

**Little GIANT®**

# WASTEWATER PRODUCT CATALOG





## TABLE OF CONTENTS

### UTILITY PUMPS

Pony Pump® Series.....	2
UPSP-5 Series.....	4
5 Series.....	6
FLS/FS Series.....	8

### SUMP PUMPS

5.5 Series.....	10
6 Series.....	12
6EC Series.....	14
HT-6E Series (High Temperature).....	16
8 Series.....	18
WRS Series.....	20
CS-SS Series.....	24
SPK Series.....	26

### BATTERY BACKUP

APS-115.....	28
SPBS Series.....	30

### OIL SENSING SYSTEMS

OS3 Series (Oil Sensing Sump System).....	36
---	----

### EFFLUENT PUMPS

6EC Series.....	38
9EC Series.....	40
9ECH Series.....	42
10EC Series.....	44
10ECH Series.....	46
HT-10EN High Temperature.....	48
12E Series.....	50
14EH/16EH Series.....	52
WS Effluent Series.....	54
WSV50 Effluent Series.....	56
20E Series.....	58
WE Series.....	60
C1 Series.....	62
BE Series.....	64

### SEWAGE PUMPS

9SC Series.....	66
10SC Series.....	68
WSV52 Series.....	70
14S Series.....	72
WS Series.....	74
16S Series.....	76
18S Series.....	78
20S Series.....	80

### PACKAGE SYSTEMS

Pit+Plus® Jr.....	82
Pit+Plus® Sr.....	84
Simplex and Duplex Systems.....	86
WCR Series.....	90

### GRINDER PUMPS

16G Series.....	92
-----------------	----

### ACCESSORIES

Accessories.....	94
Composite Curves.....	101
Guidelines for Sizing.....	107

For the most up-to-date product information, visit [littlegiant.com](http://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

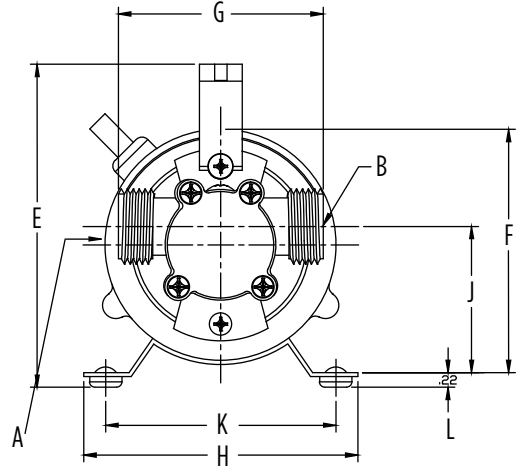
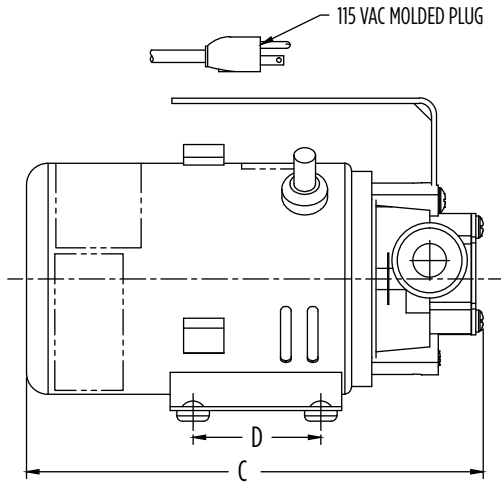
Item No.	Model	HP	Volts	Material	Operation	Cord	Weight
555112	360	1/10	115	Plated Brass	Self-Priming	6' 1.8 m	3.4 lbs 1.54 Kg
555110	360S	1/10	115	Stainless Steel	Self-Priming	6' 1.8 m	3.4 lbs 1.54 Kg
555113	370	1/10	115	Plated Brass	Self-Priming	6' 1.8 m	4.7 lbs 2.12 Kg
555602	365	1/10	12 VDC	Plated 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

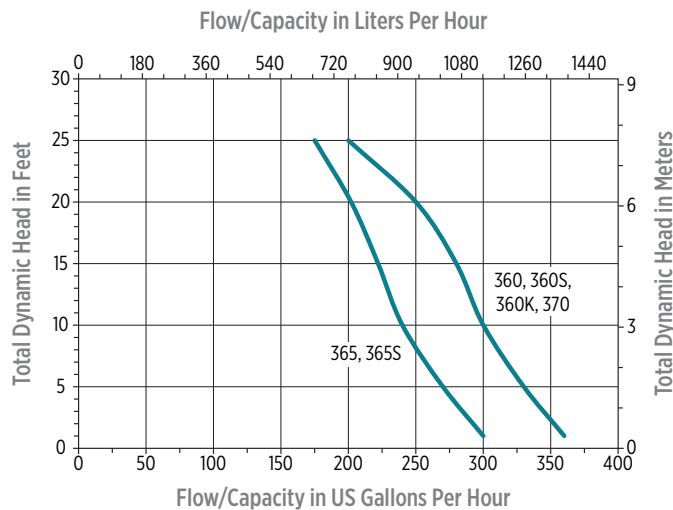
## PONY PUMP® SERIES - 1/10 HP

### 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



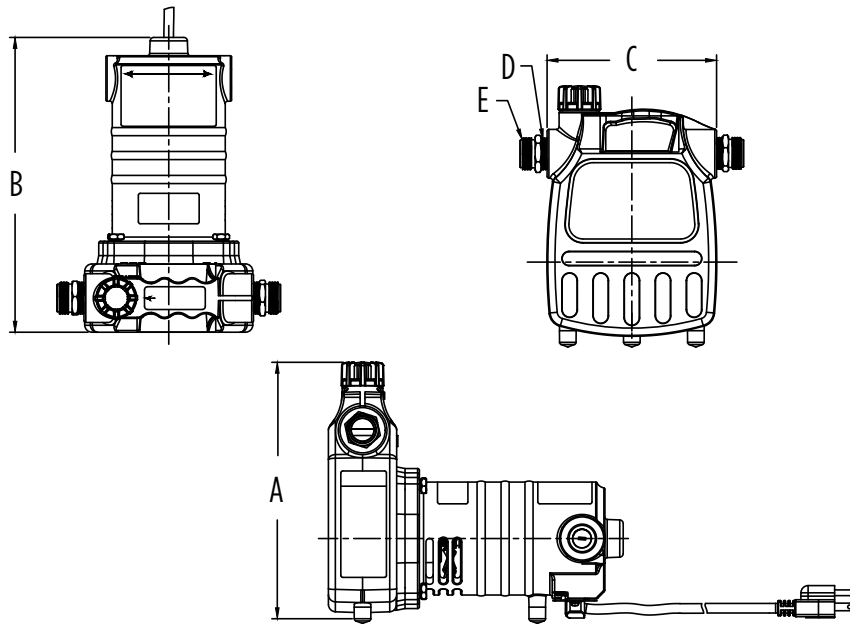
### SERIES SPECIFICATIONS

Volts	Hz	Amps	Watts	GPH / Liters per Hour @ 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

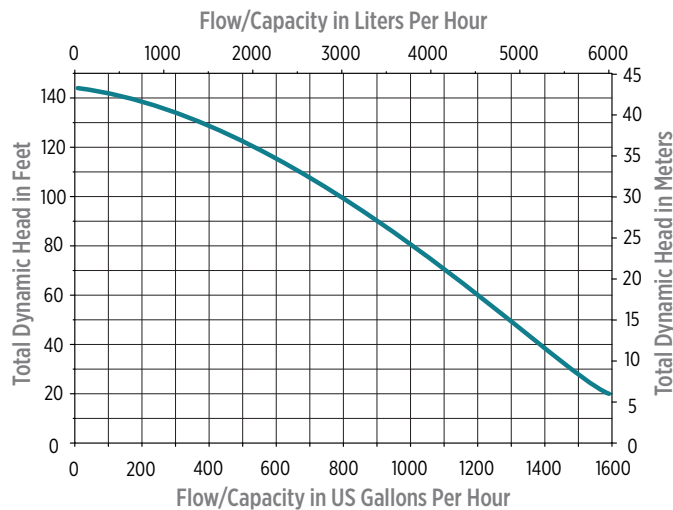
## UPSP-5 SERIES - 1/2 HP

### 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

<b>Motor Housing</b>	Cast iron
<b>Impeller Material</b>	Thermoplastic
<b>Impeller Type</b>	Semi-open
<b>Volute</b>	Cast iron
<b>Motor Shaft</b>	Carbon steel
<b>Shaft Seal</b>	Carbon/ceramic
<b>Fasteners</b>	Stainless steel
<b>Bearings</b>	Front and back ball bearings
<b>Power Cord</b>	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, 505000, and 505025



### SERIES SPECIFICATIONS

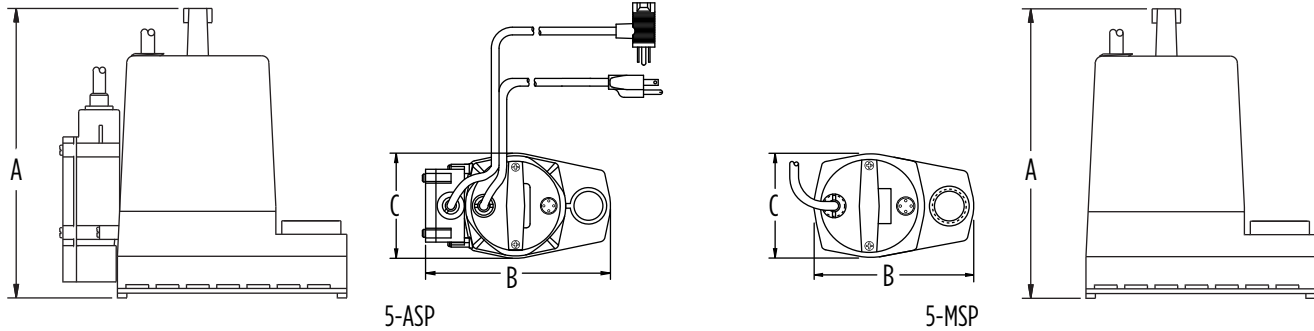
Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		1'	3'	5'	10'	20'		
115	60	5	6.4	380	1200	1170	1100	1000	520	26.3'	11.4
230	60	2.5	3.2	380	1200	1170	1100	1000	520	26.3'	11.4

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
505000	5-MSP	1/6	115	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
505202	5-MSP	1/6	230	Manual	-	-	12' 3.6 m (w/o plug)	8.25 lbs 3.74 Kg

# UTILITY PUMPS

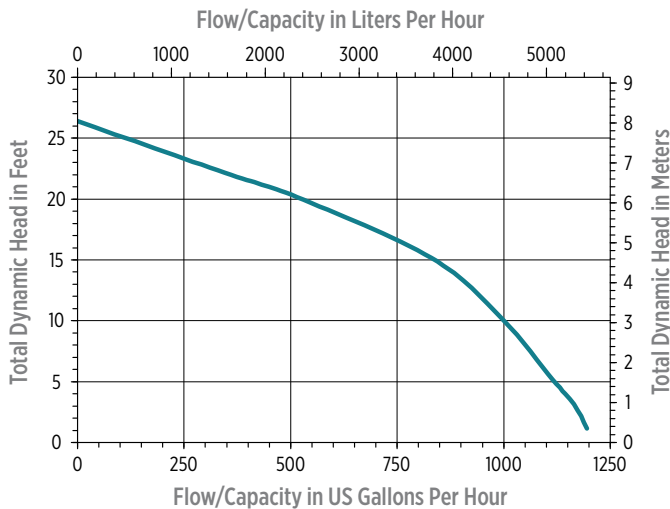
## 5 SERIES - 1/6 HP

### 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

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



### SERIES SPECIFICATIONS

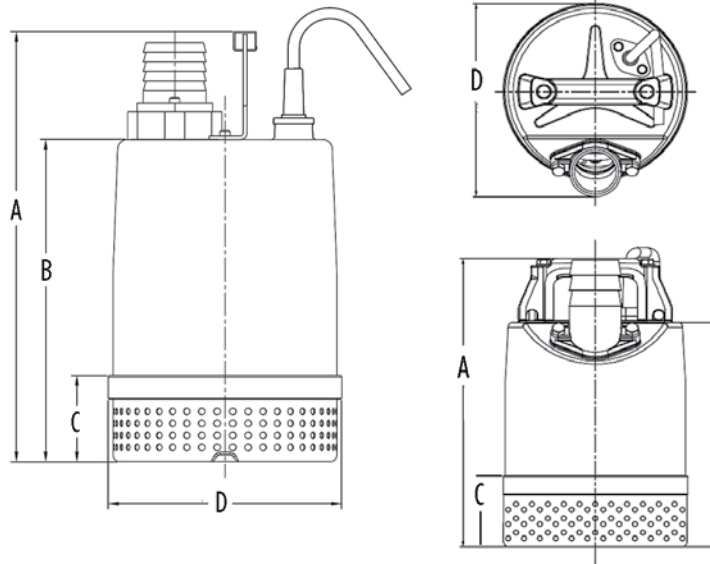
HP	Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)						Shut-Off (ft)	PSI
			FLA	Start		5'	10'	15'	20'	30'	40'		
1/2	115	60	5	24	488	60	54	47	42	20	-	37	16
1	115	60	10	47.6	950	80	76	73	68	54	38	52	22.5

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



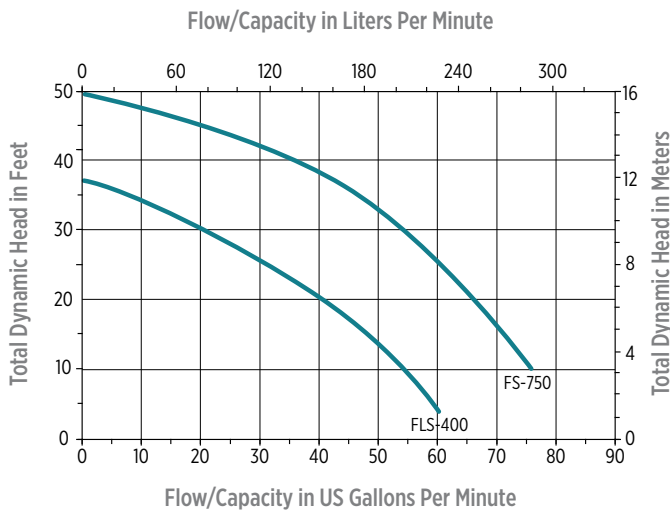
## FLS/FS SERIES - 1/2 HP, 1 HP

### 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

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

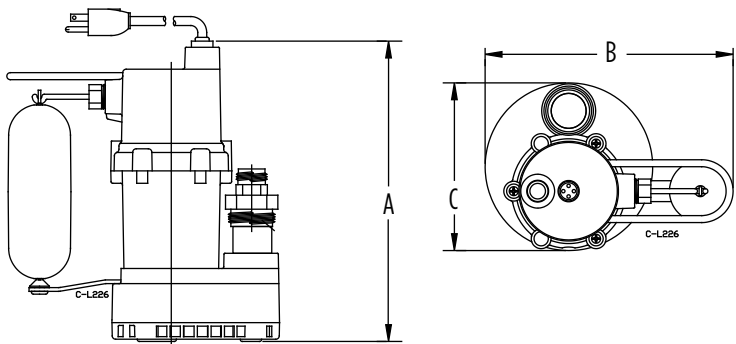
Model	HP	Volts	Hz	Amps		Watts	Max. Water Temp.	GPM / Liters per Minute @ Height			Shut-Off	
				FLA	Start			5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	ft / m	PSI / Bar
5.5-ASPA	1/4	115	60	3.5	9	350	120F	35 / 132	30 / 114	10 / 38	25 / 7.62	10.8 / 0.69

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

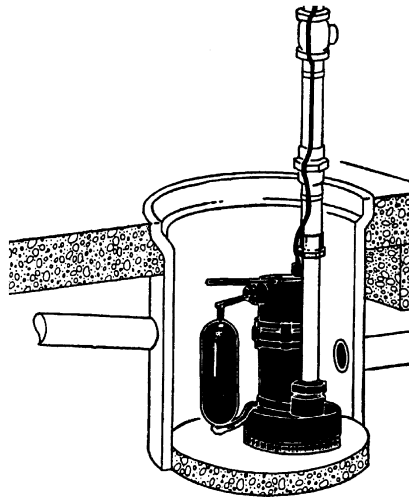
## 5.5 SERIES - 1/4 HP

### ENGINEERING DATA

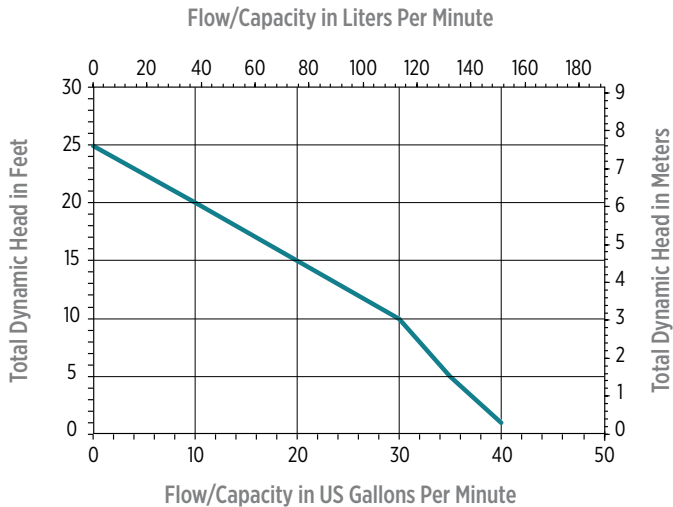


A	B	C
10.8" (274.8 mm)	10.4" (264 mm)	8.7" (221 mm)

### TYPICAL INSTALLATION



### PERFORMANCE DATA



### CONSTRUCTION

<b>Motor Housing</b>	Aluminum
<b>Impeller Material</b>	Nylon
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Polypropylene
<b>Motor Shaft</b>	440C SS
<b>Shaft Seal</b>	Mechanical
<b>Fasteners</b>	Stainless steel
<b>Bearings</b>	Upper and lower ball bearings
<b>Power Cord</b>	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 with select models
- 3/4" GHT garden hose adapter included with select models
- 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

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	10" - 13" 25.4 cm - 33.02 cm	4" - 7" 10.2 cm - 17.8 cm	10' 3 m	18.5 lbs 8.39 Kg
*506164	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
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
506171	6-CIA-RFS	1/3	115	Piggyback Mechanical Float	9.5" - 11.5" 24.1 cm - 29.2 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	Piggyback Diaphragm	7" - 10" 17.8 cm - 25.4 cm	3" - 5" 7.6 cm - 12.7 cm	10' 3 m	17.5 lbs 7.94 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

\*\* 1-1/4" FNPT reducer bushing and 3/4" GHT garden hose adapter included

### SUMP PUMP SWITCH REPAIR KIT

#### APPLICATIONS

- Switch repair kit

#### FEATURES

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

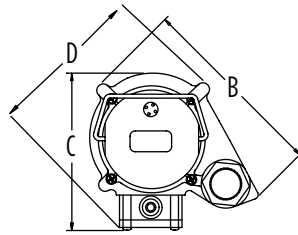
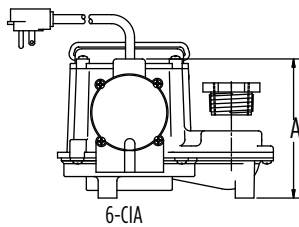
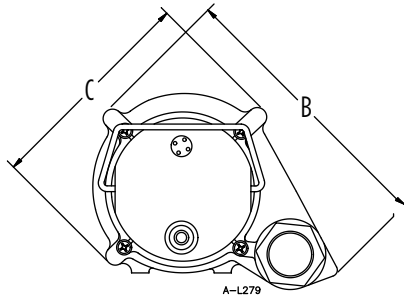
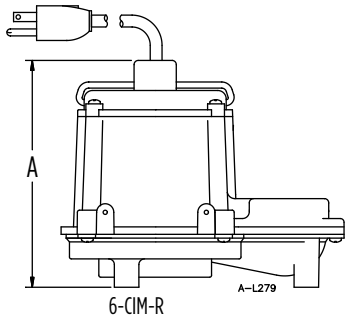


Item No.	Model	Volts	Housing
599300	SPRK-1	6-CIA, 8-CIA, and 8-CBA	✓
599310	SPRK-1-ML	6-CIA-ML (used in WRSC-6)	✓
599320	SPRK-2	6-CIA, 8-CIA, and 8-CBA	-
599314	SPRK-2-ML	6-CIA-ML (used in WRSC-6)	-

# SUMP PUMPS

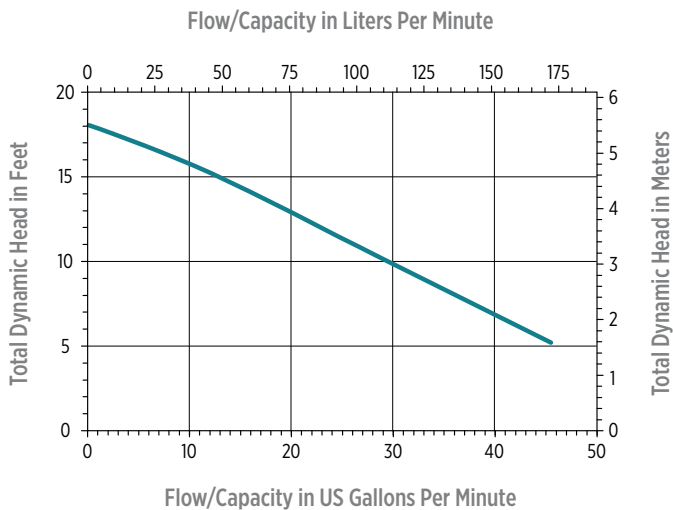
## 6 SERIES - 1/3 HP

### 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

<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Nylon
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Polypropylene
<b>Motor Shaft</b>	CRS
<b>Shaft Seal</b>	Mechanical shaft seal nitrile with carbon and ceramic faces
<b>Fasteners</b>	Stainless steel
<b>Bearings</b>	Upper: Sintered iron/copper, flanged sleeve Lower: Sintered iron/copper, flanged steel
<b>Power Cord</b>	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
		FLA	Start		5'	10'	15'	20'		
115	60	5	14.5	600	53	50	42	34	28	12.1

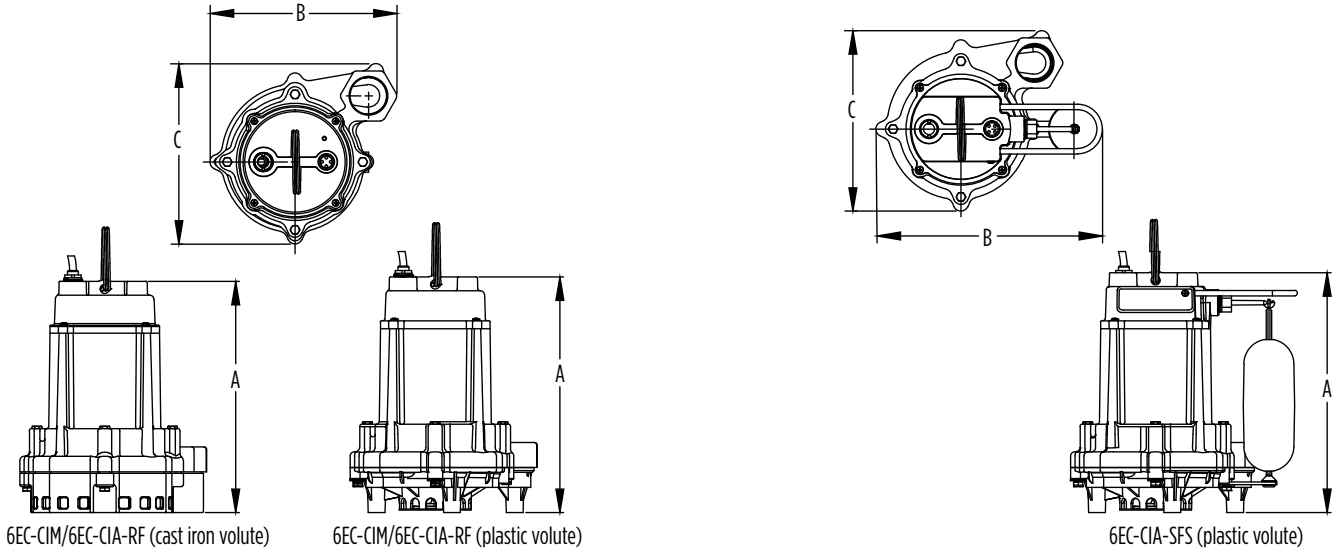
Item	Model	HP	Volts	Base Material	Switch Type/Operations	On Level	Off Level	Cord	Weight
506803	6EC-CIA-RF	1/3	115	Polypropylene	Piggyback Mechanical Float	13" - 15" (33.2 cm - 38.1 cm)	6" - 8" (15.2 cm - 20.3 cm)	10' (3 m)	27.5 lbs (12.5 Kg)
506858	6EC-CIA-RF	1/3	115	Cast Iron	Piggyback Mechanical Float	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)
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)
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)
506801	6EC-CIM	1/3	115	Polypropylene	Manual	—	—	10' (3 m)	26.5 lbs (12 Kg)
506802	6EC-CIM	1/3	115	Polypropylene	Manual	—	—	20' (6.1 m)	27.5 lbs (12.5 Kg)



# SUMP PUMPS

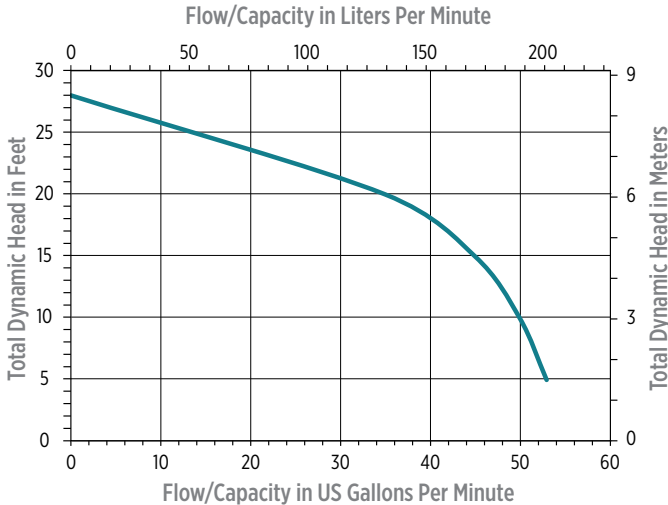
## 6EC SERIES - 1/3 HP

### 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)
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

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



## 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

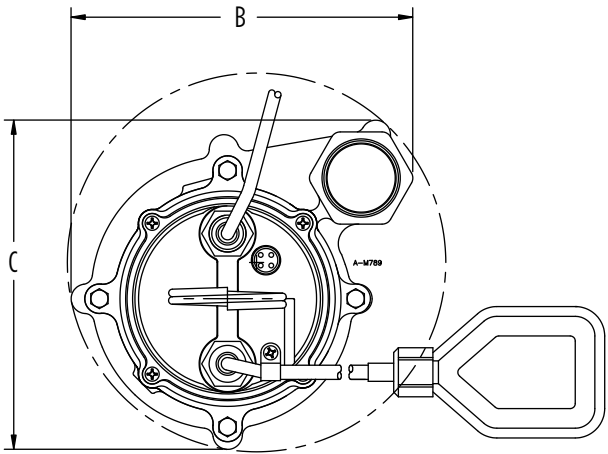
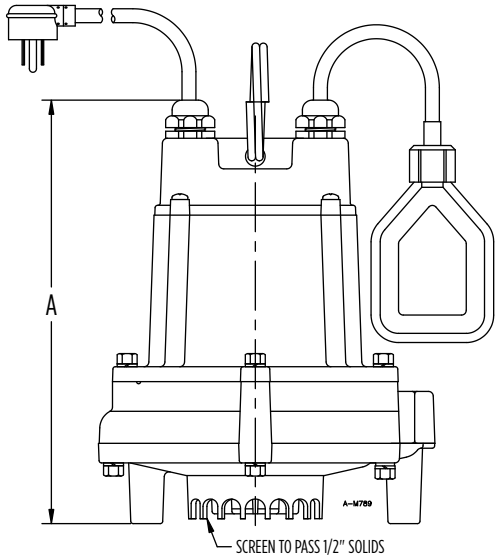
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	10.1	17	735	50	42	27	20	8.7

