



| Model | A | B | C | D |
|---------|--------------------|--------------------|------------------|-------------------|
| FLS-400 | 11.93" 30.30 cm | 9.3" 23.62 cm | 2" 5.08 cm | 7.99" 20.29 cm |
| FL-750 | 13.94" 35.41 cm | 10.79" 27.41 cm | 2.84" 7.21 cm | 7.24" 18.39 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|--|
| Motor Housing | Stainless steel |
| Impeller Material | Urethane rubber (620240) Balanced ductile iron (620241) |
| Impeller Type | Semi-open |
| Volute | Cast iron |
| Motor Shaft | Stainless steel |
| Seals | Double mechanical seals (lower - silicon carbide on silicon carbide, upper - carbon on ceramic) |
| Fasteners | Plated steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW 14/3 |

5.5 SERIES - 1/4 HP

APPLICATIONS

Basement sumps

FEATURES

- PSC motor with thermal overload protection
- Integral snap-action float switch
- 1-1/2" discharge
- 3/4" GHT (19mm) garden hose adapter included
- Screened inlet handles up to 3/8" (9.5 mm) solids
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

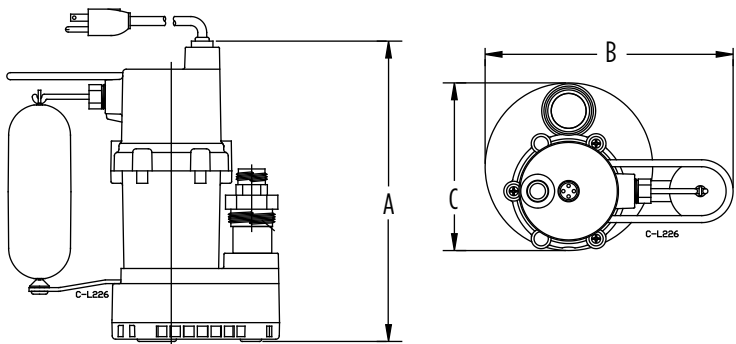
| Model | HP | Volts | Hz | Amps | Watts | Max. Water Temp. | GPM / Liters per Minute @ Height | | | Shut-Off | |
|----------|-----|-------|----|------|-------|------------------|----------------------------------|-------------|---------------|-----------|-------------|
| | | | | | | | 5 ft / 1.5 m | 10 ft / 3 m | 20 ft / 6.1 m | ft / m | PSI / Bar |
| 5.5-ASPA | 1/4 | 115 | 60 | 3.5 | 350 | 120F | 35 / 132 | 30 / 114 | 10 / 38 | 25 / 7.62 | 10.8 / 0.69 |

| Item No. | Model | HP | Volts | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|----------|-----|-------|----------------------------|---------------------------|-------------------------|--------------|----------------------|
| 505702 | 5.5-ASPA | 1/4 | 115 | Integral Snap-Action Float | 7" - 10" 18 cm - 25 cm | 2" - 5" 5 cm - 13 cm | 10' 3 m | 10.25 lbs 4.65 Kg |
| 505703 | 5.5-ASPA | 1/4 | 115 | Integral Snap-Action Float | 7" - 10" 18 cm - 25 cm | 2" - 5" 5 cm - 13 cm | 25' 7.6 m | 11.5 lbs 5.22 Kg |

SUMP PUMPS

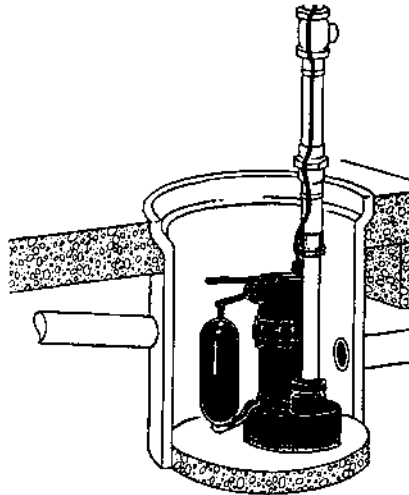
5.5 SERIES - 1/4 HP

ENGINEERING DATA

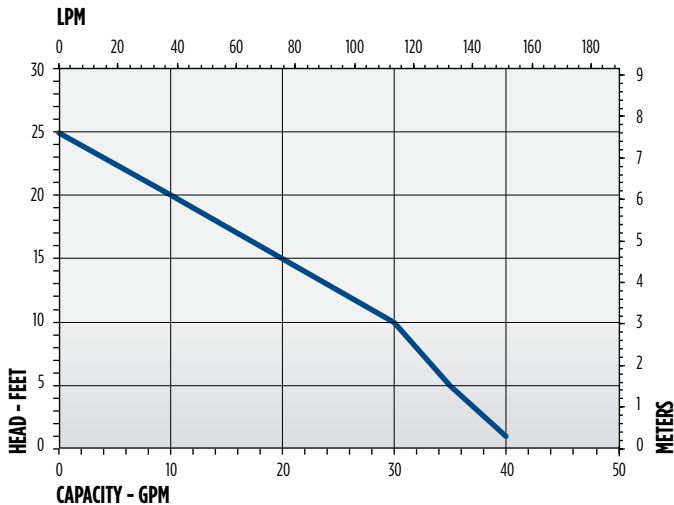


| A | B | C |
|------------------|----------------|---------------|
| 10.8" (274.8 mm) | 10.4" (264 mm) | 8.7" (221 mm) |

TYPICAL INSTALLATION



PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|-----------------|
| Motor Housing | Aluminum |
| Impeller Material | Nylon |
| Impeller Type | Non-clog |
| Volute | Polypropylene |
| Motor Shaft | 440C SS |
| Shaft Seal | Mechanical |
| Fasteners | Stainless steel |
| Bearings | Ball |
| Power Cord | SJTW-A |

6 SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

- Shaded pole motor with thermal overload protection
- Designed for continuous duty
- Oil-filled motor housing
- PVC riser legs (506162 only)
- 1-1/2" FNPT discharge (38 mm)
- 1-1/4" FNPT (31.7 mm) reducer bushing included
- 3/4" GHT garden hose adapter included
- cCSAus listed (115 V models only)



SERIES SPECIFICATIONS

| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | Shut-Off (ft) | PSI |
|-------|-------|------|-------|-------|------------------------------------|-----|------|---------------|-----|
| | | FLA | Start | | 5' | 10' | 15' | | |
| 115 | 50/60 | 9.0 | 14.3 | 720 | 46 | 29 | 12.5 | 18 | 7.8 |
| 230 | 50/60 | 4.5 | 6.3 | 720 | 46 | 29 | 12.5 | 18 | 7.8 |

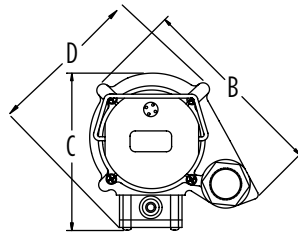
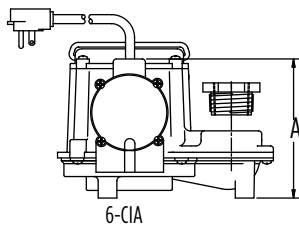
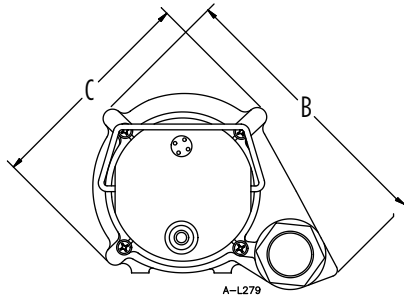
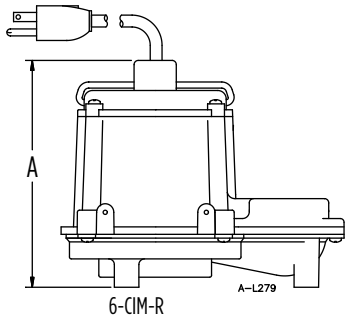
| Item No. | Model | HP | Volts | Switch Type/ Operation | On Level | Off Level | Cord | Weight |
|----------|-----------|-----|-------|----------------------------|-------------------------------|-----------------------------|--------------|----------------------|
| 506158 | 6-CIA | 1/3 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 18 lbs 8.16 Kg |
| *506162 | 6-CIA | 1/3 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 18.5 lbs 8.39 Kg |
| 506125 | 6-CIA | 1/3 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 25' 7.6 m | 18.5 lbs 8.39 Kg |
| 506166 | 6-CIA | 1/3 | 230 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 18.5 lbs 8.39 Kg |
| 506171 | 6-CIA-RFS | 1/3 | 115 | Piggyback Mechanical Float | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 17.75 lbs 8.05 Kg |
| 506267 | 6-CIA-RS | 1/3 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 17.5 lbs 7.94 Kg |
| 506266 | 6-CIM | 1/3 | 230 | Manual | - | - | 12' 3.6 m | 18.75 lbs 8.50 Kg |
| 506271 | 6-CIM-R | 1/3 | 115 | Manual | - | - | 10' 3 m | 16.5 lbs 7.48 Kg |
| 506274 | 6-CIM-R | 1/3 | 115 | Manual | - | - | 25' 7.6 m | 18 lbs 8.16 Kg |

* Leg kit included

SUMP PUMPS

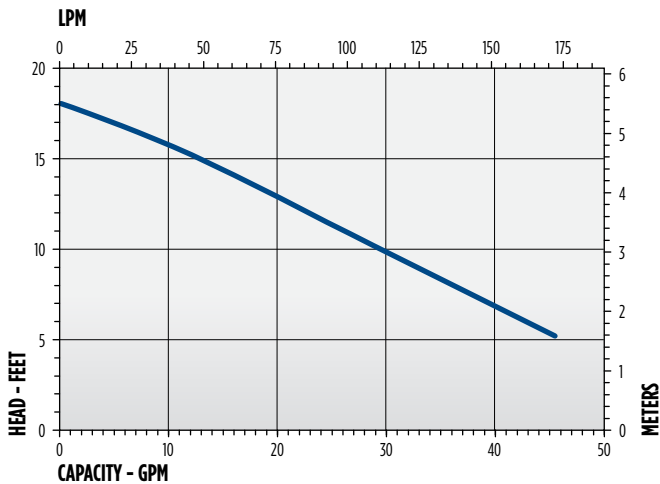
6 SERIES - 1/3 HP

ENGINEERING DATA



| Model | A | B | C | D |
|---------------------------------|-------------------|------------------|------------------|------------------|
| 6-CIM-R, 6-CIA-RFS, 6-CIA-RF | 7.25" 18.42 cm | 9.5" 24.13 cm | 7.2" 18.29 cm | - |
| 6-CIA | 6" 15.24 cm | 9.5" 24.13 cm | 8.5" 21.59 cm | 8.2" 20.83 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|---|
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Impeller Type | Non-clog |
| Volute | Polypropylene |
| Motor Shaft | CRS |
| Shaft Seal | Mechanical shaft seal nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Bearings | Upper: Sintered iron/copper, flanged sleeve Lower: Sintered iron/copper, flanged steel |
| Power Cord | 18-3, SJTW |

6EC SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

- Heavy-duty cast iron construction
- Permanent split capacitor (PSC) motor with thermal overload protection
- Designed for continuous duty
- Energy-saving low amp draw
- 1-1/2" FNPT discharge (38 mm)
- Handles up to 1/2" (12.7 mm) solids
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

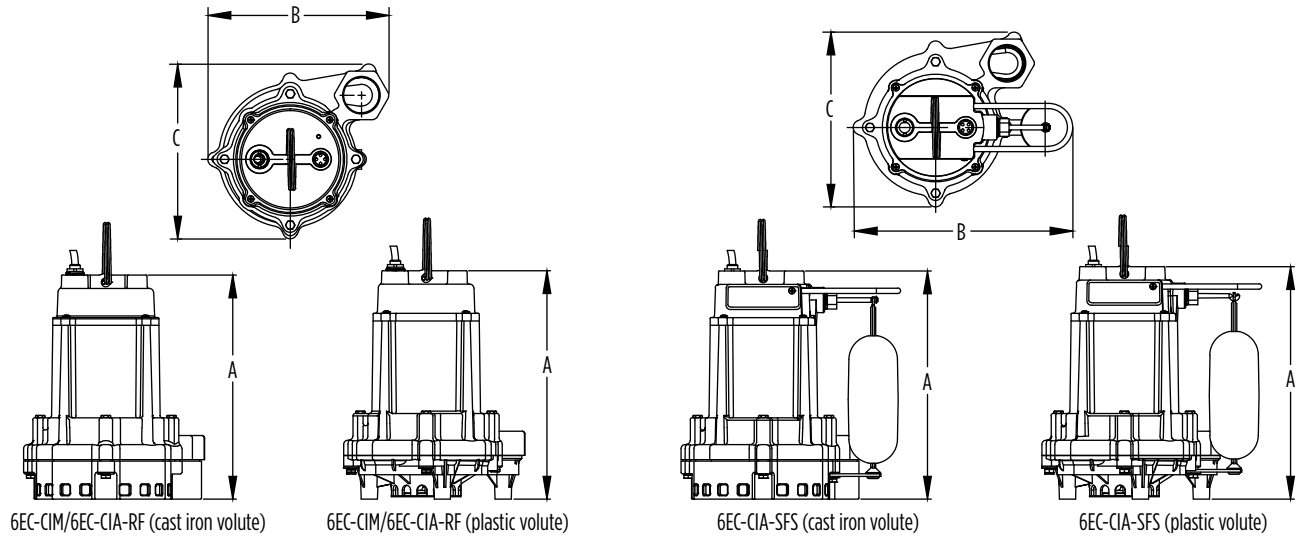
| Volts | Hz | Amps | Watts | Performance (GPM @ Height in Feet) | | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|---------------------------------------|-----|-----|-----|------------------|------|
| | | | | 5' | 10' | 15' | 20' | | |
| 115 | 60 | 5 | 600 | 53 | 50 | 42 | 34 | 28 | 12.1 |
| 230 | 60 | 3 | 650 | 53 | 50 | 42 | 34 | 28 | 12.1 |

| Item | Model | HP | Volts | Base Material | Switch Type/ Operations | On Level | Off Level | Cord | Weight |
|--------|-----------------|-----|-------|---------------|----------------------------|----------------------------------|--------------------------------|----------------|-----------------------|
| 506853 | 6EC-CIA-RF | 1/3 | 115 | Cast Iron | Piggyback Mechanical Float | 13" - 15" (33.2 cm - 38.1 cm) | 6" - 8" (15.2 cm - 20.3 cm) | 10' (3 m) | 33.5 lbs (15.2 Kg) |
| 506803 | 6EC-CIA-RF | 1/3 | 115 | Polypropylene | Piggyback Mechanical Float | 13" - 15" (33.2 cm - 38.1 cm) | 6" - 8" (15.2 cm - 20.3 cm) | 10' (3 m) | 27.5 lbs (12.5 Kg) |
| 506858 | 6EC-CIA-RF | 1/3 | 115 | Cast Iron | Piggyback Mechanical Float | 13" - 15" (33.2 cm - 38.1 cm) | 6" - 8" (15.2 cm - 20.3 cm) | 20' (6.1 m) | 35.5 lbs (16.1 Kg) |
| 506855 | 6EC-CIA-SFS | 1/3 | 115 | Cast Iron | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 10' (3 m) | 34 lbs (15.4 Kg) |
| 506807 | 6EC-CIA-SFS | 1/3 | 115 | Polypropylene | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 10' (3 m) | 28 lbs (12.7 Kg) |
| 506860 | 6EC-CIA-SFS | 1/3 | 115 | Cast Iron | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 20' (6.1 m) | 35 lbs (15.9 Kg) |
| 506804 | 6EC-CIA-SFS | 1/3 | 115 | Polypropylene | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 20' (6.1 m) | 29 lbs (13.5 Kg) |
| 506851 | 6EC-CIM | 1/3 | 115 | Cast Iron | Manual | — | — | 10' (3 m) | 32.5 lbs (14.7 Kg) |
| 506801 | 6EC-CIM | 1/3 | 115 | Polypropylene | Manual | — | — | 10' (3 m) | 26.5 lbs (12 Kg) |
| 506852 | 6EC-CIM | 1/3 | 115 | Cast Iron | Manual | — | — | 20' (6.1 m) | 33.5 lbs (15.2 Kg) |
| 506802 | 6EC-CIM | 1/3 | 115 | Polypropylene | Manual | — | — | 20' (6.1 m) | 27.5 lbs (12.5 Kg) |
| 506806 | 6EC-CIM (Black) | 1/3 | 115 | Polypropylene | Manual | — | — | 20' (6.1 m) | 27.5 lbs (12.5 Kg) |
| 506854 | 6EC-CIM | 1/3 | 115 | Cast Iron | Manual | — | — | 25' (7.6 m) | 34 lbs (15.4 Kg) |
| 506800 | 6EC-CIM | 1/3 | 127 | Polypropylene | Manual | — | — | 20' (6.1 m) | 27.5 lbs (12.5 Kg) |

SUMP PUMPS

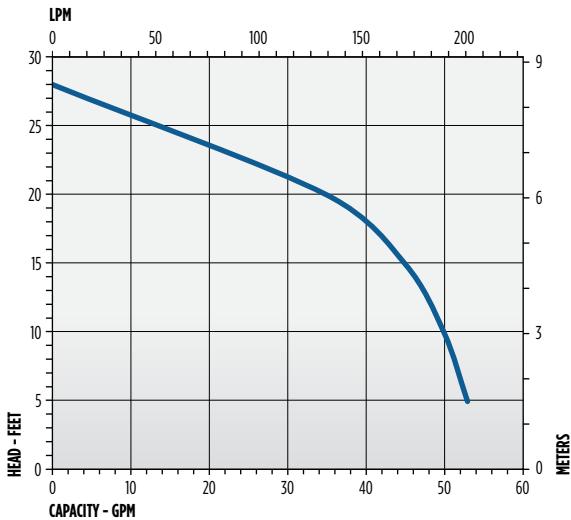
6EC SERIES - 1/3 HP

ENGINEERING DATA



| Model | Base | A | B | C |
|-------------|---------------|-------------------|-------------------|------------------|
| 6EC-CIA-SFS | Polypropylene | 11.28" (286.5 mm) | 10.66" (270.8 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 11.07" (281.2 mm) | 10.66" (270.8 mm) | 8.48" (215.5 mm) |
| 6EC-CIA-RF | Polypropylene | 11.08" (281.5 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 10.9" (276.2 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| 6EC-CIM | Polypropylene | 11.08" (281.5 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 10.9" (276.2 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---------------------------------------|
| Cover | Epoxy-coated cast iron |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Cold-rolled steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW, SJTOW (506854) |

HT-6E SERIES (HIGH TEMPERATURE) - 1/3 HP

APPLICATIONS

Boiler blow-down sump pits, transformer vaults, water transfer, light effluent

FEATURES

- Shaded pole motor with thermal overload protection
- Designed for continuous duty
- 1-1/2" FNPT discharge (38 mm)
- Handles up to 1/2" (12.7 mm) solids
- Integral mechanical float switch
- Up to 200 °F (93 °C)
- CSA listed



SERIES SPECIFICATIONS

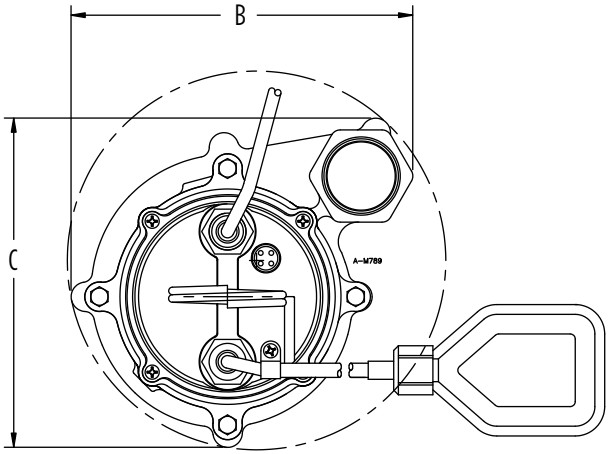
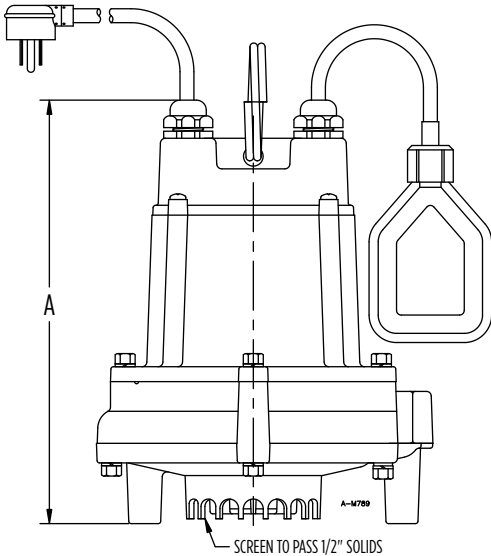
| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|-------|------------------------------------|-----|-----|---------------|-----|
| | | FLA | Start | | 5' | 10' | 15' | | |
| 115 | 60 | 10.1 | 17 | 735 | 50 | 42 | 27 | 20 | 8.7 |

| Item No. | Model | HP | Volts | Switch Type/Operation | On Level | Off Level | Cord | Weight |
|----------|--------------|-----|-------|---------------------------|----------------------------------|-------------------------------|--------------|--------------------|
| 506600 | HT-6E-CIA-FS | 1/3 | 115 | Integral Mechanical Float | 11" - 14" 27.94 cm - 35.56 cm | 2" - 4" 5.08 cm - 10.16 cm | 15' 4.6 m | 32 lbs 14.52 Kg |

SUMP PUMPS

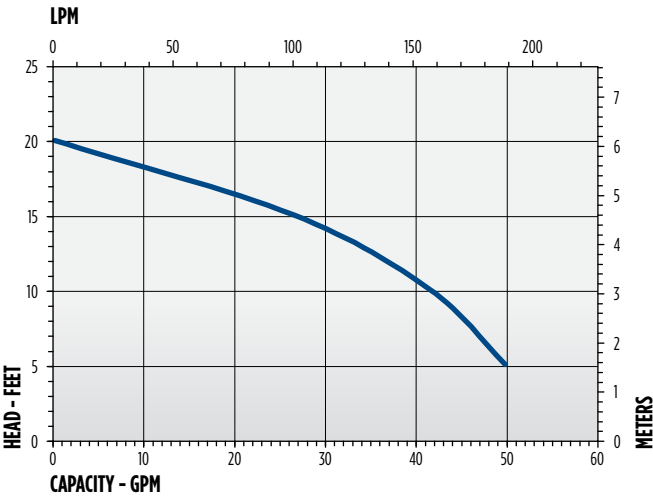
HT-6E SERIES (HIGH TEMPERATURE) - 1/3 HP

ENGINEERING DATA



| A | B | C |
|------------------|-----------------|-----------------|
| 10.9" 27.7 cm | 8.8" 22.4 cm | 8.5" 21.6 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Impeller Type | Vortex |
| Volute | Epoxy-coated cast iron |
| Motor Shaft | Cold-rolled steel |
| Mechanical Shaft Seal | Stainless steel, carbon, and Ni-Resist faces |
| Fasteners | Stainless steel |
| Bearings | Upper and lower: Oil-impregnated, porous iron/copper, flanged |
| Power Cord | 16-3 SJ00W, chlorinated polyethylene |

8 SERIES - 4/10 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

- Shaded pole motor with thermal overload protection
- Designed for continuous duty
- Oil-filled motor housing
- Cast iron or cast bronze pump housing
- 1-1/2" FNPT discharge (38 mm)
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

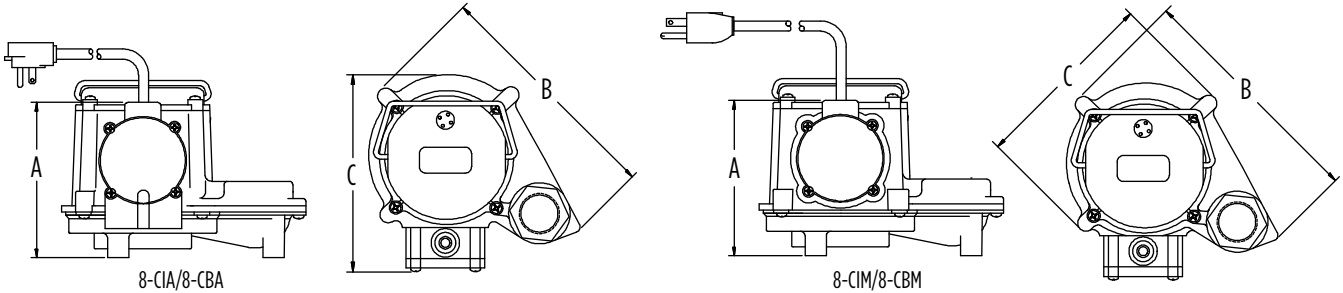
| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|-------|------------------------------------|-----|-----|---------------|-----|
| | | FLA | Start | | 5' | 10' | 15' | | |
| 115 | 60 | 10 | 17 | 830 | 54 | 42 | 26 | 22.9 | 9.9 |

| Item No. | Model | HP | Volts | Switch Type/Operation | On Level | Off Level | Cord | Weight |
|----------|-------|------|-------|-----------------------|-------------------------------|-----------------------------|--------------|----------------------|
| 508157 | 8-CIA | 4/10 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 19 lbs 8.62 Kg |
| 508158 | 8-CIA | 4/10 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 25' 7.6 m | 20.25 lbs 9.19 Kg |
| 508357 | 8-CBA | 4/10 | 115 | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 21.25 lbs 9.64 Kg |
| 508057 | 8-CIM | 4/10 | 115 | Manual | - | - | 10' 3 m | 18.75 lbs 8.50 Kg |
| 508058 | 8-CIM | 4/10 | 115 | Manual | - | - | 25' 7.6 m | 19.75 lbs 8.96 Kg |
| 508257 | 8-CBM | 4/10 | 115 | Manual | - | - | 10' 3 m | 21 lbs 9.53 Kg |

SUMP PUMPS

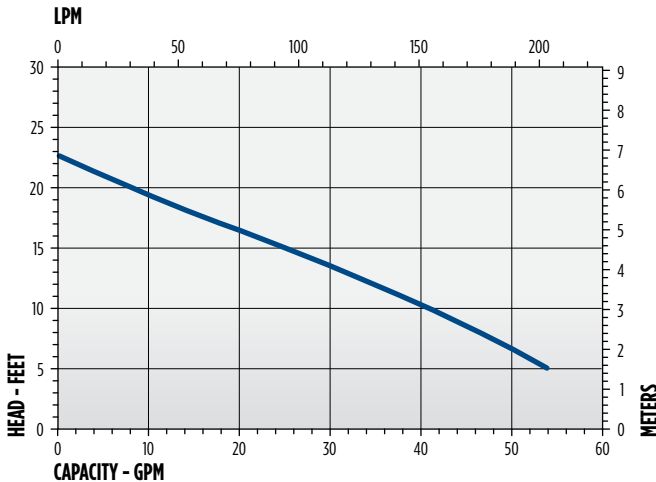
8 SERIES - 4/10 HP

ENGINEERING DATA



| Model | A | B | C |
|-------------|----------------|------------------|-------------------|
| 8-CIA/8-CBA | 6" 15.24 cm | 9.5" 24.13 cm | 8.5" 21.59 cm |
| 8-CIM/8-CBM | 6" 15.24 cm | 9.5" 24.13 cm | 7.25" 18.41 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|--|
| Motor Housing | Epoxy coated cast iron (CI) or cast bronze (CB models) |
| Impeller Material | Polypropylene |
| Impeller Type | Non-clog |
| Volute | Polypropylene |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Cold-rolled steel |
| Bearings | Upper and lower: Sintered, iron, flanged sleeve |
| Power Cord | 18-3, SJTW |

WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP DRAINOSAUR® & DRAINOSAUR JR.®

APPLICATIONS

Impractical drainage areas, under sinks, laundry trays

FEATURES

BASIN FEATURES

- 3.5 and 5 gallon size options
- Polypropylene, lightweight, corrosion-resistant
- Designed with O-rings for watertight seal
- Cover includes removable filter for easy cleaning
- Cover includes 2" FNPT discharge (outlet), 2" FNPT vent, 1-1/2" FNPT inlet, and 2" MNPT to 1-1/2" FNPT reducer bushing
- IAPMO listed
- Pre-assembled, ready to install

PUMP FEATURES

- 1/6, 1/3, and 4/10 hp options
- Multiple switch options
- cCSAus listed (pump only)



SERIES SPECIFICATIONS

| HP | Volts | Hz | Amps | Watts | GPM @ Height in Feet | | | | Shut-Off (ft) | PSI |
|------|-------|-------|------|-------|----------------------|-----|-----|-----|---------------|------|
| | | | | | 5' | 10' | 15' | 20' | | |
| 1/6 | 115 | 60 | 5 | 380 | 15 | 12 | 8 | - | 21.00 | 9.1 |
| 1/3 | 115 | 60 | 9 | 720 | 46 | 29 | 13 | - | 18.00 | 7.8 |
| 1/3 | 230 | 50/60 | 4.5 | 720 | 46 | 29 | 13 | - | 18.00 | 7.8 |
| 4/10 | 115 | 60 | 7.5 | 800 | 70 | 65 | 55 | 50 | 40 | 17.3 |

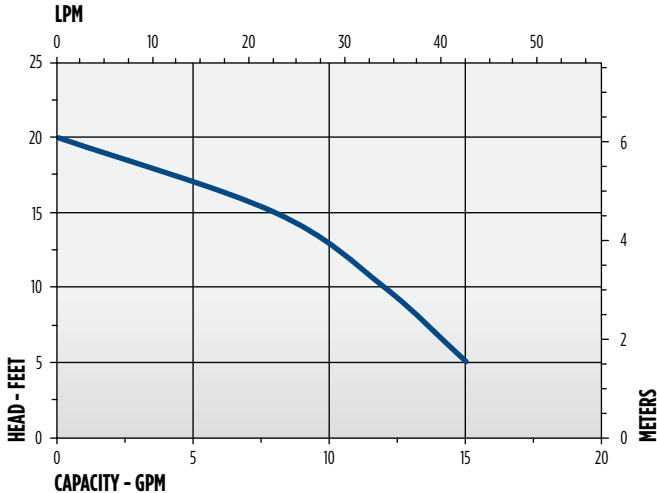
| Item No. | Model | HP | Volts | Tank Size | Switch Type / Operation | On Level | Off Level | Cord | Weight | Pump Item No. | Pump Model No. |
|----------|--------|------|-------|------------|-------------------------------|-------------------------------|-----------------------------|------------|----------------------|---------------|----------------|
| 505055 | WRS-5 | 1/6 | 115 | 5 Gallon | Piggyback Diaphragm | 6" - 9" 15.2 cm - 23 cm | 1" - 4" 2.5 cm - 10 cm | 10' 3 m | 19 lbs 8.62 Kg | 505300 | 5-ASP |
| 506065 | WRSC-6 | 1/3 | 115 | 3.5 Gallon | Integral Diaphragm | 4" - 7" 10.2 cm - 17.8 cm | 1" - 3" 2.5 cm - 7.6 cm | 10' 3 m | 24 lbs 10.89 Kg | 506160 | 6-CIA-ML |
| 506066 | WRSC-6 | 1/3 | 230 | 3.5 Gallon | Integral Diaphragm | 4" - 7" 10.2 cm - 17.8 cm | 1" - 3" 2.5 cm - 7.6 cm | 10' 3 m | 17.75 lbs 8.05 Kg | 506161 | 6-CIA-ML |
| 506055 | WRS-6 | 1/3 | 115 | 5 Gallon | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 26 lbs 11.79 Kg | 506158 | 6-CIA |
| 506056 | WRS-6 | 1/3 | 230 | 5 Gallon | Integral Diaphragm | 7" - 10" 17.8 cm - 25.4 cm | 1" - 4" 2.5 cm - 10.2 cm | 10' 3 m | 27 lbs 12.25 Kg | 506166 | 6-CIA |
| 509268 | WRS-9 | 4/10 | 115 | 5 Gallon | Piggyback Vertical Mechanical | 7" - 10" 17.8 cm - 25.4 cm | 2" - 5" 5 cm - 12.7 cm | 10' 3 m | 35 lbs 15.88 Kg | 509806 | 9EC-CIM |

SUMP PUMPS

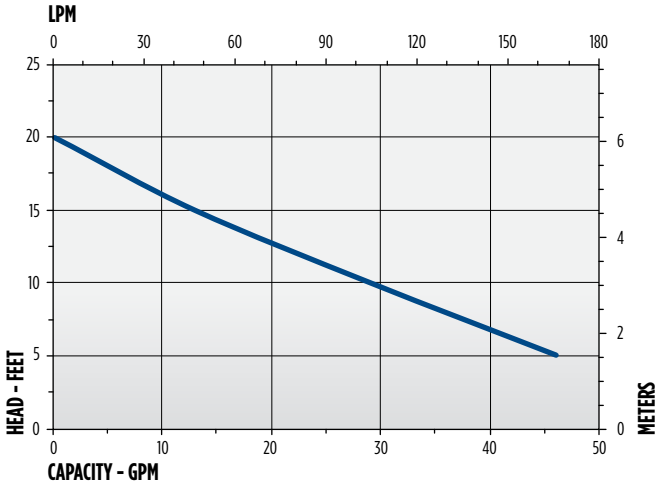
WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

PERFORMANCE DATA

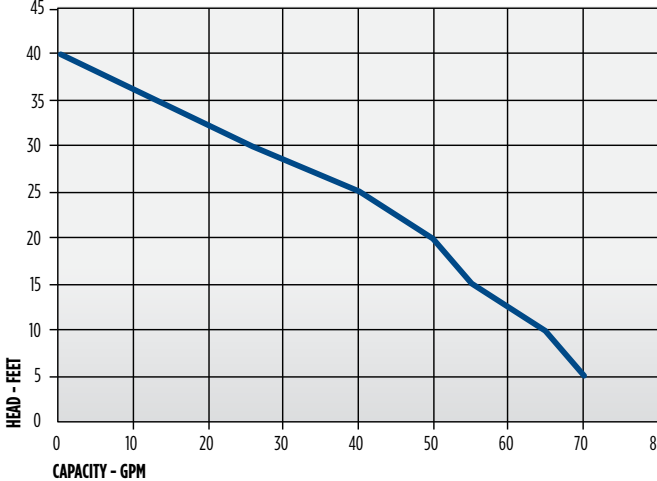
WRS-5



WRS-6 & WRSC-6

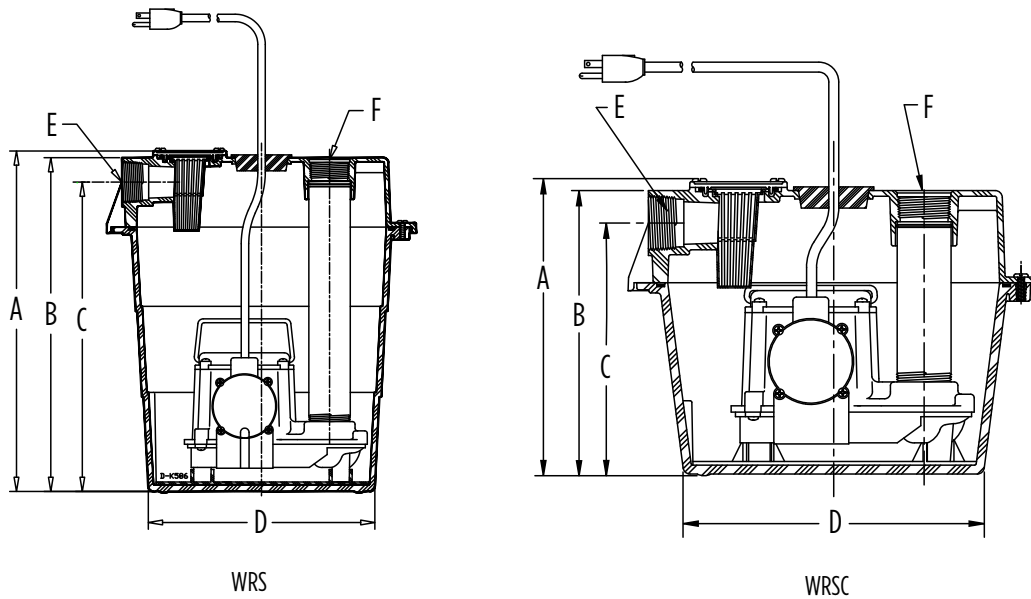


WRS-9



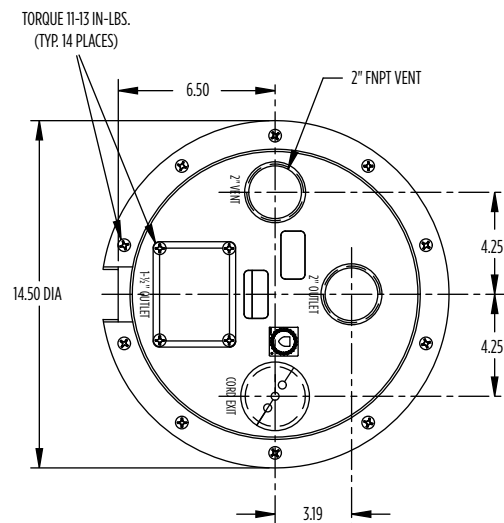
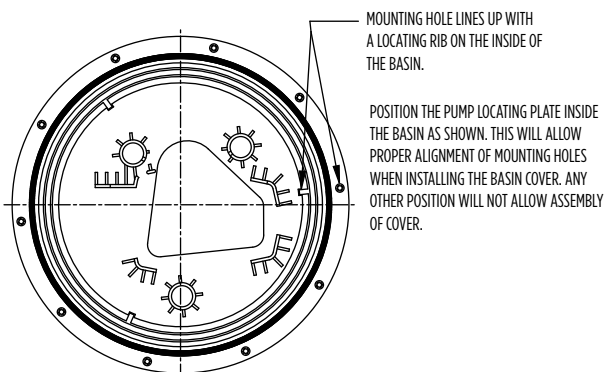
WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

ENGINEERING DATA



| Model | A | B | C | D | E | F |
|--------|-------------------|-------------------|-------------------|----------------|-----------------------|-------------------|
| WRS-5 | 16.17" (41.07 cm) | 15.68" (39.83 cm) | 14.75" (37.47 cm) | 10.63" (27 cm) | 1-1/2" (FNPT 3.81 cm) | 2" (FNPT 5.08 cm) |
| WRS-6 | 16.17" (41.07 cm) | 15.68" (39.83 cm) | 14.75" (37.47 cm) | 10.63" (27 cm) | 1-1/2" (FNPT 3.81 cm) | 2" (FNPT 5.08 cm) |
| WRS-9 | 16.17" (41.07 cm) | 15.68" (39.83 cm) | 14.75" (37.47 cm) | 10.63" (27 cm) | 1-1/2" (FNPT 3.81 cm) | 2" (FNPT 5.08 cm) |
| WRSC-6 | 10.55" (26.8 cm) | 10.06" (25.55 cm) | 8.9" (22.61 cm) | 10.63" (27 cm) | 1-1/2" (FNPT 3.81 cm) | 2" (FNPT 5.08 cm) |

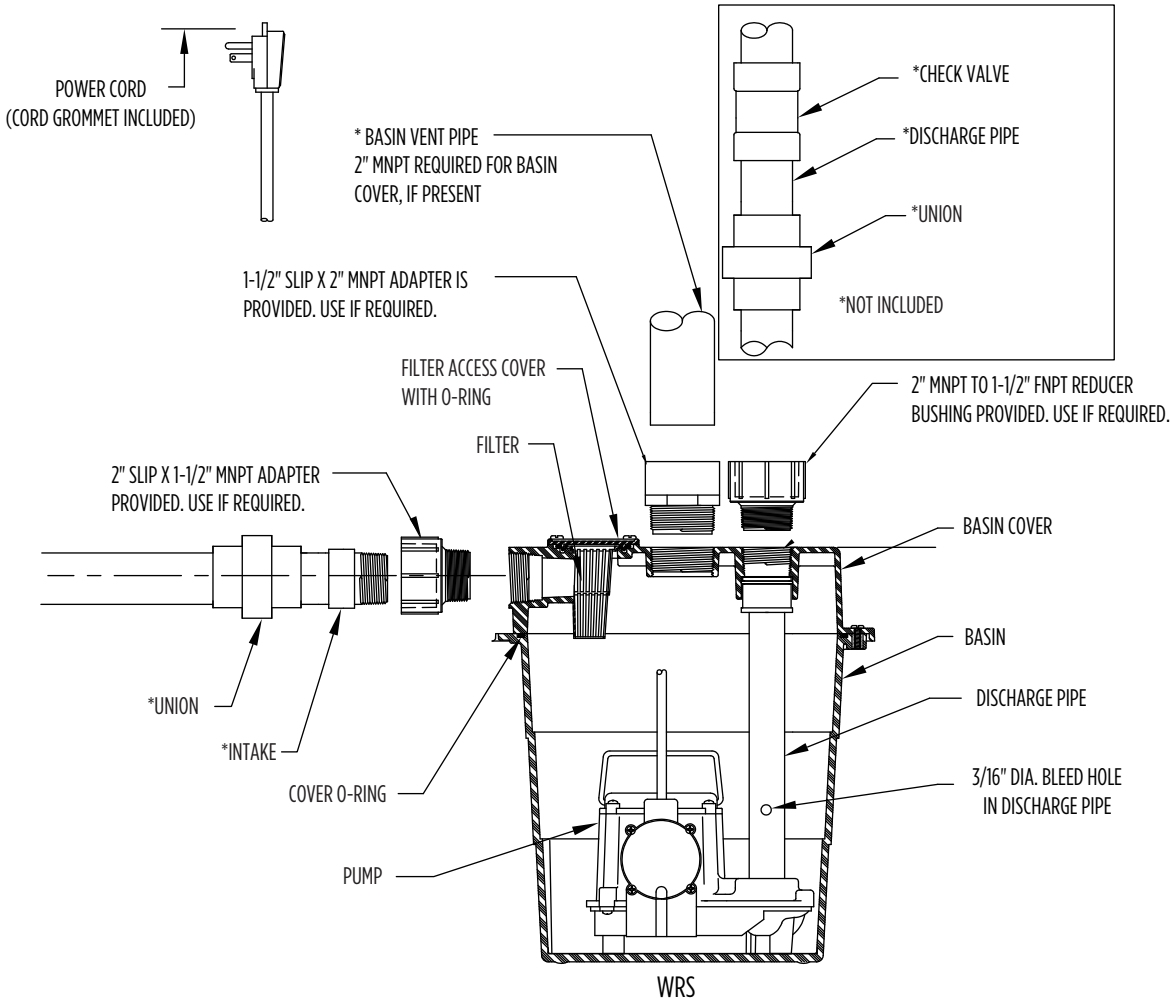
PLATE ALIGNMENT DIAGRAM



SUMP PUMPS

WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

TYPICAL INSTALLATION



CS-SS SERIES - 1/3 HP

APPLICATIONS

Residential crawl spaces, low-lying areas

FEATURES

PACKAGE FEATURES

- 1/3 hp cast iron pump with overload protection
- 18" x 22" (46 cm x 56 cm) lightweight perforated polypropylene basin
- Structural foam cover with slip fit flanges
- 1-1/4" x 24' (31.7 mm x 7.3 m) discharge hose kit
- 1-1/2" MNPT (38 mm) barbed check valve
- cCSAus listed (pump only)



SERIES SPECIFICATIONS

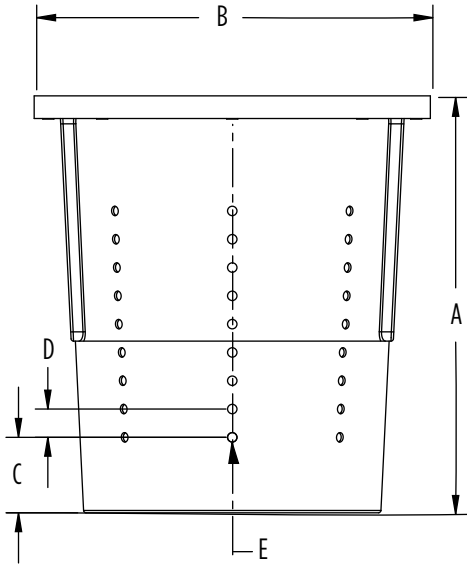
| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|-------|------------------------------------|-----|-----|---------------|-----|
| | | FLA | Start | | 5' | 10' | 15' | | |
| 115 | 60 | 6 | 12 | 600 | 50 | 42 | 30 | 22 | 9.5 |

| Item No. | Model | HP | Volts | Switch Type/Operation | On Level | Off Level | Cord | Weight (lbs) |
|----------|-------|-----|-------|----------------------------|-------------------------------|---------------------------|------------|--------------------|
| 14940655 | CS-SS | 1/3 | 115 | Integral Snap-Action Float | 7" - 10" 17.8 cm - 25.4 cm | 2" - 5" 5 cm - 12.7 cm | 20' 6 m | 41 lbs 18.60 Kg |

SUMP PUMPS

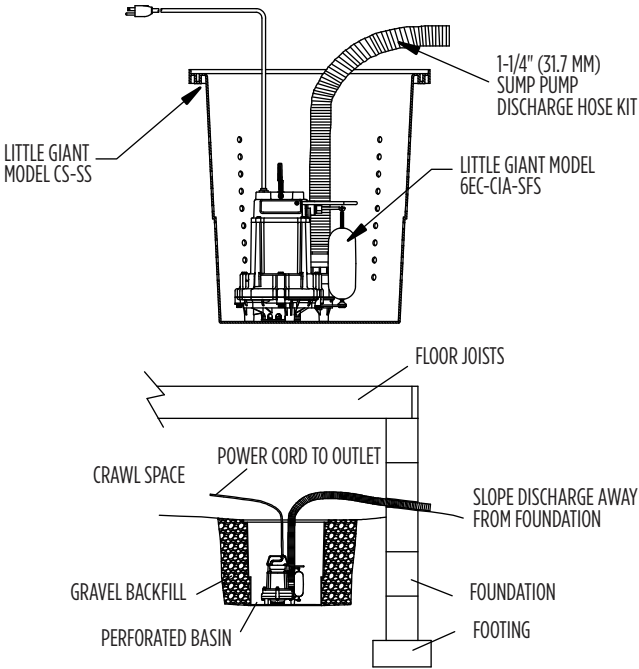
CS-SS SERIES - 1/3 HP

ENGINEERING DATA

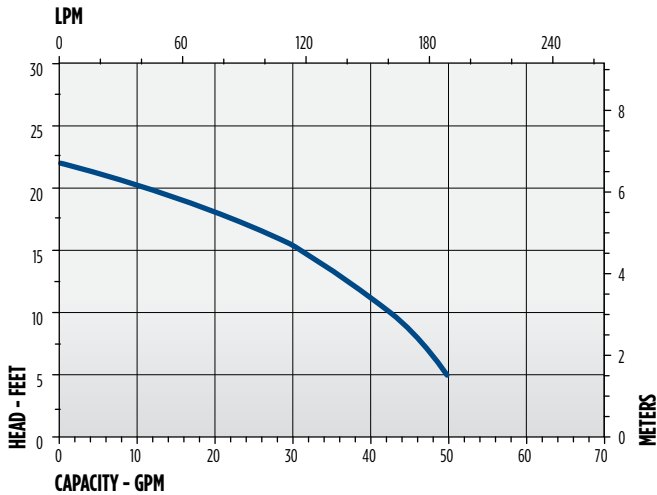


| A | B | C | D | E |
|----------|----------|----------|---------|---------|
| 22.1" | 21" | 4" | 1.5" | 0.5" |
| 56.13 cm | 53.34 cm | 10.16 cm | 3.81 cm | 1.27 cm |

INSTALLATION DATA



PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|--|
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Impeller Type | Vortex |
| Volute | Epoxy-coated cast iron/ polypropylene |
| Motor Shaft | Cold-rolled steel |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW (506612 with SJTOW) |
| Basin (14940653) | Polypropylene |
| Cover (14940654) | Structural foam |

APS-115 - BATTERY BACKUP SYSTEMS

APPLICATIONS

Sump, effluent, and sewage pump power backup system

FEATURES

- Fully automatic charging system
- Powers existing sump, effluent or sewage pump in the event of a power outage
- Operates 115 Volt pump up to 1/2 hp
- Requires 2 size 27 or 31 deep cycle marine batteries
- Easy installation with no modification or piping changes to existing pumping system
- Microprocessor monitors all electrical functions
- LCD display indicator lights:
 - Power – Green LED
Solid when unit has power. No light indicates power off.
 - Inverter – Red LED
Blinks when unit is powered by inverter and silent button has NOT been pressed. Solid when unit is powered by inverter and silent button has been pressed. Off when unit is operating off AC line voltage.
 - Alarm – Red LED
Blinks when alarm occurs and silence button has NOT been pressed. Solid when alarm occurs and silence button has been pressed. Off when no alarm condition is present.
 - Alarm Contact – NC



NOT FOR SALE IN CALIFORNIA:

The battery charger contained in this product does not meet the California Efficiency Regulations codified at 20 CCR 91601-1608.

