

LittleGIANT®

WASTEWATER PRODUCT CATALOG



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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

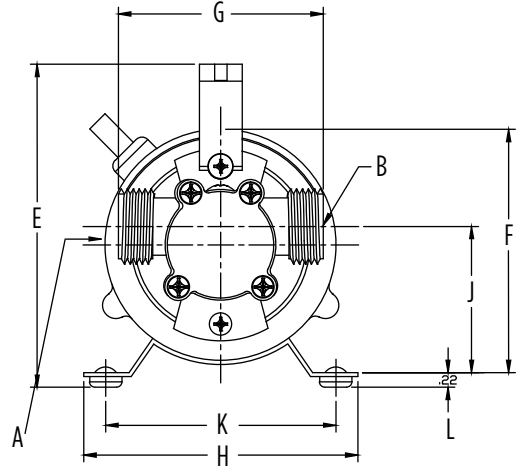
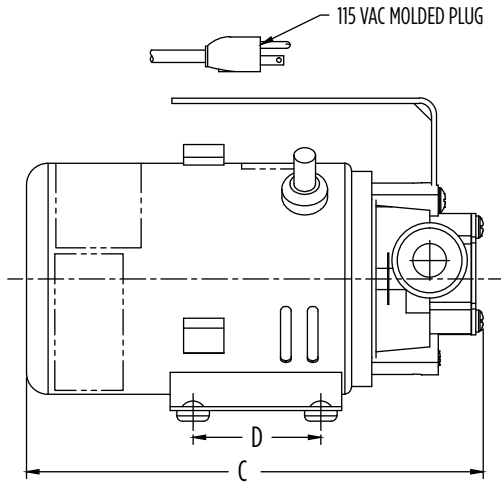
Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)				Shut-Off (ft)	PSI
		FLA	Start		1'	5'	10'	20'		
115	60	1.6	2.4	91	360	330	300	250	25'	10.8
12 VDC	-	7	14	84	300	270	240	202	25'	10.8

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

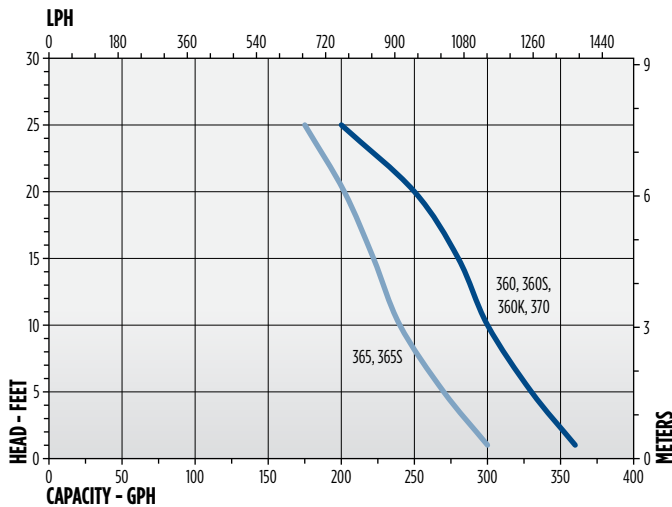
PONY PUMP® SERIES - 1/10 HP

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 SERIES - 1/2 HP

APPLICATIONS

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

FEATURES

- Non-submersible, inline, portable utility transfer pump with rugged one-piece cast iron housing and integral carrying handle
- Self-priming to 15 ft (4.6 m) when priming chamber is filled
- 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



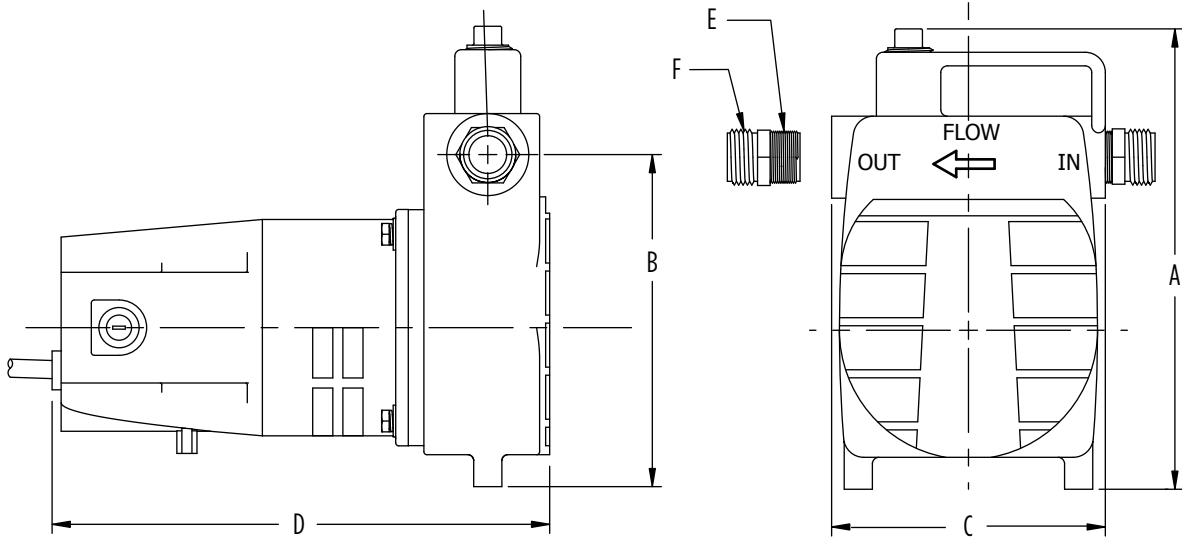
SERIES SPECIFICATIONS

Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		20'	40'	60'	80'	100'		
115	60	9	25	900	1152	912	648	372	90	105	45.4
Item No.	Model	Volts	Operation	Cord	Weight						
555101	UPSP-5	115	Self-Priming	10' 3 m	17.8 lbs 8.07 Kg						

UTILITY PUMPS

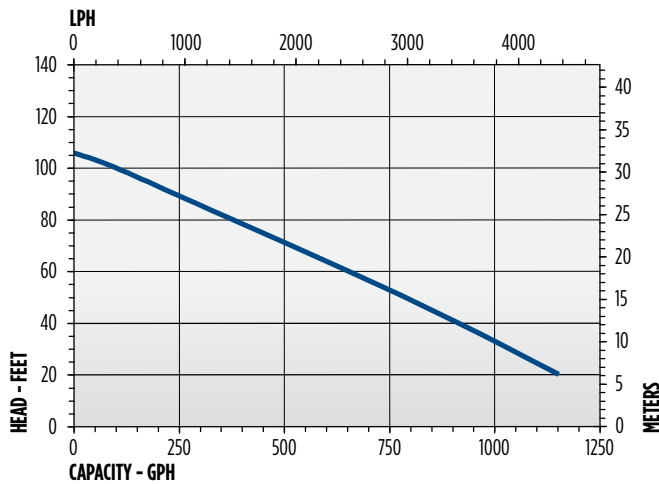
UPSP SERIES - 1/2 HP

ENGINEERING DATA



A	B	C	D	E	F
9.15"	6.6"	5.5"	9.9"	3/4" MNPT	3/4" MGHT
23.24 cm	16.76 cm	14 cm	25.15 cm	1.91 cm	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

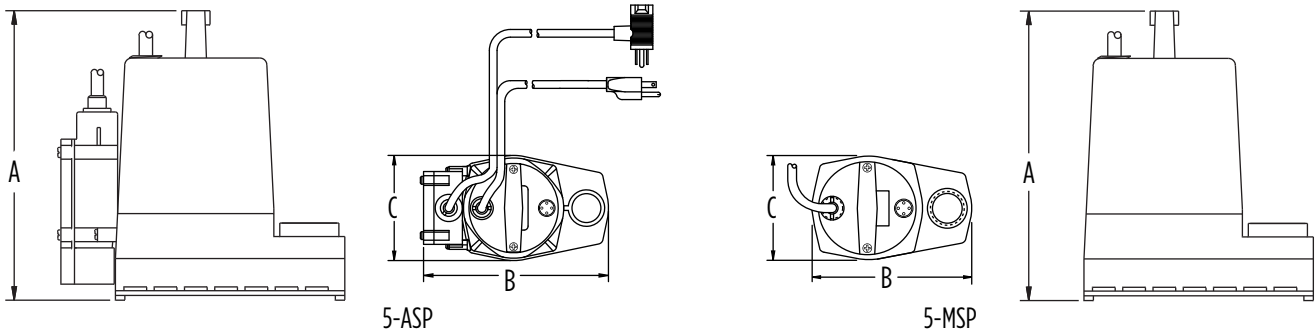
Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		1'	3'	5'	10'	20'		
115	60	5	6.4	380	1200	1170	1100	1000	520	26.3'	11.4
230	60	2.5	3.2	380	1200	1170	1100	1000	520	26.3'	11.4

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

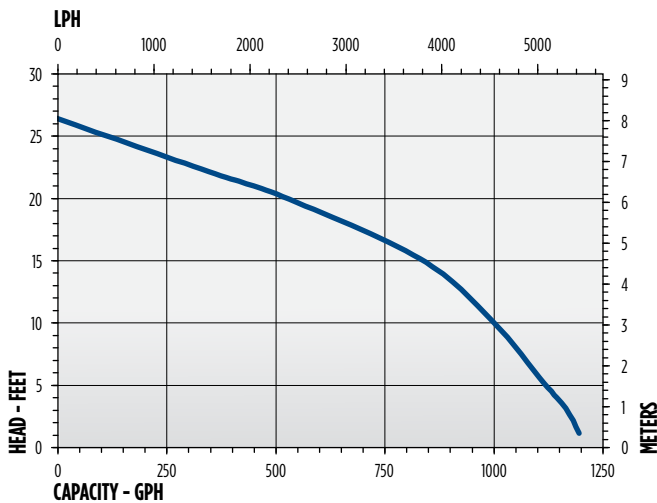
5 SERIES - 1/6 HP

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

UP16 SERIES - 1/6 HP

APPLICATIONS

Commercial, industrial, home dewatering, and water transfer uses

FEATURES

- 1/6 hp oil-free motor with overload protection
- Designed for continuous duty
- Pumps down to 1/4"
- Removable filter screen for easy cleaning
- Garden hose adapter
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

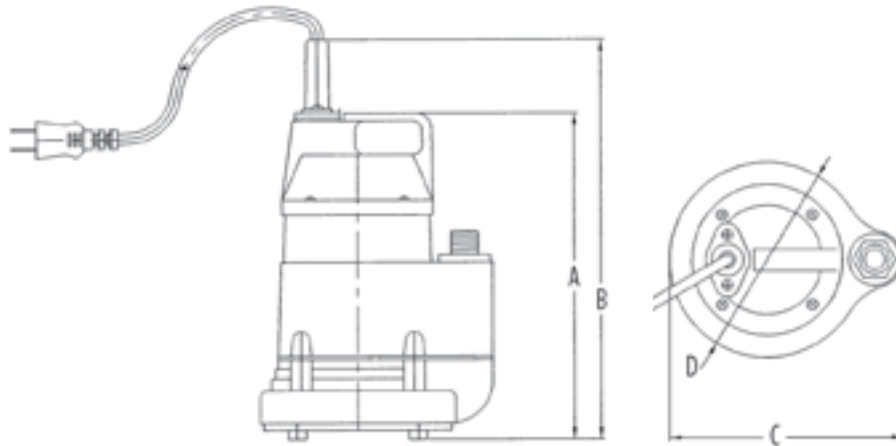
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	2.1	5	200	20	14	7	19	8.2

Item No.	Model	HP	Volts	Switch Type/Operation	Cord	Weight
620137	UP16	1/6	115	Manual	10' 3 m	8 lbs 3.63 Kg

UTILITY PUMPS

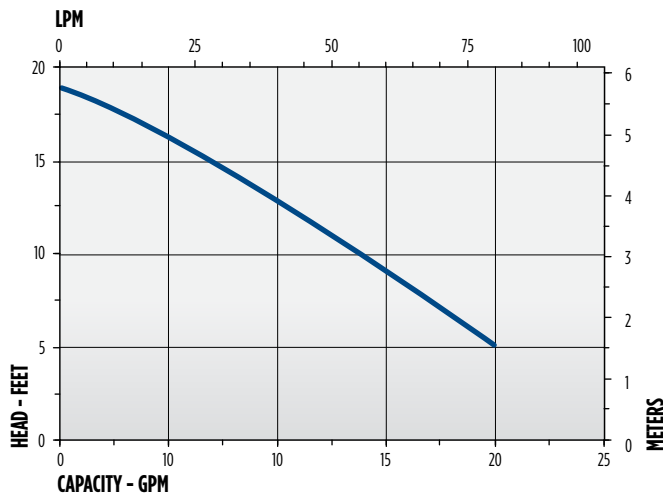
UP16 SERIES - 1/6 HP

ENGINEERING DATA



A	B	C	D
8.7"	10.67"	6.2"	5.2"
22.10 cm	27.10 cm	15.75 cm	13.21 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Aluminum
Impeller Material	Thermoplastic
Impeller Type	Semi-open
Volute	Aluminum
Motor Shaft	Stainless steel
Shaft Seal	Lip
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SJTW 18/3

