

Little GIANT®

WASTEWATER PRODUCT CATALOG



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

PONY PUMP® SERIES - 1/10 HP

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

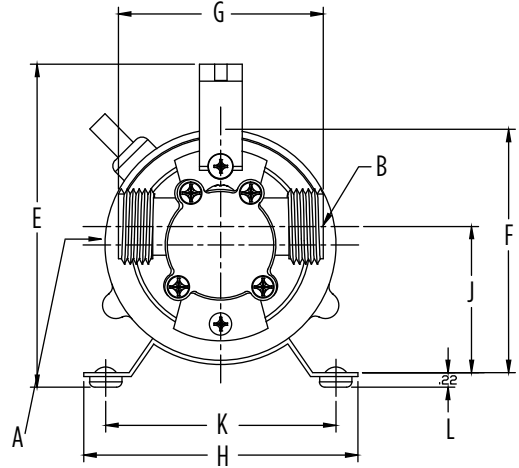
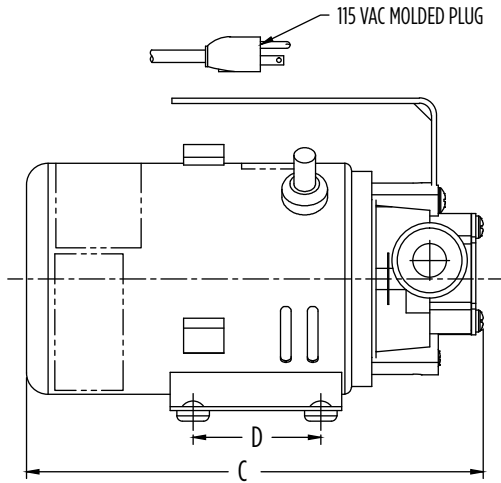
Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)				Shut-Off (ft)	PSI
		FLA	Start		1'	5'	10'	20'		
115	60	1.6	2.4	91	360	330	300	250	25'	10.8
12 VDC	-	7	14	84	300	270	240	202	25'	10.8

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

UTILITY PUMPS

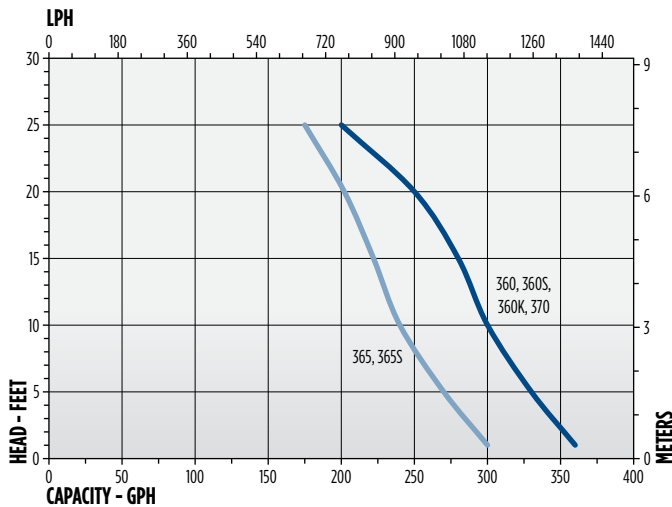
PONY PUMP® SERIES - 1/10 HP

ENGINEERING DATA



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

PERFORMANCE DATA



OPTIONAL KITS

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

UPSP-5 SERIES - 1/2 HP

APPLICATIONS

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

FEATURES

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



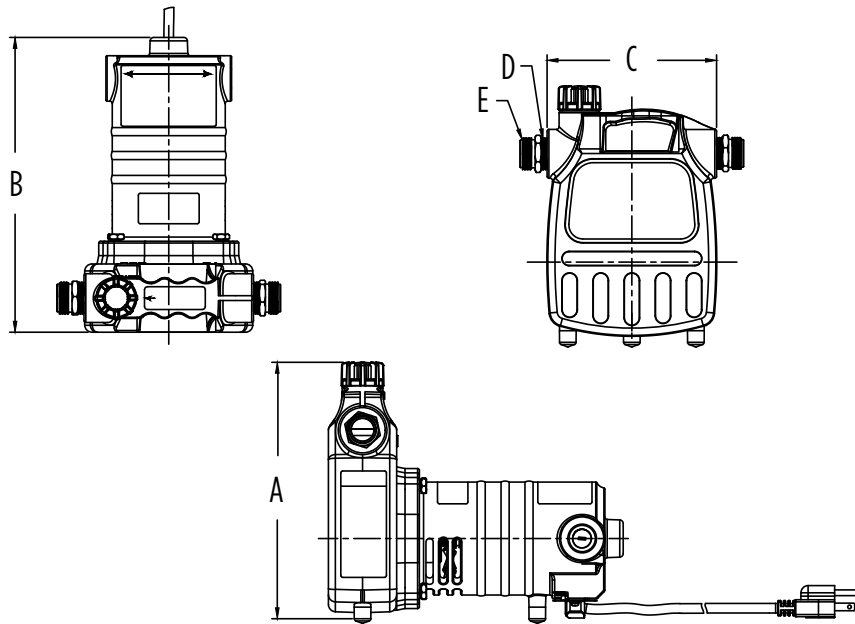
SERIES SPECIFICATIONS

Volts	Hz	Amps	Watts	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

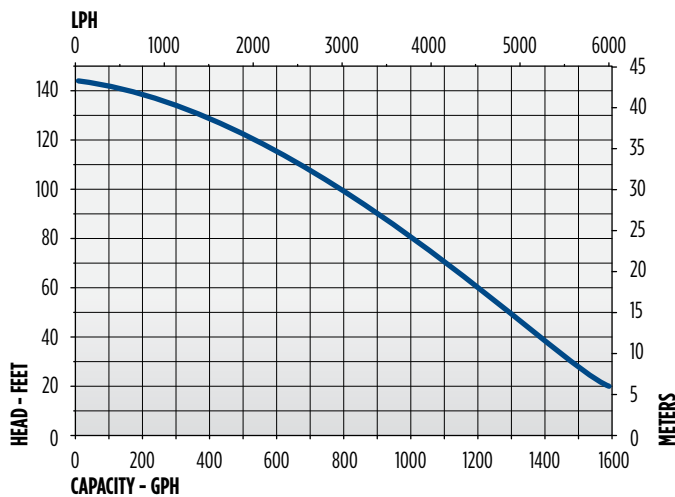
UPSP-5 SERIES - 1/2 HP

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

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

5 SERIES - 1/6 HP

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

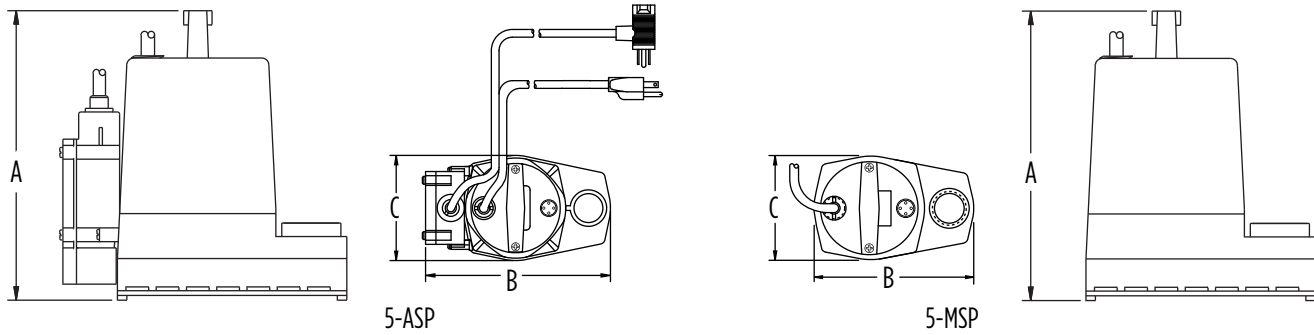
Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		1'	3'	5'	10'	20'		
115	60	5	6.4	380	1200	1170	1100	1000	520	26.3'	11.4
230	60	2.5	3.2	380	1200	1170	1100	1000	520	26.3'	11.4

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

UTILITY PUMPS

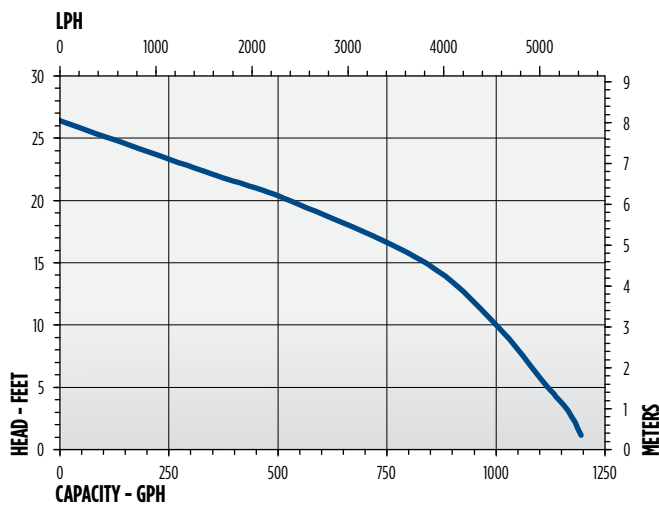
5 SERIES - 1/6 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

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

APPLICATIONS

Water transfer or recirculation and general construction dewatering

FEATURES

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



FLS-400

FS-750

SERIES SPECIFICATIONS

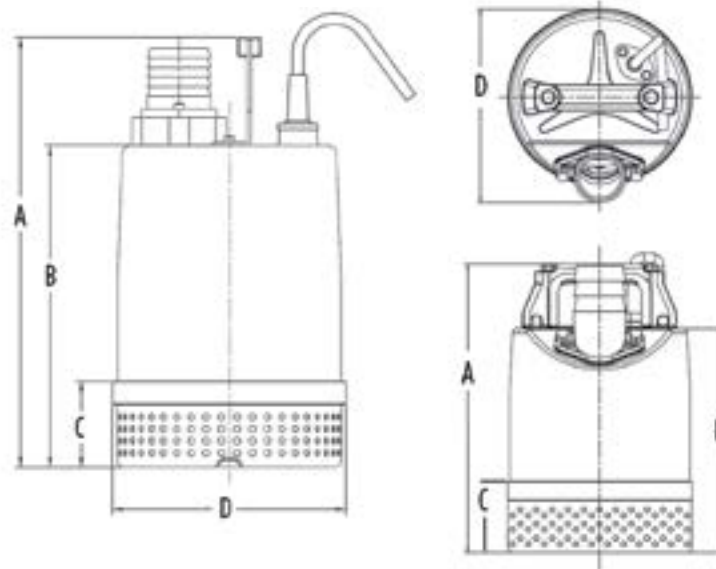
HP	Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)						Shut-Off (ft)	PSI
			FLA	Start		5'	10'	15'	20'	30'	40'		
1/2	115	60	5	24	488	60	54	42	20	-	-	37	16
1	115	60	10	47.6	950	80	76	73	68	54	38	52	22.5

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

UTILITY PUMPS

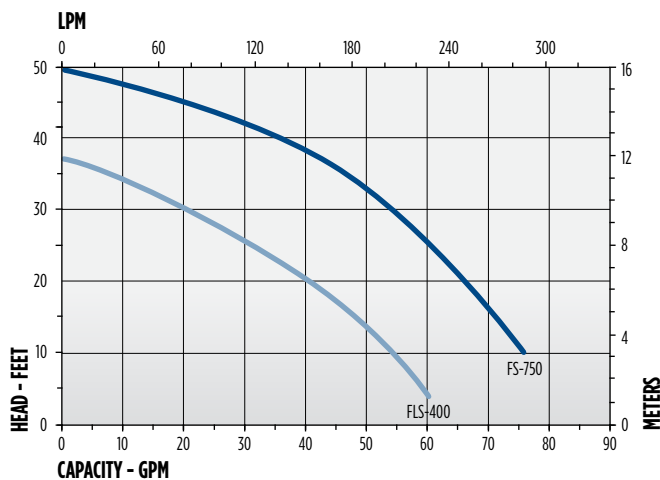
FLS/FS SERIES - 1/2 HP, 1 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

5.5 SERIES - 1/4 HP

APPLICATIONS

Basement sumps

FEATURES

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



SERIES SPECIFICATIONS

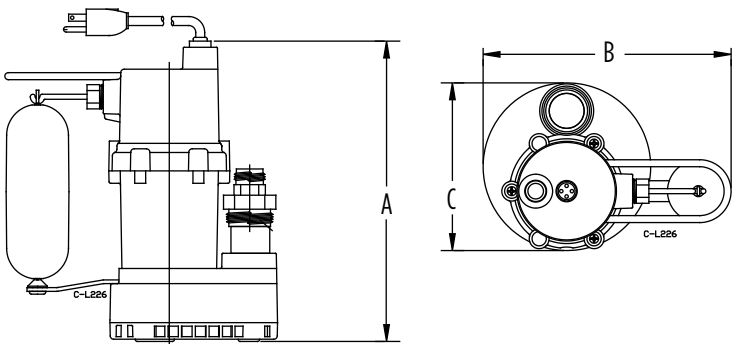
Model	HP	Volts	Hz	Amps	Watts	Max. Water Temp.	GPM / Liters per Minute @ Height			Shut-Off	
							5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	ft / m	PSI / Bar
5.5-ASPA	1/4	115	60	3.5	350	120F	35 / 132	30 / 114	10 / 38	25 / 7.62	10.8 / 0.69

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

SUMP PUMPS

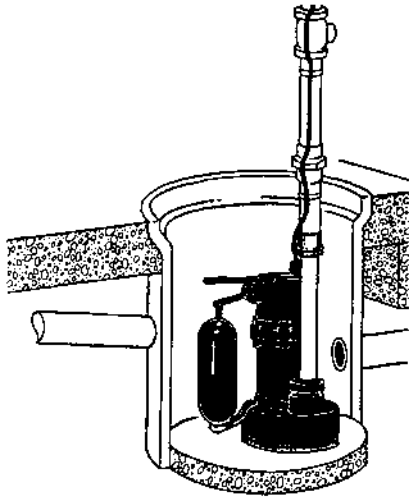
5.5 SERIES - 1/4 HP

ENGINEERING DATA

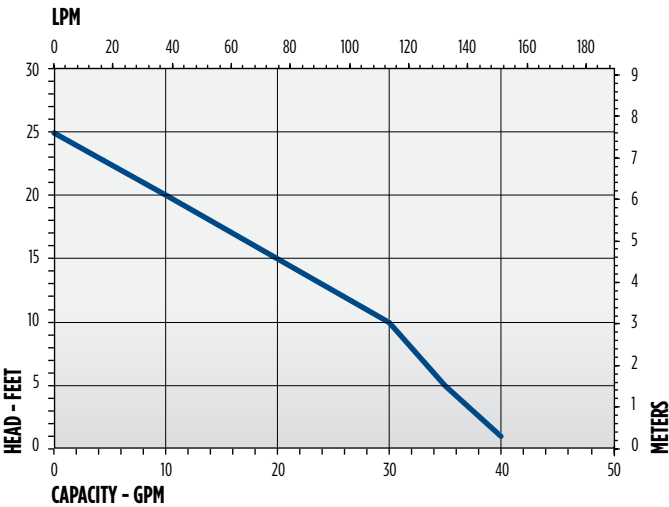


A	B	C
10.8" (274.8 mm)	10.4" (264 mm)	8.7" (221 mm)

TYPICAL INSTALLATION



PERFORMANCE DATA



CONSTRUCTION

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

6 SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

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

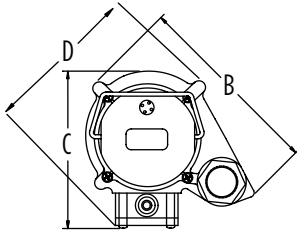
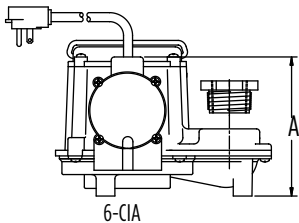
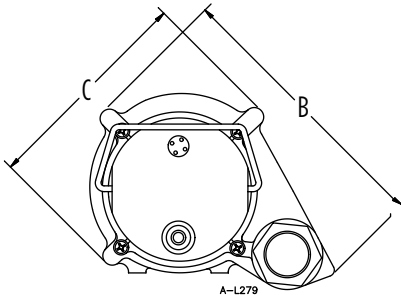
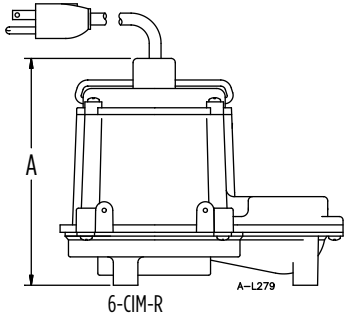
Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
506158	6-CIA	1/3	115	Integral Diaphragm	7" - 10" 17.8 cm - 25.4 cm	1" - 4" 2.5 cm - 10.2 cm	10' 3 m	18 lbs 8.16 Kg
*506162	6-CIA	1/3	115	Integral Diaphragm	7" - 10" 17.8 cm - 25.4 cm	1" - 4" 2.5 cm - 10.2 cm	10' 3 m	18.5 lbs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

* Leg kit included

SUMP PUMPS

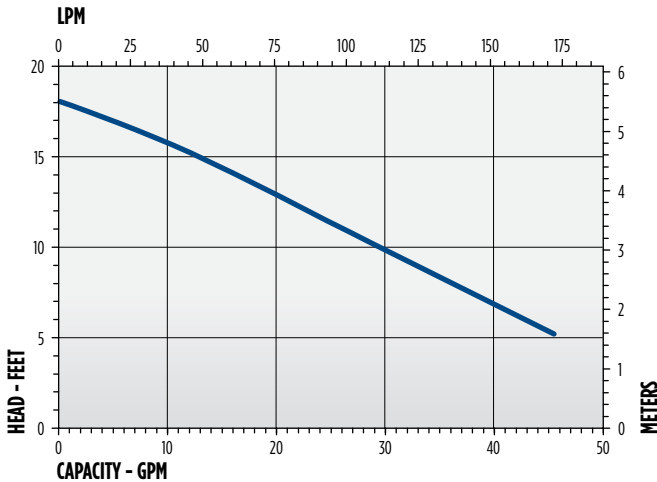
6 SERIES - 1/3 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

6EC SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

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



SERIES SPECIFICATIONS

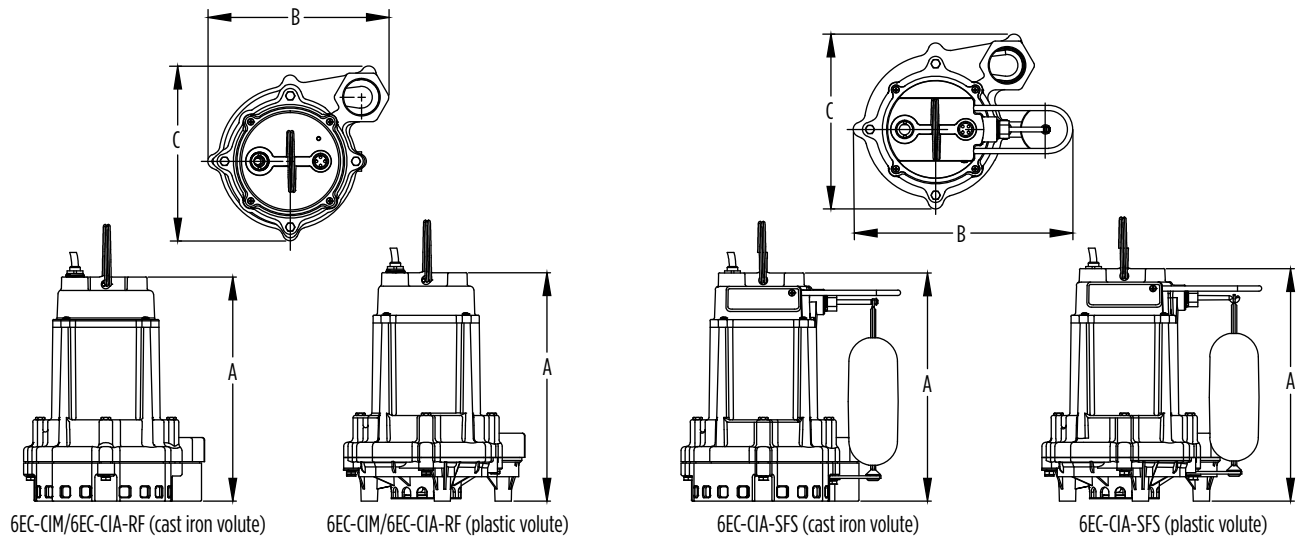
Volts	Hz	Amps	Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
				5'	10'	15'	20'		
115	60	5	600	53	50	42	34	28	12.1
230	60	3	650	53	50	42	34	28	12.1