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

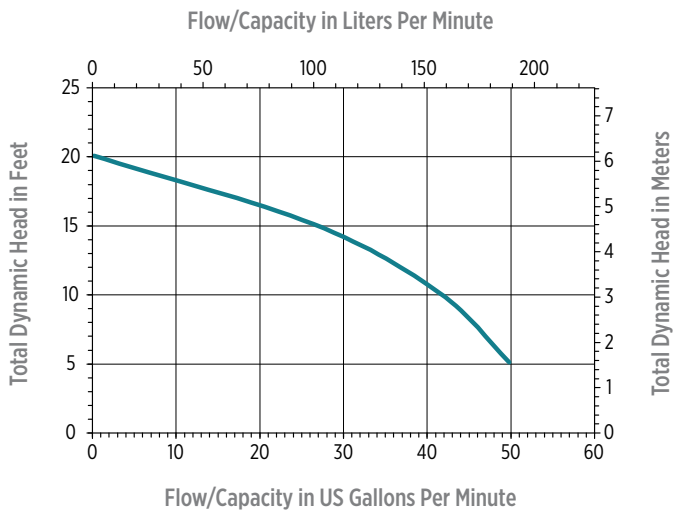
## HT-6E SERIES (HIGH TEMPERATURE) - 1/3 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Nylon
<b>Impeller Type</b>	Vortex
<b>Volute</b>	Epoxy-coated cast iron
<b>Motor Shaft</b>	Cold-rolled steel
<b>Mechanical Shaft Seal</b>	Stainless steel, carbon, and Ni-Resist faces
<b>Fasteners</b>	Stainless steel
<b>Bearings</b>	Upper and lower: Oil-impregnated, porous iron/copper, flanged
<b>Power Cord</b>	16-3 SJOOW, 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)
- 1-1/4" FNPT (31.7 mm) reducer bushing included
- 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
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 PUMP SWITCH REPAIR KIT

#### APPLICATIONS

- Switch repair kit

#### FEATURES

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

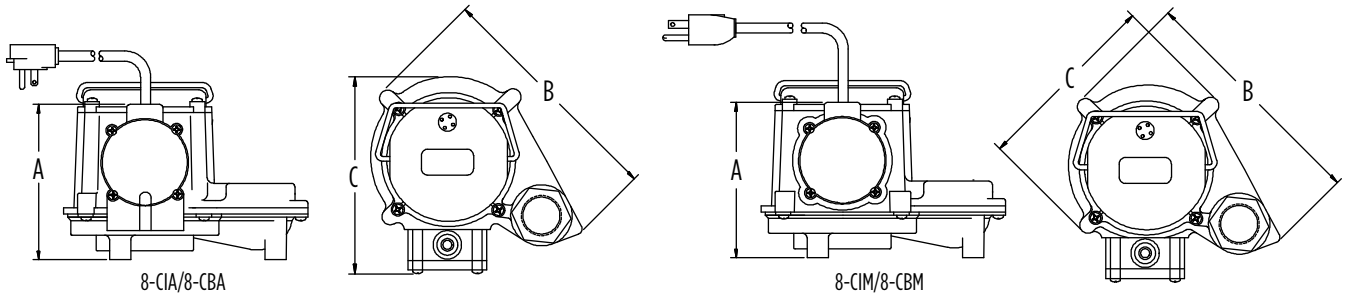


Item No.	Model	Volts	Housing
599300	SPRK-1	6-CIA, 8-CIA, and 8-CBA	✓
599310	SPRK-1-ML	6-CIA-ML (used in WRSC-6)	✓
599320	SPRK-2	6-CIA, 8-CIA, and 8-CBA	-
599314	SPRK-2-ML	6-CIA-ML (used in WRSC-6)	-

# SUMP PUMPS

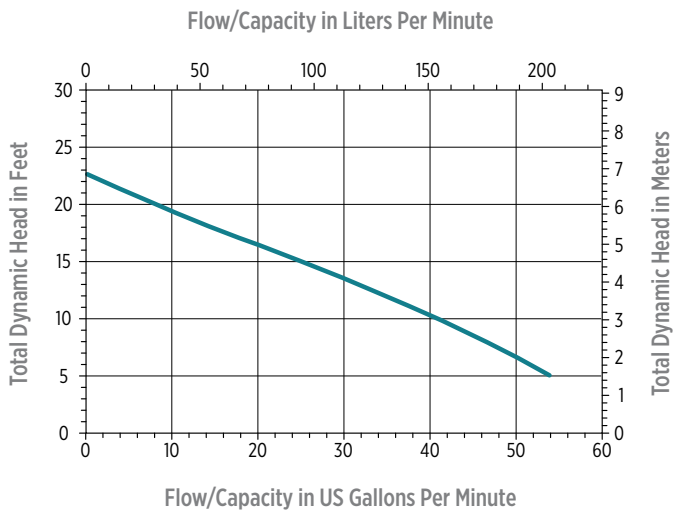
## 8 SERIES - 4/10 HP

### 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

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

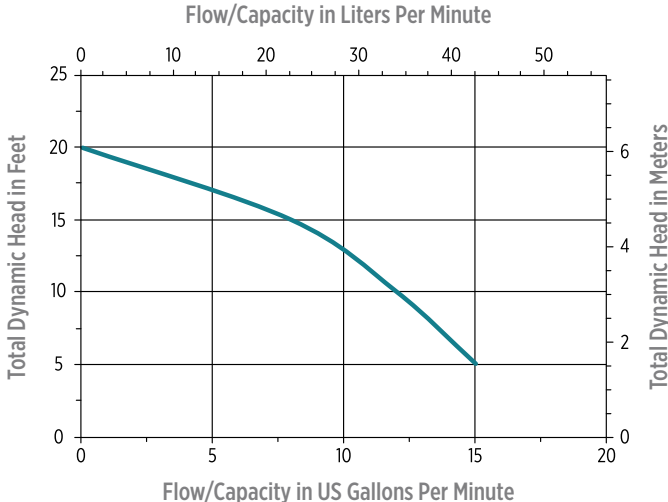


# SUMP PUMPS

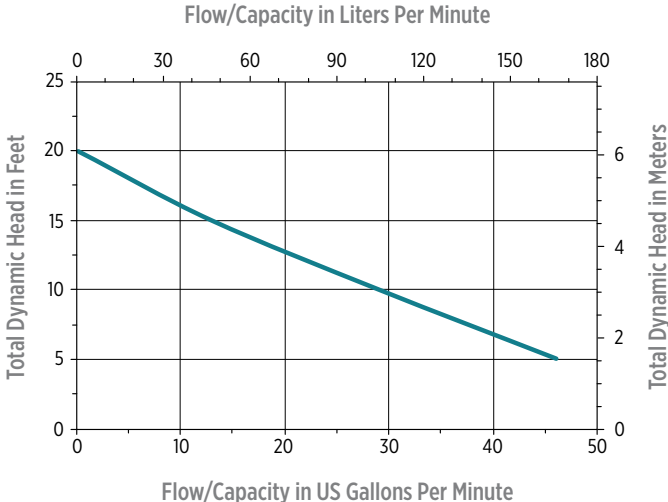
## WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

### PERFORMANCE DATA

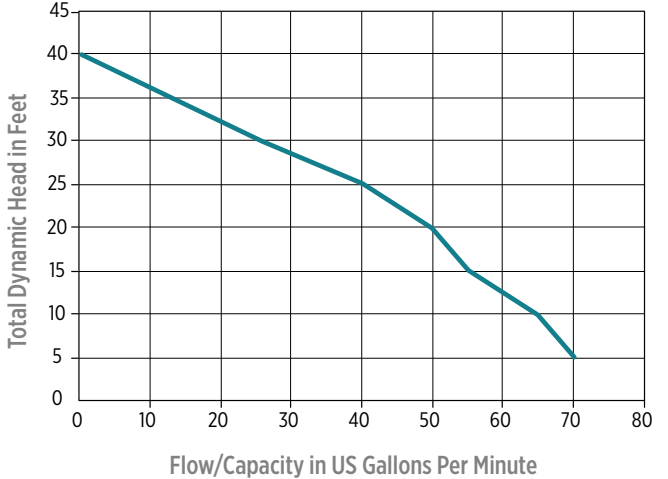
#### WRS-5



#### WRS-6 & WRSC-6

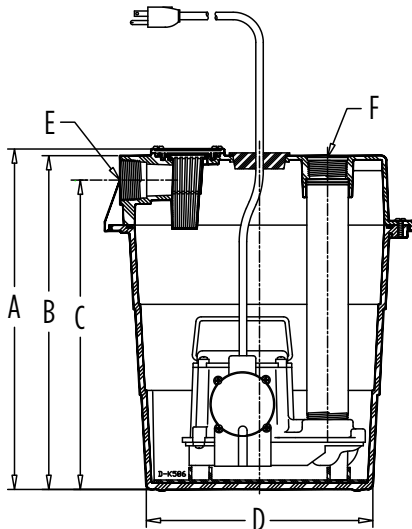


#### WRS-9

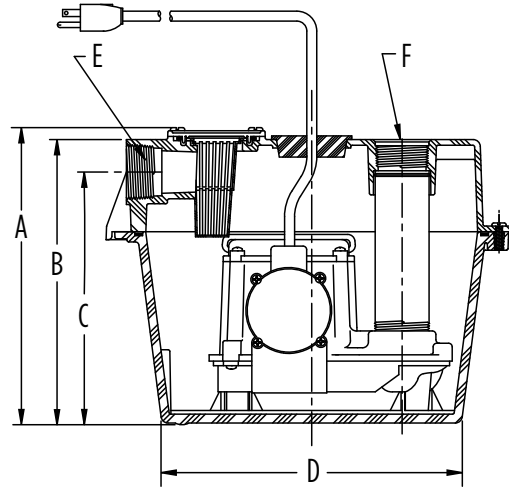


## WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

### ENGINEERING DATA



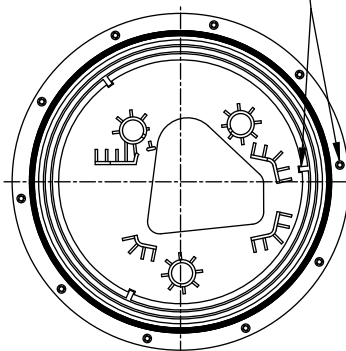
WRS



WRSC

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)

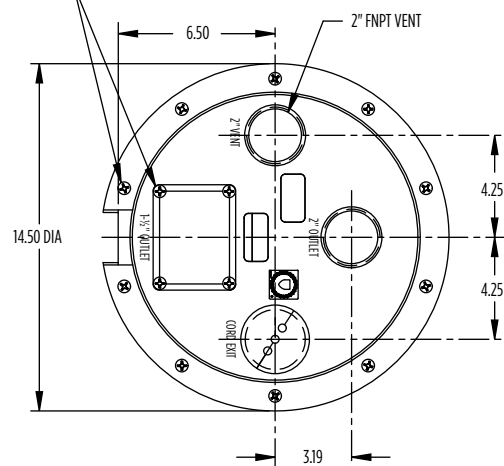
### PLATE ALIGNMENT DIAGRAM



MOUNTING HOLE LINES UP WITH A LOCATING RIB ON THE INSIDE OF THE BASIN.

POSITION THE PUMP LOCATING PLATE INSIDE THE BASIN AS SHOWN. THIS WILL ALLOW PROPER ALIGNMENT OF MOUNTING HOLES WHEN INSTALLING THE BASIN COVER. ANY OTHER POSITION WILL NOT ALLOW ASSEMBLY OF COVER.

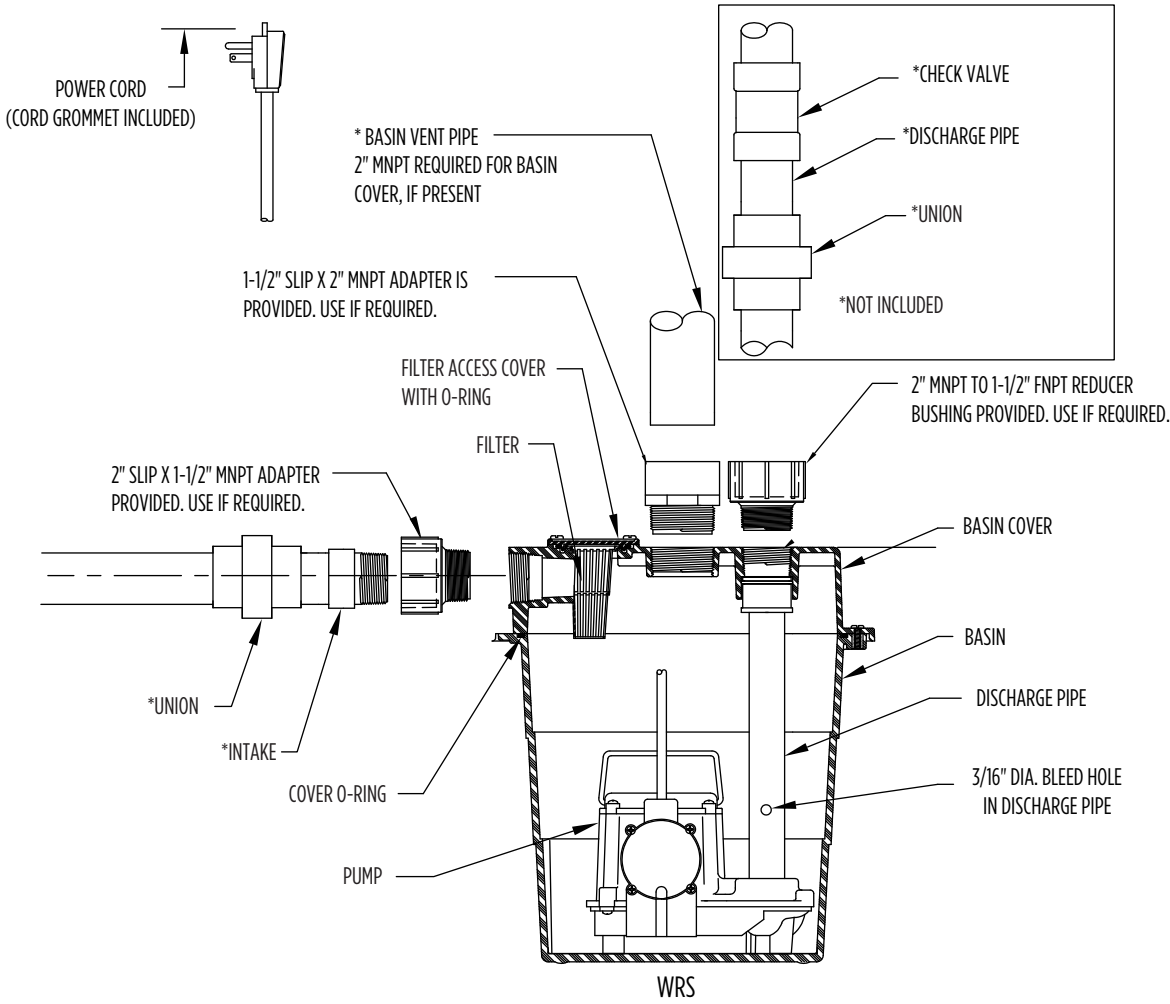
TORQUE 11-13 IN.-LBS.  
(TYP. 14 PLACES)



# 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
				5'	10'	15'		
115	60	5	600	50	42	30	22	9.5

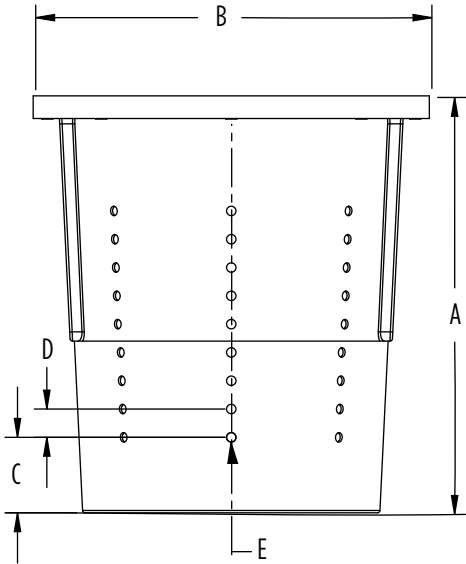
Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight (lbs)	Pump Item No.	Pump Model	Basin Item No.	Cover Item No.	Check Valve Item No.	Discharge Kit Item No.
14940655	CS-SS	1/3	115	Integral Snap-Action Float	7" - 10" 17.8 cm - 25.4 cm	2" - 5" 5 cm - 12.7 cm	20' 6 m	41 lbs 18.60 Kg	506804	6EC-CIA-SFS	14940653	14940654	577130	599303

NOTE: If parts are ordered separately outside the package item number, not all hardware is necessarily included to fully assemble entire package

# SUMP PUMPS

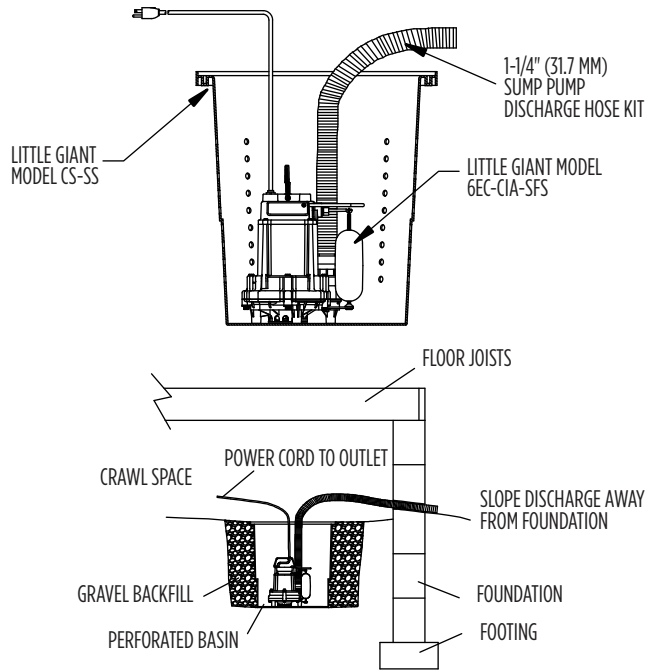
## CS-SS SERIES - 1/3 HP

### ENGINEERING DATA

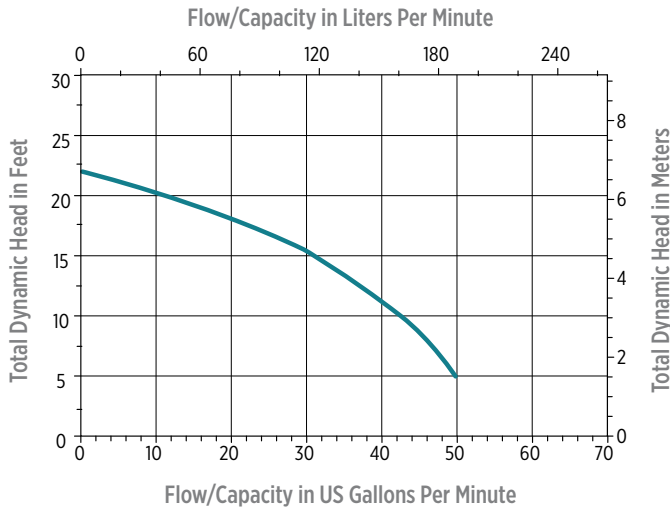


A	B	C	D	E
22.1"	21"	4"	1.5"	0.5"
56.13 cm	53.34 cm	10.16 cm	3.81 cm	1.27 cm

### INSTALLATION DATA



### PERFORMANCE DATA



### CONSTRUCTION

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



## SPK SERIES - SUMP PUMP SYSTEM

### APPLICATIONS

The SPK series pump packages are ideally suited for basement sumps and flood control applications

### FEATURES

- Prepackaged system (assembly required) has everything you need for an installation in one SKU; SPK-8CIA-1A even comes with a tank alert alarm system for peace of mind
- The system includes the time tested Little Giant 6 or Little Giant 8 Series of sump pump paired with the Little Giant diaphragm switch
- Pumps include extension feet to keep the pump off the bottom of the basin to prevent ingestion of debris for long pump life—no additional stands needed for the pump
- 18"x22" polypropylene basin with 4" Adapt-A-Flex grommet included will yield many years of trouble-free service and easy installation
- Check valve included for easy installation along with the required NPT threaded 1-1/2" discharge pipe
- Bolt on polypropylene cover included for a simple and secure installation



### SERIES SPECIFICATIONS

Item No.	Model	Discharge	HP	Volts	Switch Type/ Operation	Pump Item No.	Pump Model No.	Basin Item No.	Cover Item No.	Check Valve Item No.	Alarm Item No.
506081	SPK-6CIA	1-1/2"	1/3	115	Integral Diaphragm Switch	506162	6-CIA	507705	113366	940019	-
508100	SPK-8CIA-1A	1-1/2"	4/10	115	Integral Diaphragm Switch	508159	8-CIA	507705	113366	940019	950059

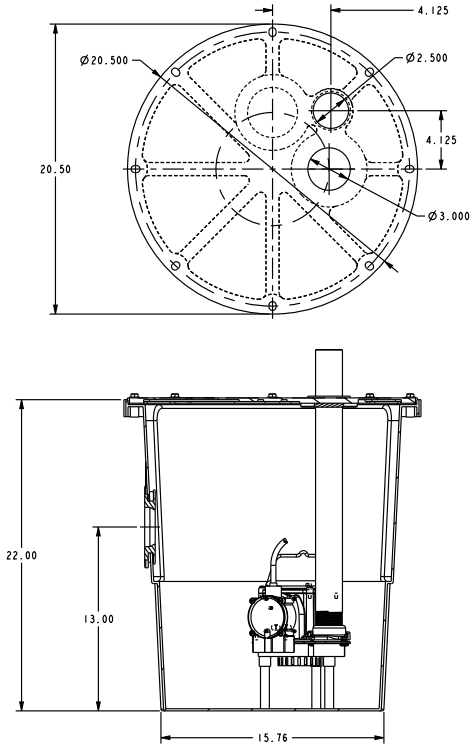
NOTE: If parts are ordered separately outside the package item number, not all hardware is necessarily included to fully assemble entire package



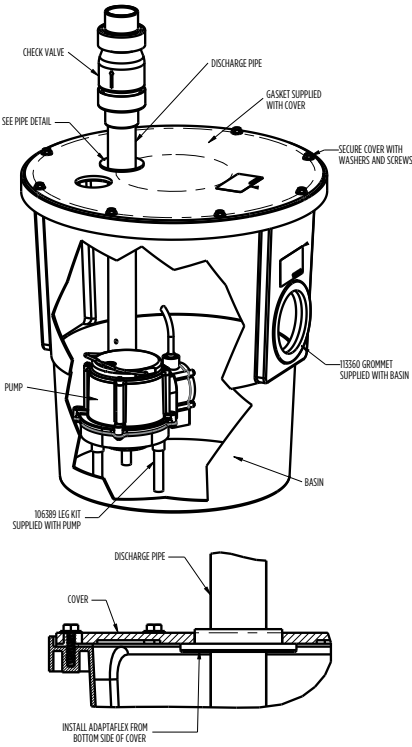
# SUMP PUMPS

## SPK SERIES - SUMP PUMP SYSTEM

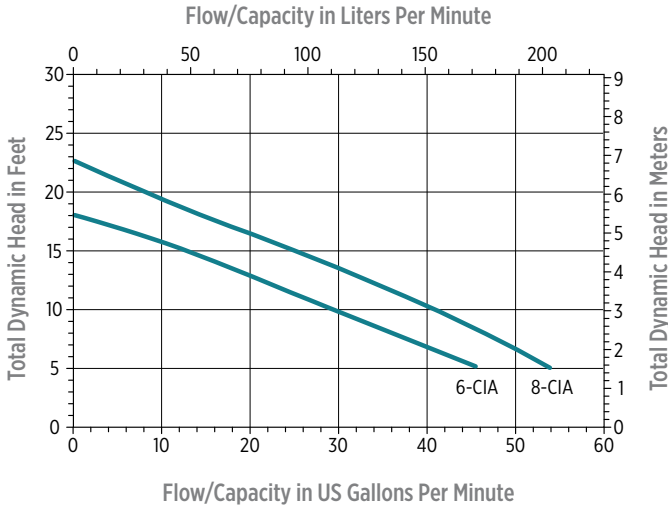
### ENGINEERING DATA



### INSTALLATION DATA



### PERFORMANCE DATA



### PUMP CONSTRUCTION

<b>Motor Housing</b>	Epoxy coated cast iron
<b>Impeller Material</b>	Nylon; Polypropylene
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Polypropylene
<b>Motor Shaft</b>	Cold-rolled steel
<b>Mechanical Shaft Seal</b>	Nitrile with carbon and ceramic faces
<b>Fasteners</b>	Stainless steel
<b>Bearings</b>	Upper and lower: Sintered, iron, flanged sleeve
<b>Power Cord</b>	18-3, SJTW



## 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 §1601-1608.

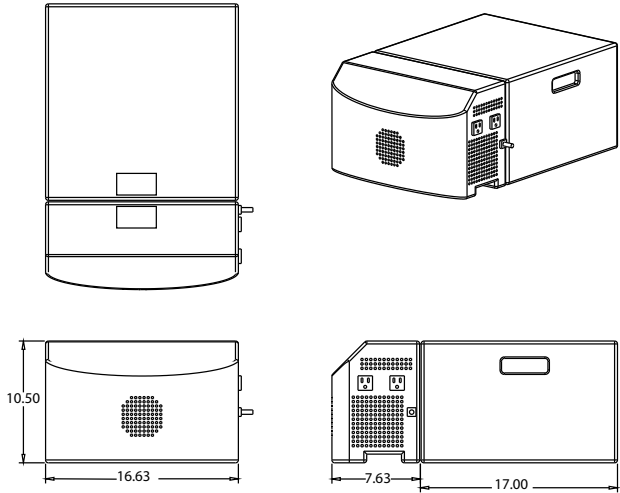
### SERIES SPECIFICATIONS

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

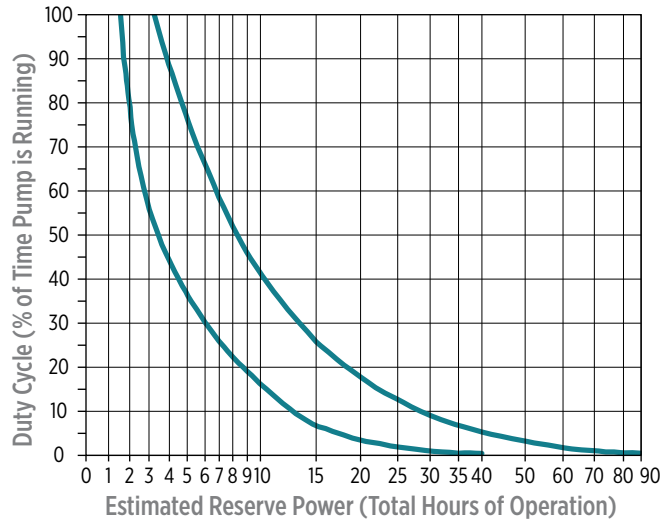
## APS-115 - BATTERY BACKUP SYSTEMS

### ENGINEERING DATA

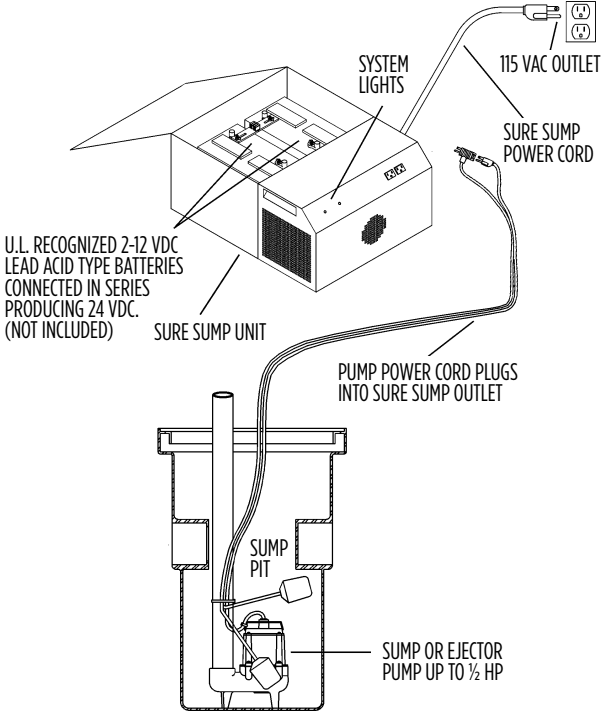


A	B	C	D	E
12"	23"	16-1/2"	14-5/8"	8-3/8"
30.48 cm	58.42 cm	41.91 cm	37.15 cm	21.27 cm

### PERFORMANCE DATA



### TYPICAL INSTALLATION



### CONSTRUCTION

<b>Enclosure</b>	Corrosion-resistant thermoplastic
<b>Finish (Interior/Exterior)</b>	Baked-on epoxy
<b>Battery Access</b>	Removable lid
<b>Construction</b>	Two-piece
<b>Weight</b>	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 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	-					
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