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

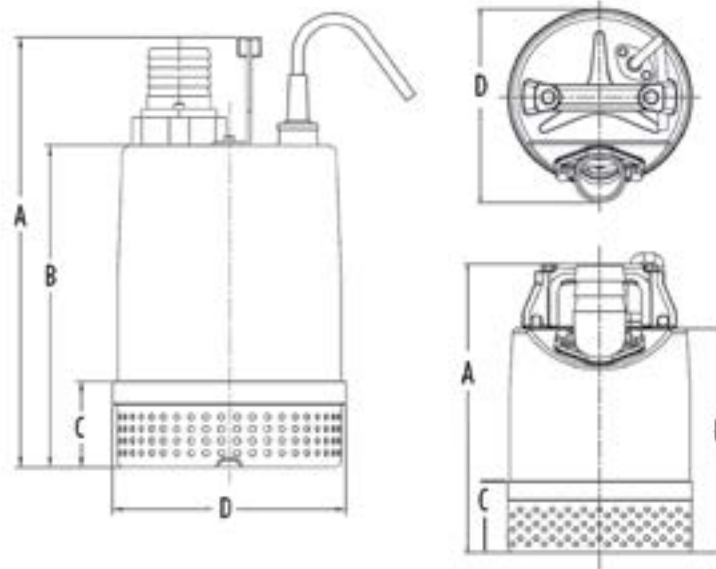
HP	Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)						Shut-Off (ft)	PSI
			FLA	Start		5'	10'	15'	20'	30'	40'		
1/2	115	60	5	24	488	60	54	42	20	-	-	37	16
1	115	60	10	47.6	950	80	76	73	68	54	38	52	22.5

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

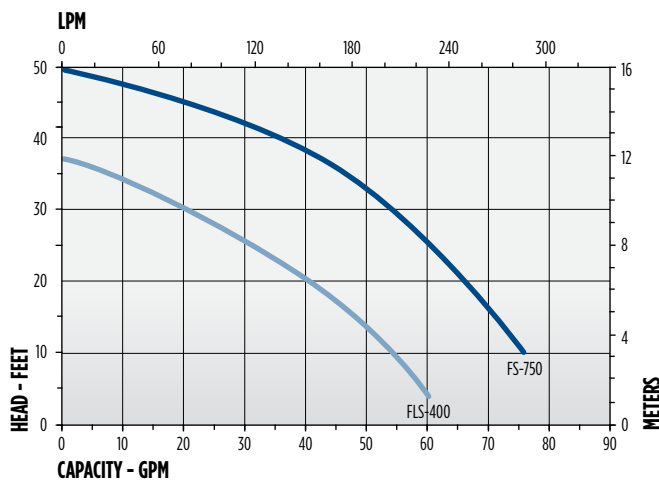
FLS/FS SERIES - 1/2 HP, 1 HP

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

B50S SERIES - 1/2 HP

APPLICATIONS

Dewatering and water transfer

FEATURES

- 1/2 hp higher than NEMA service factor, dual compartment motor
- Cast iron casing with large chamber for self-priming to 25 ft when priming chamber is filled
- Carbon/ceramic mechanical seal
- Semi-open, cast iron impeller
- Includes garden hose adapter
- 120 °F (49 °C) liquid temperature rating



SERIES SPECIFICATIONS

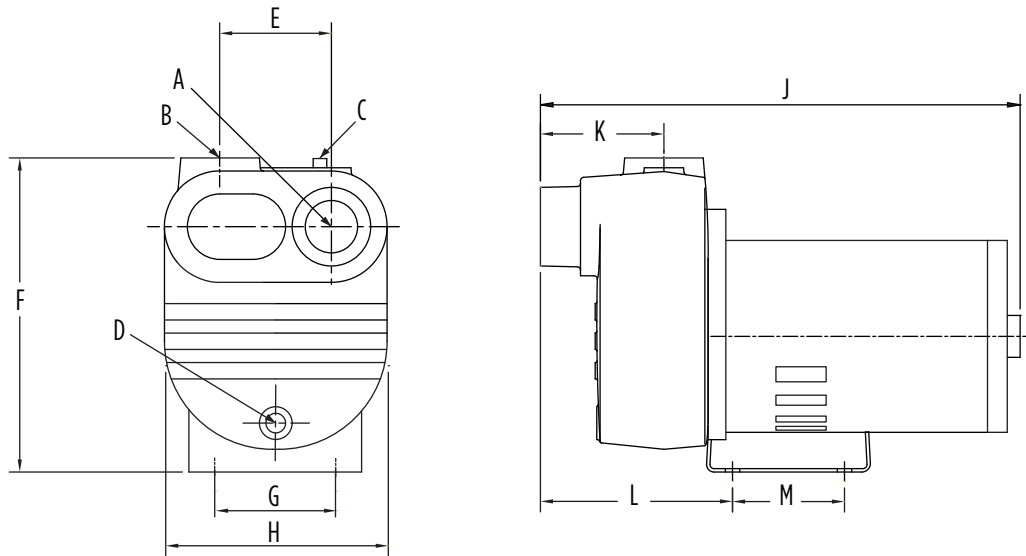
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		20'	30'	40'		
115/230	60	8.4/4.2	42/21.6	925	45	31	16	50	21.6

Item No.	Model	Volts	Switch Type/Operation	Cord	Weight
621814	B50S	1/60/115/230 Capacitor Start	Manual	8' 20.32 cm	43 lbs 19.5 Kg

UTILITY PUMPS

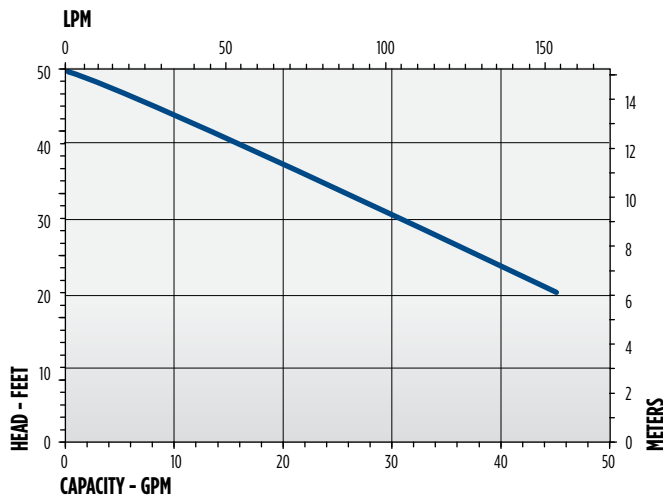
B50S SERIES - 1/2 HP

ENGINEERING DATA



A	B	C	D	E	F	G	H	J	K	L	M
1-1/4" NPT 3.18 cm	1-1/4" NPT 3.18 cm	1/2" NPT 1.27 cm	1/2" NPT 1.27 cm	4.25" 10.8 cm	10.5" 26.67 cm	4.9" 12.45 cm	7.6" 19.3 cm	20" 50.8 cm	3.1" 7.87 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
Seals	Carbon/ceramic mechanical seals
Fasteners	Plated steel
Bearings	Ball
Power Cord	SJTW 16/3

5.5 SERIES - 1/4 HP

APPLICATIONS

Basement sumps

FEATURES

- Shaded pole motor with thermal overload protection
- Oil-filled motor housing
- Integral snap-action float switch
- 1-1/4" FNPT (31.7 mm) discharge
- Screened inlet handles up to 3/8" (9.5 mm) solids
- 3/4" GHT (19 mm) garden hose adapter included
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

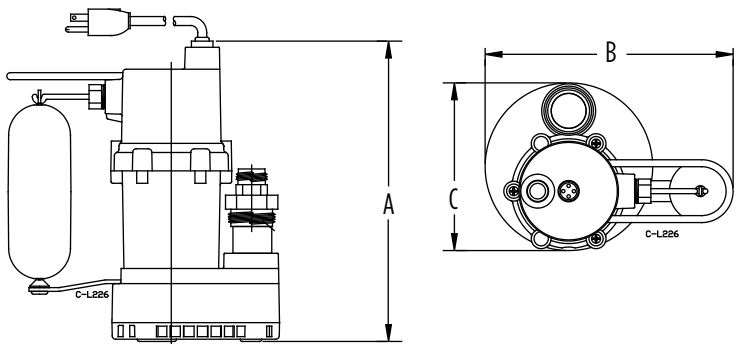
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	8.5	10.4	660	35	30	20	25	10.8

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
505700	5.5-ASP	1/4	115	Integral Snap-Action Float	7" - 10" 17.8 cm - 25.4 cm	2" - 5" 5 cm - 12.7 cm	10' 3 m	10.25 lbs 4.65 kg
505701	5.5-ASP	1/4	115	Integral Snap-Action Float	7" - 10" 17.8 cm - 25.4 cm	2" - 5" 5 cm - 12.7 cm	25' 7.6 m	11 lbs 5 kg

SUMP PUMPS

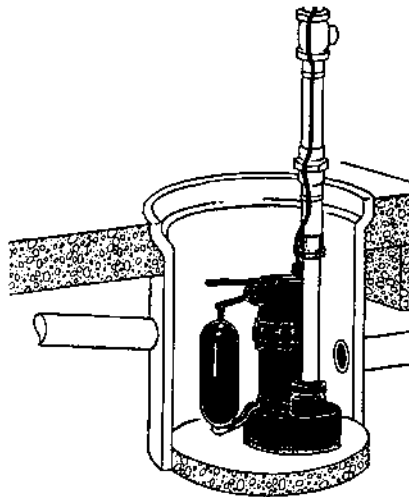
5.5 SERIES - 1/4 HP

ENGINEERING DATA

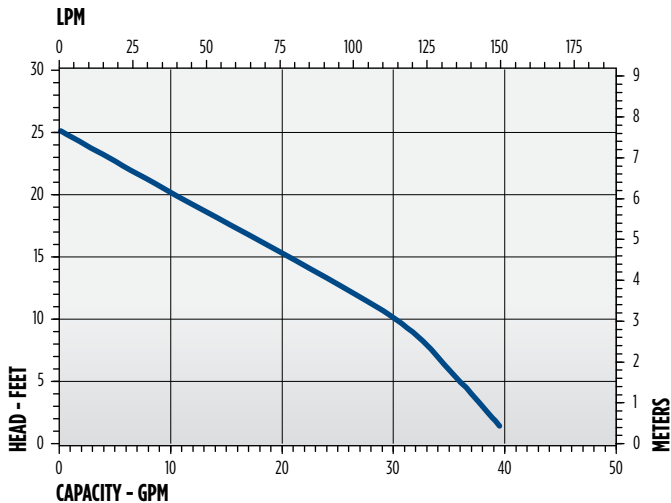


A	B	C
10.61"	9.02"	6.0"
26.94 cm	22.91 cm	15.24 cm

TYPICAL INSTALLATION



PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Die-cast zinc alloy
Impeller Material	Nylon
Impeller Type	Non-clog
Volute	Polypropylene
Motor Shaft	440C SS
Shaft Seal	Nitrile
Fasteners	Stainless steel
Bearings	Sleeve
Power Cord	SJTW-A

SP25 SERIES - 1/4 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

- Oil-free motor with thermal overload protection
- Designed for continuous duty
- 1-1/4" NPT (31.7 mm) discharge
- Handles up to 1/8" (3.18 mm) solids
- Built-in suction strainer
- Removable filter screen
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

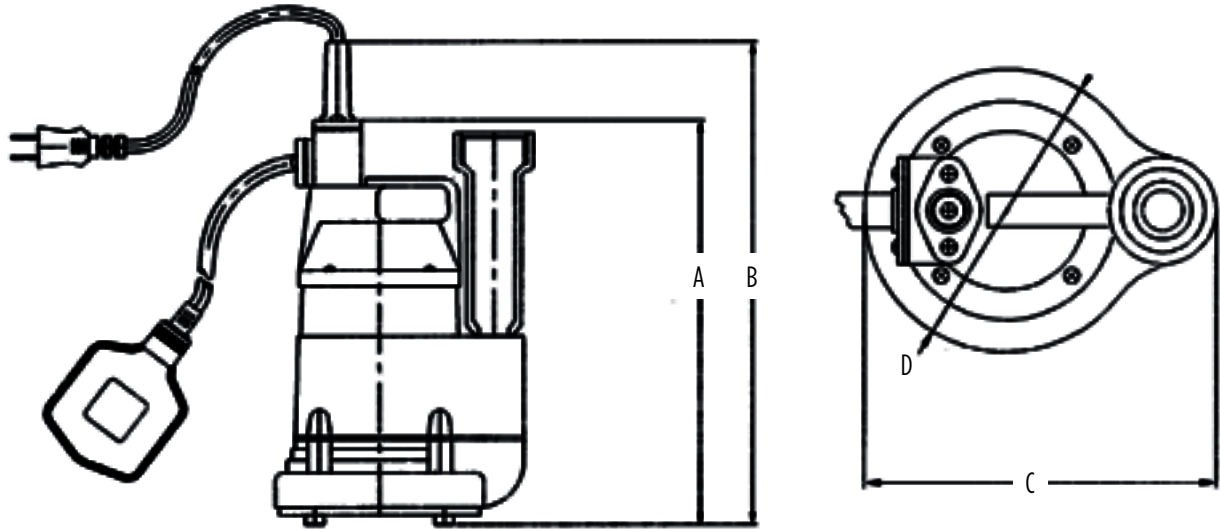
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	3.2	6.5	290	24	19	12	21	9.1