Item	Model	HP	Volts	Base Material	Switch Type/ Operations	On Level	Off Level	Cord	Weight
506853	6EC-CIA-RF	1/3	115	Cast Iron	Piggyback Mechanical Float	13" - 15" (33.2 cm - 38.1 cm)	6" - 8" (15.2 cm - 20.3 cm)	10' (3 m)	33.5 lbs (15.2 Kg)
506803	6EC-CIA-RF	1/3	115	Polypropylene	Piggyback Mechanical Float	13" - 15" (33.2 cm - 38.1 cm)	6" - 8" (15.2 cm - 20.3 cm)	10' (3 m)	27.5 lbs (12.5 Kg)
506858	6EC-CIA-RF	1/3	115	Cast Iron	Piggyback Mechanical Float	13" - 15" (33.2 cm - 38.1 cm)	6" - 8" (15.2 cm - 20.3 cm)	20' (6.1 m)	35.5 lbs (16.1 Kg)
506855	6EC-CIA-SFS	1/3	115	Cast Iron	Integral Snap-Action Float	8" - 11" (20.3 cm - 27.9 cm)	2" - 5" (5.1 cm - 12.7 cm)	10' (3 m)	34 lbs (15.4 Kg)
506807	6EC-CIA-SFS	1/3	115	Polypropylene	Integral Snap-Action Float	8" - 11" (20.3 cm - 27.9 cm)	2" - 5" (5.1 cm - 12.7 cm)	10' (3 m)	28 lbs (12.7 Kg)
506860	6EC-CIA-SFS	1/3	115	Cast Iron	Integral Snap-Action Float	8" - 11" (20.3 cm - 27.9 cm)	2" - 5" (5.1 cm - 12.7 cm)	20' (6.1 m)	35 lbs (15.9 Kg)
506804	6EC-CIA-SFS	1/3	115	Polypropylene	Integral Snap-Action Float	8" - 11" (20.3 cm - 27.9 cm)	2" - 5" (5.1 cm - 12.7 cm)	20' (6.1 m)	29 lbs (13.5 Kg)
506851	6EC-CIM	1/3	115	Cast Iron	Manual	-	-	10' (3 m)	32.5 lbs (14.7 Kg)
506801	6EC-CIM	1/3	115	Polypropylene	Manual	-	-	10' (3 m)	26.5 lbs (12 Kg)
506852	6EC-CIM	1/3	115	Cast Iron	Manual	-	-	20' (6.1 m)	33.5 lbs (15.2 Kg)
506802	6EC-CIM	1/3	115	Polypropylene	Manual	-	-	20' (6.1 m)	27.5 lbs (12.5 Kg)
506806	6EC-CIM (Black)	1/3	115	Polypropylene	Manual	-	-	20' (6.1 m)	27.5 lbs (12.5 Kg)
506854	6EC-CIM	1/3	115	Cast Iron	Manual	-	-	25' (7.6 m)	34 lbs (15.4 Kg)
506800	6EC-CIM	1/3	230	Polypropylene	Manual	-	-	20' (6.1 m)	27.5 lbs (12.5 Kg)
506856	6EC-CIM	1/3	230	Cast Iron	Manual	-	-	20' (6.1 m)	33.5 lbs (15.2 Kg)
506862	6EC-CIA-SFS	1/3	230	Cast Iron	Integral Snap-Action Float	8" - 11" (20.3 cm - 27.9 cm)	2" - 5" (5.1 cm - 12.7 cm)	20' (6.1 m)	35 lbs (15.88 Kg)

SUMP PUMPS

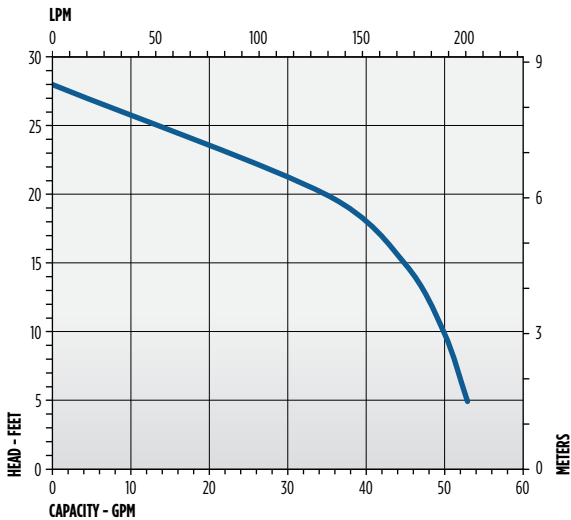
6EC SERIES - 1/3 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

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

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

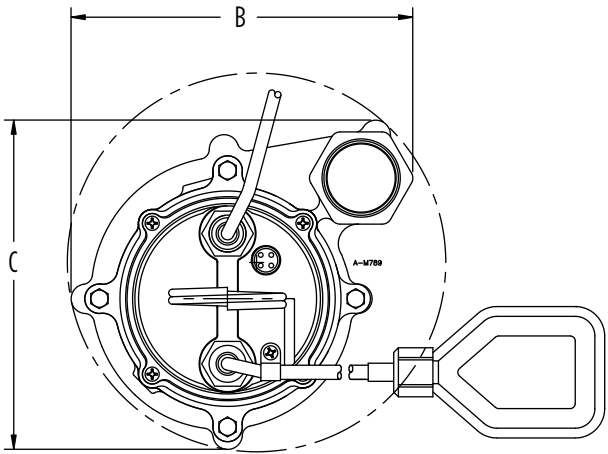
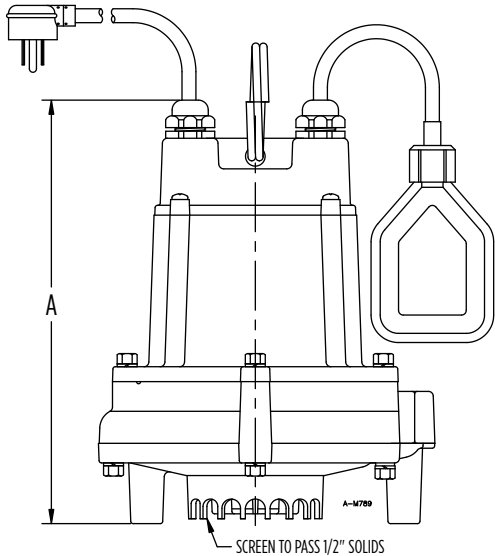
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	10.1	17	735	50	42	27	20	8.7

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

SUMP PUMPS

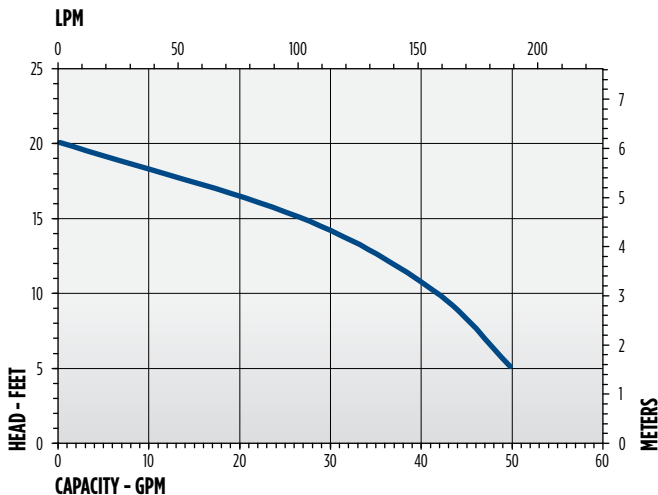
HT-6E SERIES (HIGH TEMPERATURE) - 1/3 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

8 SERIES - 4/10 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

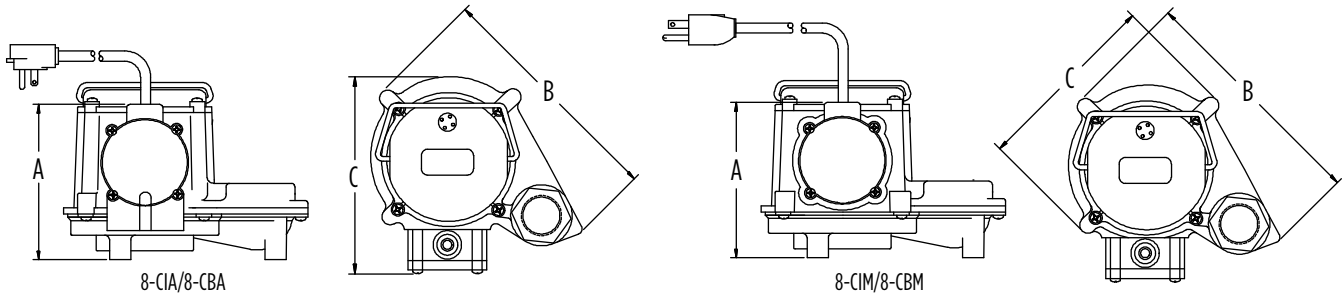
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	10	17	830	54	42	26	22.9	9.9

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

SUMP PUMPS

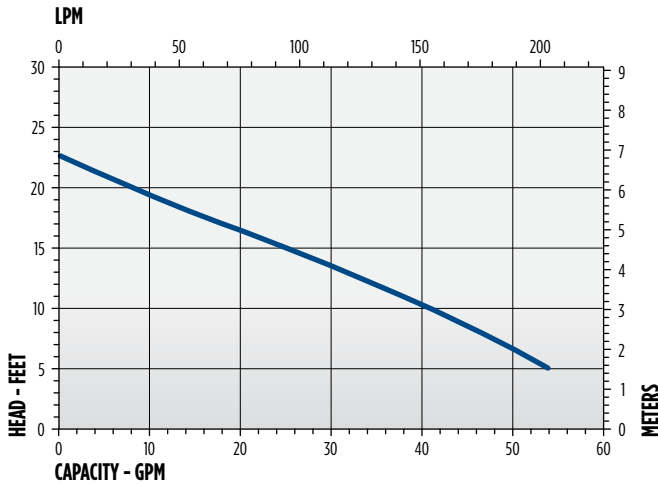
8 SERIES - 4/10 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

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

APPLICATIONS

Impractical drainage areas, under sinks, laundry trays

FEATURES

BASIN FEATURES

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

PUMP FEATURES

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



SERIES SPECIFICATIONS

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

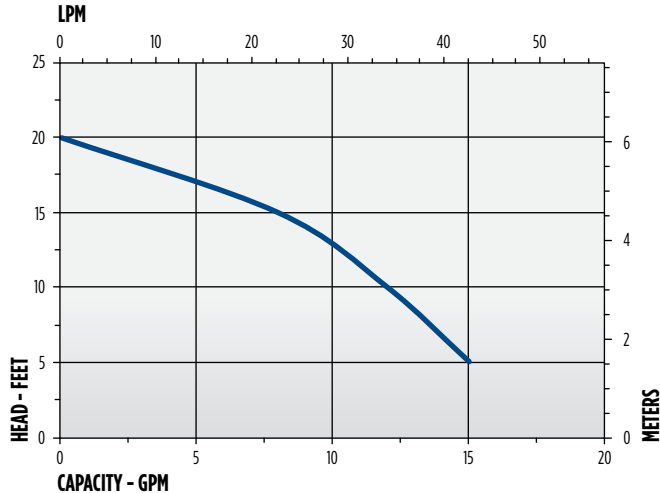
Item No.	Model	HP	Volts	Tank Size	Switch Type / Operation	On Level	Off Level	Cord	Weight	Pump Item No.	Pump Model No.
505055	WRS-5	1/6	115	5 Gallon	Piggyback Diaphragm	6" - 9" 15.2 cm - 23 cm	1" - 4" 2.5 cm - 10 cm	10' 3 m	19 lbs 8.62 Kg	505300	5-ASP
506065	WRSC-6	1/3	115	3.5 Gallon	Integral Diaphragm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

SUMP PUMPS

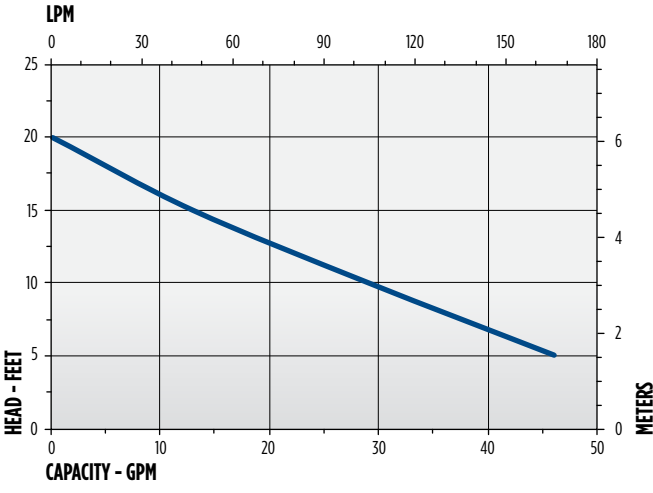
WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

PERFORMANCE DATA

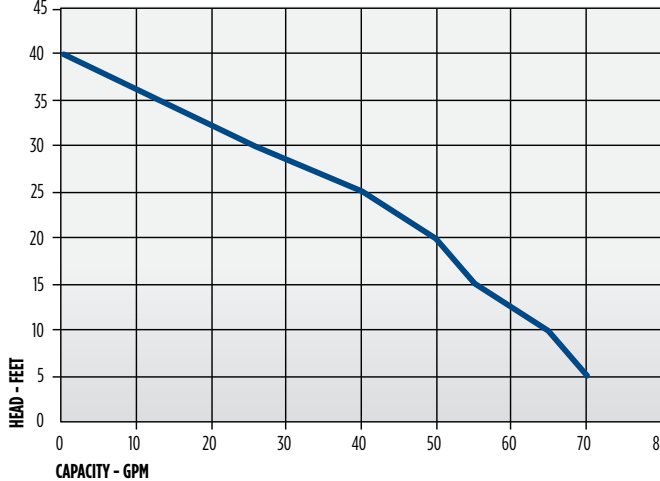
WRS-5



WRS-6 & WRSC-6

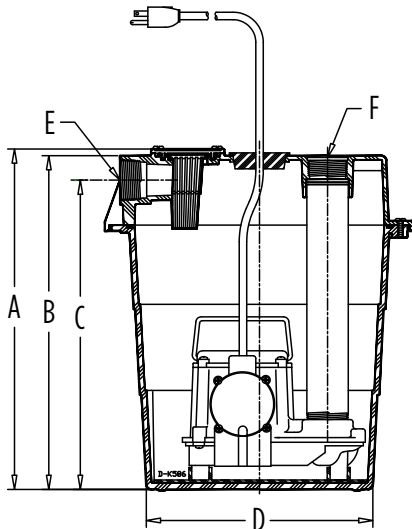


WRS-9

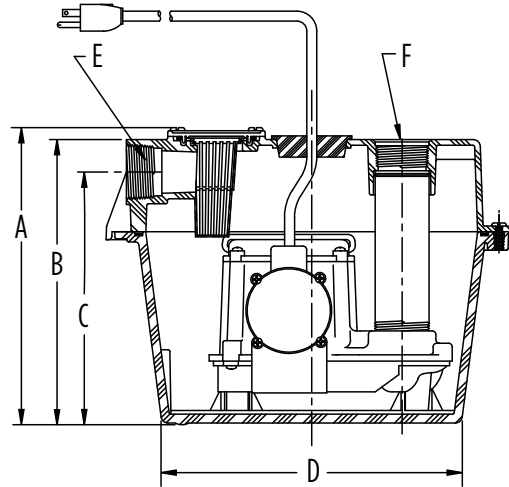


WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

ENGINEERING DATA



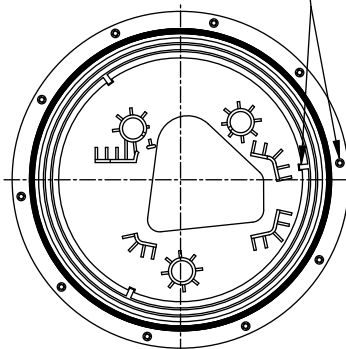
WRS



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)

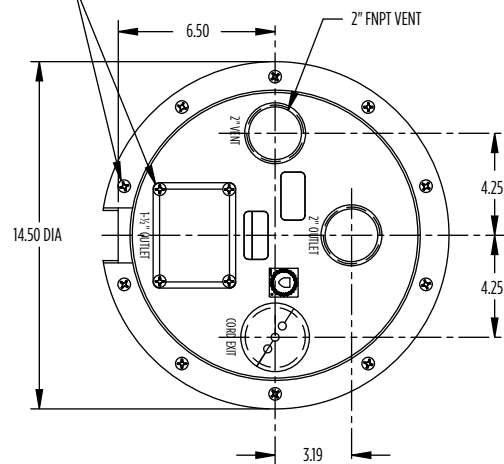
PLATE ALIGNMENT DIAGRAM



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.

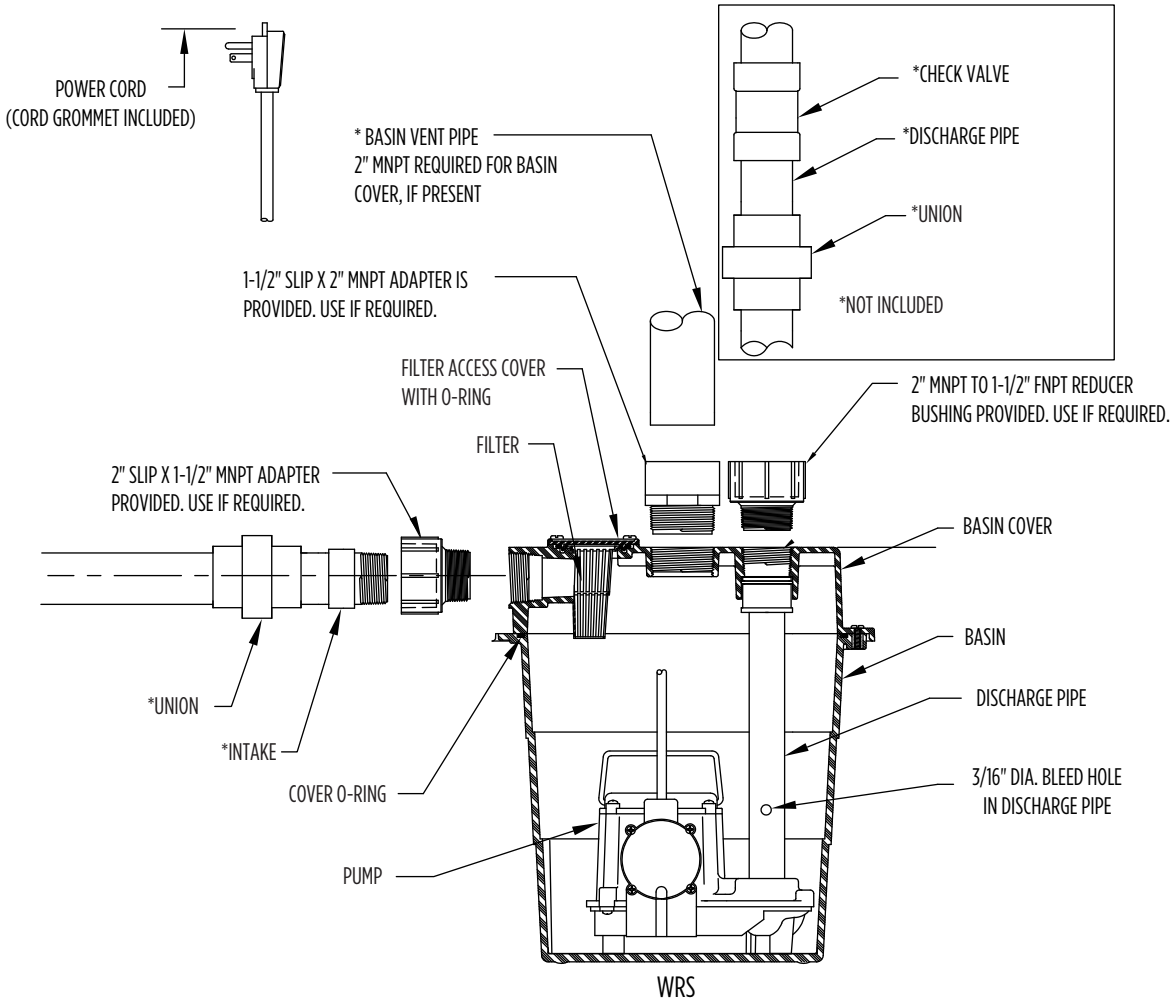
TORQUE 11-13 IN.-LBS.
(TYP. 14 PLACES)



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

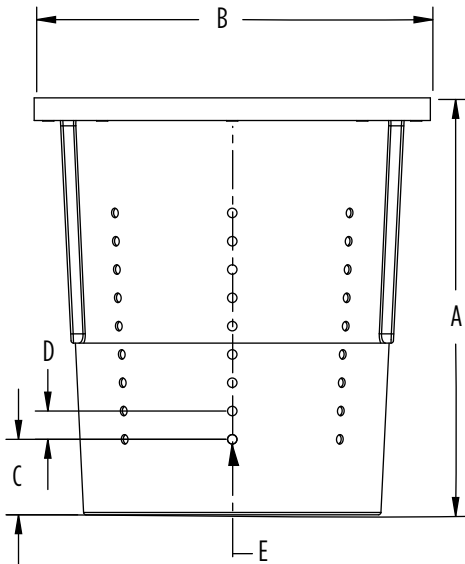
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	6	12	600	50	42	30	22	9.5