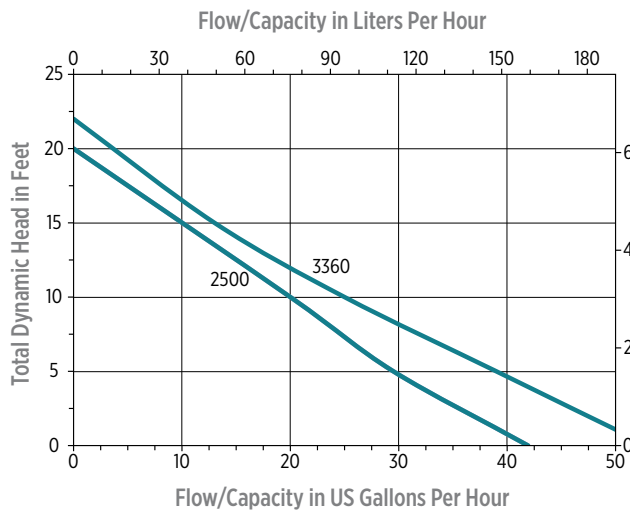
## SPBS SERIES - BATTERY BACKUP SYSTEMS

### FEATURES

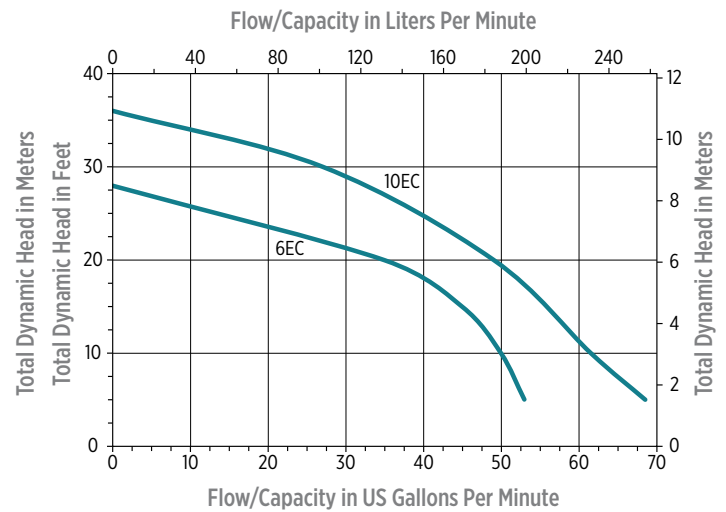
#### CONTROLLER/CHARGER/ALARM

- 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

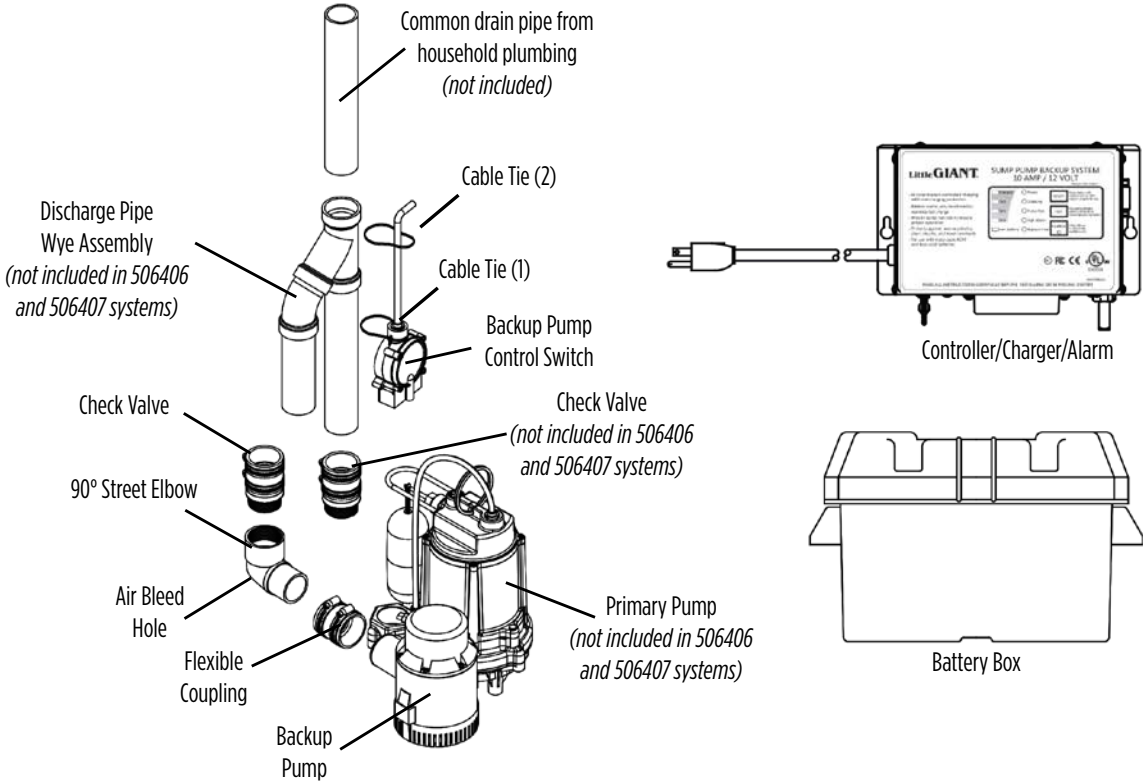


6EC - SPBS-10HF-6, 1/3 hp Primary Pump  
 10EC - SPBS-12HF-10, 1/2 hp Primary Pump

# BATTERY BACKUP

## SPBS SERIES - BATTERY BACKUP SYSTEMS

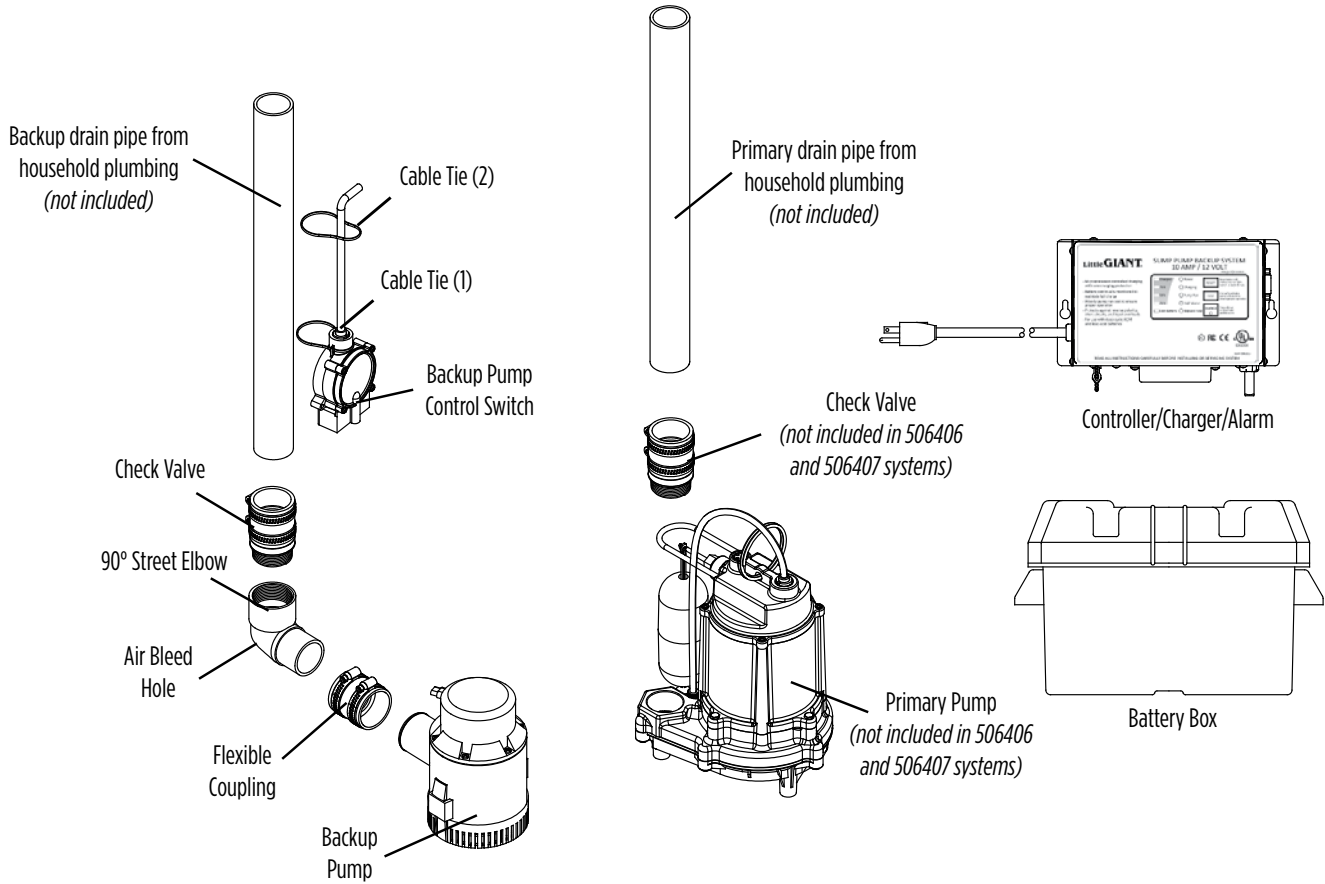
### BACKUP SYSTEM ON A COMMON DISCHARGE





## SPBS SERIES - BATTERY BACKUP SYSTEMS

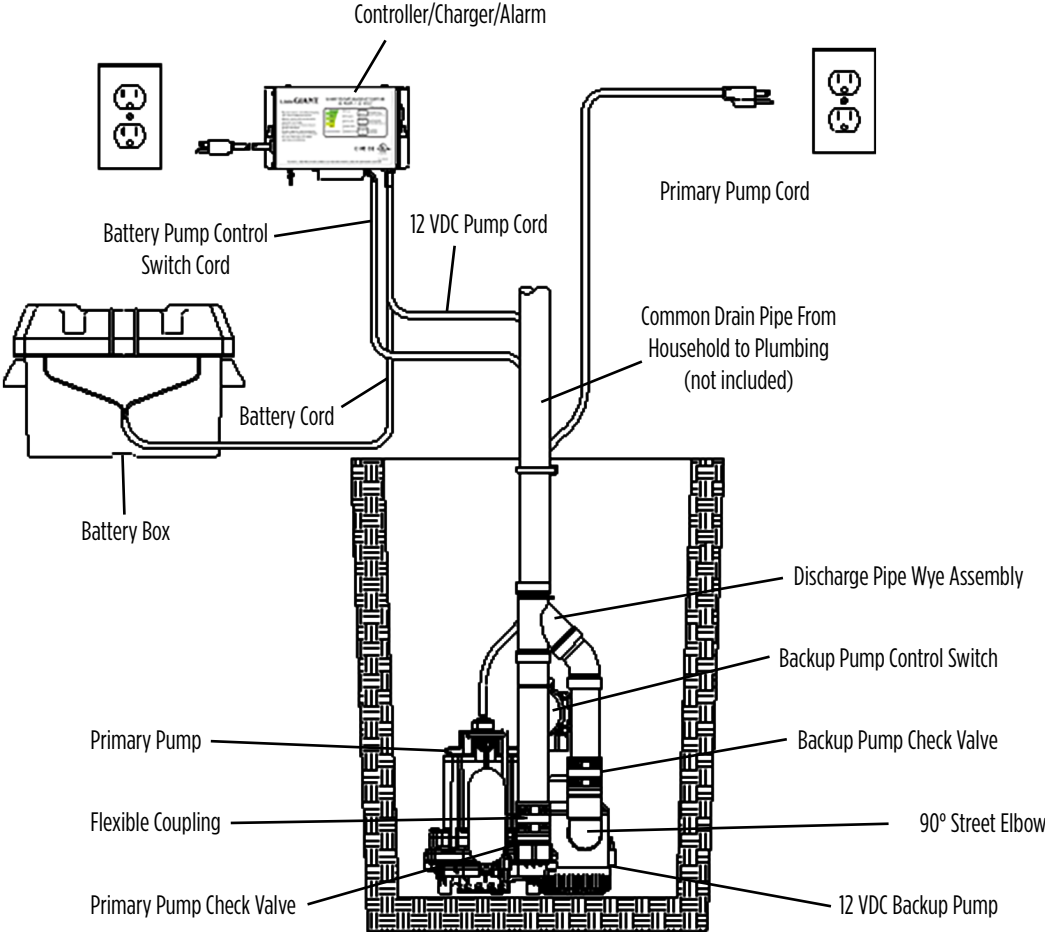
### BACKUP SYSTEM ON A SEPARATE DISCHARGE



# 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'		
513384	OS3-10ENH-1**	115	60	1/2	N/A	511572	10ECH-CIM	115	60	1/2	55	45	60	26

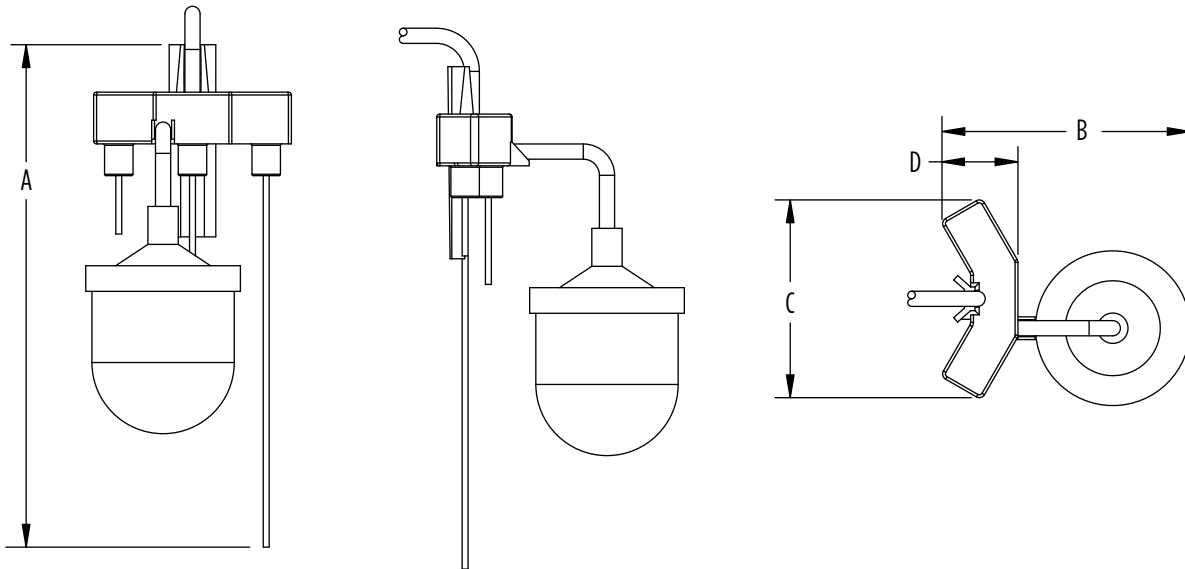
\*\* Includes pump in kit

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)

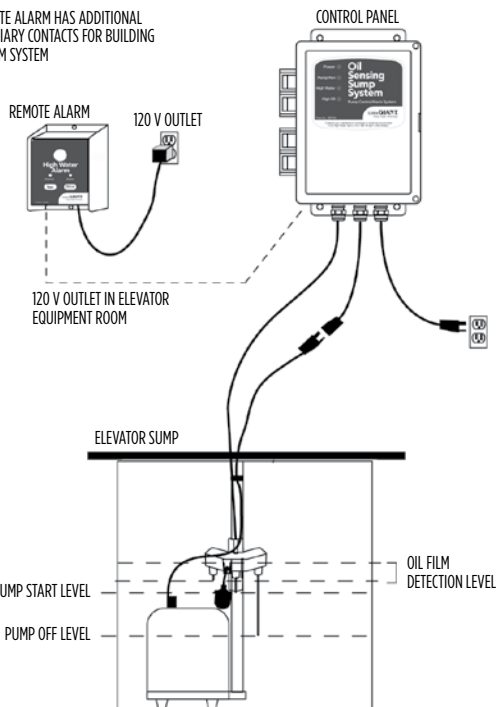
### ENGINEERING DATA



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

<b>Sensor</b>	
<b>Housing</b>	ABS
<b>Probe</b>	Stainless steel
<b>Float</b>	PVC

<b>Control Panel</b>	
<b>Enclosure</b>	Type 1
<b>Power Cord</b>	6' SJT, 120 VAC
<b>Receptacle</b>	SJT, 120 VAC, 15 amp

<b>Alarm Panel</b>	
<b>Enclosure</b>	Type 1
<b>Power Cord</b>	Plug in transformer, 120 VAC
<b>Backup Power</b>	9 VDC battery backup
<b>LED Indicators</b>	Trouble, high level, high oil
<b>Audible Alarm</b>	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

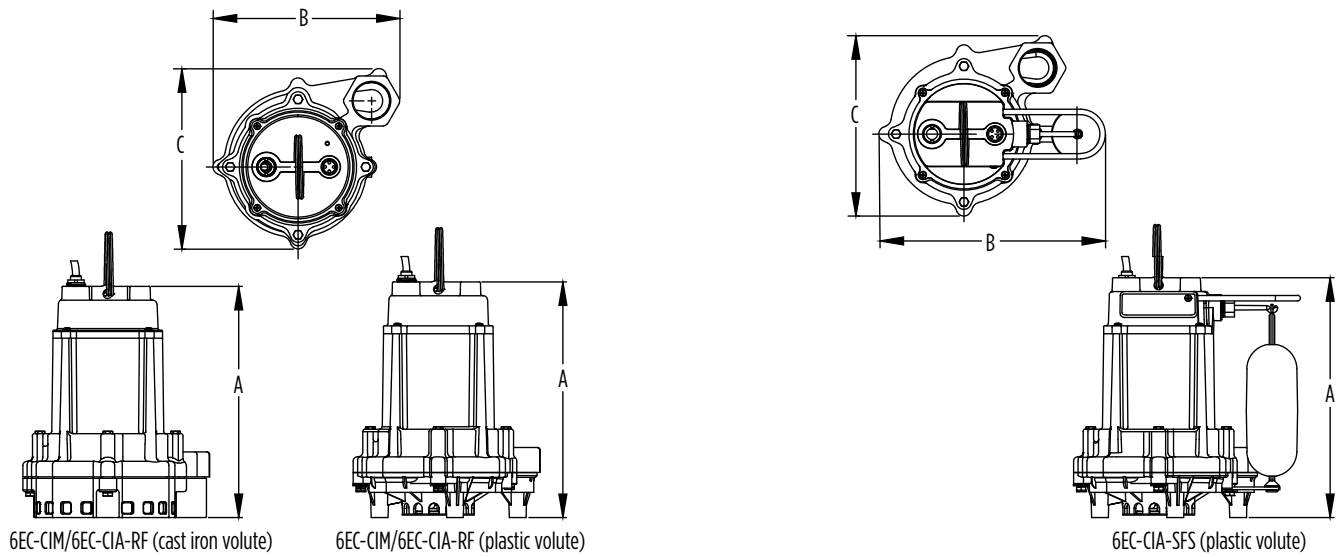
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'		
115	60	5	14.5	600	53	50	42	34	28	12.1

Item	Model	HP	Volts	Base Material	Switch Type/Operations	On Level	Off Level	Cord	Weight
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)
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)
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)
506802	6EC-CIM	1/3	115	Polypropylene	Manual	—	—	20' (6.1 m)	27.5 lbs (12.5 Kg)

# EFFLUENT PUMPS

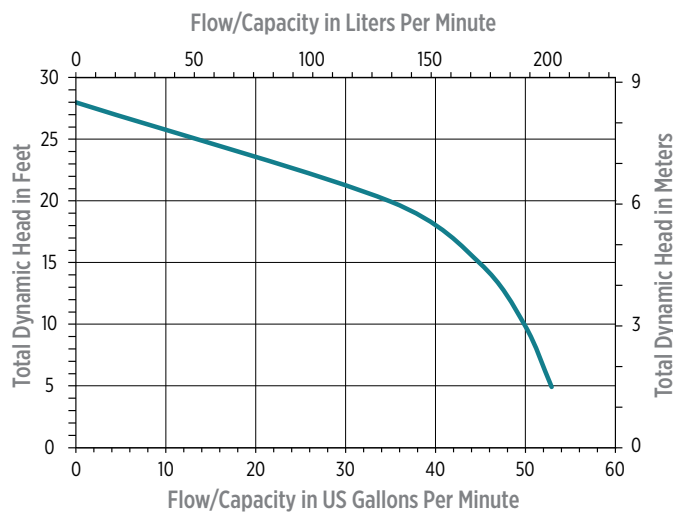
## 6EC SERIES - 1/3 HP

### 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)
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

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



## 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



9EC-CIA-RF

9EC-CIM

9EC-CIA-SFS

### SERIES SPECIFICATIONS

Model	HP	Volts	HZ	Amps		Watts	Max. Water Temp.	GPM / Liters per Minute @ Height				Shut-Off	
				FLA	Start			5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	30 ft / 9.1 m	ft / m	PSI / Bar
9EC	4/10	115	60	7.5	14.5	800	140 °F / 60 °C	70 / 265	63 / 239	45 / 170	22 / 83	37 / 11.3	16.0 / 1.10
	4/10	230	50/60	4.0/4.0	10/10	820/900	140 °F / 60 °C	70 / 265	63 / 239	45 / 170	22 / 83	37 / 11.3	16.0 / 1.10

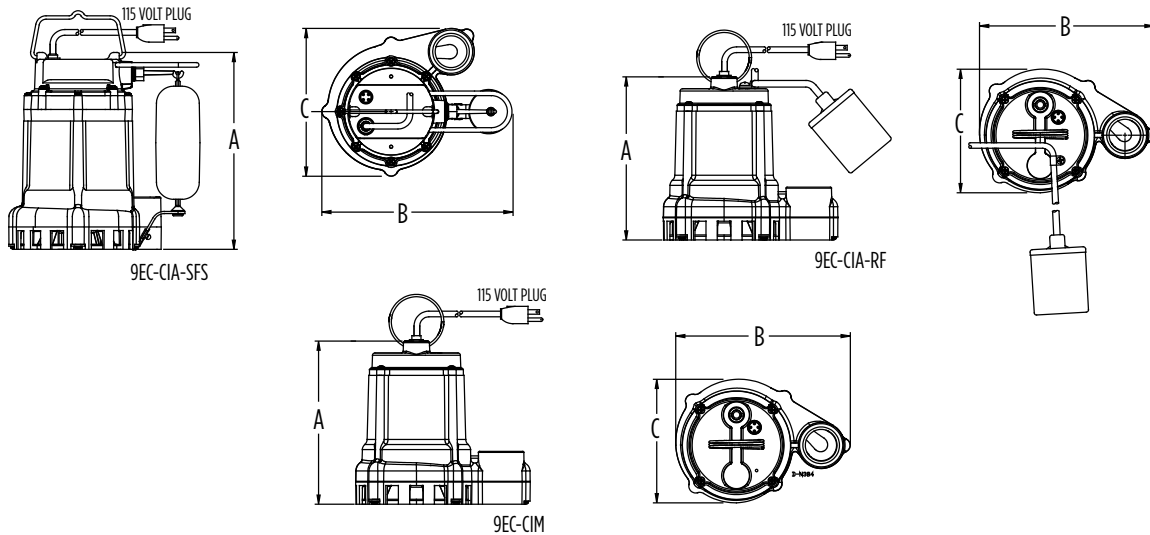
Item No.	Model	HP	Volts	Switch Type / Operation	On Level	Off Level	Cord	Weight
509804	9EC-CIA-SFS	4/10	115	Integral Float Switch	7" - 10" 18 cm - 25 cm	2" - 5" 5 cm - 13 cm	30' 9.1 m	28.5 lbs 12.93 Kg
509801	9EC-CIA-RF	4/10	115	Piggyback Float Switch	12" - 15" 30 cm - 38 cm	6" - 9" 15 cm - 23 cm	20' 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

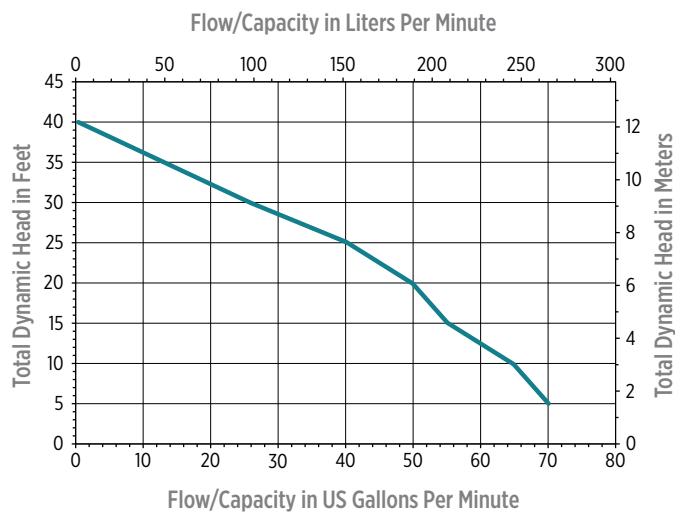
## 9EC SERIES - 4/10 HP

### 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

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



### SERIES SPECIFICATIONS

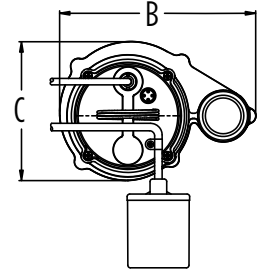
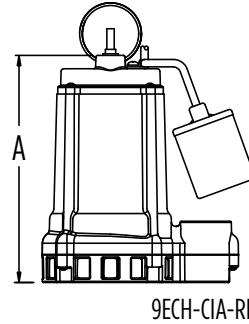
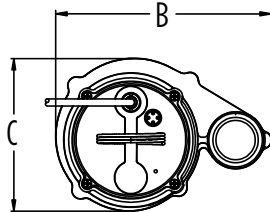
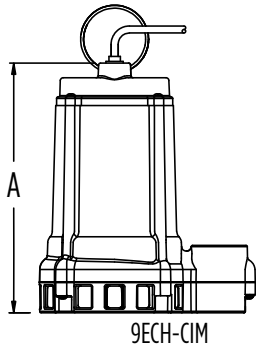
Model	HP	Volts	HZ	Amps		Watts	Max. Water Temp.	GPM / Liters per Minute @ Height					Shut-Off	
				FLA	Start			5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	30 ft / 9.1 m	40 ft / 12.2 m	ft / m	PSI / Bar
9ECH	4/10	115	60	7	14.5	830	140 °F / 60 °C	70 / 265	65 / 246	50 / 189	30 / 114	9 / 34	45 / 13.7	19.5 / 1.34

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

# EFFLUENT PUMPS

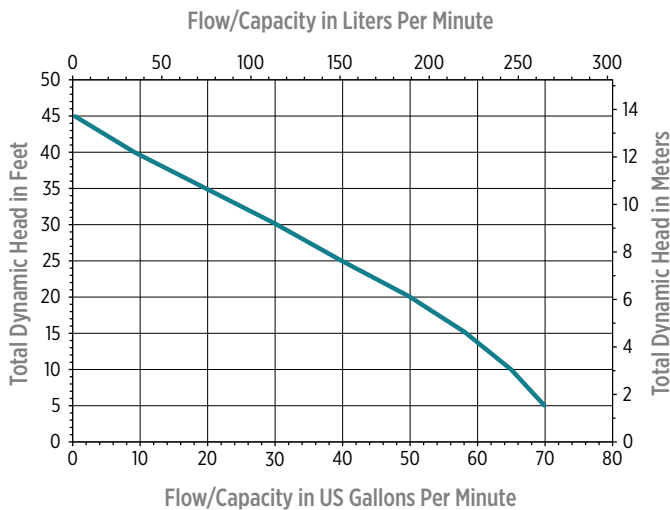
## 9ECH SERIES - 4/10 HP

### 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

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

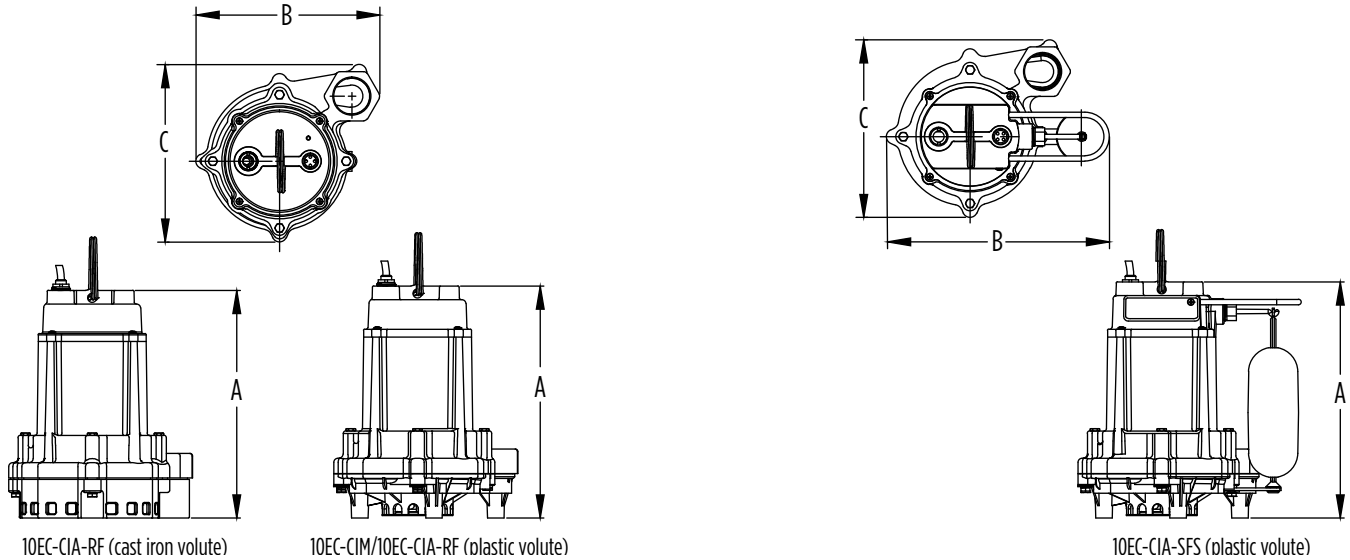
Volts	Hz	Amps		Watts	Performance (GPM at Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'	30'		
115	60	6.5	14.5	750	67	57	53	47	28	36	15.6