Item No.	Model	HP	Volts	Switch Type/Operation	On Level	Off Level	Cord	Weight
620136	SP25A	1/4	115	Mechanical Float	13.4" 34 cm	7.5" 19 cm	10' 3 m	8.5 lbs 3.86 Kg

SUMP PUMPS

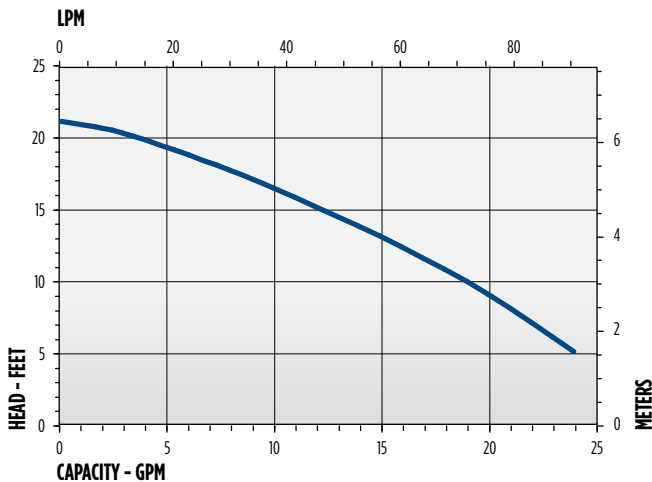
SP25 SERIES - 1/4 HP

ENGINEERING DATA



A	B	C	D
10.16"	12.13"	6.44"	5.2"
25.81 cm	30.81 cm	16.36 cm	13.21 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Aluminum
Impeller Material	Thermoplastic
Impeller Type	Semi-open
Volute	Thermoplastic
Motor Shaft	Stainless steel
Shaft Seal	Lip
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SJTW

SP33 SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

- Oil-free motor with thermal overload protection
- Designed for continuous duty
- 1-1/4" NPT (31.7 mm) discharge
- Handles up to 1/4" (6 mm) solids
- Built-in suction strainer
- Removable filter screen
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

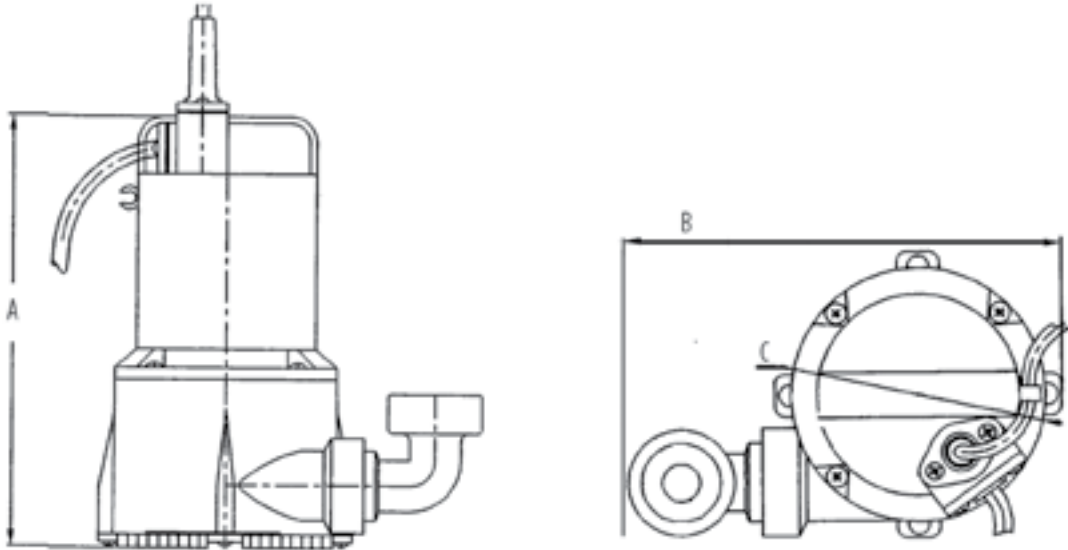
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	3.5	6.4	355	30	22	15	23	10

Item No.	Model	Volts	Switch Type/Operation	On Level	Off Level	Cord	Weight
620135	SP33A	115	Mechanical Float	11.8" 29.9 cm	5.9" 14.9 cm	10' 3 m	10 lbs 4.55 Kg

SUMP PUMPS

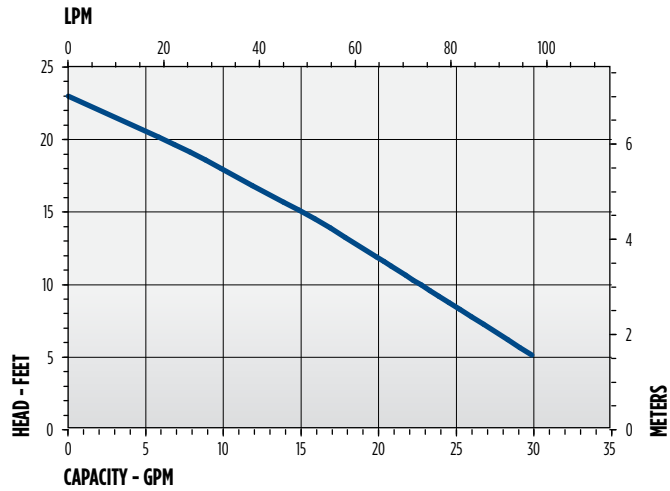
SP33 SERIES - 1/3 HP

ENGINEERING DATA



A	B	C
10"	11.8"	5.87"
25.4 cm	29.97 cm	14.09 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Thermoplastic
Impeller Material	Thermoplastic
Impeller Type	Semi-open
Volute	Thermoplastic
Motor Shaft	Stainless steel
Shaft Seal	Lip
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SJTW

ESP33 SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

- Oil-free motor with thermal overload protection
- Designed for continuous duty
- Cast iron or thermoplastic motor cover and casing options
- Permanently lubricated upper/lower ball bearings with double lip seal
- 5 vane impeller
- 1-1/2" FNPT (38 mm) discharge, 1-1/4" (31.7 mm) reducer bushing included
- Handles up to 1/2" (12.7 mm) solids
- Multiple switch options for automatic operation
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



ESP33AV

ESP33AM

SERIES SPECIFICATIONS

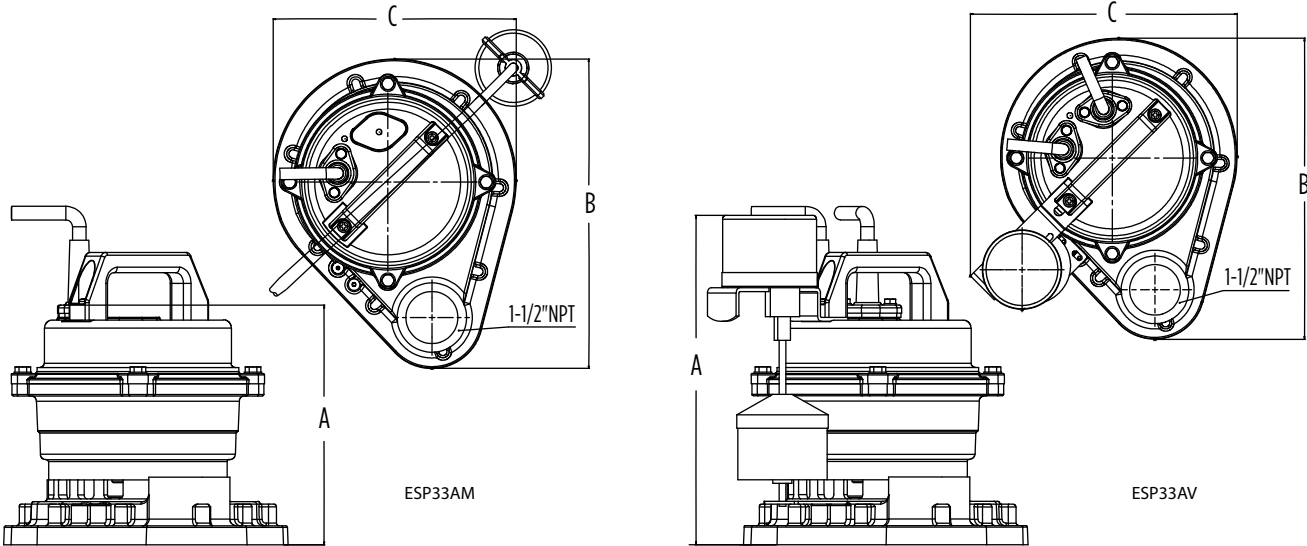
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	5.6	10.9	515	44	34	13	17.5	7.6

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
620186	ESP33AM	1/3	115	Piggyback Mechanical	12" 30.5 cm	5" 12.7 cm	10' 3 m	20 lbs 9.07 Kg
620185	ESP33AM-P	1/3	115	Piggyback Mechanical	12" 30.5 cm	3.5" 8.9 cm	10' 3 m	20 lbs 9.07 Kg
620120	ESP33AV	1/3	115	Vertical Mechanical	5" 12.7 cm	3.5" 8.9 cm	10' 3 m	20 lbs 9.07 Kg
620121	ESP33AV-P	1/3	115	Vertical Mechanical	5" 12.7 cm	3.5" 8.9 cm	10' 3 m	20 lbs 9.07 Kg
620089	ESP33M	1/3	115	Manual	-	-	10' 3 m	20 lbs 9.07 Kg

SUMP PUMPS

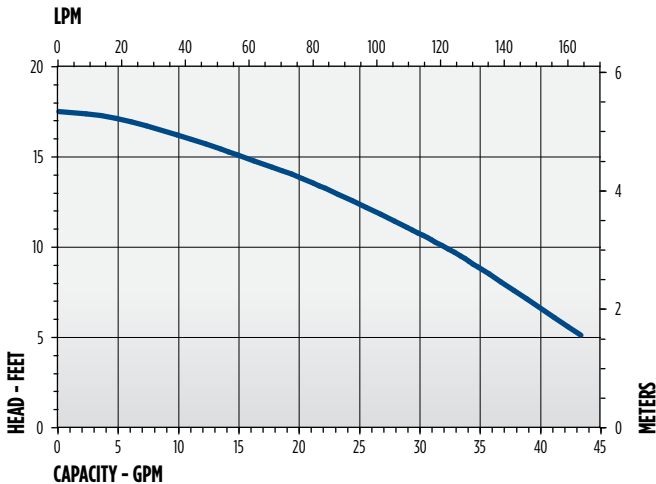
ESP33 SERIES - 1/3 HP

ENGINEERING DATA



	A	B	C
ESP33AM	8.93" 22.7 cm	10.57" 26.8 cm	8.15" 20.7 cm
ESP33AV	10.00" 25.4 cm	10.57" 26.8 cm	10.70" 27.2 cm
ESPM	8.93" 22.7 cm	10.57" 26.8 cm	8.15" 20.7 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Cast iron. Models ending in -P are thermoplastic
Impeller Material	Polypropylene
Impeller Type	Semi-open
Volute	Cast iron. Models ending in -P are thermoplastic
Motor Shaft	Stainless steel
Shaft Seal	Double lip
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SJTW

6 SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

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

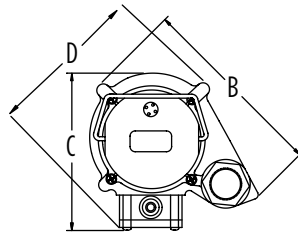
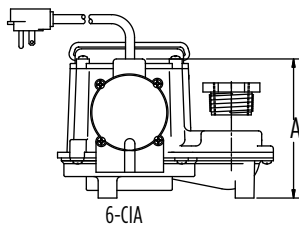
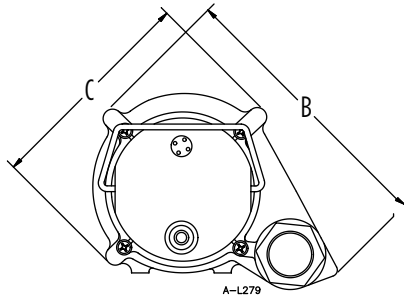
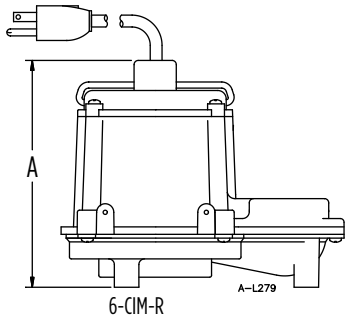
Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
506158	6-CIA	1/3	115	Integral Diaphragm	7" - 10" 17.8 cm - 25.4 cm	1" - 4" 2.5 cm - 10.2 cm	10' 3 m	18 lbs 8.16 Kg
*506162	6-CIA	1/3	115	Integral Diaphragm	7" - 10" 17.8 cm - 25.4 cm	1" - 4" 2.5 cm - 10.2 cm	10' 3 m	18.5 lbs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