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

SUMP PUMPS

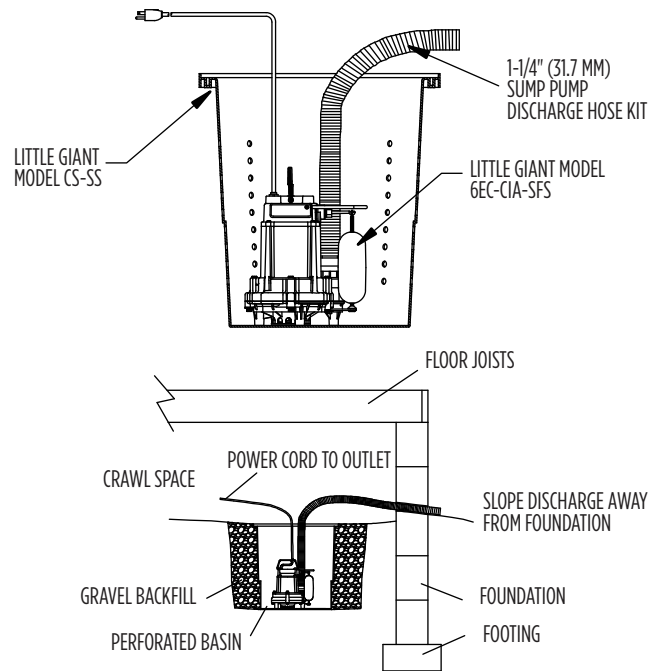
CS-SS SERIES - 1/3 HP

ENGINEERING DATA

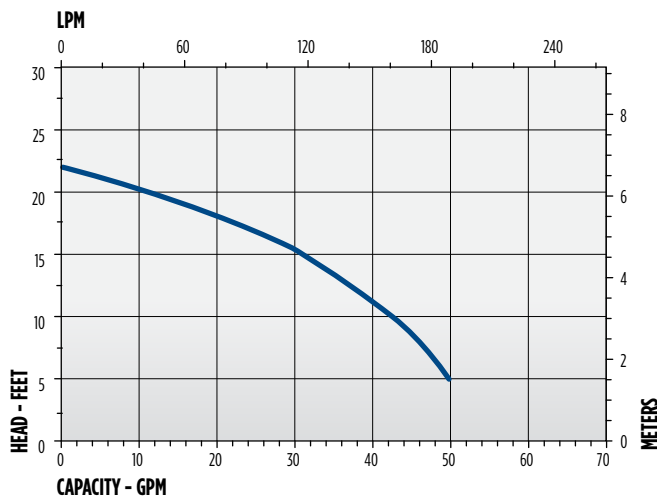


A	B	C	D	E
22.1"	21"	4"	1.5"	0.5"
56.13 cm	53.34 cm	10.16 cm	3.81 cm	1.27 cm

INSTALLATION DATA



PERFORMANCE DATA



CONSTRUCTION

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

APS-115 - BATTERY BACKUP SYSTEMS

APPLICATIONS

Sump, effluent, and sewage pump power backup system

FEATURES

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



NOT FOR SALE IN CALIFORNIA:

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

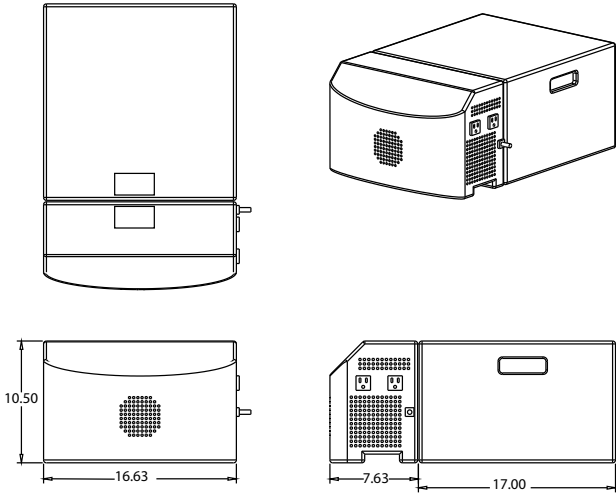
SERIES SPECIFICATIONS

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

BATTERY BACKUP

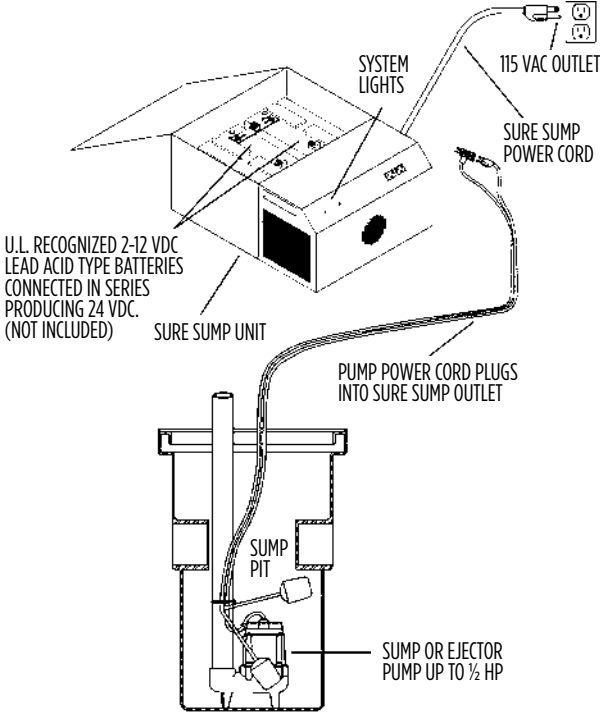
APS-115 - BATTERY BACKUP SYSTEMS

ENGINEERING DATA

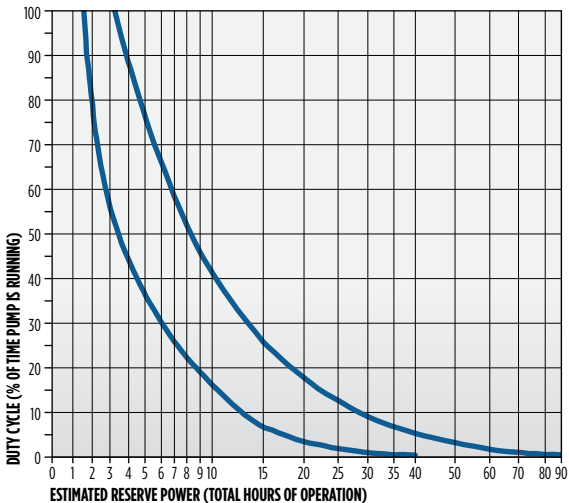


A	B	C	D	E
12"	23"	16-1/2"	14-5/8"	8-3/8"
30.48 cm	58.42 cm	41.91 cm	37.15 cm	21.27 cm

TYPICAL INSTALLATION



PERFORMANCE DATA



CONSTRUCTION

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

SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

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

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

- Model 506410
 - 12 VDC backup pump
 - 53 gpm (201 lpm) at 0 ft (0 m) and 23 ft (7 m) shut-off
 - 12 amp controller/charger/alarm unit
 - 1/2 hp, 115 VAC primary pump
 - 67 gpm (254 lpm) at 5 ft (1.5 m) of lift and 36 ft (11 m) shut-off



SERIES SPECIFICATIONS

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

Charging Unit														
Item No.	Model No.	Volts	Hz	Max Input Amps at 115 VAC	Max Output Amps at 15 VAC	Watts	Cord (ft)	Weight (lbs)	Battery Leads (ft)					
106469	1210HF	115 VAC	60	3	10	345	6'	5	6'					
Backup Pump Switch														
Item No.	Model No.	Volts	Hz	Switch-On Level	Switch-Off Level	Watts	Cord (ft)	Weight (lbs)	Battery Leads (ft)					
105601	RS-12	12 VDC	-	13.5"	9"	-	7'	0.5	-					
Backup Pump														
Item No.	Model No.	Volts	Hz	Amps		Watts	GPM @ Height in Feet			Shut-Off (ft)	PSI	Cord (ft)	Weight (lbs)	
				FLA	Start		0'	5'	10'					
106963	2500	12 VDC	-	14	32	168	42	29	20	20'	8.7	6'	6	
Primary Pump														
Item No.	Model No.	Volts	Hz	Hp	Amps FLA	Watts	GPM @ Height in Feet				Shut-Off (ft)	PSI	Cord (ft)	Weight (lbs)
							5'	10'	15'	20'				
506807	6EC-CIA-SFS	115 VAC	60	1/3	5	600	53	50	42	34	28'	11.7	10'	30

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

Charging Unit														
Item No.	Model No.	Volts	Hz	Max Input Amps at 15 VDC	Max Output Amps at 12 VDC	Watts	Cord (ft)	Weight (lbs)	Battery Leads (ft)					
106486	1212HF	115 VAC	60	3	12	345	6'	5	6'					
Backup Pump Switch														
Item No.	Model No.	Volts	Hz	Switch-On Level	Switch-Off Level	Watts	Cord (ft)	Weight (lbs)	Battery Leads (ft)					
105601	RS-12	12 VDC	-	13.5"	9"	-	9'	0.5	-					
Backup Pump														
Item No.	Model No.	Volts	Hz	Amps		Watts	GPM @ Height in Feet				Shut-Off (ft)	PSI	Cord (ft)	Weight (lbs)
				FLA	Start		0'	5'	10'	15'				
106961	3360	12 VDC	-	15	32	180	53	39	24	13	23'	10	6'	6
Primary Pump														
Item No.	Model No.	Volts	Hz	Hp	Amps FLA	Watts	GPM @ Height in Feet				Shut-Off (ft)	PSI	Cord (ft)	Weight (lbs)
							5'	10'	20'	30'				
510803	10EC-CIA-SFS	115 VAC	60	1/2	6.5	750	67	57	47	28	36'	15.6	10'	26

BATTERY BACKUP

SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

SPBS-10HF AND SPBS-12HF SERIES

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



SERIES SPECIFICATIONS

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

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

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

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

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

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

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

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

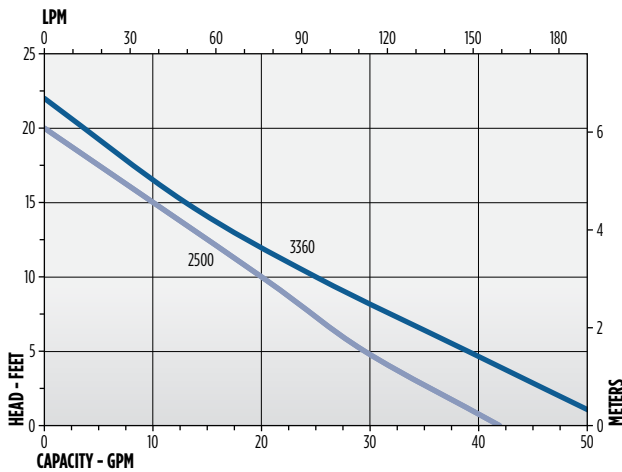
SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

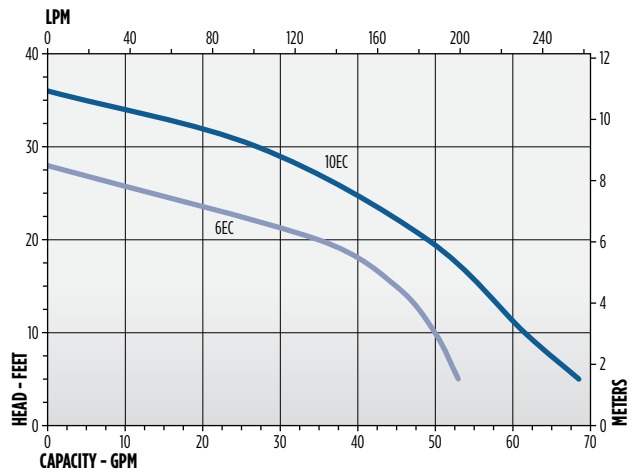
CONTROLLER/CHARGER/ALARM

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

PERFORMANCE



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

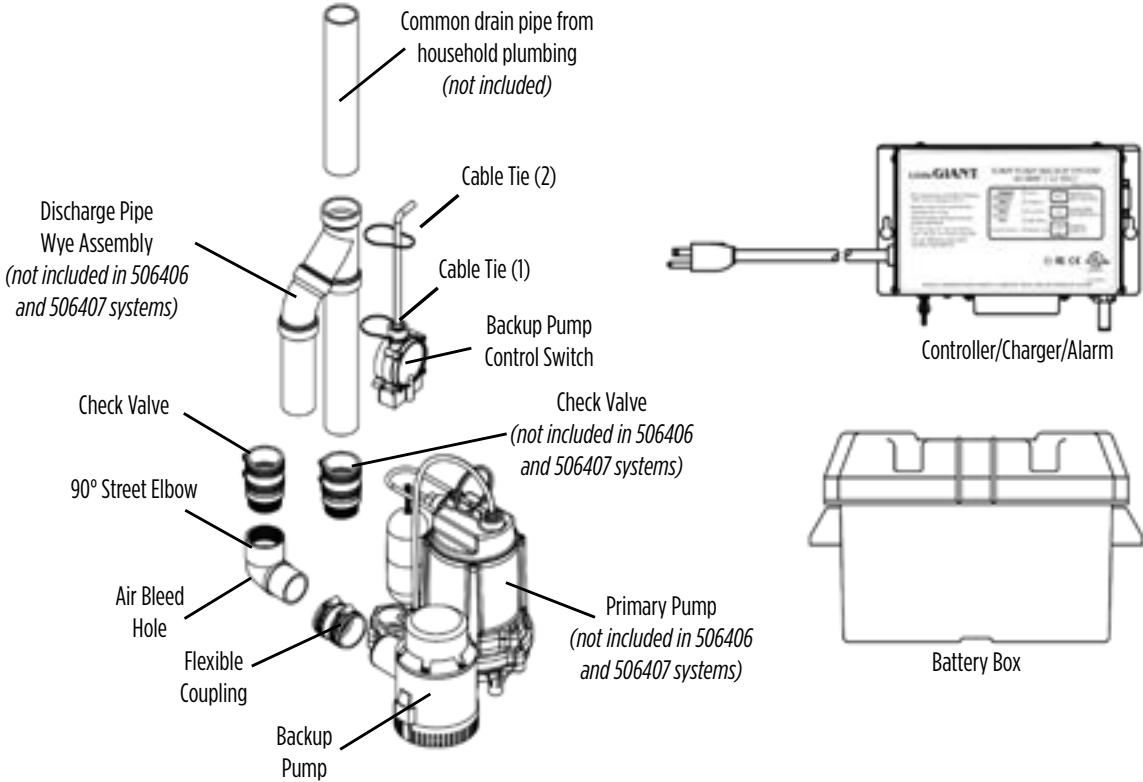


6EC - SPBS-10HF-6, 1/3 hp Primary Pump
10EC - SPBS-12HF-10, 1/2 hp Primary Pump

BATTERY BACKUP

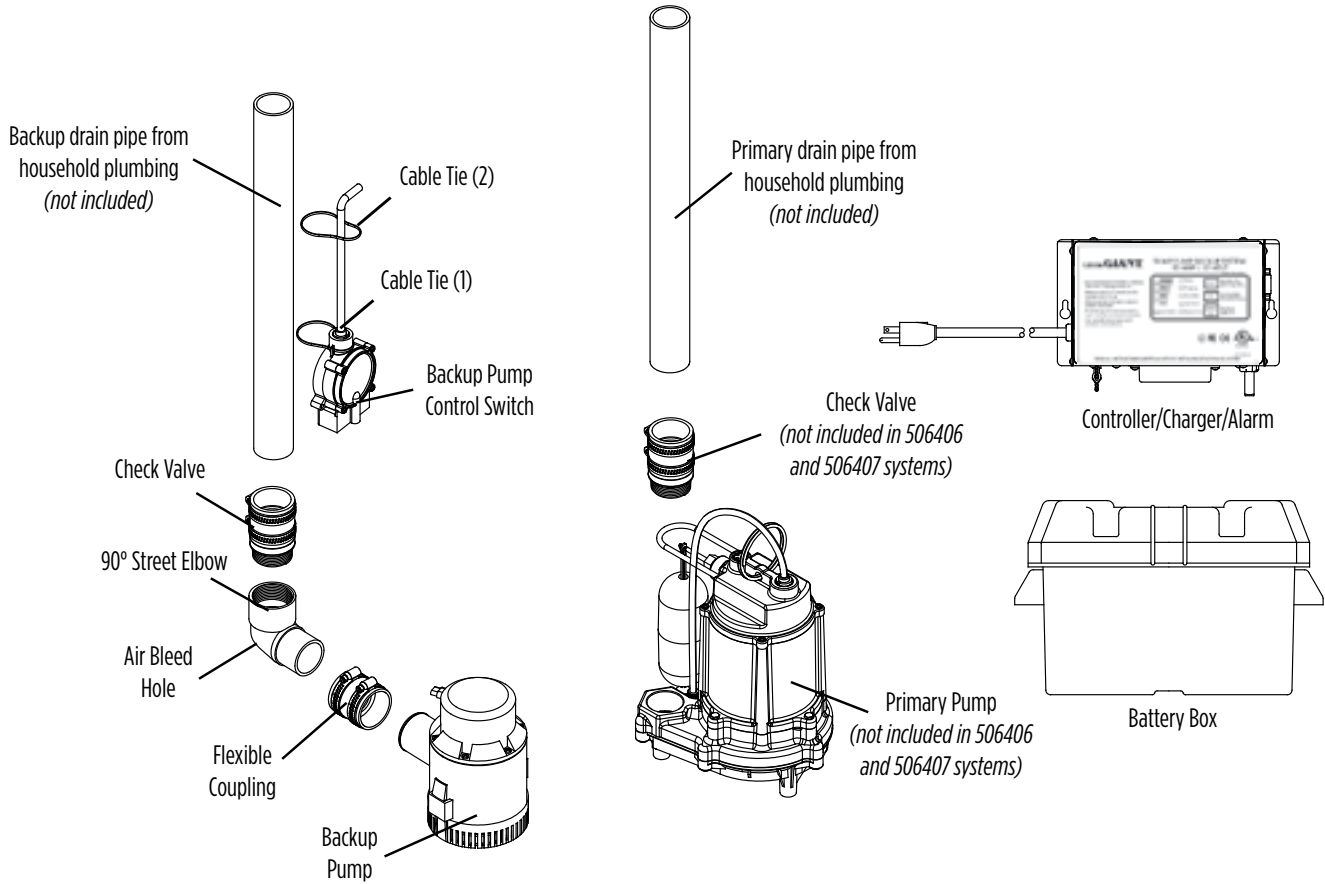
SPBS SERIES - BATTERY BACKUP SYSTEMS

BACKUP SYSTEM ON A COMMON DISCHARGE



SPBS SERIES - BATTERY BACKUP SYSTEMS

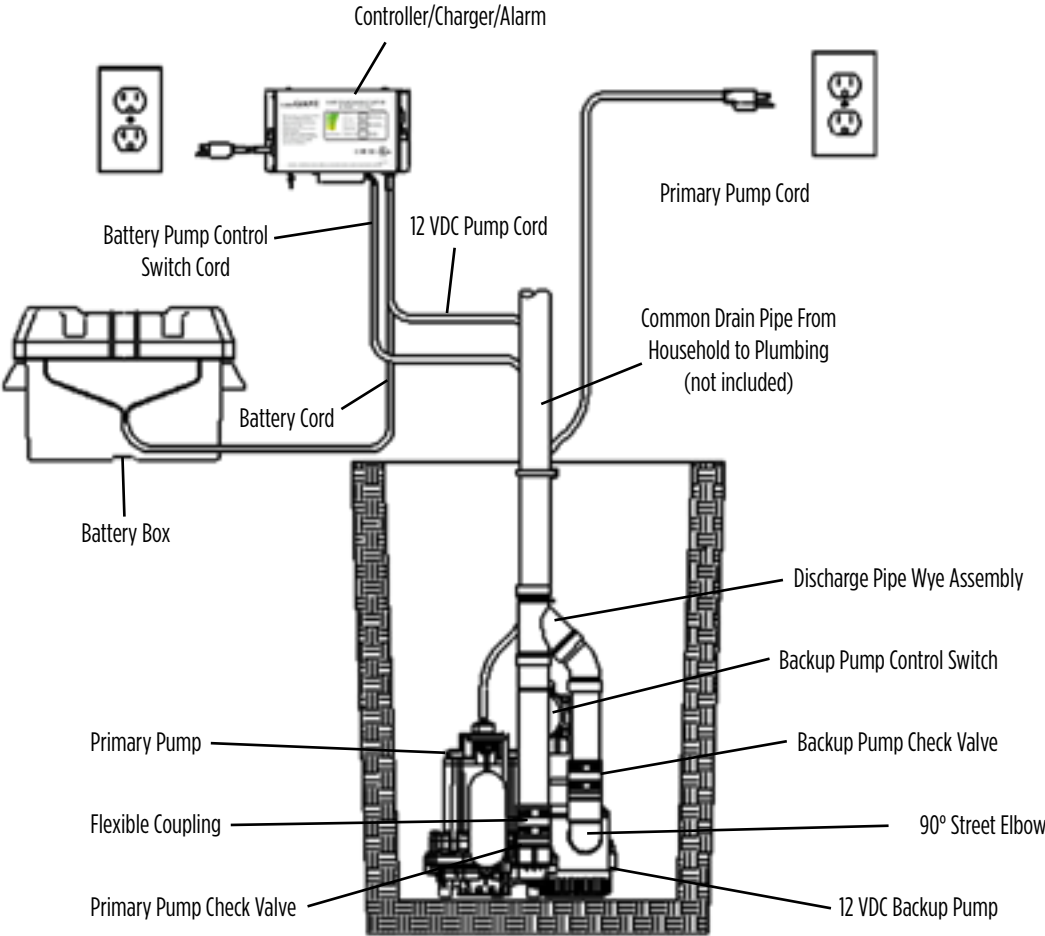
BACKUP SYSTEM ON A SEPARATE DISCHARGE



BATTERY BACKUP

SPBS SERIES - BATTERY BACKUP SYSTEMS

TYPICAL INSTALLATION



OS3 SERIES (OIL SENSING SUMP SYSTEM)