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
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
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
510800	10EC-CIM	1/2	115	Polypropylene	Manual	—	—	20' 6.1 m	28.5 lbs 12.9 Kg

# EFFLUENT PUMPS

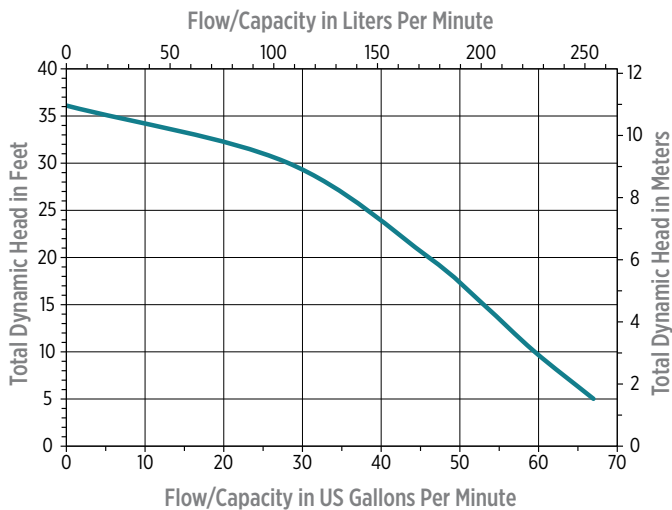
## 10EC SERIES - 1/2 HP

### 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)
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)

### PERFORMANCE DATA



### CONSTRUCTION

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

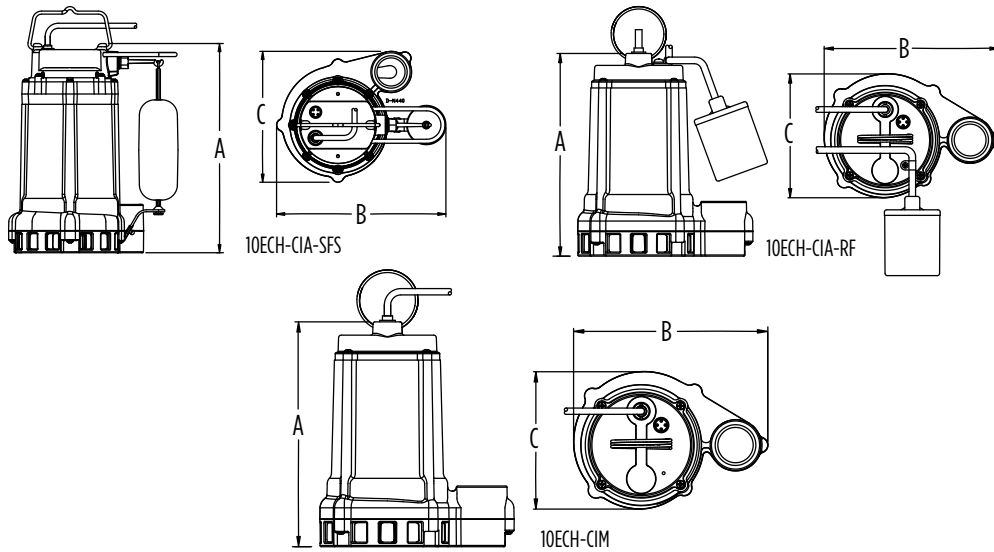
Model	HP	Volts	HZ	Amps		Watts	Max. Water Temp.	GPM / Liters per Minute @ Height					Shut-Off	
				FLA	Start			5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	30 ft / 9.1 m	40 ft / 12.2 m	ft / m	PSI / Bar
10ECH	1/2	115	60	9	22	1030	140 °F / 60 °C	60 / 227	55 / 208	45 / 170	30 / 114	15 / 57	60 / 18.3	26 / 1.79

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

# EFFLUENT PUMPS

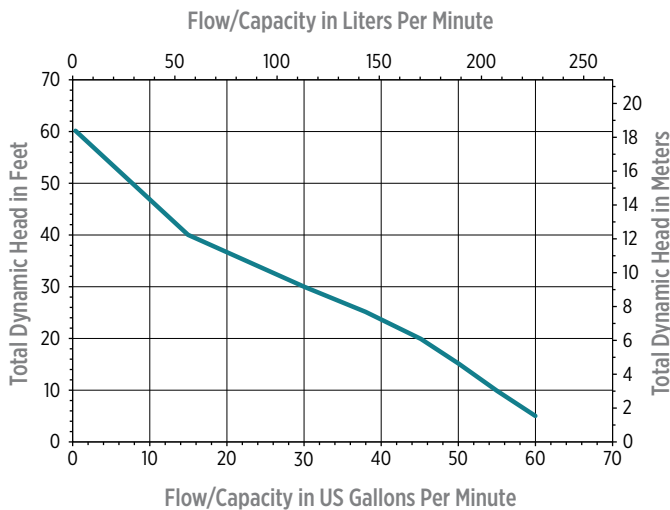
## 10ECH SERIES - 1/2 HP

### 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

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

\* On SFS models

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





## HT-10EN HIGH TEMPERATURE - 1/2 HP

### APPLICATIONS

Boiler blow-down, effluent wastewater removal, sump pits, transformer vaults

### FEATURES

- Rated for continuous duty use dewatering, water transfer, and effluent wastewater removal applications
- Energy-efficient PSC motor with thermal overload protection
- Handles liquids up to 200 °F (93 °C)
- Heavy duty epoxy coated cast iron housing
- Solids handling up to 3/4" diameter
- cCSAus listing



### SERIES SPECIFICATIONS

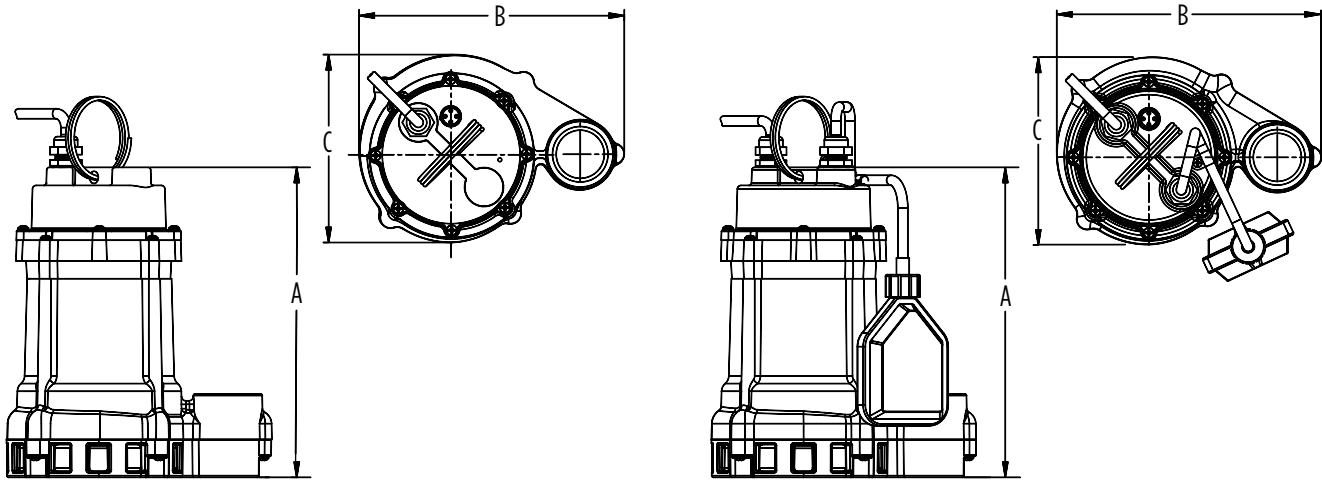
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'	25'		
115	60	10.5	21	900	75	65	60	40	20	30	13

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
511710	HT-10EN-CIA-FS	1/2	115	Integral Mechanical Float	9" - 14" 22.86 cm - 35.56 cm	2" - 4" 5 cm - 10.2 cm	15' 4.6 m	39 lbs 17.7 Kg
511610	HT-10EN-CIM	1/2	115	Manual	-	-	15' 4.6 m	38 lbs 17.24 Kg

# EFFLUENT PUMPS

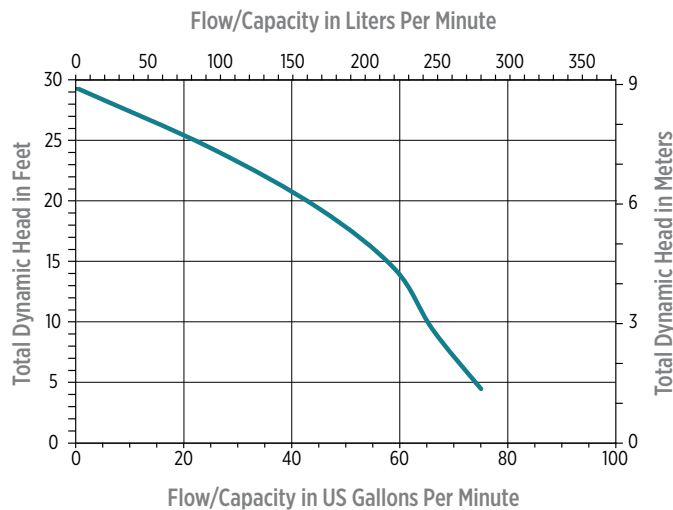
## HT-10EN HIGH TEMPERATURE - 1/2 HP

### ENGINEERING DATA



Model	A	B	C
HT-10EN-CIA-FS	11.16" 28.35 cm	9.56" 24.28 cm	6.77" 17.20 cm
HT-10EN-CIM	11.16" 28.35 cm	9.56" 24.28 cm	6.77" 17.20 cm

### PERFORMANCE DATA



### CONSTRUCTION

<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Nylon
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Epoxy-coated cast iron
<b>Mechanical Shaft Seal</b>	Fluoroelastomer (FKM) with carbon and Ni-resist faces
<b>Fasteners</b>	Stainless steel
<b>Shaft</b>	Steel
<b>Bearings</b>	Upper and lower ball bearings
<b>Power Cord</b>	SJTW



## 12E SERIES - 1/2 HP

### APPLICATIONS

For use in dewatering, water transfer, and septic wastewater removal

### FEATURES

- Heavy-duty epoxy coated cast iron housing for high strength and heat dissipation
- Designed for continuous duty
- Upper and lower ball bearings for long life
- Energy-efficient PSC motor with thermal overload protection
- Unique cloverleaf intake design allows higher flow with 3/4" (19 mm) diameter solids handling
- Ideal for high-head performance in vault applications while maintaining high flow and clog resistance using a cast iron non-clog impeller
- 2" FNPT discharge (51 mm)
- Three-year warranty
- Manual or automatic switch options for application flexibility
- 140 °F (60 °C) maximum liquid temperature rating
- cCSAus listed



12E-CIM

12E-CIA-RF



### SERIES SPECIFICATIONS

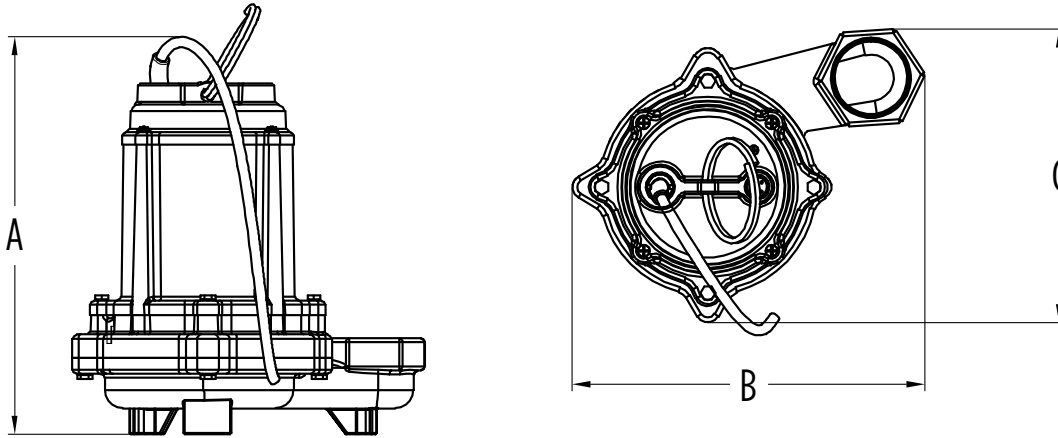
Model	Volts	Hz	Amps		Watts	Performance (GPM / Liters per Minute @ Height)							Shut-Off	
			FLA	Start		5 ft / 1.5 m	10 ft / 3.0 m	15 ft / 4.6 m	20 ft / 6.0 m	30 ft / 9.1 m	40 ft / 12.2 m	50 ft / 15.2 m	ft / m	PSI / Bar
12E-CIM	115	60	10	18	1100	50 / 189	48 / 182	46 / 174	43.5 / 165	33.9 / 128	22.5 / 85	7.5 / 28	53 / 16.2	22.9 / 1.6
12E-CIA-RF														

Item No.	Model	HP	Volts	Switch Type/Operations	On Level	Off Level	Cord	Weight
512001	12E-CIM	1/2	115	Manual	-	-	20' 6.1 m	36.4 lbs 16.5 kg
512002	12E-CIA-RF	1/2	115	Piggyback Float Switch	12" - 15" 30.5 cm - 38.1 cm	6" - 8" 15.2 cm - 20.3 cm	20' 6.1 m	37.7 lbs 17.1 kg

# EFFLUENT PUMPS

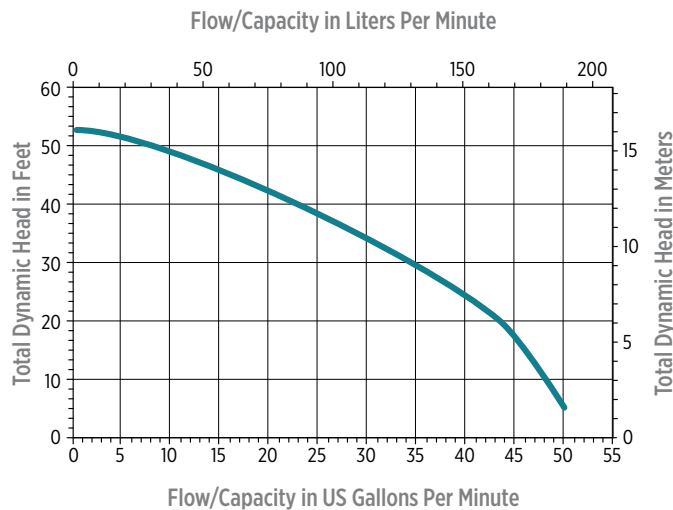
## 12E SERIES - 1/2 HP

### ENGINEERING DATA



Model	A	B	C
12E-CIM	8.07"	7.75"	4.29"
12E-CIA-RF	20.50 cm	19.69 cm	10.90 cm

### PERFORMANCE DATA



### CONSTRUCTION

<b>Cover</b>	Epoxy-coated cast iron
<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Cast iron
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Epoxy-coated cast iron
<b>Mechanical Shaft Seal</b>	Nitrile with carbon and ceramic faces
<b>Fasteners</b>	Stainless steel
<b>Shaft</b>	Stainless steel
<b>Bearings</b>	Upper and lower ball bearing
<b>Power Cord</b>	SJTW *SJTOW
<b>RPM</b>	3450

\* 12E-CIA-RF model piggyback switch cord type



## 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



### 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
16EH	230	60	10.2	30	2200	-	90	70	50	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

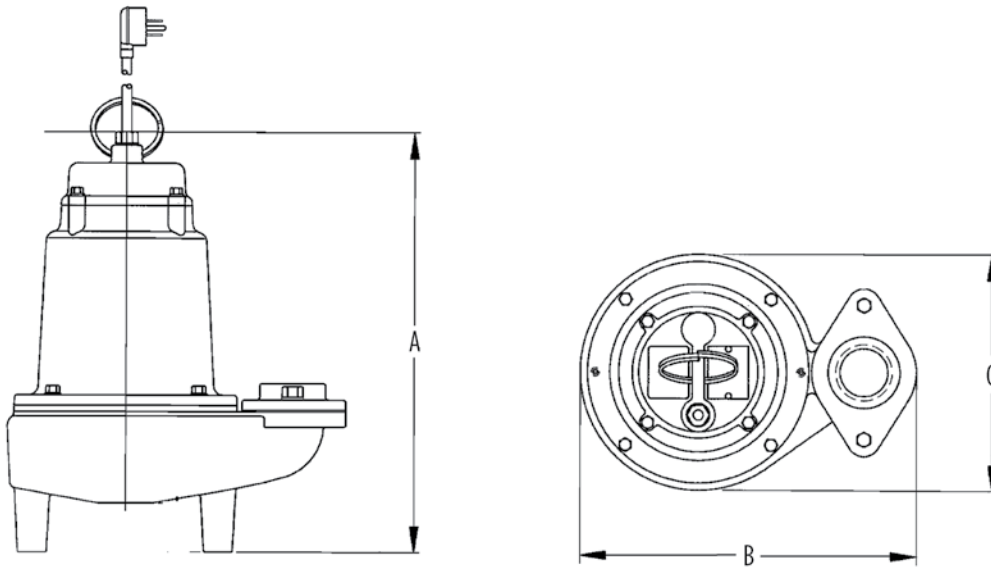
Item No.	Model	HP	Volts	Phase	Cord	Weight
514520	16EH-CIM	1	230	1*	20' 6.1 m	89 lbs 40.37 Kg

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

# EFFLUENT PUMPS

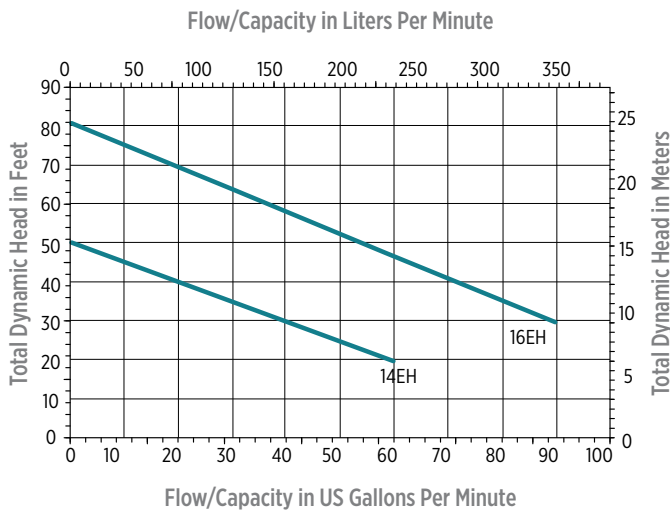
## 14EH/16EH SERIES - 1/2 HP, 1 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Epoxy-coated cast iron
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Epoxy-coated cast iron
<b>Mechanical Shaft Seal</b>	Nitrile with carbon and ceramic faces
<b>Fasteners</b>	Stainless steel
<b>Shaft</b>	Stainless steel
<b>Bearings</b>	Upper and lower ball bearings
<b>Power Cord</b>	SJTW-A



## 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
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
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	
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

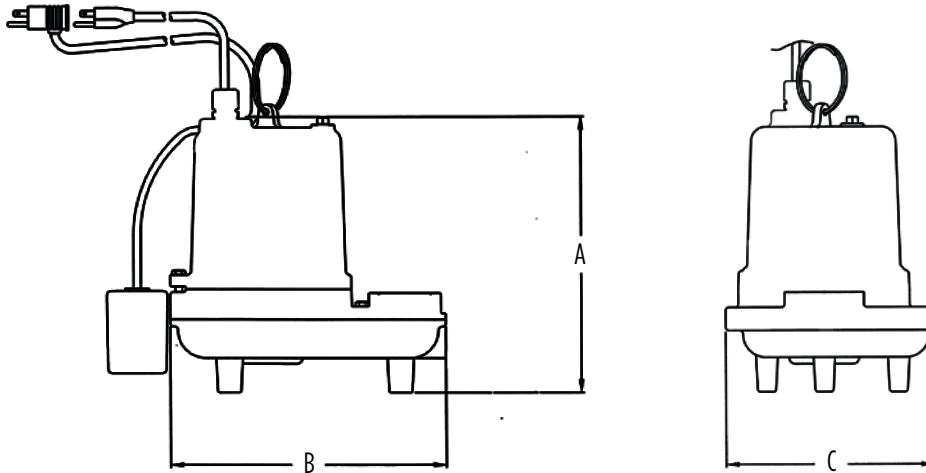
Item No.	Model	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
620010	WS30M	115	Manual	-	-	20' - 6.1 m	51 lbs - 22.68 Kg
620000	WS30AM	115	Piggyback Mechanical Float Switch	Adjustable		20' - 6.1 m	53 lbs - 24.04 Kg
620231	WS50M-20	115	Manual	-	-	20' - 6.1 m	55 lbs - 24.95 Kg
620233	WS50AM-20	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
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
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
620206	WS100HM-34	460	Manual	-	-	30' - 9.1 m	62 lbs - 28.12 Kg



# EFFLUENT PUMPS

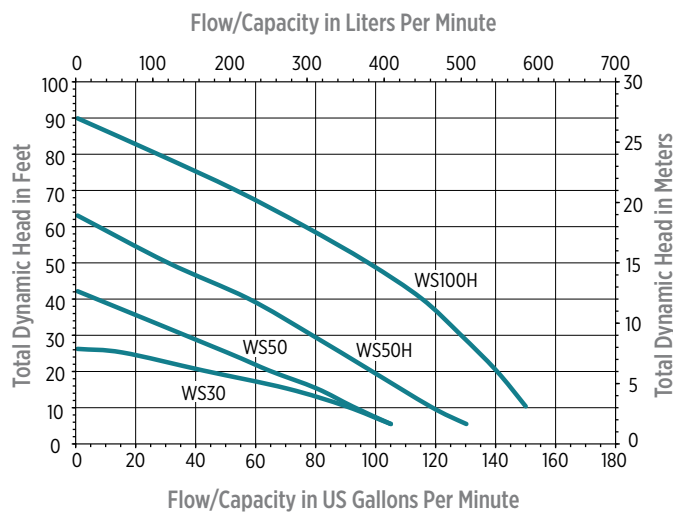
## WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

### 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

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



WSV50HM



### SERIES SPECIFICATIONS

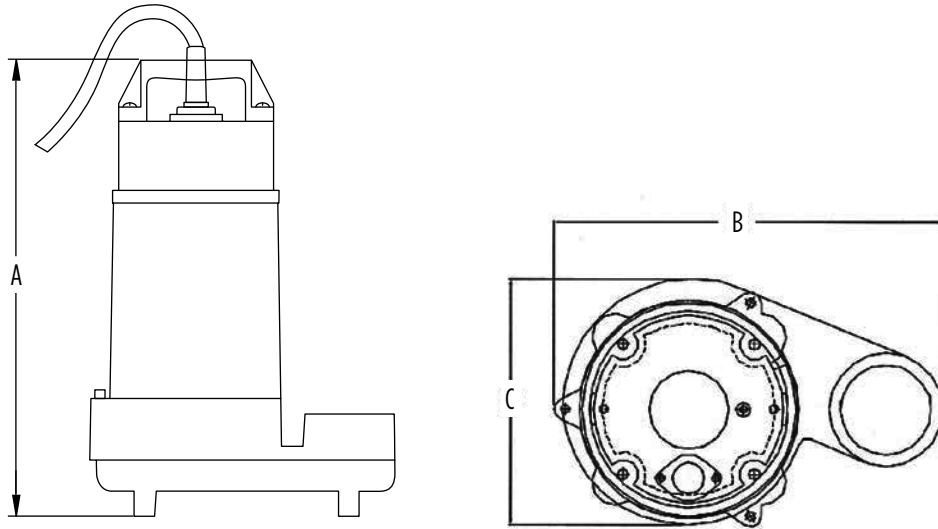
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		20'	25'	30'	35'	40'		
115	60	10.2	39	1100	83	74	62	48	30	45	19.5

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

# EFFLUENT PUMPS

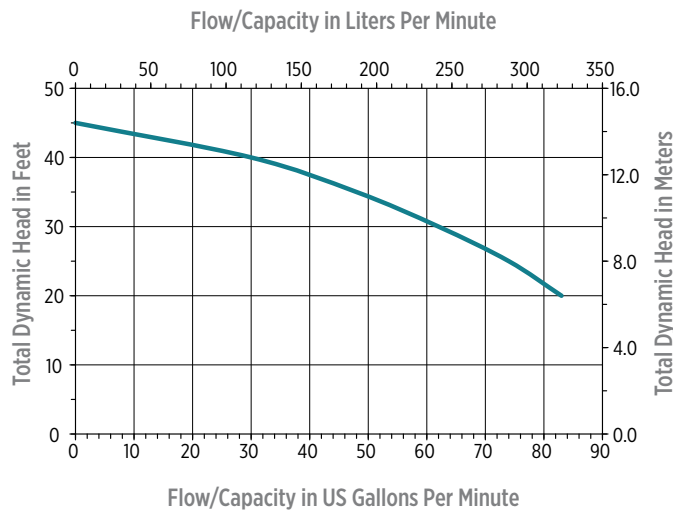
## WSV50 EFFLUENT SERIES - 1/2 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

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

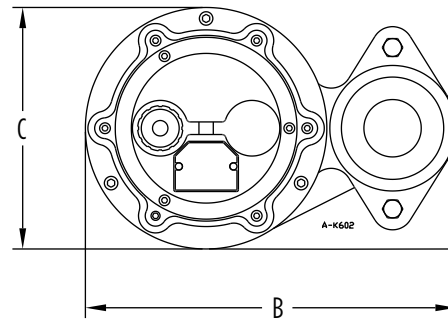
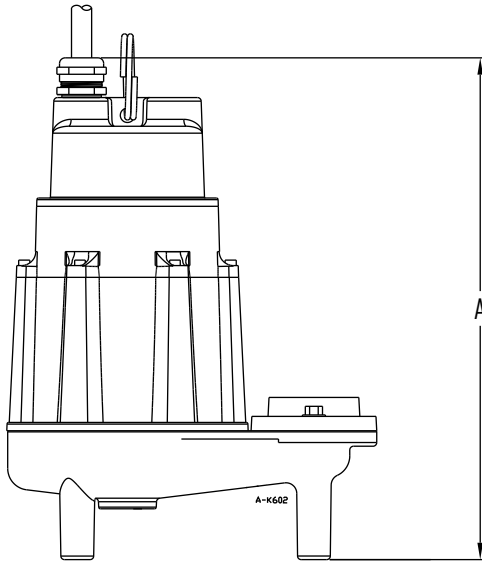
Item No.	Model	HP	Volts	Phase	Cord	Weight
520200	20E-CIM	2	230	1*	20' 6.1 m	92 lbs 41.47 Kg

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

# EFFLUENT PUMPS

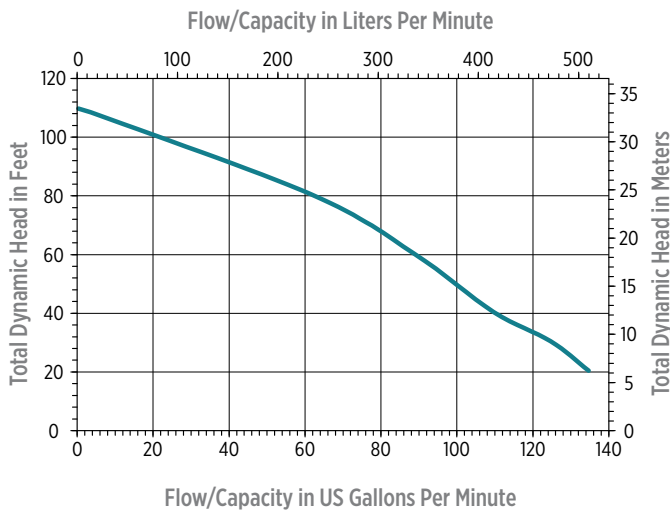
## 20E SERIES - 2 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