* Leg kit included

SUMP PUMPS

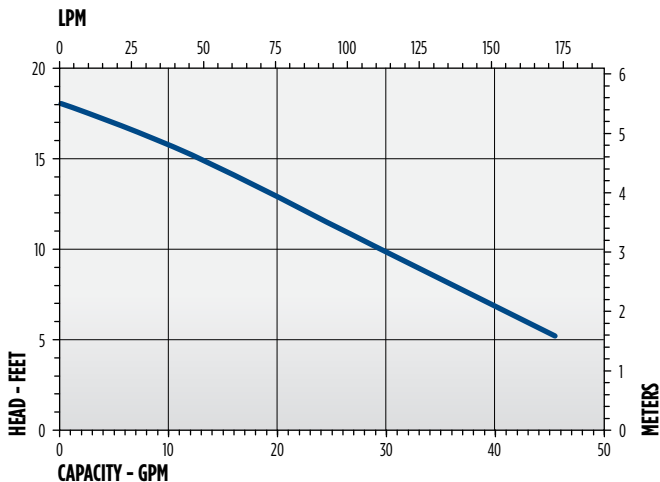
6 SERIES - 1/3 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

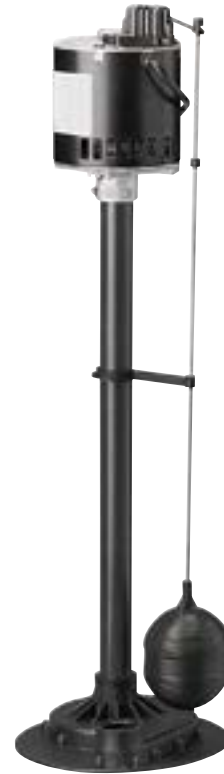
VS-P SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer

FEATURES

- Thermal overload protected motor
- Designed for continuous duty
- 1-1/4" FNPT (31.7 mm) discharge
- Handles up to 1/4" (6 mm) solids
- Adjustable snap-action float switch
- 140 °F (60 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

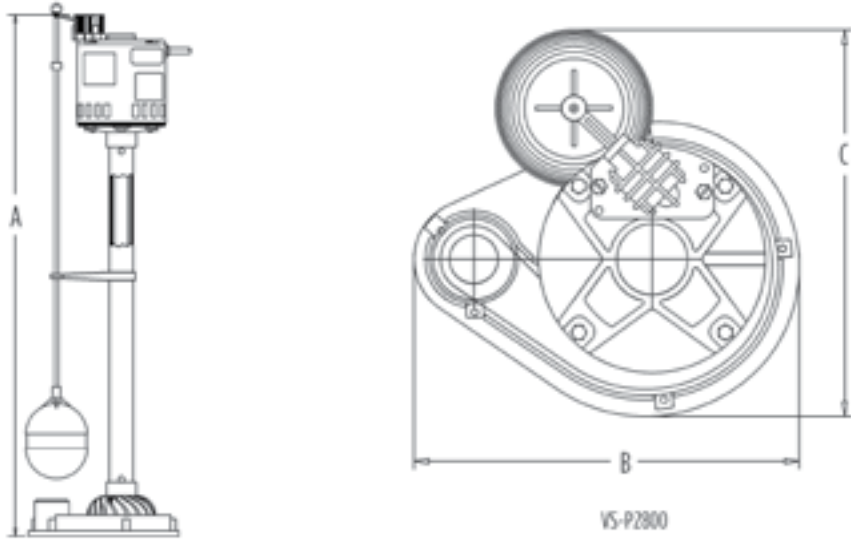
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	4.0	11.2	316	47	34	10	17	7.4

Item No.	Model	HP	Volts	Switch Type/Operation	On Level	Off Level	Cord	Weight
547151	VS-P2800	1/3	115	Adjustable Snap-Action Float	10" - 5" 25.4 cm - 12.7 cm	9" - 4" 22.9 cm - 10.2 cm	8' 2 m	16 lbs 7.26 Kg

SUMP PUMPS

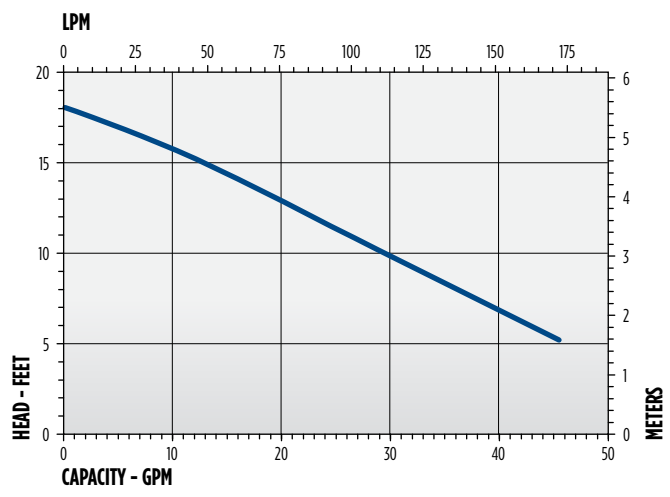
VS-P SERIES - 1/3 HP

ENGINEERING DATA



A	B	C
33" 81.28 cm	9.52" 24.18 cm	9.55" 24.26 cm

PERFORMANCE DATA



CONSTRUCTION

Impeller Material	PVC
Impeller Type	Semi-open non-clog
Volute	ABS
Drive Shaft	PVC
Shaft Seal	N/A
Fasteners	Anodized steel
Power Cord	18-3, SJT

6EC SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

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



SERIES SPECIFICATIONS

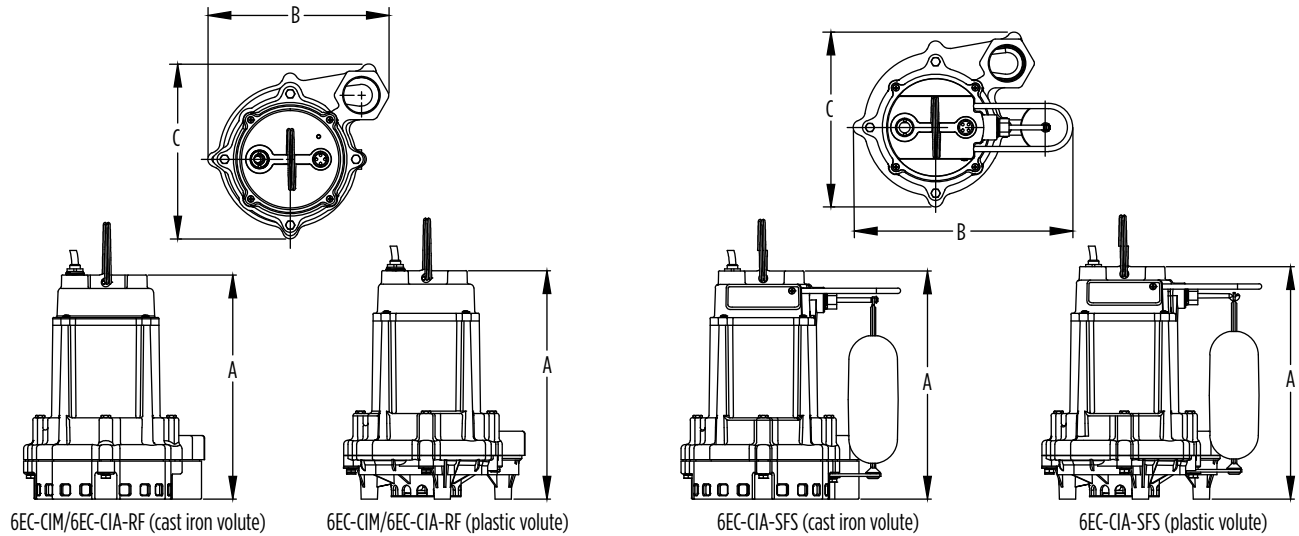
Volts	Hz	Amps	Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
				5'	10'	15'	20'		
115	60	5	600	53	50	42	34	28	12.1
230	60	3	650	53	50	42	34	28	12.1

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

SUMP PUMPS

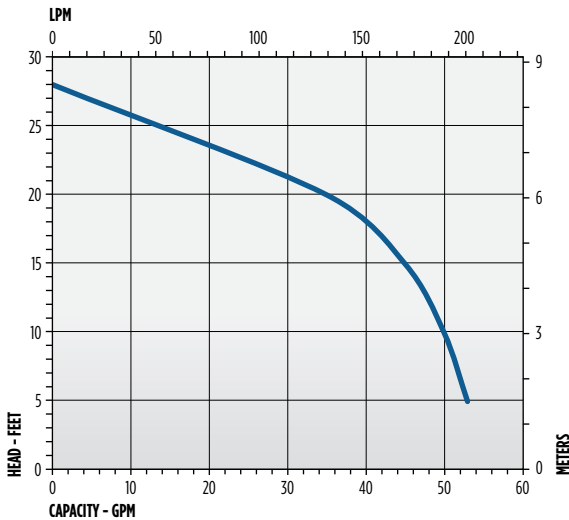
6EC SERIES - 1/3 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

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

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

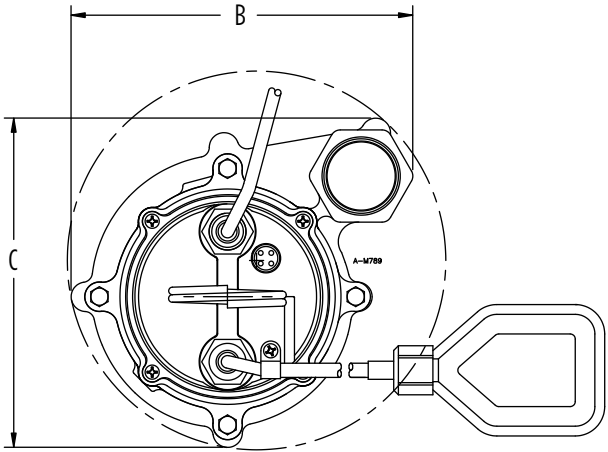
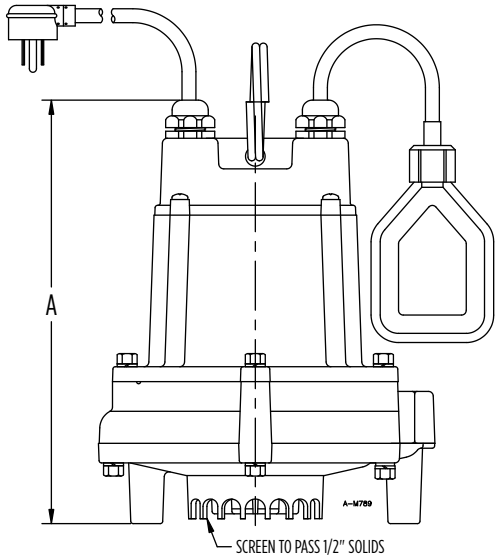
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	10.1	17	735	50	42	27	20	8.7

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

SUMP PUMPS

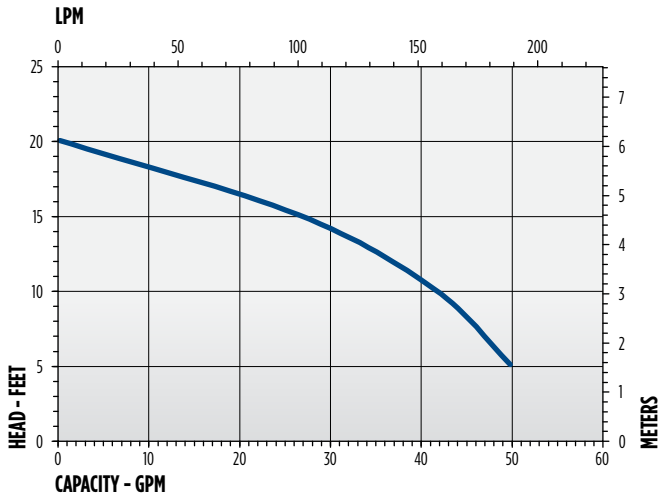
HT-6E SERIES (HIGH TEMPERATURE) - 1/3 HP

ENGINEERING DATA



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

ES33 SERIES - 1/3 HP

APPLICATIONS

Basement sumps, dewatering, water transfer, light effluent

FEATURES

- Permanent split capacitor (PSC) motor with thermal overload protection
- Designed for continuous duty
- 1-1/2" FNPT discharge (38 mm)
- Handles up to 3/8" (9.5 mm) solids
- Multiple switch options for automatic operation
- cCSAus listed



SERIES SPECIFICATIONS

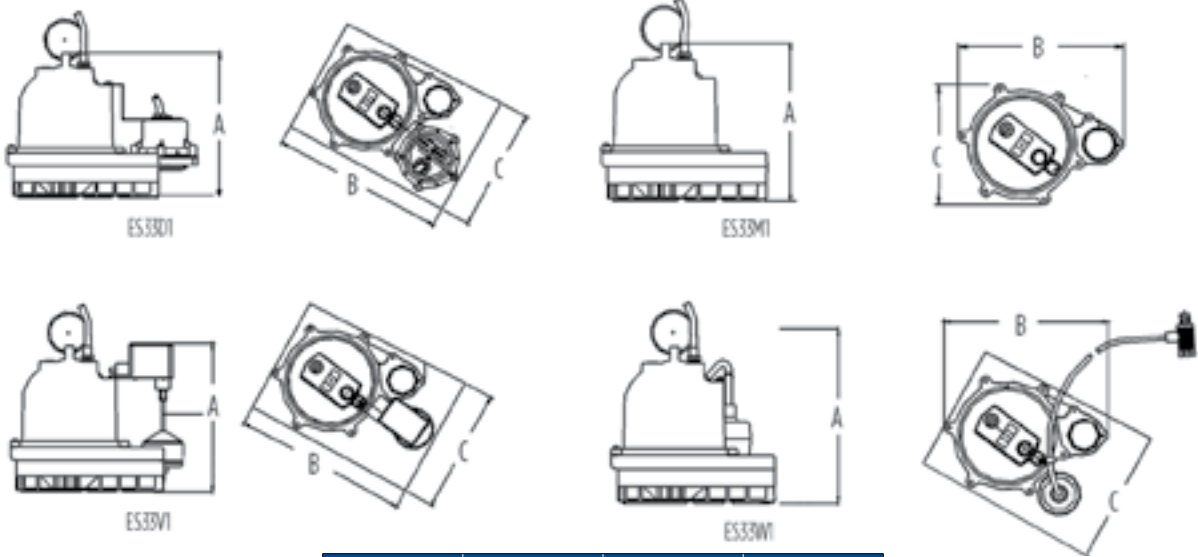
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	5.0	12	475	52	40	28	20	8.6