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

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

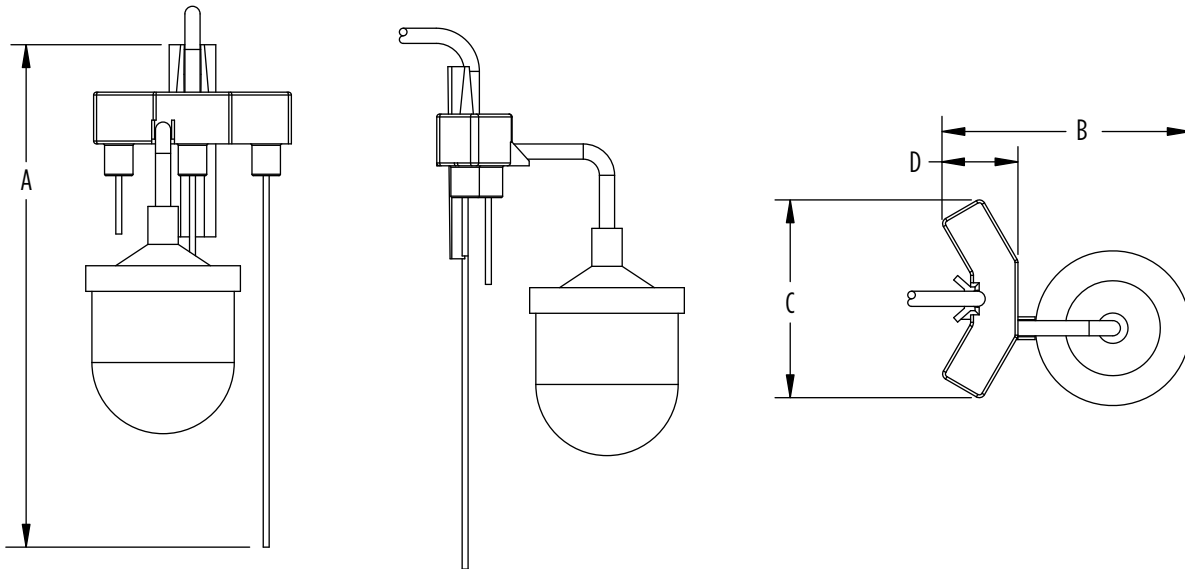
** Includes pump in kit

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)

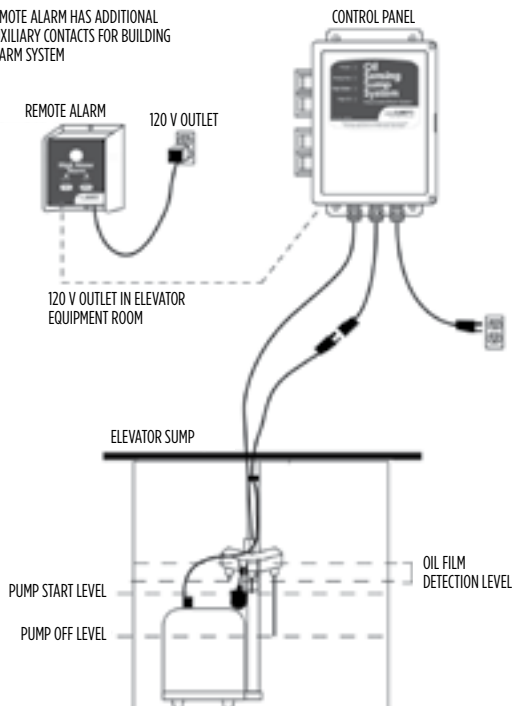
ENGINEERING DATA



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

Sensor	
Housing	ABS
Probe	Stainless steel
Float	PVC

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

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

6EC SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

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



SERIES SPECIFICATIONS

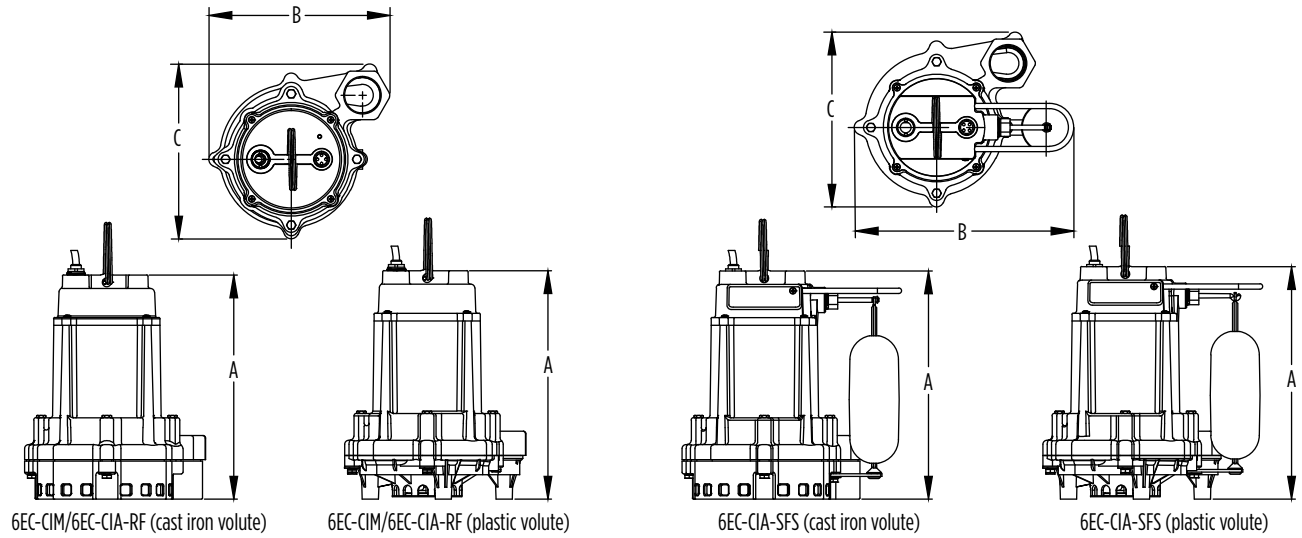
Volts	Hz	Amps	Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
				5'	10'	15'	20'		
115	60	5	600	53	50	42	34	28	12.1
230	60	3	650	53	50	42	34	28	12.1

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

EFFLUENT PUMPS

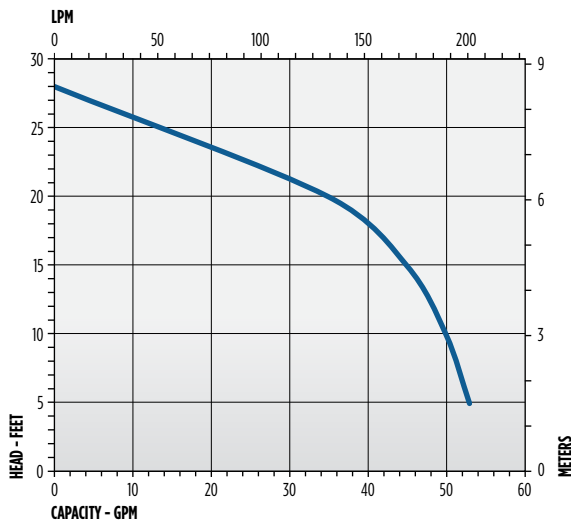
6EC SERIES - 1/3 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

9EC SERIES - 4/10 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



9EC-CIA-RF

9EC-CIM

9EC-CIA-SFS

SERIES SPECIFICATIONS

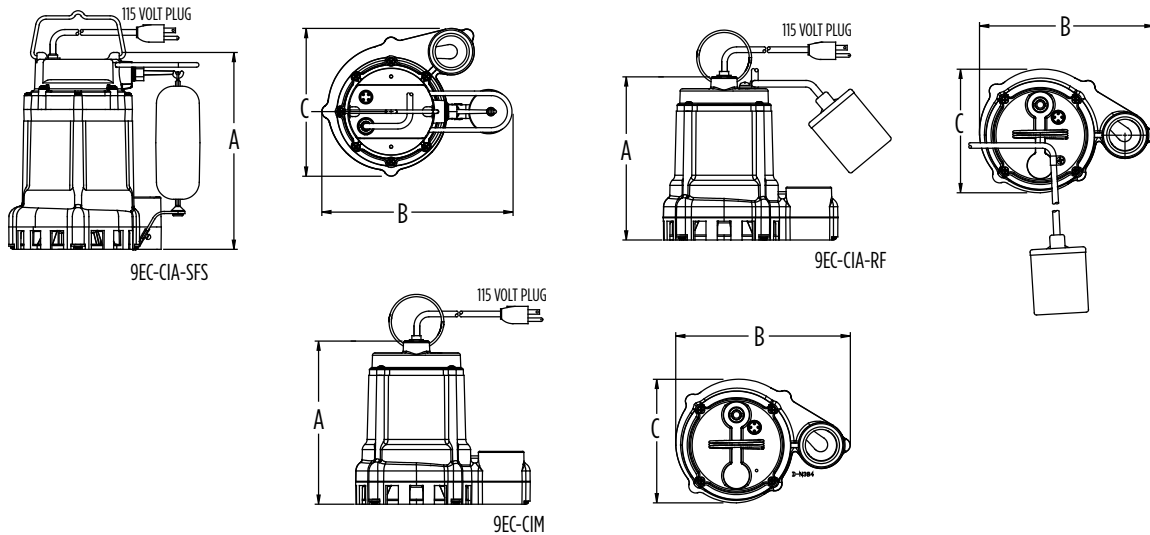
Model	HP	Volts	HZ	Amps	Watts	Max. Water Temp.	GPM / Liters per Minute @ Height					Shut-Off	
							5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	30 ft / 9.1 m	40 ft / 12.2 m	ft / m	PSI / Bar
9EC	4/10	115	60	7.5	800	140 °F / 60 °C	70 / 265	65 / 246	50 / 189	26 / 98	-	40 / 12.2	17.3 / 1.19
	4/10	230	60	-	-	140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

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

EFFLUENT PUMPS

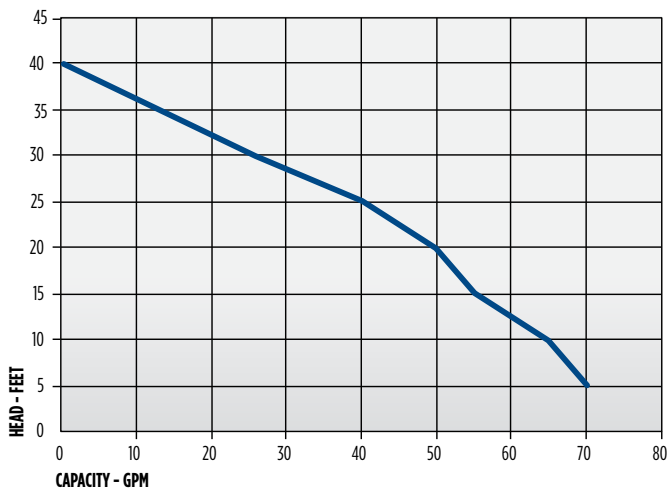
9EC SERIES - 4/10 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

* On SFS models

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

9ECH SERIES - 4/10 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

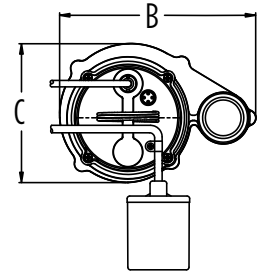
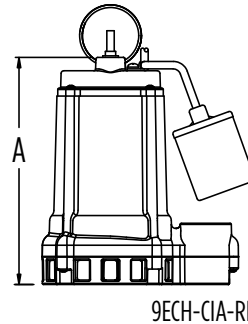
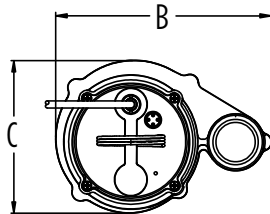
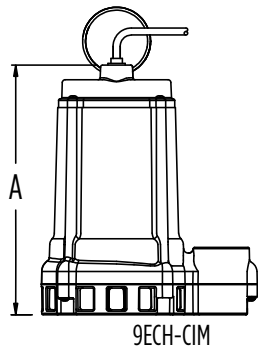
Model	HP	Volts	HZ	Amps	Watts	Max. Water Temp.	GPM / Liters per Minute @ Height					Shut-Off	
							5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	30 ft / 9.1 m	40 ft / 12.2 m	ft / m	PSI / Bar
9ECH	4/10	115	60	7	830	140 °F / 60 °C	70 / 265	65 / 246	50 / 189	30 / 114	-	45 / 13.7	19.5 / 1.34
	4/10	230	60	-	-	140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

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

EFFLUENT PUMPS

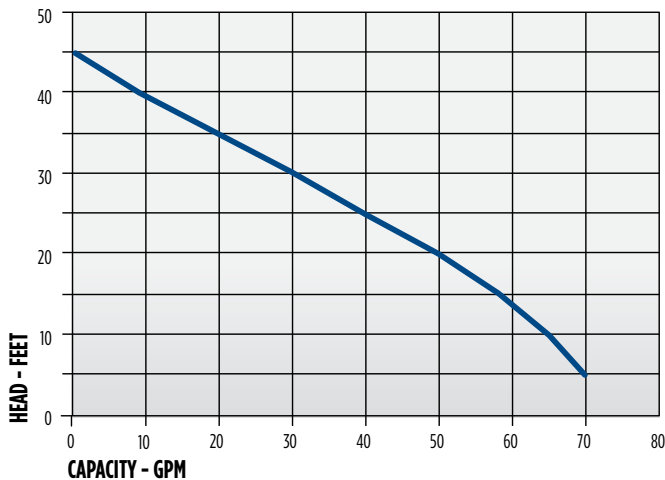
9ECH SERIES - 4/10 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

* On SFS models

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

10EC SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

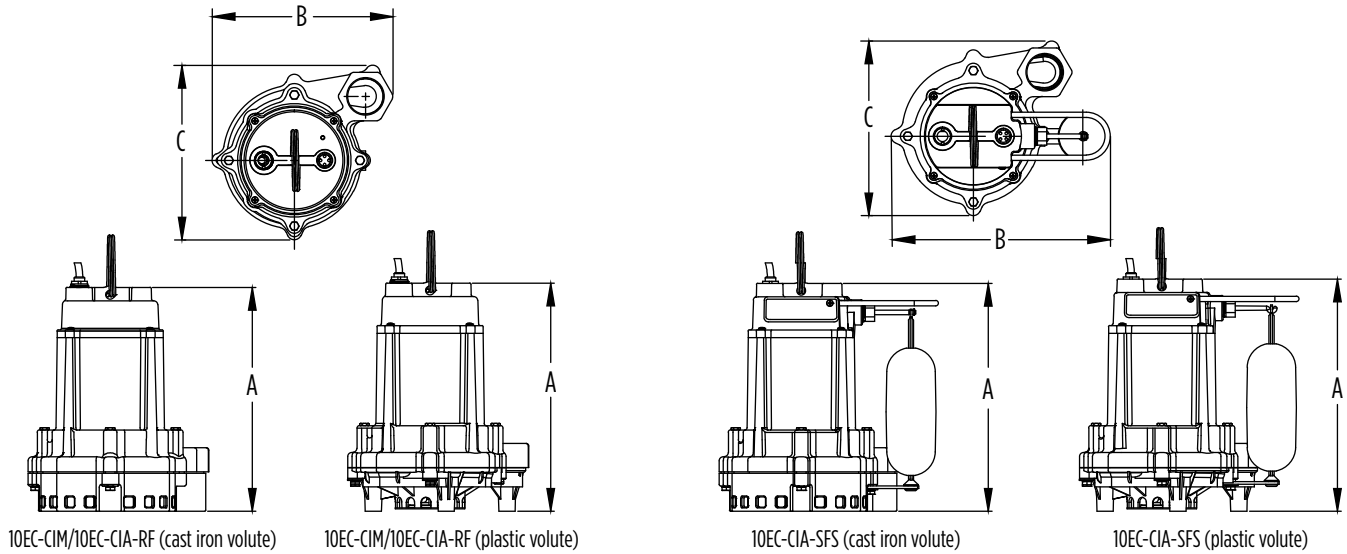
Volts	Hz	Amps	Watts	Performance (GPM at Height in Feet)					Shut-Off (ft)	PSI
				5'	10'	15'	20'	30'		
115	60	6.5	750	67	57	52	47	28	36	15.6
230	60	3.5	750	67	57	52	47	28	36	15.6

Item	Model	HP	Volts	Base Material	Switch Type/ Operations	On Level	Off Level	Cord	Weight
510852	10EC-CIA-RF	1/2	115	Cast Iron	Piggyback Mechanical Float	13" - 15" 33.2 cm - 38.1 cm	6" - 8" 15.2 cm - 20.3 cm	20' 6.1 m	36.5 lbs 16.6 Kg
510851	10EC-CIA-SFS	1/2	115	Cast Iron	Integral Snap-Action Float	8" - 11" 20.3 cm - 27.9 cm	2" - 5" 5.1 cm - 12.7 cm	10' 3 m	35 lbs 15.9 Kg
510803	10EC-CIA-SFS	1/2	115	Polypropylene	Integral Snap-Action Float	8" - 11" 20.3 cm - 27.9 cm	2" - 5" 5.1 cm - 12.7 cm	10' 3 m	29 lbs 13.5 Kg
510854	10EC-CIA-SFS	1/2	115	Cast Iron	Integral Snap-Action Float	8" - 11" 20.3 cm - 27.9 cm	2" - 5" 5.1 cm - 12.7 cm	20' 6.1 m	36 lbs 16.3 Kg
510802	10EC-CIA-SFS	1/2	115	Polypropylene	Integral Snap-Action Float	8" - 11" 20.3 cm - 27.9 cm	2" - 5" 5.1 cm - 12.7 cm	20' 6.1 m	30 lbs 13.6 Kg
510801	10EC-CIM	1/2	115	Polypropylene	Manual	—	—	10' 3 m	27.5 lbs 12.5 Kg
510850	10EC-CIM	1/2	115	Cast Iron	Manual	—	—	20' 6.1 m	33.5 lbs 15.2 Kg
510800	10EC-CIM	1/2	115	Polypropylene	Manual	—	—	20' 6.1 m	28.5 lbs 12.9 Kg
510856	10EC-CIA-SFS	1/2	230	Cast Iron	Integral Snap-Action Float	8" - 11" 20.3 cm - 27.9 cm	—	20' 6.1 m	36 lbs 16.3 Kg

EFFLUENT PUMPS

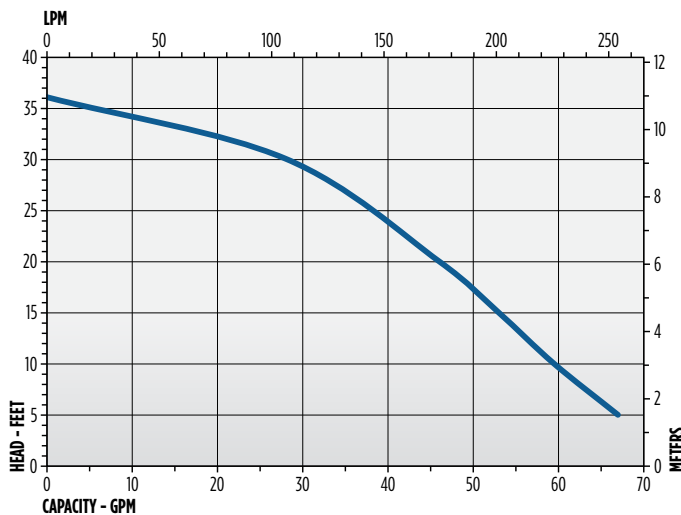
10EC SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

10ECH SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



10ECH-CIA-SFS

SERIES SPECIFICATIONS

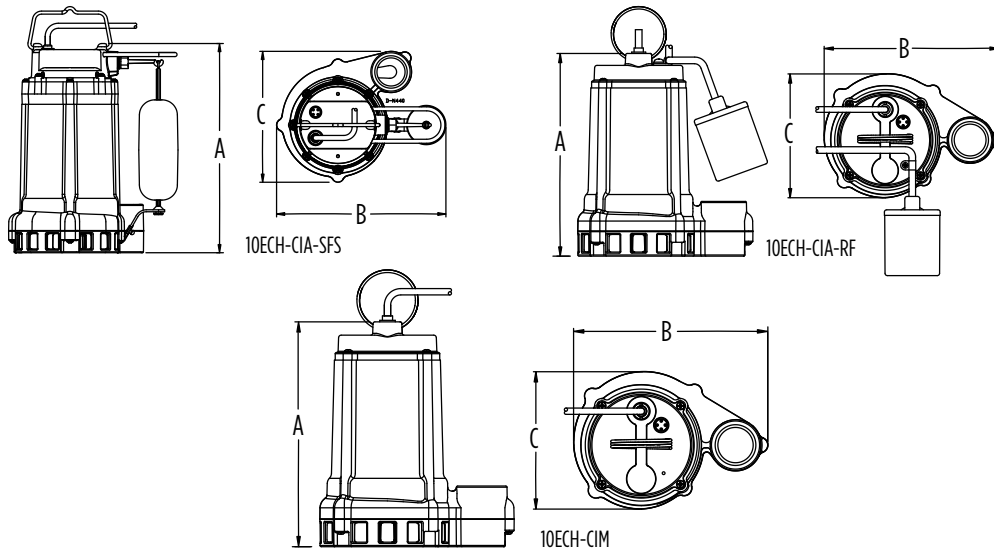
Model	HP	Volts	HZ	Amps	Watts	Max. Water Temp.	GPM / Liters per Minute @ Height					Shut-Off	
							5 ft / 1.5 m	10 ft / 3 m	20 ft / 6.1 m	30 ft / 9.1 m	40 ft / 12.2 m	ft / m	PSI / Bar
10ECH	1/2	115	60	9	1030	140 °F / 60 °C	60 / 227	55 / 208	45 / 170	30 / 114	15 / 57	60 / 18.3	26 / 1.79
	1/2	230	50/60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