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



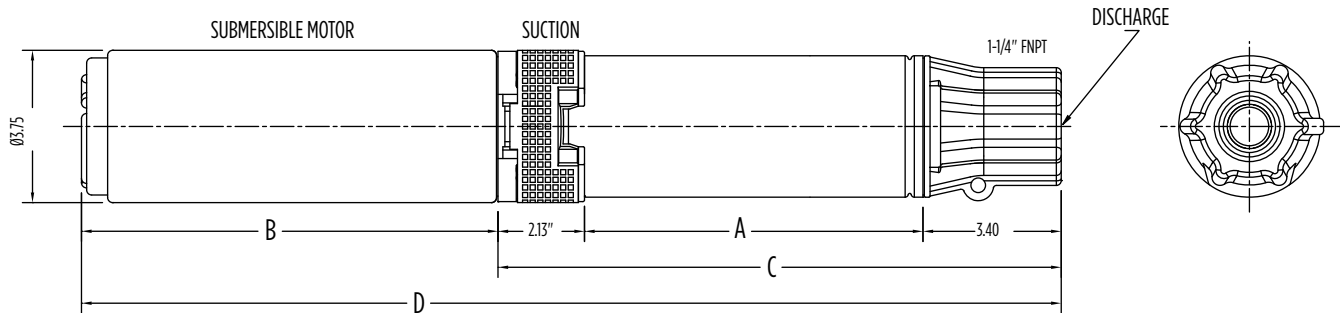
### SERIES SPECIFICATIONS

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

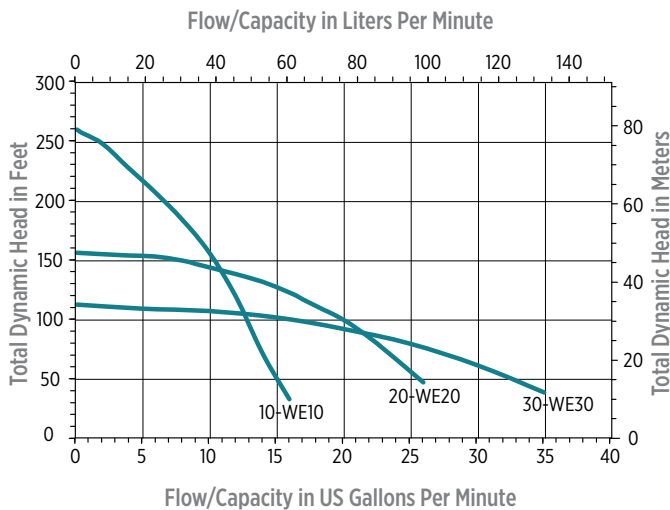
## WE SERIES - 1/2 HP

### 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

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



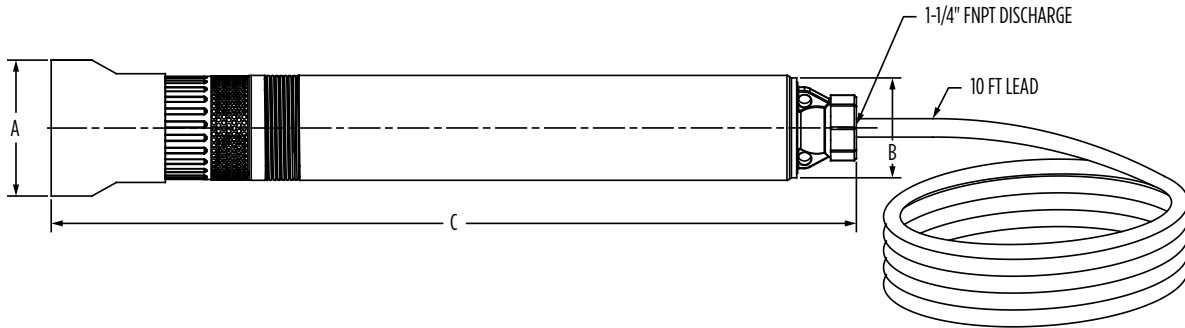
### SERIES SPECIFICATIONS

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	6	9.0	920	2	93	215	50	115	14	22	50	10
90301010	10C1-05P4-2W230	1/2	230	60	6	4.5	920	2	93	215	50	115	14	22	50	5
90302005	20C1-05P4-2W115	1/2	115	60	4	9.0	920	2	56	130	34	78	28	9	20	10
90302010	20C1-05P4-2W230	1/2	230	60	4	4.5	920	2	56	130	34	78	28	9	20	5
90302015	20XC1-05P4-2W115	1/2	115	60	5	9.0	920	2	68	156	37	85	28	9	21	10
90302020	20XC1-05P4-2W230	1/2	230	60	5	4.5	920	2	68	156	37	85	28	9	21	5
90303005	30C1-05P4-2W115	1/2	115	60	3	9.0	920	2	39	89	19	45	35	13	29	10
90303010	30C1-05P4-2W230	1/2	230	60	3	4.5	920	2	39	89	19	45	35	13	29	50

# EFFLUENT PUMPS

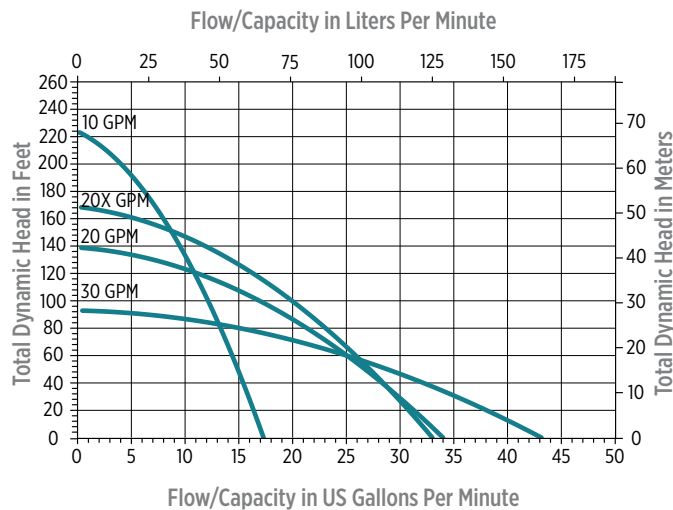
## C1 SERIES - 1/2 HP

### 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

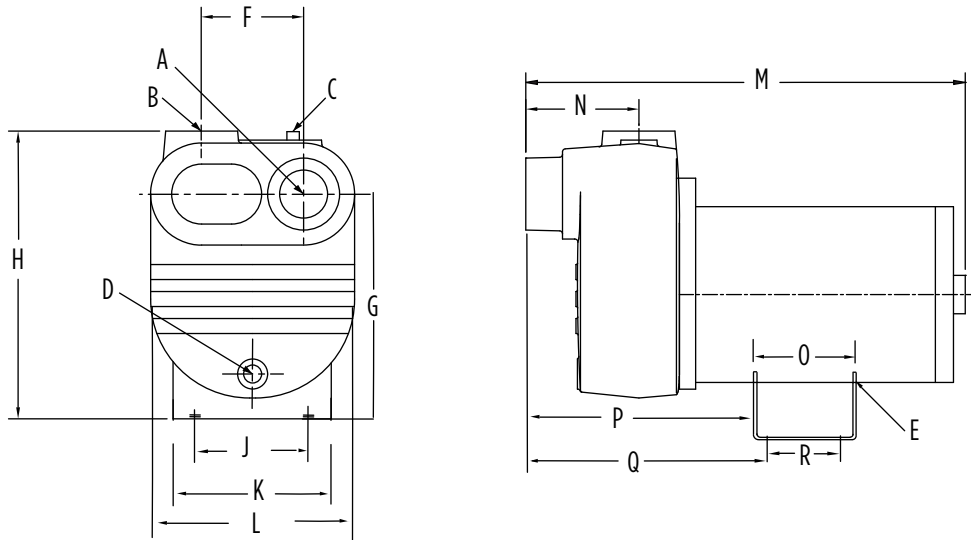
HP	Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)								Shut-Off (ft)	PSI
			FLA	Start		20'	25'	30'	35'	40'	45'	50'			
1/2	115/230	60	8.4/4.2	42/21.60	810	45	39	31	24	16	8	-	50	21.6	
3/4	115/230	60	14.3/7.1	71.5/36.2	1000	58	53	44	36	29	18	10	56	23.8	

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

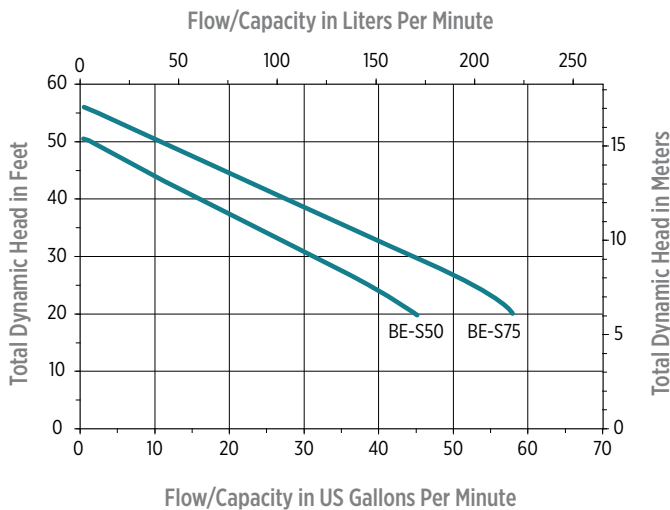
## BE SERIES - 1/2 HP, 3/4 HP

### 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

<b>Motor Housing</b>	Cast iron
<b>Impeller Material</b>	Cast iron
<b>Impeller Type</b>	Semi-open
<b>Volute</b>	Cast iron
<b>Motor Shaft</b>	Stainless steel
<b>Shaft Seal</b>	Carbon/ceramic
<b>Fasteners</b>	Plated steel
<b>Bearings</b>	Ball
<b>Power Cord</b>	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

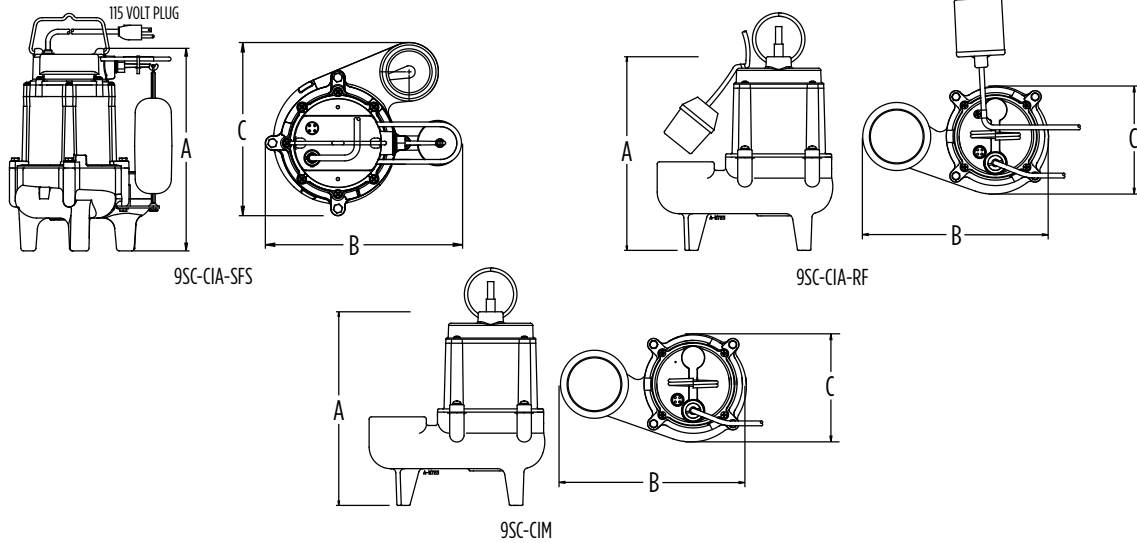
Model	HP	Volts	Hz	Amps		Watts	Max. Water Temp.	GPM / Liters per Minute @ Height			Shut-Off	
				FLA	Start			5 ft (1.5 m)	10 ft (3 m)	15 ft (4.6 m)	ft (m)	PSI (Bar)
9SC	4/10	115	60	8	18.5	870	140 °F (60 °C)	100 / 379	80 / 303	60 / 227	20 (6.1)	8.7 (0.60)

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

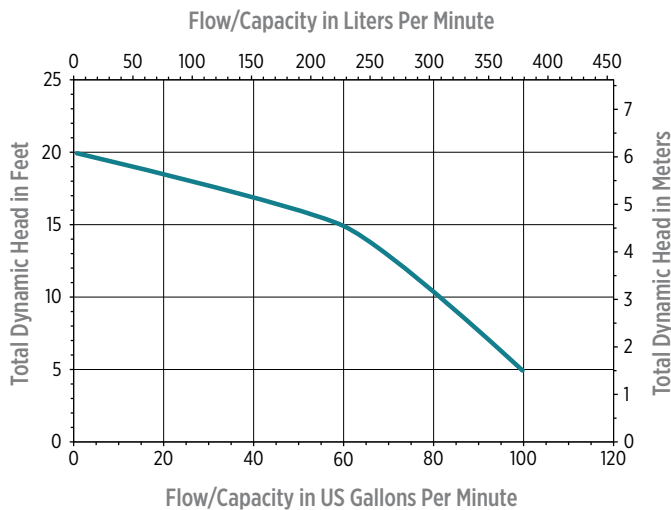
## 9SC SERIES - 4/10 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

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

\* On SFS 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	
				FLA	Start			5 ft / 1.5 m	10 ft / 3 m	15 ft / 4.6 m	20 ft / 6.1 m	ft / m	PSI / Bar
10SC (2" Discharge)	1/2	115	60	11	18.5	1230	140 °F (60 °C)	120 / 454	100 / 379	80 / 303	44 / 167	25 (7.6)	10.8 (0.75)
	1/2	208-230	50/60	5.5/5.5	13/13	991/1214	140 °F (60 °C)	120 / 454	100 / 379	80 / 303	44 / 167	25 (7.6)	10.8 (0.75)
10SC (3" Discharge)	1/2	115	60	11.5	18.5	1270	140 °F (60 °C)	130 / 492	110 / 416	85 / 322	46 / 174	25 (7.6)	10.8 (0.75)
	1/2	208-230	50/60	5.5/5.5	13/13	1004/1228	140 °F (60 °C)	120 / 454	100 / 379	80 / 303	44 / 167	25 (7.6)	10.8 (0.75)

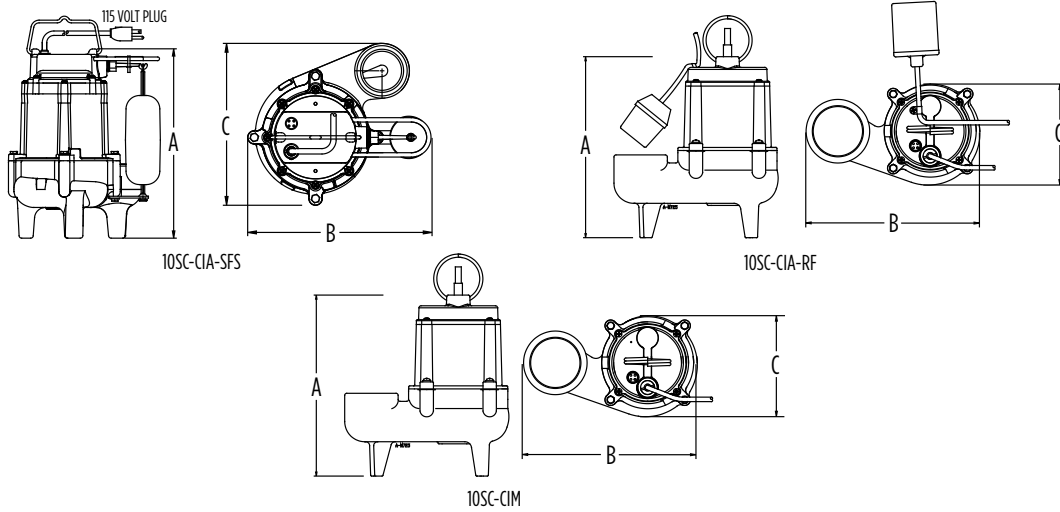
Item No.	Model	HP	Volts	Discharge	Switch Type / Operation	On Level	Off Level	Cord	Weight
511431	10SC-CIA-SFS	1/2	115	2"	Integral Snap-Action Float	11" - 14" 28 cm - 36 cm	6" - 9" 15 cm - 23 cm	20' 6.1 m	37.5 lbs 17.5 Kg
511433	10SC-CIA-RF	1/2	115	2"	Piggyback Mechanical Float	16" - 19" 41 cm - 48 cm	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	208-230	2"	Manual	-	-	20' 6.1 m	37.5 lbs 17.5 Kg
511436	10SC-CIM	1/2	208-230	3"	Manual	-	-	20' 6.1 m	36.5 lbs 16.56 Kg



# SEWAGE PUMPS

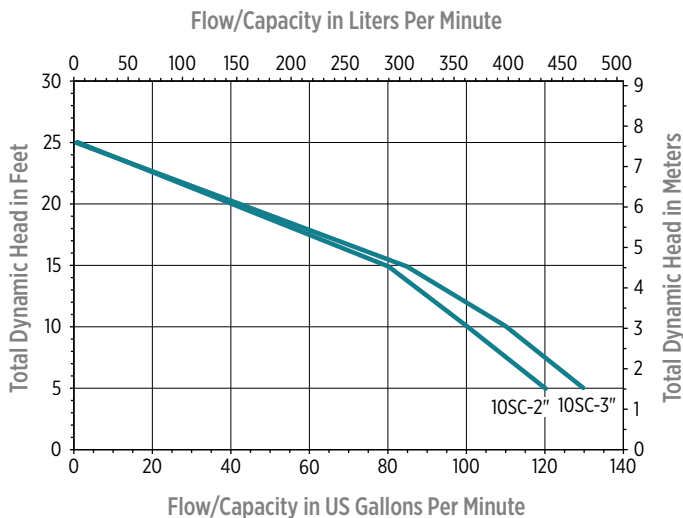
## 10SC SERIES - 1/2 HP

### 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

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

\* On SFS models

\*\* On 30" 10SC-CIA-RF and 10SC-CIM models



## WSV52 SERIES - 1/2 HP

### APPLICATIONS

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

### FEATURES

- Oil-free permanent split capacitor (PSC) motor with double ball bearings
- Designed for continuous duty
- 2" FNPT (51 mm) discharge
- Handles solids up to 2" (51 mm) diameter
- Power cord sealed at motor housing
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



### SERIES SPECIFICATIONS

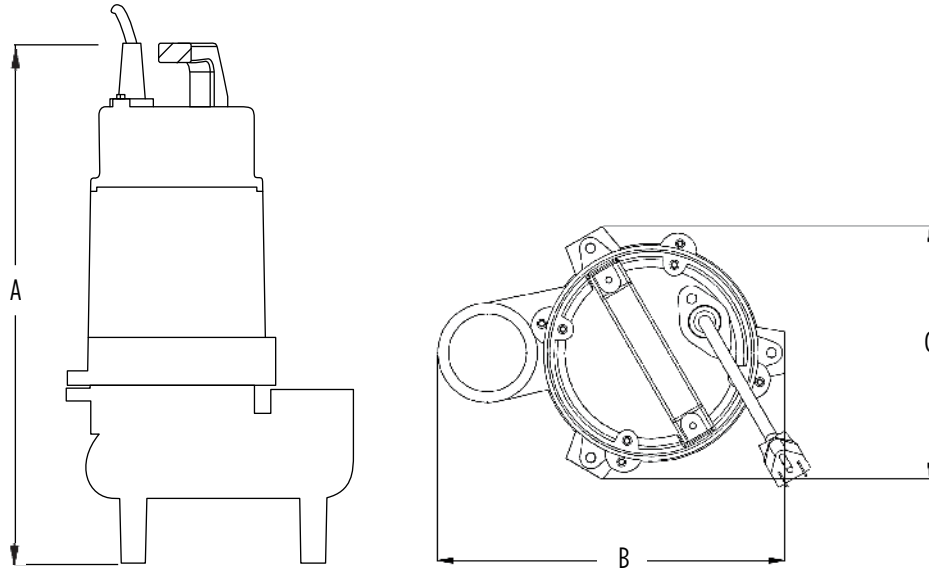
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'		
115	60	6	12	650	90	75	57	35	25	10.8

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
620236	WSV52HAM	1/2	115	Piggyback Mechanical Float Switch	Adjustable	Adjustable	20' 6.1 m	57 lbs 25.85 Kg

# SEWAGE PUMPS

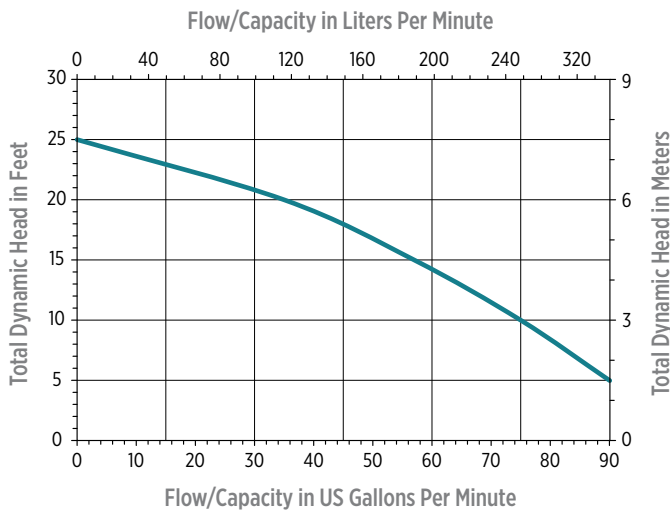
## WSV52 SERIES - 1/2 HP

### ENGINEERING DATA



A	B	C
15.75" 40 cm	8.78" 22.3 cm	6.38" 16.21 cm

### PERFORMANCE DATA



### CONSTRUCTION

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



## 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

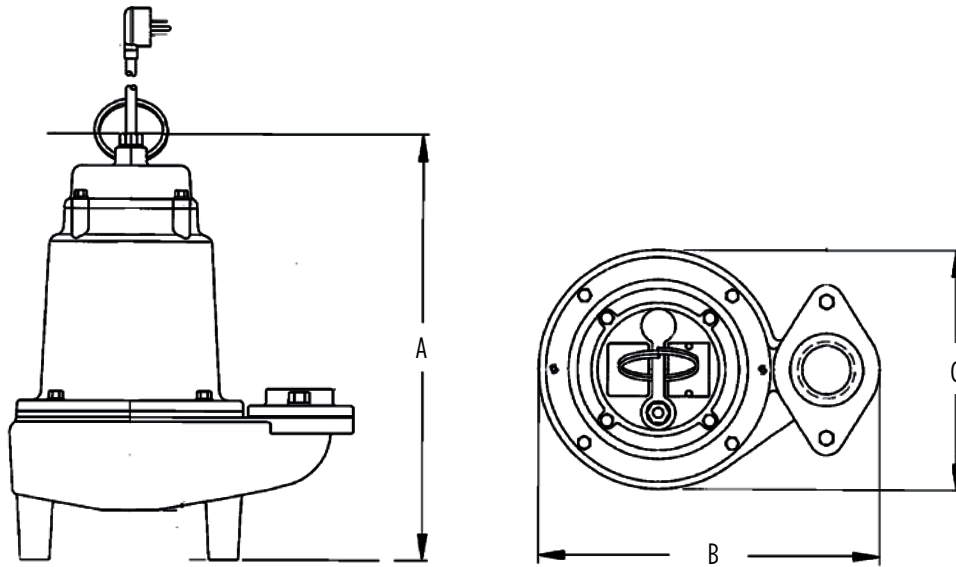
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)		Shut-Off (ft)	PSI
		FLA	Start		10'	20'		
115	60	11.6	21	1100	100	35	25	10.8

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

# SEWAGE PUMPS

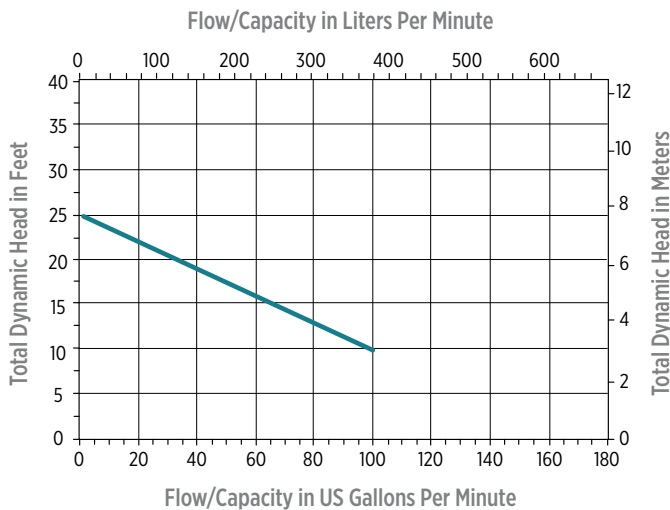
## 14S SERIES - 1/2 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Epoxy-coated cast iron
<b>Impeller Type</b>	Two-vane, non-clog
<b>Volute</b>	Epoxy-coated cast iron
<b>Mechanical Shaft Seal</b>	Nitrile with carbon and ceramic faces
<b>Fasteners</b>	Stainless steel
<b>Shaft</b>	Stainless steel
<b>Bearings</b>	Upper and lower ball bearings
<b>Power Cord</b>	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'
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
620256	WS52HM-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
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

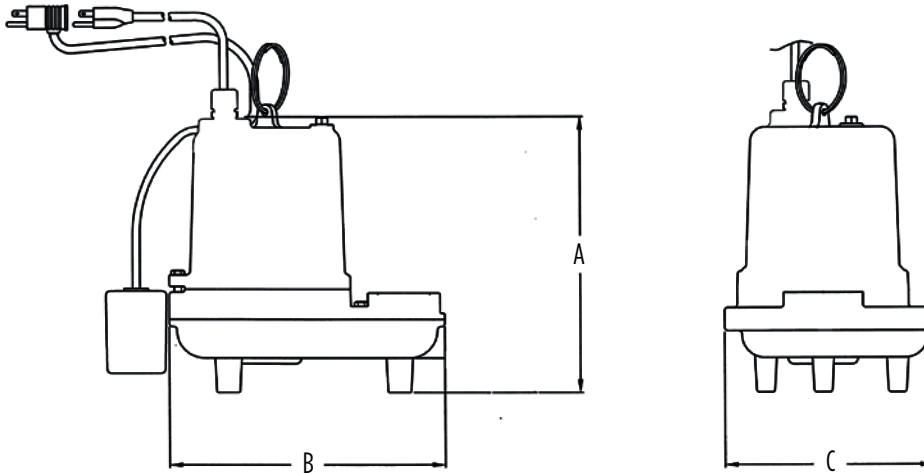
\*\* Three-phase pumps must have a three-phase control panel for automatic or manual operation

Item No.	Model	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
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
620256	WS52HM-12	208-230	Manual	-	-	30' - 9.1 m	60 lbs - 27.22 Kg
620203	WS102M-12	208-230	Manual	-	-	20' - 6.1 m	62 lbs - 28.12 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

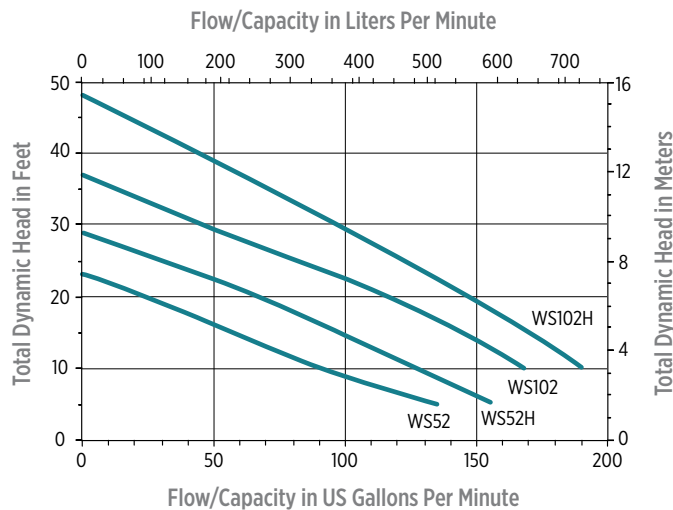
## WS SERIES - 1/2 HP, 1 HP

### ENGINEERING DATA



Model	A	B	C
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

<b>Motor Housing</b>	Cast iron
<b>Impeller Material</b>	Cast iron
<b>Impeller Type</b>	Non-clog
<b>Volute</b>	Cast iron
<b>Motor Shaft</b>	Stainless steel
<b>Shaft Seal</b>	Carbon/ceramic
<b>Fasteners</b>	Stainless steel
<b>Bearings</b>	Upper and lower ball bearings
<b>Power Cord</b>	SJTW - 620013, 620254, 620256, and 620258 SJOW - 620003, 620203, 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