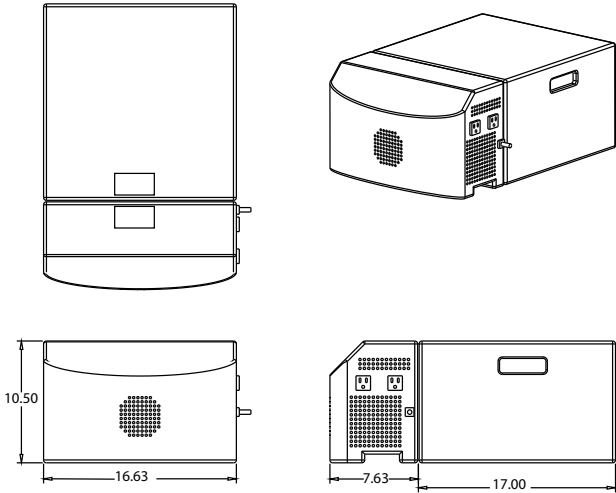
SERIES SPECIFICATIONS

| Item No. | Model | Input | Output | Max HP | Cord Length | Weight |
|----------|---------|-------------------------|-------------------------|--------|-------------|-----------------|
| 513401 | APS-115 | 120 VAC, 60 Hz, 12 Amps | 120 VAC, 60 Hz, 12 Amps | 1/2 | 9' 2.7 m | 97 lbs 44 Kg |

BATTERY BACKUP

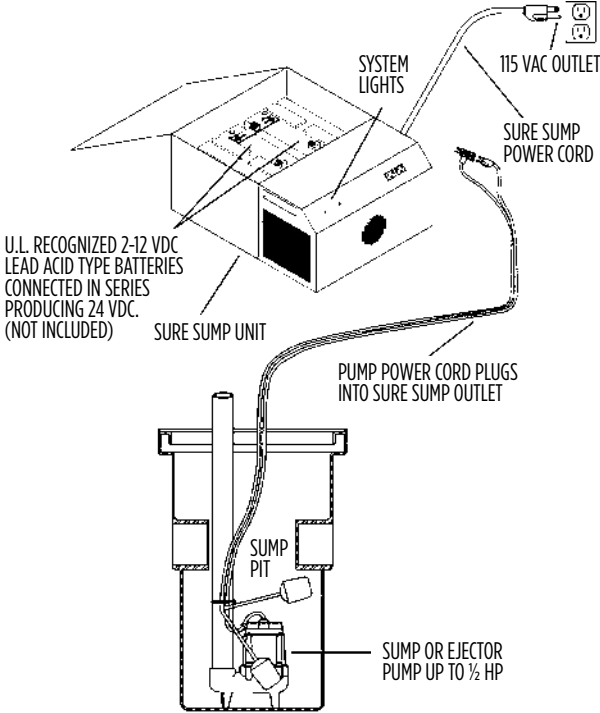
APS-115 - BATTERY BACKUP SYSTEMS

ENGINEERING DATA

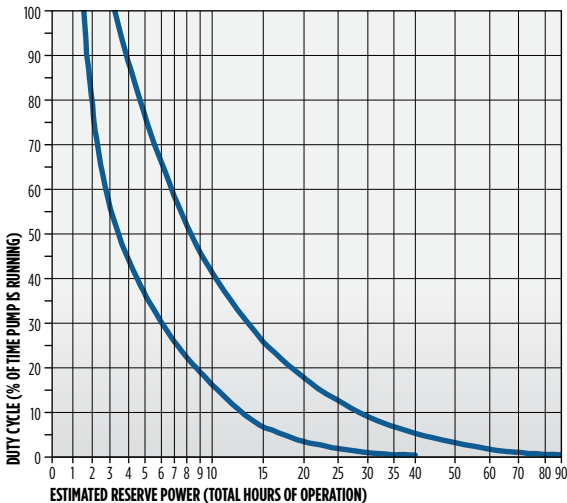


| A | B | C | D | E |
|----------|----------|----------|----------|----------|
| 12" | 23" | 16-1/2" | 14-5/8" | 8-3/8" |
| 30.48 cm | 58.42 cm | 41.91 cm | 37.15 cm | 21.27 cm |

TYPICAL INSTALLATION



PERFORMANCE DATA



CONSTRUCTION

| | |
|-----------------------------------|---|
| Enclosure | Corrosion-resistant thermoplastic |
| Finish (Interior/Exterior) | Baked-on epoxy |
| Battery Access | Removable lid |
| Construction | Two-piece |
| Weight | 60 lbs (27.22 kg) - Power Head 8 lbs (3.63 kg) - Battery Enclosure |

SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

SPBS-10HF-6 AND SPBS-12HF-10 SERIES

- 12 VDC backup pump
 - Durable non-corrosive pump housing with stainless steel fasteners
 - Easily removed bottom suction screen for serviceability and maintenance
 - Diaphragm switch activated
 - 115 VAC primary pump
 - Heavy-duty cast iron construction
 - Energy-efficient permanent split capacitor (PSC) motor with automatic reset thermal overload protection
 - 1-1/2" FNPT discharge piping size
 - Lift ring for easy and quick installation
 - Pre-assembled
 - Check valve, elbow connector, and pump coupling
 - Battery box holds size 27, 12 V deep cycle battery (battery not included)
 - *Recommended 12 VDC deep cycle battery, lead acid or AGM
-
- Model 506411
 - 12 VDC backup pump
 - 42 gpm (159 lpm) at 0 ft (0 m) and 20 ft (6.1 m) shut-off
 - 10 amp controller/charger/alarm unit
 - 1/3 hp, 115 VAC primary pump
 - 53 gpm (201 lpm) at 5 ft (1.5 m) of lift and 28 ft (8.5 m) shut-off
 - Model 506410
 - 12 VDC backup pump
 - 53 gpm (201 lpm) at 0 ft (0 m) and 23 ft (7 m) shut-off
 - 12 amp controller/charger/alarm unit
 - 1/2 hp, 115 VAC primary pump
 - 67 gpm (254 lpm) at 5 ft (1.5 m) of lift and 36 ft (11 m) shut-off



SERIES SPECIFICATIONS

ITEM NO. 506411 - MODEL NO. SPBS-10HF-6

| Charging Unit | | | | | | | | | | |
|---------------|-----------|---------|----|---------------------------|---------------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Max Input Amps at 115 VAC | Max Output Amps at 15 VAC | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 106469 | 1210HF | 115 VAC | 60 | 3 | 10 | 345 | 6' | 5 | 6' | |

| Backup Pump Switch | | | | | | | | | | |
|--------------------|-----------|--------|----|-----------------|------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Switch-On Level | Switch-Off Level | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 105601 | RS-12 | 12 VDC | - | 13.5" | 9" | - | 7' | 0.5 | - | |

| Backup Pump | | | | | | | | | | | | | |
|-------------|-----------|--------|----|------|-------|-------|----------------------|----|-----|---------------|-----|-----------|--------------|
| Item No. | Model No. | Volts | Hz | Amps | | Watts | GPM @ Height in Feet | | | Shut-Off (ft) | PSI | Cord (ft) | Weight (lbs) |
| | | | | FLA | Start | | 0' | 5' | 10' | | | | |
| 106963 | 2500 | 12 VDC | - | 14 | 32 | 168 | 42 | 29 | 20 | 20' | 8.7 | 6' | 6 |

| Primary Pump | | | | | | | | | | | | | | |
|--------------|-------------|---------|----|-----|----------|-------|----------------------|-----|-----|-----|---------------|------|-----------|--------------|
| Item No. | Model No. | Volts | Hz | Hp | Amps FLA | Watts | GPM @ Height in Feet | | | | Shut-Off (ft) | PSI | Cord (ft) | Weight (lbs) |
| | | | | | | | 5' | 10' | 15' | 20' | | | | |
| 506807 | 6EC-CIA-SFS | 115 VAC | 60 | 1/3 | 5 | 600 | 53 | 50 | 42 | 34 | 28' | 11.7 | 10' | 30 |

ITEM NO. 506410 - MODEL NO. SPBS-12HF-10

| Charging Unit | | | | | | | | | | |
|---------------|-----------|---------|----|--------------------------|---------------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Max Input Amps at 15 VDC | Max Output Amps at 12 VDC | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 106486 | 1212HF | 115 VAC | 60 | 3 | 12 | 345 | 6' | 5 | 6' | |

| Backup Pump Switch | | | | | | | | | | |
|--------------------|-----------|--------|----|-----------------|------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Switch-On Level | Switch-Off Level | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 105601 | RS-12 | 12 VDC | - | 13.5" | 9" | - | 9' | 0.5 | - | |

| Backup Pump | | | | | | | | | | | | | | |
|-------------|-----------|--------|----|------|-------|-------|----------------------|----|-----|-----|---------------|-----|-----------|--------------|
| Item No. | Model No. | Volts | Hz | Amps | | Watts | GPM @ Height in Feet | | | | Shut-Off (ft) | PSI | Cord (ft) | Weight (lbs) |
| | | | | FLA | Start | | 0' | 5' | 10' | 15' | | | | |
| 106961 | 3360 | 12 VDC | - | 15 | 32 | 180 | 53 | 39 | 24 | 13 | 23' | 10 | 6' | 6 |

| Primary Pump | | | | | | | | | | | | | | |
|--------------|--------------|---------|----|-----|----------|-------|----------------------|-----|-----|-----|---------------|------|-----------|--------------|
| Item No. | Model No. | Volts | Hz | Hp | Amps FLA | Watts | GPM @ Height in Feet | | | | Shut-Off (ft) | PSI | Cord (ft) | Weight (lbs) |
| | | | | | | | 5' | 10' | 20' | 30' | | | | |
| 510803 | 10EC-CIA-SFS | 115 VAC | 60 | 1/2 | 6.5 | 750 | 67 | 57 | 47 | 28 | 36' | 15.6 | 10' | 26 |

BATTERY BACKUP

SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

SPBS-10HF AND SPBS-12HF SERIES

- 12 VDC backup pump
 - Durable non-corrosive pump housing with stainless steel fasteners
 - Easily removed bottom suction screen for serviceability and maintenance
- Diaphragm switch
- Check valve, elbow connector, and pump coupling
- Battery box holds size 27, 12 V deep cycle battery (battery not included)
 - * Recommended 12 VDC deep cycle battery, lead acid or AGM
- Model 506406
 - 12 VDC backup pump
 - 42 gpm (159 lpm) at 0 ft (0 m) and 20 ft (6.1 m) shut-off
 - 10 amp controller/charger/alarm unit
- Model 506407
 - 12 VDC backup pump
 - 53 gpm (201 lpm) at 0 ft (0 m) of lift and 23 ft (7 m) shut-off
 - 12 amp controller/charger/alarm unit



SERIES SPECIFICATIONS

ITEM NO. 506406 - MODEL NO. SPBS-10HF

| Charging Unit | | | | | | | | | | |
|---------------|-----------|---------|----|---------------------------|----------------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Max Input Amps at 115 VAC | Max Output Amps at 115 VAC | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 106469 | 1210HF | 115 VAC | 60 | 3 | 10 | 345 | 6' | 5 | 6' | |

| Backup Pump Switch | | | | | | | | | | |
|--------------------|-----------|--------|----|-----------------|------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Switch-On Level | Switch-Off Level | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 105601 | RS-12 | 12 VDC | - | 13.5" | 9" | - | 9' | 0.5 | - | |

| Primary Pump | | | | | | | | | | | | | |
|--------------|-----------|--------|----|------|-------|-------|----------------------|----|-----|---------------|-----|-----------|--------------|
| Item No. | Model No. | Volts | Hz | Amps | | Watts | GPM @ Height in Feet | | | Shut-Off (ft) | PSI | Cord (ft) | Weight (lbs) |
| | | | | FLA | Start | | 0' | 5' | 10' | | | | |
| 106963 | 2500 | 12 VDC | - | 14 | 32 | 168 | 42 | 29 | 20 | 20' | 8.7 | 6' | 6 |

ITEM NO. 506407 - MODEL NO. SPBS-12HF

| Charging Unit | | | | | | | | | | |
|---------------|-----------|---------|----|---------------------------|---------------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Max Input Amps at 115 VDC | Max Output Amps at 12 VDC | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 106486 | 1212HF | 115 VAC | 60 | 3 | 12 | 345 | 6' | 5 | 6' | |

| Backup Pump Switch | | | | | | | | | | |
|--------------------|-----------|--------|----|-----------------|------------------|-------|-----------|--------------|--------------------|--|
| Item No. | Model No. | Volts | Hz | Switch-On Level | Switch-Off Level | Watts | Cord (ft) | Weight (lbs) | Battery Leads (ft) | |
| 105601 | RS-12 | 12 VDC | - | 13.5" | 9" | - | 9' | 0.5 | - | |

| Primary Pump | | | | | | | | | | | | | | |
|--------------|-----------|--------|----|------|-------|-------|----------------------|----|-----|-----|---------------|-----|-----------|--------------|
| Item No. | Model No. | Volts | Hz | Amps | | Watts | GPM @ Height in Feet | | | | Shut-Off (ft) | PSI | Cord (ft) | Weight (lbs) |
| | | | | FLA | Start | | 0' | 5' | 10' | 15' | | | | |
| 106961 | 3360 | 12 VDC | - | 15 | 32 | 180 | 53 | 39 | 24 | 13 | 23' | 10 | 6' | 6 |

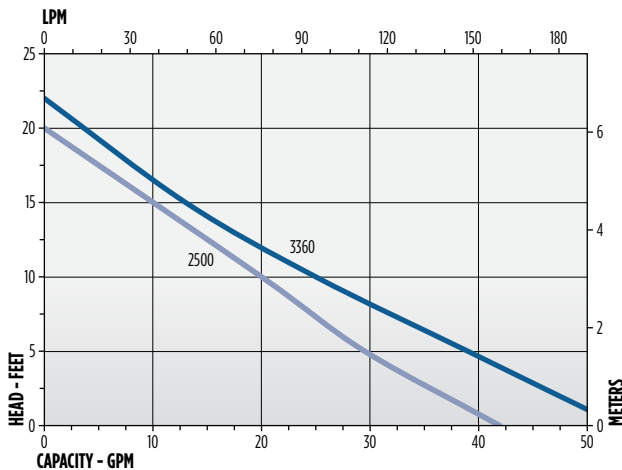
SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

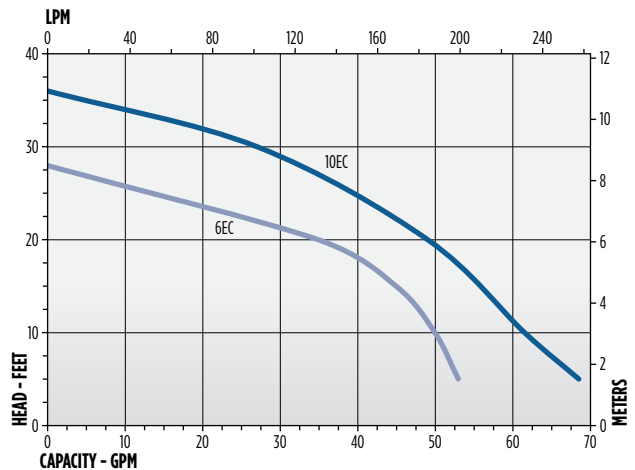
CONTROLLER/CHARGER/ALARM

- Input: 120 VAC, 3 Amp
- Output (Maximum Charging Current):
 - Model 1210HF: 12 VDC, 10 Amps with SPBS-10HF and SPBS-10HF-6
 - Model 1212HF: 12 VDC, 12 Amps with SPBS-12HF and SPBS-12HF-10
- Use only with 12 VDC deep cycle battery rated 85-140Ah, lead-acid or AGM
 - A controller/charger monitors the battery condition and charges the battery when required. It also alerts the homeowner when the system has operated or when possible flooding conditions exist.
 - Microprocessor controlled charging unit maintains a maximum battery charge. Built-in overcharge protection to prevent damage to the battery.
 - Battery continually monitored to maintain full charge
 - Test button to manually run backup pump to ensure proper operation
 - Protects against reverse polarity, short circuits, and input overloads
 - Audible alarm during 12 VDC pump operation
 - Indicator lights (LED) for:
 - Power On
 - Charging
 - Pump Run
 - High Water
 - Battery Charge Level
 - Replace Fuse

PERFORMANCE



SPBS-10HF and SPBS-12HF, 12 VDC Backup Sump Pump

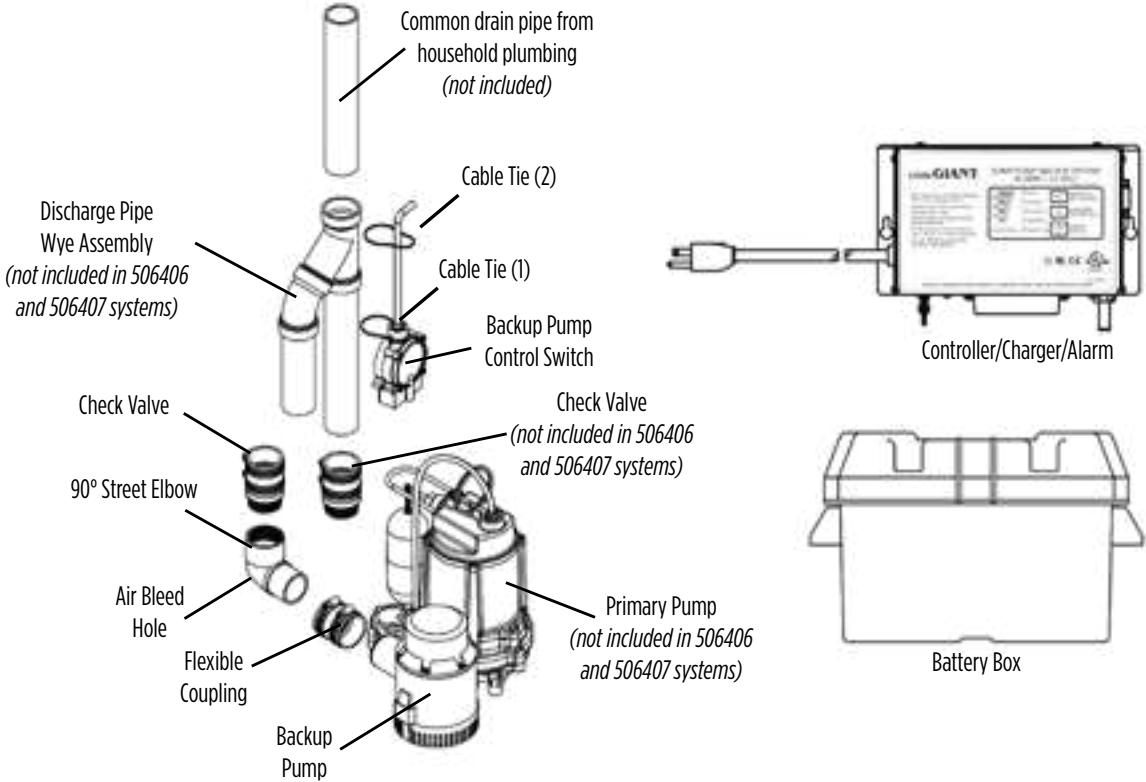


6EC - SPBS-10HF-6, 1/3 hp Primary Pump
10EC - SPBS-12HF-10, 1/2 hp Primary Pump

BATTERY BACKUP

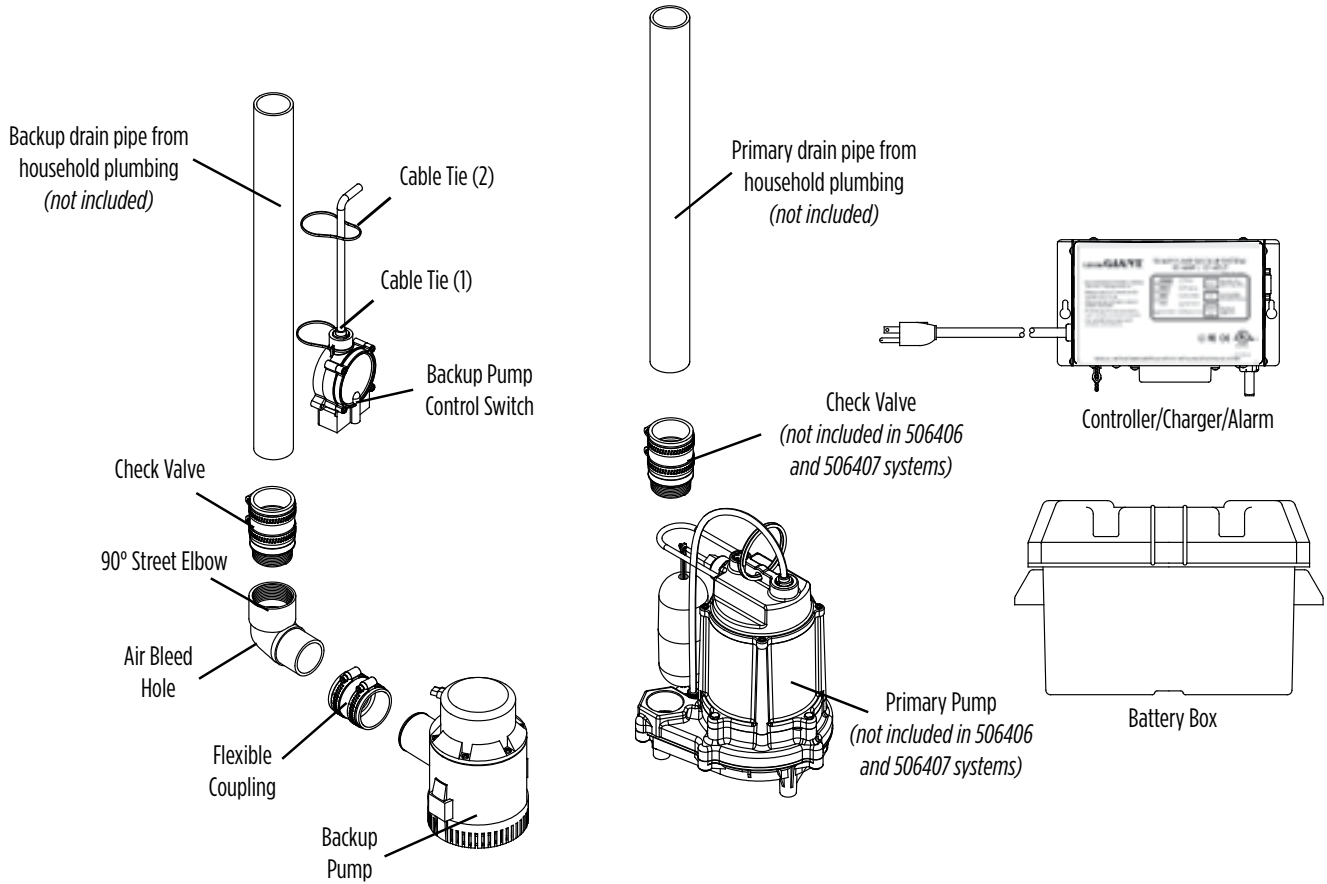
SPBS SERIES - BATTERY BACKUP SYSTEMS

BACKUP SYSTEM ON A COMMON DISCHARGE



SPBS SERIES - BATTERY BACKUP SYSTEMS

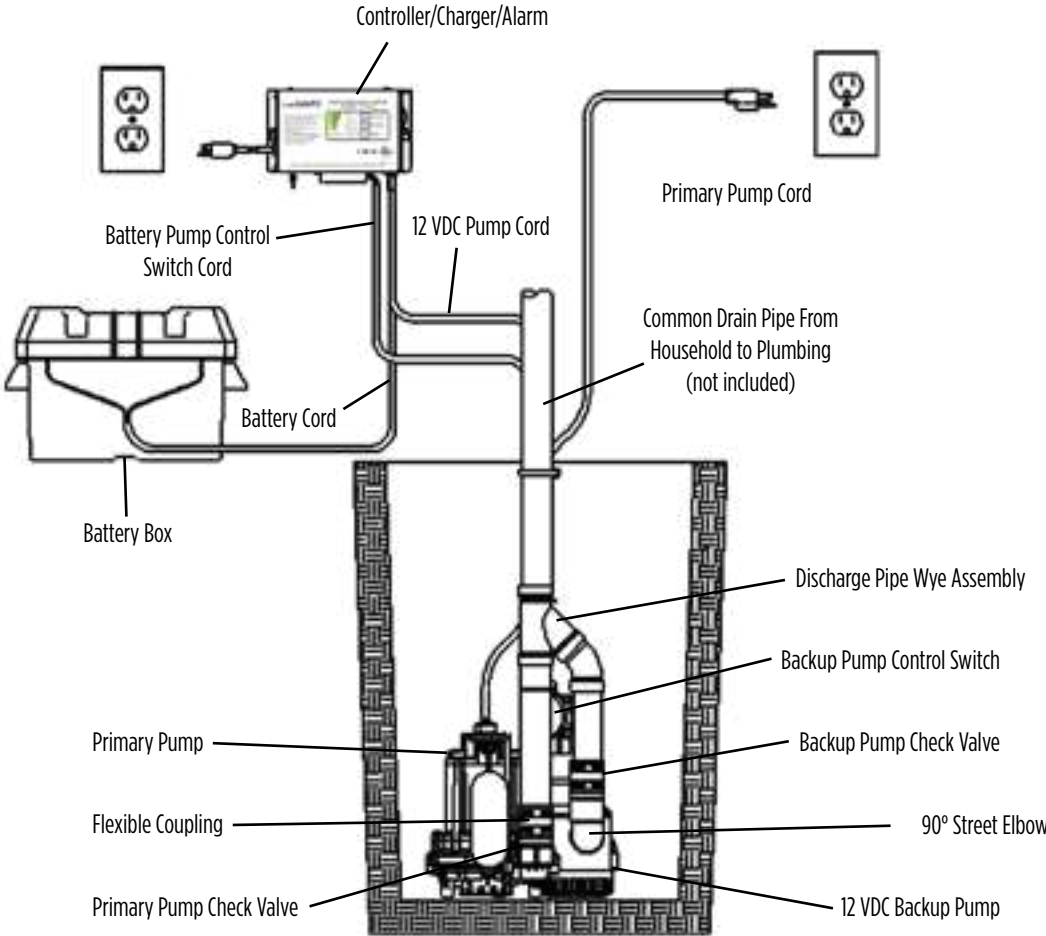
BACKUP SYSTEM ON A SEPARATE DISCHARGE



BATTERY BACKUP

SPBS SERIES - BATTERY BACKUP SYSTEMS

TYPICAL INSTALLATION



OS3 SERIES (OIL SENSING SUMP SYSTEM)

APPLICATIONS

Ideal for elevator sump pits, transformer vaults, and water-and-oil prone confined spaces in accordance with ASME - A17

FEATURES

- Multiple indicator lights: power, pump run, high water, high oil, pump overload, and 6 ft SJTOW cord
- Single-piece sensor for easy installation
- ASME - A17 compliant
- Includes remote alarm
- Alarm panel can be connected to Oil Sensing Sump System's remote panel which contains audio/visual alarming
- Both the main panel and remote alarm panel have auxiliary contacts for connection to a building's automation system or SCADA system



SERIES SPECIFICATIONS

| OS3 Kits Including Pump | | | | | | Pump Specifications | | | | | | | Shut-Off | PSI |
|-------------------------|---------------|-------|----|------|----------------|---------------------|-----------|-------|----|------|-------------------------------|-----|----------|------|
| Item | Model | Volts | Hz | HP | Overload Range | Item | Model | Volts | Hz | HP | Pump Performance GPM @ Height | | | |
| | | | | | | | | | | | 10' | 20' | | |
| 513380 | OS3-6E-1** | 115 | 60 | 1/3 | N/A | 506854 | 6EC-CIM | 115 | 60 | 1/3 | 50 | 34 | 28 | 12.1 |
| 513383 | OS3-9ECH-1** | 115 | 60 | 4/10 | N/A | 509232 | 9ECH-CIM | 115 | 60 | 4/10 | 65 | 50 | 45 | 19.5 |
| 513384 | OS3-10ECH-1** | 115 | 60 | 1/2 | N/A | 511572 | 10ECH-CIM | 115 | 60 | 1/2 | 55 | 45 | 60 | 26 |

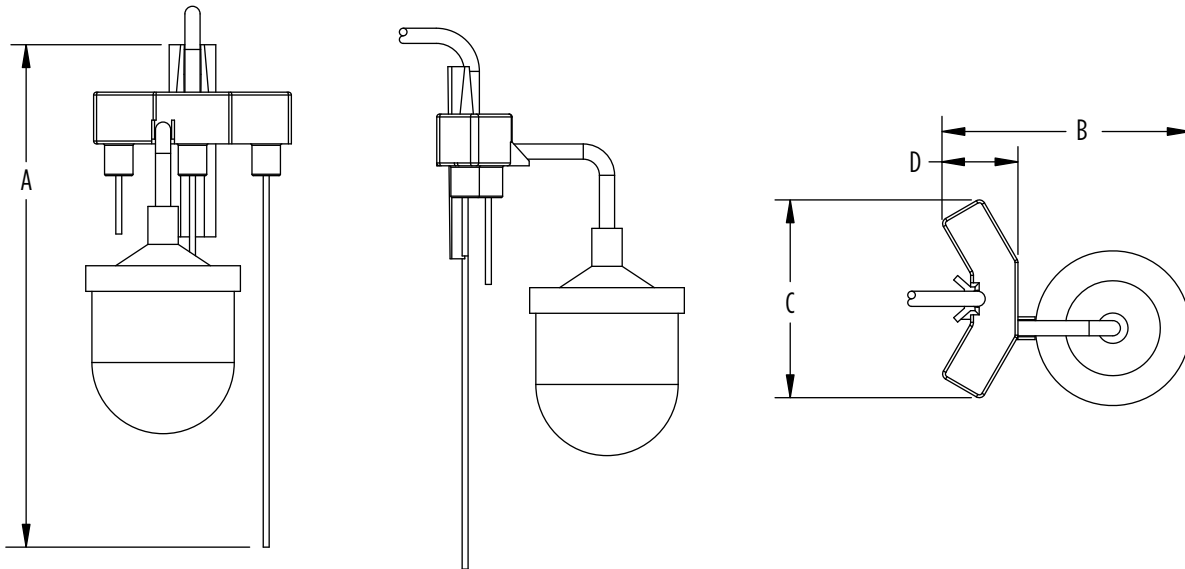
** Includes pump in kit

| Item | Model | Volts | Hz | HP | Overload Range |
|--------|-------------|-------|----|--------|----------------|
| 513390 | OS3-1 | 115 | 60 | 1 Max. | N/A |
| 513391 | OS3-1L-5-8 | 115 | 60 | 1 Max. | 5-8 amps |
| 513392 | OS3-1L-7-10 | 115 | 60 | 1 Max. | 7-10 amps |
| 513393 | OS3-1L-9-13 | 115 | 60 | 1 Max. | 9-13 amps |
| 513395 | OS3-2 | 230 | 60 | 2 Max. | N/A |
| 513396 | OS3-2L-5-8 | 230 | 60 | 2 Max. | 5-8 amps |
| 513397 | OS3-2L-7-10 | 230 | 60 | 2 Max. | 7-10 amps |
| 513398 | OS3-2L-9-13 | 230 | 60 | 2 Max. | 9-13 amps |

OIL SENSING SYSTEMS

OS3 SERIES (OIL SENSING SUMP SYSTEM)

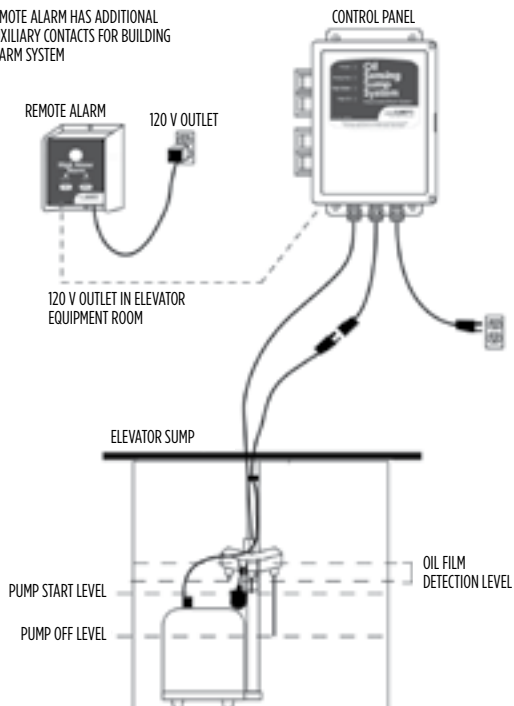
ENGINEERING DATA



| A | B | C | D |
|----------|----------|----------|---------|
| 10.6" | 4.4" | 4.2" | 1.6" |
| 26.92 cm | 11.18 cm | 10.67 cm | 4.06 cm |

INSTALLATION DATA

REMOTE ALARM HAS ADDITIONAL AUXILIARY CONTACTS FOR BUILDING ALARM SYSTEM



CONSTRUCTION

| Sensor | |
|----------------|-----------------|
| Housing | ABS |
| Probe | Stainless steel |
| Float | PVC |

| Control Panel | |
|-------------------|----------------------|
| Enclosure | Type 1 |
| Power Cord | 6' SJT, 120 VAC |
| Receptacle | SJT, 120 VAC, 15 amp |

| Alarm Panel | |
|-----------------------|--------------------------------|
| Enclosure | Type 1 |
| Power Cord | Plug in transformer, 120 VAC |
| Backup Power | 9 VDC battery backup |
| LED Indicators | Trouble, high level, high oil |
| Audible Alarm | 103 db buzzer, auto test/reset |

6EC SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

- Heavy-duty cast iron construction
- Permanent split capacitor (PSC) motor with thermal overload protection
- Designed for continuous duty
- Energy-saving low amp draw
- 1-1/2" FNPT discharge (38 mm)
- Handles up to 1/2" (12.7 mm) solids
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

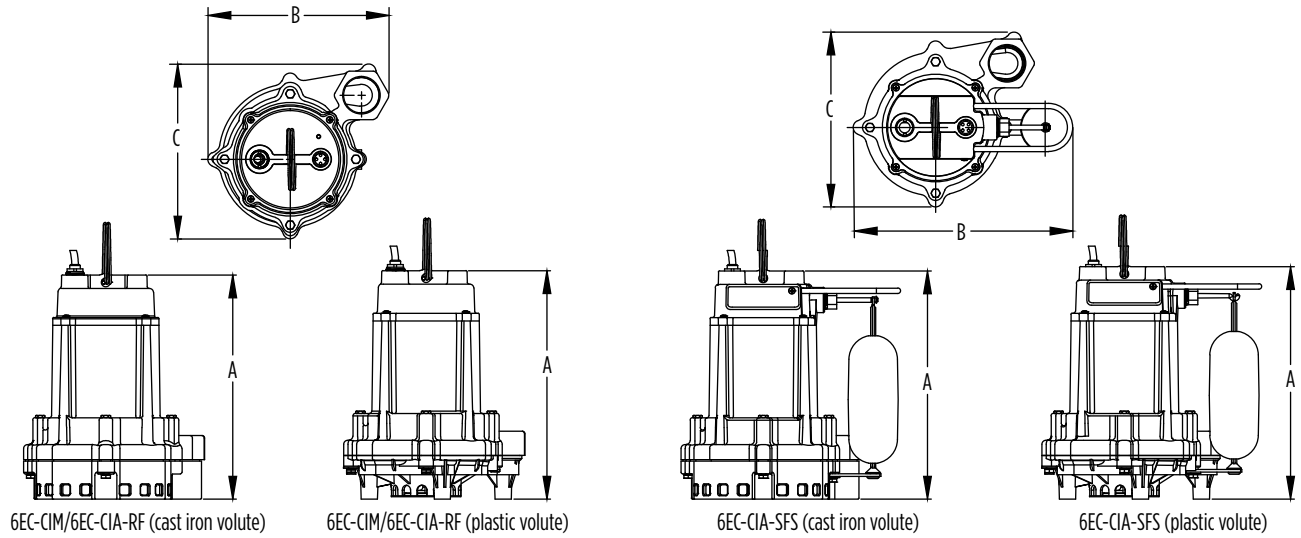
| Volts | Hz | Amps | Watts | Performance (GPM @ Height in Feet) | | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|---------------------------------------|-----|-----|-----|------------------|------|
| | | | | 5' | 10' | 15' | 20' | | |
| 115 | 60 | 5 | 600 | 53 | 50 | 42 | 34 | 28 | 12.1 |
| 230 | 60 | 3 | 650 | 53 | 50 | 42 | 34 | 28 | 12.1 |

| Item | Model | HP | Volts | Base Material | Switch Type/ Operations | On Level | Off Level | Cord | Weight |
|--------|-----------------|-----|-------|---------------|----------------------------|----------------------------------|--------------------------------|----------------|-----------------------|
| 506853 | 6EC-CIA-RF | 1/3 | 115 | Cast Iron | Piggyback Mechanical Float | 13" - 15" (33.2 cm - 38.1 cm) | 6" - 8" (15.2 cm - 20.3 cm) | 10' (3 m) | 33.5 lbs (15.2 Kg) |
| 506803 | 6EC-CIA-RF | 1/3 | 115 | Polypropylene | Piggyback Mechanical Float | 13" - 15" (33.2 cm - 38.1 cm) | 6" - 8" (15.2 cm - 20.3 cm) | 10' (3 m) | 27.5 lbs (12.5 Kg) |
| 506858 | 6EC-CIA-RF | 1/3 | 115 | Cast Iron | Piggyback Mechanical Float | 13" - 15" (33.2 cm - 38.1 cm) | 6" - 8" (15.2 cm - 20.3 cm) | 20' (6.1 m) | 35.5 lbs (16.1 Kg) |
| 506855 | 6EC-CIA-SFS | 1/3 | 115 | Cast Iron | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 10' (3 m) | 34 lbs (15.4 Kg) |
| 506807 | 6EC-CIA-SFS | 1/3 | 115 | Polypropylene | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 10' (3 m) | 28 lbs (12.7 Kg) |
| 506860 | 6EC-CIA-SFS | 1/3 | 115 | Cast Iron | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 20' (6.1 m) | 35 lbs (15.9 Kg) |
| 506804 | 6EC-CIA-SFS | 1/3 | 115 | Polypropylene | Integral Snap-Action Float | 8" - 11" (20.3 cm - 27.9 cm) | 2" - 5" (5.1 cm - 12.7 cm) | 20' (6.1 m) | 29 lbs (13.5 Kg) |
| 506851 | 6EC-CIM | 1/3 | 115 | Cast Iron | Manual | — | — | 10' (3 m) | 32.5 lbs (14.7 Kg) |
| 506801 | 6EC-CIM | 1/3 | 115 | Polypropylene | Manual | — | — | 10' (3 m) | 26.5 lbs (12 Kg) |
| 506852 | 6EC-CIM | 1/3 | 115 | Cast Iron | Manual | — | — | 20' (6.1 m) | 33.5 lbs (15.2 Kg) |
| 506802 | 6EC-CIM | 1/3 | 115 | Polypropylene | Manual | — | — | 20' (6.1 m) | 27.5 lbs (12.5 Kg) |
| 506806 | 6EC-CIM (Black) | 1/3 | 115 | Polypropylene | Manual | — | — | 20' (6.1 m) | 27.5 lbs (12.5 Kg) |
| 506854 | 6EC-CIM | 1/3 | 115 | Cast Iron | Manual | — | — | 25' (7.6 m) | 34 lbs (15.4 Kg) |
| 506800 | 6EC-CIM | 1/3 | 127 | Polypropylene | Manual | — | — | 20' (6.1 m) | 27.5 lbs (12.5 Kg) |