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

EFFLUENT PUMPS

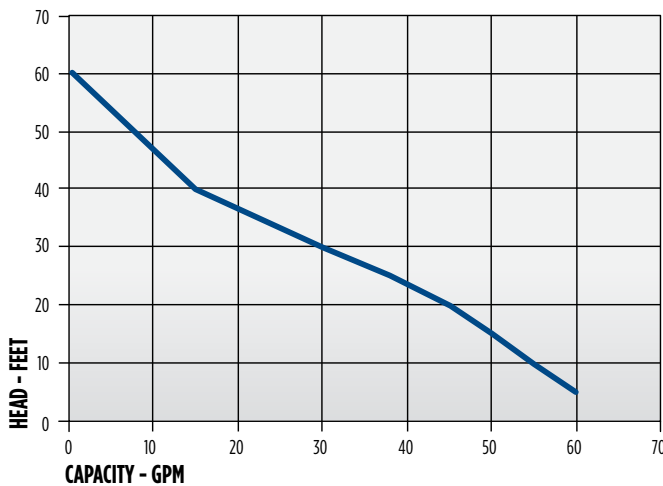
10ECH SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

* On SFS models

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

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

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

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

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

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

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

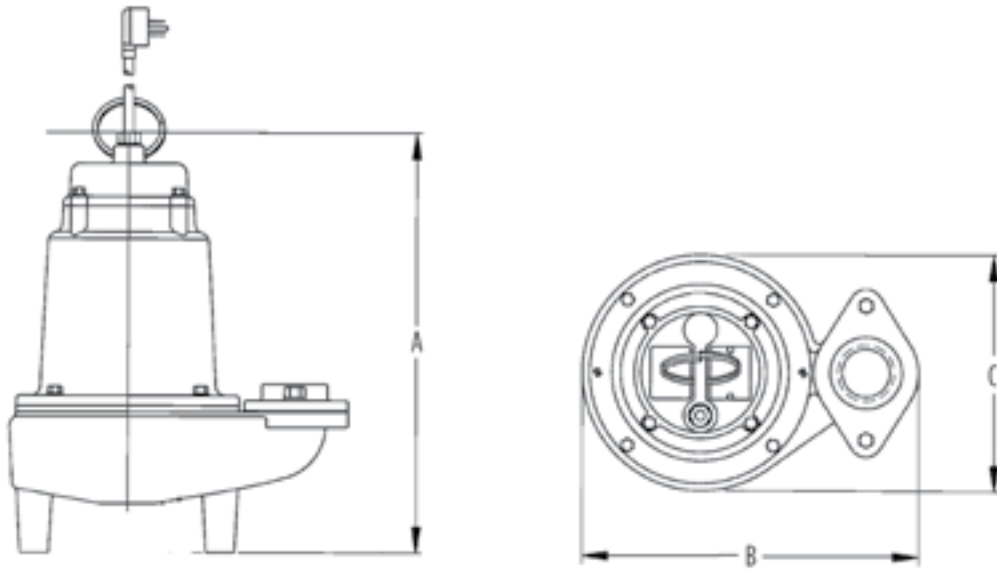
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

*** CSA only

EFFLUENT PUMPS

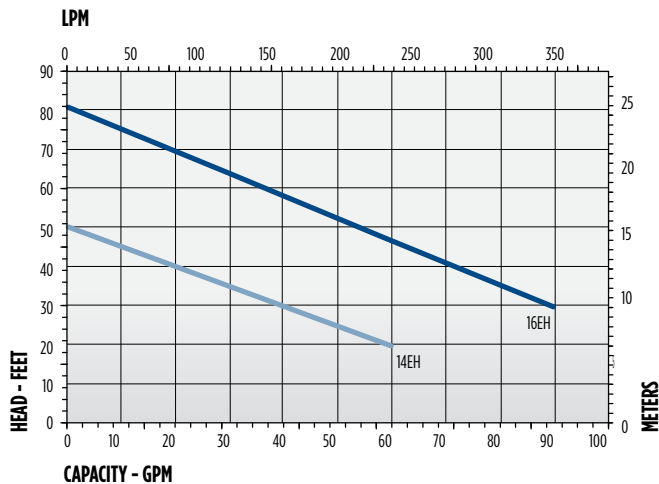
14EH/16EH SERIES - 1/2 HP, 1 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

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

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

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

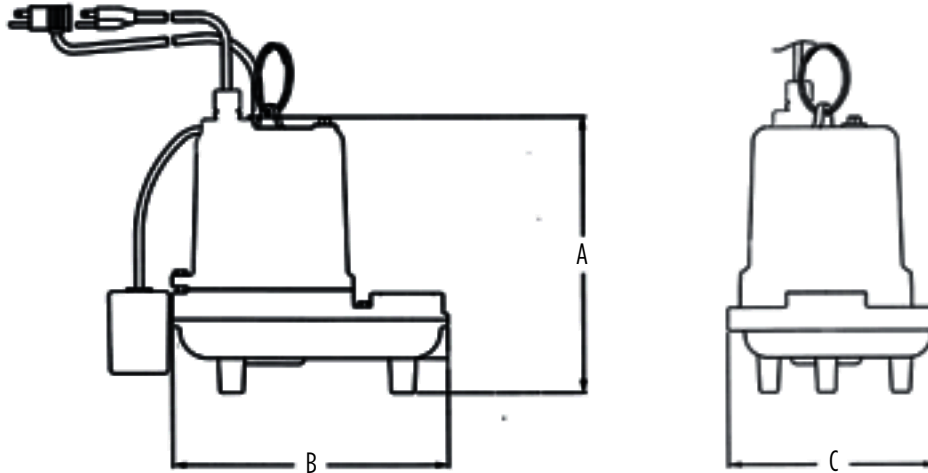
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

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

EFFLUENT PUMPS

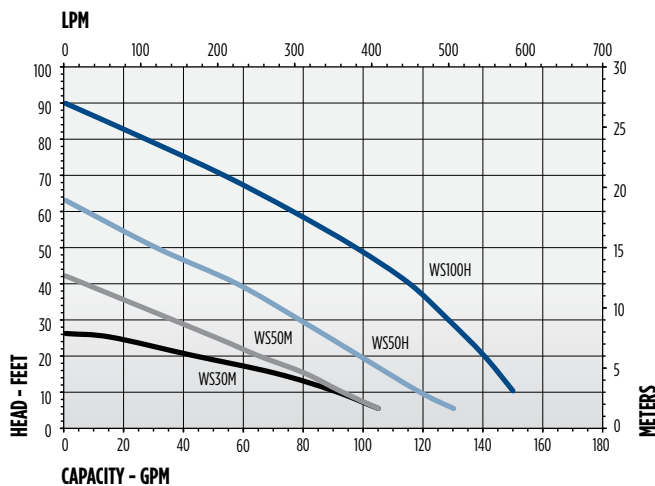
WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

WSV50 EFFLUENT SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

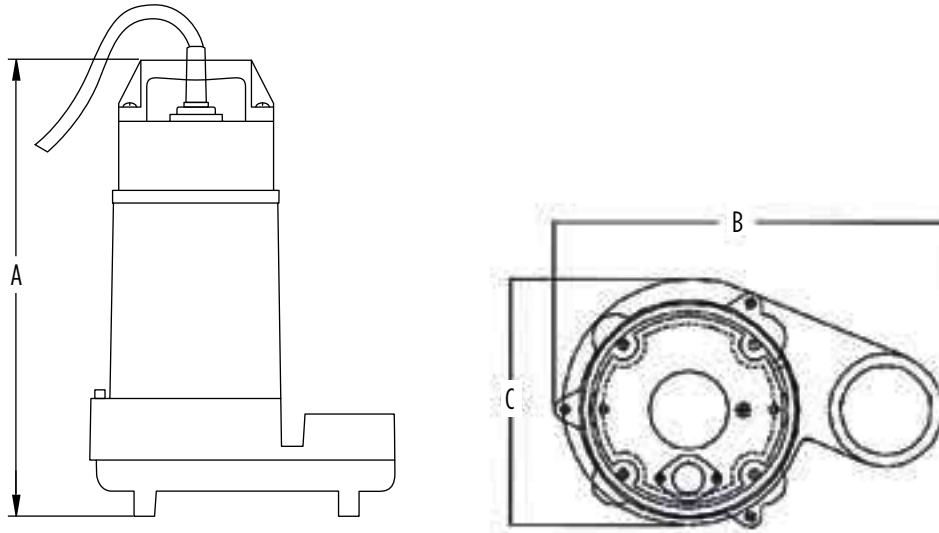
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		20'	25'	30'	35'	40'		
115	60	10.2	39	1100	83	74	62	48	30	45	19.5

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

EFFLUENT PUMPS

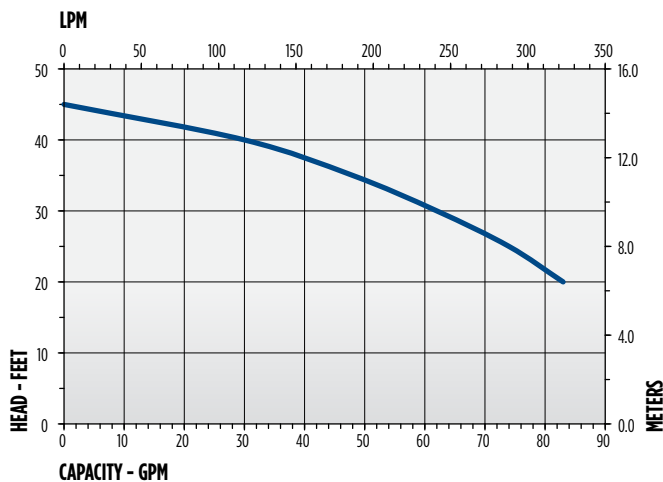
WSV50 EFFLUENT SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

20E SERIES - 2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

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

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

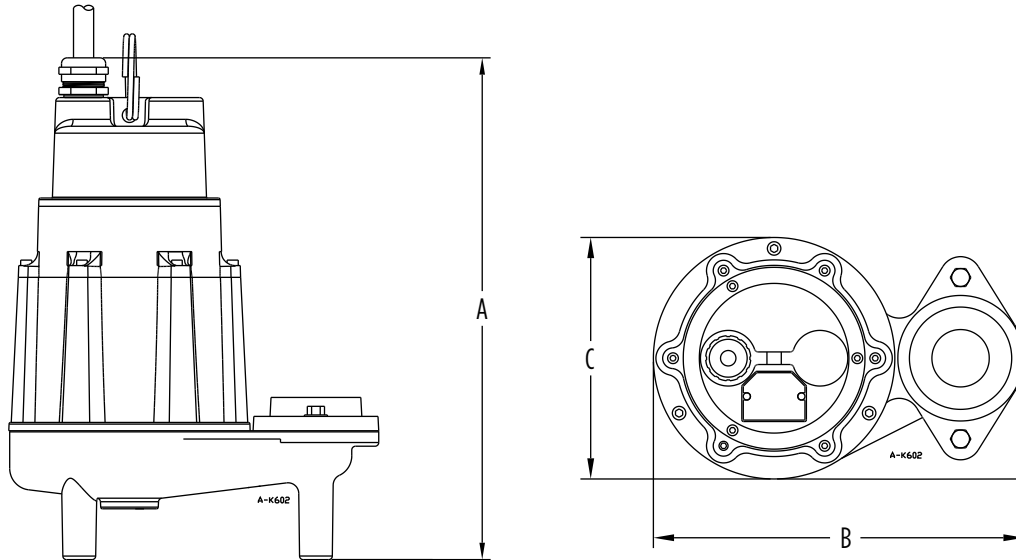
* Single-phase pumps can use a mechanical float switch or a single-phase control panel for automatic on/off

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

EFFLUENT PUMPS

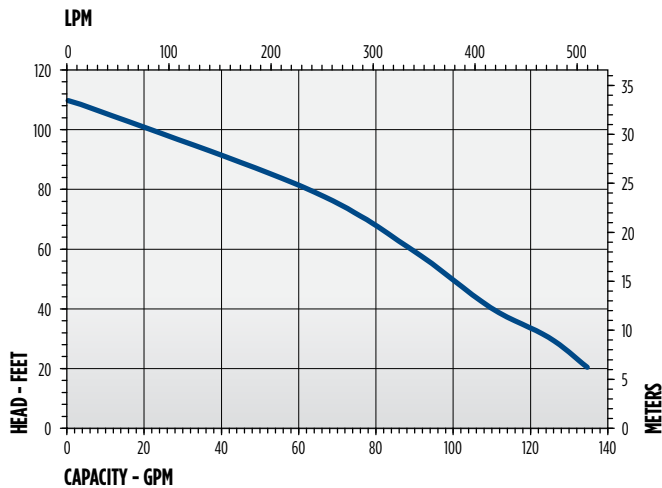
20E SERIES - 2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

WE SERIES - 1/2 HP

APPLICATIONS

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

FEATURES

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



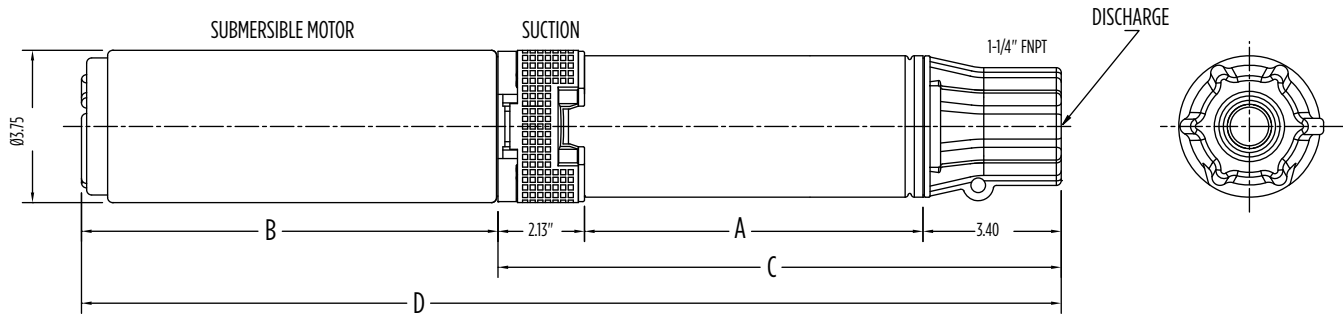
SERIES SPECIFICATIONS

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

EFFLUENT PUMPS

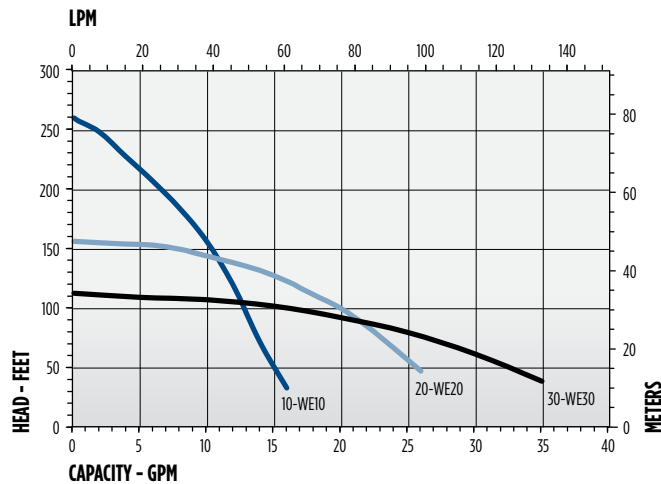
WE SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

C1 SERIES - 1/2 HP

APPLICATIONS

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

FEATURES

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



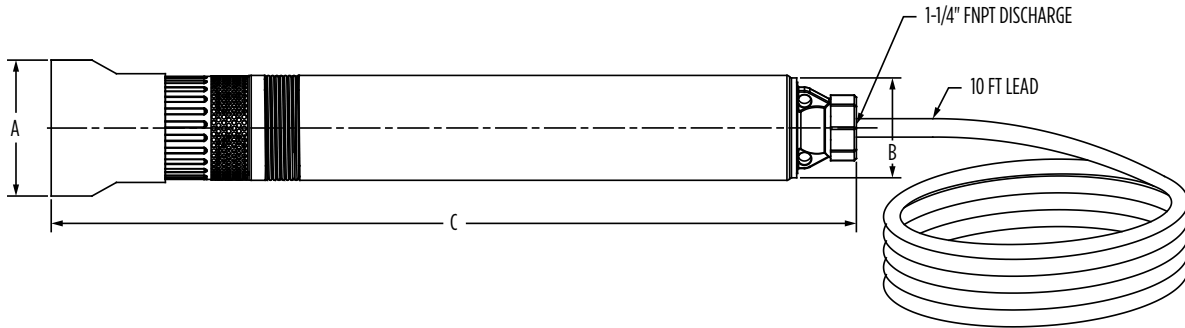
SERIES SPECIFICATIONS

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

EFFLUENT PUMPS

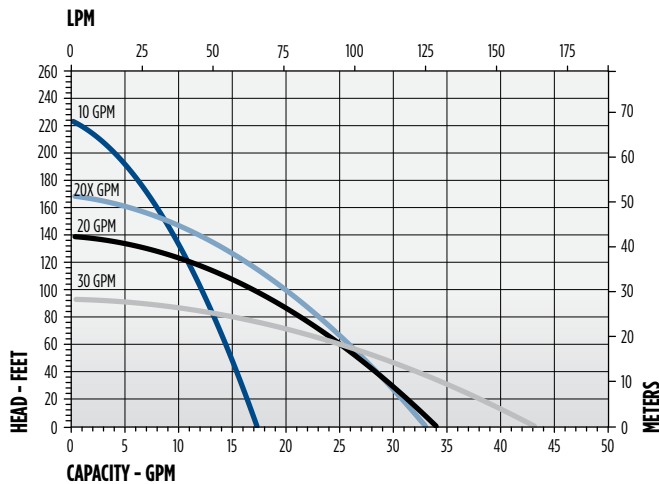
C1 SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



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

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

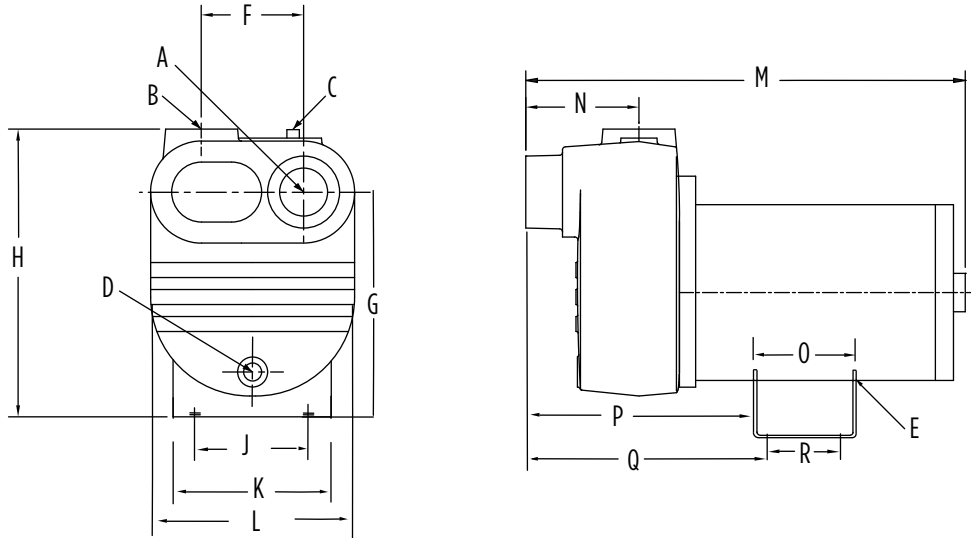
HP	Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)								Shut-Off (ft)	PSI
			FLA	Start		20'	25'	30'	35'	40'	45'	50'			
1/2	115/230	60	8.4/4.2	42/21.60	810	45	39	31	24	16	8	-	50	21.6	
3/4	115/230	60	14.3/7.1	71.5/36.2	1000	58	53	44	36	29	18	10	56	23.8	

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

EFFLUENT PUMPS

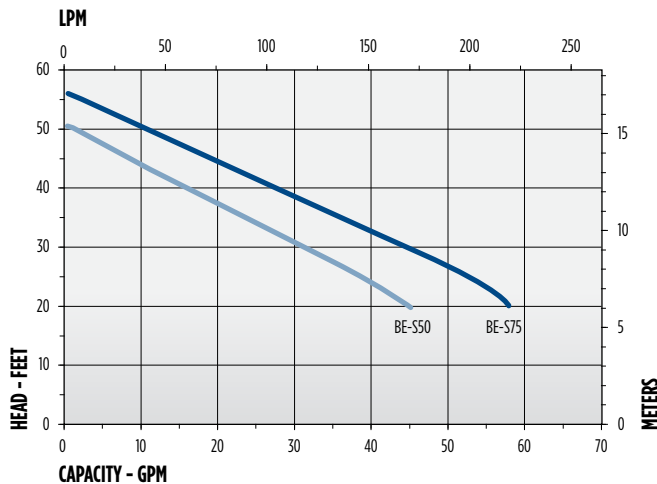
BE SERIES - 1/2 HP, 3/4 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