\* 3-phase requires control panel

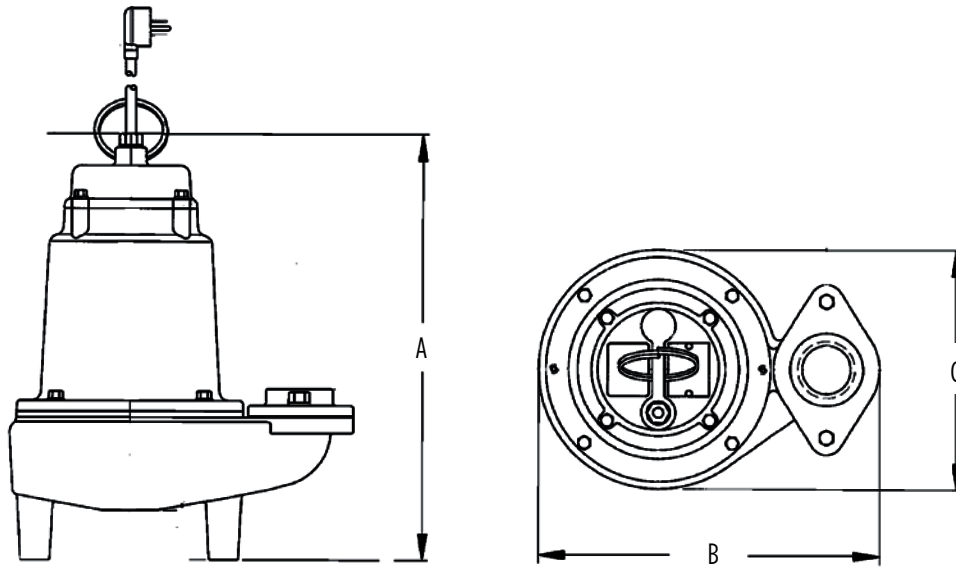
Item No.	Model	HP	Volts	Phase	Switch Type/ Operation	Cord	Weight
514750	16S-CIM	1	200-208	3**	Manual	20' 6.1 m	88 lbs 39.92 Kg
514625	16S-CIM	1	200-208	1	Manual	20' 6.1 m	88 lbs 39.92 Kg
514620	16S-CIM	1	230	1	Manual	20' 6.1 m	94 lbs 42.64 Kg
514720	16S-CIM	1	230	3**	Manual	20' 6.1 m	89 lbs 40.37 Kg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

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

# SEWAGE PUMPS

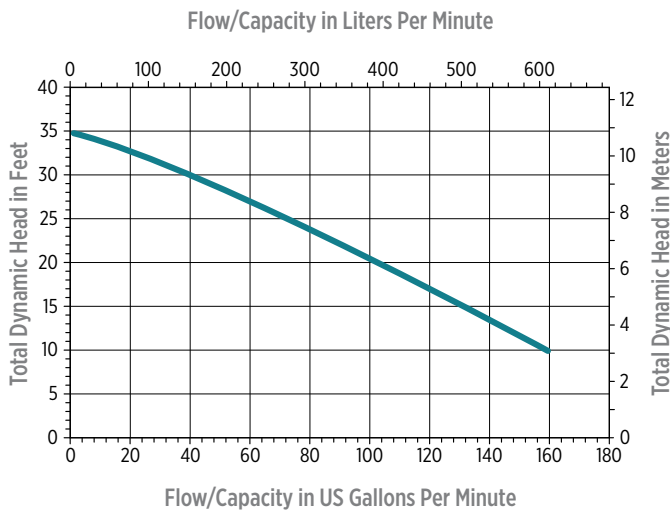
## 16S SERIES - 1 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

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

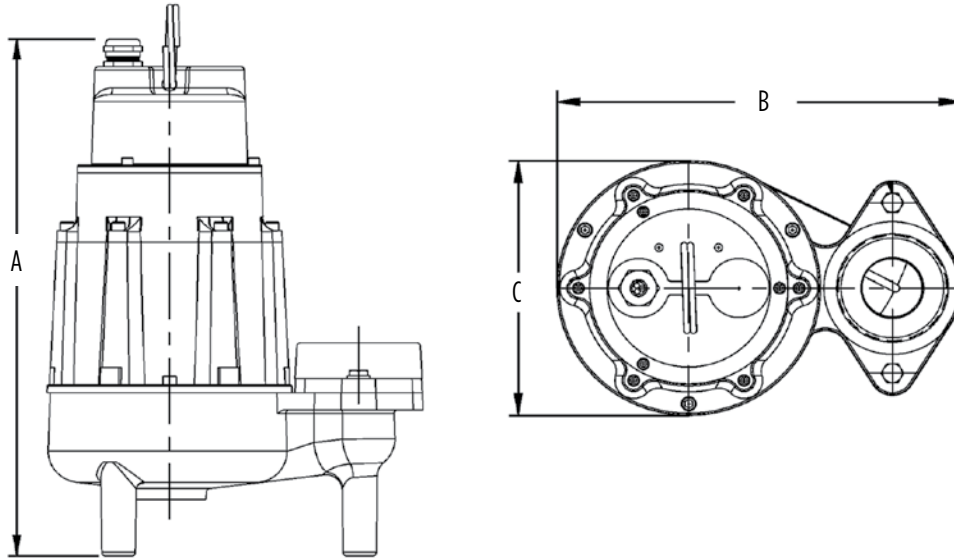
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		10'	20'	30'	40'	50'		
230	60	15.5	31.0	3512	160	137	111	84	50	64	27.7

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

# SEWAGE PUMPS

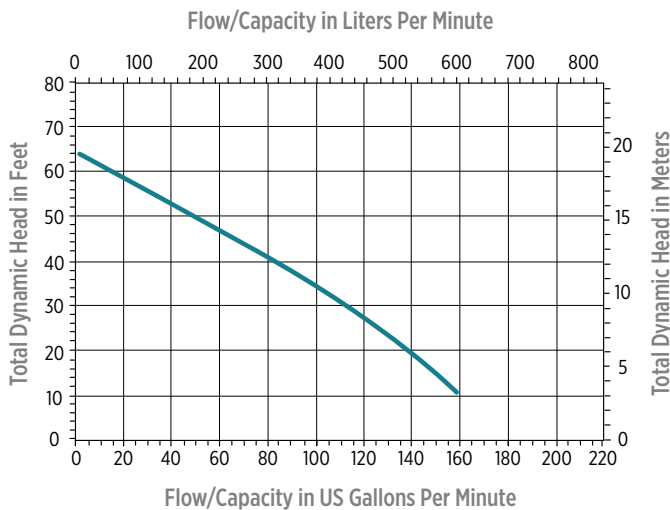
## 18S SERIES - 1-1/2 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

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

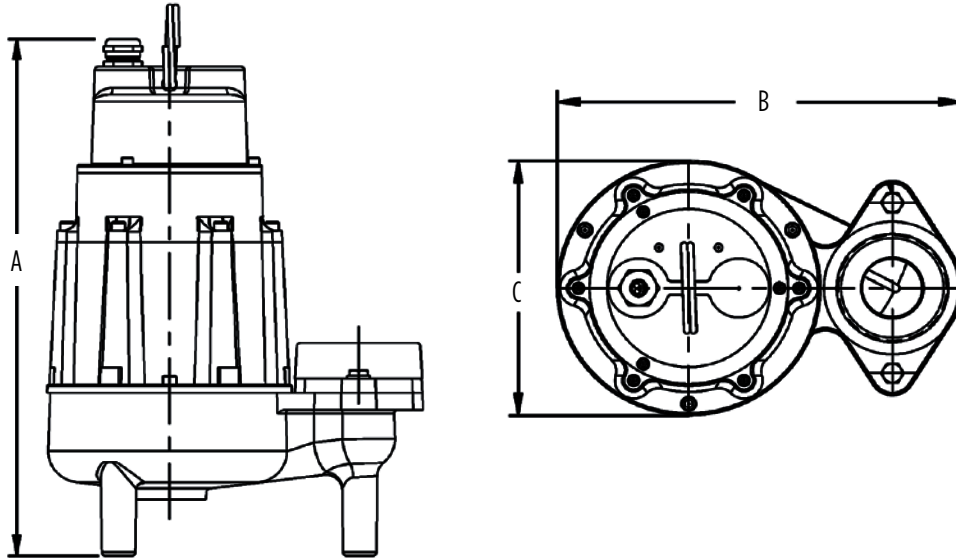
Item No.	Model	HP	Volts	Phase	Switch Type/Operation	Cord	Weight
520125	20S-CIM	2	200-208	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520100	20S-CIM	2	208-230	1	Manual	20' 6.1 m	96 lbs 43.54 Kg
520150	20S-CIM	2	230	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520175	20S-CIM	2	460	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg

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

# SEWAGE PUMPS

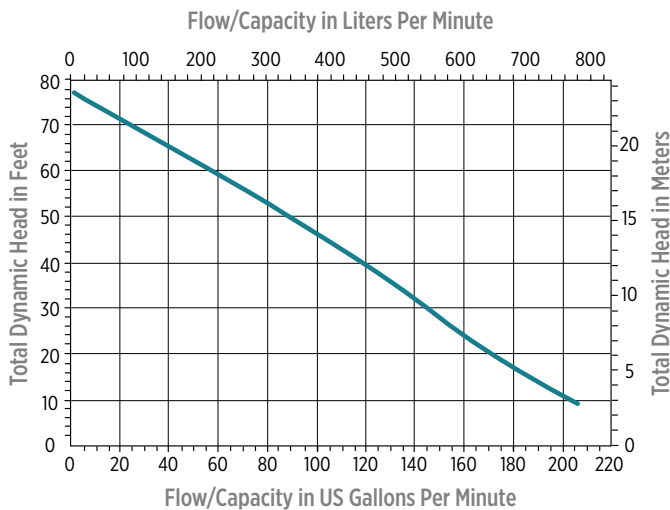
## 20S SERIES - 2 HP

### ENGINEERING DATA



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

### PERFORMANCE DATA



### CONSTRUCTION

<b>Cover</b>	Epoxy-coated cast iron
<b>Motor Housing</b>	Epoxy-coated cast iron
<b>Impeller Material</b>	Red brass
<b>Impeller Type</b>	Vortex
<b>Volute</b>	Epoxy-coated cast iron
<b>Mechanical Shaft Seal</b>	Carbon/ceramic
<b>Fasteners</b>	Stainless steel
<b>Shaft</b>	Stainless steel
<b>Bearings</b>	Upper and lower ball bearings
<b>Power Cord (Stripped Leads)</b>	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 and 1 hp grinder pump options available
- Max liquid temperature rating 135 °F (5 °C)



### SERIES SPECIFICATIONS

Pit+Plus JR Sewage Pump Package System									
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
509679	9JF3V2D	3"	2"	Float	-	4/10	509413	9SC-CIM	115
509687	9JP2V2D	2"	2"	ECM	-	4/10	509413	9SC-CIM	115
511673	10JF2V2D	2"	2"	Float	-	1/2	511432	10SC-CIM	115
511676	10JF2V3D	2"	3"	Float	-	1/2	511435	10SC-CIM	115

Pit+Plus JR Grinder Pump Package System									
Item No.	Model No.	Vent	Discharge	Switch Type	Alarm	HP	Pump Item No.	Pump Model No.	Pump Voltage
509815	16JF2V2D	2"	2"	Float	-	1	509809	16G-M151-20	115

Note: Check valve not included.



### PUMP OPTIONS



9SC - 4/10HP Sewage

10SC - 1/2HP Sewage

16G - 1HP Grinder

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

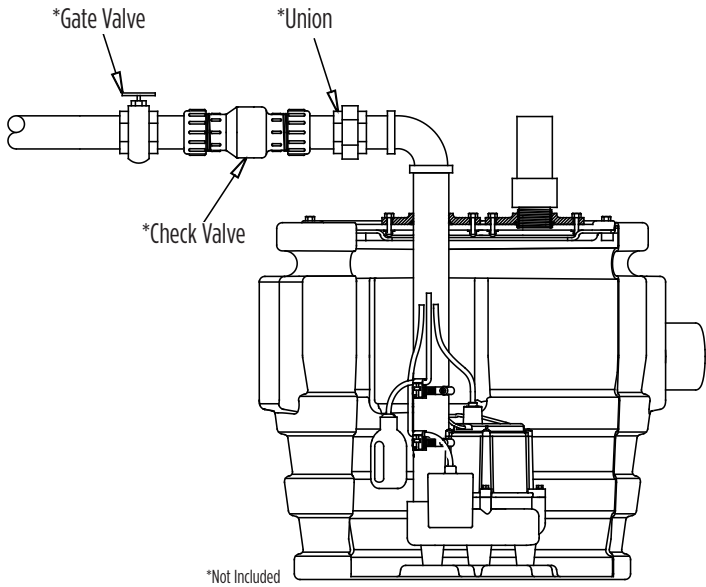
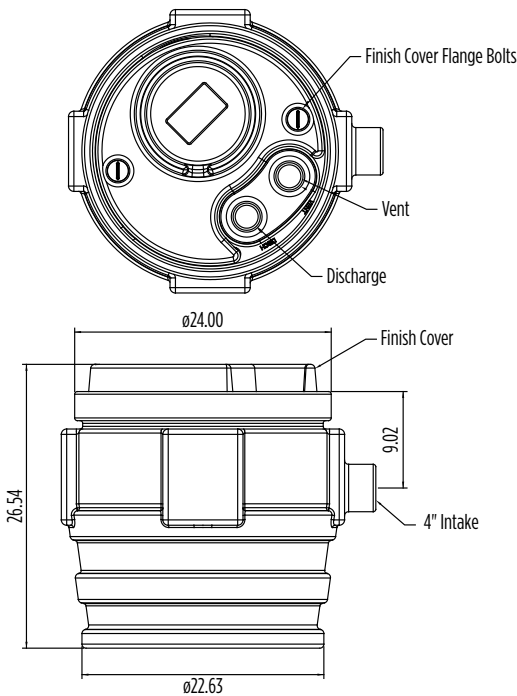
Note: Pump and switch assembly not included.

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

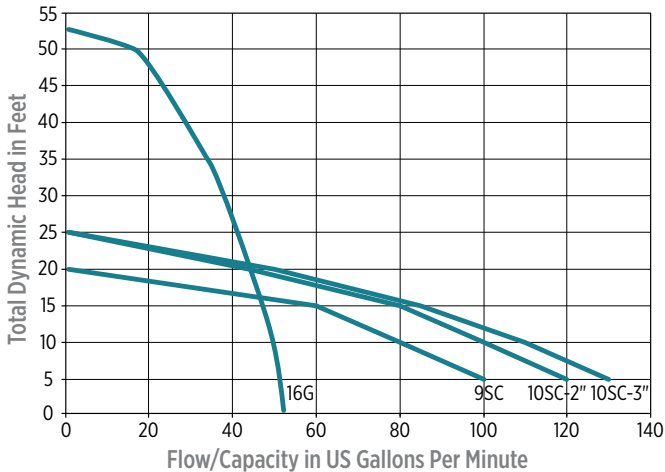


## PIT+PLUS® JR - PREMIUM SIMPLEX SYSTEMS

### 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

Note: Not for use with 1 hp grinder pump



## 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 and 1 hp grinder pump options available
- Max liquid temperature rating 135 °F (5 °C)



### SERIES SPECIFICATIONS

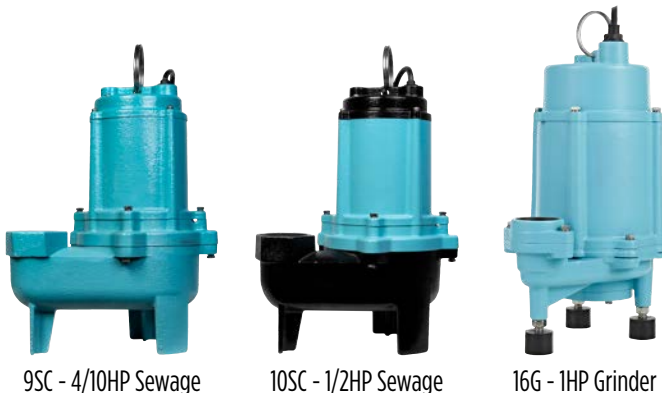
Pit+Plus SR Sewage Pump Package System									
Item No.	Model No.	Vent	Discharge	Switch Type	Alarm	HP	Pump Item No.	Pump Model No.	Pump Voltage
509661	9SF2V2D	2"	2"	Float	-	4/10	509413	9SC-CIM	115
509662	9SF2V2DA1	2"	2"	Float	Indoor	4/10	509413	9SC-CIM	115
509685	9SP2V2D	2"	2"	ECM	-	4/10	509413	9SC-CIM	115
511661	10SF2V2D	2"	2"	Float	-	1/2	511432	10SC-CIM	115
511662	10SF2V2DA1	2"	2"	Float	Indoor	1/2	511432	10SC-CIM	115
511685	10SP2V2D	2"	2"	ECM	-	1/2	511435	10SC-CIM	115

Pit+Plus SR Grinder Pump Package System									
Item No.	Model No.	Vent	Discharge	Switch Type	Alarm	HP	Pump Item No.	Pump Model No.	Pump Voltage
509816	16SF2V2D	2"	2"	Float	-	1	509809	16G-M151-20	115

Note: Check valve not included.



### PUMP OPTIONS



9SC - 4/10HP Sewage

10SC - 1/2HP Sewage

16G - 1HP Grinder

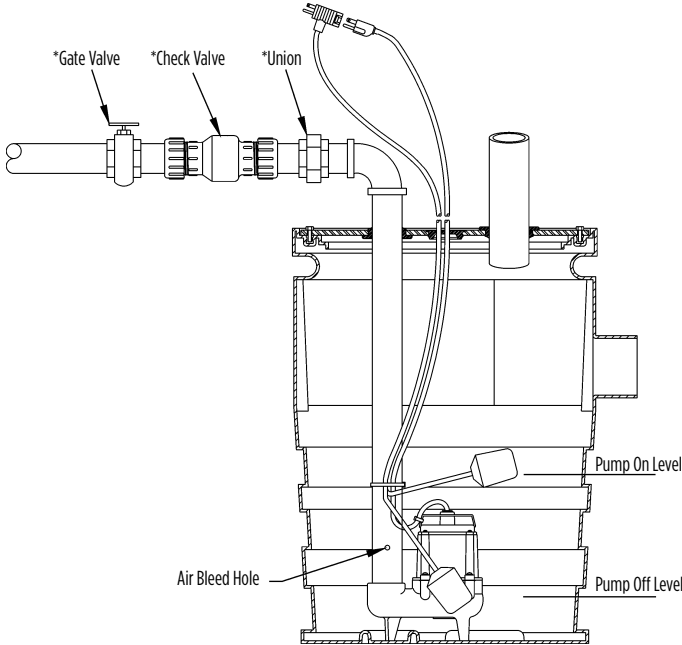
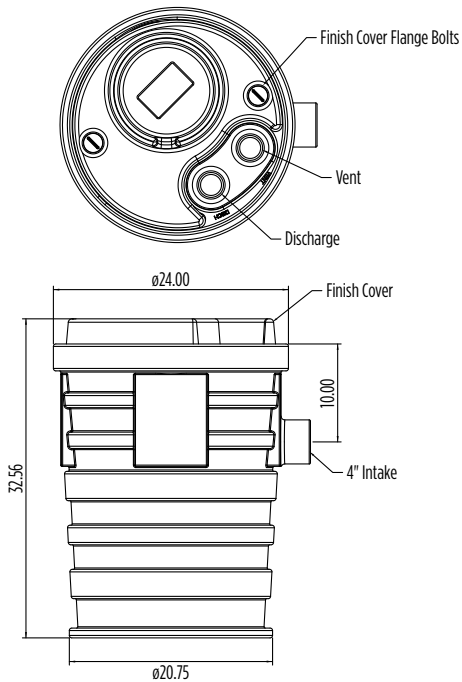
Basin Assemblies			
Item No.	Model No.	Vent	Discharge
513611	PPS2V2D	2"	2"
513612	PPS2V3D	2"	3"
513613	PPS3V3D	3"	3"
513614	PPS3V2D	3"	2"

Note: Pump and switch assembly not included.

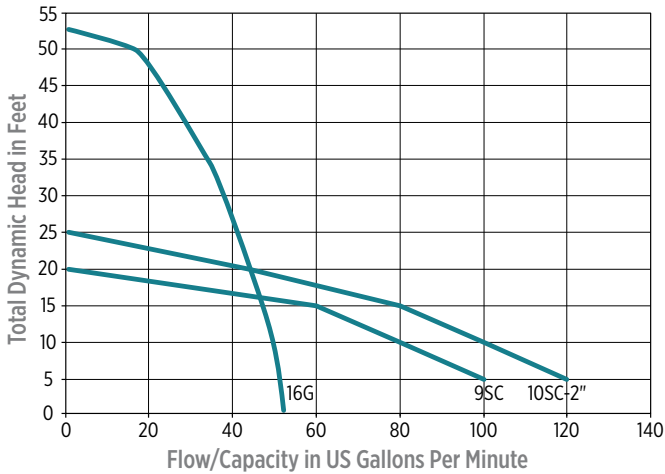
Replacement Cover and Hardware Kits	
Item No.	Description
113388	Includes replacement bolts, washers, gasket, and wing bolts for finish cover
113389	Includes replacement main basin cover, bolts, washers, gasket, and wing bolts for finish cover

## 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

Note: Not for use with 1 hp grinder pump

## 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]
- Available with 4/10 hp sewage pump, 1/2 hp sewage pump, or 1 hp grinder pump
- 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 135 °F (57.2 °C)



9S-SMPX

14S-DPLX

### SERIES SPECIFICATIONS

#### PRE-PACKAGED SIMPLEX SYSTEMS (ASSEMBLY REQUIRED)

Package		Basin				Cover					Pump			Check Valve	
Item No.	Model	Item No.	Size	Style	Inlet Hub Included	Item No.	Style	Material	Flanges	Vent	Discharge	Item No.	Volts		HP
509044	9S-SMPX	113032	18" x 30" 46 cm x 76 cm	Structural Foam	Snap-in Vinyl Hub	113045	2-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm	509412	115	4/10	940022 2" - 51 mm
509074	9S-SMPXRT-K	113056	18" x 30" 46 cm x 76 cm	Roll Top Poly	4" Adaptaflex & Multi-tite Grommet	113057	1-Piece	Structural Foam	Slip-Fit	2" or 3" 51 or 76 mm	2" 51 mm	509412	115	4/10	940022 2" - 51 mm

Note: Other configurations are available. Please contact factory for information on package requirements not shown here. If parts are ordered separately outside the package item number, not all hardware is necessarily included to fully assemble package.

#### PRE-ASSEMBLED SIMPLEX SYSTEMS (READY TO INSTALL)

Package		Basin				Cover					Pump			Check Valve	Alarm	
Item No.	Model	Item No.	Size	Style	Inlet Hub Included	Item No.	Style	Material	Flanges	Vent	Discharge	Item No.	Volts			HP
509073	9S-SMPXRTA-K	113056	18" x 30" 46 cm x 76 cm	Roll Top Poly	4" Adaptaflex & Multi-tite Grommet	113057	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	113056	18" x 30" 46 cm x 76 cm	Roll Top Poly	4" Adaptaflex & Multi-tite Grommet	113057	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	113056	18" x 30" 46 cm x 76 cm	Roll Top Poly	4" Adaptaflex & Multi-tite Grommet	113057	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	-

Note: Other configurations are available. Please contact factory for information on package requirements not shown here. If parts are ordered separately outside the package item number, not all hardware is necessarily included to fully assemble package.

#### BASIN & COVER ASSEMBLIES - SIMPLEX (PUMP NOT INCLUDED)

Package		Basin				Cover					
Item No.	Model	Item No.	Size	Style	Inlet Hub Included	Item No.	Style	Material	Flanges	Vent	Discharge
513100*	BS1830CS2V2D	113030	18" x 30" 46 cm x 76 cm	Structural Foam*	Snap-in Vinyl Hub	113045	2-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513101	BS1830CS2V2D	113032	18" x 30" 46 cm x 76 cm	Structural Foam	Snap-in Vinyl Hub	113045	2-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513102	BS1830CS3V2D	113032	18" x 30" 46 cm x 76 cm	Structural Foam	Snap-in Vinyl Hub	113046	2-Piece	Steel	Bolt-On	3" 76 mm	2" 51 mm
513103	BB1830CS2V2D	113033	18" x 30" 46 cm x 76 cm	Structural Foam	Cast Iron Hub	113045	2-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513104	BB1830CS3V2D	113033	18" x 30" 46 cm x 76 cm	Structural Foam	Cast Iron Hub	113046	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]

Package		Basin				Cover					
Item No.	Model	Item No.	Size	Style	Inlet Hub Included	Item No.	Style	Material	Flanges	Vent	Discharge
513119	BS1830CS2V2D	113032	18" x 30" 46 cm x 76 cm	Structural Foam	Snap-in Vinyl Hub	113047	1-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513120	BS1830CS2V3D	113033	18" x 30" 46 cm x 76 cm	Structural Foam	Cast Iron Hub	113048	2-Piece	Steel	Bolt-On	2" 51 mm	3" 76 mm
513122	BS1830CS2V3D	113032	18" x 30" 46 cm x 76 cm	Structural Foam	Snap-in Vinyl Hub	113048	2-Piece	Structural Foam	Bolt-On	2" 51 mm	3" 76 mm
513240	BS1830CSRT-K	113056	18" x 30" 46 cm x 76 cm	Roll Top Poly	4" Adaptaflex & Multi-tite Grommet	113057	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	113039	18" x 30" 46 cm x 76 cm	Roll Top Poly	4" Adaptaflex & Multi-tite Grommet	113057	1-Piece	Structural Foam	Slip-Fit	2" or 3" 51 mm or 76 mm	2" or 3" 51 mm or 76 mm
513105	BB2436CS2V2D	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113114	1-Piece	Cast Iron	Bolt-On	2" 51 mm	2" 51 mm
513106	BB2436CS3V2D	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113115	1-Piece	Steel	Bolt-On	3" 76 mm	2" 51 mm
513107	BB2436CS2V3D	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113116	1-Piece	Steel	Bolt-On	2" 51 mm	3" 76 mm
513108	BB2436CS3V3D	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113117	1-Piece	Steel	Bolt-On	3" 76 mm	3" 76 mm
513144	BB3036CS2V2D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113118	1-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513145	BB3036CS3V2D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	11310000	1-Piece	Steel	Bolt-On	3" 76 mm	2" 51 mm
513146	BB3036CS2V2D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113119	1-Piece	Steel	Bolt-On	2" 51 mm	3" 76 mm

\* Inlet hole is not pre-cut

#### PRE-PACKAGED DUPLEX SYSTEMS (ASSEMBLY REQUIRED)

Package		Basin				Cover					Pump			Check Valve	Control Panel
Item No.	Model	Item No.	Size	Style	Inlet Hub Included	Item No.	Style	Material	Vent	Discharge	Pump No.	Pump Volts	Pump HP		
14940697	9S-DPLX	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron	113099	1-Piece	Steel	2" 51 mm	2" 51 mm	509413	115	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940699	10S-DPLX	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron	113099	1-Piece	Steel	2" 51 mm	2" 51 mm	511432	115	1/2	940022 2" - 51 mm	513258 1221W120H6A17A
509818	16G-DPLX	113160	30" x 36" 76 cm x 91.4 cm	Structural	Cast Iron	113120	1-Piece	Steel	2" 51 mm	2" 51 mm	509809	115	1	940022	513258

Note: If parts are ordered separately outside the package item number, not all hardware is necessarily included to fully assemble package.

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

Package		Basin				Cover					
Item No.	Model	Item No.	Size	Style	Inlet Hub Included	Item No.	Style	Material	Flanges	Vent	Discharge
513129	BB2436CD2V2D	113034	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113099	1-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513148	BB3036CS2V2D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113120	1-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513149	BB3036CS3V2D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113102	1-Piece	Steel	Bolt-On	3" 76 mm	2" 51 mm
513150	BB3036CD2V3D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113121	1-Piece	Steel	Bolt-On	2" 51 mm	3" 76 mm
513151	BB3036CS3V3D	113160	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron Hub	113103	1-Piece	Steel	Bolt-On	3" 76 mm	3" 76 mm
513117	BB3636CD3V2D	113051	36" x 36" 91.4 cm x 91.4 cm	Fiberglass	Cast Iron Hub	113104	1-Piece	Steel	Bolt-On	3" 76 mm	2" 51 mm
513118	BB3636CD3V3D	113051	36" x 36" 91.4 cm x 91.4 cm	Fiberglass	Cast Iron Hub	113105	1-Piece	Steel	Bolt-On	3" 76 mm	3" 76 mm
513125	BB3636CD2V2D	113051	36" x 36" 91.4 cm x 91.4 cm	Fiberglass	Cast Iron Hub	113107	1-Piece	Steel	Bolt-On	2" 51 mm	2" 51 mm
513126	BB3636CS2V3D	113051	36" x 36" 91.4 cm x 91.4 cm	Fiberglass	Cast Iron Hub	113108	1-Piece	Steel	Bolt-On	2" 51 mm	3" 76 mm

Note: If parts are ordered separately outside the package item number, not all hardware is necessarily included to fully assemble package.