EFFLUENT PUMPS

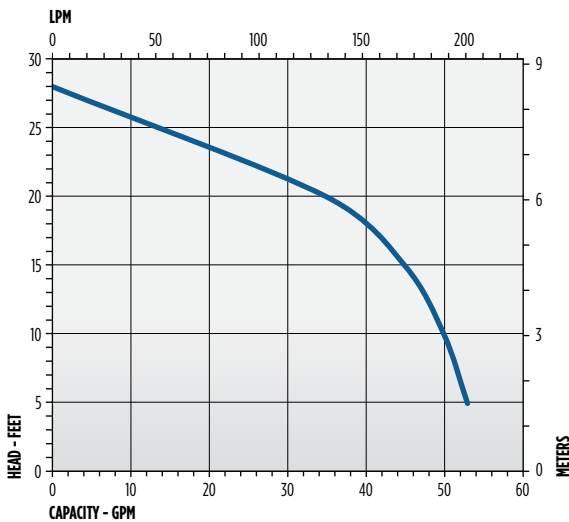
6EC SERIES - 1/3 HP

ENGINEERING DATA



| Model | Base | A | B | C |
|-------------|---------------|-------------------|-------------------|------------------|
| 6EC-CIA-SFS | Polypropylene | 11.28" (286.5 mm) | 10.66" (270.8 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 11.07" (281.2 mm) | 10.66" (270.8 mm) | 8.48" (215.5 mm) |
| 6EC-CIA-RF | Polypropylene | 11.08" (281.5 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 10.9" (276.2 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| 6EC-CIM | Polypropylene | 11.08" (281.5 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 10.9" (276.2 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---------------------------------------|
| Cover | Epoxy-coated cast iron |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Cold-rolled steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW, SJTOW (506854) |

9EC SERIES - 4/10 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- Energy-saving low amp draw
- 1-1/2" FNPT (38 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

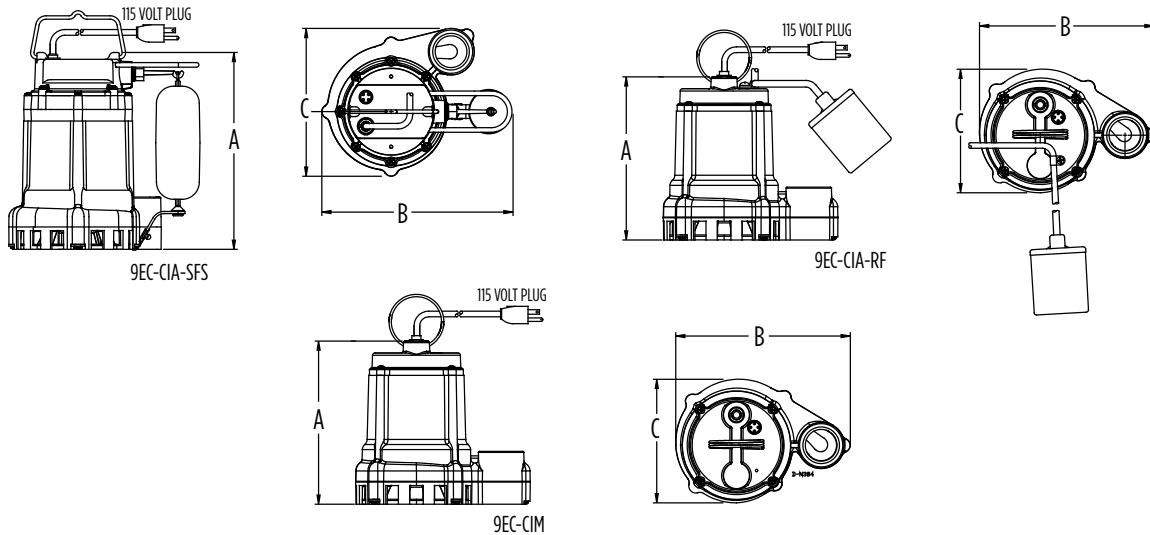
| Model | HP | Volts | HZ | Amps | Watts | Max. Water Temp. | GPM / Liters per Minute @ Height | | | | | Shut-Off | |
|-------|------|-------|----|------|-------|------------------|----------------------------------|-------------|---------------|---------------|----------------|-----------|-------------|
| | | | | | | | 5 ft / 1.5 m | 10 ft / 3 m | 20 ft / 6.1 m | 30 ft / 9.1 m | 40 ft / 12.2 m | ft / m | PSI / Bar |
| 9EC | 4/10 | 115 | 60 | 7.5 | 800 | 140 °F / 60 °C | 70 / 265 | 65 / 246 | 50 / 189 | 26 / 98 | - | 40 / 12.2 | 17.3 / 1.19 |
| | 4/10 | 230 | 60 | - | - | 140 °F / 60 °C | 70 / 265 | 65 / 246 | 50 / 189 | 26 / 98 | - | 40 / 12.2 | 17.3 / 1.19 |

| Item No. | Model | HP | Volts | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|-------------|------|-------|-------------------------|----------------------------|--------------------------|--------------|----------------------|
| 509804 | 9EC-CIA-SFS | 4/10 | 115 | Integral Float Switch | 7" - 10" 18 cm - 25 cm | 2" - 5" 5 cm - 13 cm | 30' 9.1 m | 28.5 lbs 12.93 Kg |
| 509801 | 9EC-CIA-RF | 4/10 | 115 | Piggyback Float Switch | 12" - 15" 30 cm - 38 cm | 6" - 9" 15 cm - 23 cm | 20' 6.1 m | 27.5 lbs 12.47 Kg |
| 509802 | 9EC-CIA-RF | 4/10 | 115 | Piggyback Float Switch | 12" - 15" 30 cm - 38 cm | 6" - 9" 15 cm - 23 cm | 30' 9.1 m | 28.5 lbs 12.93 Kg |
| 509806 | 9EC-CIM | 4/10 | 115 | Manual | - | - | 10' 3.0 m | 27.5 lbs 12.47 Kg |
| 509805 | 9EC-CIM | 4/10 | 115 | Manual | - | - | 20' 6.1 m | 27.5 lbs 12.47 Kg |
| 509808 | 9EC-CIM | 4/10 | 115 | Manual | - | - | 30' 9.1 m | 28.5 lbs 12.93 Kg |
| 509803 | 9EC-CIA-RF | 4/10 | 230 | Piggyback Float Switch | 12" - 15" 30 cm - 38 cm | 6" - 9" 15 cm - 23 cm | 20' 6.1 m | 27.5 lbs 12.47 Kg |
| 509807 | 9EC-CIM | 4/10 | 230 | Manual | - | - | 20' 6.1 m | 27.5 lbs 12.47 Kg |

EFFLUENT PUMPS

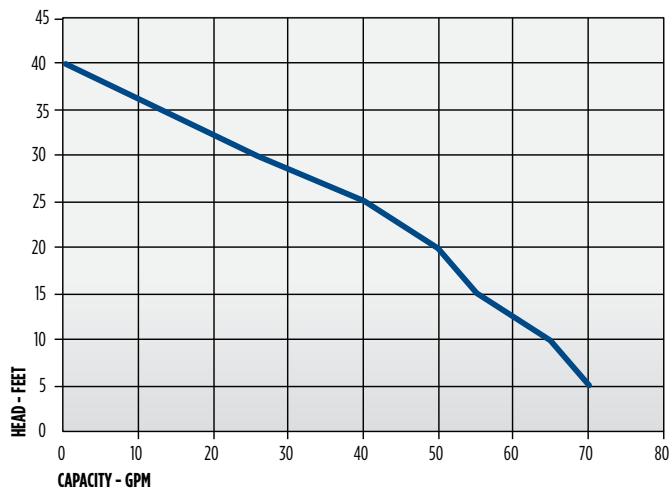
9EC SERIES - 4/10 HP

ENGINEERING DATA



| Model | A | B | C |
|-------------|----------------|----------------|---------------|
| 9EC-CIA-SFS | 11.8" (300 mm) | 10.7" (271 mm) | 8.4" (214 mm) |
| 9EC-CIA-RF | 11.0" (280 mm) | 8.9" (226 mm) | 8.4" (214 mm) |
| 9EC-CIM | 11.0" (280 mm) | 8.9" (226 mm) | 8.4" (214 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|--|
| Cover | Epoxy-coated cast iron/ *Thermoplastic |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Thermoplastic elastomer |
| Impeller Type | Non-clog |
| Volute | Epoxy-coated cast iron |
| Motor Shaft | Steel |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Bearings | Upper sintered sleeve and lower ball bearing |
| Power Cord | SJTW **SJTOW |

* On SFS models

** On 30' 9EC-CIA-RF and 9EC-CIM models

9ECH SERIES - 4/10 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- Energy-saving low amp draw
- 1-1/2" FNPT (38 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



9ECH-CIA-RF

9ECH-CIM

SERIES SPECIFICATIONS

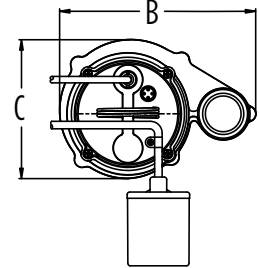
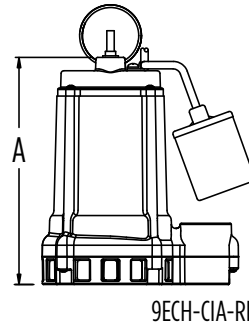
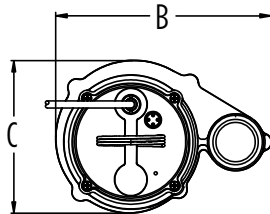
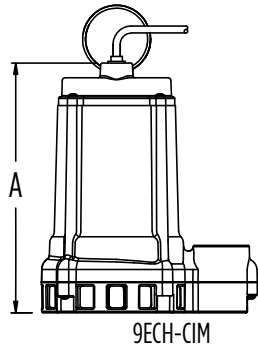
| Model | HP | Volts | HZ | Amps | Watts | Max. Water Temp. | GPM / Liters per Minute @ Height | | | | | Shut-Off | |
|-------|------|-------|----|------|-------|------------------|----------------------------------|-------------|---------------|---------------|----------------|-----------|-------------|
| | | | | | | | 5 ft / 1.5 m | 10 ft / 3 m | 20 ft / 6.1 m | 30 ft / 9.1 m | 40 ft / 12.2 m | ft / m | PSI / Bar |
| 9ECH | 4/10 | 115 | 60 | 7 | 830 | 140 °F / 60 °C | 70 / 265 | 65 / 246 | 50 / 189 | 30 / 114 | - | 45 / 13.7 | 19.5 / 1.34 |
| | 4/10 | 230 | 60 | - | - | 140 °F / 60 °C | 70 / 265 | 65 / 246 | 50 / 189 | 30 / 114 | - | 45 / 13.7 | 19.5 / 1.34 |

| Item No. | Model | HP | Volts | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|-------------|------|-------|-------------------------|----------------------------|--------------------------|--------------|--------------------|
| 509531 | 9ECH-CIA-RF | 4/10 | 115 | Piggyback Float Switch | 12" - 15" 30 cm - 38 cm | 6" - 9" 15 cm - 23 cm | 20' 6.1 m | 38 lbs 17.24 Kg |
| 509532 | 9ECH-CIM | 4/10 | 115 | Manual | - | - | 20' 6.1 m | 37 lbs 16.78 Kg |
| 509533 | 9ECH-CIM | 4/10 | 115 | Manual | - | - | 30' 9.1 m | 38 lbs 17.24 Kg |
| 509534 | 9ECH-CIM | 4/10 | 230 | Manual | - | - | 20' 6.1 m | 37 lbs 16.78 Kg |

EFFLUENT PUMPS

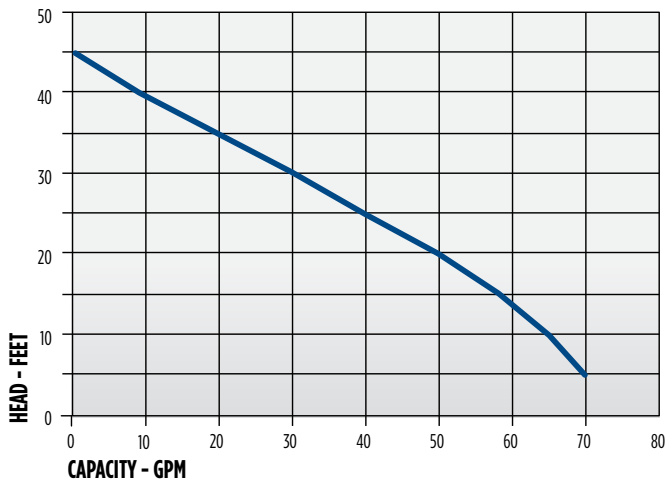
9ECH SERIES - 4/10 HP

ENGINEERING DATA



| Model | A | B | C |
|-------------|------------------|-----------------|-----------------|
| 9ECH-CIA-RF | 10.9" (276.9 mm) | 8.9" (226.1 mm) | 8.4" (213.4 mm) |
| 9ECH-CIM | 10.9" (276.9 mm) | 8.9" (226.1 mm) | 8.4" (213.4 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Cover | Epoxy-coated cast iron/ *Thermoplastic |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Thermoplastic elastomer |
| Impeller Type | Non-clog |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Steel |
| Bearings | Upper and lower ball bearing |
| Power Cord | SJTW **SJTOW |

* On SFS models

** On 30' 9ECH-CIA-RF and 9ECH-CIM models

10EC SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Heavy-duty cast iron construction
- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- Energy-saving low amp draw
- 1-1/2" FNPT (38 mm) discharge
- Handles solids up to 1/2" (12.7 mm) diameter
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

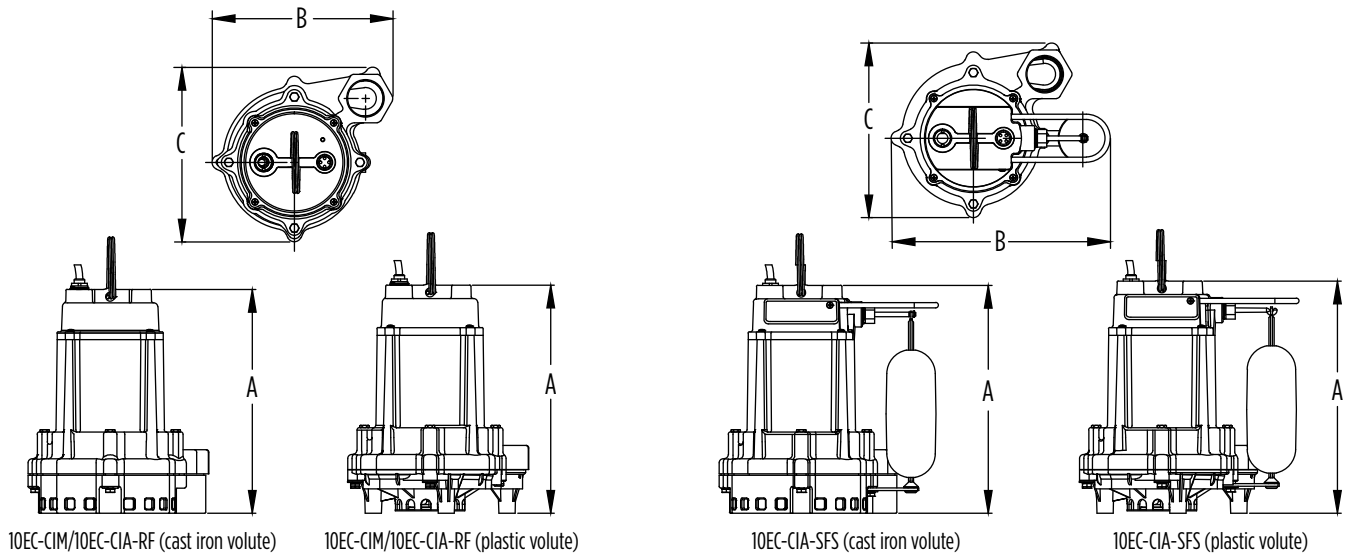
| Volts | Hz | Amps | Watts | Performance (GPM at Height in Feet) | | | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|--|-----|-----|-----|-----|------------------|------|
| | | | | 5' | 10' | 15' | 20' | 30' | | |
| 115 | 60 | 6.5 | 750 | 67 | 57 | 52 | 47 | 28 | 36 | 15.6 |
| 230 | 60 | 3.5 | 750 | 67 | 57 | 52 | 47 | 28 | 36 | 15.6 |

| Item | Model | HP | Volts | Base Material | Switch Type/ Operations | On Level | Off Level | Cord | Weight |
|--------|--------------|-----|-------|---------------|----------------------------|--------------------------------|------------------------------|--------------|---------------------|
| 510852 | 10EC-CIA-RF | 1/2 | 115 | Cast Iron | Piggyback Mechanical Float | 13" - 15" 33.2 cm - 38.1 cm | 6" - 8" 15.2 cm - 20.3 cm | 20' 6.1 m | 36.5 lbs 16.6 Kg |
| 510851 | 10EC-CIA-SFS | 1/2 | 115 | Cast Iron | Integral Snap-Action Float | 8" - 11" 20.3 cm - 27.9 cm | 2" - 5" 5.1 cm - 12.7 cm | 10' 3 m | 35 lbs 15.9 Kg |
| 510803 | 10EC-CIA-SFS | 1/2 | 115 | Polypropylene | Integral Snap-Action Float | 8" - 11" 20.3 cm - 27.9 cm | 2" - 5" 5.1 cm - 12.7 cm | 10' 3 m | 29 lbs 13.5 Kg |
| 510854 | 10EC-CIA-SFS | 1/2 | 115 | Cast Iron | Integral Snap-Action Float | 8" - 11" 20.3 cm - 27.9 cm | 2" - 5" 5.1 cm - 12.7 cm | 20' 6.1 m | 36 lbs 16.3 Kg |
| 510802 | 10EC-CIA-SFS | 1/2 | 115 | Polypropylene | Integral Snap-Action Float | 8" - 11" 20.3 cm - 27.9 cm | 2" - 5" 5.1 cm - 12.7 cm | 20' 6.1 m | 30 lbs 13.6 Kg |
| 510801 | 10EC-CIM | 1/2 | 115 | Polypropylene | Manual | — | — | 10' 3 m | 27.5 lbs 12.5 Kg |
| 510850 | 10EC-CIM | 1/2 | 115 | Cast Iron | Manual | — | — | 20' 6.1 m | 33.5 lbs 15.2 Kg |
| 510800 | 10EC-CIM | 1/2 | 115 | Polypropylene | Manual | — | — | 20' 6.1 m | 28.5 lbs 12.9 Kg |

EFFLUENT PUMPS

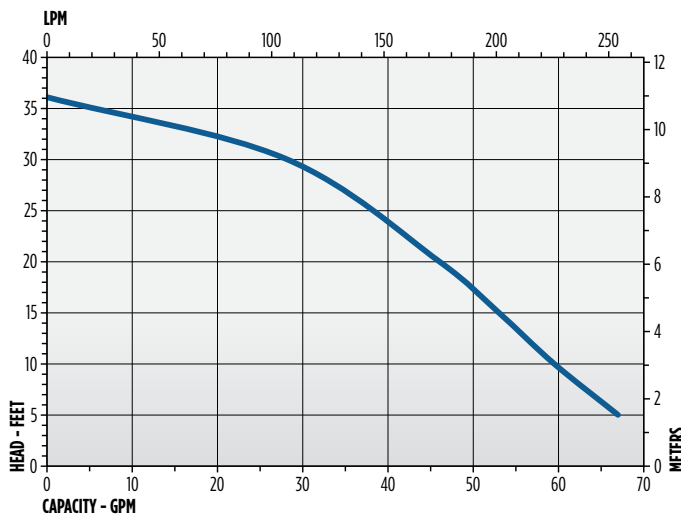
10EC SERIES - 1/2 HP

ENGINEERING DATA



| Model | Base | A | B | C |
|--------------|---------------|-------------------|-------------------|------------------|
| 10EC-CIA-SFS | Polypropylene | 11.28" (286.5 mm) | 10.66" (270.8 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 11.07" (281.2 mm) | 10.66" (270.8 mm) | 8.48" (215.5 mm) |
| 10EC-CIA-RF | Cast Iron | 10.9" (276.2 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| 10EC-CIM | Polypropylene | 11.08" (281.5 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |
| | Cast Iron | 10.9" (276.2 mm) | 8.79" (223.4 mm) | 8.48" (215.5 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---------------------------------------|
| Cover | Epoxy-coated cast iron |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Cold-rolled steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW |

10ECH SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- Energy-saving low amp draw
- 1-1/2" FNPT (38 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

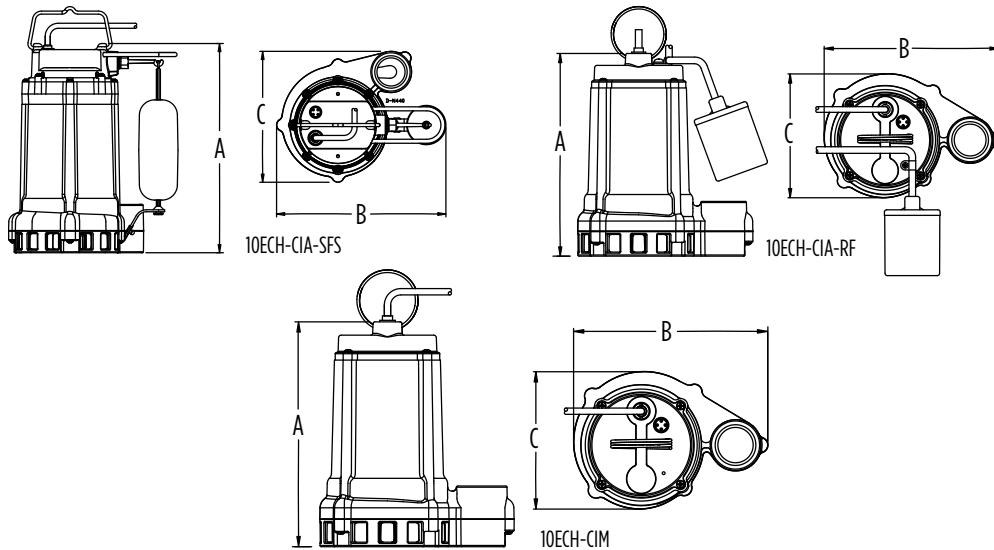
| Model | HP | Volts | HZ | Amps | Watts | Max. Water Temp. | GPM / Liters per Minute @ Height | | | | | Shut-Off | |
|-------|-----|-------|-------|------|-------|------------------|----------------------------------|-------------|---------------|---------------|----------------|-----------|-----------|
| | | | | | | | 5 ft / 1.5 m | 10 ft / 3 m | 20 ft / 6.1 m | 30 ft / 9.1 m | 40 ft / 12.2 m | ft / m | PSI / Bar |
| 10ECH | 1/2 | 115 | 60 | 9 | 1030 | 140 °F / 60 °C | 60 / 227 | 55 / 208 | 45 / 170 | 30 / 114 | 15 / 57 | 60 / 18.3 | 26 / 1.79 |
| | 1/2 | 230 | 50/60 | - | - | 140 °F / 60 °C | 60 / 227 | 55 / 208 | 45 / 170 | 30 / 114 | 15 / 57 | 60 / 18.3 | 26 / 1.79 |

| Item No. | Model | HP | Volts | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|---------------|-----|-------|-------------------------|----------------------------|---------------------------|--------------|--------------------|
| 511623 | 10ECH-CIA-SFS | 1/2 | 115 | Integral Float Switch | 8" - 11" 20 cm - 28 cm | 3" - 6" 8 cm - 15 cm | 20' 6.1 m | 38 lbs 17.24 Kg |
| 511624 | 10ECH-CIA-SFS | 1/2 | 115 | Integral Float Switch | 8" - 11" 20 cm - 28 cm | 3" - 6" 8 cm - 15 cm | 30' 9.1 m | 39 lbs 17.69 Kg |
| 511621 | 10ECH-CIA-RF | 1/2 | 115 | Piggyback Float Switch | 13" - 16" 33 cm - 41 cm | 7" - 10" 18 cm - 25 cm | 20' 6.1 m | 38 lbs 17.24 Kg |
| 511622 | 10ECH-CIA-RF | 1/2 | 115 | Piggyback Float Switch | 13" - 16" 33 cm - 41 cm | 7" - 10" 18 cm - 25 cm | 30' 9.1 m | 39 lbs 17.69 Kg |
| 511625 | 10ECH-CIM | 1/2 | 115 | Manual | - | - | 20' 6.1 m | 37 lbs 16.78 Kg |
| 511627 | 10ECH-CIM | 1/2 | 115 | Manual | - | - | 30' 9.1 m | 39 lbs 17.69 Kg |
| 511626 | 10ECH-CIM | 1/2 | 230 | Manual | - | - | 20' 6.1 m | 37 lbs 16.78 Kg |

EFFLUENT PUMPS

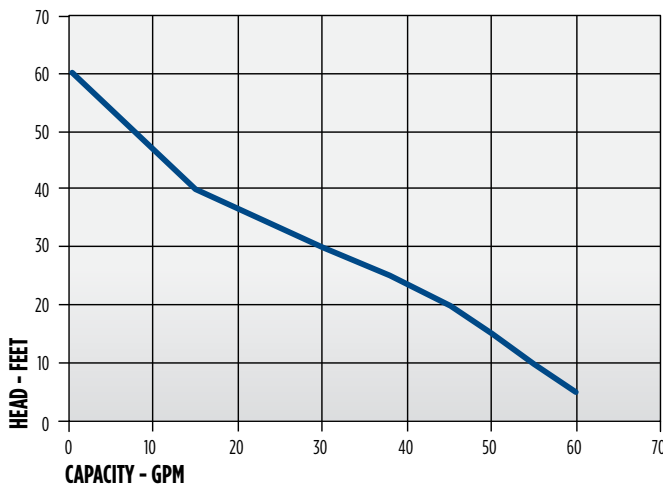
10ECH SERIES - 1/2 HP

ENGINEERING DATA



| Model | A | B | C |
|---------------|-------------------|------------------|------------------|
| 10ECH-CIA-SFS | 11.31" (287.3 mm) | 10.7" (271.8 mm) | 8.4" (213.4 mm) |
| 10ECH-CIA-RF | 11.3" (287.0 mm) | 8.9" (226.1 mm) | 8.4" (213.4 mm) |
| 10ECH-CIM | 11.31" (287.3 mm) | 8.85" (224.8 mm) | 8.41" (213.6 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Cover | Epoxy-coated cast iron/ *Thermoplastic |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Thermoplastic elastomer |
| Impeller Type | Non-clog |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Steel |
| Bearings | Upper and lower ball bearing |
| Power Cord | SJTW **SJTOW |

* On SFS models

** On 30' 10ECH-CIA-RF and 10ECH-CIM models

14EH/16EH SERIES - 1/2 HP, 1 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Permanent Split Capacitor (PSC) ball bearing motor
- High speed 3450 rpm
- Completely submersible, designed for continuous duty
- High head model
- 2" FNPT (51 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed (514550 CSA only)



SERIES SPECIFICATIONS

| Pump | Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | Shut-Off (ft) | PSI |
|------|---------|----|------|-------|-------|---------------------------------------|-----|------|-----|-----|------------------|------|
| | | | FLA | Start | | 20' | 30' | 40' | 50' | 60' | | |
| 14EH | 115 | 60 | 12.5 | 22 | 1450 | 60 | 40 | 20 | - | - | 50 | 21.6 |
| | 208-240 | 60 | 5.7 | 11 | 1275 | 60 | 40 | 20 | - | - | 50 | 21.6 |
| 16EH | 230 | 60 | 10.2 | 30 | 2200 | - | 90 | 70 | 50 | 30 | 81 | 35.1 |
| | 208-240 | 60 | 6.6 | 25 | 1350 | - | 90 | 70 | 50 | 30 | 81 | 35.1 |
| | 380 | 50 | 2.6 | 11.1 | 1000 | 68.6 | 46 | 17.6 | - | - | 55 | 23.8 |
| | 460 | 60 | 3.2 | 12.5 | 1450 | - | 90 | 70 | 45 | 30 | 81 | 35.1 |
| | 575 | 60 | 2.5 | 9.8 | 1450 | - | 90 | 70 | 45 | 30 | 81 | 35.1 |

| Item No. | Model | HP | Volts | Cord | Weight |
|----------|----------|-----|---------|--------------|--------------------|
| 514220 | 14EH-CIM | 1/2 | 115 | 20' 6.1 m | 82 lbs 37.19 Kg |
| 514221 | 14EH-CIM | 1/2 | 208-240 | 20' 6.1 m | 82 lbs 37.19 Kg |

| Item No. | Model | HP | Volts | Phase | Cord | Weight |
|-----------|----------|----|---------|-------|--------------|--------------------|
| 514520 | 16EH-CIM | 1 | 230 | 1* | 20' 6.1 m | 89 lbs 40.37 Kg |
| 514530 | 16EH-CIM | 1 | 208-240 | 3** | 20' 6.1 m | 82 lbs 37.19 Kg |
| 514540 | 16EH-CIM | 1 | 460-380 | 3** | 20' 6.1 m | 82 lbs 37.19 Kg |
| 514550*** | 16EH-CIM | 1 | 575 | 3** | 20' 6.1 m | 82 lbs 37.19 Kg |

* Single-phase pumps can use a mechanical float switch or a single-phase control panel for automatic on/off

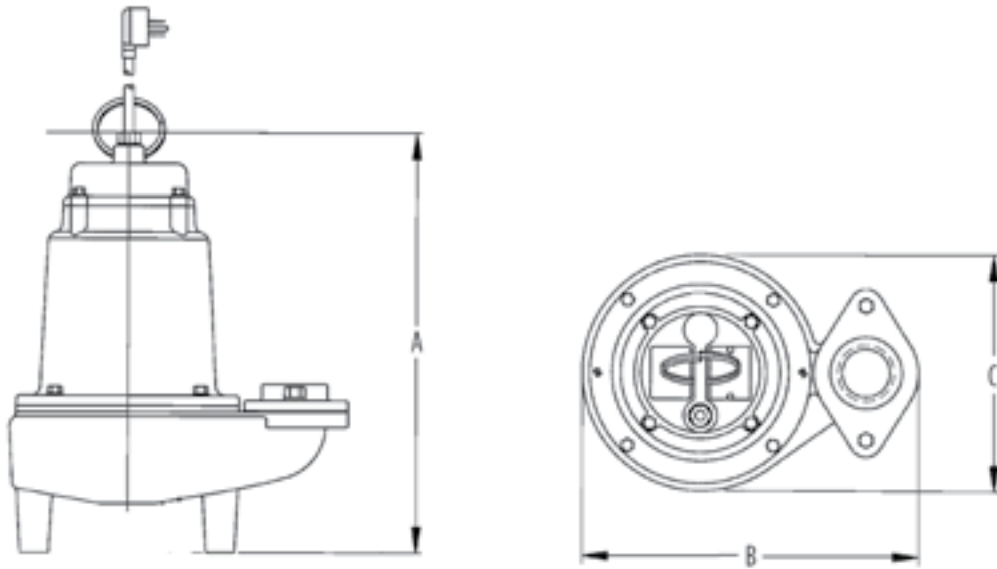
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

*** CSA only

EFFLUENT PUMPS

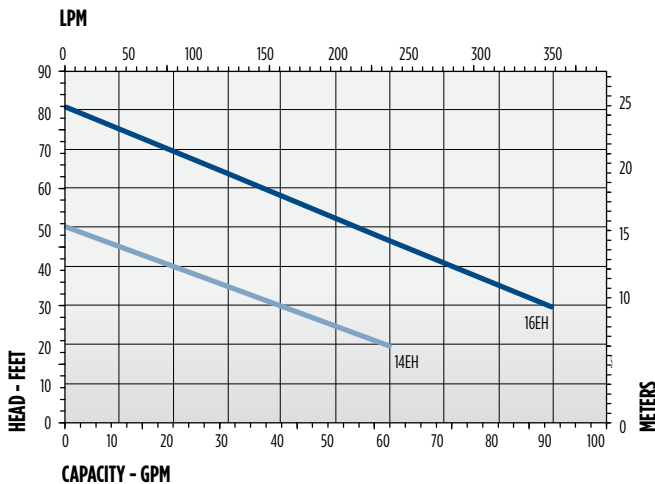
14EH/16EH SERIES - 1/2 HP, 1 HP

ENGINEERING DATA



| A | B | C |
|-------------------|-------------------|------------------|
| 16.2" 41.15 cm | 14.1" 35.81 cm | 9.9" 25.15 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Epoxy-coated cast iron |
| Impeller Type | Non-clog |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW-A (514220, 514221, and 514520) SOW-A (514530, 514540, and 514550) |

WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Split-phase, oil-filled motor
- Designed for high torque
- Piggyback mechanical float option available for automatic operation
- 2" NPT (51 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

| Item No. | Model | HP | Volts | Phase | HZ | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | | | | | | | Shut-Off (ft) | PSI | |
|----------|----------------|-----|---------|-------|----|---------|-------|-------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|-----|------|
| | | | | | | FLA | Start | | 10' | 15' | 20' | 25' | 30' | 35' | 40' | 45' | 50' | 60' | 80' | | | |
| 620010 | WS30M | 1/3 | 115 | 1 | 60 | 10.4 | 50.4 | 1000 | 90 | 70 | 45 | 15 | - | - | - | - | - | - | - | - | 28 | 12 |
| 620000 | WS30AM | 1/3 | 115 | 1 | 60 | 10.4 | 50.4 | 1000 | 90 | 70 | 45 | 15 | - | - | - | - | - | - | - | - | 28 | 12 |
| 620231 | WS50M-20 | 1/2 | 115 | 1 | 60 | 11.6 | 26.9 | 950 | 90 | 80 | 64 | 50 | - | - | - | - | - | - | - | - | 42 | 18.2 |
| 620233 | WS50AM-20 | 1/2 | 115 | 1 | 60 | 11.6 | 26.9 | 950 | 90 | 80 | 64 | 50 | - | - | - | - | - | - | - | - | 42 | 18.2 |
| 620251 | WS50M-12-20 | 1/2 | 208-230 | 1 | 60 | 9.7 | 32.6 | 1100 | 90 | 80 | 64 | 50 | - | - | - | - | - | - | - | - | 42 | 18.2 |
| 620253 | WS50AM-12-20 | 1/2 | 208-230 | 1 | 60 | 9.7 | 32.6 | 1100 | 90 | 80 | 64 | 50 | - | - | - | - | - | - | - | - | 42 | 18.2 |
| 620200 | WS50HM | 1/2 | 115 | 1 | 60 | 15 | 26.9 | 1100 | 115 | 107 | 98 | 88 | 78 | 67 | 57 | 43 | 30 | - | - | - | 63 | 27.3 |
| 620218 | WS50HM-20 | 1/2 | 115 | 1 | 60 | 15 | 26.9 | 1470 | 115 | 107 | 98 | 88 | 78 | 67 | 57 | 43 | 30 | - | - | - | 63 | 27.3 |
| 620219 | WS50HAM-20 | 1/2 | 115 | 1 | 60 | 15 | 26.9 | 1470 | 115 | 107 | 98 | 88 | 78 | 67 | 57 | 43 | 30 | - | - | - | 63 | 27.3 |
| 620220 | WS50HM-12-20 | 1/2 | 208-230 | 1 | 60 | 9.7 | 32.6 | 1540 | 115 | 107 | 98 | 88 | 78 | 67 | 57 | 43 | 30 | - | - | - | 63 | 27.3 |
| 620221 | WS50HAM-12-20 | 1/2 | 208-230 | 1 | 60 | 9.7 | 32.6 | 1540 | 115 | 107 | 98 | 88 | 78 | 67 | 57 | 43 | 30 | - | - | - | 63 | 27.3 |
| 620222 | WS100HM-12-20 | 1 | 208-230 | 1 | 60 | 13.6 | 46.9 | 2660 | 150 | 145 | 140 | 134 | 128 | 121 | 115 | 106 | 97 | 76 | 27 | 90 | 39 | |
| 620223 | WS100HAM-12-20 | 1 | 208-230 | 1 | 60 | 13.6 | 46.9 | 2660 | 150 | 145 | 140 | 134 | 128 | 121 | 115 | 106 | 97 | 76 | 27 | 90 | 39 | |
| 620207 | WS100HM-32 | 1 | 208-230 | 3** | 60 | 6.2/6.4 | 16.7 | 2340 | 150 | 145 | 140 | 134 | 128 | 121 | 115 | 106 | 97 | 76 | 27 | 90 | 39 | |
| 620206 | WS100HM-34 | 1 | 460 | 3** | 60 | 3.1 | 16.7 | 2000 | 150 | 145 | 140 | 134 | 128 | 121 | 115 | 106 | 97 | 76 | 27 | 90 | 39 | |

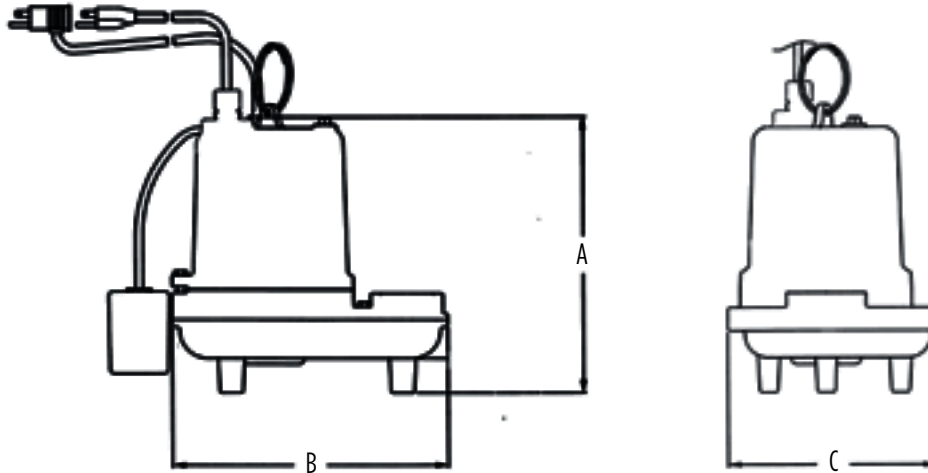
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

| Item No. | Model | Volts | Switch Type/ Operation | On Level | Off Level | Cord | Weight |
|----------|----------------|---------|-----------------------------------|----------|------------|-------------|-------------------|
| 620010 | WS30M | 115 | Manual | - | - | 20' - 6.1 m | 51 lbs - 22.68 Kg |
| 620000 | WS30AM | 115 | Piggyback Mechanical Float Switch | - | Adjustable | 20' - 6.1 m | 53 lbs - 24.04 Kg |
| 620231 | WS50M-20 | 115 | Manual | - | - | 20' - 6.1 m | 55 lbs - 24.95 Kg |
| 620233 | WS50AM-20 | 115 | Piggyback Mechanical Float Switch | - | Adjustable | 20' - 6.1 m | 57 lbs - 25.85 Kg |
| 620251 | WS50M-12-20 | 208-230 | Manual | - | - | 20' - 6.1 m | 56 lbs - 25.40 Kg |
| 620253 | WS50AM-12-20 | 208-230 | Piggyback Mechanical Float Switch | - | Adjustable | 20' - 6.1 m | 58 lbs - 26.31 Kg |
| 620200 | WS50HM | 115 | Manual | - | - | 30' - 9.1 m | 57 lbs - 25.85 Kg |
| 620218 | WS50HM-20 | 115 | Manual | - | - | 20' - 6.1 m | 56 lbs - 25.40 Kg |
| 620219 | WS50HAM-20 | 115 | Piggyback Mechanical Float Switch | - | Adjustable | 20' - 6.1 m | 58 lbs - 26.31 Kg |
| 620220 | WS50HM-12-20 | 208-230 | Manual | - | - | 20' - 6.1 m | 56 lbs - 25.40 Kg |
| 620221 | WS50HAM-12-20 | 208-230 | Piggyback Mechanical Float Switch | - | Adjustable | 20' - 6.1 m | 58 lbs - 26.31 Kg |
| 620222 | WS100HM-12-20 | 208-230 | Manual | - | - | 20' - 6.1 m | 57 lbs - 25.85 Kg |
| 620223 | WS100HAM-12-20 | 208-230 | Piggyback Mechanical Float Switch | - | Adjustable | 20' - 6.1 m | 59 lbs - 26.76 Kg |
| 620207 | WS100HM-32 | 208-230 | Manual | - | - | 30' - 9.1 m | 62 lbs - 28.12 Kg |
| 620206 | WS100HM-34 | 460 | Manual | - | - | 30' - 9.1 m | 62 lbs - 28.12 Kg |