9SC SERIES - 4/10 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

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



SERIES SPECIFICATIONS

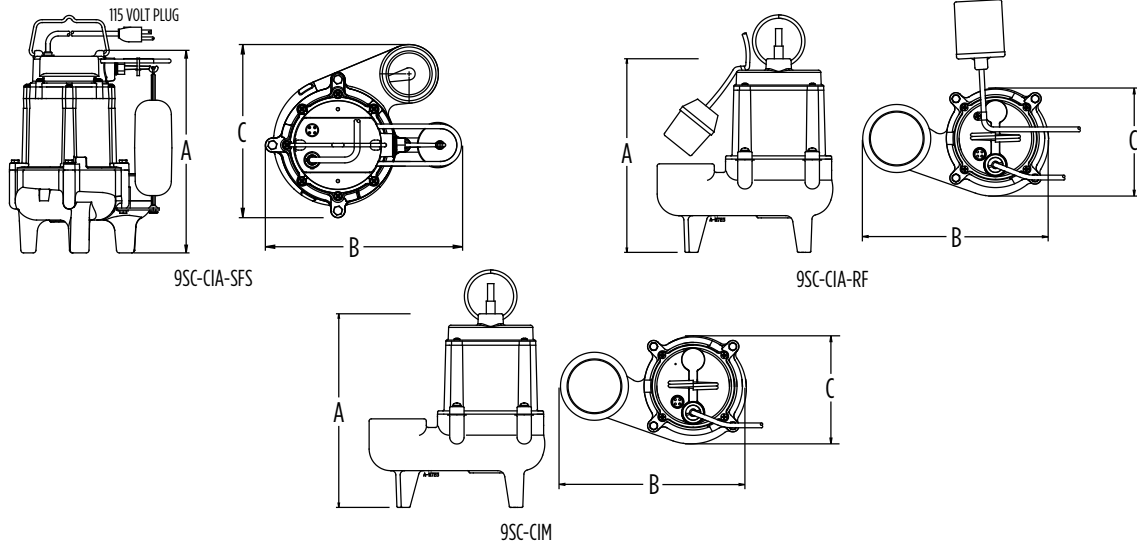
Model	HP	Volts	Hz	Amps	Watts	Max. Water Temp.	GPM / Liters per Minute @ Height			Shut-Off	
							5 ft (1.5 m)	10 ft (3 m)	15 ft (4.6 m)	ft (m)	PSI (Bar)
9SC	4/10	115	60	8	870	140 °F (60 °C)	100 / 379	80 / 303	60 / 227	20 (6.1)	8.7 (0.60)

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

SEWAGE PUMPS

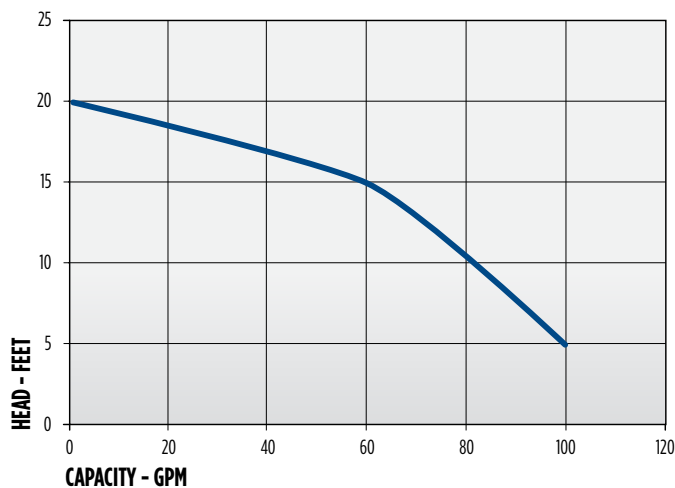
9SC SERIES - 4/10 HP

ENGINEERING DATA



Model	A	B	C
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

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

* On SFS models

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

10SC SERIES - 1/2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

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



SERIES SPECIFICATIONS

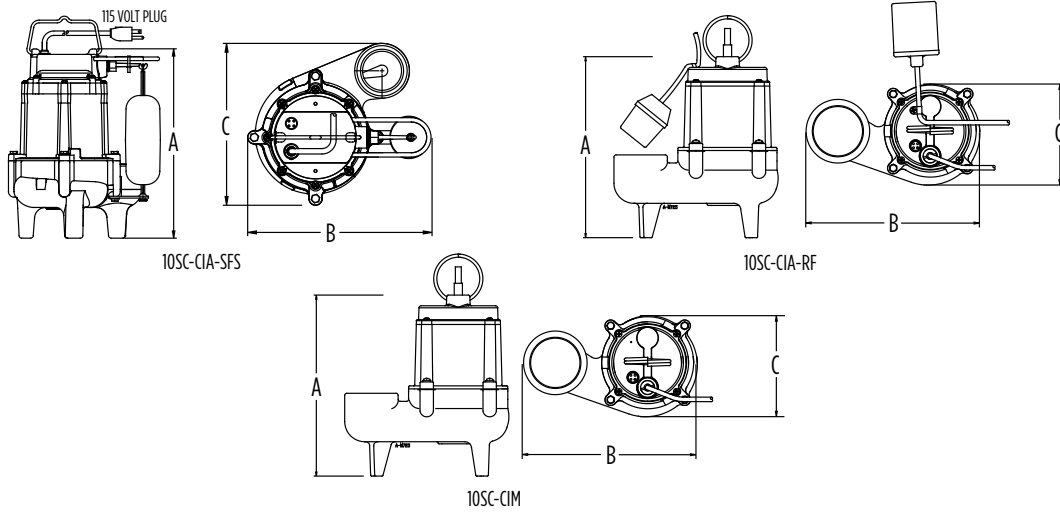
Model	HP	Volts	Hz	Amps	Watts	Max. Water Temp.	GPM / Liters per Minute @ Height			Shut-Off	
							5 ft / 1.5 m	10 ft / 3 m	15 ft / 4.6 m	ft / m	PSI / Bar
10SC (2" Discharge)	1/2	115	60	11	1230	140 °F (60 °C)	120 / 454	100 / 379	80 / 303	25 (7.6)	10.8 (0.75)
	1/2	230	50/60	-	-	140 °F (60 °C)	120 / 454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

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

SEWAGE PUMPS

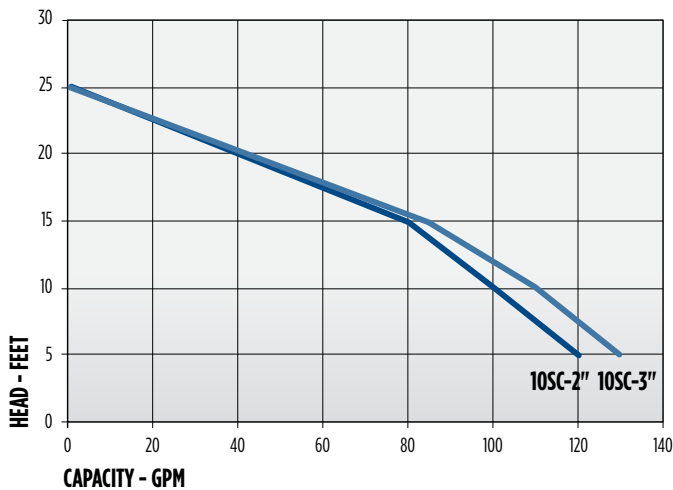
10SC SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

* On SFS models

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

14S SERIES - 1/2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

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



SERIES SPECIFICATIONS

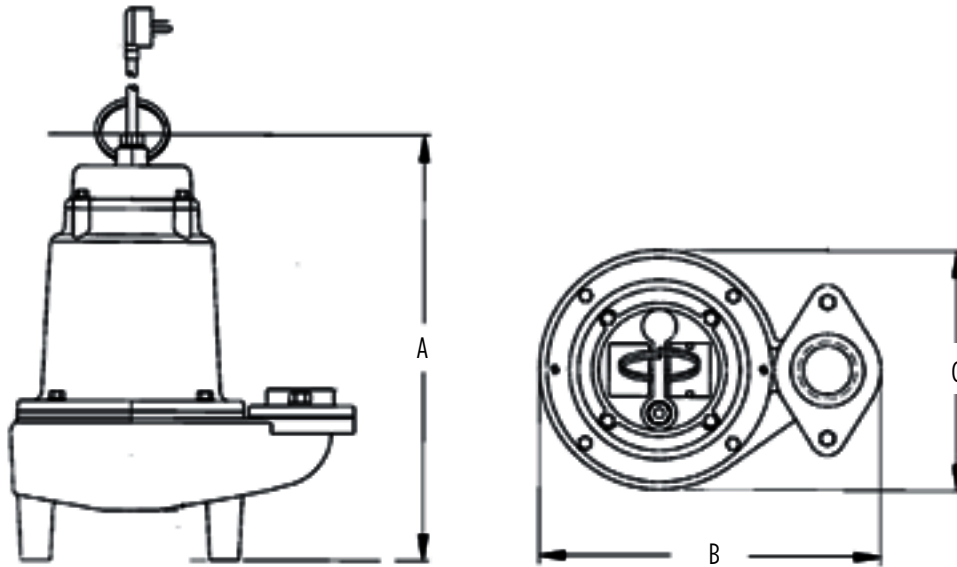
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)		Shut-Off (ft)	PSI
		FLA	Start		10'	20'		
115	60	11.6	21	1100	100	35	25	10.8
208-240	60	4.6	7.8	1100	100	35	25	10.8

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

SEWAGE PUMPS

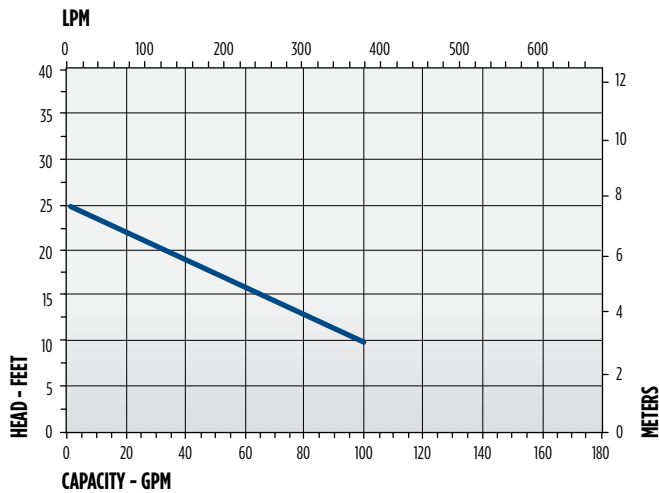
14S SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

WS SERIES - 1/2 HP, 1 HP

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

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

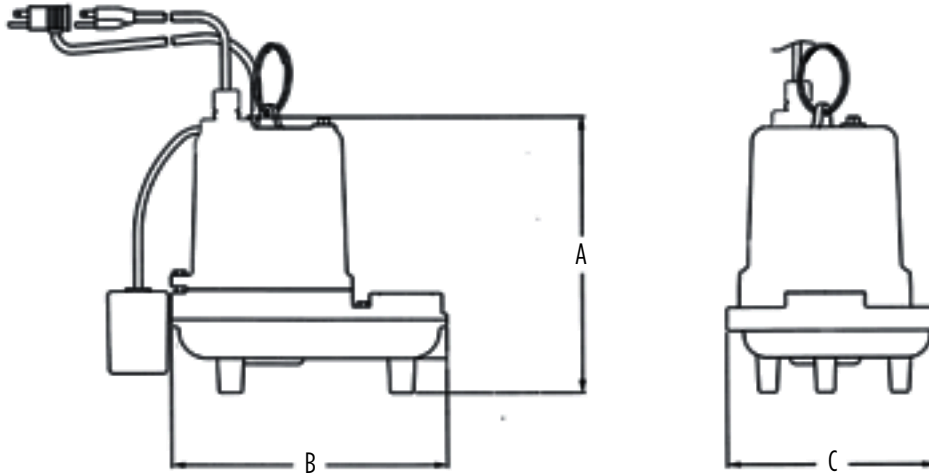
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

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

SEWAGE PUMPS

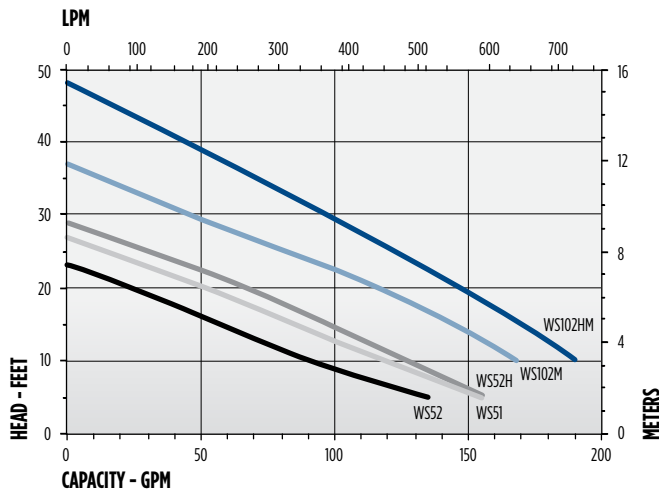
WS SERIES - 1/2 HP, 1 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

16S SERIES - 1 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

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



SERIES SPECIFICATIONS

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

* 3-phase requires control panel

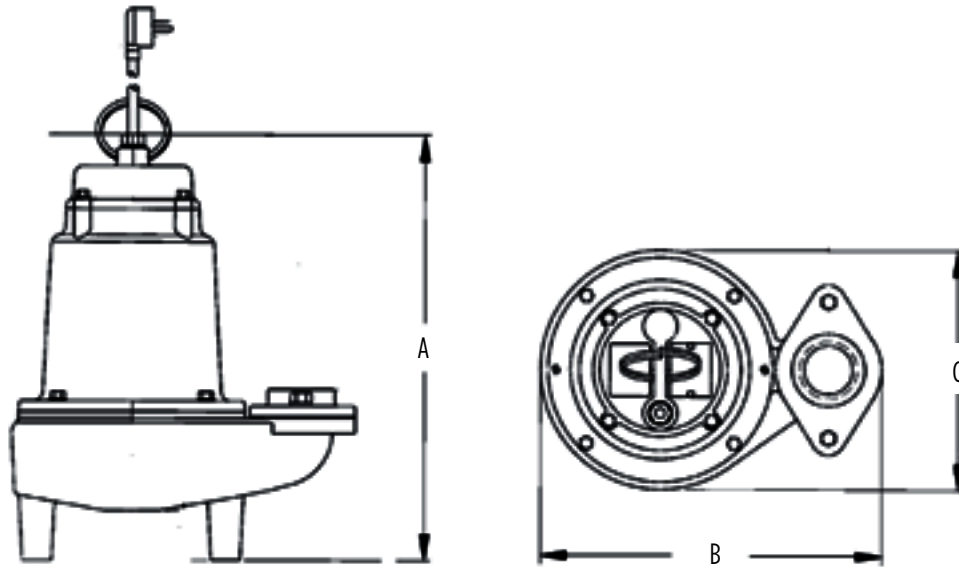
Item No.	Model	HP	Volts	Phase	Switch Type/ Operation	Cord	Weight
514750	16S-CIM	1	200-208	3**	Manual	20' 6.1 m	88 lbs 39.92 Kg
514625	16S-CIM	1	200-208	1	Manual	20' 6.1 m	88 lbs 39.92 Kg
514620	16S-CIM	1	230	1	Manual	20' 6.1 m	94 lbs 42.64 Kg
514720	16S-CIM	1	230	3**	Manual	20' 6.1 m	89 lbs 40.37 Kg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

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

SEWAGE PUMPS

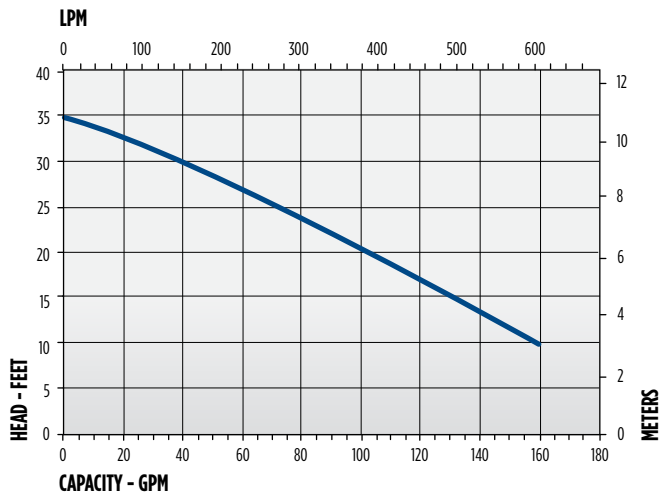
16S SERIES - 1 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

18S SERIES - 1-1/2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

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



SERIES SPECIFICATIONS

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

* 3-phase

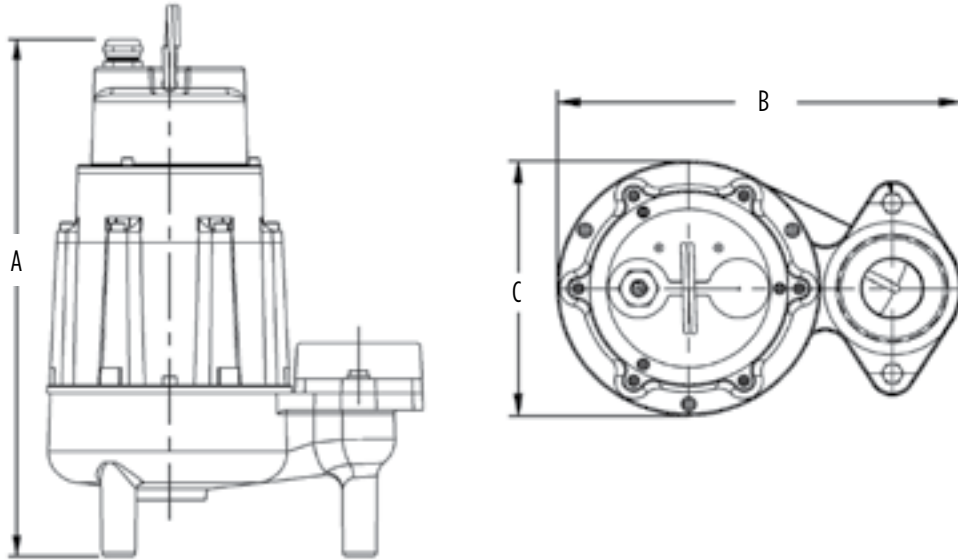
Item No.	Model	HP	Volts	Phase	Switch Type/ Operation	Cord	Weight
520300	18S-CIM	1-1/2	208	1	Manual	20' 6.1 m	94 lbs 42.64 Kg
520302	18S-CIM	1-1/2	200-208	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520301	18S-CIM	1-1/2	230	1	Manual	20' 6.1 m	96 lbs 43.54 Kg
520303	18S-CIM	1-1/2	230	3**	Manual	20' 6.1 m	94 lbs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

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

SEWAGE PUMPS

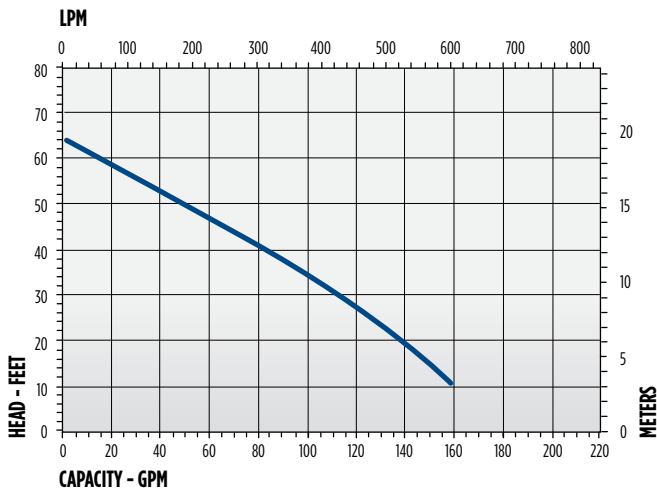
18S SERIES - 1-1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

20S SERIES - 2 HP

APPLICATIONS

Sewage and effluent wastewater transfer, dewatering

FEATURES

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



SERIES SPECIFICATIONS

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

* 3-phase

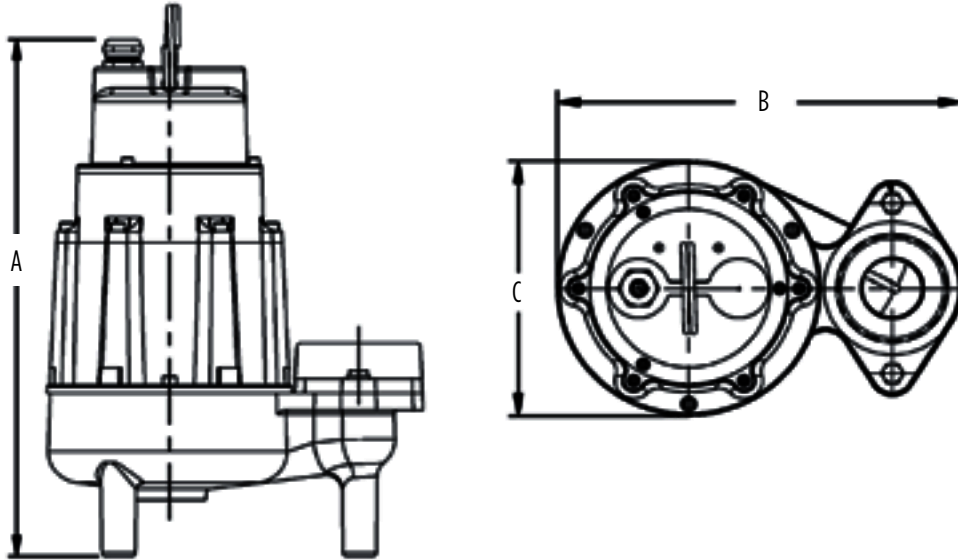
Item No.	Model	HP	Volts	Phase	Switch Type/ Operation	Cord	Weight
520125	20S-CIM	2	200-208	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520100	20S-CIM	2	208-230	1	Manual	20' 6.1 m	96 lbs 43.54 Kg
520150	20S-CIM	2	230	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520175	20S-CIM	2	460	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg

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

SEWAGE PUMPS

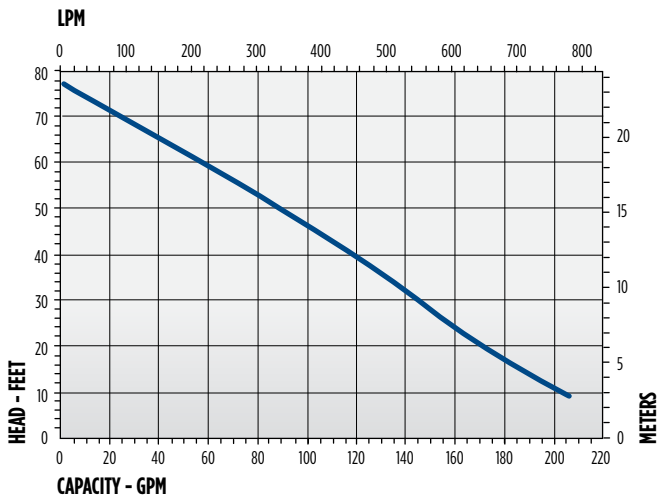
20S SERIES - 2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

PIT+PLUS® JR - PREMIUM SIMPLEX SYSTEMS

APPLICATIONS

Collection of sewage, drainage or seepage water

FEATURES

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



Patent Pending

SERIES SPECIFICATIONS

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

Note: Check valve not included.