## 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

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

Item No.	Model
113074	4" 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

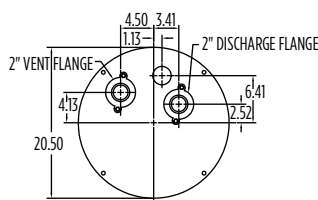
Item No.	Model
113076	4" vinyl hub

#### FIBERGLASS BASIN RISERS/EXTENSIONS

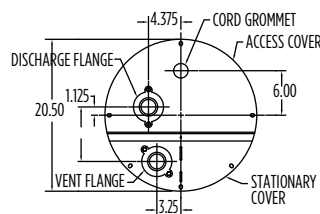
Item No.	Dimensions
115587	24"x6"
115588	24"x12"
115589	24"x18"
115590	24"x24"
115584	36"x12"
115585	36"x18"
115586	36"x24"

### ENGINEERING DATA

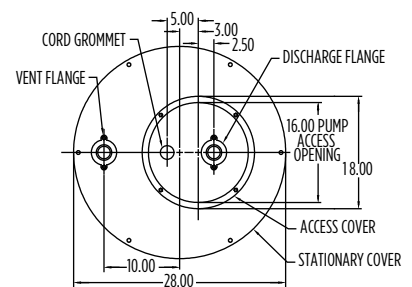
18" X 30" COVER



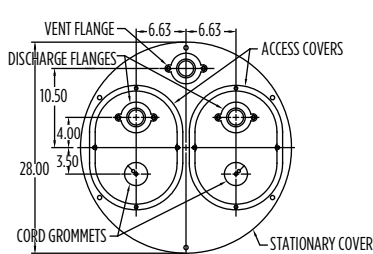
18" X 30" COVER



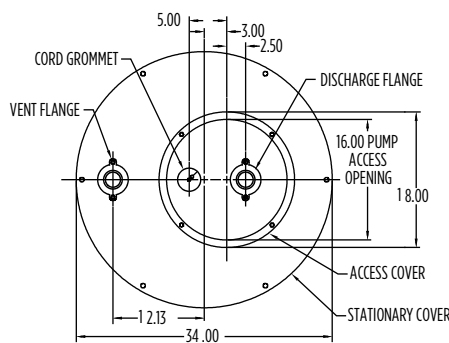
24" X 36" SIMPLEX COVER



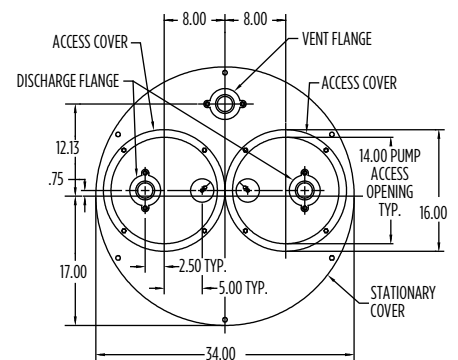
24" X 36" DUPLEX COVER



30" X 36" SIMPLEX COVER



30" X 36" DUPLEX COVER

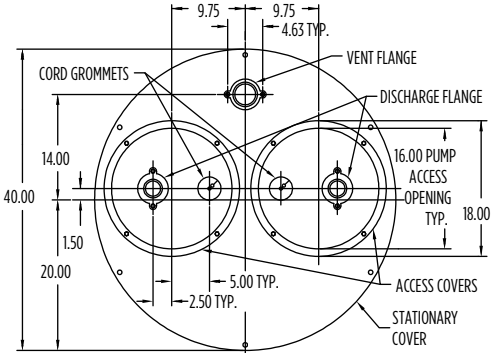


# PACKAGE SYSTEMS

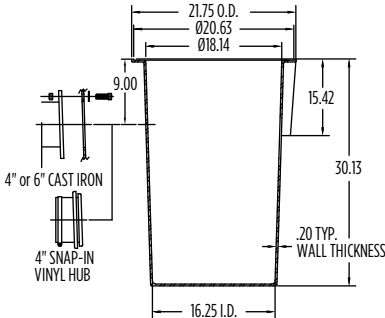
## SIMPLEX AND DUPLEX SYSTEMS

### ENGINEERING DATA

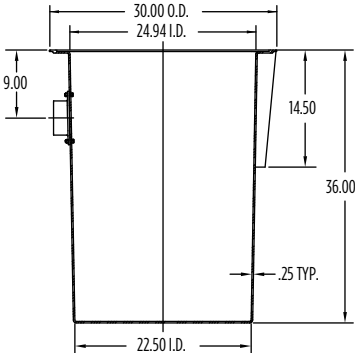
36" X 36" DUPLEX COVER



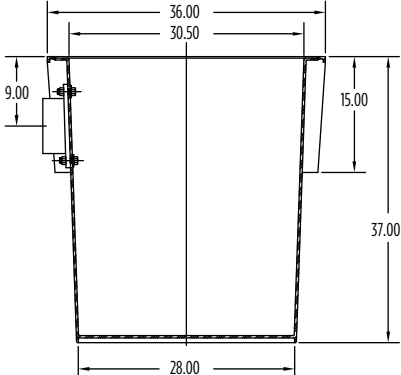
18" X 30" BASIN



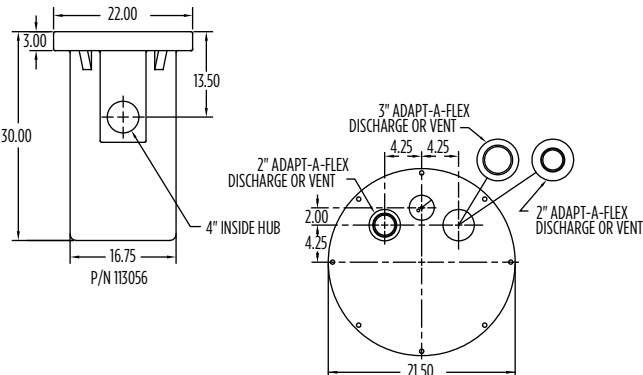
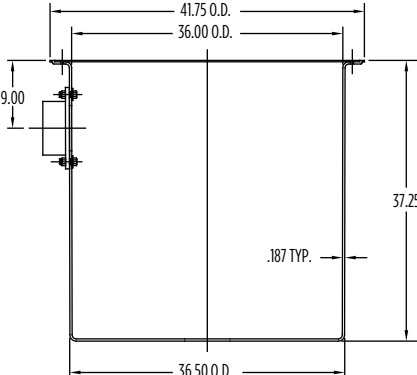
24" X 30" BASIN



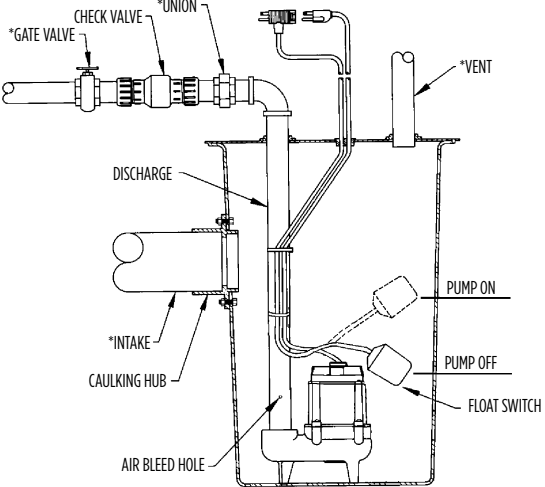
30" X 36" BASIN



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 where concealed routing of plumbing and cables is desired

### FEATURES

- Pre-packaged 20" x 30" (51 cm x 76 cm) polyethylene basin with 4/10 hp sewage pump or 1 hp grinder
- 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
- Molded inlet hub, anti-torque stops, and 360° lifting handle
- Radial rib design for extra strength
- Integrated anti-floatation collar



### SERIES SPECIFICATIONS

Item No.	Model	Pump HP	Discharge	Check Valve	Cover	Volts	Pump Performance	Weight	Pump Item No.	Pump Model
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	509412	9SC-CIA-RF
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 / 31.3 kg	509412	9SC-CIA-RF
509817	WCR-16GP	1	2" / 51 mm	2" Slip x Slip	Structural Foam	115	51 gpm @ 5' / 193.1 lpm @ 1.5 m	108 lbs / 49.0 kg	509810	16G-F151-20

\*Steel cover is not rated for foot or vehicle traffic

Basin Assemblies			
Item No.	Model No.	Basin Only Sub-Assy	Cover Only Sub-Assy
513245	BC2030CS-LG	113095	11318000 (Structural Foam)
-	-	113095	113003 (Steel)

Note: Pump and switch assembly not included. If parts/sub-assemblies are ordered separately, the hardware is not necessarily included to assemble entire system.

### PUMP SPECIFICATIONS

HP	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	20 ft / 6.1 m	ft / m	PSI / bar
4/10	115	60	8	870	100 / 379	80 / 303	60 / 227	-	20 / 6.1	8.7 / 0.60
1	115	60	12.5	-	51 / 193	49.3 / 187	47.0 / 178	43.9 / 166	53 / 16.2	22.9 / 1.58

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
509810	16G-F151-20	1	115	2"	Piggyback Mechanical Float	13" - 18" / 33.02 cm - 45.72 cm	8" - 10" / 20.3 cm - 25.4 cm	20' / 6.1 m	78 lbs / 35.4 kg

### PUMP OPTIONS



9SC - 4/10 hp Sewage Ejector



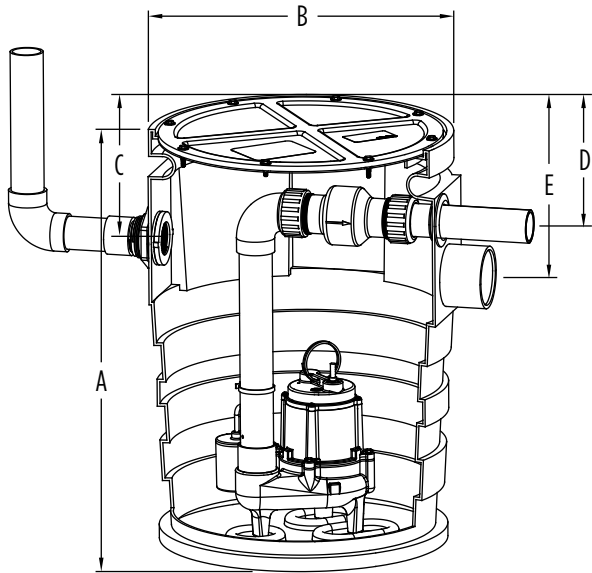
16G - 1 hp Grinder Pump



# PACKAGE SYSTEMS

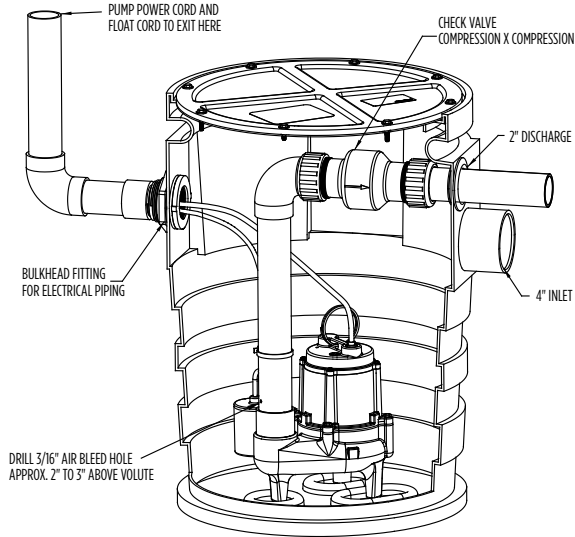
## WCR SERIES - WATER COLLECTION & REMOVAL SYSTEMS

### ENGINEERING DATA



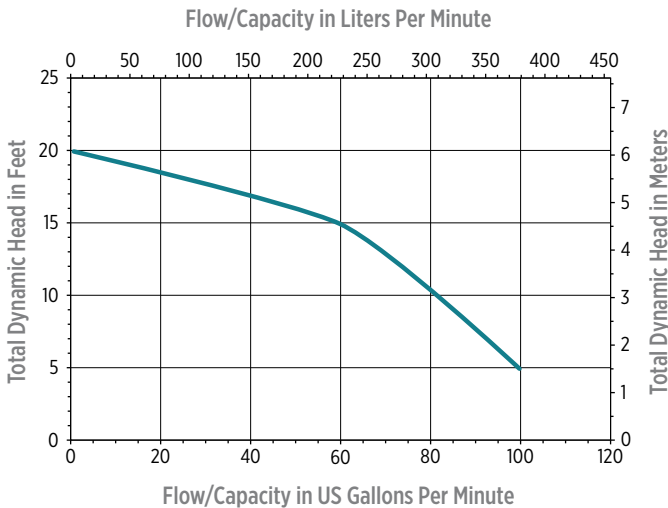
A	B	C	D	E
30" (76.2 cm)	22" (55.88 cm)	8.5" (21.59 cm)	5.5" (13.97 cm)	10" (25.4 cm)

### TYPICAL INSTALLATION

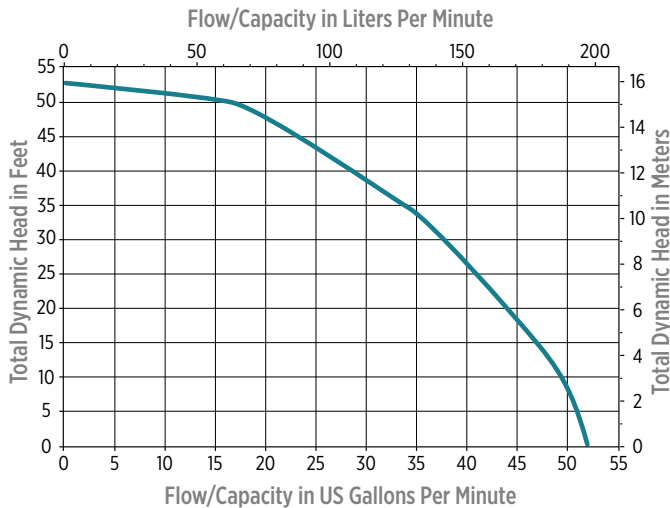


### PERFORMANCE DATA

#### 9SC - 4/10 HP SEWAGE EJECTOR



#### 16G - 1 HP GRINDER PUMP



## 16G SERIES - 1 HP

### APPLICATIONS

Offered in 115V and 230V options, the 16G Series is designed as a new or replacement grinder pump for the toughest residential and light commercial wastewater applications. Ideal for use as a drop-in replacement for any effluent or sewage pump struggling with clogs and binding.

### FEATURES

1. Heavy-duty 1 hp Class F motor provides optimal power to prevent flushables and other debris from causing clogs and downtime.
2. Superior grinding capability with proven results based on the patented cutting mechanism renowned in Franklin Electric's 2 hp grinder pump. 27 stationary blades and eight rotating blades produce 3450 rpm and 745,200 cuts per minute.
3. 1-1/4" discharge and 2" NPT adapter discharge preassembled onto the pump.
4. Silicon carbide mechanical seal provides up to six times longer seal life with lower thermal expansion and higher abrasion resistance when compared to carbon ceramic seals.
5. Easily replaceable, 20' power cord is sealed at the connection point for unit protection against water.
6. Non-skid adjustable legs for stability.
7. Vertical and tethered float switch available on 115V and 230V models.

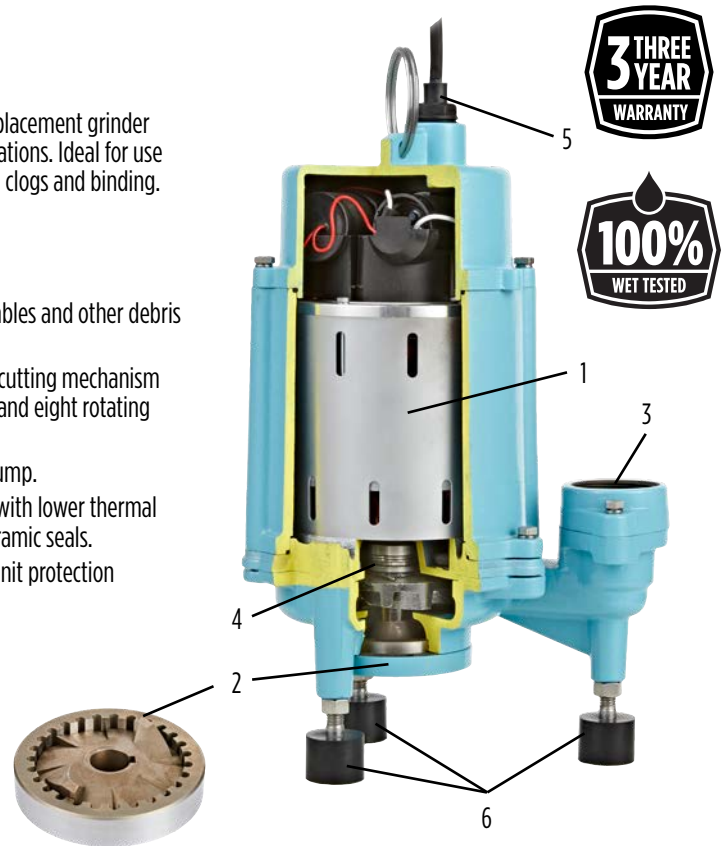
### SERIES SPECIFICATIONS

Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
10'	20'	30'	40'	50'		
49.3	43.9	37.5	28.7	15.3	53	22.9

Item No.	Model No.	HP	Voltage	Hz	Phase	Amps		Cord	Switch Type / Operation	Discharge	Weight (lbs)
						FLA	Start				
509809	16G-M151-20	1.0	115	60	1	12.5	65	20'	Manual	1-1/4" or 2"	76
509810	16G-F151-20	1.0	115	60	1	12.5	65	20'	Piggyback Tethered Float	1-1/4" or 2"	78
509811	16G-V151-20	1.0	115	60	1	12.5	65	20'	Piggyback Vertical Float	1-1/4" or 2"	78
509812	16G-M231-20	1.0	230	60	1	6.5	32.5	20'	Manual	1-1/4" or 2"	76
509813	16G-F231-20	1.0	230	60	1	6.5	32.5	20'	Piggyback Tethered Float	1-1/4" or 2"	78
509814	16G-V231-20	1.0	230	60	1	6.5	32.5	20'	Piggyback Vertical Float	1-1/4" or 2"	78

Packaged Systems Options										
Item No.	Model No.	Vent	Discharge	Switch Type	Alarm	HP	Pump Item No.	Pump Model No.	Pump Voltage	
509815	16JF2V2D	2"	2"	Piggyback Tethered Float	-	1	509809	16G-M151-20	115	
509816	16SF2V2D	2"	2"	Piggyback Tethered Float	-	1	509809	16G-M151-20	115	
509817	WCR-16GP	2"	2"	Piggyback Tethered Float	-	1	509810	16G-F151-20	115	
509818	16G-DPLX	2"	2"	Stripped Lead Tethered Floats	-	1	509809	16G-M151-20	115	

Note: Check valve not included.



### SWITCH OPTIONS



Manual

Tethered

Vertical

### PACKAGE OPTIONS



Pit+Plus Jr.  
(16JF2V2D)

Pit+Plus Sr.  
(16SF2V2D)

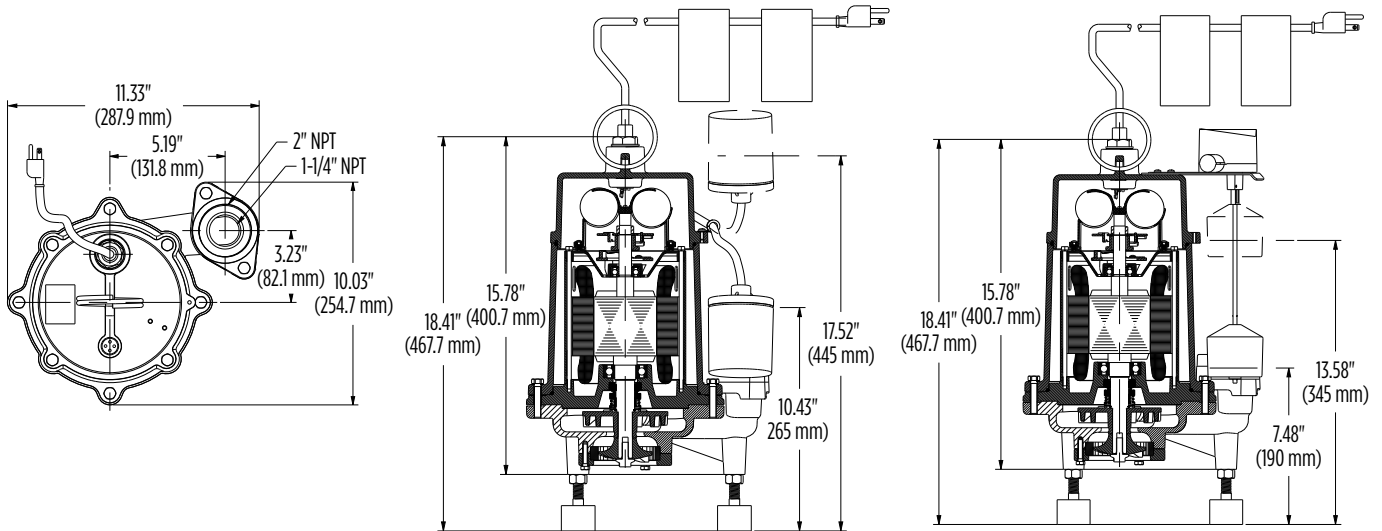
WCR System

Duplex System

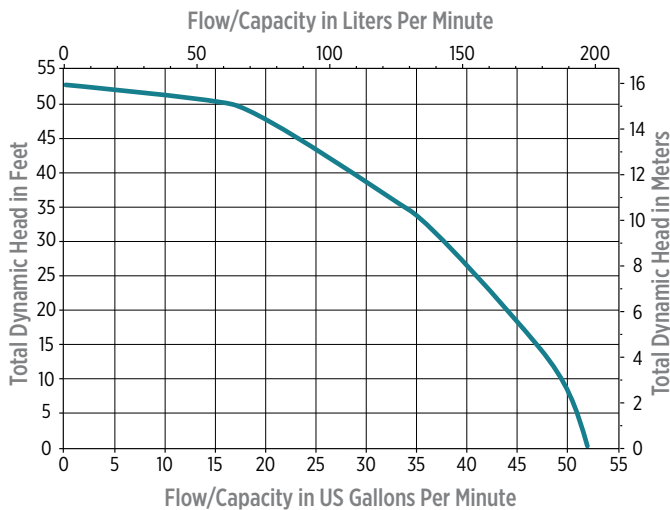
# GRINDER PUMPS

## 16G SERIES - 1 HP

### ENGINEERING DATA



### PERFORMANCE DATA



### CONSTRUCTION

<b>Cover, Housing, Volute, Impeller</b>	Cast Iron
<b>O-rings</b>	NBR
<b>Motor Design</b>	Capacitor start, capacitor run
<b>Power Cord</b>	SJOOW
<b>Insulation Class</b>	F
<b>Overload Protection</b>	Internal, on-winding
<b>Motor Shaft</b>	420 stainless steel
<b>Hardware</b>	Stainless steel
<b>Mechanical Seal</b>	Silicon carbide and silicon carbide
<b>Cutting Mechanism</b>	440 stainless steel (56-60 Rockwell)



## 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  
Adjustable pumping range from 6.5" (16.5 cm) to .75" (1.9 cm)
- Designed for use in confined areas
- Not sensitive to turbulence
- Piggyback plug configuration
- UL/CSA listing



Item No.	Model	Volts	Max. Amps	Cord
599261	RVMS-10	115	13	10' 3 m
599262	RVMS-15	115	13	15' 4.6 m
599263	RVMS-20	115	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
599209	RFSN-9	230 V Piggyback Plug	20' (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

### 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
- NEMA 4X rated enclosure



#### 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	4-6.7

### 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

### 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
- NEMA 4X rated enclosure

#### 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

### 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	-	-
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
- Guide rail disconnect included with each 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. 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

### 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

## 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

Note: 4.5 PSI/10' head pressure rating at 72 °F



### 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

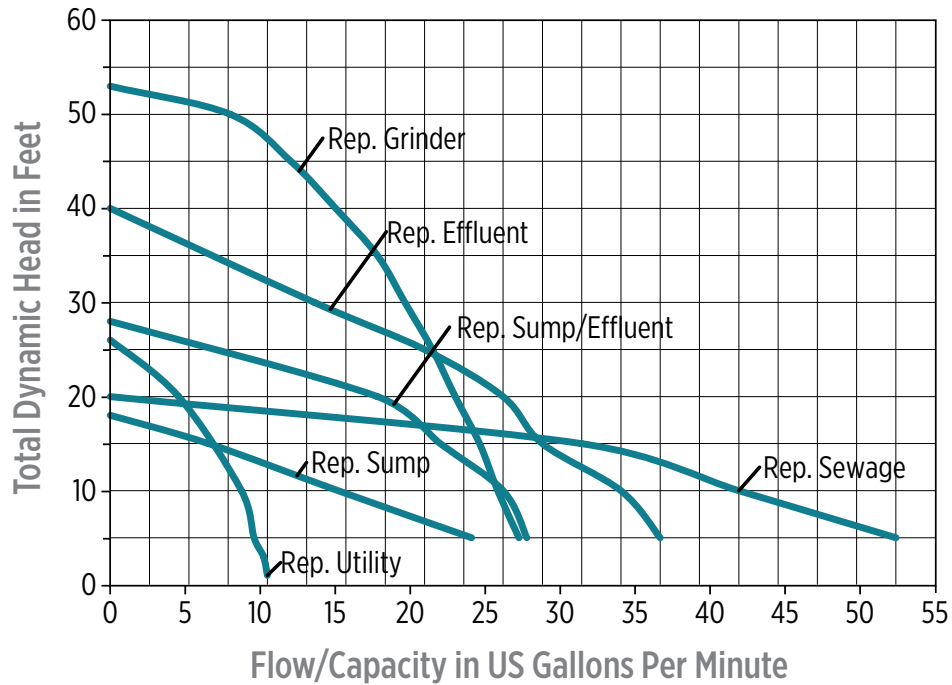
- PVC check valve/ball valve combination uses union fittings to connect 2" (51 mm) IPS pipe
- Full-flow design passes 2" (51 mm) solids
- Pressure rating: 100 psi @ 72 °F