EFFLUENT PUMPS

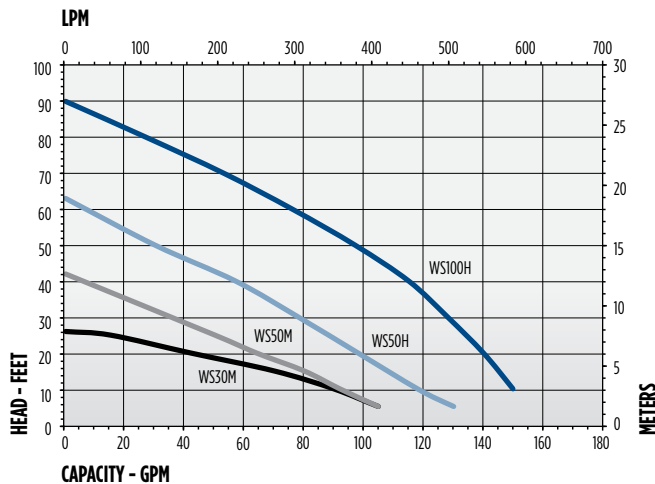
WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

ENGINEERING DATA



| Model | A | B | C |
|--------|--------------------|-------------------|------------------|
| WS30 | 11.25" 28.58 cm | 12.25" 31.1 cm | 9.38" 23.8 cm |
| WS50 | 13.75" 34.93 cm | 12.25" 31.1 cm | 9.38" 23.8 cm |
| WS50H | 13.75" 34.93 cm | 12.25" 31.1 cm | 9.38" 23.8 cm |
| WS100H | 13.75" 34.93 cm | 12.25" 31.1 cm | 9.38" 23.8 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|-------------------------------|
| Motor Housing | Cast iron |
| Impeller Material | Cast iron |
| Impeller Type | Non-clog |
| Volute | Cast iron |
| Motor Shaft | Stainless steel |
| Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJOW |

WSV50 EFFLUENT SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Oil-free Permanent Split Capacitor (PSC) with double ball bearings
- High head model
- Solids handling vortex impeller
- Piggyback mechanical float option available for automatic operation
- 2" NPT (51 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

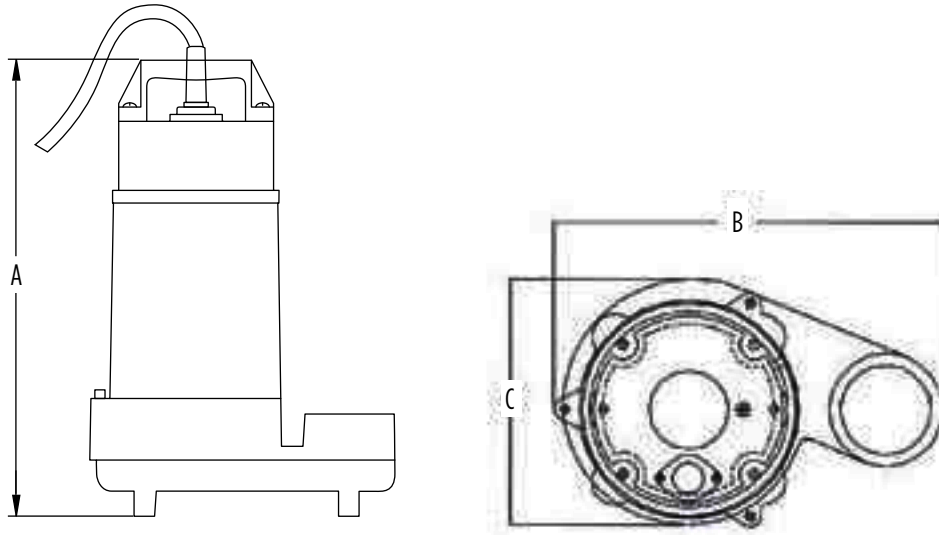
| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | Shut-Off (ft) | PSI |
|-------|----|------|-------|-------|------------------------------------|-----|-----|-----|-----|---------------|------|
| | | FLA | Start | | 20' | 25' | 30' | 35' | 40' | | |
| 115 | 60 | 10.2 | 39 | 1100 | 83 | 74 | 62 | 48 | 30 | 45 | 19.5 |

| Item No. | Model | HP | Volts | Switch Type/ Operation | On Level | Off Level | Cord | Weight |
|----------|----------|-----|-------|-----------------------------------|------------|------------|--------------|-------------------|
| 620238 | WSV50HM | 1/2 | 115 | - | - | - | 20' 6.1 m | 42 lbs 19.1 Kg |
| 620239 | WSV50HAM | 1/2 | 115 | Piggyback Mechanical Float Switch | Adjustable | Adjustable | 20' 6.1 m | 42 lbs 19.1 Kg |

EFFLUENT PUMPS

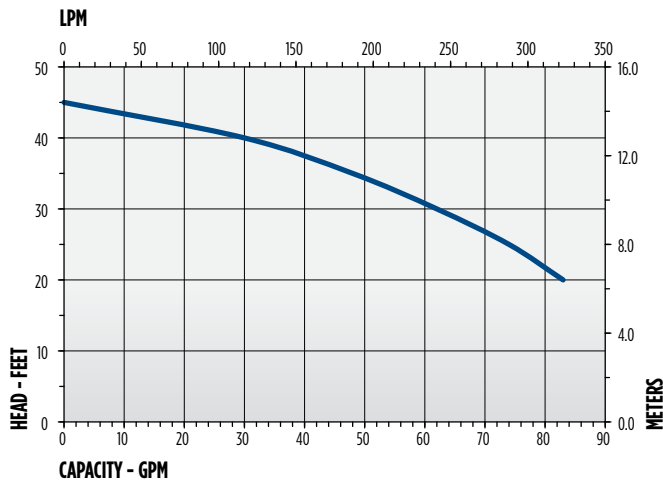
WSV50 EFFLUENT SERIES - 1/2 HP

ENGINEERING DATA



| A | B | C |
|-------------------|-------------------|-------------------|
| 14.49" 36.8 cm | 9.67" 24.56 cm | 6.13" 15.57 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|-------------------------------|
| Motor Housing | Cast iron |
| Impeller Material | Cast iron |
| Impeller Type | Vortex |
| Volute | Cast iron |
| Motor Shaft | Stainless steel |
| Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJOW |

20E SERIES - 2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Permanent Split Capacitor (PSC)
- Completely submersible, designed for continuous duty
- 2" NPT (51 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | Shut-Off (ft) | PSI |
|-----------|----|-------|-------|-------|------------------------------------|-----|-----|-----|-----|---------------|------|
| | | FLA | Start | | 20' | 30' | 40' | 60' | 80' | | |
| 230* | 60 | 16.4 | 31 | 3872 | 135 | 125 | 110 | 89 | 62 | 110 | 47.6 |
| 460** | 60 | 5.75 | 7.5 | 2571 | 135 | 125 | 110 | 89 | 62 | 110 | 47.6 |
| 200-208** | 60 | 13.1 | 32 | 2478 | 135 | 125 | 110 | 89 | 62 | 110 | 47.6 |
| 230** | 60 | 11.64 | 28.3 | 2476 | 135 | 125 | 110 | 89 | 62 | 110 | 47.6 |

| Item No. | Model | HP | Volts | Phase | Cord | Weight |
|----------|---------|----|---------|-------|--------------|----------------------|
| 520200 | 20E-CIM | 2 | 230 | 1* | 20' 6.1 m | 92 lbs 41.47 Kg |
| 520230 | 20E-CIM | 2 | 230 | 1* | 30' 9.1 m | 93.5 lbs 42.41 Kg |
| 520250 | 20E-CIM | 2 | 230 | 3** | 20' 6.1 m | 92 lbs 41.47 Kg |
| 520275 | 20E-CIM | 2 | 460 | 3** | 20' 6.1 m | 92 lbs 41.47 Kg |
| 520225 | 20E-CIM | 2 | 200-208 | 3** | 20' 6.1 m | 92 lbs 41.47 Kg |

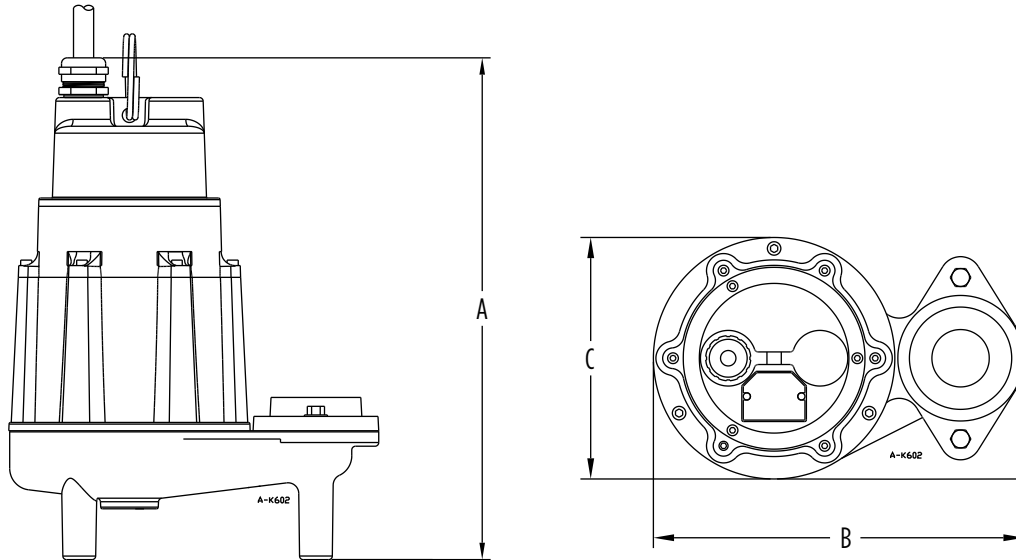
* Single-phase pumps can use a mechanical float switch or a single-phase control panel for automatic on/off

** Three-phase pumps must have a three-phase control panel for automatic or manual operation

EFFLUENT PUMPS

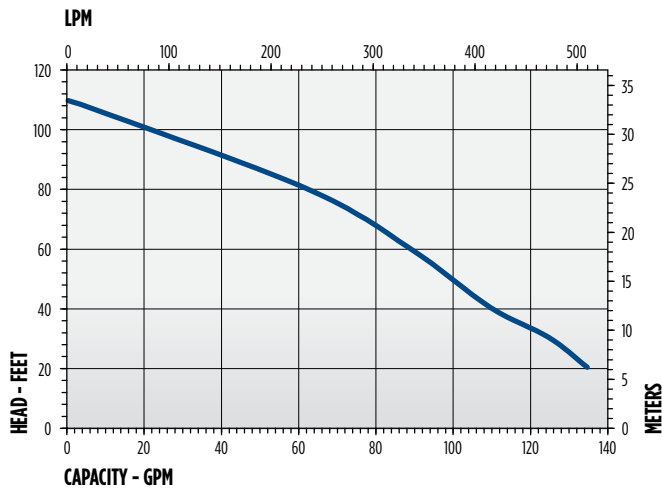
20E SERIES - 2 HP

ENGINEERING DATA



| A | B | C |
|--------------------|--------------------|-------------------|
| 17.75" 45.09 cm | 12.93" 32.84 cm | 8.42" 21.39 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|-------------------------------|
| Cover | Epoxy-coated cast iron |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Red brass |
| Impeller Type | Vortex |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SOOW |

WE SERIES - 1/2 HP

APPLICATIONS

High head filter effluent, filtered effluent service, aeration, ornamental fountains, water fountains

FEATURES

- Franklin Electric submersible motor
- Heavy-duty, 300 V, 10 ft (3 m) SJOW motor stripped leads
- Removable built-in check valve
- Non-corrosive thermoplastic discharge and motor brackets
- Proven "PPO" staging allows close tolerances and increased performance
- High quality top bearing for maximum durability and years of reliable service
- Hex rubber bearing has extra-large surface for shaft stability and multiple flow channels for keeping particles away from bearing surfaces
- Stainless steel up thrust washer prevents excessive wear in service applications
- cCSAus listed



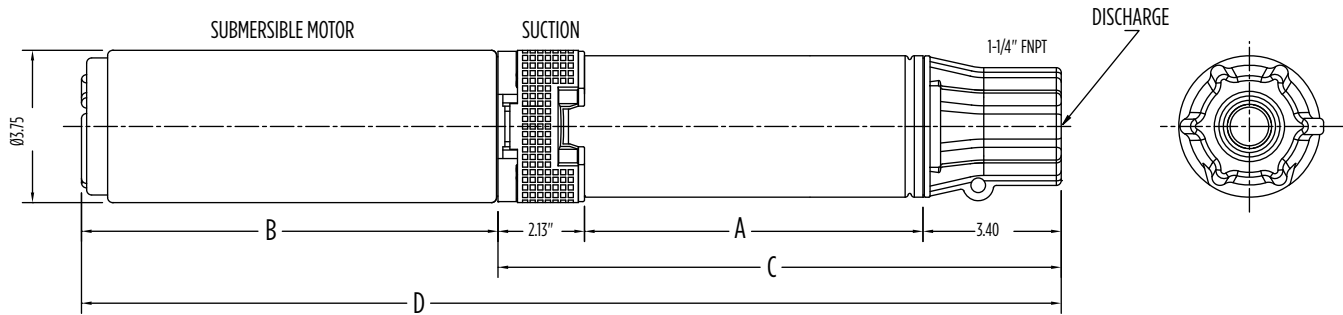
SERIES SPECIFICATIONS

| Item No | Model | HP | Volts | Hz | Amps | | Watts | Wires | Well Size | Performance (GPM @ Height in Feet) | | | | |
|---------|--------------|-----|-------|----|------|-------|-------|-------|-----------|------------------------------------|------|------|------|------|
| | | | | | FLA | Start | | | | 50' | 100' | 150' | 200' | 250' |
| 558221 | WE10G05P4-21 | 1/2 | 115 | 60 | 10 | 64.4 | 670 | 2 | 4" | 15 | 13 | 10 | 7 | 2 |
| 558222 | WE10G05P4-22 | 1/2 | 230 | 60 | 5 | 23.2 | 670 | 2 | 4" | 15 | 13 | 10 | 7 | 2 |
| 558223 | WE20G05P4-21 | 1/2 | 115 | 60 | 10 | 64.4 | 670 | 2 | 4" | 26 | 20 | 8 | - | - |
| 558224 | WE20G05P4-22 | 1/2 | 230 | 60 | 5 | 23.2 | 670 | 2 | 4" | 26 | 20 | 8 | - | - |
| 558225 | WE30G05P4-21 | 1/2 | 115 | 60 | 10 | 64.4 | 670 | 2 | 4" | 32 | 14 | - | - | - |
| 558226 | WE30G05P4-22 | 1/2 | 230 | 60 | 5 | 23.2 | 670 | 2 | 4" | 32 | 14 | - | - | - |

EFFLUENT PUMPS

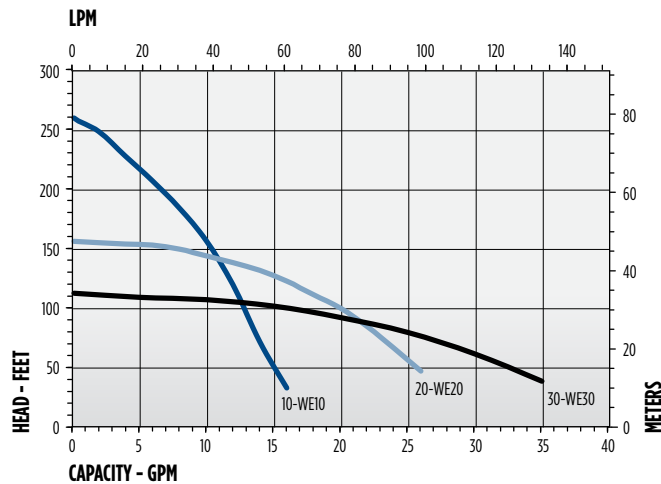
WE SERIES - 1/2 HP

ENGINEERING DATA



| Model | A | B | C | D |
|---------------|------------------|-------------------|--------------------|--------------------|
| 2-Wire 10 gpm | 7" 17.78 cm | 9.38" 23.83 cm | 12.53" 31.83 cm | 21.91" 55.65 cm |
| 2-Wire 20 gpm | 9" 22.86 cm | 9.38" 23.83 cm | 14.53" 36.91 cm | 23.91" 60.73 cm |
| 2-Wire 30 gpm | 6.5" 16.51 cm | 9.38" 23.83 cm | 12.03" 30.56 cm | 21.41" 54.38 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|----------------------------|
| Motor Housing | Stainless steel |
| Impeller Material | Celcon |
| Diffuser | Glass-filled PPO |
| Power Cord | 10' SJOW |
| Check Valve | Celcon |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | PEEK |
| Discharge | Glass-filled polypropylene |

C1 SERIES - 1/2 HP

APPLICATIONS

Gray water pumping, filtered effluent service water pumping, water reclamation projects such as pumping from rain catchment basins, aeration and other fountain or pond applications, agriculture and livestock water pumping

FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, 1/2 hp motor
- Fluid flows of 10, 20, and 30 gpm, with a maximum shut-off pressure of 100 psi
- Heavy-duty 600 V 10 foot SJ00W jacketed lead



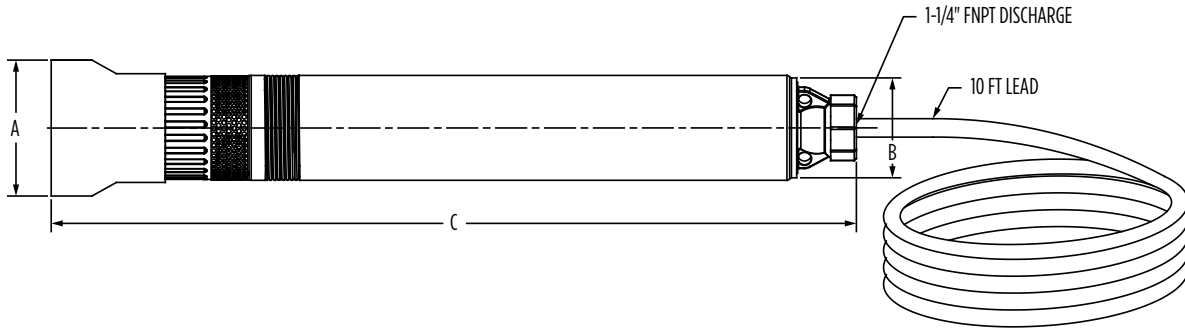
SERIES SPECIFICATIONS

| Item No | Model | HP | Volts | Hz | Stages | Amps | Watts | Wire | Min. Shut-Off Head | | Min. Head @ Rated Flow | | Max GPM | Min. Head @ Max. GPM | | Max. Amps |
|----------|------------------|-----|-------|----|--------|------|-------|------|--------------------|-----|------------------------|-----|---------|----------------------|----|-----------|
| | | | | | | | | | PSI | FT | PSI | FT | | PSI | FT | |
| 90301005 | 10C1-05P4-2W115 | 1/2 | 115 | 60 | 7 | 9.0 | 920 | 2 | 93 | 215 | 50 | 115 | 14 | 22 | 50 | 10 |
| 90301010 | 10C1-05P4-2W230 | 1/2 | 230 | 60 | 7 | 4.5 | 920 | 2 | 93 | 215 | 50 | 115 | 14 | 22 | 50 | 5 |
| 90302005 | 20C1-05P4-2W115 | 1/2 | 115 | 60 | 5 | 9.0 | 920 | 2 | 56 | 130 | 34 | 78 | 28 | 9 | 20 | 10 |
| 90302010 | 20C1-05P4-2W230 | 1/2 | 230 | 60 | 5 | 4.5 | 920 | 2 | 56 | 130 | 34 | 78 | 28 | 9 | 20 | 5 |
| 90302015 | 20XC1-05P4-2W115 | 1/2 | 115 | 60 | 6 | 9.0 | 920 | 2 | 68 | 156 | 37 | 85 | 28 | 9 | 21 | 10 |
| 90302020 | 20XC1-05P4-2W230 | 1/2 | 230 | 60 | 6 | 4.5 | 920 | 2 | 68 | 156 | 37 | 85 | 28 | 9 | 21 | 5 |
| 90303005 | 30C1-05P4-2W115 | 1/2 | 115 | 60 | 4 | 9.0 | 920 | 2 | 39 | 89 | 19 | 45 | 35 | 13 | 29 | 10 |
| 90303010 | 30C1-05P4-2W230 | 1/2 | 230 | 60 | 4 | 4.5 | 920 | 2 | 39 | 89 | 19 | 45 | 35 | 13 | 29 | 50 |

EFFLUENT PUMPS

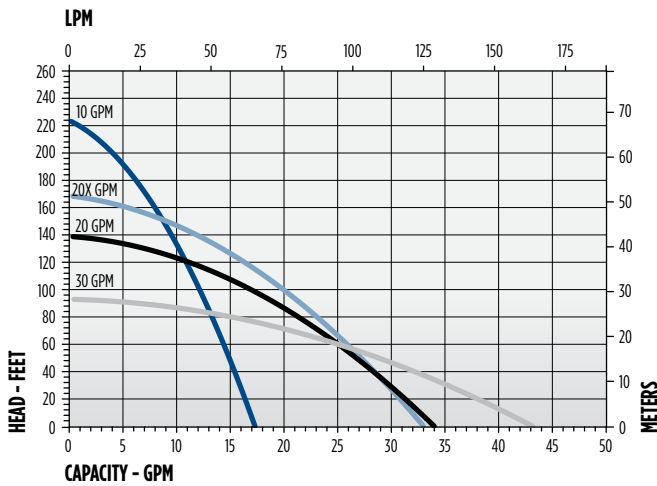
C1 SERIES - 1/2 HP

ENGINEERING DATA



| Item No | Model | A | B | C |
|----------|------------------|----------------|-----------------|-----------------|
| 90301005 | 10C1-05P4-2W115 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90301010 | 10C1-05P4-2W230 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90302005 | 20C1-05P4-2W115 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90302010 | 20C1-05P4-2W230 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90302015 | 20XC1-05P4-2W115 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90302020 | 20XC1-05P4-2W230 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90303005 | 30C1-05P4-2W115 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |
| 90303010 | 30C1-05P4-2W230 | 5" 12.70 cm | 3.9" 9.91 cm | 26" 66.04 cm |

PERFORMANCE DATA



BE SERIES - 1/2 HP, 3/4 HP

APPLICATIONS

Dewatering, flood irrigation, livestock watering, and for pumping septic tanks to the leach field

FEATURES

- Higher than NEMA service factor dual compartment motor
- Designed for continuous duty
- Built-in check valve
- Handles solids up to 1/4" (6.4 mm) diameter
- 1-1/4" (31.75 mm) NPT discharge
- 120 °F (49 °C) liquid temperature rating
- CSA listed



SERIES SPECIFICATIONS

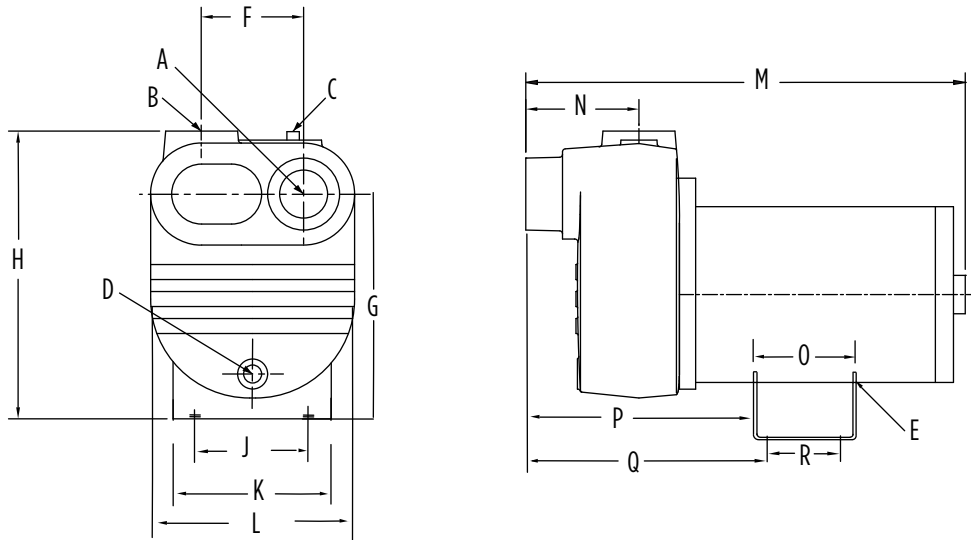
| HP | Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | | | | Shut-Off (ft) | PSI |
|-----|---------|----|----------|-----------|-------|---------------------------------------|-----|-----|-----|-----|-----|-----|----|------------------|-----|
| | | | FLA | Start | | 20' | 25' | 30' | 35' | 40' | 45' | 50' | | | |
| 1/2 | 115/230 | 60 | 8.4/4.2 | 42/21.60 | 810 | 45 | 39 | 31 | 24 | 16 | 8 | - | 50 | 21.6 | |
| 3/4 | 115/230 | 60 | 14.3/7.1 | 71.5/36.2 | 1000 | 58 | 53 | 44 | 36 | 29 | 18 | 10 | 56 | 23.8 | |

| Item No. | Model | HP | Volts | Switch Type/ Operation | Weight |
|----------|--------|-----|---------|---------------------------|--------------------|
| 621815 | BE-S50 | 1/2 | 115/230 | Manual | 42 lbs 19.05 Kg |
| 621825 | BE-S75 | 3/4 | 115/230 | Manual | 49 22.23 Kg |

EFFLUENT PUMPS

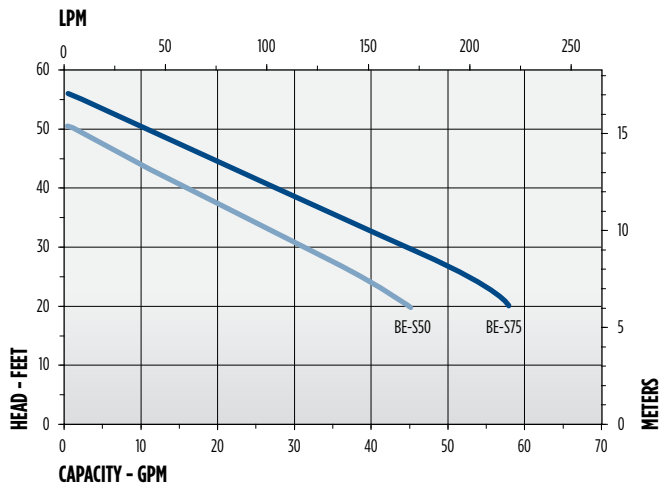
BE SERIES - 1/2 HP, 3/4 HP

ENGINEERING DATA



| Model | A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | Q | R |
|--------|-------------------|-------------------|-----------------|-----------------|-------------------------------|------------------|-------------------|----------------|------------------|------------------|-----------------|-------------------|-----------------|------------------|------------------|------------------|---------------|
| BE-S50 | 1-1/4" 3.18 cm | 1-1/4" 3.18 cm | 1/2" 1.27 cm | 1/2" 1.27 cm | .43" x .93" 1.09 x 2.36 cm | 4.25" 10.8 cm | 7.25" 18.42 cm | 10" 25.4 cm | 4.9" 12.45 cm | 6.5" 16.51 cm | 7.6" 19.3 cm | 15.3" 38.86 cm | 3.1" 7.87 cm | 4.9" 12.45 cm | 5.5" 13.97 cm | 6.8" 17.27 cm | 3" 7.62 cm |
| BE-S75 | 1-1/4" 3.18 cm | 1-1/4" 3.18 cm | 1/2" 1.27 cm | 1/2" 1.27 cm | .43" x .93" 1.09 x 2.36 cm | 4.25" 10.8 cm | 7.25" 18.42 cm | 10" 25.4 cm | 4.9" 12.45 cm | 6.5" 16.51 cm | 7.6" 19.3 cm | 15.3" 38.86 cm | 3.1" 7.87 cm | 4.9" 12.45 cm | 5.5" 13.97 cm | 6.8" 17.27 cm | 3" 7.62 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|-----------------|
| Motor Housing | Cast iron |
| Impeller Material | Cast iron |
| Impeller Type | Semi-open |
| Volute | Cast iron |
| Motor Shaft | Stainless steel |
| Shaft Seal | Carbon/ceramic |
| Fasteners | Plated steel |
| Bearings | Ball |
| Power Cord | None |

9SC SERIES - 4/10 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

- Permanent Split Capacitor (PSC)
- Energy-saving low amp draw
- Designed for continuous duty
- 2" FNPT (51 mm) discharge
- Handles solids up to 2" (51 mm) diameter
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

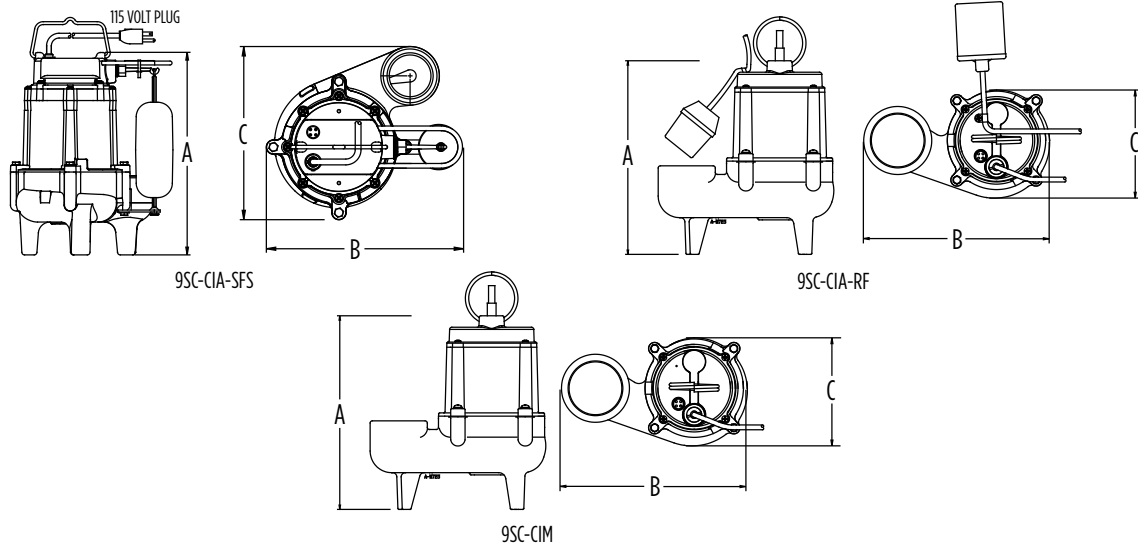
| Model | HP | Volts | Hz | Amps | Watts | Max. Water Temp. | GPM / Liters per Minute @ Height | | | Shut-Off | |
|-------|------|-------|----|------|-------|------------------|----------------------------------|-------------|---------------|----------|------------|
| | | | | | | | 5 ft (1.5 m) | 10 ft (3 m) | 15 ft (4.6 m) | ft (m) | PSI (Bar) |
| 9SC | 4/10 | 115 | 60 | 8 | 870 | 140 °F (60 °C) | 100 / 379 | 80 / 303 | 60 / 227 | 20 (6.1) | 8.7 (0.60) |

| Item No. | Model | HP | Volts | Discharge | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|-------------|------|-------|-----------|----------------------------|----------------------------|---------------------------|--------------|---------------------|
| 509411 | 9SC-CIA-SFS | 4/10 | 115 | 2" | Integral Snap-Action Float | 10" - 13" 25 cm - 33 cm | 5" - 8" 13 cm - 20 cm | 20' 6.1 m | 38.5 lbs 17.5 kg |
| 509412 | 9SC-CIA-RF | 4/10 | 115 | 2" | Piggyback Mechanical Float | 16" - 19" 41 cm - 48 cm | 9" - 11" 23 cm - 28 cm | 20' 6.1 m | 38.4 lbs 17.4 kg |
| 509413 | 9SC-CIM | 4/10 | 115 | 2" | Manual | - | - | 20' 6.1 m | 36 lbs 16.3 kg |

SEWAGE PUMPS

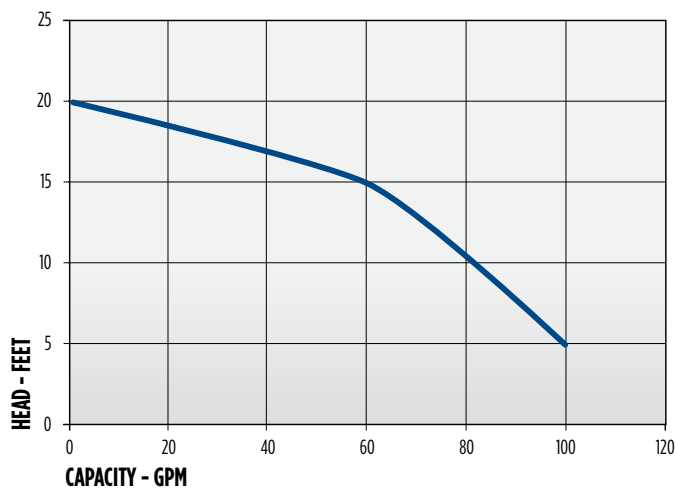
9SC SERIES - 4/10 HP

ENGINEERING DATA



| Model | A | B | C |
|-------------|----------------|----------------|---------------|
| 9SN-CIA-SFS | 14.4" (366 mm) | 10.7" (273 mm) | 8.6" (219 mm) |
| 9SN-CIA-RF | 13.6" (346 mm) | 10.4" (264 mm) | 8.6" (219 mm) |
| 9SN-CIM | 13.6" (346 mm) | 10.4" (264 mm) | 8.6" (219 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Cover | Epoxy-coated cast iron/ *Thermoplastic |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Nylon |
| Impeller Type | Vortex |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Steel |
| Bearings | Upper sintered sleeve and lower ball bearings |
| Power Cord | SJTW **SJTOW |

* On SFS models

** On 30' 9SC-CIA-RF and 9SC-CIM models

10SC SERIES - 1/2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

- Permanent Split Capacitor (PSC)
- Energy-saving low amp draw
- Designed for continuous duty
- 2" FNPT (51 mm) and 3" FNPT (76.2 mm) discharge models
- Handles solids up to 2" (51 mm) diameter
- Multiple switch options for automatic operation
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

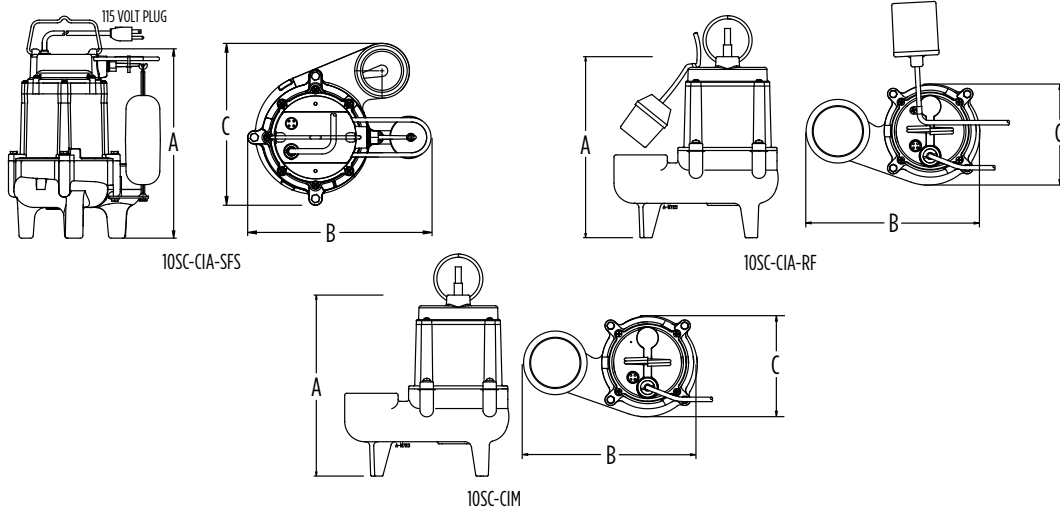
| Model | HP | Volts | Hz | Amps | Watts | Max. Water Temp. | GPM / Liters per Minute @ Height | | | Shut-Off | |
|---------------------|-----|-------|-------|------|-------|------------------|----------------------------------|-------------|---------------|----------|-------------|
| | | | | | | | 5 ft / 1.5 m | 10 ft / 3 m | 15 ft / 4.6 m | ft / m | PSI / Bar |
| 10SC (2" Discharge) | 1/2 | 115 | 60 | 11 | 1230 | 140 °F (60 °C) | 120 / 454 | 100 / 379 | 80 / 303 | 25 (7.6) | 10.8 (0.75) |
| | 1/2 | 230 | 50/60 | - | - | 140 °F (60 °C) | 120 / 454 | 100 / 379 | 80 / 303 | 25 (7.6) | 10.8 (0.75) |
| 10SC (3" Discharge) | 1/2 | 115 | 60 | 11.5 | 1270 | 140 °F (60 °C) | 130 / 492 | 110 / 416 | 85 / 322 | 25 (7.6) | 10.8 (0.75) |
| | 1/2 | 230 | 50/60 | - | - | 140 °F (60 °C) | 120 / 454 | 100 / 379 | 80 / 303 | 25 (7.6) | 10.8 (0.75) |

| Item No. | Model | HP | Volts | Discharge | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|--------------|-----|-------|-----------|----------------------------|----------------------------|---------------------------|--------------|----------------------|
| 511431 | 10SC-CIA-SFS | 1/2 | 115 | 2" | Integral Snap-Action Float | 11" - 14" 28 cm - 36 cm | 6" - 9" 15 cm - 23 cm | 20' 6.1 m | 37.5 lbs 17.5 Kg |
| 511433 | 10SC-CIA-RF | 1/2 | 115 | 2" | Piggyback Mechanical Float | 16" - 19" 41 cm - 48 cm | 9" - 11" 23 cm - 28 cm | 20' 6.1 m | 36.5 lbs 16.56 Kg |
| 511432 | 10SC-CIM | 1/2 | 115 | 2" | Manual | - | - | 20' 6.1 m | 35.5 lbs 16.1 Kg |
| 511434 | 10SC-CIM | 1/2 | 115 | 2" | Manual | - | - | 20' 6.1 m | 37.5 lbs 17.5 Kg |
| 511437 | 10SC-CIA-RF | 1/2 | 115 | 3" | Piggyback Mechanical Float | 16" - 19" 41 cm - 48 cm | 9" - 11" 23 cm - 28 cm | 20' 6.1 m | 37.5 lbs 17.5 Kg |
| 511435 | 10SC-CIM | 1/2 | 115 | 3" | Manual | - | - | 20' 6.1 m | 36.5 lbs 16.56 Kg |
| 511438 | 10SC-CIM | 1/2 | 230 | 2" | Manual | - | - | 20' 6.1 m | 37.5 lbs 17.5 Kg |
| 511436 | 10SC-CIM | 1/2 | 230 | 3" | Manual | - | - | 20' 6.1 m | 36.5 lbs 16.56 Kg |

SEWAGE PUMPS

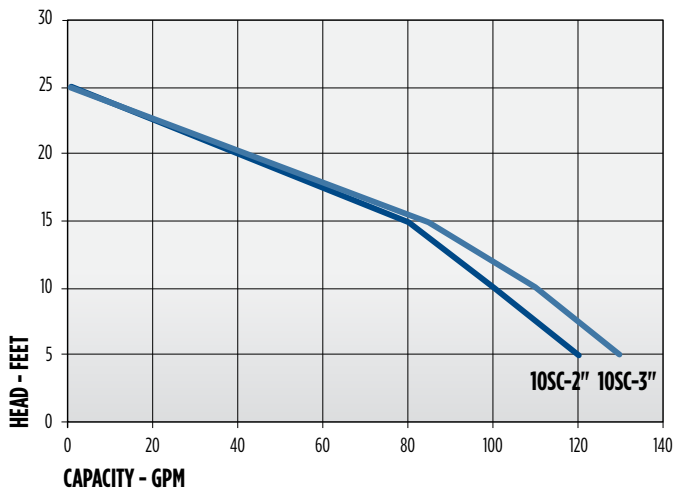
10SC SERIES - 1/2 HP

ENGINEERING DATA



| Model | A | B | C |
|----------------------------|----------------|-------------------|---------------|
| 10SC-CIA-SFS | 14.8" (377 mm) | 10.7" (273 mm) | 8.6" (219 mm) |
| 10SC-CIA-RF (2" Discharge) | 14.0" (356 mm) | 10.4" (264 mm) | 8.6" (219 mm) |
| 10SC-CIA-RF (3" Discharge) | 14.0" (356 mm) | 11.7" (298 mm) | 9.5" (242 mm) |
| 10SC-CIM (2" Discharge) | 14.0" (356 mm) | 10.4" (264 mm) | 8.6" (219 mm) |
| 10SC-CIM (3" Discharge) | 14.0" (356 mm) | 11.72" (297.6 mm) | 9.5" (242 mm) |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Cover | Epoxy-coated cast iron/ *Thermoplastic |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Thermoplastic elastomer |
| Impeller Type | Vortex |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Steel |
| Bearings | Upper sintered sleeve and lower ball bearings |
| Power Cord | SJTW **SJTOW |

* On SFS models

** On 30' 10SC-CIA-RF and 10SC-CIM models

14S SERIES - 1/2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- 2" FNPT (51 mm) and 3" FNPT (76.2 mm) discharge models
- Handles solids up to 2" (51 mm) diameter
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

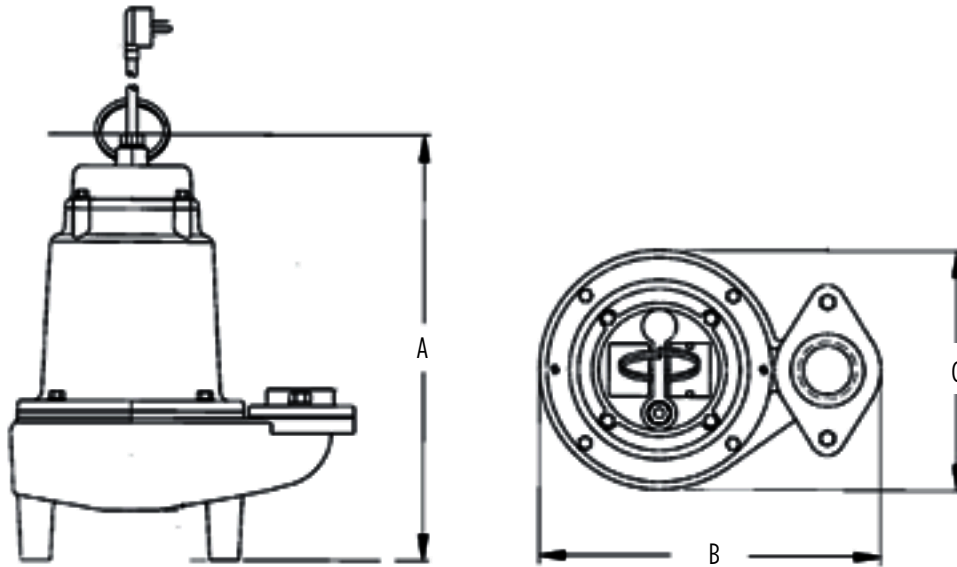
| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | Shut-Off (ft) | PSI |
|---------|----|------|-------|-------|------------------------------------|-----|---------------|------|
| | | FLA | Start | | 10' | 20' | | |
| 115 | 60 | 11.6 | 21 | 1100 | 100 | 35 | 25 | 10.8 |
| 208-240 | 60 | 4.6 | 7.8 | 1100 | 100 | 35 | 25 | 10.8 |

| Item No. | Model | HP | Volts | Discharge | Switch Type/Operation | Cord | Weight |
|----------|---------|-----|-----------|-----------|-----------------------|--------------|-------------------|
| 514320 | 14S-CIM | 1/2 | 115 | 2" | Manual | 20' 6.1 m | 85 lbs 38.6 Kg |
| 514420 | 14S-CIM | 1/2 | 115 | 3" | Manual | 20' 6.1 m | 85 lbs 38.6 Kg |
| 514321 | 14S-CIM | 1/2 | 208 -240 | 2" | Manual | 20' 6.1 m | 85 lbs 38.6 Kg |
| 14940726 | 14S-CIM | 1/2 | 208 - 240 | 3" | Manual | 20' 6.1 m | 85 lbs 38.6 Kg |