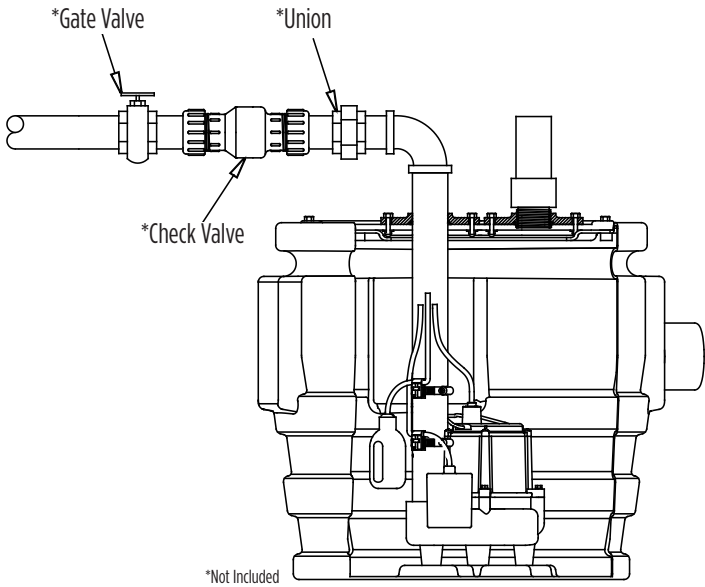
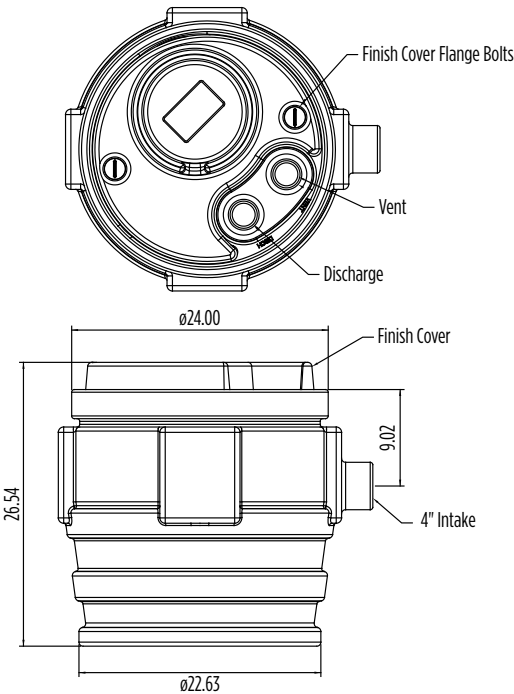
Basin Assemblies			
Item No.	Model No.	Vent	Discharge
513615	PPJ2V2D	2"	2"
513616	PPJ2V3D	2"	3"
513617	PPJ3V3D	3"	3"
513618	PPJ3V2D	3"	2"

Note: Pump and switch assembly not included.

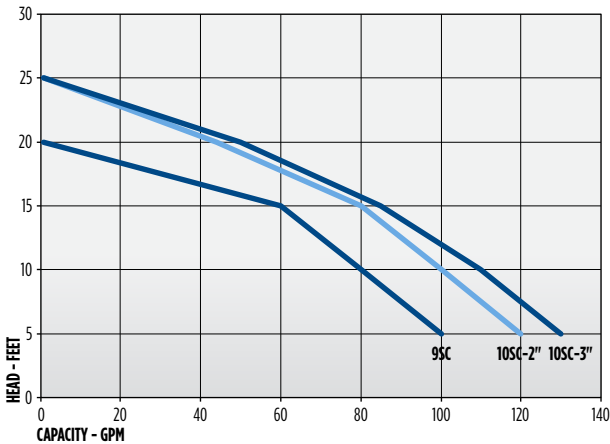
Replacement Cover and Hardware Kits	
Item No.	Description
113388	Includes replacement bolts, washers, gasket, and wing bolts for finish cover
113389	Includes replacement main basin cover, bolts, washers, gasket, and wing bolts for finish cover

PIT+PLUS® JR - PREMIUM SIMPLEX SYSTEMS

ENGINEERING DATA



PERFORMANCE DATA



FLOAT AND ECM™ ASSEMBLIES



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

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

PIT+PLUS® SR - PREMIUM SIMPLEX SYSTEMS

APPLICATIONS

Collection of sewage, drainage or seepage water

FEATURES

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



Patent Pending

SERIES SPECIFICATIONS

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

Note: Check valve not included.



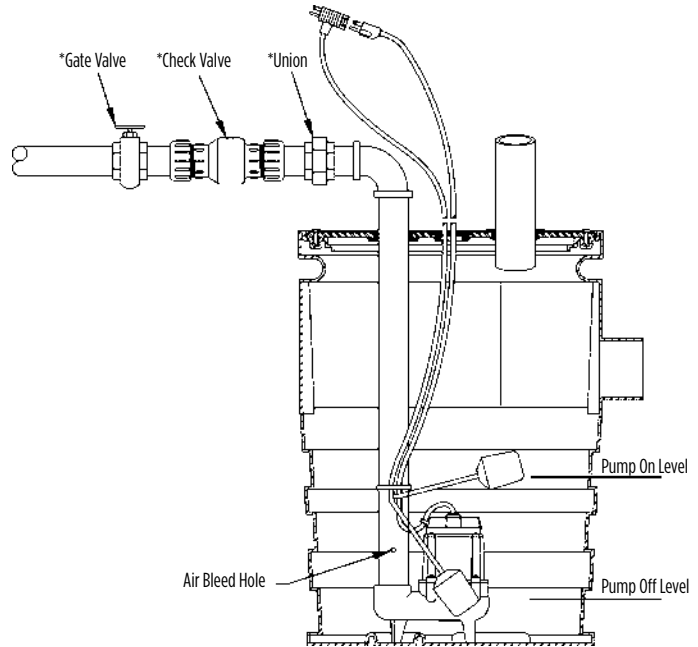
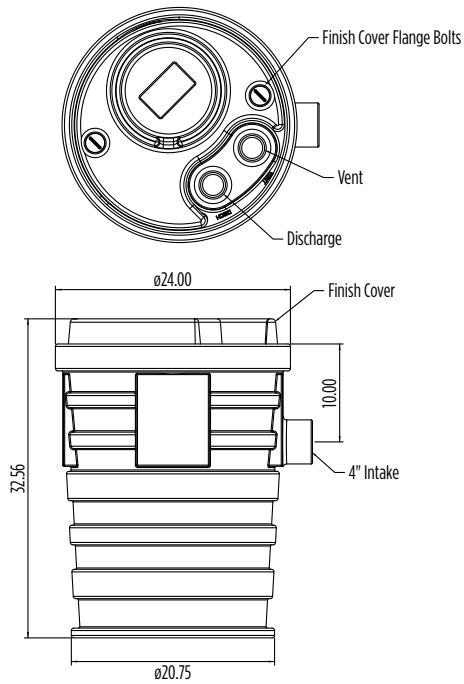
Basin Assemblies			
Item No.	Model No.	Vent	Discharge
513611	PPS2V2D	2"	2"
513612	PPS2V3D	2"	3"
513613	PPS3V3D	3"	3"
513614	PPS3V2D	3"	2"

Note: Pump and switch assembly not included.

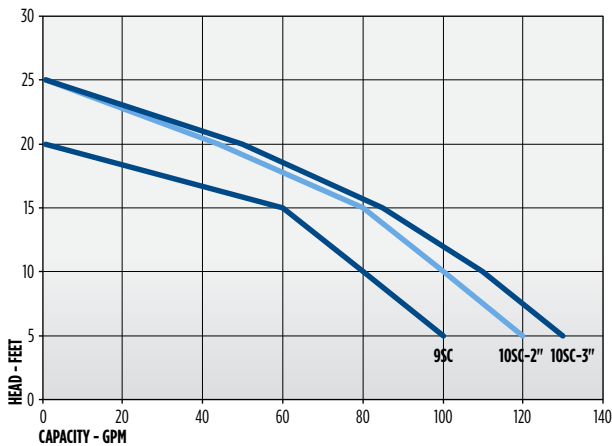
Replacement Cover and Hardware Kits	
Item No.	Description
113388	Includes replacement bolts, washers, gasket, and wing bolts for finish cover
113389	Includes replacement main basin cover, bolts, washers, gasket, and wing bolts for finish cover

PIT+PLUS® - PREMIUM SIMPLEX SYSTEMS

ENGINEERING DATA



PERFORMANCE DATA



FLOAT AND ECM™ ASSEMBLIES



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

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

SIMPLEX AND DUPLEX SYSTEMS

APPLICATIONS

Collection of sewage, effluent, drainage or seepage water

FEATURES

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



9S-SMPX

14S-DPLX

SERIES SPECIFICATIONS

PRE-PACKAGED SIMPLEX SYSTEMS (ASSEMBLY REQUIRED)

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

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

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

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

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

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

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

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

PRE-ASSEMBLED SIMPLEX SYSTEMS (READY TO INSTALL)

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

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

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

BASIN & COVER ASSEMBLIES - SIMPLEX (PUMP NOT INCLUDED)

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

* Inlet hole is not pre-cut

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

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

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

* Inlet hole is not pre-cut

PRE-PACKAGED DUPLEX SYSTEMS (ASSEMBLY REQUIRED)

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

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

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

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

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

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

SIMPLEX AND DUPLEX SYSTEMS

SERIES SPECIFICATIONS

Hub kits come complete with all hardware required for installation.

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

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

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

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

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

Item No.	Model
113075	4" cast iron hub

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

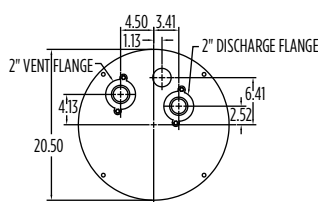
Item No.	Model
113076	4" vinyl hub
113081	8" cast iron hub

FIBERGLASS BASIN RISERS/EXTENSIONS

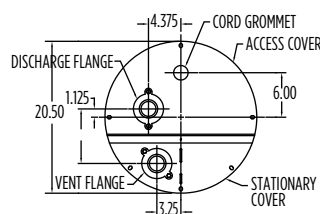
Item No.	Dimensions
111587	24"x6"
111588	24"x12"
111589	24"x18"
111590	24"x24"
115584	36"x12"
115585	36"x18"
115586	36"x24"

ENGINEERING DATA

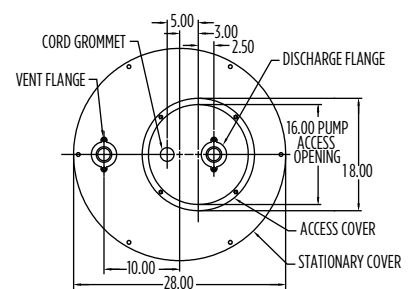
18" X 30" COVER



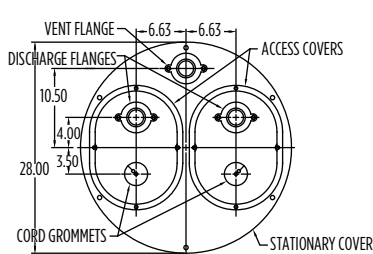
18" X 30" COVER



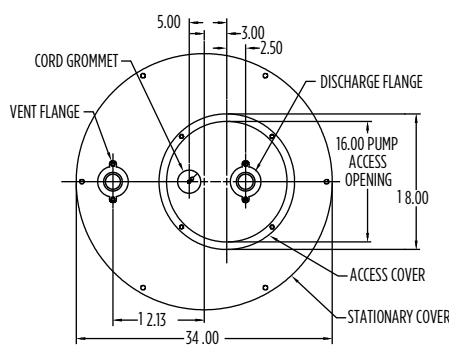
24" X 36" SIMPLEX COVER



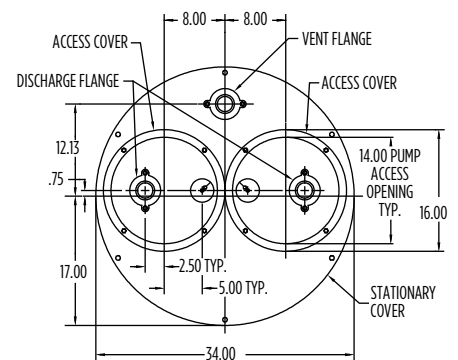
24" X 36" DUPLEX COVER



30" X 36" SIMPLEX COVER



30" X 36" DUPLEX COVER

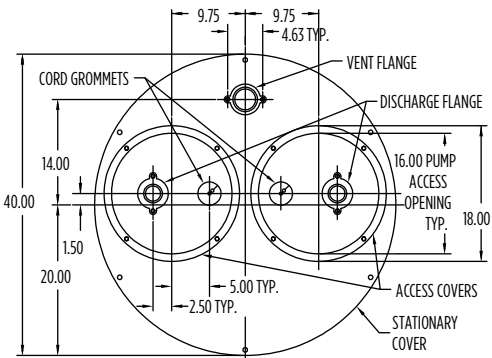


PACKAGE SYSTEMS

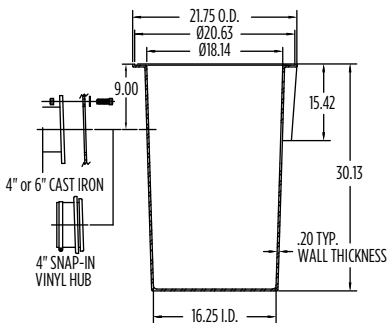
SIMPLEX AND DUPLEX SYSTEMS

ENGINEERING DATA

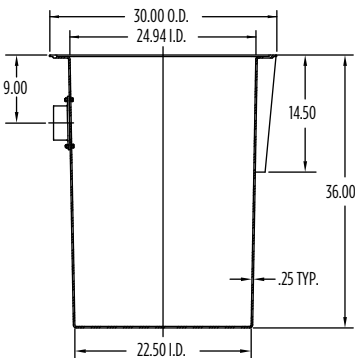
36" X 36" DUPLEX COVER



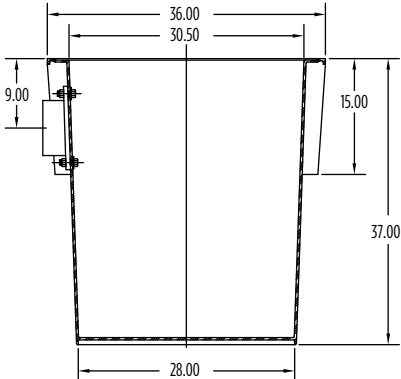
18" X 30" BASIN



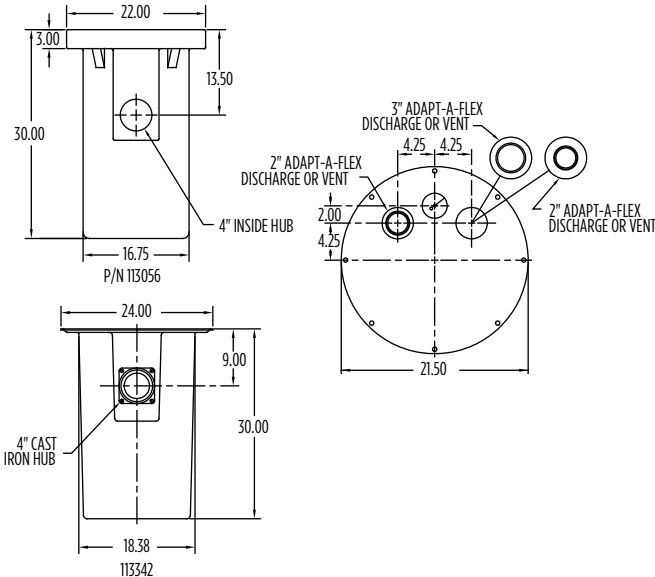
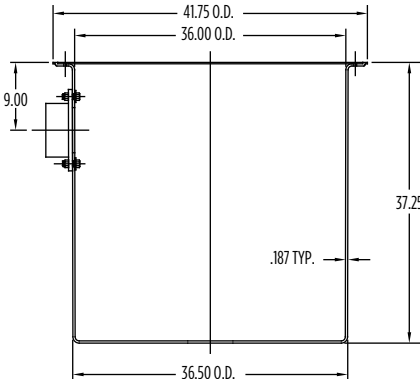
24" X 30" BASIN



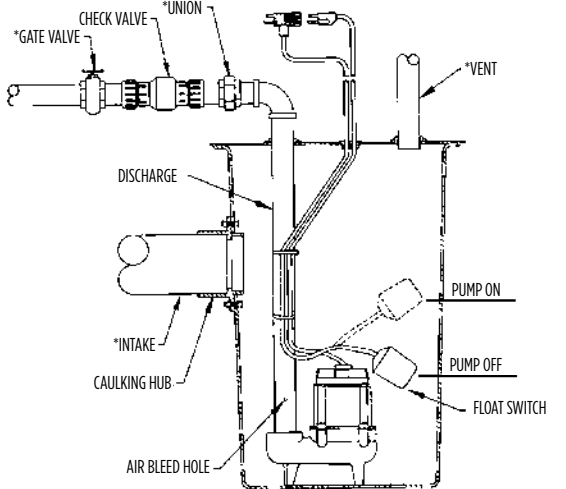
30" X 36" BASIN



36" X 36" BASIN



TYPICAL INSTALLATION



*PIPING NOT INCLUDED WITH PACKAGE

WCR SERIES WATER COLLECTION & REMOVAL SYSTEMS

APPLICATIONS

Collection of sewage, effluent, drainage or seepage water

FEATURES

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



SERIES SPECIFICATIONS

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

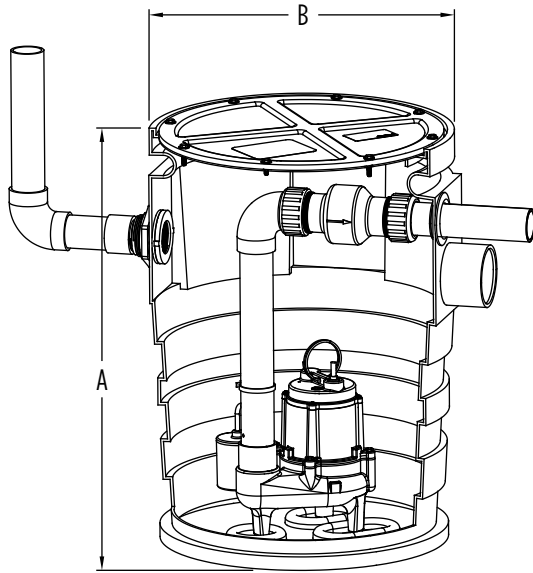
PUMP SPECIFICATIONS

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

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

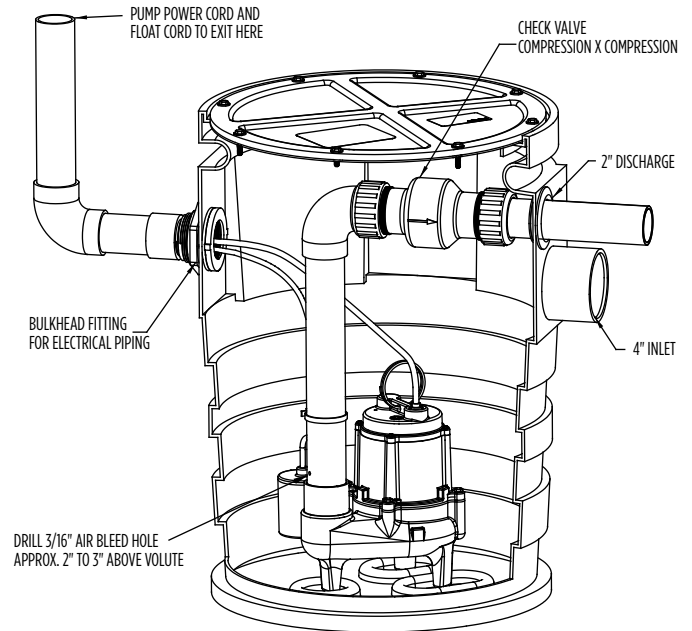
WCR SERIES - WATER COLLECTION & REMOVAL SYSTEMS

ENGINEERING DATA

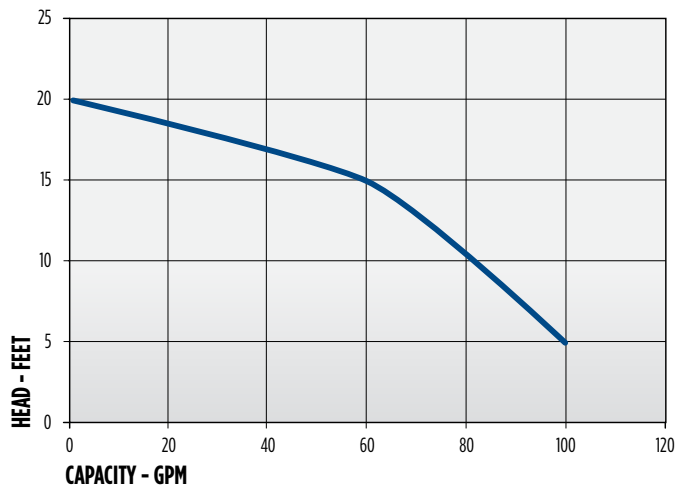


A	B
30" (76.2 cm)	22" (55.88 cm)