Item No.	Model	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
506420	ES33D1-10	115	Piggyback Vertical Diaphragm	10" - 11.25" 25.4 cm - 28.6 cm	4.25" - 5.25" 10.8 cm - 13.3 cm	10' 3 m	30 lbs 13.61 Kg
506422	ES33V1-10	115	Piggyback Vertical Mechanical	6.75" 17.1 cm	2.5" 6.4 cm	10' 3 m	30 lbs 13.61 Kg
506424	ES33W1-10	115	Piggyback Mechanical Float	12.25" 31.12 cm	4.75" 12.01 cm	10' 3 m	30 lbs 13.61 Kg

SUMP PUMPS

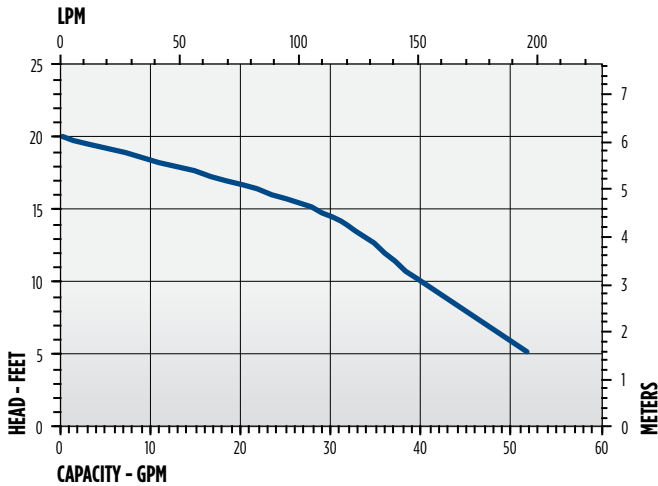
ES33 SERIES - 1/3 HP

ENGINEERING DATA



Model	A	B	C
ES33D1	9.5" 24.13 cm	11.25" 28.57 cm	9.75" 24.77 cm
ES33M1	9.5" 24.13 cm	10" 25.4 cm	8" 20.32 cm
ES33W1	10.5" 26.67 cm	11.25" 28.57 cm	10" 25.4 cm
ES33V1	9.5" 24.13 cm	10" 25.4 cm	8" 20.32 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Epoxy-coated cast iron
Impeller Material	Engineered composite
Impeller Type	Recessed, Vortex
Volute	Glass-filled polypropylene
Motor Shaft	Cold-rolled steel (not exposed)
Mechanical Shaft Seal	Nitrile with carbon and ceramic faces
Fasteners	Stainless steel
Bearings	Upper: Sintered iron/copper, flanged sleeve Lower: Ball bearing
Power Cord	16/3 SJTW-A

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

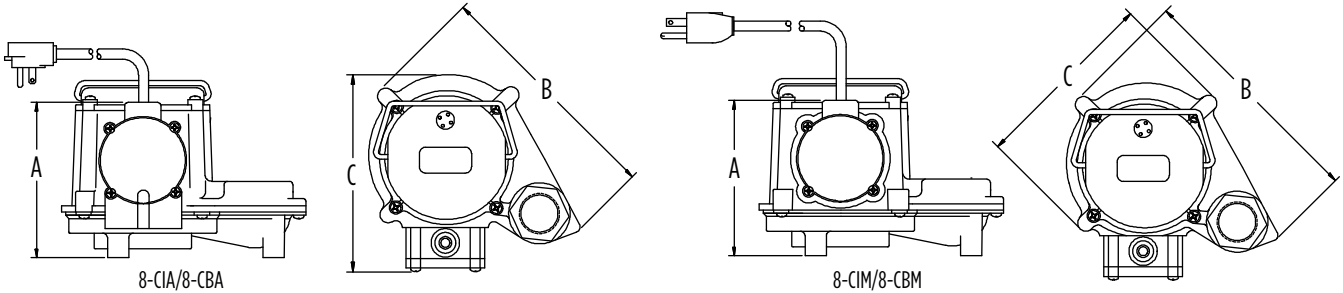
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	10	17	830	54	42	26	22.9	9.9

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

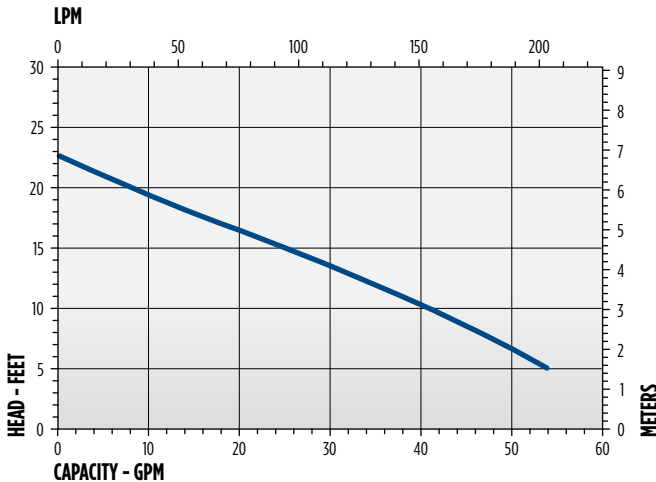
8 SERIES - 4/10 HP

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

TSW SERIES - 1/3 HP

APPLICATIONS

Basement sumps, flood control

FEATURES

- Permanent split capacitor motor
- Designed to be installed suspended from basin cover
- Non-corrosive construction
- Integral IntelliPlug® provides high water alarm light and 85 dba alarm with run light built in
- Leg kit raises up 2-1/4" (5.7 cm) if not used in basin
- 1-1/2" FNPT (38 mm) discharge
- Side screened inlet
- 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	4.5	11.6	475	50	40	32	30	13.1

Item No.	Model	HP	Volts	Switch Type/Operation	On Level	Off Level	Alarm Level	Cord	Weight
507700	TSW-SP	1/3	115	Integral Solid State Electronic	9.5" - 10.5" 24 cm - 27 cm	2.5" - 3.5" 6.4 cm - 9 cm	11" - 12" 28 cm - 30.5 cm	10' 3 m	17 lbs 7.71 Kg

TSW SERIES - 1/3 HP

SYSTEMS AND COMPONENTS

TSW-A Series - System includes: Pump, clear view cover, and discharge kit with clear check valve

507709, TSW-A22 (For use with 22" (56 cm) basin #507705, TSW-B1822A)

507710, TSW-A30 (For use with 30" (76 cm) basin #507707, TSW-B1830A)



TSW-B Series - System includes: Pump, 22" or 30" (56 cm or 76 cm) basin, clear view cover assembly, and discharge kit with clear check valve

507711, TSW-B22A [22" (56 cm) unit]

507713, TSW-B30A [30" (76 cm) unit]



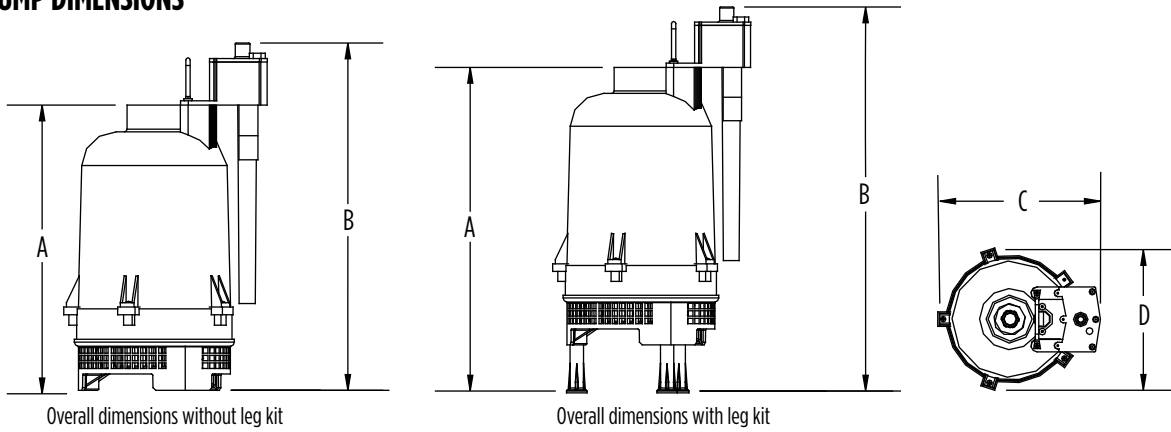
Component Variations Available:

Item	Model	Description
507700	TSW-SP	TSW Sump Pump
507702	TSW-CVC	Clear View Basin Cover
507703	TSW-DPK22	Discharge Kit for 22" (56 cm) Deep Basin
507704	TSW-DPK30	Discharge Kit for 30" (76 cm) Deep Basin
507705	TSW-B1822A	18" x 22" (45.7 cm x 56 cm) Poly Basin with Adapt-A-Flex Inlet Fitting
507707	TSW-B1830A	18" x 30" (45.7 cm x 76 cm) Basin with Adapt-A-Flex Inlet Fitting

TSW SERIES - 1/3 HP

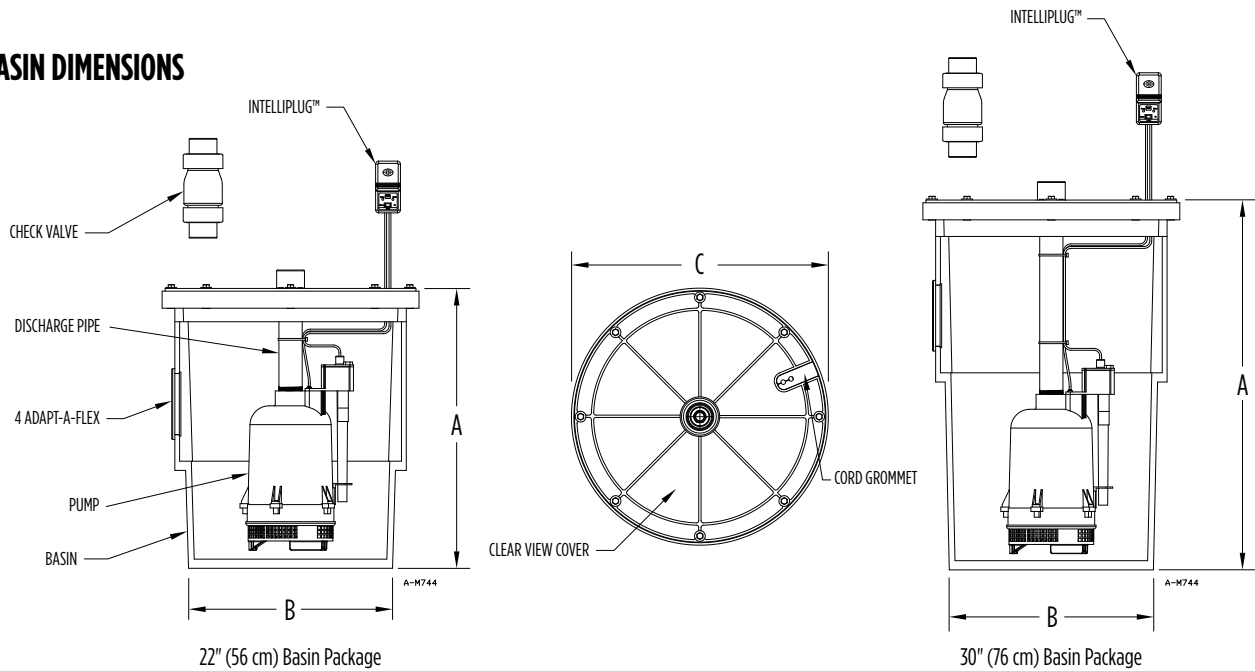
ENGINEERING DATA

PUMP DIMENSIONS



	A	B	C	D
W/O Leg Kit	10" 25.4 cm	11.8" 29.97 cm	9.3" 23.62 cm	8.12" 20.62 cm
W/ Leg Kit	13" 33.02 cm	18.3" 46.48 cm	9.3" 23.62 cm	8.12" 20.62 cm