Item No.	Model	Material
599161	CVBV-2U	PVC

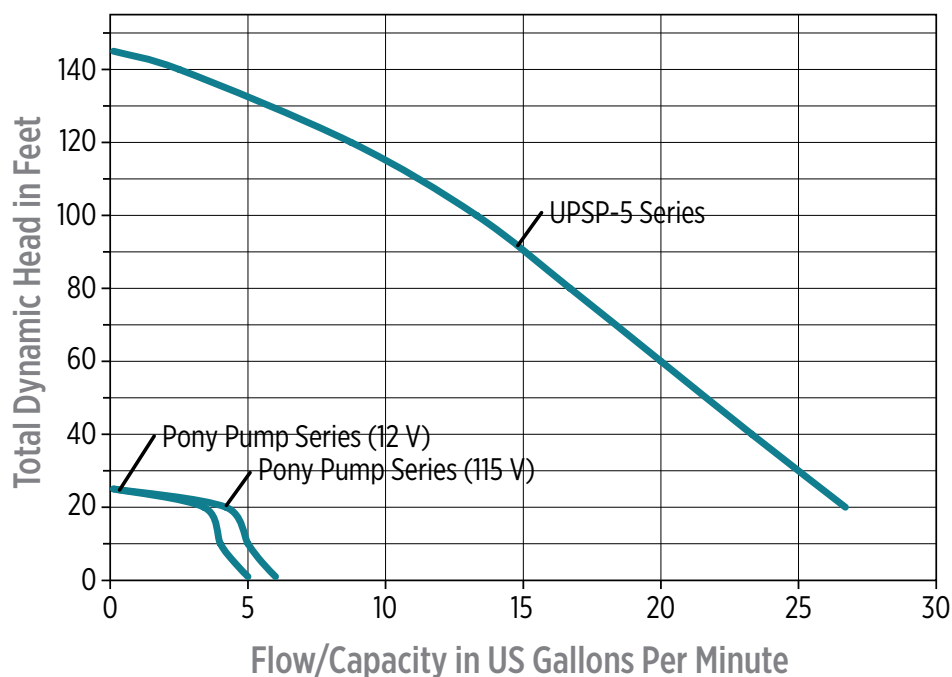


## COMPOSITE CURVES

### APPLICATION GENERAL COMPOSITE

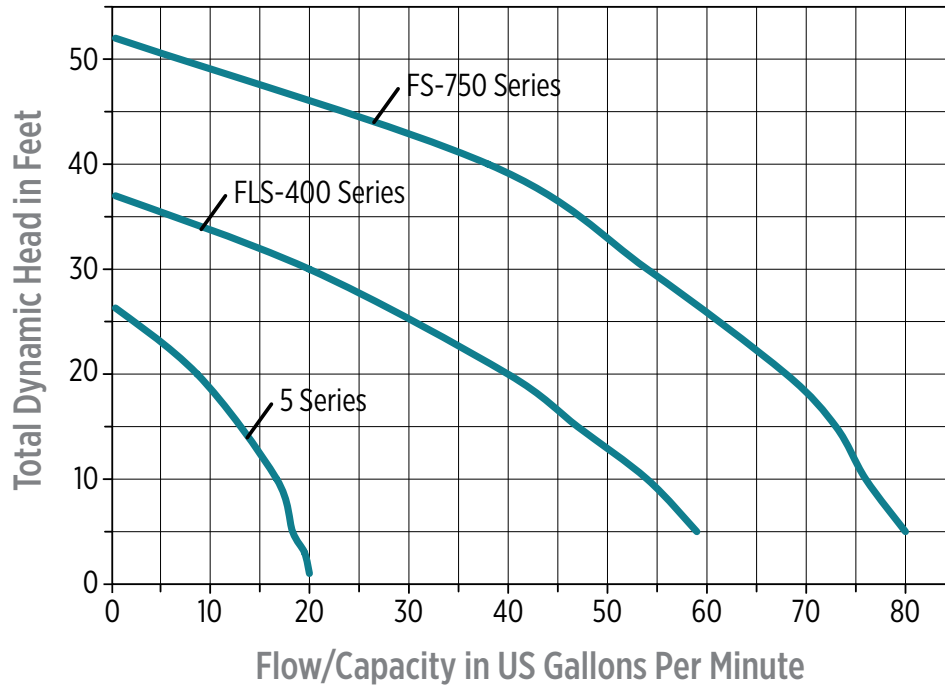


### NON-SUBMERSIBLE UTILITY COMPOSITE

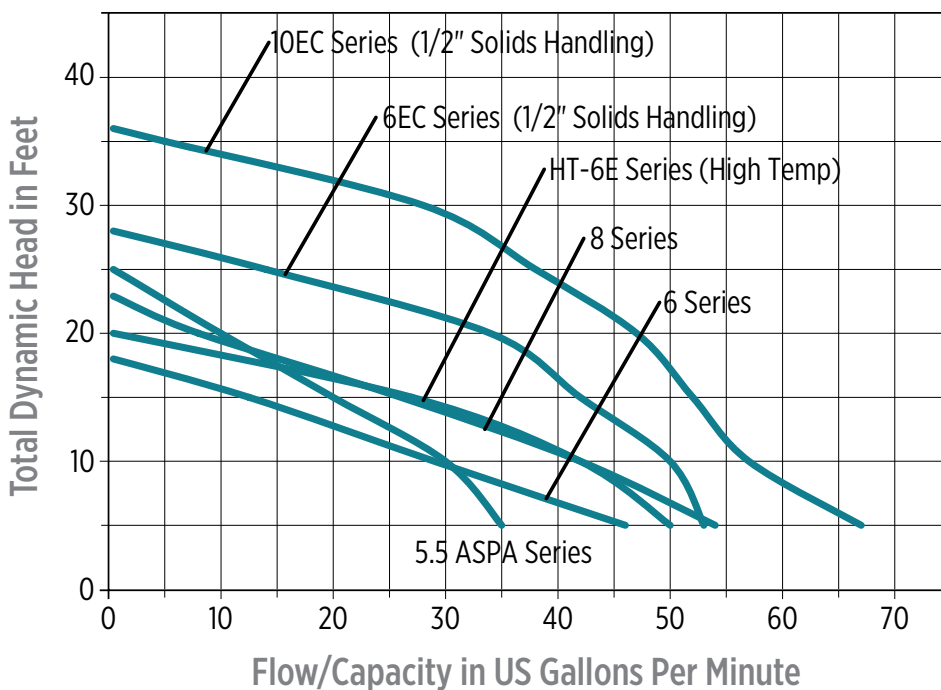


## COMPOSITE CURVES

### SUBMERSIBLE-UTILITY COMPOSITE

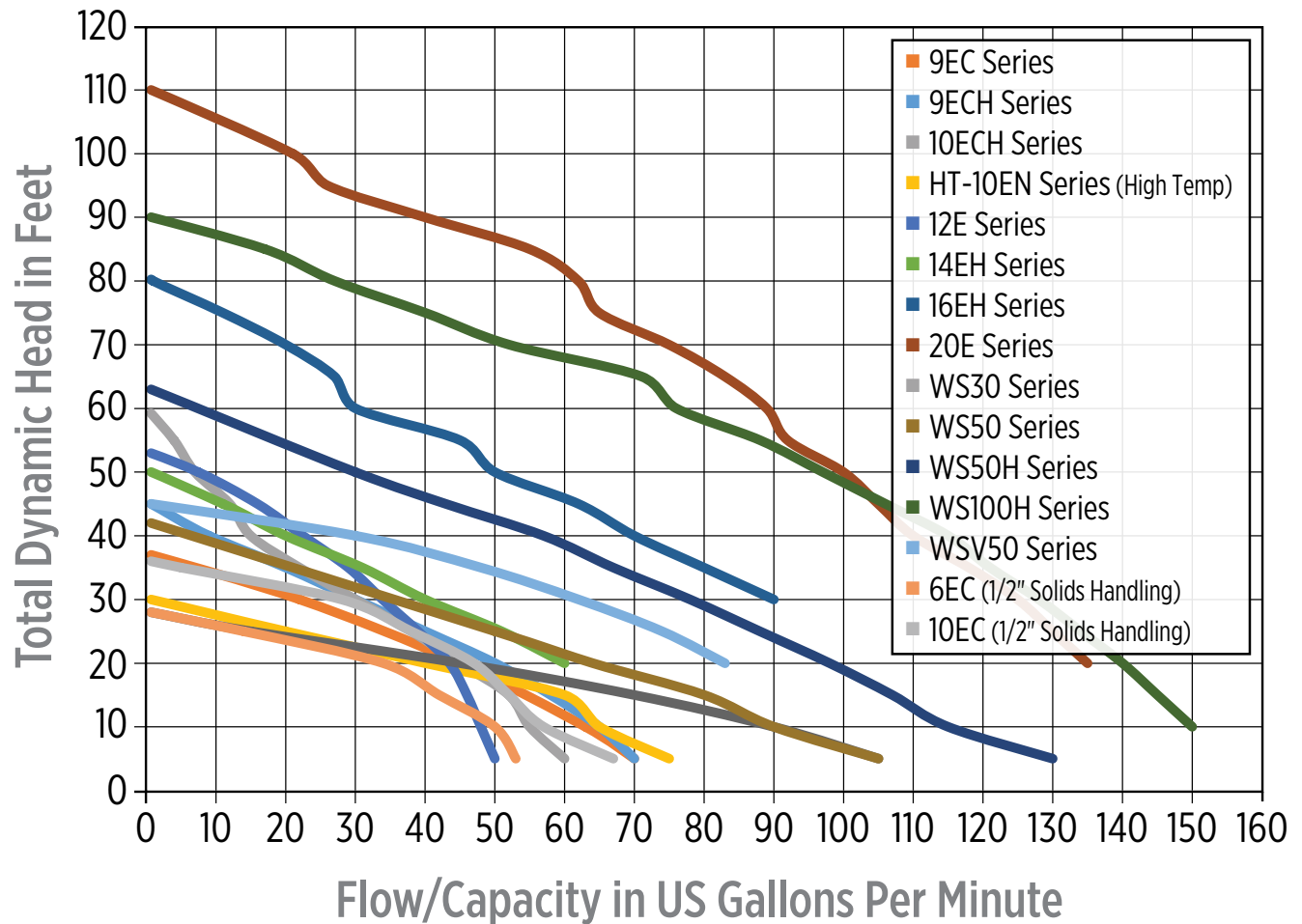


### SUMP COMPOSITE



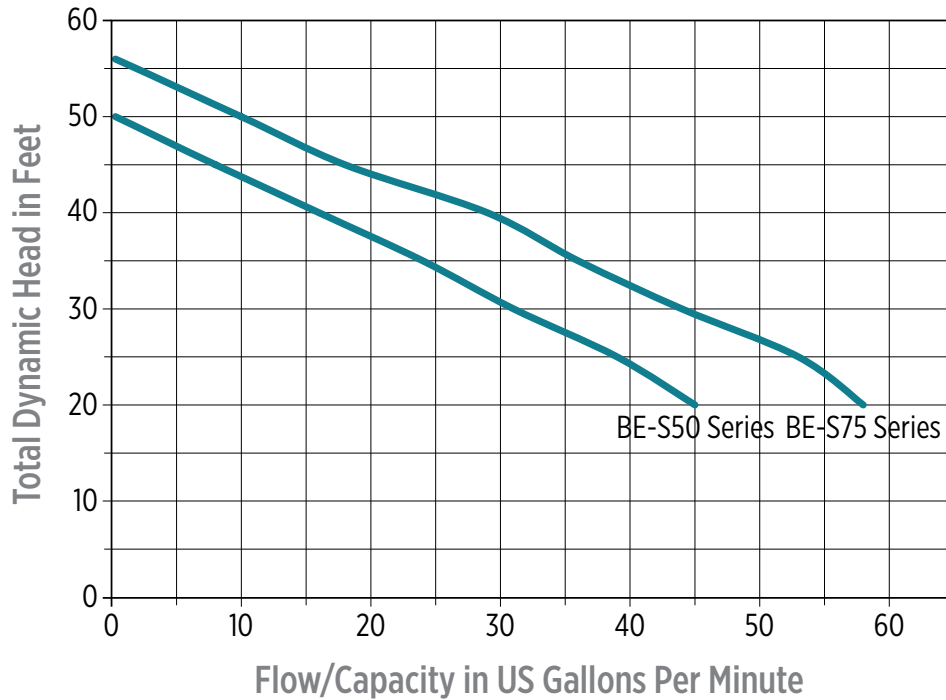
## COMPOSITE CURVES

### EFFLUENT COMPOSITE

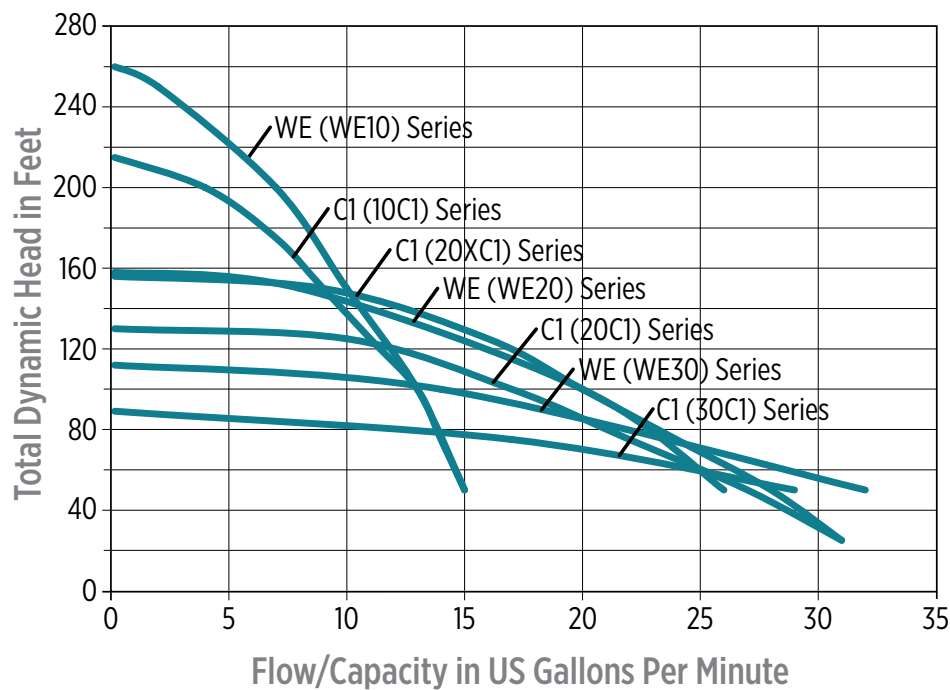


## COMPOSITE CURVES

### NON-SUBMERSIBLE EFFLUENT

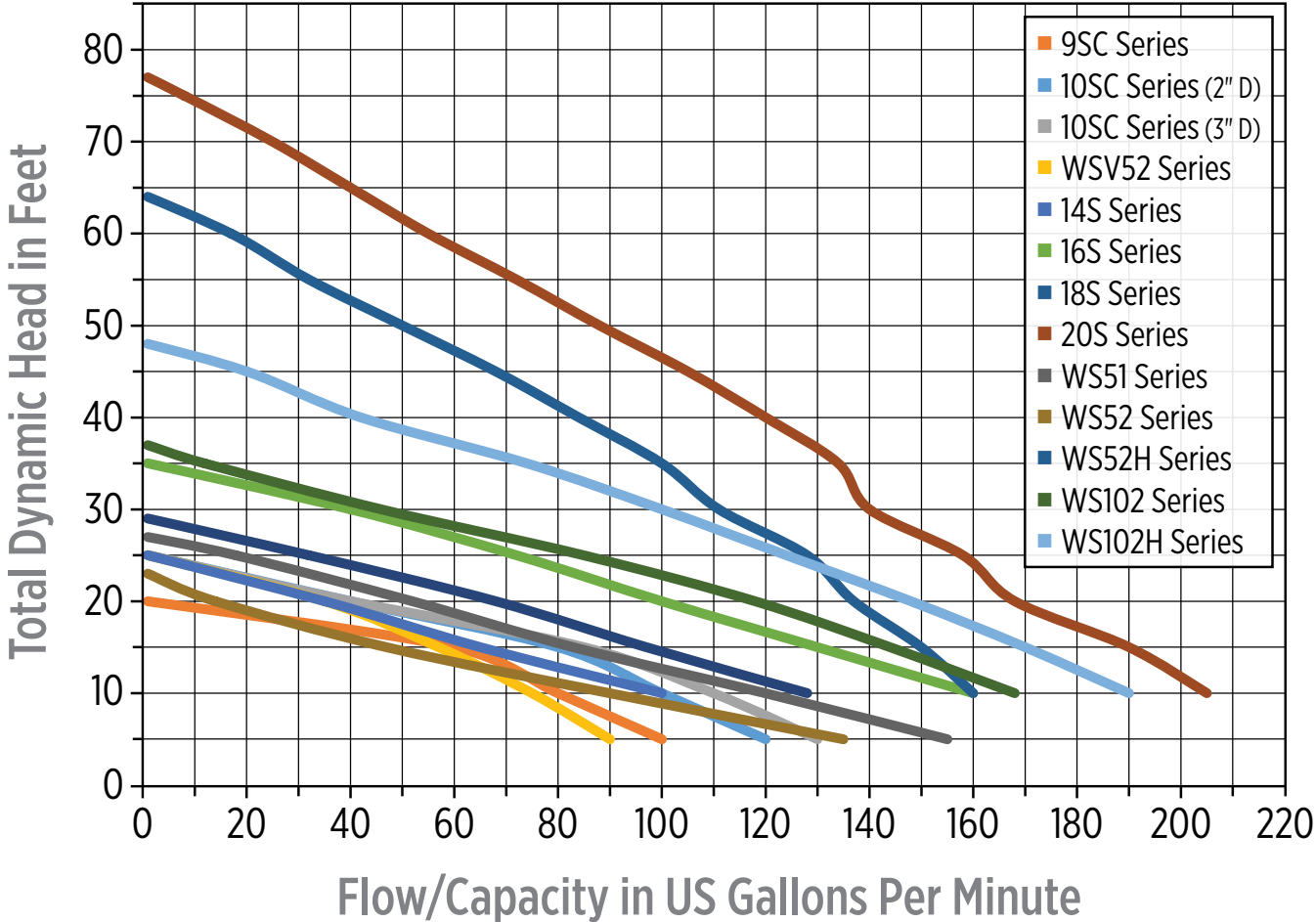


### FILTERED EFFLUENT COMPOSITE



## COMPOSITE CURVES

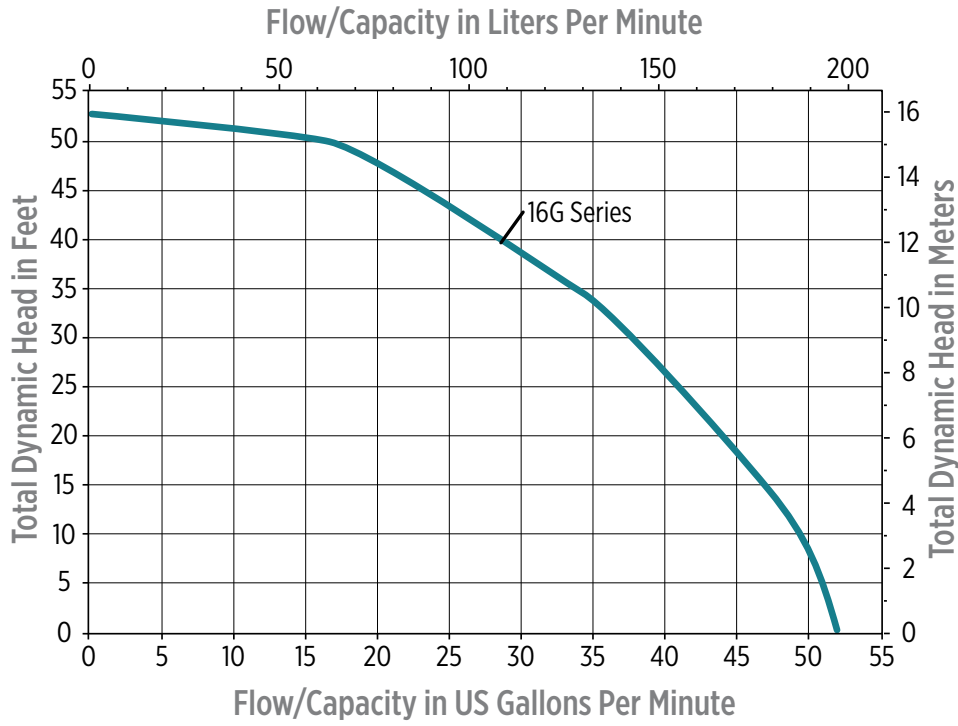
### SEWAGE COMPOSITE





## COMPOSITE CURVES

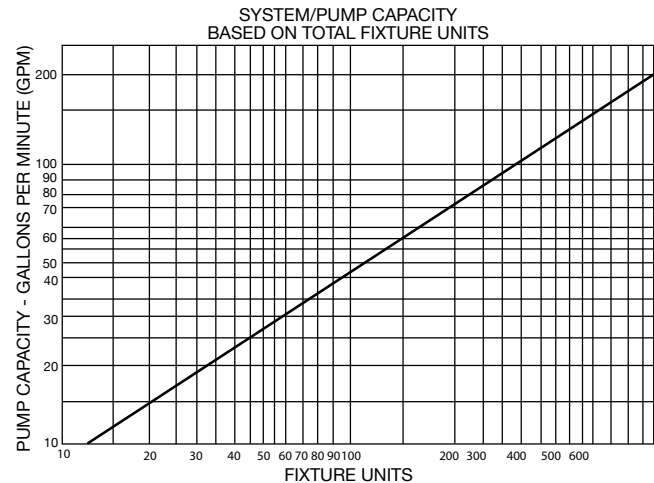
### GRINDER COMPOSITE



## GUIDELINES FOR SIZING

- Step 1:** Use Figure 1 to determine the type and quantity of fixture units in the system. **Total fixture units:** \_\_\_\_\_. Use Figure 2 to calculate the GPM needed to keep up with incoming flow from **Figure 1. GPM needed:** \_\_\_\_\_
- Step 2:** Refer to Figure 3 to determine the minimum GPM needed for the pipe size you will be using. **GPM needed:** \_\_\_\_\_
- Step 3:** Select the greater of the two flow rates from Figure 2 and 3. This will be used to determine friction loss. **GPM needed:** \_\_\_\_\_
- Step 4:** Use Figure 4 to calculate the total equivalent length of pipe in fittings. **Total feet in fittings:** \_\_\_\_\_
- Step 5:** Total length of discharge pipe. This is measured from the discharge opening of the pump to the point of final discharge, following all contours and bends. **Total discharge length:** \_\_\_\_\_
- Step 6:** Add the totals from step 4 and 5 to get the total length of pipe. **Total length of pipe:** \_\_\_\_\_
- Step 7:** Divide the total from step 6 by 100 to get the number of 100' increments of pipe. **Increments of 100' pipe:** \_\_\_\_\_. Multiply the total by the friction loss value from **Figure 5.** This is the total friction loss. **Total friction loss:** \_\_\_\_\_
- Step 8:** Enter static head. **Static head** is the actual vertical distance measured from the minimum water level in the BASIN to the highest point in the discharge piping. **Static head:** \_\_\_\_\_
- Step 9:** Enter the sewer pressure in feet, if any (**PSI X 2.31 = FT**) **Total:** \_\_\_\_\_
- Step 10:** Add the totals from 7, 8 and 9 to get the system's **(TDH) Total Dynamic Head:** \_\_\_\_\_
- Step 11:** Select pump from the performance curves shown on **Figure 8.** Base pump selection on the totals of **Step 3 and Step 10.** **Voltage required and phase:** \_\_\_\_\_ Volts, \_\_\_\_\_ Phase
- Step 12:** Select type of pump control or high water alarm.  
 Simplex  Duplex  
**Simplex:**  
 Single Float Switch  Dual Float Switch  
 Simplex Panel  High Water Alarm  
**Duplex:**  
 Duplex Control Panel  Duplex Alternator
- Step 13:** Select Basin Size: \_\_\_\_\_ in. (depth) X \_\_\_\_\_ in. (diameter)  
Refer to **Figure 7.**
- Step 14:** Select Basin Cover:  
 Simplex  Duplex  
 Vent Size \_\_\_\_\_ in. Discharge Size \_\_\_\_\_ in.

**Figure 2.**



**Figure 3.**

Minimum GPM	Pipe Size
21	2"
30	2-1/2"
46	3"
78	4"

**Figure 4.**

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
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
4"	10.0	5.0	7.0	22.0	33.0	2.3

**Figure 5.**

PLASTIC PIPE: FRICTION LOSS (in feet of head) PER 100 FT.				
REQUIRED PUMP CAPACITY GPM	2"	2-1/2"	3"	4"
20	.86	.36	.13	-
25	1.29	.54	.19	-
30	1.81	.75	.26	-
35	2.42	1.00	.35	.09
40	3.11	1.28	.44	.12
45	3.84	1.54	.55	.15
50	4.67	1.93	.66	.17
60	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

## GUIDELINES FOR SIZING

Figure 6.

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

Figure 7.

### BASIN SIZING

SYSTEM CAPACITY (GPM)	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 minimum basin depth so that 2-1/2' of basin depth in gallons = Pump capacity in GPM  
 = Acceptable basin size

## GUIDELINES FOR SIZING

Summary Worksheet	
Number of Fixture Units	
Flow Rate - Gallons Per Minute	
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). Calculations based on 25 gpm.

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'
	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM	TDH PUMP GPM
5'	6.3' 9SC 97 gpm	7.0' 9SC 95 gpm	7.5' 9SC 92 gpm	8.3' 9SC 88 gpm	8.9' 9SC 82 gpm	9.6' 9SC 77 gpm	10.2' 9SC 72 gpm	10.9' 9SC 67 gpm	11.5' 9SC 61 gpm	12.2' 9SC 54 gpm	12.8' 9SC 48 gpm	13.5' 9SC 43 gpm	14.1' 9SC 38 gpm	14.8' 9SC 32 gpm	15.4' 9SC 27 gpm
6'	7.3' 9SC 93 gpm	8.0' 9SC 89 gpm	8.6' 9SC 83 gpm	9.3' 9SC 78 gpm	9.9' 9SC 75 gpm	10.6' 9SC 69 gpm	11.2' 9SC 63 gpm	11.9' 9SC 57 gpm	12.5' 9SC 52 gpm	13.5' 9SC 43 gpm	13.8' 9SC 40 gpm	14.5' 9SC 33 gpm	15.1' 9SC 29 gpm	15.8' 9SC 25 gpm	16.4' 10SC 57 gpm
7'	8.3' 9SC 88 gpm	9.0' 9SC 81 gpm	9.6' 9SC 77 gpm	10.3' 9SC 70 gpm	10.9' 9SC 67 gpm	11.6' 9SC 59 gpm	12.2' 9SC 54 gpm	12.9' 9SC 47 gpm	13.5' 9SC 43 gpm	14.2' 9SC 36 gpm	14.8' 9SC 32 gpm	15.5' 9SC 26 gpm	16.1' 10SC 62 gpm	16.8' 10SC 54 gpm	17.4' 10SC 48 gpm
8'	9.3' 9SC 78 gpm	10.0' 9SC 76 gpm	10.6' 9SC 69 gpm	11.3' 9SC 62 gpm	11.9' 9SC 57 gpm	12.6' 9SC 50 gpm	13.2' 9SC 45 gpm	13.9' 9SC 39 gpm	14.5' 9SC 33 gpm	15.2' 9SC 28 gpm	15.8' 9SC 25 gpm	16.5' 10SC 56 gpm	17.1' 10SC 52 gpm	17.8' 10SC 46 gpm	18.4' 10SC 41 gpm
9'	10.3' 9SC 70 gpm	11.0' 9SC 65 gpm	11.6' 9SC 59 gpm	12.3' 9SC 53 gpm	12.9' 9SC 47 gpm	13.4' 9SC 44 gpm	14.2' 9SC 36 gpm	14.9' 9SC 30 gpm	15.5' 9SC 26 gpm	16.2' 10SC 60 gpm	16.8' 10SC 54 gpm	17.5' 10SC 48 gpm	18.1' 10SC 42 gpm	18.8' 10SC 39 gpm	19.4' 10SC 33 gpm
10'	11.3' 9SC 62 gpm	12.0' 9SC 56 gpm	12.6' 9SC 50 gpm	13.3' 9SC 44 gpm	13.9' 9SC 39 gpm	14.6' 9SC 33 gpm	15.2' 9SC 28 gpm	15.9' 10SC 62 gpm	16.5' 10SC 56 gpm	17.2' 10SC 50 gpm	17.8' 10SC 46 gpm	18.5' 10SC 40 gpm	19.1' 10SC 35 gpm	19.8' 10SC 32 gpm	20.4' 10SC 27 gpm
11'	12.3' 9SC 53 gpm	13.0' 9SC 46 gpm	13.6' 9SC 42 gpm	14.3' 9SC 35 gpm	14.9' 9SC 30 gpm	15.6' 9SC 25 gpm	16.2' 10SC 60 gpm	16.9' 10SC 53 gpm	17.5' 10SC 48 gpm	18.2' 10SC 42 gpm	18.8' 10SC 39 gpm	19.5' 10SC 33 gpm	20.1' 10SC 29 gpm	20.8' 10SC 25 gpm	21.4' 10SC 27 gpm
12'	13.3' 9SC 44 gpm	14.0' 9SC 40 gpm	14.6' 9SC 33 gpm	15.3' 9SC 27 gpm	15.9' 10SC 62 gpm	16.6' 10SC 55 gpm	17.2' 10SC 50 gpm	17.9' 10SC 45 gpm	18.5' 10SC 40 gpm	19.2' 10SC 34 gpm	19.8' 10SC 32 gpm	20.5' 10SC 26 gpm	21.1' 14S 30 gpm	21.8' 14S 26 gpm	16.4' 16S 120 gpm*
13'	14.3' 9SC 35 gpm	15.0' 9SC 29 gpm	15.6' 9SC 25 gpm	16.3' 10SC 58 gpm	16.9' 10SC 53 gpm	17.6' 10SC 47 gpm	18.2' 10SC 42 gpm	18.9' 10SC 37 gpm	19.5' 10SC 33 gpm	20.2' 10SC 28 gpm	20.8' 10SC 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' 9SC 27 gpm	16.0' 10SC 61 gpm	16.6' 10SC 55 gpm	17.3' 10SC 49 gpm	17.9' 10SC 45 gpm	18.6' 14S 39 gpm	19.2' 10SC 34 gpm	19.9' 10SC 31 gpm	20.5' 10SC 26 gpm	21.2' 14S 29 gpm	21.8' 14S 26 gpm	22.1' 16S 113 gpm*	17.6' 16S 112 gpm*	17.9' 16S 111 gpm*	18.4' 16S 110 gpm*
15'	16.3' 10SC 58 gpm	17.0' 10SC 52 gpm	17.6' 10SC 47 gpm	18.3' 10SC 41 gpm	18.9' 10SC 37 gpm	19.6' 10SC 33 gpm	20.2' 10SC 28 gpm	20.9' 10SC 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' 10SC 49 gpm	18.0' 10SC 44 gpm	18.6' 10SC 39 gpm	19.3' 10SC 33 gpm	19.9' 10SC 31 gpm	20.6' 10SC 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' 10SC 41 gpm	19.0' 10SC 36 gpm	19.6' 10SC 33 gpm	20.3' 10SC 27 gpm	20.9' 10SC 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' 10SC 33 gpm	20.0' 10SC 30 gpm	20.6' 10SC 25 gpm	21.3' 14S 28 gpm	21.9' 14S 26 gpm	22.5' 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*	23.4' 16S 89 gpm*
19'	20.3' 10SC 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*	24.3' 16S 84 gpm*	22.9' 16S 82 gpm*	23.2' 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

Figure 8.