TYPICAL INSTALLATION



PERFORMANCE DATA



ACCESSORIES

PIGGYBACK DIAPHRAGM SWITCH

APPLICATIONS

- Converts manual pumps to automatic operation

FEATURES

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



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

PIGGYBACK MECHANICAL VERTICAL FLOAT SWITCH

APPLICATIONS

- Converts manual pumps to automatic operation

FEATURES

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



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

PIGGYBACK MECHANICAL FLOAT SWITCH

APPLICATIONS

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

FEATURES

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



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


ACCESSORIES

DOUBLE-FLOAT PIGGYBACK MECHANICAL FLOAT SWITCH

APPLICATIONS

- Pump control

FEATURES

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



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

VERTICAL DIAPHRAGM SWITCH

APPLICATIONS

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

FEATURES

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



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

SUMP PUMP SWITCH REPAIR KIT

APPLICATIONS

- Switch repair kit

FEATURES

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



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

SUMP PUMP DISCHARGE KITS

APPLICATIONS

- Discharging water out of the basement sump

FEATURES

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



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

ACCESSORIES

HWAB ALARM

APPLICATIONS

- Indoor high water alarm

FEATURES

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



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

303HWXT ALARM

APPLICATIONS

- Indoor/outdoor high water alarm

FEATURES

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



Item No.	Model	Volts
513273	303HWXT	115

INDOOR DUPLEX PUMP CONTROL ALTERNATOR AND ALARM SYSTEM

APPLICATIONS

- Switch repair kit

FEATURES

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



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

LOW VOLTAGE WATER ALARM

APPLICATIONS

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

FEATURES

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



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

ACCESSORIES

CONTROLS (SIMPLEX SYSTEMS)

APPLICATIONS

- Indoor/outdoor simplex alarm system and pump control

FEATURES

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



SINGLE-PHASE

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

THREE-PHASE

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

CONTROLS (DUPLEX SYSTEMS)

APPLICATIONS

- Indoor/outdoor duplex alarm system and pump control

FEATURES

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

SINGLE-PHASE

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

THREE-PHASE

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

JUNCTION BOXES

APPLICATIONS

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

FEATURES

- NEMA 4X waterproof fiberglass thermoplastic enclosure



Item No.	Model
513281	JB66-3

LG PLUGGER

APPLICATIONS

- For wiring a pumping station installation

FEATURES

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



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

ACCESSORIES

PUMP DISCONNECT

APPLICATIONS

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

FEATURES

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



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

GUIDE RAIL SYSTEM

APPLICATIONS

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

FEATURES

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



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

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

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

INTERMEDIATE GUIDE RAIL BRACKETS

APPLICATIONS

- For use with guide rail systems

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



SA-1 (SACRIFICIAL ANODE)

APPLICATIONS

- Magnesium accessory for use with aluminum-body pumps

FEATURES

- Provides corrosion protection
- Lead wire

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



ACCESSORIES

CORD CONNECTORS

APPLICATIONS

- Provides strain relief

FEATURES

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



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

DISCHARGE ADAPTERS

APPLICATIONS

- Allows use of garden hose with utility and sump pumps

FEATURES

- Polypropylene, rust-resistant



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

CAST IRON FULL FLOW CHECK VALVES

FEATURES

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



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

CAST IRON SLIP X SLIP UNION CHECK VALVE

FEATURES

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



Item No.	Model
599135	CVCI-2

ACCESSORIES

CV-112 CHECK VALVE

FEATURES

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

Item No.	Model	Material
577130	CV-112	PVC



CV-114/112 CHECK VALVE

FEATURES

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

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



CV-SE CHECK VALVE

FEATURES

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

Item No.	Model	Material
940021	CV-SE	ABS



CV-SE1 CHECK VALVE

FEATURES

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

Item No.	Model	Material
940019	CV-SE1	PVC



CV-SE2 CHECK VALVE

FEATURES

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

Item No.	Model	Material
940022	CV-SE2	PVC



CV-SE3 CHECK VALVE

FEATURES

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

Item No.	Model	Material
940023	CV-SE3	PVC



CV8V-2 CHECK VALVE

FEATURES

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

Item No.	Model	Material
599160	CVBV-2	ABS



CV8V-2U CHECK VALVE

FEATURES

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

Item No.	Model	Material
599161	CVBV-2U	PVC



ACCESSORIES

GP GRINDER SERIES (CONTROL PANEL AND ALARM)

APPLICATIONS

- Designed exclusively for the GP Manual Grinder Series

FEATURES

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



SIMPLEX

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

DUPLEX

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

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

JUNCTION BOX ALARM KIT

APPLICATIONS

- Designed specifically for auto grinder installations

FEATURES

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



Item No.	Model
513297	JBAK

GP CUTTERS

APPLICATIONS

- For GP Series

Item No.	Use
14940131	Replacement Cutter Kit

CONTROL FLOATS

APPLICATIONS

- For use with control panel and alarms

FEATURES

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



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

GRINDER LEG KIT

APPLICATIONS

- Grinders

FEATURES

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



Item No.	Model	Use
599078	GLK	For GP series only

CAPACITOR KIT

APPLICATIONS

- For GP series

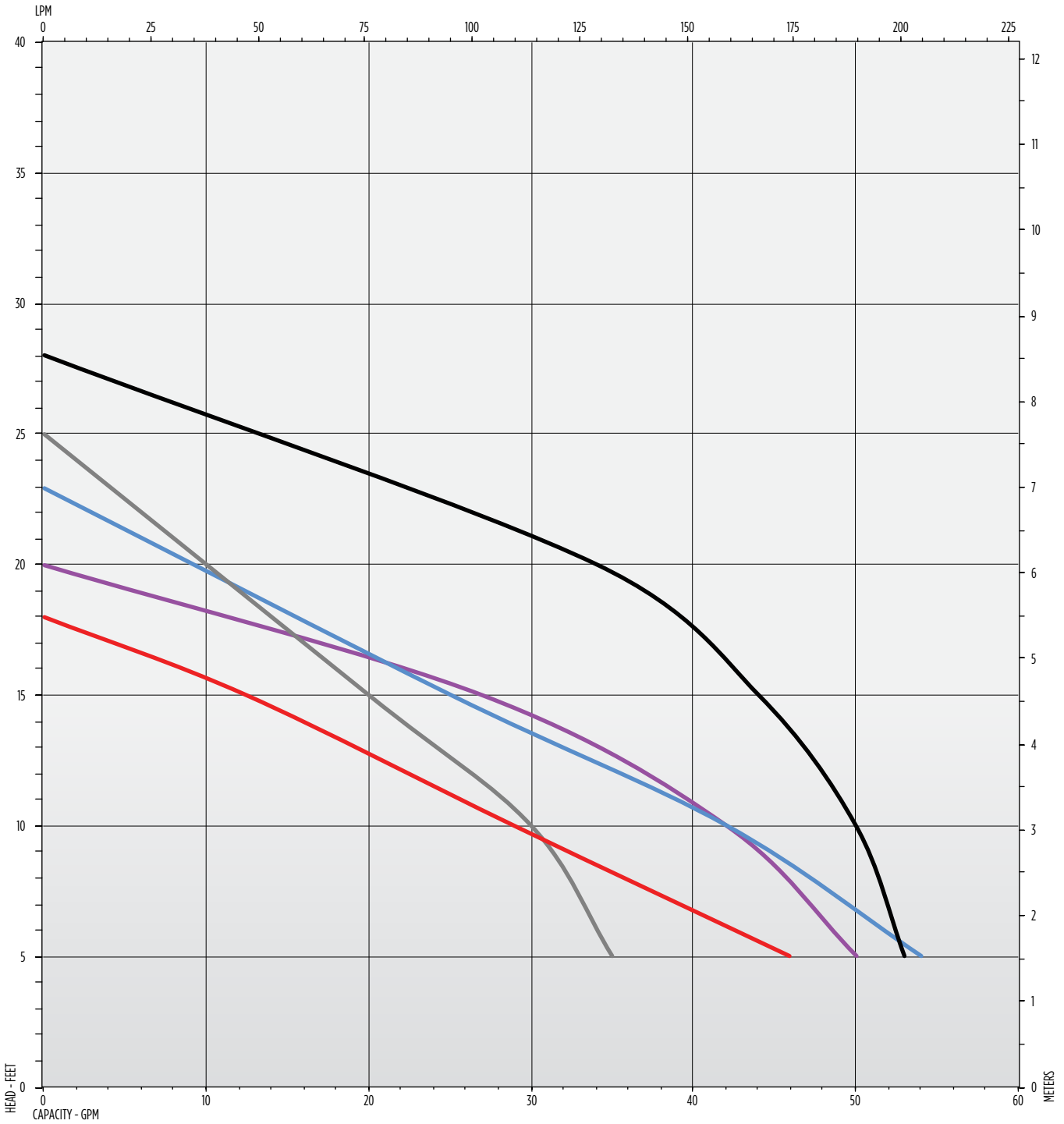
FEATURES

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

Item No.	Volt Range
520859	208-230

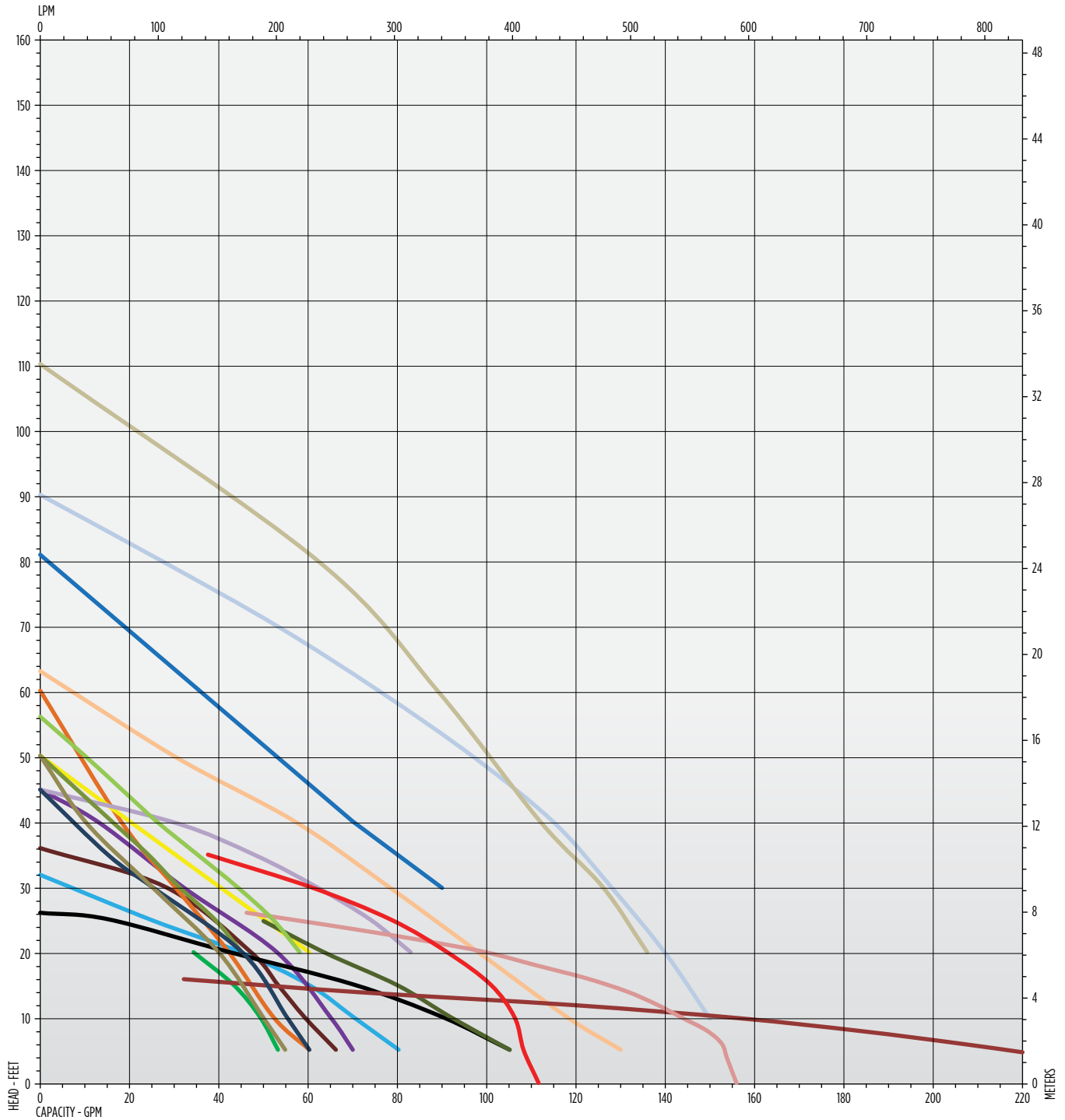
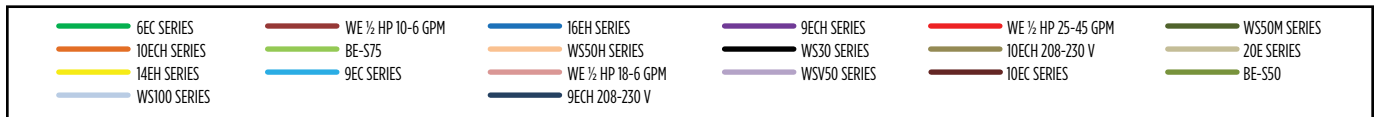
COMPOSITE CURVES

SUMP CURVES



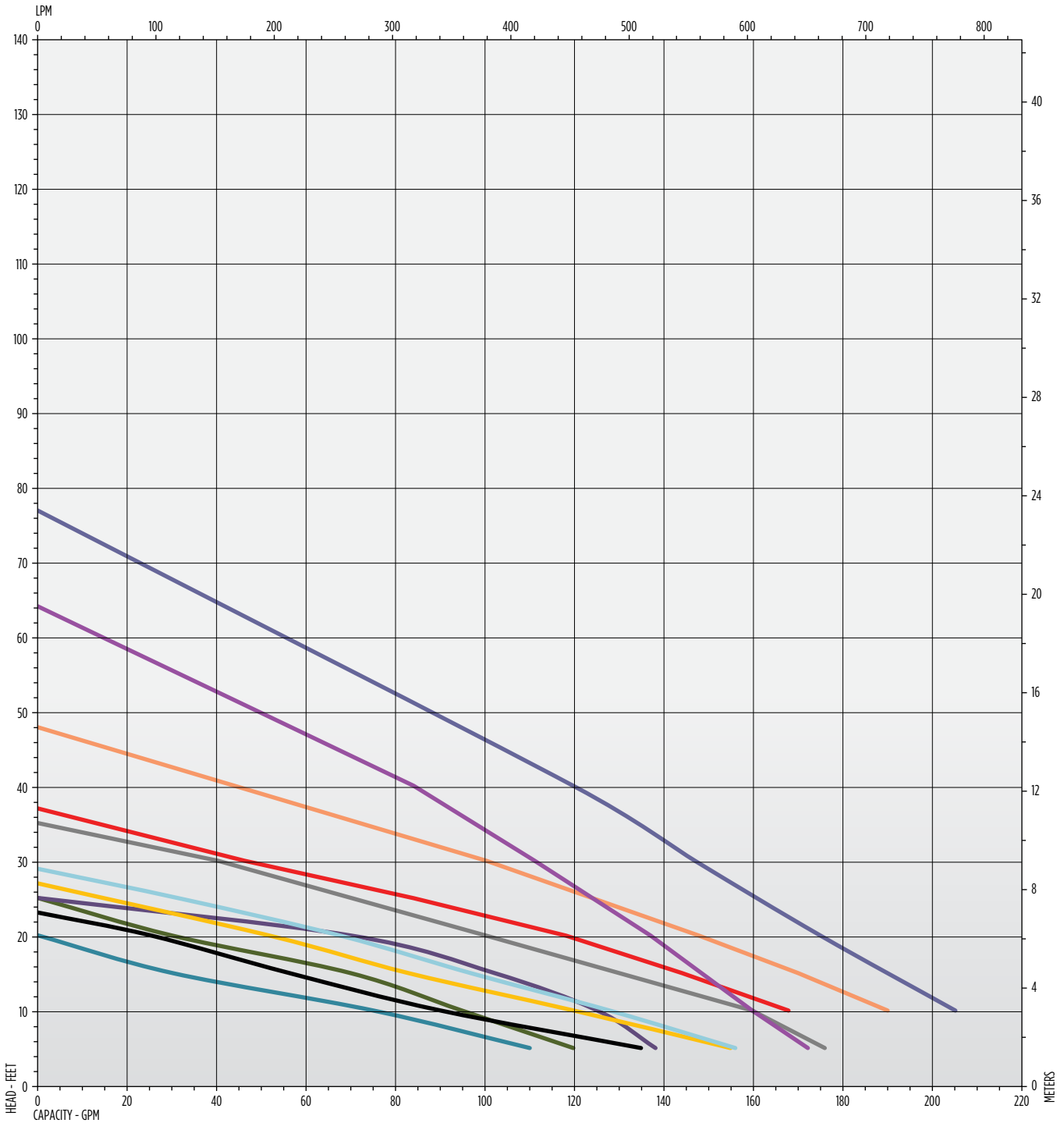
COMPOSITE CURVES

EFFLUENT CURVES



COMPOSITE CURVES

SEWAGE CURVES



GUIDELINES FOR SIZING

SYSTEM CAPACITY

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

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

FIGURE 1

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

FIGURE 2

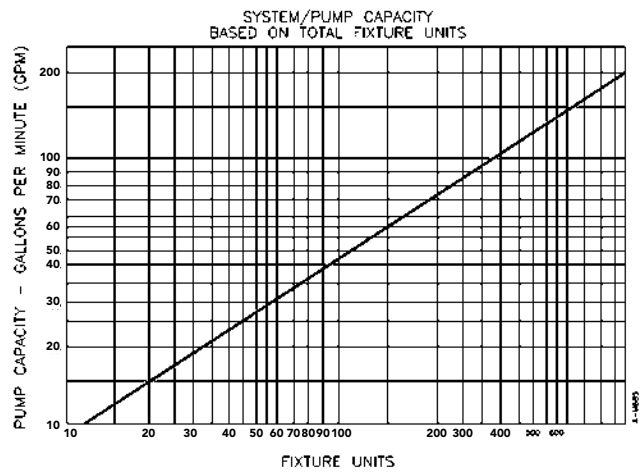
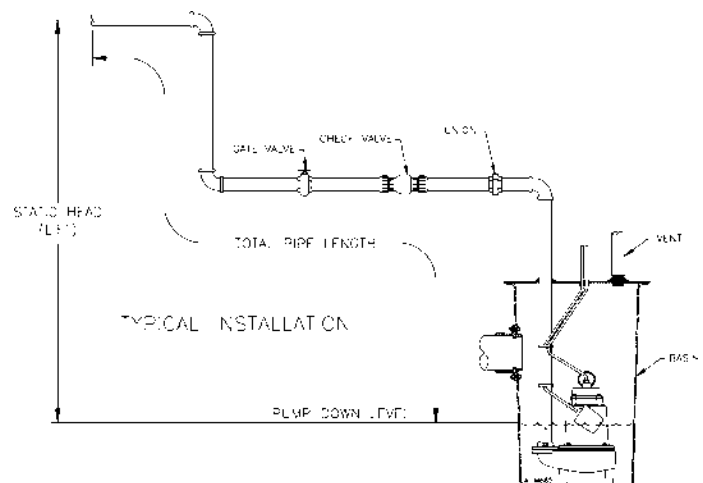


FIGURE 3



GUIDELINES FOR SIZING

TOTAL HEAD

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

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

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

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

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

FIGURE 4

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

FIGURE 5

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

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

GUIDELINES FOR SIZING

PUMP SELECTION

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

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

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

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

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

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

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

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

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

FIGURE 6

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

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

GUIDELINES FOR SIZING

EXAMPLE SIZING PROBLEM

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

- From Figure 1:

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

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

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

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

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

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

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

- Total Head Required: Total Head = Static Head + Friction Head
 - Example: Total Head = 7 + 4.2 Total Head = 11.2

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

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

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Number of Fixture Units _____

Flow Rate (gpm) _____

Total Head Required _____

Pump Selection _____

Typical Single Family Dwelling Sewage Pump Chart

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

Total Vert. Lift	Total Length Of Discharge Pipe In Feet														
	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'
	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' 9SC 22 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' 14S 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 30 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	17.6' 16S 113 gpm*	17.9' 16S 112 gpm*	18.2' 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	19.9' 16S 101 gpm*	20.2' 16S 98 gpm*	20.5' 16S 98 gpm*	20.8' 16S 97 gpm*	21.1' 16S 96 gpm*	21.3' 16S 95 gpm*	22.6' 16S 93 gpm*	21.9' 16S 91 gpm*	22.2' 16S 90 gpm*	22.4' 16S 89 gpm*
19'	20.3' 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*	22.9' 16S 84 gpm*	23.2' 16S 82 gpm*	23.4' 16S 81 gpm*
20'	21.3' 14S 28 gpm	22.0' 14S 25 gpm	21.6' 16S 95 gpm*	21.9' 16S 95 gpm*	22.2' 16S 95 gpm*	22.5' 16S 88 gpm*	22.8' 16S 85 gpm*	23.1' 16S 83 gpm*	23.4' 16S 81 gpm*	23.7' 16S 80 gpm*	24.0' 16S 79 gpm*	24.3' 16S 78 gpm*	24.6' 16S 77 gpm*	24.9' 16S 76 gpm*	25.2' 16S 75 gpm*

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SUMMARY WORKSHEET

FIGURE 7