BASIN DIMENSIONS

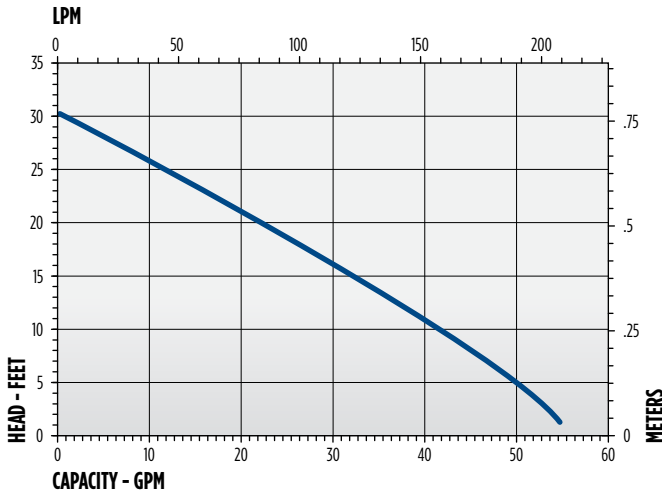


	A	B	C
22" 56 cm	22" 56 cm	15" 38 cm	21" 53 cm
30" 76 cm	30" 76 cm	15" 38 cm	21" 53 cm

SUMP PUMPS

TSW SERIES - 1/3 HP

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Engineered thermoplastic
Impeller Material	Engineered thermoplastic
Impeller Type	Vortex
Volute	Engineered thermoplastic
Motor Shaft	Stainless steel
Shaft Seal	Mechanical nitrile with carbon ceramic faces
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SJTW-16

Clear View Basin Cover	ABS
Basin	Polypropylene
Basin Capacity (approx.)	22" (56 cm) basin - 22 gallons 30" (76 cm) basin - 30 gallons
Discharge Size	1-1/2" (38 mm)
Intake Size	4" Adapt-A-Flex**

** 4" hub available as an option

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 1-1/2" FNPT (38 mm) discharge and intake opening, and 2" FNPT (5 cm) vent opening
- 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	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
			FLA	Start		5'	10'	15'	20'		
1/6	115	60	5	6.4	380	15	12	8	-	21.00	9.1
1/3	115	60	9	14.3	720	46	29	13	-	18.00	7.8
1/3	230	50/60	4.5	6.3	720	46	29	13	-	18.00	7.8
4/10	115	60	9	17	920	72	63	54	40	29.00	9.1

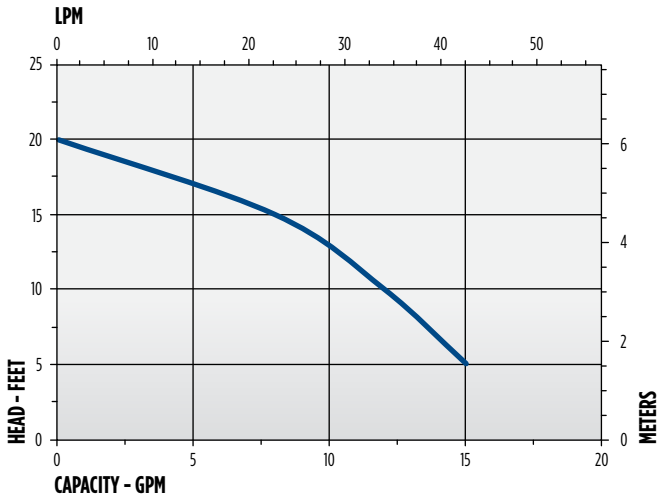
Item No.	Model	HP	Volts	Tank Size	Switch Type/Operation	On Level	Off Level	Cord	Weight
505055	WRS-5	1/6	115	5 Gallon	Piggyback Diaphragm	6" - 9" 15.2 cm - 23 cm	1" - 4" 2.5 cm - 10 cm	10' 3 m	19 lbs 8.62 Kg
506065	WRSC-6	1/3	115	3.5 Gallon	Integral Diaphragm	4" - 7" 10.2 cm - 17.8 cm	1" - 3" 2.5 cm - 7.6 cm	10' 3 m	24 lbs 10.89 Kg
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
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
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
509268	WRS-9EN	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

SUMP PUMPS

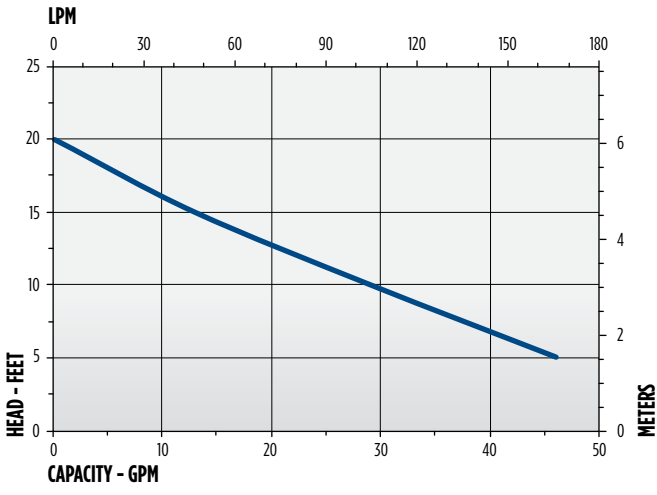
WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

PERFORMANCE DATA

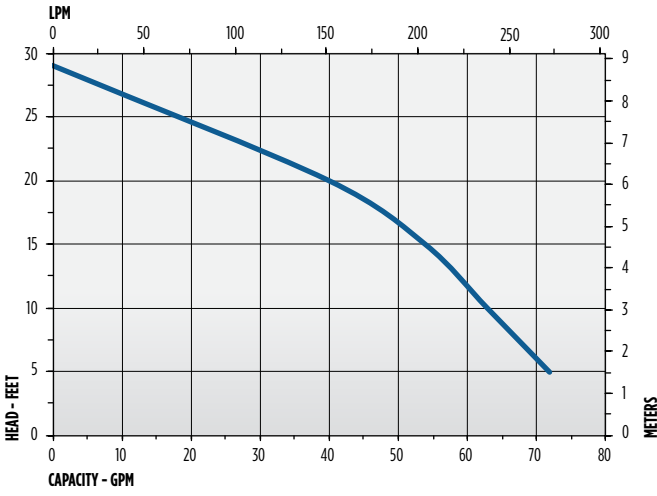
WRS-5



WRS-6 & WRSC-6

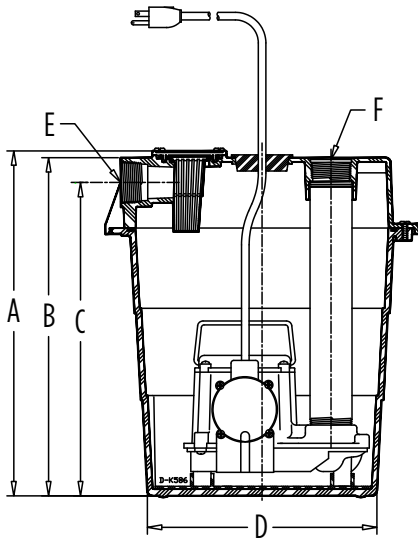


WRS-9EN

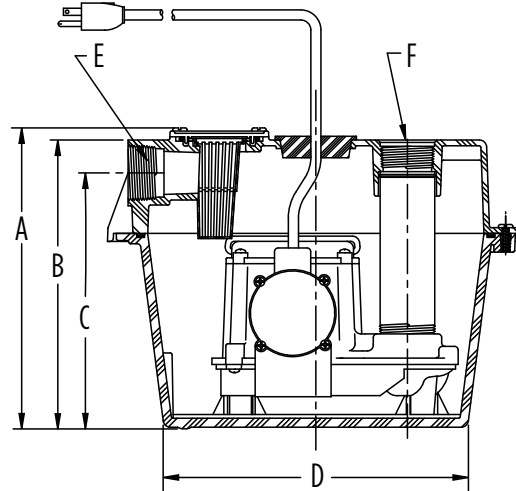


WRS SERIES - 1/6 HP, 1/3 HP, 4/10 HP

ENGINEERING DATA



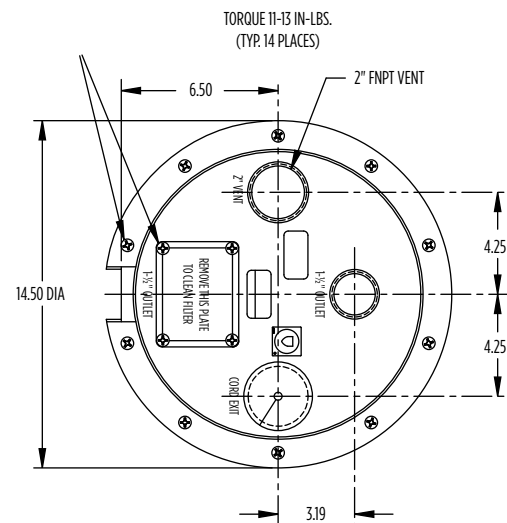
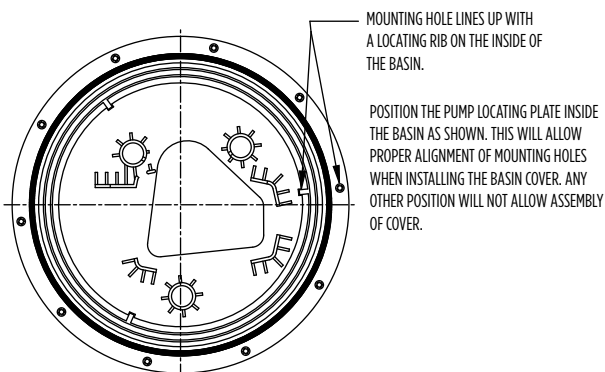
WRS



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	1-1/2" FNPT 3.81 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	1-1/2" FNPT 3.81 cm
WRS-9EN	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	1-1/2" FNPT 3.81 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	1-1/2" FNPT 3.81 cm

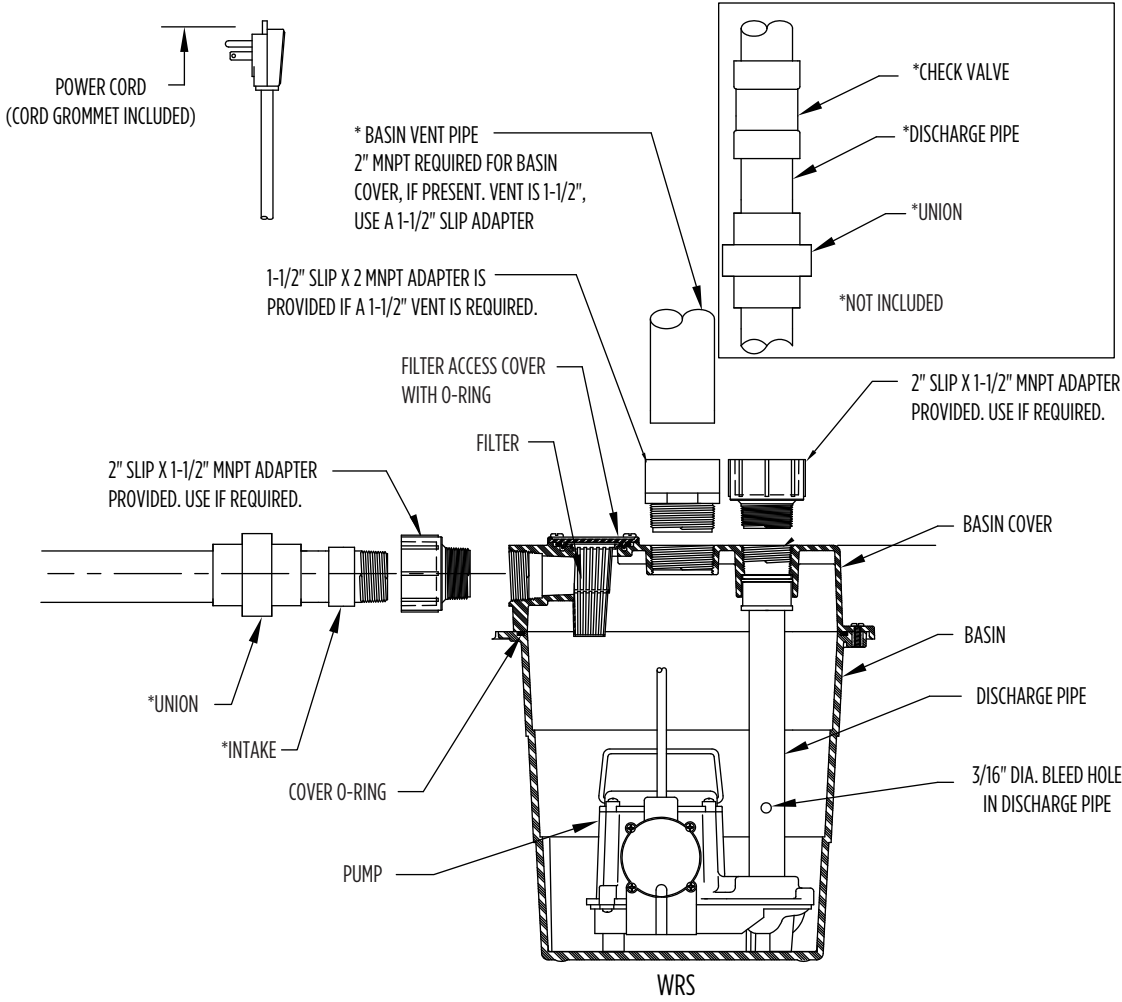
PLATE ALIGNMENT DIAGRAM



SUMP PUMPS

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

TYPICAL INSTALLATION



CS-SS SERIES - 1/3 HP

APPLICATIONS

Residential crawl spaces, low-lying areas

FEATURES

PACKAGE FEATURES

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



SERIES SPECIFICATIONS

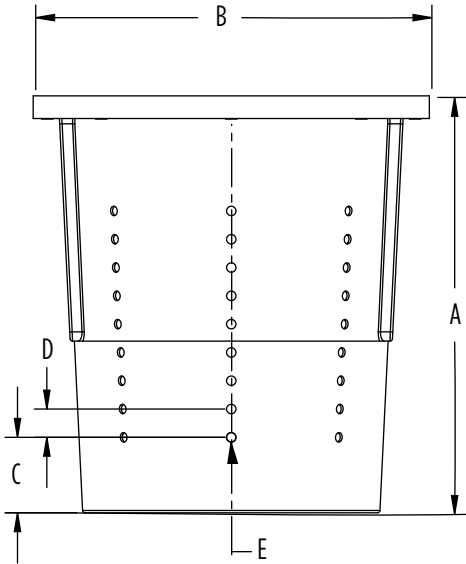
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	6	12	600	50	42	30	22	9.5