SEWAGE PUMPS

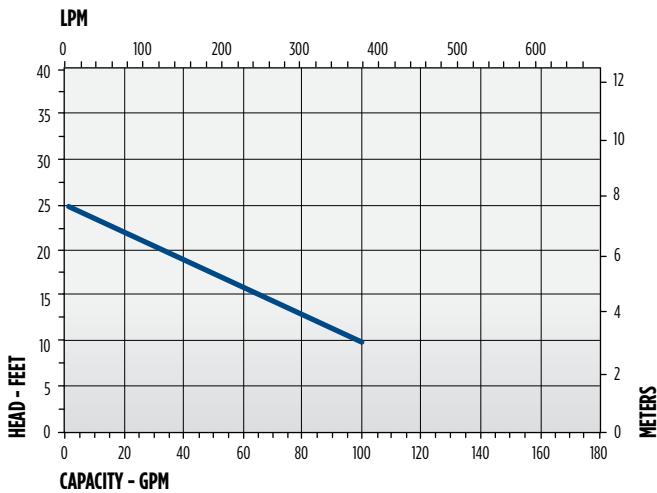
14S SERIES - 1/2 HP

ENGINEERING DATA



| A | B | C |
|--------------------|--------------------|-------------------|
| 16.15" 41.02 cm | 14.07" 35.74 cm | 9.89" 25.12 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---------------------------------------|
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Epoxy-coated cast iron |
| Impeller Type | Two-vane, non-clog |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | 16/3, STW |

WS SERIES - 1/2 HP, 1 HP

APPLICATIONS

Ideal for handling raw sewage, commercial dewatering sump applications with up to 2" solids

FEATURES

- All cast iron construction
- Oil-filled motor with double ball bearing capacitor start designed for high torque (single-phase only)
- Designed for continuous duty
- Switch options for automatic operation
- 2" (50 mm) NPT
- Handles solids up to 2" (51 mm) diameter
- Power cord sealed at motor housing
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

| Item No. | Model | HP | Volts | Phase | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | | | Shut-Off (ft) | PSI |
|----------|-------------|-----|---------|-------|----|----------|-------|-------|---------------------------------------|-----|-----|-----|-----|-----|-----|------------------|------|
| | | | | | | FLA | Start | | 5' | 10' | 15' | 20' | 25' | 30' | 35' | | |
| 620012 | WS51M | 1/2 | 115 | 1 | 60 | 11.6 | 47.4 | 940 | 155 | 120 | 83 | 52 | - | - | - | 27 | 11.7 |
| 620002 | WS51AM | 1/2 | 115 | 1 | 60 | 11.6 | 47.4 | 940 | 155 | 120 | 83 | 52 | - | - | - | 27 | 11.7 |
| 620013 | WS52M | 1/2 | 115 | 1 | 60 | 11.6 | 47.4 | 940 | 135 | 90 | 47 | 14 | - | - | - | 23 | 10 |
| 620003 | WS52AM | 1/2 | 115 | 1 | 60 | 11.6 | 47.4 | 940 | 135 | 90 | 47 | 14 | - | - | - | 23 | 10 |
| 620254 | WS52HM | 1/2 | 115 | 1 | 60 | 15 | 26.9 | 1520 | - | 128 | 97 | 68 | 32 | - | - | 29 | 12.5 |
| 620255 | WS52HAM | 1/2 | 115 | 1 | 60 | 15 | 26.9 | 1520 | - | 128 | 97 | 68 | 32 | - | - | 29 | 12.5 |
| 620256 | WS52HM-12 | 1/2 | 208-230 | 1 | 60 | 9.7 | 32.6 | 1480 | - | 128 | 97 | 68 | 32 | - | - | 29 | 12.5 |
| 620257 | WS52HAM-12 | 1/2 | 208-230 | 1 | 60 | 9.7 | 32.6 | 1480 | - | 128 | 97 | 68 | 32 | - | - | 29 | 12.5 |
| 620203 | WS102M-12 | 1 | 208-230 | 1 | 60 | 9.8/10.7 | 26.7 | 1735 | - | 168 | 144 | 118 | 85 | 46 | - | 37 | 16 |
| 620215 | WS102AM-12 | 1 | 208-230 | 1 | 60 | 9.8/10.7 | 26.7 | 1735 | - | 168 | 144 | 118 | 85 | 46 | - | 37 | 16 |
| 620208 | WS102M-32 | 1 | 208-230 | 3** | 60 | 4.3/4.58 | 6.8 | 1550 | - | 168 | 144 | 118 | 85 | 46 | - | 37 | 16 |
| 620209 | WS102M-34 | 1 | 460 | 3** | 60 | 2.15 | 3.4 | 1490 | - | 168 | 144 | 118 | 85 | 46 | - | 37 | 16 |
| 620258 | WS102HM-12 | 1 | 230 | 1 | 60 | 13.6 | 37.0 | 2330 | - | 190 | 170 | 148 | 124 | 100 | 74 | 48 | 20.8 |
| 620259 | WS102HAM-12 | 1 | 230 | 1 | 60 | 13.6 | 37.0 | 2330 | - | 190 | 170 | 148 | 124 | 100 | 74 | 48 | 20.8 |

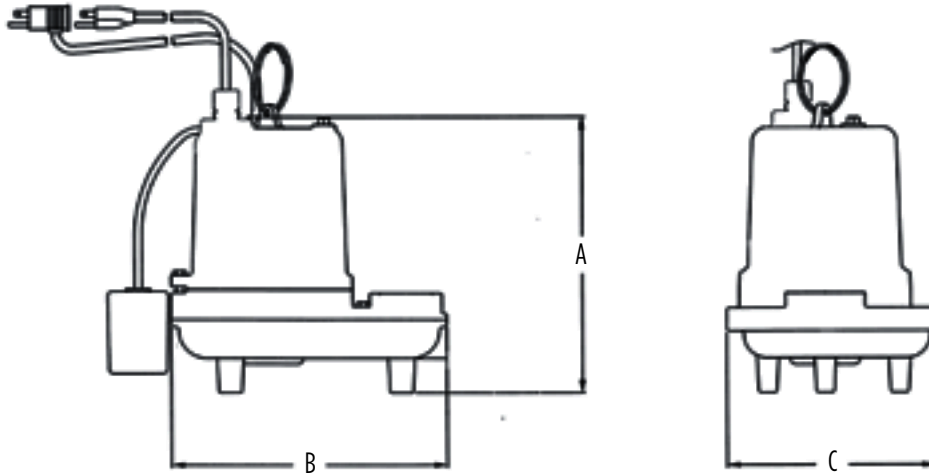
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

| Item No. | Model | Volts | Switch Type/ Operation | On Level | Off Level | Cord | Weight |
|----------|-------------|---------|-----------------------------------|------------|-----------|-------------|-------------------|
| 620012 | WS51M | 115 | Manual | - | - | 20' - 6.1 m | 55 lbs - 24.95 Kg |
| 620002 | WS51AM | 115 | Piggyback Mechanical Float Switch | Adjustable | | 20' - 6.1 m | 57 lbs - 25.85 Kg |
| 620013 | WS52M | 115 | Manual | - | - | 20' - 6.1 m | 57 lbs - 25.85 Kg |
| 620003 | WS52AM | 115 | Piggyback Mechanical Float Switch | Adjustable | | 20' - 6.1 m | 59 lbs - 26.76 Kg |
| 620254 | WS52HM | 115 | Manual | - | - | 30' - 9.1 m | 58 lbs - 26.31 Kg |
| 620255 | WS52HAM | 115 | Piggyback Mechanical Float Switch | Adjustable | | 30' - 9.1 m | 60 lbs - 27.22 Kg |
| 620256 | WS52HM-12 | 208-230 | Manual | - | - | 30' - 9.1 m | 60 lbs - 27.22 Kg |
| 620257 | WS52HAM-12 | 208-230 | Piggyback Mechanical Float Switch | Adjustable | | 30' - 9.1 m | 60 lbs - 27.22 Kg |
| 620203 | WS102M-12 | 208-230 | Manual | - | - | 20' - 6.1 m | 62 lbs - 28.12 Kg |
| 620215 | WS102AM-12 | 208-230 | Piggyback Mechanical Float Switch | Adjustable | | 20' - 6.1 m | 64 lbs - 29.03 Kg |
| 620208 | WS102M-32 | 208-230 | Manual | - | - | 20' - 6.1 m | 63 lbs - 28.58 Kg |
| 620209 | WS102M-34 | 460 | Manual | - | - | 20' - 6.1 m | 63 lbs - 28.58 Kg |
| 620258 | WS102HM-12 | 230 | Manual | - | - | 30' - 9.1 m | 61 lbs - 27.67 Kg |
| 620259 | WS102HAM-12 | 230 | Piggyback Mechanical Float Switch | Adjustable | | 30' - 9.1 m | 63 lbs - 28.58 Kg |

SEWAGE PUMPS

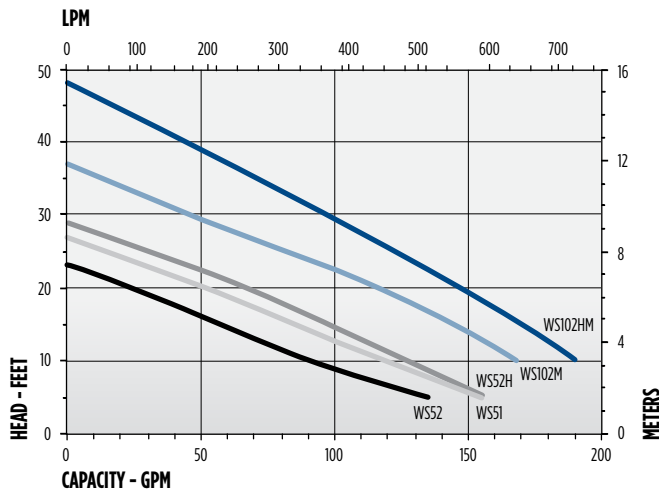
WS SERIES - 1/2 HP, 1 HP

ENGINEERING DATA



| Model | A | B | C |
|--------|--------------------|--------------------|-------------------|
| WS51 | 13.25" 33.66 cm | 12.25" 31.12 cm | 9.38" 23.83 cm |
| WS52 | 14" 35.56 cm | 12.25" 31.12 cm | 9.38" 23.83 cm |
| WS52H | 15.1" 38.36 cm | 12.25" 31.12 cm | 9.38" 23.83 cm |
| WS102 | 15.1" 38.36 cm | 12.25" 31.12 cm | 9.38" 23.83 cm |
| WS102H | 15.1" 38.36 cm | 12.25" 31.12 cm | 9.38" 23.83 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|--------------------------|--|
| Motor Housing | Cast iron |
| Impeller Material | Cast iron |
| Impeller Type | Non-clog |
| Volute | Cast iron |
| Motor Shaft | Stainless steel |
| Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | SJTW - 620012, 620002, 620013, 620254, 620255, 620256, 620257, and 620258 SJOW - 620003, 620203, 620215, 620208, 620209, and 620259 |

16S SERIES - 1 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- 3" FNPT (76.2 mm) discharge
- Handles solids up to 2" (51 mm) diameter
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | Shut-Off (ft) | PSI |
|----------|-------|------|-------|-------|---------------------------------------|-----|-----|------------------|------|
| | | FLA | Start | | 10' | 20' | 30' | | |
| 200-208 | 60 | 6.8 | 21 | 1500 | 160 | 100 | 40 | 35 | 15.1 |
| 208 | 60 | 11 | 18 | 2000 | 160 | 100 | 40 | 35 | 15.1 |
| 230 | 60 | 11 | 19.2 | 1900 | 160 | 100 | 40 | 35 | 15.1 |
| 200-208* | 60 | 6.3 | 17.7 | 1500 | 160 | 100 | 40 | 35 | 15.1 |
| 380-460 | 50/60 | 3 | 9 | 850 | 160 | 100 | 40 | 35 | 15.1 |
| 575 | 60 | 2.5 | 7.2 | 1550 | 160 | 100 | 40 | 35 | 15.1 |

* 3-phase requires control panel

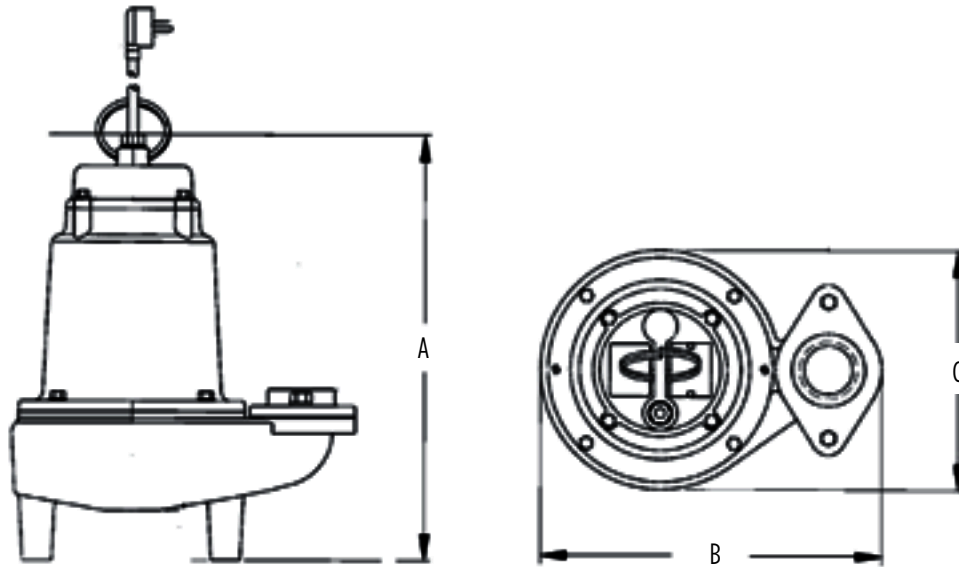
| Item No. | Model | HP | Volts | Phase | Switch Type/ Operation | Cord | Weight |
|----------|---------|----|---------|-------|---------------------------|---------------|--------------------|
| 514750 | 16S-CIM | 1 | 200-208 | 3** | Manual | 20' 6.1 m | 88 lbs 39.92 Kg |
| 514625 | 16S-CIM | 1 | 200-208 | 1 | Manual | 20' 6.1 m | 88 lbs 39.92 Kg |
| 514620 | 16S-CIM | 1 | 230 | 1 | Manual | 20' 6.1 m | 94 lbs 42.64 Kg |
| 514720 | 16S-CIM | 1 | 230 | 3** | Manual | 20' 6.1 m | 89 lbs 40.37 Kg |
| 514630 | 16S-CIM | 1 | 230 | 1 | Manual | 40' 12.2 m | 95 lbs 43.09 Kg |
| 514730 | 16S-CIM | 1 | 380-460 | 3** | Manual | 20' 6.1 m | 90 lbs 40.82 Kg |
| 514740 | 16S-CIM | 1 | 575 | 3** | Manual | 20' 6.1 m | 88 lbs 39.92 Kg |

** Three-phase pumps must have a three-phase control panel for automatic or manual operation

SEWAGE PUMPS

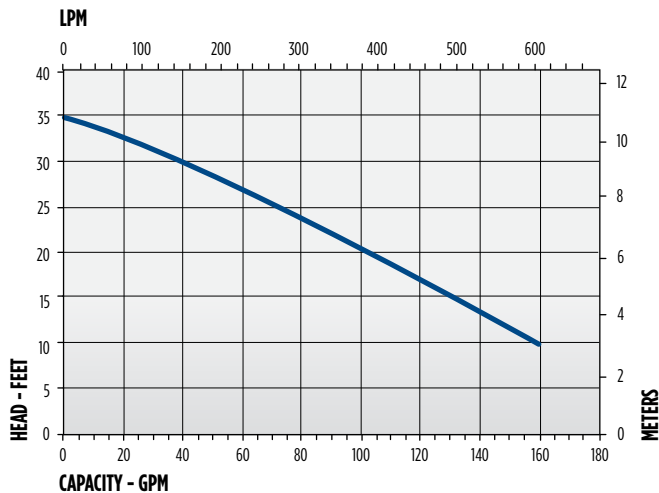
16S SERIES - 1 HP

ENGINEERING DATA



| A | B | C |
|--------------------|--------------------|-------------------|
| 16.15" 41.02 cm | 14.07" 35.74 cm | 9.89" 25.12 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|---|
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Epoxy-coated cast iron |
| Impeller Type | Two-vane, non-clog |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Nitrile with carbon and ceramic faces |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | 16/3, STW (single-phase) 18/4, SOW (three-phase) |

18S SERIES - 1-1/2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- Capacitor and power cord connections are isolated from oil-filled motor housing for ease of field maintenance
- 3" FNPT (761 mm) discharge
- Handles solids up to 2" (51 mm) diameter
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | Shut-Off (ft) | PSI |
|----------|----|------|-------|-------|---------------------------------------|-----|-----|-----|-----|------------------|------|
| | | FLA | Start | | 10' | 20' | 30' | 40' | 50' | | |
| 200-208 | 60 | 16 | 31.0 | 3229 | 160 | 137 | 111 | 84 | 50 | 64 | 27.7 |
| 200-208* | 60 | 13.5 | 32.0 | 1644 | 160 | 137 | 111 | 84 | 50 | 64 | 27.7 |
| 230 | 60 | 15.5 | 31.0 | 3512 | 160 | 137 | 111 | 84 | 50 | 64 | 27.7 |
| 230* | 60 | 11.5 | 35.0 | 1512 | 160 | 137 | 111 | 84 | 50 | 64 | 27.7 |
| 460* | 60 | 5.3 | 17.5 | 1474 | 160 | 137 | 111 | 84 | 50 | 64 | 27.7 |

* 3-phase

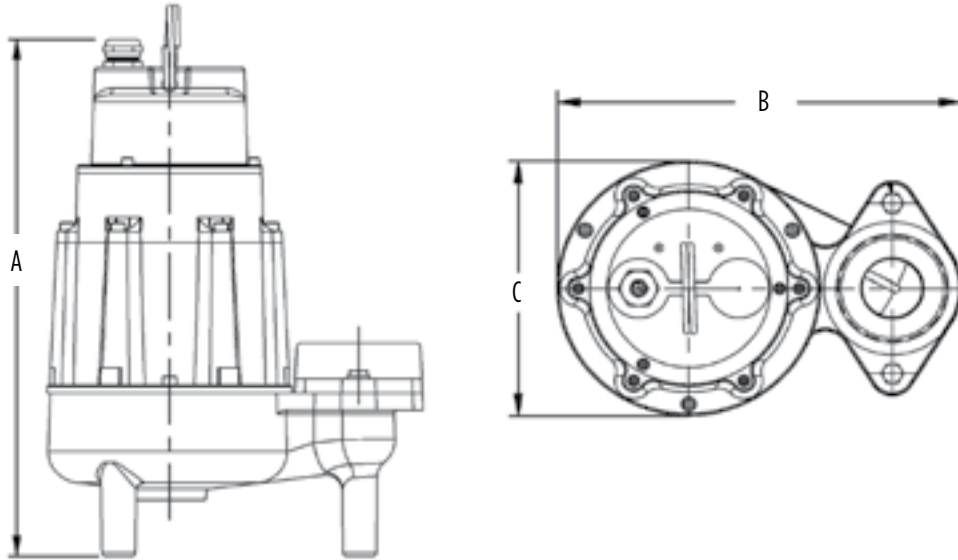
| Item No. | Model | HP | Volts | Phase | Switch Type/ Operation | Cord | Weight |
|----------|---------|-------|---------|-------|---------------------------|--------------|--------------------|
| 520300 | 18S-CIM | 1-1/2 | 208 | 1 | Manual | 20' 6.1 m | 94 lbs 42.64 Kg |
| 520302 | 18S-CIM | 1-1/2 | 200-208 | 3** | Manual | 20' 6.1 m | 96 lbs 43.54 Kg |
| 520301 | 18S-CIM | 1-1/2 | 230 | 1 | Manual | 20' 6.1 m | 96 lbs 43.54 Kg |
| 520303 | 18S-CIM | 1-1/2 | 230 | 3** | Manual | 20' 6.1 m | 94 lbs 42.64 Kg |
| 520304 | 18S-CIM | 1-1/2 | 460 | 3** | Manual | 40' 12 m | 94 lbs 42.64 Kg |

** Three-phase pumps must have a three-phase control panel for automatic or manual operation

SEWAGE PUMPS

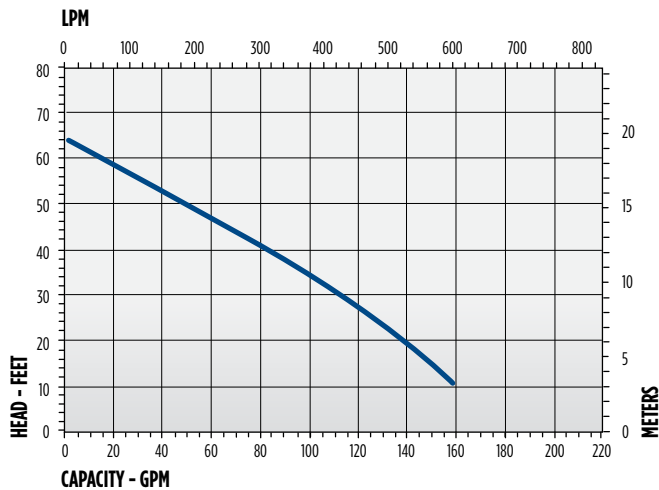
18S SERIES - 1-1/2 HP

ENGINEERING DATA



| A | B | C |
|----------|----------|----------|
| 18.4" | 13" | 8.4" |
| 46.74 cm | 33.02 cm | 21.34 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------|--|
| Cover | Epoxy-coated cast iron |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Red brass |
| Impeller Type | Non-clog vortex |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord | 14/3, SOW (1-phase); 14/4, SOW (3-phase) |

20S SERIES - 2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

- Permanent Split Capacitor (PSC)
- Designed for continuous duty
- Capacitor and power cord connections are isolated from oil-filled motor housing for ease of field maintenance
- 3" FNPT (76.2 mm) discharge
- Handles solids up to 2" (51 mm) diameter
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | Shut-Off (ft) | PSI |
|----------|----|------|-------|-------|------------------------------------|-----|-----|-----|---------------|------|
| | | FLA | Start | | 10' | 20' | 30' | 40' | | |
| 200-208* | 60 | 14.5 | 32.0 | 2769 | 205 | 168 | 140 | 120 | 77 | 33.3 |
| 208-230 | 60 | 18 | 31.0 | 4118 | 205 | 168 | 140 | 120 | 77 | 33.3 |
| 230* | 60 | 12.6 | 35.0 | 2686 | 205 | 168 | 140 | 120 | 77 | 33.3 |
| 460* | 60 | 6.1 | 17.5 | 2771 | 205 | 168 | 140 | 120 | 77 | 33.3 |

*3-phase

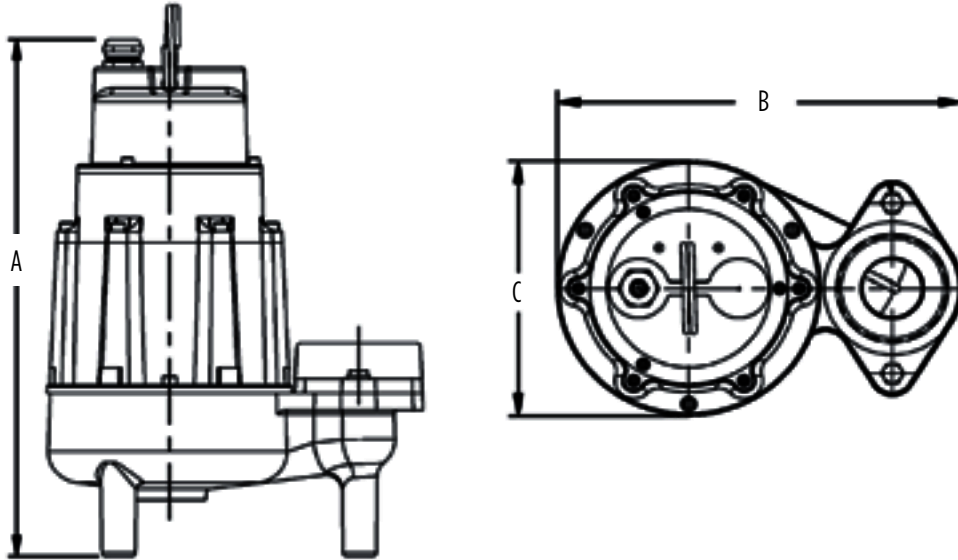
| Item No. | Model | HP | Volts | Phase | Switch Type/Operation | Cord | Weight |
|----------|---------|----|---------|-------|-----------------------|--------------|--------------------|
| 520125 | 20S-CIM | 2 | 200-208 | 3** | Manual | 20' 6.1 m | 96 lbs 43.54 Kg |
| 520100 | 20S-CIM | 2 | 208-230 | 1 | Manual | 20' 6.1 m | 96 lbs 43.54 Kg |
| 520150 | 20S-CIM | 2 | 230 | 3** | Manual | 20' 6.1 m | 96 lbs 43.54 Kg |
| 520175 | 20S-CIM | 2 | 460 | 3** | Manual | 20' 6.1 m | 96 lbs 43.54 Kg |

** Three-phase pumps must have a three-phase control panel for automatic or manual operation

SEWAGE PUMPS

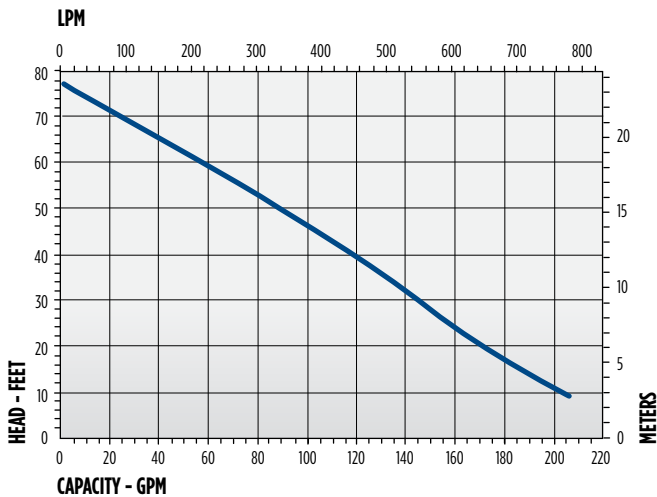
20S SERIES - 2 HP

ENGINEERING DATA



| A | B | C |
|----------|----------|----------|
| 18.4" | 13" | 8.4" |
| 46.74 cm | 33.02 cm | 21.34 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|------------------------------------|--|
| Cover | Epoxy-coated cast iron |
| Motor Housing | Epoxy-coated cast iron |
| Impeller Material | Red brass |
| Impeller Type | Vortex |
| Volute | Epoxy-coated cast iron |
| Mechanical Shaft Seal | Carbon/ceramic |
| Fasteners | Stainless steel |
| Shaft | Stainless steel |
| Bearings | Upper and lower ball bearings |
| Power Cord (Stripped Leads) | 14/3, SOW (1-phase); 14/4, SOW (3-phase) |

PIT+PLUS® JR - PREMIUM SIMPLEX SYSTEMS

APPLICATIONS

Collection of sewage, drainage or seepage water

FEATURES

- Roto-molded polyethylene basin 24" x 24" (61 cm x 61 cm)
- Radial rib design for extra strength
- Molded inlet hub
- Molded anti-torque stops
- 360° molded handle
- Integrated anti-floatation collar
- Optional alarm versions
- Pre-assembled
- Functional and aesthetic finish cover
- Pump access cover
- Recessed discharge and vent location
- Independent recessed switch module
- Monolithic molded basin top
- Switch cord grips and locators for directional control
- 4/10 hp or 1/2 hp sewage pump option available



Patent Pending

SERIES SPECIFICATIONS

| Item No. | Model No. | Vent | Discharge | Switch Type | Alarm | HP | Pump Item No. | Pump Model No. | Pump Voltage |
|----------|------------|------|-----------|-------------|----------------|------|---------------|----------------|--------------|
| 509673 | 9JF2V2D | 2" | 2" | Float | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 509674 | 9JF2V2DA1 | 2" | 2" | Float | Indoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509675 | 9JF2V2DA3 | 2" | 2" | Float | Indoor/Outdoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509679 | 9JF3V2D | 3" | 2" | Float | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 509680 | 9JF3V2DA1 | 3" | 2" | Float | Indoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509681 | 9JF3V2DA3 | 3" | 2" | Float | Indoor/Outdoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509687 | 9JP2V2D | 2" | 2" | ECM | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 509688 | 9JP2V2DA1 | 2" | 2" | ECM | Indoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509691 | 9JP3V2D | 3" | 2" | ECM | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 511673 | 10JF2V2D | 2" | 2" | Float | - | 1/2 | 511432 | 10SC-CIM | 115 |
| 511674 | 10JF2V2DA1 | 2" | 2" | Float | Indoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511675 | 10JF2V2DA3 | 2" | 2" | Float | Indoor/Outdoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511676 | 10JF2V3D | 2" | 3" | Float | - | 1/2 | 511435 | 10SC-CIM | 115 |
| 511677 | 10JF2V3DA1 | 2" | 3" | Float | Indoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511678 | 10JF2V3DA3 | 2" | 3" | Float | Indoor/Outdoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511679 | 10JF3V2D | 3" | 2" | Float | - | 1/2 | 511432 | 10SC-CIM | 115 |
| 511680 | 10JF3V2DA1 | 3" | 2" | Float | Indoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511681 | 10JF3V2DA3 | 3" | 2" | Float | Indoor/Outdoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511682 | 10JF3V3D | 3" | 3" | Float | - | 1/2 | 511435 | 10SC-CIM | 115 |
| 511683 | 10JF3V3DA1 | 3" | 3" | Float | Indoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511684 | 10JF3V3DA3 | 3" | 3" | Float | Indoor/Outdoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511687 | 10JP2V2D | 2" | 2" | ECM | - | 1/2 | 511432 | 10SC-CIM | 115 |
| 511688 | 10JP2V2DA1 | 2" | 2" | ECM | Indoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511690 | 10JP2V3D | 2" | 3" | ECM | - | 1/2 | 511435 | 10SC-CIM | 115 |

Note: Check valve not included.



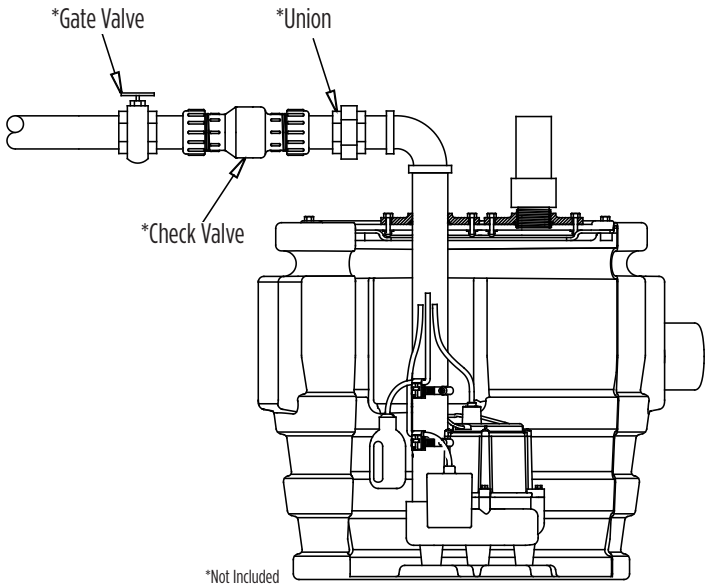
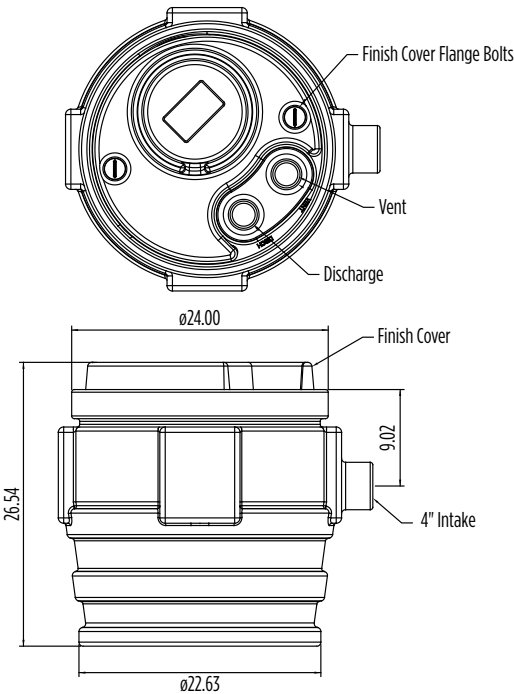
| Basin Assemblies | | | |
|------------------|-----------|------|-----------|
| Item No. | Model No. | Vent | Discharge |
| 513615 | PPJ2V2D | 2" | 2" |
| 513616 | PPJ2V3D | 2" | 3" |
| 513617 | PPJ3V3D | 3" | 3" |
| 513618 | PPJ3V2D | 3" | 2" |

Note: Pump and switch assembly not included.

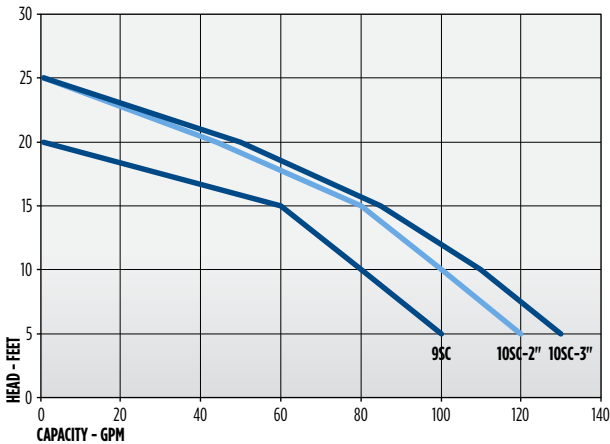
| Replacement Cover and Hardware Kits | |
|-------------------------------------|--|
| Item No. | Description |
| 113388 | Includes replacement bolts, washers, gasket, and wing bolts for finish cover |
| 113389 | Includes replacement main basin cover, bolts, washers, gasket, and wing bolts for finish cover |

PIT+PLUS® JR - PREMIUM SIMPLEX SYSTEMS

ENGINEERING DATA



PERFORMANCE DATA



FLOAT AND ECM™ ASSEMBLIES



| Float Assemblies | | |
|------------------|-----------|--------------------------------------|
| Item No. | Model No. | Description |
| 513633 | PPJFNA | Junior Float Assy, No Alarm Hardware |
| 513634 | PPJFWA | Junior Float Assy, W/Alarm Hardware |

| ECM™ Assemblies | | |
|-----------------|-----------|------------------------------------|
| Item No. | Model No. | Description |
| 513637 | PPJENA | Junior ECM Assy, No Alarm Hardware |
| 513638 | PPJEWA | Junior ECM Assy, W/Alarm Hardware |

PIT+PLUS® SR - PREMIUM SIMPLEX SYSTEMS

APPLICATIONS

Collection of sewage, drainage or seepage water

FEATURES

- Roto-molded polyethylene basin 20" x 30" (51 cm x 76 cm)
- Radial rib design for extra strength
- Molded inlet hub
- Molded anti-torque stops
- 360° molded handle
- Integrated anti-floatation collar
- Optional alarm versions
- Pre-assembled
- Functional and aesthetic finish cover
- Pump access cover
- Recessed discharge and vent location
- Independent recessed switch module
- Monolithic molded basin top
- Switch cord grips and locators for directional control
- 4/10 hp or 1/2 hp sewage pump option available



Patent Pending

SERIES SPECIFICATIONS

| Item No. | Model No. | Vent | Discharge | Switch Type | Alarm | HP | Pump Item No. | Pump Model No. | Pump Voltage |
|----------|------------|------|-----------|-------------|----------------|------|---------------|----------------|--------------|
| 509661 | 9SF2V2D | 2" | 2" | Float | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 509662 | 9SF2V2DA1 | 2" | 2" | Float | Indoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509663 | 9SF2V2DA3 | 2" | 2" | Float | Indoor/Outdoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509667 | 9SF3V2D | 3" | 2" | Float | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 509668 | 9SF3V2DA1 | 3" | 2" | Float | Indoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509669 | 9SF3V2DA3 | 3" | 2" | Float | Indoor/Outdoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 509685 | 9SP2V2D | 2" | 2" | ECM | - | 4/10 | 509413 | 9SC-CIM | 115 |
| 509686 | 9SP2V2DA1 | 2" | 2" | ECM | Indoor | 4/10 | 509413 | 9SC-CIM | 115 |
| 511661 | 10SF2V2D | 2" | 2" | Float | - | 1/2 | 511432 | 10SC-CIM | 115 |
| 511662 | 10SF2V2DA1 | 2" | 2" | Float | Indoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511663 | 10SF2V2DA3 | 2" | 2" | Float | Indoor/Outdoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511664 | 10SF2V3D | 2" | 3" | Float | - | 1/2 | 511435 | 10SC-CIM | 115 |
| 511665 | 10SF2V3DA1 | 2" | 3" | Float | Indoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511666 | 10SF2V3DA3 | 2" | 3" | Float | Indoor/Outdoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511667 | 10SF3V2D | 3" | 2" | Float | - | 1/2 | 511432 | 10SC-CIM | 115 |
| 511668 | 10SF3V2DA1 | 3" | 2" | Float | Indoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511669 | 10SF3V2DA3 | 3" | 2" | Float | Indoor/Outdoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511670 | 10SF3V3D | 3" | 3" | Float | - | 1/2 | 511432 | 10SC-CIM | 115 |
| 511671 | 10SF3V3DA1 | 3" | 3" | Float | Indoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511672 | 10SF3V3DA3 | 3" | 3" | Float | Indoor/Outdoor | 1/2 | 511435 | 10SC-CIM | 115 |
| 511685 | 10SP2V2D | 2" | 2" | ECM | - | 1/2 | 511435 | 10SC-CIM | 115 |
| 511686 | 10SP2V2DA1 | 2" | 2" | ECM | Indoor | 1/2 | 511432 | 10SC-CIM | 115 |
| 511689 | 10SP2V3D | 2" | 3" | ECM | - | 1/2 | 511435 | 10SC-CIM | 115 |

Note: Check valve not included.



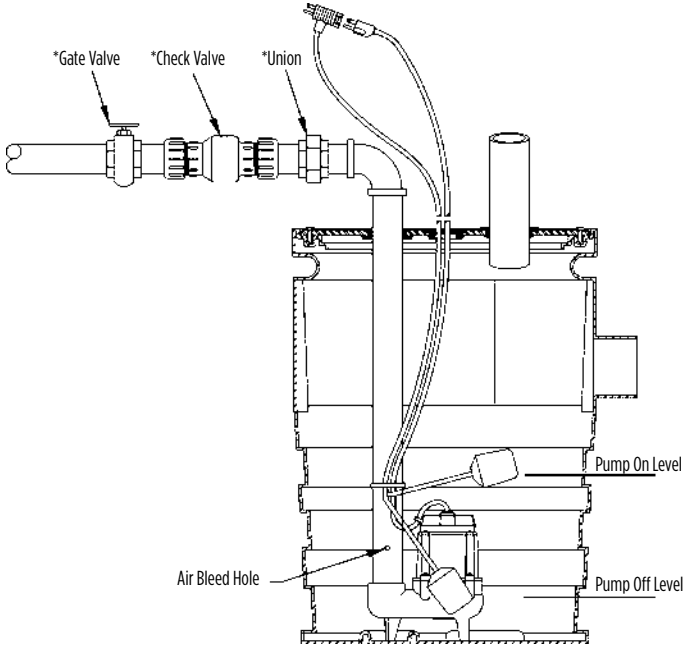
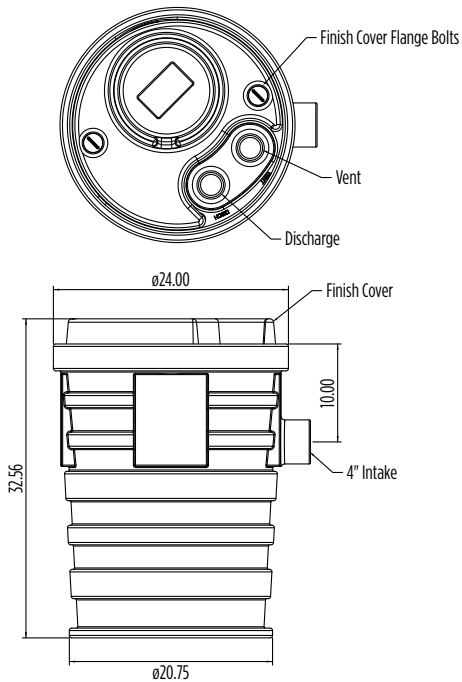
| Basin Assemblies | | | |
|------------------|-----------|------|-----------|
| Item No. | Model No. | Vent | Discharge |
| 513611 | PPS2V2D | 2" | 2" |
| 513612 | PPS2V3D | 2" | 3" |
| 513613 | PPS3V3D | 3" | 3" |
| 513614 | PPS3V2D | 3" | 2" |

Note: Pump and switch assembly not included.