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

SUMP PUMPS

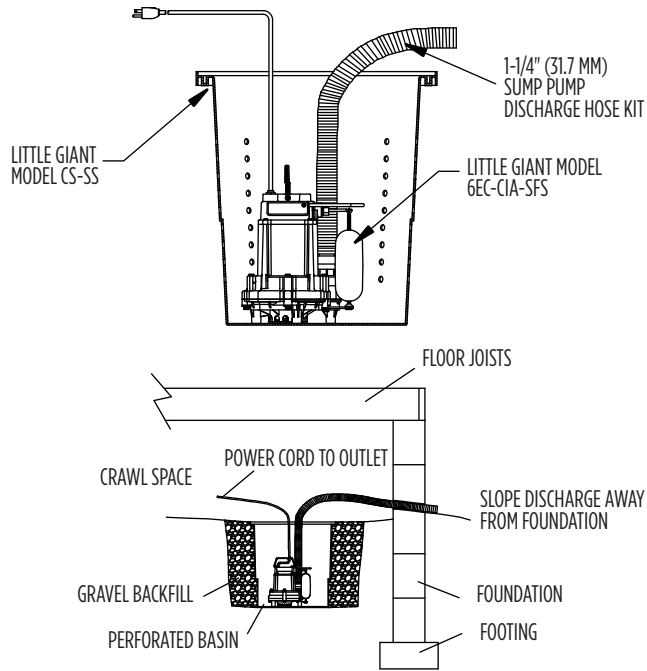
CS-SS SERIES - 1/3 HP

ENGINEERING DATA

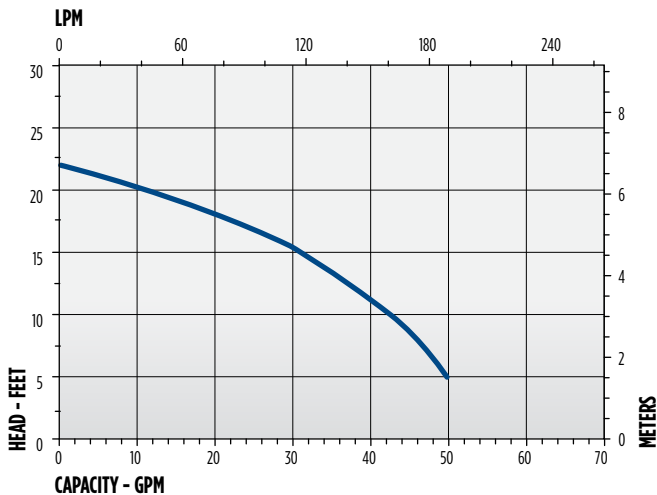


A	B	C	D	E
22.1"	21"	4"	1.5"	0.5"
56.13 cm	53.34 cm	10.16 cm	3.81 cm	1.27 cm

INSTALLATION DATA



PERFORMANCE DATA



CONSTRUCTION

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

APS-115 - BATTERY BACKUP SYSTEMS

APPLICATIONS

Sump, effluent, and sewage pump power backup system

FEATURES

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



NOT FOR SALE IN CALIFORNIA:

The battery charger contained in this product does not meet the California Efficiency Regulations codified at 20 CCR §1601-1608.

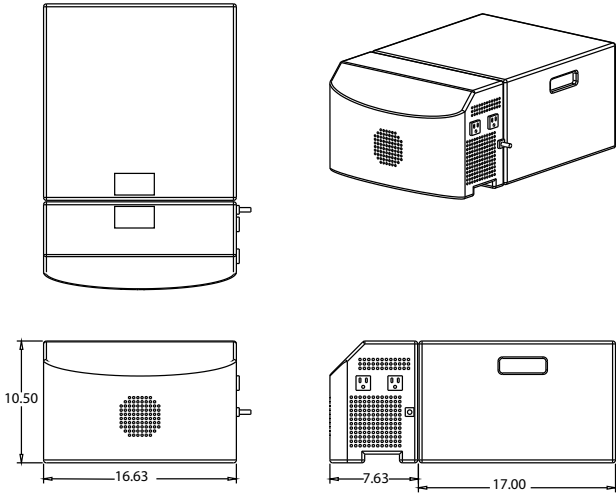
SERIES SPECIFICATIONS

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

BATTERY BACKUP

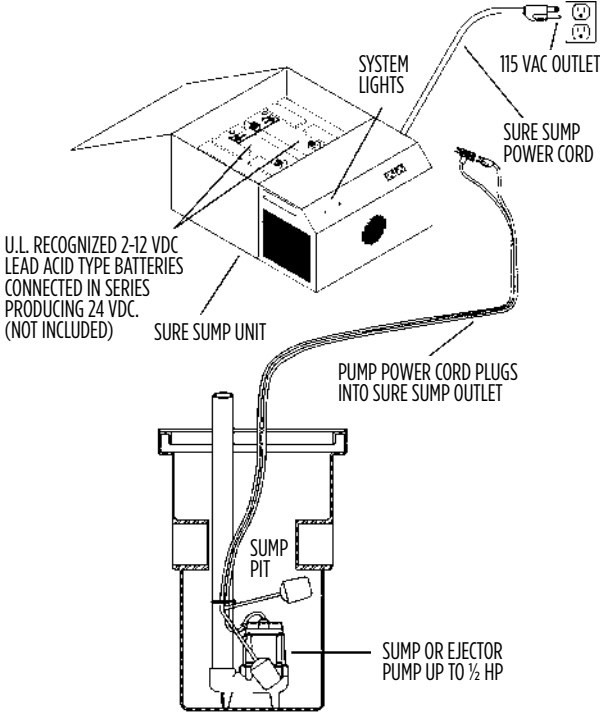
APS-115 - BATTERY BACKUP SYSTEMS

ENGINEERING DATA

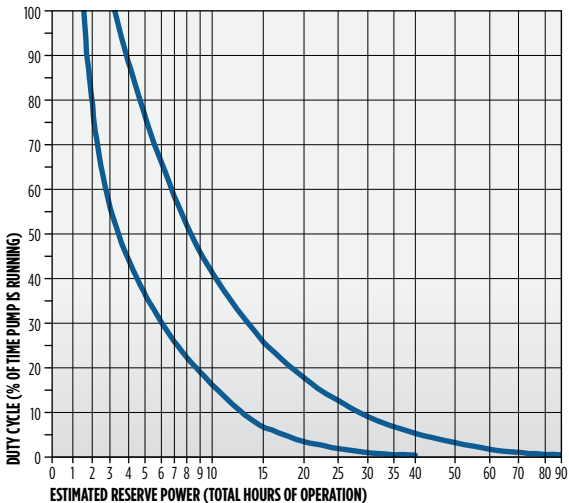


A	B	C	D	E
12"	23"	16-1/2"	14-5/8"	8-3/8"
30.48 cm	58.42 cm	41.91 cm	37.15 cm	21.27 cm