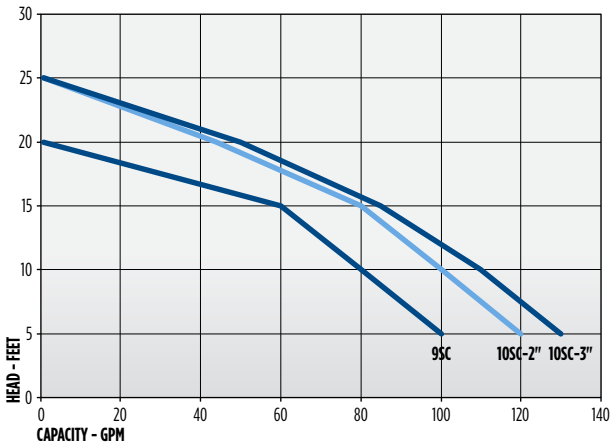
| Replacement Cover and Hardware Kits | |
|-------------------------------------|--|
| Item No. | Description |
| 113388 | Includes replacement bolts, washers, gasket, and wing bolts for finish cover |
| 113389 | Includes replacement main basin cover, bolts, washers, gasket, and wing bolts for finish cover |

PIT+PLUS® - PREMIUM SIMPLEX SYSTEMS

ENGINEERING DATA



PERFORMANCE DATA



FLOAT AND ECM™ ASSEMBLIES



| Float Assemblies | | |
|------------------|-----------|--------------------------------------|
| Item No. | Model No. | Description |
| 513631 | PPSFNA | Senior Float Assy, No Alarm Hardware |
| 513632 | PPSFWA | Senior Float Assy, W/Alarm Hardware |

| ECM™ Assemblies | | |
|-----------------|-----------|------------------------------------|
| Item No. | Model No. | Description |
| 513635 | PPSENA | Senior ECM Assy, No Alarm Hardware |
| 513636 | PPSEWA | Senior ECM Assy, W/Alarm Hardware |

SIMPLEX AND DUPLEX SYSTEMS

APPLICATIONS

Collection of sewage, effluent, drainage or seepage water

FEATURES

- Basins available in high density polyethylene structural foam [18" (46 cm), 24" (61 cm), and 30" (76 cm) dia.] or fiberglass [36" (91 cm) dia]
- Complete with necessary sealing hardware and flanges
- Available with 2" or 3" (51 mm or 76 mm) vent or discharge flange
- 4" inlet hub is included with the basin
- Watertight and gas-tight when properly installed
- Durable steel gasketed cover standard on simplex and duplex basins
- One-piece, seam-free construction on basin
- Duplex covers include two access plates
- Ready-to-install for simple and economical installation
- Temperature rated up to 130 °F (54.4 °C)



9S-SMPX

14S-DPLX

SERIES SPECIFICATIONS

PRE-PACKAGED SIMPLEX SYSTEMS (ASSEMBLY REQUIRED)

| Item No. | Model | Basin | | | Cover | | | | | Pump | | | Check Valve |
|----------|-------------|----------------------------|-----------------|------------------------------------|---------|-----------------|----------|----------------------------|-------------|---------|------------|---------|----------------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Flanges | Vent | Discharge | Pump No | Pump Volts | Pump HP | |
| 509007 | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 1-Piece | Steel | Slip-Fit | 2" 51 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509008 | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509009 | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Slip-Fit | 2" 51 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509041 | 9E-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 509801 | 115 | 4/10 | 940022 2" - 51 mm |
| 509042* | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509044 | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509045 | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509047 | 9S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 509068 | 9S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 509412 | 115 | 4/10 | - |
| 509072 | 9S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | 2" or 3" | 2" or 3" | 2" 51 mm | 509412 | 115 | 4/10 | 940026 2" - 51 mm |
| 509074 | 9S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 509412 | 115 | 4/10 | 940022 2" - 51 mm |
| 511017 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Slip-Fit | 2" 51 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" - 51 mm |
| 511018 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 1-Piece | Steel | Slip-Fit | 2" 51 mm | 2" 51 mm | 511431 | 115 | 1/2 | 940022 2" - 51 mm |

Note: Other configurations are available. Please contact factory for information on package requirements not shown here.

* Inlet hole is not pre-cut † Includes CVBV-2 (599160) check/ball combination ‡ Includes HWAB high water alarm (513288)

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

PRE-PACKAGED SIMPLEX SYSTEMS (ASSEMBLY REQUIRED) [CONTINUED]

| Item No. | Model | Basin | | | Cover | | | | | Pump | | | Check Valve |
|----------|--------------|----------------------------|-----------------|------------------------------------|---------|-----------------|----------|----------------------------|----------------------------|---------|------------|---------|--------------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Flanges | Vent | Discharge | Pump No | Pump Volts | Pump HP | |
| 509040 | 9-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-In Vinyl | 1-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 509412 | 115 | 4/10 | - |
| 511019 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 1-Piece | Steel | Slip-Fit | 2" 51 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511042 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511044 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511045 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511046 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511047 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511051 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm | 511435 | 115 | 1/2 | 940023 3" 76 mm |
| 511054 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm | 511437 | 115 | 1/2 | 940023 3" 76 mm |
| 511055 | 10S-SMPX | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm | 511437 | 115 | 1/2 | 940023 3" 76 mm |
| 511065 | 10S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm |
| 511121 | 10S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" or 3" 51 mm or 76 mm | 511435 | 115 | 1/2 | 940023 3" 76 mm |

Note: Other configurations are available. Please contact factory for information on package requirements not shown here.

* Inlet hole is not pre-cut † Includes CVBV-2 (599160) check/ball combination ‡ Includes HWAB high water alarm (513288)

PRE-ASSEMBLED SIMPLEX SYSTEMS (READY TO INSTALL)

| Item No. | Model | Basin | | | Cover | | | | | Pump | | | Check Valve | Alarm |
|----------|---------------|----------------------------|---------------|------------------------------------|---------|-----------------|----------|----------------------------|----------------------------|---------|------------|---------|--------------------|-----------------------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Flanges | Vent | Discharge | Pump No | Pump Volts | Pump HP | | |
| 509067 | 9S-SMPXRTA-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940022 2" 51 mm | 513288 Indoor High Water |
| 509071 | 9S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940026 2" 51 mm | - |
| 509073 | 9S-SMPXRTA-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940022 2" 51 mm | - |
| 509079 | 9S-SMPXRTA-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940022 2" 51 mm | 513288 Indoor High Water |
| 511064 | 10S-SMPXRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" 51 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm | - |
| 511079 | 10S-SMPXRTA-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" or 3" 51 mm or 76 mm | 511433 | 115 | 1/2 | 940022 2" 51 mm | 513288 Indoor High Water |

Note: Other configurations are available. Please contact factory for information on package requirements not shown here.

* Inlet hole is not pre-cut † Includes CVBV-2 (599160) check/ball combination ‡ Includes HWAB high water alarm (513288)

BASIN & COVER ASSEMBLIES - SIMPLEX (PUMP NOT INCLUDED)

| Item No. | Model | Basin | | | Cover | | | | |
|----------|--------------|----------------------------|------------------|--------------------|---------|----------|---------|-------------|-------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Flanges | Vent | Discharge |
| 513100* | BS1830CS2V2D | 18" x 30" 46 cm x 76 cm | Structural Foam* | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513101 | BS1830CS2V2D | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513102 | BS1830CS3V2D | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |
| 513103 | BB1830CS2V2D | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513104 | BB1830CS3V2D | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |

* Inlet hole is not pre-cut

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

BASIN & COVER ASSEMBLIES - SIMPLEX SYSTEMS (PUMP NOT INCLUDED) [CONTINUED]

| Item No. | Model | Basin | | | Cover | | | | |
|----------|----------------|------------------------------|-----------------|------------------------------------|---------|-----------------|----------|----------------------------|----------------------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Flanges | Vent | Discharge |
| 51319 | BS1830CS2V2D | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513120 | BS1830CS2V3D | 18" x 30" 46 cm x 76 cm | Structural Foam | Cast Iron Hub | 2-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm |
| 513122 | BS1830CS2V3D | 18" x 30" 46 cm x 76 cm | Structural Foam | Snap-in Vinyl Hub | 2-Piece | Structural Foam | Bolt-On | 2" 51 mm | 3" 76 mm |
| 513128 | BB1830CS3V2D-K | 18" x 30" 46 cm x 76 cm | Fiberglass | Cast Iron Hub | 1-Piece | Steel | Slip-Fit | 3" 76 mm | 2" 51 mm |
| 513240 | BS1830CSRT-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" or 3" 51 mm or 76 mm |
| 513241* | BS1830CSRTNH-K | 18" x 30" 46 cm x 76 cm | Roll Top Poly | 4" Adaptaflex & Multi-tite Grommet | 1-Piece | Structural Foam | Slip-Fit | 2" or 3" 51 mm or 76 mm | 2" or 3" 51 mm or 76 mm |
| 513105 | BB2436CS2V2D | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Cast Iron | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513106 | BB2436CS3V2D | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |
| 513107 | BB2436CS2V3D | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm |
| 513108 | BB2436CS3V3D | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 3" 76 mm |
| 513144 | BB3036CS2V2D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513145 | BB3036CS3V2D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |
| 513146 | BB3036CS2V2D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm |
| 513147 | BB3036CS3V2D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 3" 76 mm |

* Inlet hole is not pre-cut

PRE-PACKAGED DUPLEX SYSTEMS (ASSEMBLY REQUIRED)

| Item No. | Model | Basin | | | Cover | | | | Pump | | | Check Valve | Control Panel |
|----------|----------|------------------------------|-----------------|--------------------|---------|----------|-------------|-------------|---------|------------|---------|----------------------|--------------------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Vent | Discharge | Pump No | Pump Volts | Pump HP | | |
| 14940697 | 9S-DPLX | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940699 | 10S-DPLX | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 511432 | 115 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940700 | 10S-DPLX | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 511438 | 208-230 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940701 | 10S-DPLX | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 3" 76mm | 511435 | 115 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940730 | 10S-DPLX | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 3" 76mm | 511436 | 208-230 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940702 | 9S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940704 | 10S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 511432 | 115 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940705 | 10S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 511438 | 208-230 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940706 | 10S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 511435 | 115 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940733 | 10S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 511436 | 208-230 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940707 | 14S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 514320 | 115 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

PRE-PACKAGED DUPLEX SYSTEMS (ASSEMBLY REQUIRED) [CONTINUED]

| Item No. | Model | Basin | | | Cover | | | | Pump | | | Check Valve | Control Panel |
|----------|----------|--------------------------------|-----------------|--------------------|---------|----------|-------------|-------------|----------|------------|---------|----------------------|--------------------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Vent | Discharge | Pump No | Pump Volts | Pump HP | | |
| 14940708 | 14S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 514321 | 208-240 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940709 | 14S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 514420 | 115 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940710 | 14S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 14940726 | 208-240 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940711 | 16S-DPLX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 514620 | 230 | 1 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940712 | 20S-DLPX | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 520100 | 208-230 | 2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940713 | 9S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 509413 | 115 | 4/10 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940736 | 10S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 511436 | 208-230 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940715 | 10S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 511432 | 115 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940716 | 10S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 511438 | 208-230 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940717 | 10S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 511435 | 115 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940718 | 14S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 514320 | 115 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940719 | 14S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 2" 51 mm | 2" 51 mm | 514321 | 208-240 | 1/2 | 940022 2" - 51 mm | 513258 1221W120H6A17A |
| 14940720 | 14S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 514420 | 115 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940737 | 14S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 14940726 | 208-240 | 1/2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940721 | 16S-DPLX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 514620 | 230 | 1 | 940023 3" - 76 mm | 513258 1221W120H6A17A |
| 14940722 | 20S-DLPX | 36" x 36" 91.4 cm x 91.4 cm | Structural Foam | Cast Iron | 1-Piece | Steel | 3" 76mm | 3" 76mm | 520100 | 208-230 | 2 | 940023 3" - 76 mm | 513258 1221W120H6A17A |

BASIN & COVER ASSEMBLIES - DUPLEX SYSTEMS (PUMP NOT INCLUDED)

| Item No. | Model | Basin | | | Cover | | | | |
|----------|--------------|--------------------------------|-----------------|--------------------|---------|----------|---------|-------------|-------------|
| | | Size | Style | Inlet Hub Included | Style | Material | Flanges | Vent | Discharge |
| 513129 | BB2436CD2V2D | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513130 | BB2436CD3V2D | 24" x 36" 61 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |
| 513148 | BB3036CS2V2D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513149 | BB3036CS3V2D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |
| 513150 | BB3036CD2V3D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm |
| 513151 | BB3036CS3V3D | 30" x 36" 76 cm x 91.4 cm | Structural Foam | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 3" 76 mm |
| 513117 | BB3636CD3V2D | 36" x 36" 91.4 cm x 91.4 cm | Fiberglass | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 2" 51 mm |
| 513118 | BB3636CD3V3D | 36" x 36" 91.4 cm x 91.4 cm | Fiberglass | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 3" 76 mm | 3" 76 mm |
| 513125 | BB3636CD2V2D | 36" x 36" 91.4 cm x 91.4 cm | Fiberglass | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 2" 51 mm |
| 513126 | BB3636CS2V3D | 36" x 36" 91.4 cm x 91.4 cm | Fiberglass | Cast Iron Hub | 1-Piece | Steel | Bolt-On | 2" 51 mm | 3" 76 mm |

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

Hub kits come complete with all hardware required for installation.

HUB KITS FOR 18" (46 CM) DIA. BASINS

| Item No. | Model |
|----------|------------------|
| 113072 | 4" vinyl hub |
| 113073 | 4" cast iron hub |
| 113077 | 6" cast iron hub |

HUB KITS FOR 24" (61 CM) DIA. BASINS

| Item No. | Model |
|----------|------------------|
| 113074 | 4" cast iron hub |
| 113078 | 6" cast iron hub |

HUB KITS FOR 30" (76 CM) DIA. BASINS

| Item No. | Model |
|----------|------------------|
| 113075 | 4" cast iron hub |

HUB KITS FOR 36" (91.4 CM) DIA. BASINS

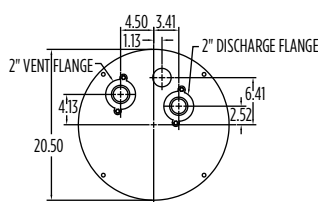
| Item No. | Model |
|----------|------------------|
| 113076 | 4" vinyl hub |
| 113081 | 8" cast iron hub |

FIBERGLASS BASIN RISERS/EXTENSIONS

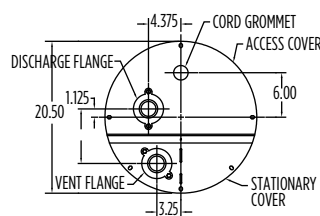
| Item No. | Dimensions |
|----------|------------|
| 115580 | 24"x6" |
| 115581 | 24"x12" |
| 115582 | 24"x18" |
| 115583 | 24"x24" |
| 115584 | 36"x12" |
| 115585 | 36"x18" |
| 115586 | 36"x24" |

ENGINEERING DATA

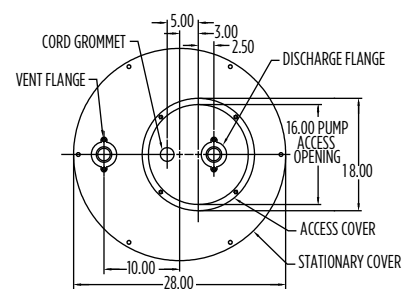
18" X 30" COVER



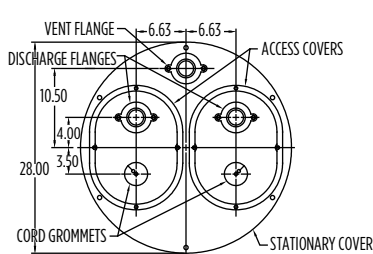
18" X 30" COVER



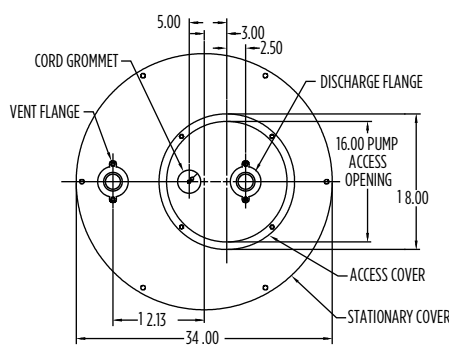
24" X 36" SIMPLEX COVER



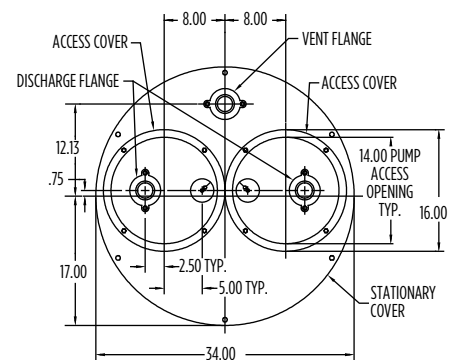
24" X 36" DUPLEX COVER



30" X 36" SIMPLEX COVER



30" X 36" DUPLEX COVER

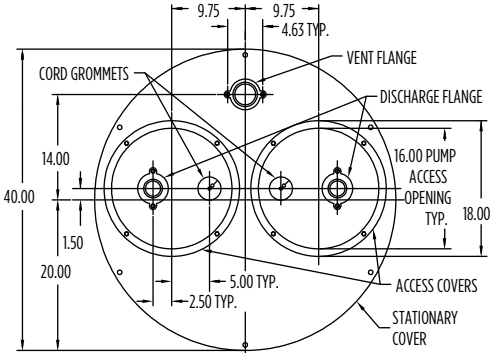


PACKAGE SYSTEMS

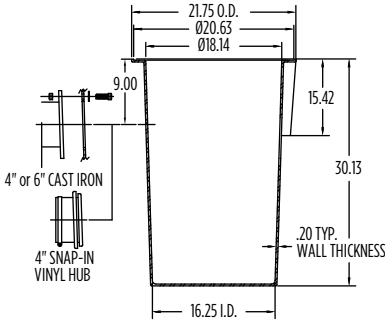
SIMPLEX AND DUPLEX SYSTEMS

ENGINEERING DATA

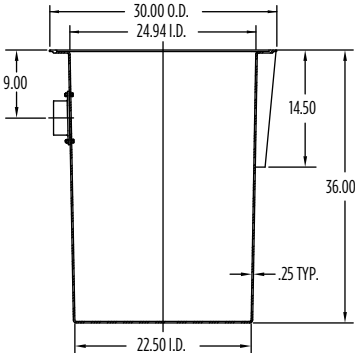
36" X 36" DUPLEX COVER



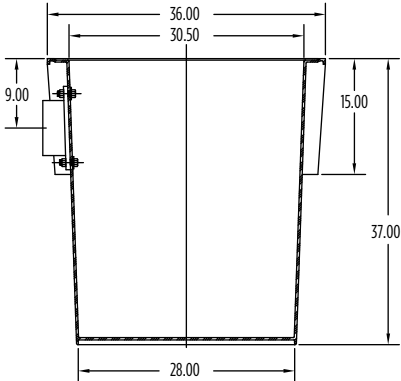
18" X 30" BASIN



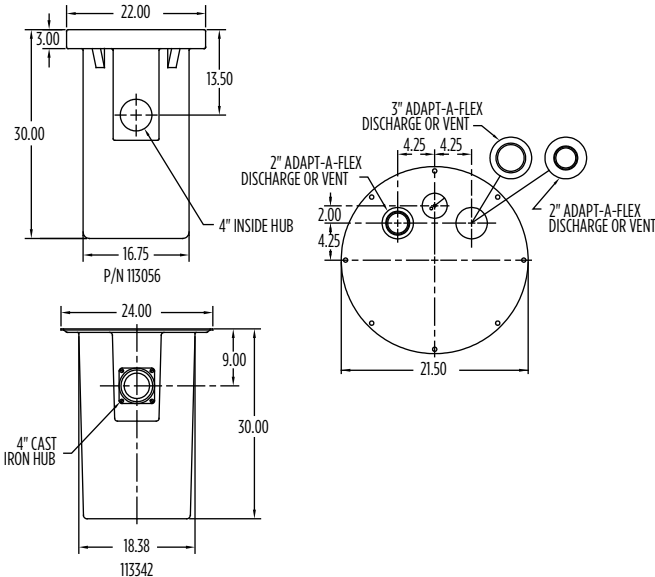
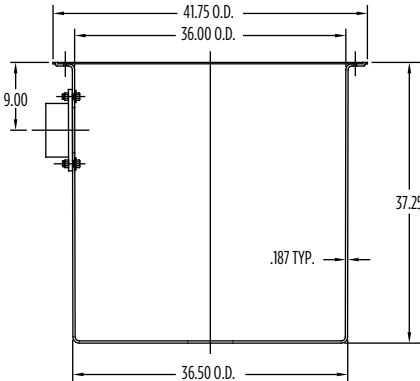
24" X 30" BASIN



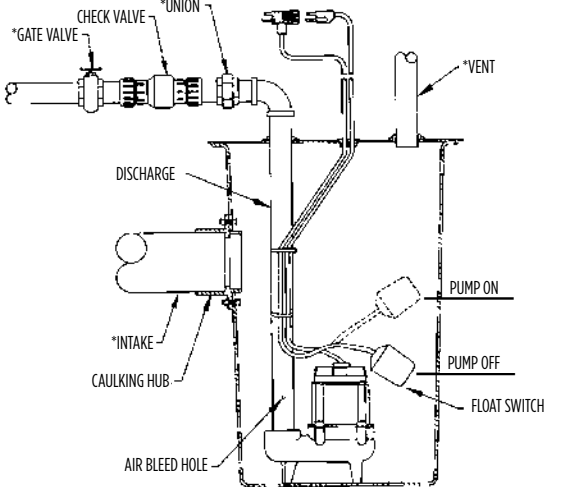
30" X 36" BASIN



36" X 36" BASIN



TYPICAL INSTALLATION



*PIPING NOT INCLUDED WITH PACKAGE

WCR SERIES WATER COLLECTION & REMOVAL SYSTEMS

APPLICATIONS

Collection of sewage, effluent, drainage or seepage water

FEATURES

- Pre-packaged 20" x 30" (51 cm x 76 cm) polyethylene basin with 4/10 hp sewage pump
- Handles up to 2" (51 mm) solids
- Options of structural foam or steel covers
- Includes schedule 40 PVC discharge piping with pre-drilled air-bleed hole
- Designed with side outlets for discharge and electrical cords
- Includes 2" (51 mm) bulkhead fitting to easily route power cords out of basin
- Once installed, no digging required for system servicing
- cCSAus listed pump only



SERIES SPECIFICATIONS

| Item No. | Model | Pump HP | Discharge | Check Valve | Cover | Volts | Pump Performance | Weight |
|----------|---------|---------|-------------|----------------|-----------------|-------|-----------------------------------|-------------------|
| 509081 | WCR-9SP | 4/10 | 2" 51 mm | 2" Slip x Slip | Structural Foam | 115 | 110 gpm @ 5' 416.4 lpm @ 1.5 m | 65 lbs 29.5 kg |
| 509082 | WCR-9SS | 4/10 | 2" 51 mm | 2" Slip x Slip | Steel | 115 | 110 gpm @ 5' 416.4 lpm @ 1.5 m | 69 lbs 29.5 kg |

PUMP SPECIFICATIONS

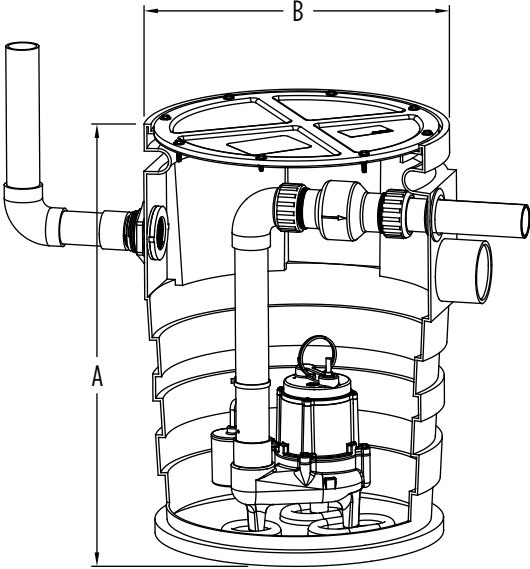
| Volts | Hz | Amps | Watts | GPM / Liters per Minute @ Height | | | Shut-Off | |
|-------|----|------|-------|----------------------------------|-------------|---------------|----------|------------|
| | | | | 5 ft / 1.5 m | 10 ft / 3 m | 15 ft / 4.6 m | ft / m | PSI / Bar |
| 115 | 60 | 8 | 870 | 100 / 379 | 80 / 303 | 60 / 227 | 20 / 6.1 | 8.7 / 0.60 |

| Item No. | Model | HP | Volts | Discharge | Switch Type / Operation | On Level | Off Level | Cord | Weight |
|----------|------------|------|-------|-----------|----------------------------|---------------------------------|----------------------------|--------------|---------------------|
| 509412 | 9SC-CIA-RF | 4/10 | 115 | 2" | Piggyback Mechanical Float | 9" - 14" 22.86 cm - 35.56 cm | 2" - 6" 5 cm - 15.24 cm | 20' 6.1 m | 35.5 lbs 16.1 Kg |

PACKAGE SYSTEMS

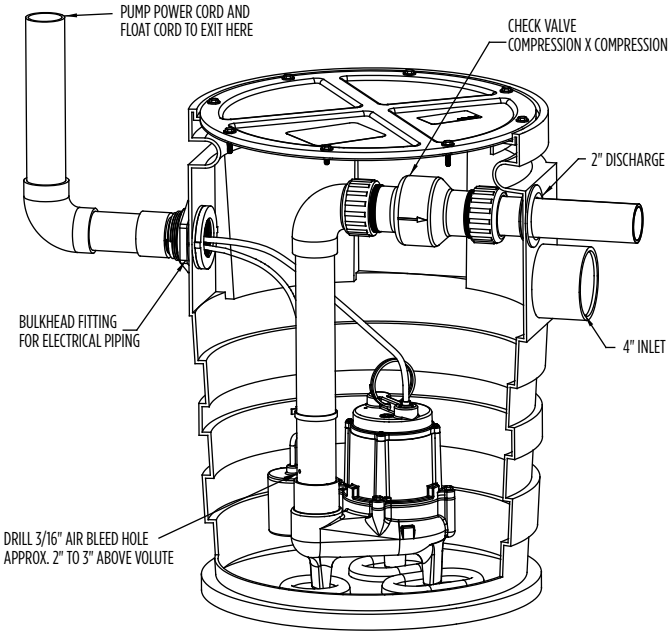
WCR SERIES - WATER COLLECTION & REMOVAL SYSTEMS

ENGINEERING DATA

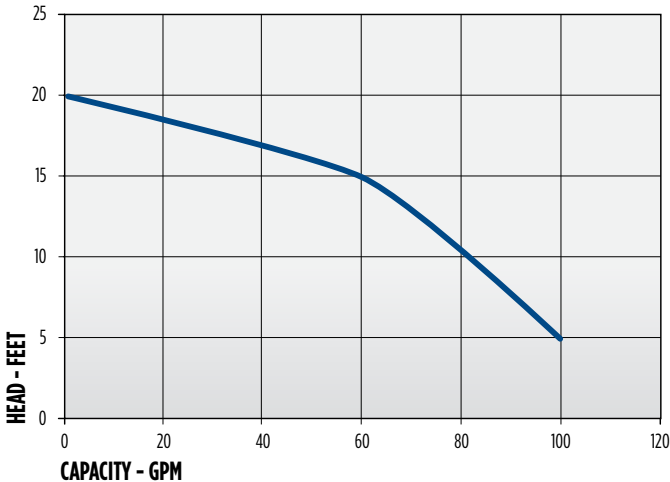


| A | B |
|---------------|----------------|
| 30" (76.2 cm) | 22" (55.88 cm) |

TYPICAL INSTALLATION



PERFORMANCE DATA



GP-M SERIES - 2 HP

APPLICATIONS

Ideal for residential sewage waste transfer where high head conditions exist

FEATURES

- Powerful 2 hp single-phase, 3450 rpm with capacitor start/run motor with built-in overload protection to prevent over-current and over-temperature damage
- High starting torque motor to handle the demands of grinding domestic sewage
- Externally mounted start components*
- Epoxy-coated cast iron finish for corrosion resistance and durability
- Mechanical seal: carbon/ceramic seals
- Deflection-resistant, short motor shaft
- Corrosion-resistant brass impeller minimizes downtime and maintenance
- Seven-vane, angled face, non-clogging balanced impeller
- Tight cutting clearances for superior cutting action, grinding 414,000 cuts per minute
- Compact, easy-to-lift pump

Shown with optional leg kit 599078 - GLK



(U.S. Patent No. 7,237,736)

SERIES SPECIFICATIONS

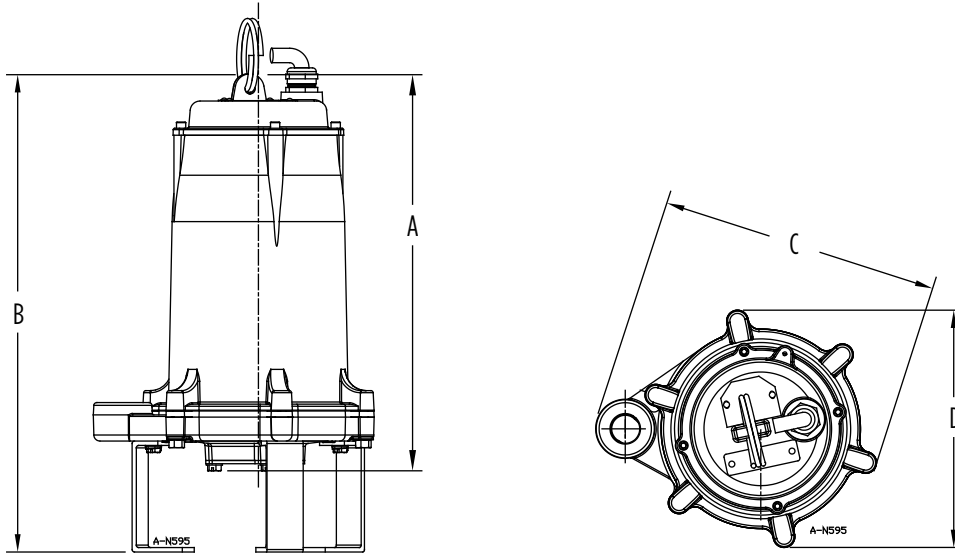
| Item No. | Model | Listing | HP | Volts | Hz | Phase | Full Load | | Performance (GPM @ Head) | | | | | | Shut-Off | PSI | Cord | Weight |
|----------|------------|---------|----|---------|----|-------|-----------|-------|--------------------------|-----|-----|-----|------|------|----------|-----|------|--------|
| | | | | | | | Amps | Watts | 20' | 40' | 60' | 80' | 100' | 120' | | | | |
| *520862 | GP-M231-15 | UL/CSA | 2 | 208-230 | 60 | 1 | 13.9 | 3200 | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 15 | 81 |
| *520864 | GP-M231-30 | UL/CSA | 2 | 208-230 | 60 | 1 | 13.9 | 3200 | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 30 | 82 |
| 520870 | GP-M233-30 | UL/CSA | 2 | 208-230 | 60 | 3 | 10.0 | 1300 | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 30 | 82 |
| 520871 | GP-M463-30 | UL/CSA | 2 | 460 | 60 | 3 | 4.5 | 1025 | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 30 | 82 |
| 520872 | GP-M575-30 | UL/CSA | 2 | 575 | 60 | 3 | 3.0 | 850 | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 30 | 82 |

The GP Series requires a specific control panel or capacitor kit from Little Giant matched to the pump for proper operation and third-party approval

GRINDER PUMPS

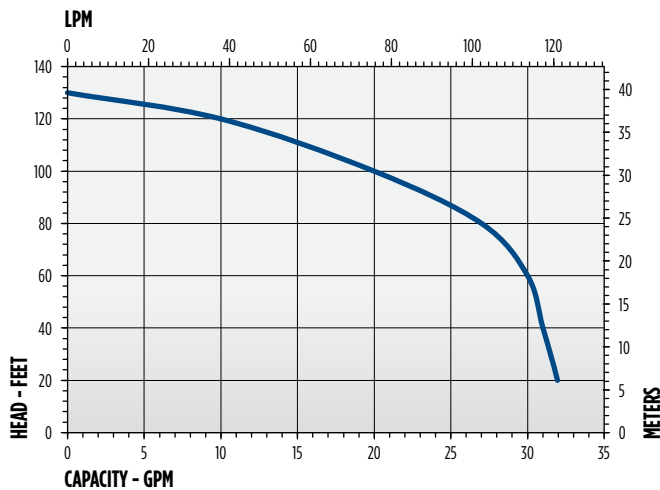
GP-M SERIES - 2 HP

ENGINEERING DATA



| Model | A | B | C | D |
|-------|------------------|--------------------|-------------------|-------------------|
| GP-M | 16.1" 40.9 cm | 19.39" 49.25 cm | 11.5" 29.21 cm | 9.62" 24.43 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|-----------------------------|--|
| Motor Cover | Cast iron with epoxy coating |
| Motor Cover O-Ring | Nitrile |
| Motor Design | Single-phase, capacitor start, capacitor run |
| Insulation Class | F |
| Overload Protection | Internal, on winding thermal protector |
| Motor Shaft | AISI 300 Series stainless steel |
| Ball Bearing - Upper | Single row ball, 6203 |
| Ball Bearing - Lower | Single row ball, 6306 |
| Seal Housing | Cast iron with epoxy coating |
| Mechanical Seal | Carbon/ceramic |
| Volute | Cast iron with epoxy coating |
| Impeller | Brass |
| Rotating Cutter | 2 blade design, AISI 440C stainless steel, through-hardened to Rockwell 55-60C |
| Stationary Cutter | AISI 440C stainless steel, hardened to Rockwell 55-60C |
| External Hardware | 300 Series stainless steel |
| Power Cable | Type SOW or SOW 14/3 AWG |

GP-A SERIES - 2 HP

APPLICATIONS

Ideal for residential sewage waste transfer where high head conditions exist

FEATURES

- Powerful 2 hp single-phase, 3450 rpm with capacitor start/run motor with built-in overload protection to prevent over-current and over-temperature damage
- High starting torque motor to handle the demands of grinding domestic sewage
- Start/Run components encased in oil-free chamber unique for easy access - requires no control panel
- Epoxy-coated cast iron finish for corrosion resistance and durability
- Mechanical seal: carbon/ceramic
- Deflection-resistant, short motor shaft
- Corrosion-resistant brass impeller
- Seven-vane, angled face, non-clogging impeller
- Tight cutting clearances for superior cutting action, grinding 414,000 cuts per minute
- Optional mechanical float switch for automatic operation
- Automatic operation with leg kit and tether at 9":
 - "On" 23" - 25"
 - "Off" 9" - 11"
- GLK - Grinder Leg Kit included



(U.S. Patent No. 7,237,736)

SERIES SPECIFICATIONS

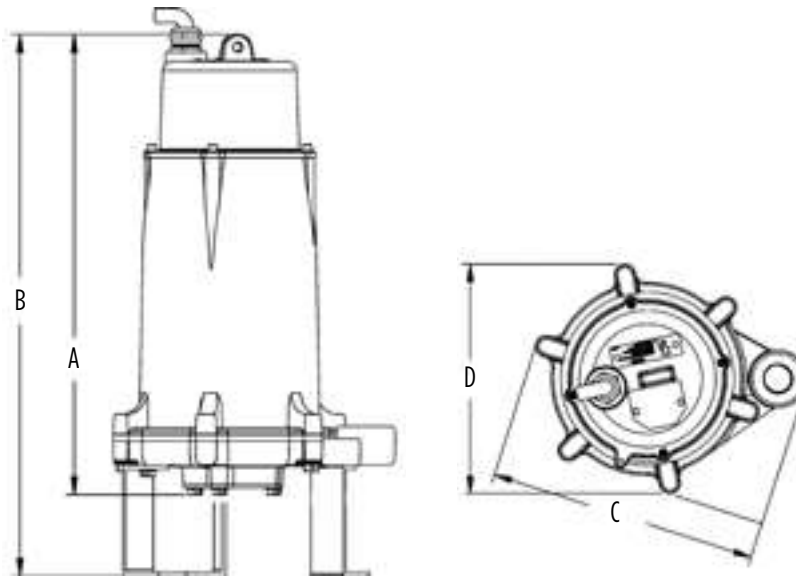
| Item No. | Model | HP | Volts | Hz | Phase | Full Load | | Switch Type/ Operation | Performance (GPM @ Height in Feet) | | | | | | Shut-Off (ft) | PSI | Cord | Weight |
|----------|------------|----|---------|----|-------|-----------|-------|---------------------------|---------------------------------------|-----|-----|-----|------|------|------------------|-----|--------------|--------------------|
| | | | | | | Amps | Watts | | 20' | 40' | 60' | 80' | 100' | 120' | | | | |
| 520861 | GP-A231-20 | 2 | 208-230 | 60 | 1 | 13.9 | 3200 | Mechanical Float | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 20' 6.1 m | 101 lbs 45.8 Kg |
| *520863 | GP-A231-30 | 2 | 208-230 | 60 | 1 | 13.9 | 3200 | - | 32 | 31 | 30 | 25 | 20 | 10 | 130 | 56 | 30' 9.1 m | 104 lbs 47.2 Kg |

*No float

GRINDER PUMPS

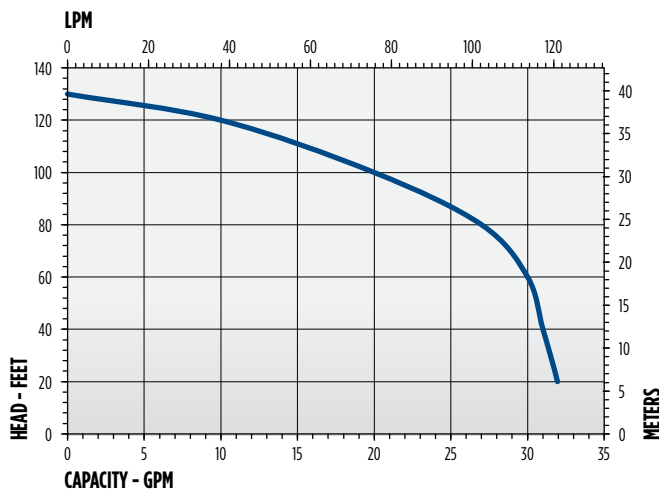
GP-A SERIES - 2 HP

ENGINEERING DATA



| Model | A | B | C | D |
|-------|--------------------|--------------------|-------------------|-------------------|
| GP-A | 18.61" 47.57 cm | 21.56" 54.76 cm | 11.5" 29.21 cm | 9.63" 24.46 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|-----------------------------|--|
| Motor Cover | Cast iron with epoxy coating |
| Motor Cover O-Ring | Nitrile |
| Motor Design | Single-phase, capacitor start, capacitor run |
| Insulation Class | F |
| Overload Protection | Internal, on winding thermal protector |
| Motor Shaft | AISI 300 Series stainless steel |
| Ball Bearing - Upper | Single row ball, 6203 |
| Ball Bearing - Lower | Single row ball, 6306 |
| Seal Housing | Cast iron with epoxy coating |
| Mechanical Seal | Carbon/ceramic |
| Volute | Cast iron with epoxy coating |
| Impeller | Brass |
| Rotating Cutter | 2 blade design, AISI 440C stainless steel, through-hardened to Rockwell 55-60C |
| Stationary Cutter | AISI 440C stainless steel, hardened to Rockwell 55-60C |
| External Hardware | 300 Series stainless steel |
| Power Cable | Type SOW or SOW 14/3 AWG |

SIMPLEX GRINDER PACKAGES

APPLICATIONS

Low pressure sewer applications, sewage wastewater transfer for light commercial or residential applications

FEATURES

PUMP FEATURES

- Powerful 2 hp single-phase, 3450 rpm with capacitor start/run motor with built-in overload protection to prevent over-current and over-temperature damage
- High starting torque motor to handle the demands of grinding domestic sewage
- Epoxy-coated cast iron finish for corrosion resistance and durability
- Designed with a seven-vane, angled face, non-clogging, balanced brass impeller
- Tight cutting clearances for superior cutting action, grinding 414,000 cuts per minute

SYSTEM FEATURES

- Control panel with integral pump starting components
- Three control float switches, On, Off, and High Water Alarm
- Stainless steel float bracket
- Junction box
- Check valve
- Basins are heavy-duty fiberglass material. Simplex basins are 24" diameter, and are available in 60", 72", and 84" depths
- 4" adapt-a-flex inlet grommet
- Structural foam cover, stainless steel rail system with sealing flange, discharge pipe disconnect, stainless steel lifting chain, ball check valve, and shut-off valve
- Easy-to-follow installation instructions



SERIES SPECIFICATIONS

SIMPLEX GRINDER PACKAGE SYSTEM**

| Item No. | Model | Basin | | | | |
|----------|-------------|-------------------------------|-----------------|--|------------|-------------|
| | | Size | Height | Discharge Center Line (Installed from top) | Style | Description |
| 520827 | GP-SMPX2460 | 24" x 60" 61 cm x 152.4 cm | 60" 152.4 cm | 24" 61 cm | Fiberglass | BS2460FG |
| 520828 | GP-SMPX2472 | 24" x 72" 61 cm x 183 cm | 72" 183 cm | 36" 91.4 cm | Fiberglass | BS2472FG |
| 520829 | GP-SPMX2484 | 24" x 84" 61 cm x 213.4 cm | 84" 213.4 cm | 48" 121.9 cm | Fiberglass | BS2484FG |

** Multiple Grinder Package configurations and Basin/Cover assemblies available. Please call 1.866.271.2859 for information on additional package specifications not shown here.

PUMPS

| Item No. | Model | Volts |
|----------|------------|---------|
| 520862 | GP-M231-15 | 208-230 |

CONTROL FLOATS

| Item No. | Model | Volts |
|----------|-------|---------|
| 950266 | CFSS | 115/230 |

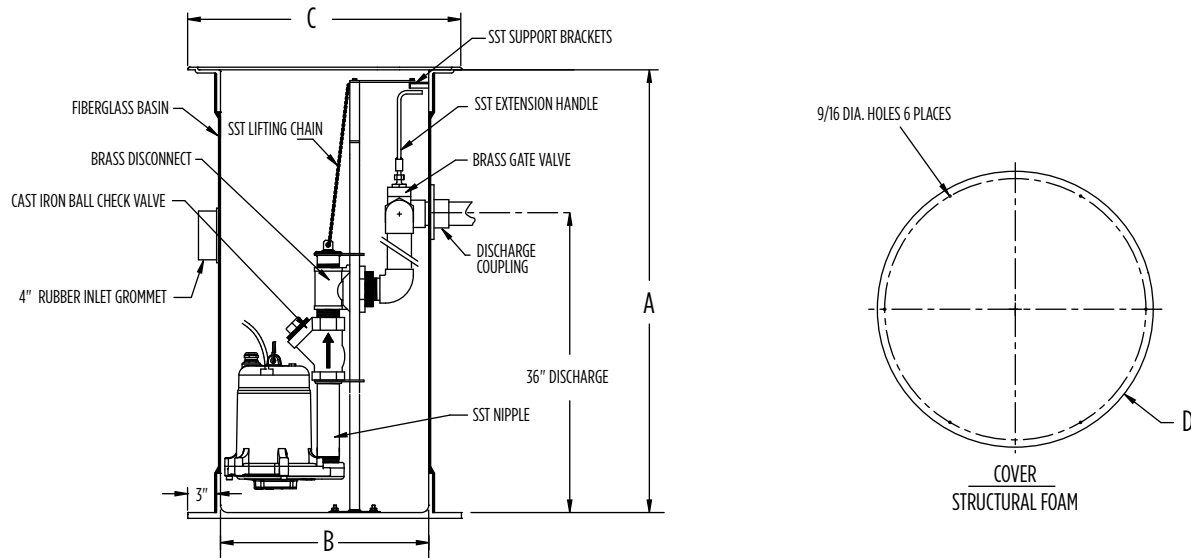
CONTROL PANEL

| Item No. | Model | Volts |
|----------|----------------|---------|
| 513354 | A-SF230CBG-215 | 208/230 |

GRINDER PACKAGES

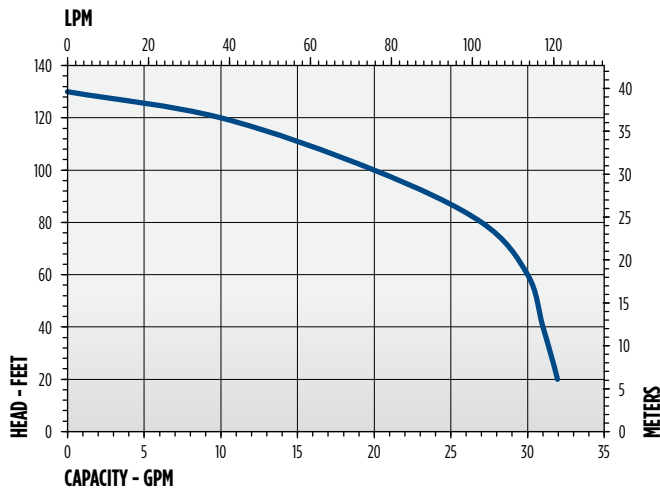
SIMPLEX GRINDER PACKAGES

ENGINEERING DATA



| Item No. | Model | A | B | C | D |
|----------|-------------|------------------|-----------------|----------------|-----------------|
| 520827 | GP-SMPX2460 | 60" 152.4 cm | 24" 60.96 cm | 30" 76.2 cm | 28" 71.12 cm |
| 520828 | GP-SMPX2472 | 72" 182.88 cm | 24" 60.96 cm | 30" 76.2 cm | 28" 71.12 cm |
| 520829 | GP-SPMX2484 | 84" 213.36 cm | 24" 60.96 cm | 30" 76.2 cm | 28" 71.12 cm |

PUMP PERFORMANCE DATA



DUPLEX GRINDER PACKAGES

APPLICATIONS

Low pressure sewer applications, sewage wastewater transfer for light commercial or residential applications

FEATURES

PUMP FEATURES

- Two powerful 2 hp single-phase, 3450 rpm with capacitor start/run motor with built-in overload protection to prevent over-current and over-temperature damage
- High starting torque motor to handle the demands of grinding domestic sewage
- Epoxy-coated cast iron finish for corrosion resistance and durability
- Designed with a seven-vane, angled face, non-clogging, balanced brass impeller
- Tight cutting clearances for superior cutting action, grinding 414,000 cuts per minute

SYSTEM FEATURES

- Two cast iron ball check valves
- Control panel with integral pump starting components
- Four control float switches
- Stainless steel float bracket
- Junction box
- Basins are heavy-duty fiberglass material. Duplex basins are 36" and 48" diameter, and are available in 48", 60", 72", 84", 96", 108", and 120" depths
- 4" Adapt-A-Flex inlet grommet
- Solid fiberglass cover, stainless steel rail system with sealing flange, discharge pipe disconnect, stainless steel lifting chain, ball check valve, and shut-off valve
- Easy-to-follow installation instructions



SERIES SPECIFICATIONS

DUPLEX GRINDER PACKAGE SYSTEM**

| Item No. | Model | Basin | | | | |
|----------|--------------|----------------------------------|------------------|--|------------|-------------|
| | | Size | Height | Discharge Center Line (Installed from top) | Style | Description |
| 520840 | GP-DPLX3648 | 36" x 48" 91.4 cm x 121.9 cm | 48" 121.9 cm | 12" 30.5 cm | Fiberglass | BS3648FG |
| 520841 | GP-DPLX3660 | 36" x 60" 91.4 cm x 152.4 cm | 60" 152.4 cm | 36" 91.4 cm | Fiberglass | BS3660FG |
| 520842 | GP-DPLX3672 | 36" x 72" 91.4 cm x 182.9 cm | 72" 182.9 cm | 36" 91.4 cm | Fiberglass | BS3672FG |
| 520843 | GP-DPLX3684 | 36" x 84" 91.4 cm x 213.4 cm | 84" 213.4 cm | 36" 91.4 cm | Fiberglass | BS3684FG |
| 520844 | GP-DPLX3696 | 36" x 96" 91.4 cm x 243.8 cm | 96" 243.8 cm | 36" 91.4 cm | Fiberglass | BS3696FG |
| 520845 | GP-DPLX36108 | 36" x 108" 91.4 cm x 274.3 cm | 108" 274.3 cm | 48" 121.9 cm | Fiberglass | BS36108FG |
| 520846 | GP-DPLX36120 | 36" x 120" 91.4 cm x 304.8 cm | 120" 304.8 cm | 48" 121.9 cm | Fiberglass | BS36120FG |
| 520849 | GP-DPLX4848 | 48" x 48" 121.9 cm x 121.9 cm | 48" 121.9 cm | 12" 30.5 cm | Fiberglass | BS4848FG |

** Multiple Grinder Package configurations and Basin/Cover assemblies available. Please call 1.866.271.2859 for information on additional package specifications not shown here.

PUMPS

| Item No. | Model | Volts |
|----------|------------|---------|
| 520862 | GP-M231-15 | 208-230 |

CONTROL PANEL

| Item No. | Model | Volts |
|----------|---------|---------|
| 513355 | 1026540 | 208/230 |

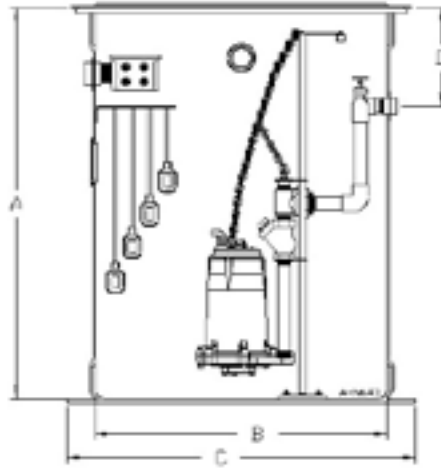
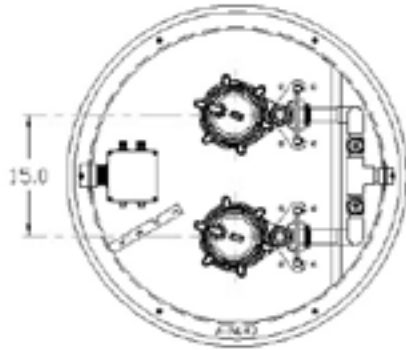
CONTROL FLOATS

| Item No. | Model | Volts |
|----------|-------|---------|
| 950266 | CFSW | 115/230 |

GRINDER PACKAGES

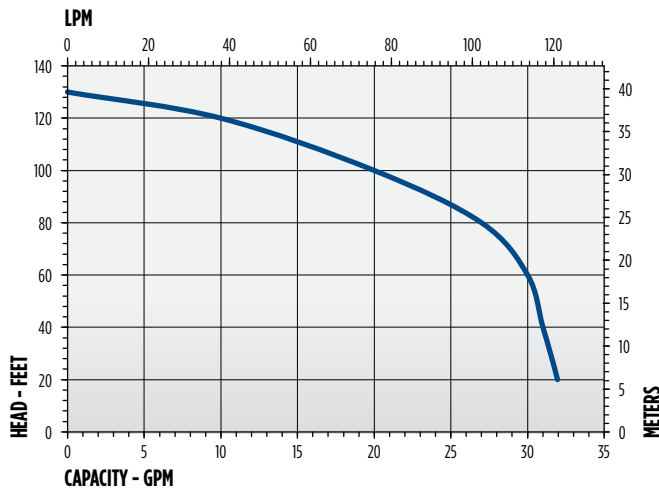
DUPLEX GRINDER PACKAGES

ENGINEERING DATA



| Item No. | Model | A | B | C | D |
|----------|--------------|------------------|------------------|------------------|------------------|
| 520840 | GP-DPLX3648 | 48" 122 cm | 36" 91.44 cm | 43" 109.22 cm | 12" 30.48 cm |
| 520841 | GP-DPLX3660 | 60" 152.4 cm | 36" 91.44 cm | 43" 109.22 cm | 36" 91.44 cm |
| 520842 | GP-DPLX3672 | 72" 182.88 cm | 36" 91.44 cm | 43" 109.22 cm | 36" 91.44 cm |
| 520843 | GP-DPLX3684 | 84" 213.36 cm | 36" 91.44 cm | 43" 109.22 cm | 36" 91.44 cm |
| 520844 | GP-DPLX3696 | 96" 243.8 cm | 36" 91.44 cm | 43" 109.22 cm | 36" 91.44 cm |
| 520845 | GP-DPLX36108 | 108" 274.3 cm | 36" 91.44 cm | 43" 109.22 cm | 48" 121.92 cm |
| 520846 | GP-DPLX36120 | 120" 304.8 cm | 36" 91.44 cm | 43" 109.22 cm | 48" 121.92 cm |
| 520849 | GP-DPLX4848 | 48" 121.9 cm | 48" 121.92 cm | 55" 139.7 cm | 12" 30.48 cm |

PUMP PERFORMANCE DATA



SIMPLEX HARD PIPED PACKAGES

APPLICATIONS

Low pressure sewer applications, sewage wastewater transfer for light commercial or residential applications

FEATURES

- Fiberglass basin comes configured with hard pipe installation
- 1-1/4" SCH 80 PVC check valve and ball valve
- SCH 80 PVC discharge piping with union disconnect
- 4" Adapt-A-Flex inlet
- 1-1/4" FNPT discharge flange factory installed
- Cover is ribbed structural foam
- 2 hp GP Series automatic grinder pump eliminates the need for a control panel



SERIES SPECIFICATIONS

SIMPLEX GRINDER HARD PIPED PACKAGE SYSTEM**

| Item No. | Model | Basin | | | Style | Description |
|----------|--------------|-------------------------------|-----------------|--|------------|-------------|
| | | Size | Height | Discharge Center Line (Installed from top) | | |
| 520824 | GP-SMPXFG-HP | 24" x 48" 61 cm x 121.9 cm | 48" 121.9 cm | 18" 45.7 cm | Fiberglass | BS2448FGHP |
| 520825 | GP-SMPXFG-HP | 24" x 60" 61 cm x 152.4 cm | 60" 152.4 cm | 18" 45.7 cm | Fiberglass | BS2460FGHP |
| 520826 | GP-SMPXFG-HP | 24" x 72" 61 cm x 182.9 cm | 72" 182.9 cm | 24" 60.96 cm | Fiberglass | BS2472FGHP |

** Multiple Grinder Package configurations and Basin/Cover assemblies available. Please call 1.800.701.7894 for information on additional package specifications not shown here.

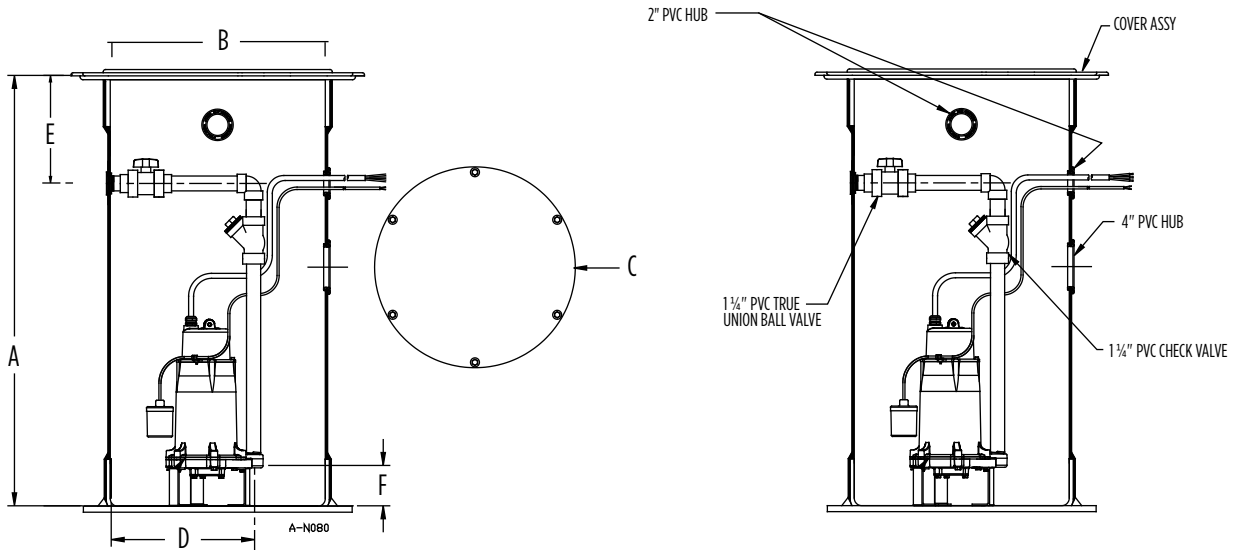
PUMP

| Item No. | Model | Volts |
|----------|------------|---------|
| 520861 | GP-A231-20 | 208-230 |

GRINDER PACKAGES

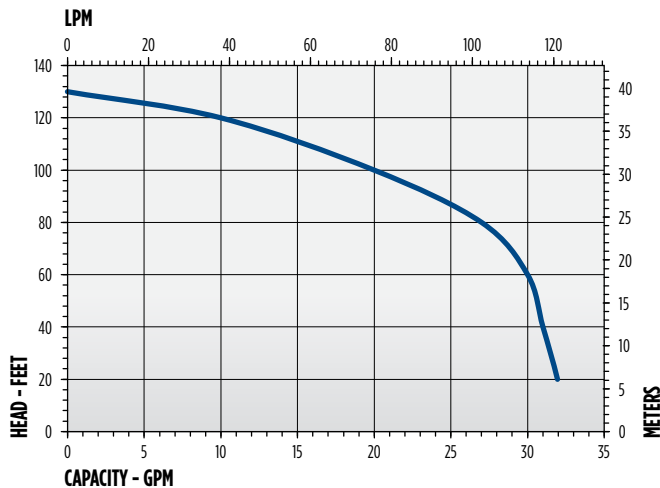
SIMPLEX HARD PIPED PACKAGES

ENGINEERING DATA



| Item No. | Model | A | B | C | D | E | F |
|----------|--------------|------------------|-----------------|----------------|-----------------|-----------------|---------------|
| 520824 | GP-SMPXFG-HP | 48" 122 cm | 24" 60.96 cm | 28" 71.2 cm | 16" 40.64 cm | 18" 45.72 cm | 5" 12.7 cm |
| 520825 | GP-SMPXFG-HP | 60" 152.4 cm | 24" 60.96 cm | 28" 71.2 cm | 16" 40.64 cm | 18" 45.72 cm | 5" 12.7 cm |
| 520826 | GP-SMPXFG-HP | 72" 182.88 cm | 24" 60.96 cm | 28" 71.2 cm | 16" 40.64 cm | 24" 60.96 cm | 5" 12.7 cm |

PUMP PERFORMANCE DATA



DUPLEX HARD PIPED PACKAGES

APPLICATIONS

Low pressure sewer applications, sewage wastewater transfer for light commercial or residential applications

FEATURES

- Basin is 36" x 48" heavy-duty fiberglass and solid fiberglass cover with non-skid surface
- Basin comes configured with hard pipe installation
- 1-1/4" SCH 80 PVC check valve and ball valve
- SCH 80 PVC discharge piping with union disconnect
- 4" Adapt-A-Flex inlet
- 1-1/4" FNPT discharge flange factory installed
- Control panel with integral pump starting components
- Two 2 hp GP Series grinder pumps
- Four weighted control floats



SERIES SPECIFICATIONS

DUPLEX GRINDER HARD PIPED PACKAGE SYSTEM**

| Item No. | Model | Basin | | | Style | Description |
|----------|--------------|-------------------------------|-----------------|--|------------|-------------|
| | | Size | Height | Discharge Center Line (Installed from top) | | |
| 520847 | GP-DPLXFG-HP | 36" x 48" 61 cm x 121.9 cm | 48" 121.9 cm | 12" 30.48 cm | Fiberglass | BS3648FGHP |

** Multiple Grinder Package configurations and Basin/Cover assemblies available. Please call 1.800.701.7894 for information on additional package specifications not shown here.

PUMP

| Item No. | Model | Volts |
|----------|------------|---------|
| 520862 | GP-M231-15 | 208-230 |

CONTROL PANEL

| Item No. | Model | Volts |
|----------|---------|---------|
| 513355 | 1026540 | 208/230 |

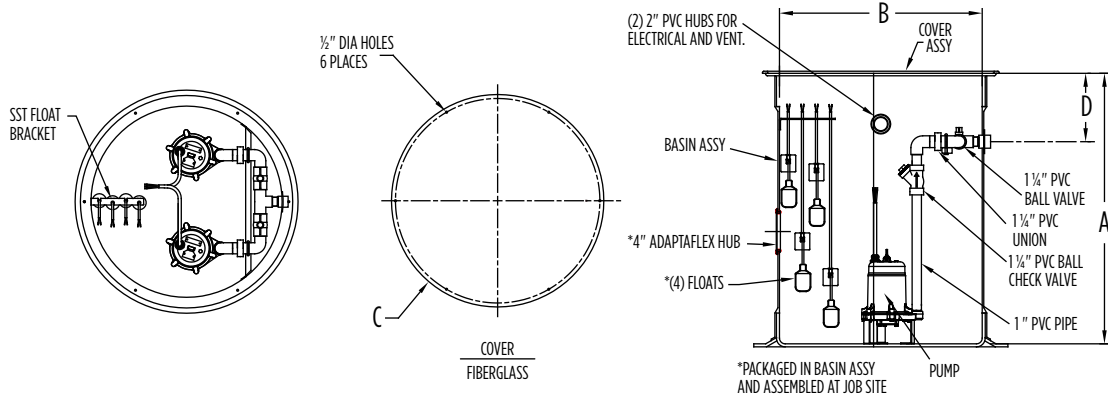
FLOATS

| Item No. | Model | Volts |
|----------|-------|---------|
| 950266 | CFSW | 115/230 |

GRINDER PACKAGES

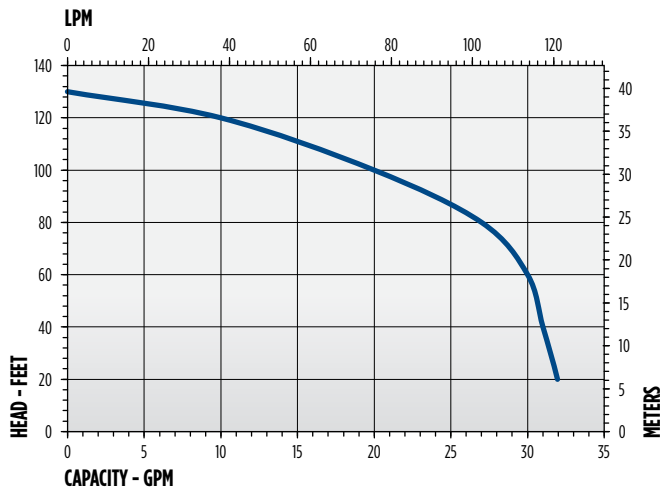
DUPLEX HARD PIPED PACKAGES

ENGINEERING DATA



| Item No. | Model | A | B | C | D |
|----------|-------------|---------------|-----------------|-----------------|-----------------|
| 520847 | GP-DPLX3660 | 48" 122 cm | 36" 91.44 cm | 40" 101.6 cm | 12" 30.48 cm |

PUMP PERFORMANCE DATA



GRINDER RETROFIT KIT

APPLICATIONS

Low pressure sewage, direct simplex replacement grinder for positive displacement grinder systems

FEATURES

- 2 hp 3450 rpm, high starting torque, automatic grinder pump with mechanical float switch
- Patented cutting system providing tight cutting clearances for superior cutting action grinding 414,000 cuts per minute
- Higher head capability to cover more applications
- 1-1/4" cast iron anti-siphon/check valve
- 1-1/4" NPT piping
- Adjustable alarm float switch preset at factory
- Watertight junction box for ease of installation
- Quick disconnect plug
- Rigid construction for ease of handling
- Fast, simple, and easy installation
- Epoxy-coated steel cover
- Telescoping discharge (520835 only)



SERIES SPECIFICATIONS

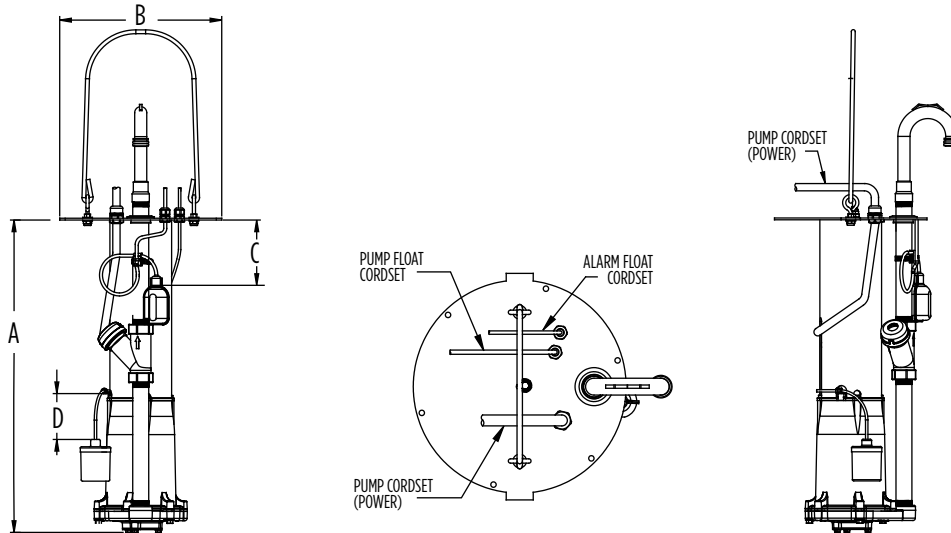
| Volts | Hz | Amps | | Watts | Performance (GPM @ Height in Feet) | | | | | Shut-Off (ft) | PSI |
|---------|----|------|-------|-------|------------------------------------|-----|-----|------|------|---------------|-----|
| | | FLA | Start | | 40' | 60' | 80' | 100' | 120' | | |
| 208-230 | 60 | 13.9 | 65 | 3200 | 31 | 30 | 25 | 20 | 10 | 130 | 56 |

| Item No. | Model | Volts | Switch Type/ Operation | On Level | Off Level | Cord | Weight |
|----------|-----------|---------|----------------------------|--------------------------------|---------------------------|--------------|---------------------|
| 520835 | GP-A-RFKT | 208-230 | Piggyback Mechanical Float | 23" - 25" 58.4 cm - 63.5 cm | 9" - 11" 23 cm - 28 cm | 20' 6.1 m | 135 lbs 61.23 Kg |
| 520836 | GP-A-RFK | 208-230 | Piggyback Mechanical Float | 23" - 25" 58.4 cm - 63.5 cm | 9" - 11" 23 cm - 28 cm | 20' 6.1 m | 135 lbs 61.23 Kg |

GRINDER PACKAGES

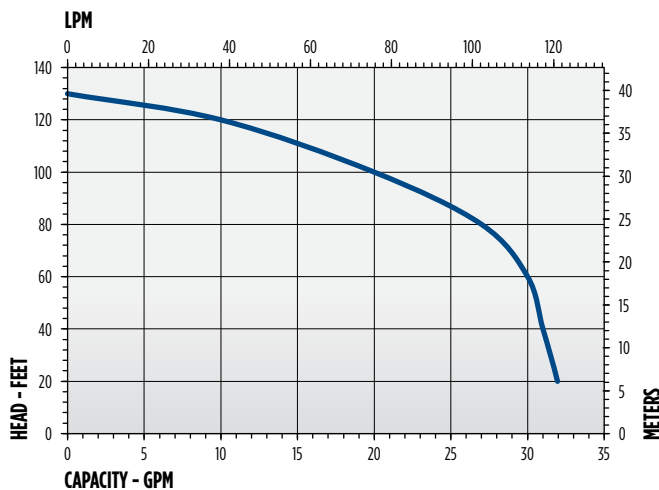
GRINDER RETROFIT KIT

ENGINEERING DATA



| Item No. | Model | A | B | C | D |
|----------|-----------|--------------------|--------------------|------------------|----------------|
| 520835 | GP-A-RFKT | 32.27" 81.97 cm | 16.75" 42.55 cm | 6.5" 16.51 cm | 8" 20.30 cm |
| 520836 | GP-A-RFK | 32.27" 81.97 cm | 16.75" 42.55 cm | 6.5" 16.51 cm | 8" 20.30 cm |

PERFORMANCE DATA



CONSTRUCTION

| | |
|-----------------------------|--|
| Motor Cover | Cast iron with epoxy coating |
| Motor Cover O-Ring | Nitrile |
| Motor Design | Single-phase, capacitor start, capacitor run |
| Insulation Class | F |
| Overload Protection | Internal, on winding thermal protector |
| Motor Shaft | AISI 300 Series stainless steel |
| Ball Bearing - Upper | Single row ball, 6203 |
| Ball Bearing - Lower | Single row ball, 6306 |
| Seal Housing | Cast iron with epoxy coating |
| Mechanical Seal | Carbon/ceramic |
| Volute | Cast iron with epoxy coating |
| Impeller | Brass |
| Rotating Cutter | Multi-blade design, AISI 440C stainless steel, through-hardened to Rockwell 55-60C |
| Stationary Cutter | AISI 440C stainless steel, hardened to Rockwell 55-60C |
| Power Cable | Type SOOW or SOW 14/3 AWG |

ACCESSORIES

PIGGYBACK DIAPHRAGM SWITCH

APPLICATIONS

- Converts manual pumps to automatic operation

FEATURES

- RS-5 converts any manual pump, up through 1/2 hp (115 V)
- RS-5-LL (low level) converts any manual pump, up through 1/3 hp (115 V)
- CSA listing



| Item No. | Model | Volts | Max. Amps | Cord | Mounted to 5-MSP pump | |
|----------|--------|-------|-----------|------------------------|----------------------------|-----------------------------------|
| | | | | | On Level | Off Level |
| 599008 | RS-5 | 115 | 10 | 10' 3 m | 6" - 9" 15.2 cm - 23 cm | 1" - 4" 2.5 cm - 10.2 cm |
| 599009 | RS-5 | 115 | 10 | 18' 5.5 m | | |
| 599010 | RS-5 | 230 | 10 | 8' 2.4 m (w/o plug) | | |
| 599014 | RS-5LL | 115 | 10 | 18' 5.5 m | 2" - 3" 5 cm - 7.6 cm | 1/2" - 1-1/2" 1.27 cm - 3.8 cm |
| 599019 | RS-5LL | 115 | 10 | 25' 7.6 m | | |

PIGGYBACK MECHANICAL VERTICAL FLOAT SWITCH

APPLICATIONS

- Converts manual pumps to automatic operation

FEATURES

- Converts any manual pump, up through 1/2 hp (115 V) or 1 hp (230 V)
- Adjustable pumping range from 6.5" (16.5 cm) to .75" (1.9 cm)
- Designed for use in confined areas
- Not sensitive to turbulence
- UL/CSA listing



| Item No. | Model | Volts | Max. Amps | Cord |
|----------|---------|---------|-----------|--------------|
| 599261 | RVMS-10 | 115/230 | 13 | 10' 3 m |
| 599262 | RVMS-15 | 115/230 | 13 | 15' 4.6 m |
| 599263 | RVMS-20 | 115/230 | 13 | 20' 6 m |

PIGGYBACK MECHANICAL FLOAT SWITCH

APPLICATIONS

- Converts any manual pump to automatic per ratings listed
- For use in water and sewage

FEATURES

- Adjustable pumping range
- Includes standard mounting clamp
- Heavy-duty contacts



| Item No. | Model | Connection | Cord Length | 115V, 60 Hz Single-Phase | | | 230 V, 60 Hz, Single-Phase | | | Max. Temp (°F) |
|----------|---------|----------------------|-------------|--------------------------|---------------|--------------------|----------------------------|---------------|--------------------|----------------|
| | | | | Max. HP | Max. Run Amps | Max. Starting Amps | Max. HP | Max. Run Amps | Max. Starting Amps | |
| 599118 | RFSN-6 | 115 V Piggyback Plug | 10' (3 m) | 1/2 | 13 | 85 | 1 | 13 | 85 | 140 |
| 599117 | RFSN-9 | 115 V Piggyback Plug | 15' (4.6 m) | 1/2 | 13 | 85 | 1 | 13 | 85 | 140 |
| 599128 | RFSN-9 | 230 V Piggyback Plug | 15' (4.6 m) | - | - | - | 1 | 13 | 85 | 140 |
| 599210 | RFSN-10 | 115 V Piggyback Plug | 20' (6 m) | 1/2 | 13 | 85 | 1 | 13 | 85 | 140 |
| 599119 | RFSN-10 | 115 V Piggyback Plug | 25' (7.6 m) | 1/2 | 13 | 85 | 1 | 15 | 85 | 140 |
| 599211 | RFSN-16 | 115 V Piggyback Plug | 20' (6 m) | 3/4 | 15 | 85 | 2 | 13 | 85 | 140 |
| 599318 | RFSN-20 | Stripped leads | 20' (6 m) | 1-1/2 | 20 | 120 | 3 | 20 | 120 | 120 |
| 599321 | RFSN-20 | Stripped leads | 30' (9.1 m) | 1-1/2 | 20 | 120 | 3 | 20 | 120 | 120 |


ACCESSORIES

DOUBLE-FLOAT PIGGYBACK MECHANICAL FLOAT SWITCH

APPLICATIONS

- Pump control

FEATURES

- Controls pumps up to 1 hp (120 V) and 2 hp (230 V)
- Adjustable pumping range of 1.75" (4.4 cm) to 48" (122 cm)
- Consists of two floats, one of which contains a holding relay, enabling the floats to function in series
-  and CSA listing



| Item No. | Model | Volts | Max. Amps |
|----------|-------------|----------------|-----------|
| 14940410 | 15DFMMD1WP | 115 | 13 |
| 14940411 | 15DFMMD2WOP | 230 (w/o plug) | 13 |

VERTICAL DIAPHRAGM SWITCH

APPLICATIONS

- For automatic control of a pump in water and sewage effluent applications

FEATURES

- Designed to operate in applications with limited space, such as small sump chambers
- These models feature either a 6" (15.2 cm) or 10" (25.4 cm) pumping range, max 1/2 hp, 13 amps
- UL and CSA listing



| Item No. | Model | Volts | Cord | Pumping Range |
|----------|------------|-------|--------------|----------------|
| 599188 | EDS-6-1-10 | 115 | 10' 3 m | 6" 15.2 mm |
| 599190 | EDS10-1-10 | 115 | 10' 3 m | 10" 25.4 mm |
| 599166 | VDS1506 | 115 | 15' 4.6 m | 6" 15.2 mm |
| 599169 | VDS1510 | 115 | 15' 4.6 m | 10" 25.4 mm |
| 599167 | VDS2010 | 115 | 20' 6 m | 10" 25.4 mm |

SUMP PUMP SWITCH REPAIR KIT

APPLICATIONS

- Switch repair kit

FEATURES

- Includes pressure switch bracket assembly, screw, diaphragm, and O-ring



| Item No. | Model | Volts | Housing |
|----------|-----------|--------------------------------|---------|
| 599300 | SPRK-1 | 6-CIA, 8-CIA, and 8-CBA | ✓ |
| 599310 | SPRK-1-ML | 6-CIA-ML (used in WRSC-6) | ✓ |
| 599320 | SPRK-2 | 5-ASP, 6-CIA, 8-CIA, and 8-CBA | - |
| 599314 | SPRK-2-ML | 6-CIA-ML (used in WRSC-6) | - |
| 599350 | SPRK-3 | 10-CIA and 12-CBA | - |

SUMP PUMP DISCHARGE KITS

APPLICATIONS

- Discharging water out of the basement sump

FEATURES

- Kit works with all types of sump pumps
- Kit includes 1-1/4" x 24' (31.7 mm x 7.3 m) corrugated polyethylene hose, ABS threaded 1-1/2" MNPT (38 mm) x 1-1/4" (31.7 mm) barbed adapter and 1-1/4" MNPT (31.7 mm) x 1-1/4" (31.7 mm) barbed adapter and galvanized steel clamp



| Item No. | Model | NPT |
|----------|-------|-------------------|
| 599303 | SPDK | 1-1/4" 31.7 mm |
| | | 1-1/2" 38 mm |

ACCESSORIES

HWAB ALARM

APPLICATIONS

- Indoor high water alarm

FEATURES

- NEMA 1 thermoplastic enclosure
- Mechanical float switch with 15 ft (4.6 m) cable
- Alarm has red LED warning light, horn with silence switch, and test button
- 9 VDC battery backup
- UL and CSA listing



| Item No. | Model | Volts | Cord |
|----------|-------|-------|--------------|
| 513288 | HWAB | 115 | 6' 1.83 m |

303HWXT ALARM

APPLICATIONS

- Indoor/outdoor high water alarm

FEATURES

- Type 3R watertight thermoplastic enclosure
- Mechanical float switch with 15 ft (4.6 m) cable
- Alarm has red warning light, horn with silence switch, and test button
- Includes pre-mounted terminal block so enclosure can also be used as a junction box
- UL and CSA listing



| Item No. | Model | Volts |
|----------|---------|-------|
| 513273 | 303HWXT | 115 |

INDOOR DUPLEX PUMP CONTROL ALTERNATOR AND ALARM SYSTEM

APPLICATIONS

- Switch repair kit

FEATURES

- Easy-to-install, NEMA 1, 3/4 hp device
- Low-cost alternative to conventional duplex control panels
- Operates two manual sump, sewage or effluent pumps
- Alternates to standby pump if energized pump fails to turn on
- Audible alarm and red light indicator
- Operates single-phase pumps with 15 max. run amps
- cULus listing



| Item No. | Model | Volts | Max. Amps | Cord |
|----------|---------|-------|-----------|---------------|
| 513289 | IDC-115 | 115 | 15 | 9.5' 2.9 m |

LOW VOLTAGE WATER ALARM

APPLICATIONS

- Remote water sensor and alarm
- Warns of leaks and overflows in bath, kitchen, laundry, attic, basement, or anywhere there is a potential for leaks to occur

FEATURES

- Remote sensor detects water and sounds alarm
- 85 decibel alarm sounds for three days
- Sensor and alarm can be placed up to 6 ft apart
- Sensor has both suction cup and adhesive to secure in place
- Includes wall mounting hardware
- Space saving design
- Circuit test/reset button ensures system is working
- Low battery signal when battery needs replaced
- Requires one 9 V battery (not included)



| Item No. | Model | Volts |
|----------|-------|-------|
| 513379 | HW-9 | 9V/DC |

ACCESSORIES

CONTROLS (SIMPLEX SYSTEMS)

APPLICATIONS

- Indoor/outdoor simplex alarm system and pump control

FEATURES

- Includes control panel with audible alarm, silence switch, and red alarm beacon
- Three floats, one each for high water, pump on and off
- Floats have 20 ft (6 m) power cords
- HOA switch offers either hand, off or automatic operations
- Two floats - pump on/off and alarm, 513257 only
- UL and C-UL listing



SINGLE-PHASE

| Item No. | Model | Volts | Hz | Amps |
|----------|--------------|-------------|----|-------|
| 513267 | 1121W120H17A | 120/208/230 | 60 | 15-20 |
| 513257 | 1151W200H17A | 115/230 | 60 | 0-15 |

THREE-PHASE

| Item No. | Model | Volts | Hz | Amps |
|----------|--------------|-------------|----|-------|
| 513265 | 3121W611H | 208/240 | 60 | 13-18 |
| 513282 | 3121W201H17A | 208/240/480 | 60 | 2.5-4 |
| 513284 | 3121W401H17A | 208/240/480 | 60 | 6-10 |
| 513286 | 3121W511H17A | 208/240/480 | 60 | 9-14 |
| 513307 | 3121W301H17A | 208/240/480 | 60 | 4-6.3 |

CONTROLS (DUPLEX SYSTEMS)

APPLICATIONS

- Indoor/outdoor duplex alarm system and pump control

FEATURES

- Includes duplex pump control and alarm devices
- Pump alternator
- Visual and audible alarm and light system with silence
- Three floats, one each for high water, pump on and pump off (513258 only)
- Floats have 20 ft (6 m) power cords
- HOA switch offers either hand, off or automatic operations
- UL and C-UL listing

SINGLE-PHASE

| Item No. | Model | Volts | Hz | Amps |
|----------|----------------|-------------|----|------|
| 513258 | 1221W120H6A17A | 120/208/230 | 60 | 0-20 |
| 14940605 | 1221W120X6A | 120/208/230 | 60 | 0-20 |

THREE-PHASE

| Item No. | Model | Volts | Hz | Amps |
|----------|--------------|-------------|----|-------|
| 513283 | 3221W201H17A | 208/240/480 | 60 | 2.5-4 |
| 513285 | 3221W401H17A | 208/240/480 | 60 | 6-10 |
| 513287 | 3221W511H17A | 208/240/480 | 60 | 9-14 |
| 513266 | 3221W611H17A | 208/240/480 | 60 | 13-18 |
| 513308 | 3221W301H17A | 208/240/480 | 60 | 4-6.3 |

JUNCTION BOXES

APPLICATIONS

- Provides a convenient location to connect all wiring required for a typical pumping station, on-site system, or other electrical installation

FEATURES

- NEMA 4X waterproof fiberglass thermoplastic enclosure



| Item No. | Model |
|----------|--------|
| 513281 | JB66-3 |

LG PLUGGER

APPLICATIONS

- For wiring a pumping station installation

FEATURES

- Utilizes a receptacle to accept a 120 V or 230 V piggyback plug and a pump plug
- Liquid-tight seal and strain relief for the cable entering the junction box from the pumping station
- Terminal strip that can be used for connecting an alarm system to the junction box
- UL and CSA listing



| Item No. | Model | Volts | Alarm | Float |
|----------|--------------|-------|---------|-------|
| 513290 | JPB120V | 120 | - | - |
| 513292 | JBP120V-TA1 | 120 | 101HW | Yes |
| 513295 | JBP230V-TAXT | 230 | 303HWXT | Yes |

ACCESSORIES

PUMP DISCONNECT

APPLICATIONS

- When discharge is no lower than 18" (46 cm) below grade or where guide rails are not necessary

FEATURES

- Non guide rail disconnect
- Point of discharge should be above the liquid level



| Item No. | Model | Disconnect |
|----------|-------|-------------|
| 513302 | PD-2 | 2" 51 mm |

GUIDE RAIL SYSTEM

APPLICATIONS

- For installations with a total depth of over 5 ft (1.5 m) when the discharge pipe is 18" (46 cm) or more below grade, particularly when the liquid level is above the discharge level*

FEATURES

- 3/4" (19 mm) IPS (iron pipe size) pipe rails should be used on the 1-1/4" (31.7 mm) and 2" (51 mm) system and 1-1/4" (31.7 mm) IPS pipe rail on the 3" (76 mm) system
- Brass foot guide supplied for use with steel pipe
- Guide rail brackets and steel stand-off brackets included with each system to support the upper end of the guide rail pipes
- One intermediate guide rail bracket is required for every 10 ft (3 m) of rail (guide rail pipes, lifting chain, and pull rod not included)



| Item No. | Model | Discharge |
|----------|-------------|-------------------|
| 513305 | GR-3/4-114D | 1-1/4" 31.7 mm |
| 513301 | GR-3/4 | 2" 51 mm |
| 513300 | GR-1-1/4 | 3" 76 mm |

All guide rail products can be used with any of the Franklin Electric, Little Giant effluent and sewage pumps having a 1-1/4" (31.7 mm), 2" (51 mm), or 3" (76 mm) discharge.

*NOTE: Not for duplex installations. For guide rail information on duplex installations, please consult the factory.

INTERMEDIATE GUIDE RAIL BRACKETS

APPLICATIONS

- For use with guide rail systems

| Item No. | Model | Guide Rail |
|----------|-----------|---|
| 513303 | IGR-3/4 | 3/4" 19 mm (for use with GR-3/4) |
| 513304 | IGR-1-1/4 | 1-1/4" 31.75 mm (for use with GR-1-1/4) |



SA-1 (SACRIFICIAL ANODE)

APPLICATIONS

- Magnesium accessory for use with aluminum-body pumps

FEATURES

- Provides corrosion protection
- Lead wire

| Item No. | Model | Wire |
|----------|-------|-------------|
| 599002 | SA-1 | 8" 20 cm |



ACCESSORIES

CORD CONNECTORS

APPLICATIONS

- Provides strain relief

FEATURES

- Cord connector is liquid tight
- Polyamide neoprene gland resists salt water, weak acids/alkalis and other chemicals



| Item No. | Model | Cord | Wire/Cable (AWG) |
|----------|-------|------------------------------------|--|
| 599207 | CC-1 | .270" to .480" 6.9 mm - 12.2 mm | 18/2, 18/3, 18/4, 16/2 16/3, 16/4, 14/2, 14/3 |
| 599213 | CC-3 | .545" to .709" 13.8 mm - 18 mm | 14/2, 14/3, 14/4, 12/2 12/3, 12/4, 10/2, 10/3 |

DISCHARGE ADAPTERS

APPLICATIONS

- Allows use of garden hose with utility and sump pumps

FEATURES

- Polypropylene, rust-resistant



| Item No. | Model | Size |
|----------|----------------------------------|--|
| 599030 | GH-1 Adapter (fits 5-MSP/ASP) | 1" MNPT x 3/4" GHT 2.54 mm x 19 mm |
| 599025 | GH-3/4 Adapter | 1-1/4" MNPT x 3/4" GHT 31.7 mm x 19 mm |
| 599026 | AD-6 Adapter (6-pk) | 1-1/2" MNPT x 1-1/4" FNPT 38 mm x 31.7 mm |

CAST IRON FULL FLOW CHECK VALVES

FEATURES

- Vertical or horizontal installation
- Full-flow design
- Stops backflow of water
- Rated at 50 psi (115 ft [35 m] head) at 130 °F (55 °C)
- Cast iron NPT



| Item No. | Model | Volts |
|----------|--------------|-----------------|
| 599132 | CVCI-11/2NPT | 1-1/2" 38 mm |
| 599133 | CVCI-2NPT | 2" 51 mm |
| 599134 | CVCI-3NPT | 3" 76 mm |

CAST IRON SLIP X SLIP UNION CHECK VALVE

FEATURES

- Vertical or horizontal installation
- Allows passage of 1-1/2" (38 mm) solids
- Checks backflow of water and sewer gas
- 2" (51 mm) ABS, PVC, steel pipe or copper piping
- Rated at 4.3 psi (10 ft [3 m] head) at 130 °F (55 °C)
- Cast iron NPT



| Item No. | Model |
|----------|--------|
| 599135 | CVCI-2 |

ACCESSORIES

CV-112 CHECK VALVE

FEATURES

- Universal check valve for sump pumps
- 1-1/2" MNPT (38 mm) x 1-1/2" (38 mm) ID tubing

| Item No. | Model | Material |
|----------|--------|----------|
| 577130 | CV-112 | PVC |



CV-114/112 CHECK VALVE

FEATURES

- Sump pump check valve fits both 1-1/4" (31.7 mm) and 1-1/2" (38 mm) pipe
- Full-flow, slip x slip design passes 1" (25.4 mm) solids

| Item No. | Model | Material |
|----------|------------|----------|
| 599059 | CV-114/112 | ABS |



CV-SE CHECK VALVE

FEATURES

- Hose-connected check valve for 2" (51 mm) IPS pipe
- Allows passage of 3/4" (19 mm) solids

| Item No. | Model | Material |
|----------|-------|----------|
| 940021 | CV-SE | ABS |



CV-SE1 CHECK VALVE

FEATURES

- Uses compression gaskets to connect to 1-1/2" (38 mm) IPS pipe
- Full-flow design passes 1-1/2" (38 mm) solids

| Item No. | Model | Material |
|----------|--------|----------|
| 940019 | CV-SE1 | PVC |



CV-SE2 CHECK VALVE

FEATURES

- Uses compression gaskets to connect to 2" (51 mm) IPS pipe
- Full-flow design passes 2" (51 mm) solids

| Item No. | Model | Material |
|----------|--------|----------|
| 940022 | CV-SE2 | PVC |



CV-SE3 CHECK VALVE

FEATURES

- Uses compression gaskets to connect to 3" (76 mm) IPS pipe
- Full-flow design passes 3" (76 mm) solids

| Item No. | Model | Material |
|----------|--------|----------|
| 940023 | CV-SE3 | PVC |



CV8V-2 CHECK VALVE

FEATURES

- PVC check valve/ball valve combination uses compression gaskets to connect to 2" (51 mm) IPS pipe
- Full-flow design passes 2" (51 mm) solids

| Item No. | Model | Material |
|----------|--------|----------|
| 599160 | CVBV-2 | ABS |



CV8V-2U CHECK VALVE

FEATURES

- PVC check valve/ball valve combination uses union fittings to connect 2" (51 mm) IPS pipe
- Full-flow design passes 2" (51 mm) solids
- Pressure rating: 100 psi @ 72 °F

| Item No. | Model | Material |
|----------|---------|----------|
| 599161 | CVBV-2U | PVC |



ACCESSORIES

GP GRINDER SERIES (CONTROL PANEL AND ALARM)

APPLICATIONS

- Designed exclusively for the GP Manual Grinder Series

FEATURES

- Properly sized start components maximize efficiency and service life of the GP grinders
- Color-coded terminal strip for ease of installation
- Circuit breaker, audible alarm, silence switch, and red flashing light are enclosed in a NEMA 4X waterproof enclosure
- Three floats (sold separately) control on, off, and alarm functions
- UL and CSA listing



SIMPLEX

| Item No. | Model | Volts | Amps | Floats |
|----------|-----------------|---------|------|-------------------|
| 513354 | A-SF230C-BG-215 | 208/230 | 16 | 3 floats required |

DUPLEX

| Item No. | Model | Volts | Amps | Floats |
|----------|---------|---------|------|-------------------|
| 513355 | 1026540 | 208/230 | 34 | 4 floats required |

The GP Grinder Series requires a specific controller panel or capacitor kit from Franklin Electric specifically matched to the Little Giant pump for proper operation and third-party approvals.

JUNCTION BOX ALARM KIT

APPLICATIONS

- Designed specifically for auto grinder installations

FEATURES

- Circuit breaker
- Labeled terminal block
- Alarm block
- Alarm float



| Item No. | Model |
|----------|-------|
| 513297 | JBAK |

GP CUTTERS

APPLICATIONS

- For GP Series

| Item No. | Use |
|----------|------------------------|
| 14940131 | Replacement Cutter Kit |

CONTROL FLOATS

APPLICATIONS

- For use with control panel and alarms

FEATURES

- Mechanically activated contacts
- Not sensitive to rotation
- 5 amp, 115/230 VAC, 50/60 Hz



| Item No. | Model | Switch | Cord |
|----------|-------|---------------------------------------|------------|
| 950266 | CFSW | Weighted control float switch | 20' 6 m |
| 950267 | CFST | Control float switch with cable clamp | 20' 6 m |

GRINDER LEG KIT

APPLICATIONS

- Grinders

FEATURES

- Includes three stainless steel support legs with stainless steel hardware
- A special stainless steel leg kit is available for "hard-piped" installations
- Easy to install, the legs raise the pump inlet area to approximately 4" (102 mm) off the surface to ensure clearance for solids to enter



| Item No. | Model | Use |
|----------|-------|--------------------|
| 599078 | GLK | For GP series only |

CAPACITOR KIT

APPLICATIONS

- For GP series

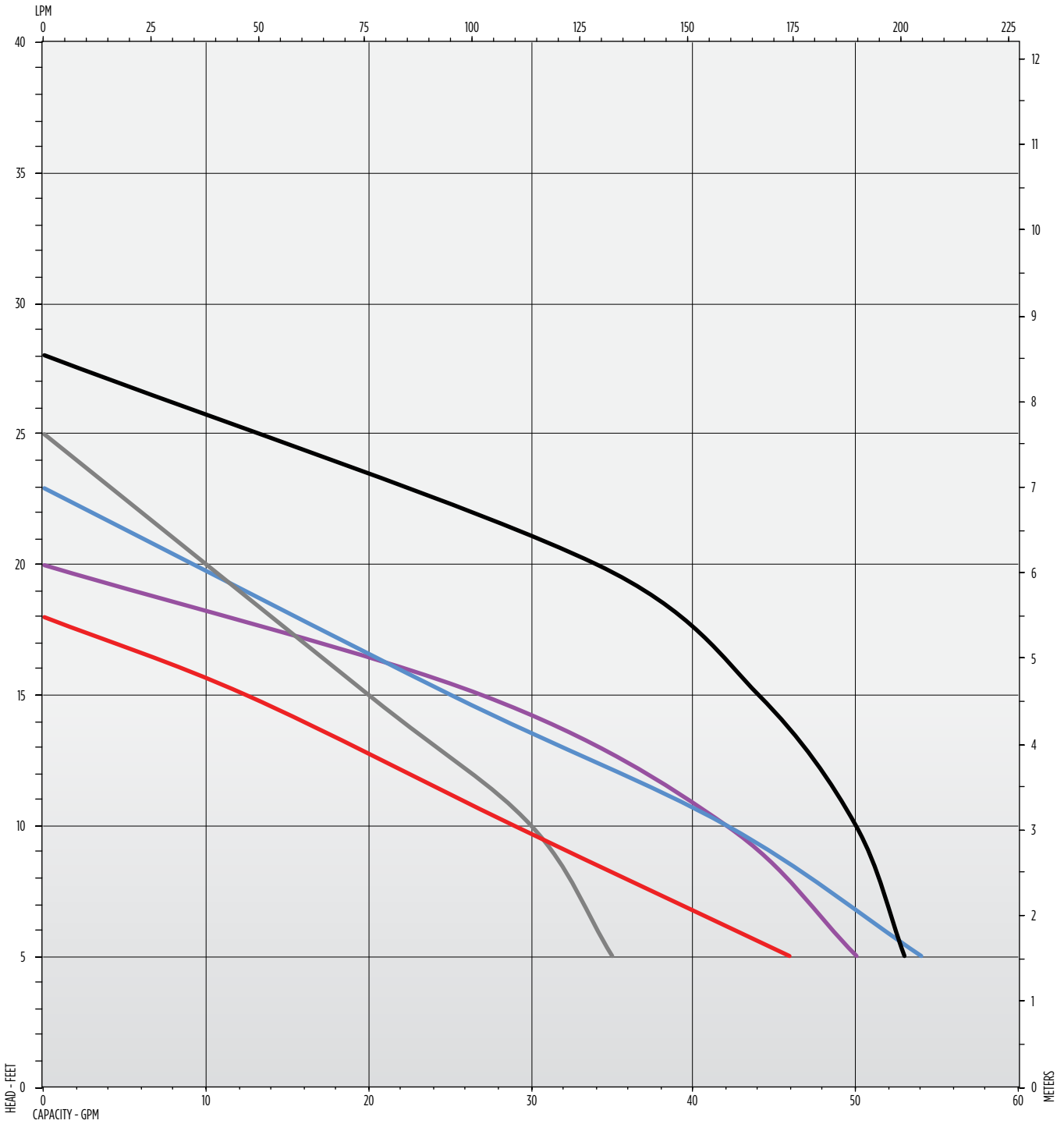
FEATURES

- Includes start capacitor, run capacitor, relay, end caps, and mounting hardware

| Item No. | Volt Range |
|----------|------------|
| 520859 | 208-230 |

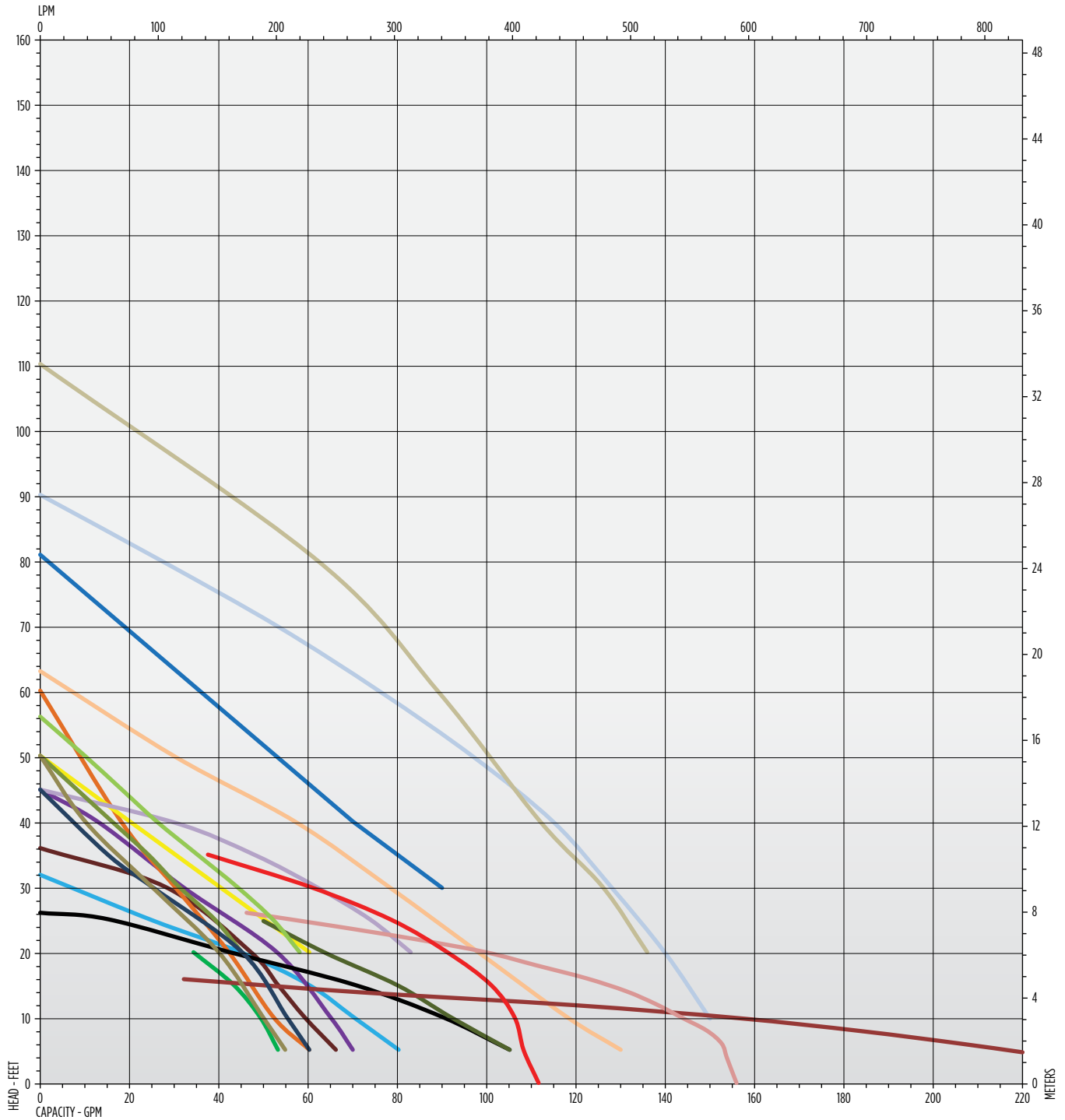
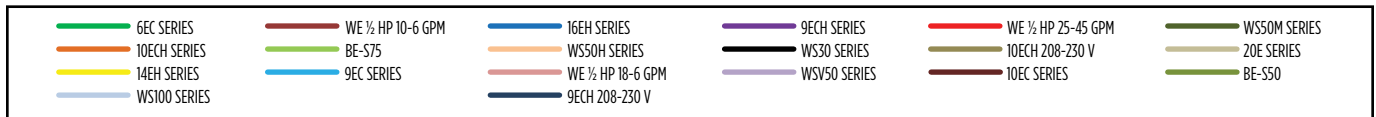
COMPOSITE CURVES

SUMP CURVES



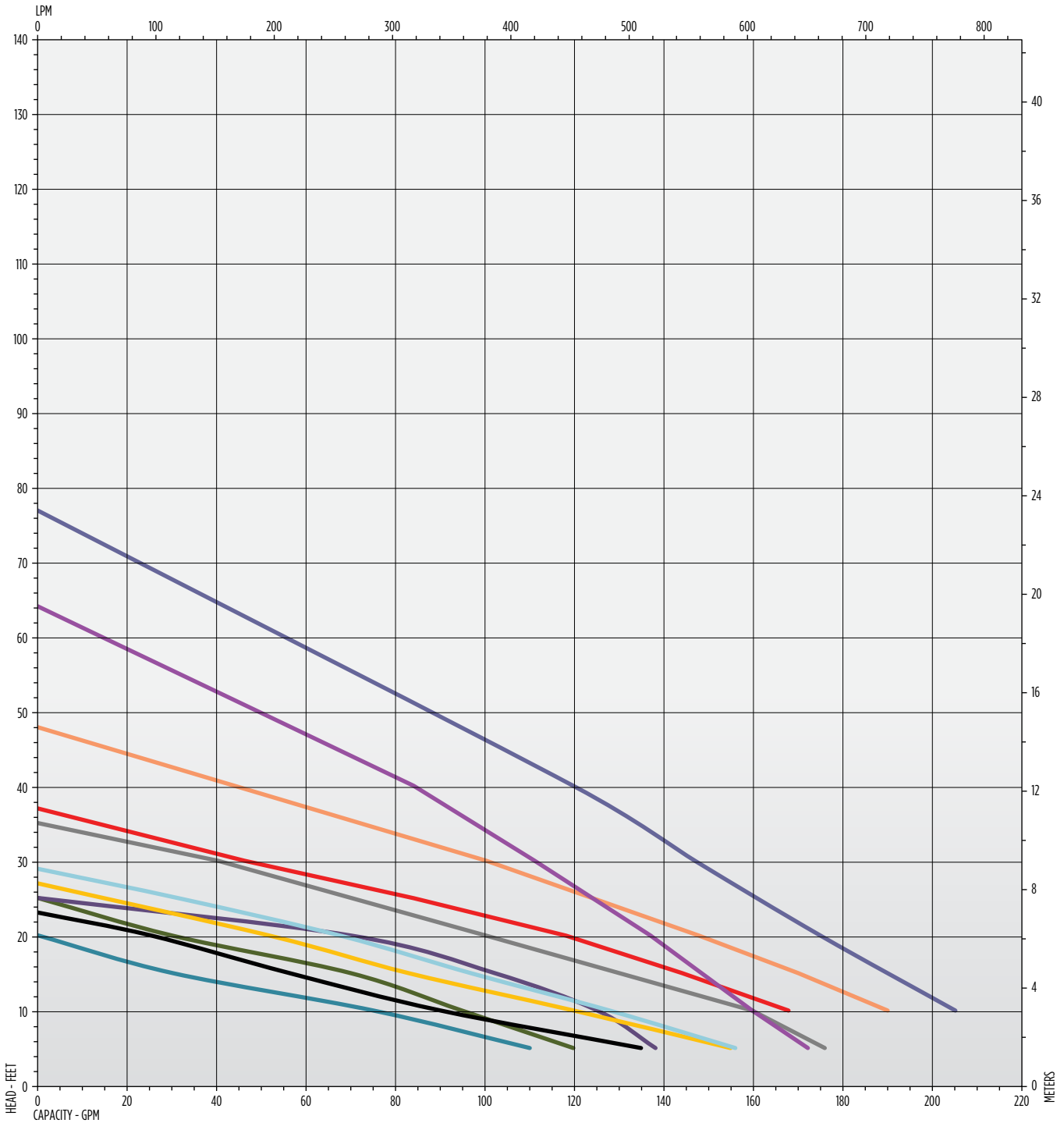
COMPOSITE CURVES

EFFLUENT CURVES



COMPOSITE CURVES

SEWAGE CURVES



GUIDELINES FOR SIZING

SYSTEM CAPACITY

System Capacity refers to the rate of flow in gallons per minute (gpm) necessary to efficiently maintain the system. The “Fixture Unit” method is suggested for determining this figure. This approach assigns a relative value to each fixture or group of fixtures normally encountered. Determination of the required System Capacity is as follows:

- List all fixtures involved in the installation and using Figure 1, assign a Fixture Unit value to each. Add to obtain total.
- Referring to Figure 2, locate the total Fixture Unit amount along the horizontal axis of the graph and follow vertically until intersecting the plotted line. Read the System Capacity in gpm along the vertical axis.

FIGURE 1

| Fixture Description | Unit Value | Total Used |
|--|------------|------------|
| Bathroom group, consisting of lavatory, bathtub or shower, and (direct flush) water closet | 10 | |
| Bathroom group, consisting of lavatory, bathtub or shower, and (flush tank) water closet | 6 | |
| Bathtub with 1-1/2" trap | 2 | |
| Bathtub with 2" trap | 3 | |
| Bidet with 1-1/2" trap | 3 | |
| Dental unit or cuspidor | 1 | |
| Drinking fountain | 1 | |
| Dishwasher (domestic type) | 2 | |
| Kitchen sink (domestic) | 2 | |
| Kitchen sink (domestic with waste grinder) | 3 | |
| Lavatory with 1-1/2" trap | 1 | |
| Lavatory (barber or beauty shop) | 2 | |
| Laundry tray (2-compartment) | 2 | |
| Shower stall | 2 | |
| Shower (group), per head | 3 | |
| Sink (service type with floor drain) | 3 | |
| Sink (scullery) | 4 | |
| Sink (surgeons) | 3 | |
| Urinal (with flush valve) | 8 | |
| Urinal (with flush tank) | 4 | |
| Water closet (flush valve) | 7 | |
| Water closet (flush tank) | 3 | |
| Swimming pools (per 1000 gal. capacity) | 1 | |
| Unlisted fixture with 1-1/4" trap size | 2 | |
| Unlisted fixture with 1-1/2" trap size | 3 | |
| Unlisted fixture with 2" trap size | 4 | |
| Unlisted fixture with 2-1/2" trap size | 5 | |
| Unlisted fixture with 3" trap size | 6 | |
| Unlisted fixture with 4" trap size | 7 | |
| Water softener (domestic) | 4 | |
| Washing machine | 2 | |
| | TOTAL | |

FIGURE 2

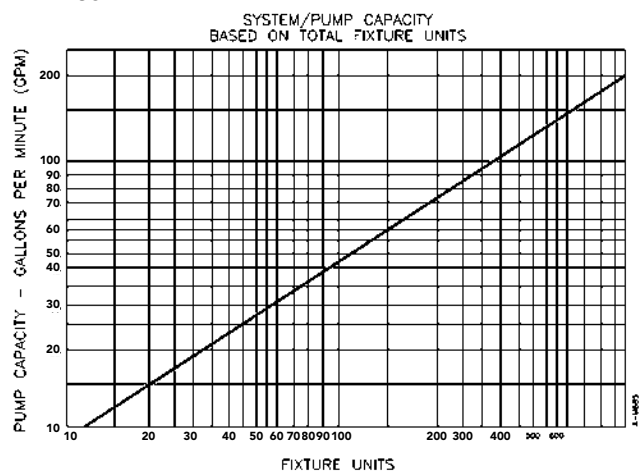
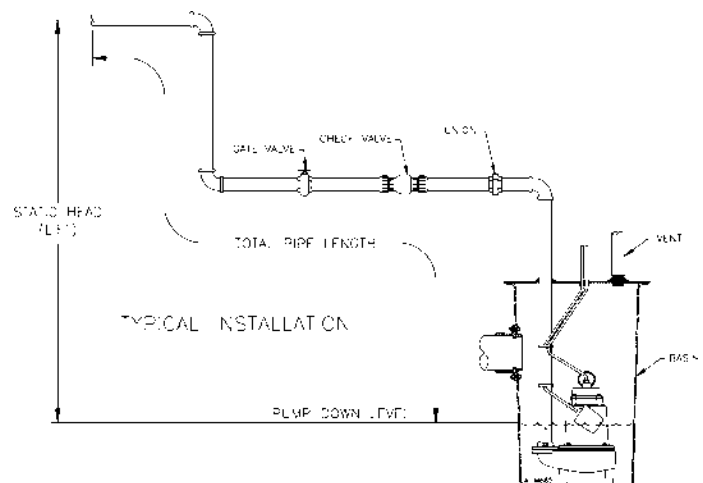


FIGURE 3



GUIDELINES FOR SIZING

TOTAL HEAD

Total Head is a combination of two components — static head and friction head — and is expressed in feet (refer to Typical Installation illustration, Figure 3).

Static Head is the actual vertical distance measured from the minimum water level in the basin to the highest point in the discharge piping.

Friction Head is the additional head created in the discharge system due to resistance to flow within its components. All straight pipe, fittings, valves, etc. have a friction factor which must be considered. These friction factors are converted to, and expressed as, equivalent feet of straight pipe, which can then be totaled and translated to friction head depending on the flow and pipe size. Basically, this is reduced to four steps.

1. It will be necessary to determine the discharge pipe size. In order to ensure sufficient fluid velocity to carry solids, (generally accepted to be 2 ft per second), flows should be at least:
 - 9 gpm through 1-1/4" pipe
 - 13 gpm through 1-1/2" pipe
 - 21 gpm through 2" pipe
 - 30 gpm through 2-1/2" pipe
 - 46 gpm through 3" pipe
2. The length of the discharge piping is measured from the discharge opening of the pump to the point of final discharge, following all contours and bends.
3. To determine the equivalent length of discharge piping represented by the various fittings and valves, refer to Figure 5 and total all values. Add this to the measured length of discharge pipe and divide by 100 to determine the number of 100 ft increments.
4. Refer to Figure 4 and find the required Pump Capacity (determined from Figure 2). Follow gallons per minute to pipe size being used. Multiply this number by the number of 100 ft increments.

Add the Static Head and Friction Head to determine Total Head.

FIGURE 4

| Plastic Pipe: Friction Loss (in feet of head) per 100 ft | | | | | | |
|--|--------|--------|-------|--------|------|------|
| Req'd Pump Capacity GPM | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" | 4" |
| 1 | | | | | | |
| 2 | .10 | | | | | |
| 3 | .21 | .10 | | | | |
| 4 | .35 | .16 | | | | |
| 5 | .51 | .24 | | | | |
| 6 | .71 | .33 | .10 | | | |
| 8 | 1.19 | .55 | .17 | | | |
| 10 | 1.78 | .83 | .25 | .11 | | |
| 15 | 3.75 | 1.74 | .52 | .22 | | |
| 20 | 6.39 | 2.94 | .86 | .36 | .13 | |
| 25 | 9.71 | 4.44 | 1.29 | .54 | .19 | |
| 30 | 13.62 | 6.26 | 1.81 | .75 | .26 | |
| 35 | 18.17 | 8.37 | 2.42 | 1.00 | .35 | .09 |
| 40 | 23.55 | 10.70 | 3.11 | 1.28 | .44 | .12 |
| 45 | 29.44 | 13.46 | 3.84 | 1.54 | .55 | .15 |
| 50 | | 16.45 | 4.67 | 1.93 | .66 | .17 |
| 60 | | 23.48 | 6.60 | 2.71 | .93 | .25 |
| 70 | | | 8.83 | 3.66 | 1.24 | .33 |
| 80 | | | 11.43 | 4.67 | 1.58 | .41 |
| 90 | | | 14.26 | 5.82 | 1.98 | .52 |
| 100 | | | | 7.11 | 2.42 | .63 |
| 125 | | | | 10.83 | 3.80 | .95 |
| 150 | | | | | 5.15 | 1.33 |
| 175 | | | | | 6.90 | 1.78 |
| 200 | | | | | 8.90 | 2.27 |
| 250 | | | | | | 3.36 |
| 300 | | | | | | 4.85 |
| 350 | | | | | | 6.53 |

FIGURE 5

| Friction Factors for Pipe Fittings In Terms of Equivalent Feet of Straight Pipe | | | | | | |
|--|-----------|-----------|--------------------|-------------------|-------------------|------------|
| Nominal Pipe Size | 90° Elbow | 45° Elbow | Tee (Through Flow) | Tee (Branch Flow) | Swing Check Valve | Gate Valve |
| 1-1/4 | 3.5 | 1.8 | 2.3 | 6.9 | 11.5 | 0.9 |
| 1-1/2 | 4.0 | 2.2 | 2.7 | 8.1 | 13.4 | 1.1 |
| 2 | 5.2 | 2.8 | 3.5 | 10.3 | 17.2 | 1.4 |
| 2-1/2 | 6.2 | 3.3 | 4.1 | 12.3 | 20.3 | 1.7 |
| 3 | 7.7 | 4.1 | 5.1 | 15.3 | 25.5 | 2.0 |

| Total Head Required | |
|---|--|
| (A) STATIC HEAD | |
| (B) TOTAL LENGTH OF PIPING | |
| (C) TOTAL FRICTION FACTORS OF FITTINGS | |
| (D) TOTAL (B+C) | |
| (E) DIVIDED (D) BY 100 | |
| (F) HEAD LOSS PER 100 FT. OF PIPE (from Figure 4) | |
| (G) FRICTION HEAD (ExF) | |
| (H) TOTAL HEAD (A+G) | |

GUIDELINES FOR SIZING

PUMP SELECTION

Every centrifugal pump has a unique performance curve. This curve illustrates the relationship of flow (gpm) to pressure (total head) at any point. The pump will operate at any point along this performance curve. Pump capacity is therefore the flow the pump will generate at any specific pressure. The object is to select a pump whose performance curve passes either through, or close to, the design condition, preferably above. Refer to Figure 7.

Solids Handling requirements may be determined by local codes and/or by the type of application and types of solids anticipated. Unless otherwise stated by codes, a sewage pump should have the capability of handling spherical solids of at least 2 inches in diameter in installations involving a water closet.

Basin Size selection is best accomplished by relating to required System Capacity as determined by the Fixture Unit method.

Figure 6 shows recommended basin diameters, assuming the normal pump differential (distance in inches between turn-on and turn-off), and running time ranges from 15 seconds to 4 minutes. Basin depth, however, should be at least 24 inches below basin inlet for most pumps and deeper where greater pumping differentials are anticipated.

NOTE: Since basin size is directly related to pump operation frequency, it is important to select a basin of sufficient size to ensure that the pump does not short cycle.

The question of whether to use a Simplex or Duplex System depends on the type of installation and/or local codes. Generally, a determination can be made using the following guidelines.

1. Domestic: Simplex System is usually adequate.
2. Commercial: Optional — Depending on the type of business and the need for uninterrupted sanitary drainage facilities.
3. Public or Industrial: Duplex System is essential.

While you are sizing the system and before you select the pump, you will need to know and consider or make allowances for the following:

- Volts/Phase/Hertz — What is available?
- Will the pump share a circuit?
- Does the home, business, etc. have circuit breakers or fuses?
- What is the breaker or fuse amp rating? Make sure it is enough.
- Check local or state codes for:
 - Solid size requirements
 - Amp ratings/circuit cord size/ratings or type
 - Pipe material/size/depth to bury
 - Tank size/location
- Are there plans for future expansion? As in, adding upstairs bath, basement plumbing, washing machine, etc.

FIGURE 6

| System Capacity (gpm) | Basin Sizing | | | | | |
|----------------------------------|-------------------------|------|------|-------|-------|-------|
| | Basin Diameter (Inches) | | | | | |
| | 18" | 24" | 30" | 36" | 42" | 48" |
| 20 | | | | | | |
| 25 | | | | | | |
| 30 | | | | | | |
| 35 | | | | | | |
| 40 | | | | | | |
| 45 | | | | | | |
| 50 | | | | | | |
| 60 | | | | | | |
| 70 | | | | | | |
| 80 | | | | | | |
| 90 | | | | | | |
| 100 | | | | | | |
| 125 | | | | | | |
| 150 | | | | | | |
| 175 | | | | | | |
| 200 | | | | | | |
| 225 | | | | | | |
| GALLONS/FOOT OF BASIN DEPTH | 13.2 | 23.9 | 36.7 | 52.9 | 72.0 | 94.0 |
| GALLONS IN 2-1/2' OF BASIN DEPTH | 33.0 | 59.7 | 91.7 | 132.2 | 180.0 | 235.0 |

Select the minimum basin depth so that 2-1/2 ft of basin depth in gallons; pump capacity in gpm
Shaded cells highlight the acceptable basin size

GUIDELINES FOR SIZING

EXAMPLE SIZING PROBLEM

What Pump Capacity would be required to handle the drainage from a 4 bathroom home, also including a dishwasher, a washer, a laundry tray, a kitchen sink, water softener, basement shower, a 13,000 gallon pool, and a bar sink (1-1/2" trap)?

- From Figure 1:

| Description | Fixture Units |
|----------------------------|---------------|
| Four bathroom groups | 24 |
| Water softener | 4 |
| Dishwasher | 2 |
| Washing machine | 2 |
| Laundry tray | 2 |
| Kitchen sink with disposal | 3 |
| Basement shower | 2 |
| Swimming pool | 13 |
| Bar sink (unlisted 1-1/2") | 3 |
| FIXTURE UNITS TOTAL | 55 |

- Refer to Figure 2: Find 55 fixture units on the horizontal axis. Follow vertically until intersecting the line then horizontally to the left. The Pump Capacity on the vertical axis is 30 gpm.

Determine the Total Head of the installation illustrated in Figure 3, the Typical Installation Illustration:

- That Static Head in this instance is 7 ft.
- Friction Head:
 - Since the required Pump Capacity in this illustration of 30 gpm is less than the 46 gpm necessary to carry solids through 3" pipe, 2" or 2-1/2" pipe should be used. If 3" pipe is preferred or required, a Pump Capacity of at least 46 gpm is required.
 - Measurement of the length of the discharge pipe totals 200 ft.
 - Refer to Figure 6 and note the friction factor in equivalent feet for each fitting:

| | |
|---------------------------|----------------------|
| 3 - 90° elbows, 2" | 16 - equivalent feet |
| 1 - gate valve, 2" | 1 - equivalent foot |
| 1 - swing check valve, 2" | 17 - equivalent feet |
| Total: | 34 equivalent feet |

Adding 34 ft to the measured pipe length, the total effective pipe length becomes 234 ft or 2.34 100 ft increments.

- Refer to Figure 4, find the 30 gpm required Pump Capacity on the left scale and follow over to the 2" PVC pipe size column. Friction Head is $1.8 \times 2.34 = 4.2$ ft.

- Total Head Required: Total Head = Static Head + Friction Head

- Example: Total Head = 7 + 4.2 Total Head = 11.2

Due to the existence of water closets in this installation, a pump with 2" Solids Handling capacity should be used unless otherwise specifically stated by applicable codes. Use Figure 7 to select pump. To determine the Basin size, find the Pump Capacity (30 gpm) in the column on the left of Figure 6. Any Basin diameter of 18" or greater is acceptable. Since this application is domestic, a Simplex System is sufficient.

Summary: Recommended selections for this installation would be a Simplex System utilizing an 18" or greater diameter Basin and a 2" Solids Handling pump capable of delivering at least 30 gpm at 11 ft.

GUIDELINES FOR SIZING

SUMMARY WORKSHEET

Number of Fixture Units _____

Flow Rate (gpm) _____

Total Head Required _____

Pump Selection _____

Typical Single Family Dwelling Sewage Pump Chart

Note: The data contained herein is for reference only. Proper sizing and selection of sewage pumps requires consideration of many factors. Always consult applicable local codes before installing any equipment. This chart is based on a residential application with not more than 34 fixture units (values assigned to each plumbing fixture). The TDH (Total Dynamic Head) of the system is calculated based on total vertical lift, horizontal length of discharge piping, and the friction losses for 2" diameter plastic pipe (3" diameter plastic pipe where the 16S pump is shown).

| Total Vert. Lift | Total Length Of Discharge Pipe In Feet | | | | | | | | | | | | | | |
|------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 100' | 150' | 200' | 250' | 300' | 350' | 400' | 450' | 500' | 550' | 600' | 650' | 700' | 750' | 800' |
| 5' | 6.3' 9SN 97 gpm | 7.0' 9SN 95 gpm | 7.5' 9SN 92 gpm | 8.3' 9SN 88 gpm | 8.9' 9SN 82 gpm | 9.6' 9SN 77 gpm | 10.2' 9SN 72 gpm | 10.9' 9SN 67 gpm | 11.5' 9SN 61 gpm | 12.2' 9SN 54 gpm | 12.8' 9SN 48 gpm | 13.5' 9SN 43 gpm | 14.1' 9SN 38 gpm | 14.8' 9SN 32 gpm | 15.4' 9SN 27 gpm |
| 6' | 7.3' 9SN 93 gpm | 8.0' 9SN 89 gpm | 8.6' 9SN 83 gpm | 9.3' 9SN 78 gpm | 9.9' 9SN 75 gpm | 10.6' 9SN 69 gpm | 11.2' 9SN 63 gpm | 11.9' 9SN 57 gpm | 12.5' 9SN 52 gpm | 13.5' 9SN 43 gpm | 13.8' 9SN 40 gpm | 14.5' 9SN 33 gpm | 15.1' 9SN 29 gpm | 15.8' 9SN 25 gpm | 16.4' 10SN 57 gpm |
| 7' | 8.3' 9SN 88 gpm | 9.0' 9SN 81 gpm | 9.6' 9SN 77 gpm | 10.3' 9SN 70 gpm | 10.9' 9SN 67 gpm | 11.6' 9SN 59 gpm | 12.2' 9SN 54 gpm | 12.9' 9SN 47 gpm | 13.5' 9SN 43 gpm | 14.2' 9SN 36 gpm | 14.8' 9SN 32 gpm | 15.5' 9SN 26 gpm | 16.1' 10SN 62 gpm | 16.8' 10SN 54 gpm | 17.4' 10SN 48 gpm |
| 8' | 9.3' 9SN 78 gpm | 10.0' 9SN 76 gpm | 10.6' 9SN 69 gpm | 11.3' 9SN 62 gpm | 11.9' 9SN 57 gpm | 12.6' 9SN 50 gpm | 13.2' 9SN 45 gpm | 13.9' 9SN 39 gpm | 14.5' 9SN 33 gpm | 15.2' 9SN 28 gpm | 15.8' 9SN 25 gpm | 16.5' 10SN 56 gpm | 17.1' 10SN 52 gpm | 17.8' 10SN 46 gpm | 18.4' 10SN 41 gpm |
| 9' | 10.3' 9SN 70 gpm | 11.0' 9SN 65 gpm | 11.6' 9SN 59 gpm | 12.3' 9SN 53 gpm | 12.9' 9SN 47 gpm | 13.4' 9SN 44 gpm | 14.2' 9SN 36 gpm | 14.9' 9SN 30 gpm | 15.5' 9SN 26 gpm | 16.2' 10SN 60 gpm | 16.8' 10SN 54 gpm | 17.5' 10SN 48 gpm | 18.1' 10SN 42 gpm | 18.8' 10SN 39 gpm | 19.4' 10SN 33 gpm |
| 10' | 11.3' 9SN 62 gpm | 12.0' 9SN 56 gpm | 12.6' 9SN 50 gpm | 13.3' 9SN 44 gpm | 13.9' 9SN 39 gpm | 14.6' 9SN 33 gpm | 15.2' 9SN 28 gpm | 15.9' 10SN 62 gpm | 16.5' 10SN 56 gpm | 17.2' 10SN 50 gpm | 17.8' 10SN 46 gpm | 18.5' 10SN 40 gpm | 19.1' 10SN 35 gpm | 19.8' 10SN 32 gpm | 20.4' 10SN 27 gpm |
| 11' | 12.3' 9SN 53 gpm | 13.0' 9SN 46 gpm | 13.6' 9SN 42 gpm | 14.3' 9SN 35 gpm | 14.9' 9SN 30 gpm | 15.6' 9SN 25 gpm | 16.2' 10SN 60 gpm | 16.9' 10SN 53 gpm | 17.5' 10SN 48 gpm | 18.2' 10SN 42 gpm | 18.8' 10SN 39 gpm | 19.5' 10SN 33 gpm | 20.1' 10SN 29 gpm | 20.8' 10SN 25 gpm | 21.4' 14S 27 gpm |
| 12' | 13.3' 9SN 44 gpm | 14.0' 9SN 40 gpm | 14.6' 9SN 33 gpm | 15.3' 9SN 27 gpm | 15.9' 10SN 62 gpm | 16.6' 10SN 55 gpm | 17.2' 10SN 50 gpm | 17.9' 10SN 45 gpm | 18.5' 10SN 40 gpm | 19.2' 10SN 34 gpm | 19.8' 10SN 32 gpm | 20.5' 10SN 26 gpm | 21.1' 14S 30 gpm | 21.8' 14S 26 gpm | 16.4' 16S 120 gpm* |
| 13' | 14.3' 9SN 35 gpm | 15.0' 9SN 29 gpm | 15.6' 9SN 25 gpm | 16.3' 10SN 58 gpm | 16.9' 10SN 53 gpm | 17.6' 10SN 47 gpm | 18.2' 10SN 42 gpm | 18.9' 10SN 37 gpm | 19.5' 10SN 33 gpm | 20.2' 10SN 28 gpm | 20.8' 10SN 25 gpm | 22.0' 14S 25 gpm | 17.6' 16S 113 gpm* | 17.9' 16S 112 gpm* | 18.2' 16S 111 gpm* |
| 14' | 15.3' 9SN 27 gpm | 16.0' 10SN 61 gpm | 16.6' 10SN 55 gpm | 17.3' 10SN 49 gpm | 17.9' 10SN 45 gpm | 18.6' 14S 39 gpm | 19.2' 10SN 34 gpm | 19.9' 10SN 31 gpm | 20.5' 10SN 26 gpm | 21.2' 14S 29 gpm | 21.8' 14S 26 gpm | 17.6' 16S 113 gpm* | 17.9' 16S 112 gpm* | 18.2' 16S 111 gpm* | 18.4' 16S 110 gpm* |
| 15' | 16.3' 10SN 58 gpm | 17.0' 10SN 52 gpm | 17.6' 10SN 47 gpm | 18.3' 10SN 41 gpm | 18.9' 10SN 37 gpm | 19.6' 10SN 33 gpm | 20.2' 10SN 28 gpm | 20.9' 10SN 25 gpm | 21.5' 14S 27 gpm | 22.2' 14S 25 gpm | 18.3' 16S 110 gpm* | 18.6' 16S 109 gpm* | 18.9' 16S 107 gpm* | 19.2' 16S 105 gpm* | 19.4' 16S 104 gpm* |
| 16' | 17.3' 10SN 49 gpm | 18.0' 10SN 44 gpm | 18.6' 10SN 39 gpm | 19.3' 10SN 33 gpm | 19.9' 10SN 31 gpm | 20.6' 10SN 25 gpm | 21.2' 14S 29 gpm | 21.9' 14S 26 gpm | 18.8' 16S 107 gpm* | 19.1' 16S 105 gpm* | 19.3' 16S 104 gpm* | 19.6' 16S 103 gpm* | 19.9' 16S 101 gpm* | 20.2' 16S 98 gpm* | 21.2' 16S 95 gpm* |
| 17' | 18.3' 10SN 41 gpm | 19.0' 10SN 36 gpm | 19.6' 10SN 33 gpm | 20.3' 10SN 27 gpm | 20.9' 10SN 25 gpm | 21.6' 14S 26 gpm | 22.2' 14S 25 gpm | 19.5' 16S 103 gpm* | 19.8' 16S 102 gpm* | 20.0' 16S 100 gpm* | 20.3' 16S 99 gpm* | 20.6' 16S 98 gpm* | 20.9' 16S 97 gpm* | 21.2' 16S 95 gpm* | 22.4' 16S 95 gpm* |
| 18' | 19.3' 10SN 33 gpm | 20.0' 10SN 30 gpm | 20.6' 10SN 25 gpm | 21.3' 14S 28 gpm | 21.9' 14S 26 gpm | 19.9' 16S 101 gpm* | 20.2' 16S 98 gpm* | 20.5' 16S 98 gpm* | 20.8' 16S 97 gpm* | 21.1' 16S 96 gpm* | 21.3' 16S 95 gpm* | 22.6' 16S 93 gpm* | 21.9' 16S 91 gpm* | 22.2' 16S 90 gpm* | 22.4' 16S 89 gpm* |
| 19' | 20.3' 10SN 27 gpm | 21.0' 14S 30 gpm | 21.6' 14S 26 gpm | 22.3' 14S 25 gpm | 20.7' 16S 98 gpm* | 21.0' 16S 96 gpm* | 21.2' 16S 95 gpm* | 22.5' 16S 94 gpm* | 21.8' 16S 92 gpm* | 22.1' 16S 91 gpm* | 22.3' 16S 90 gpm* | 22.6' 16S 86 gpm* | 22.9' 16S 84 gpm* | 23.2' 16S 82 gpm* | 23.4' 16S 81 gpm* |
| 20' | 21.3' 14S 28 gpm | 22.0' 14S 25 gpm | 21.6' 16S 95 gpm* | 21.9' 16S 95 gpm* | 22.2' 16S 95 gpm* | 22.5' 16S 88 gpm* | 22.8' 16S 85 gpm* | 23.1' 16S 83 gpm* | 23.4' 16S 81 gpm* | 23.7' 16S 80 gpm* | 24.0' 16S 79 gpm* | 24.3' 16S 78 gpm* | 24.6' 16S 77 gpm* | 24.9' 16S 76 gpm* | 25.2' 16S 75 gpm* |

GUIDELINES FOR SIZING

SUMMARY WORKSHEET

FIGURE 7