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

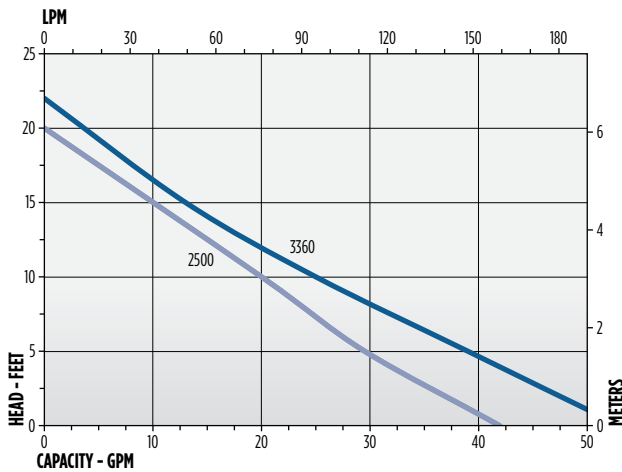
SPBS SERIES - BATTERY BACKUP SYSTEMS

FEATURES

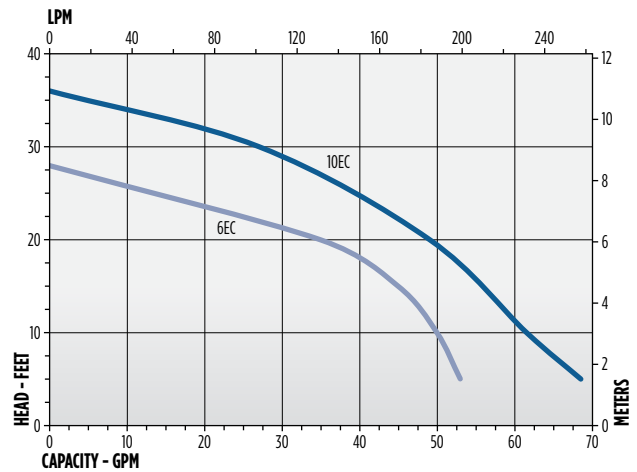
CONTROLLER/CHARGER/ALARM

- 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



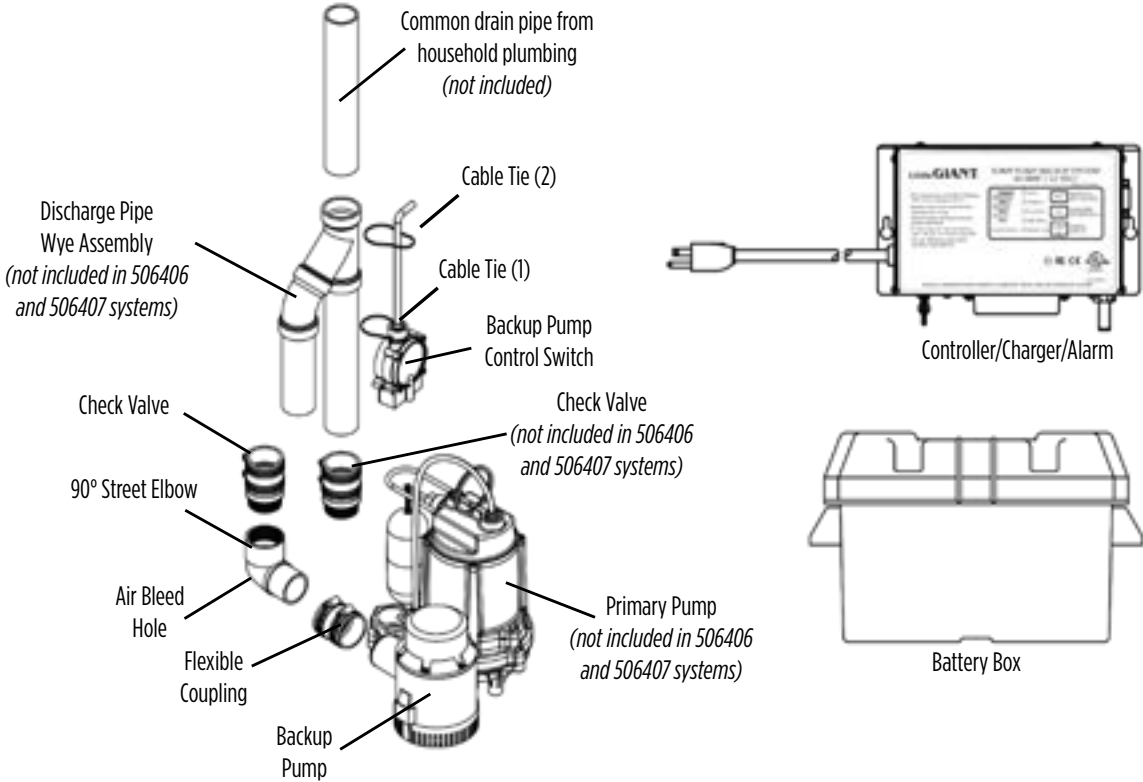
6EC - SPBS-10HF-6, 1/3 hp Primary Pump

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

BATTERY BACKUP

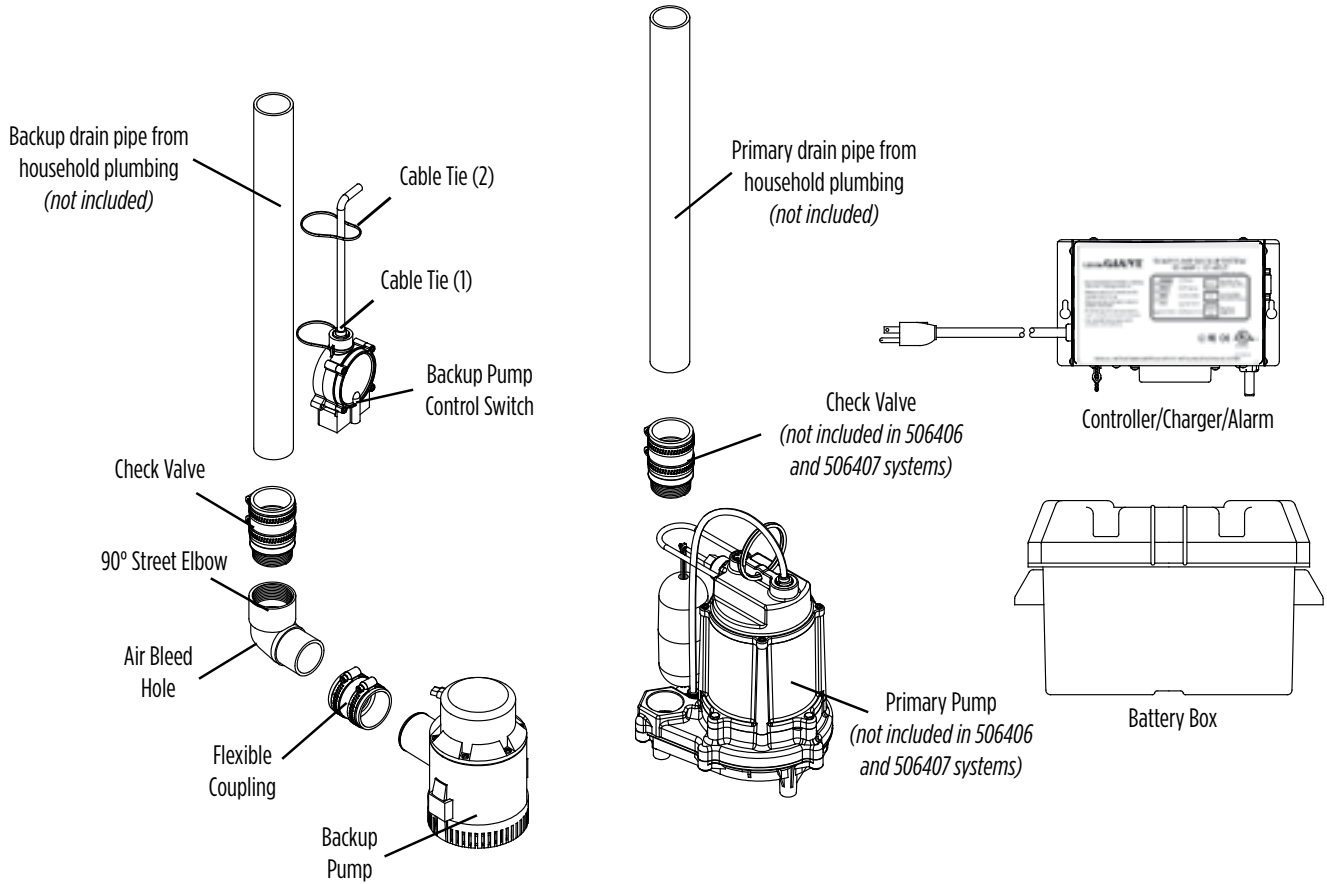
SPBS SERIES - BATTERY BACKUP SYSTEMS

BACKUP SYSTEM ON A COMMON DISCHARGE



SPBS SERIES - BATTERY BACKUP SYSTEMS

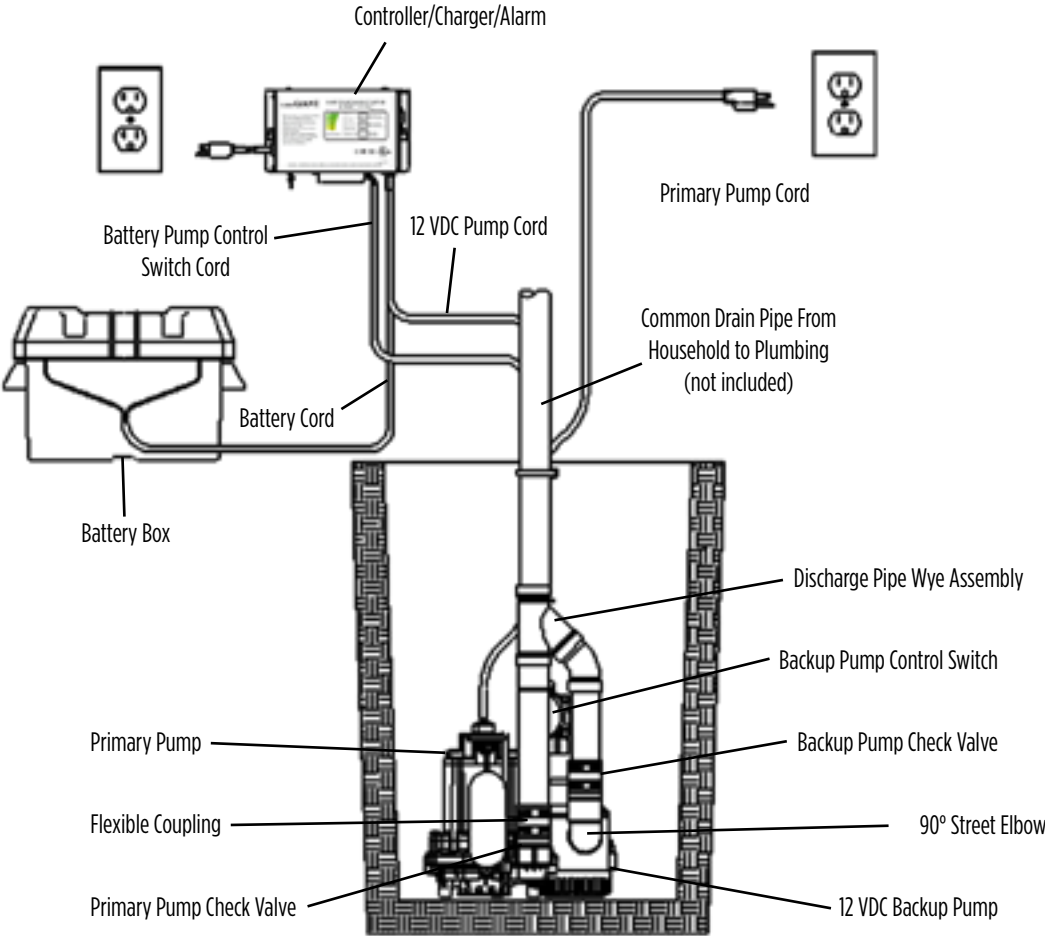
BACKUP SYSTEM ON A SEPARATE DISCHARGE



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	9ENH-CIM	115	60	4/10	60	50	45	19.5
513384	OS3-10ENH-1**	115	60	1/2	N/A	511572	10ENH-CIM	115	60	1/2	50	40	60	25.9
513385	OS3-10ENH-2**	230	60	1/2	N/A	511576	10ENH-CIM	208-230	60	1/2	50	50	50	21.6

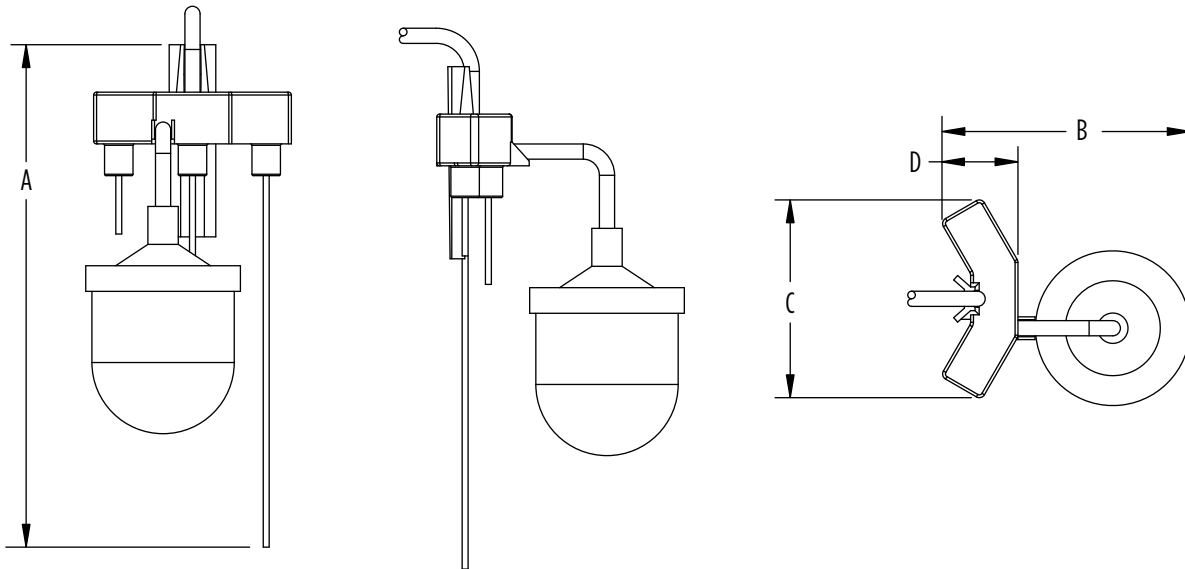
** Includes pump in kit

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)

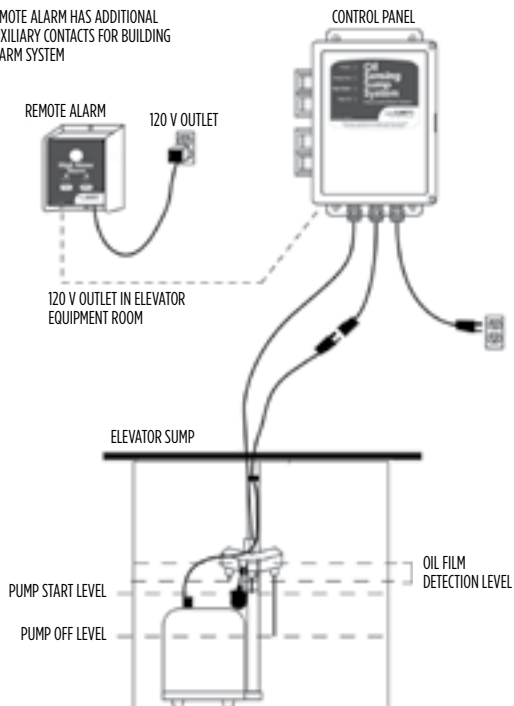
ENGINEERING DATA



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

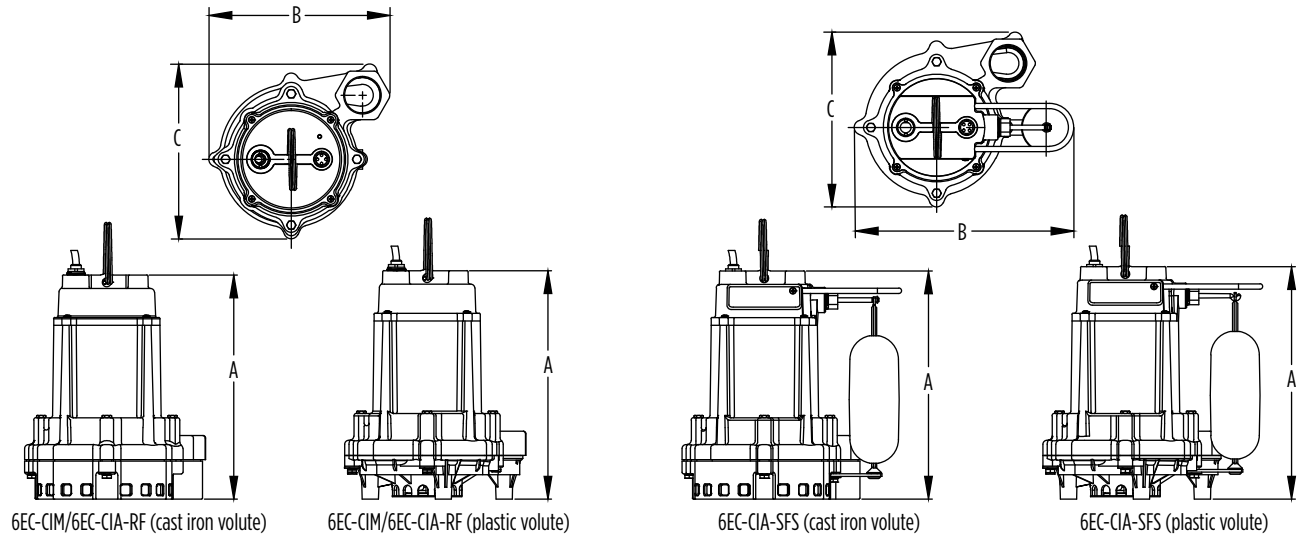
Volts	Hz	Amps	Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
				5'	10'	15'	20'		
115	60	5	600	53	50	42	34	28	12.1
230	60	3	650	53	50	42	34	28	12.1

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

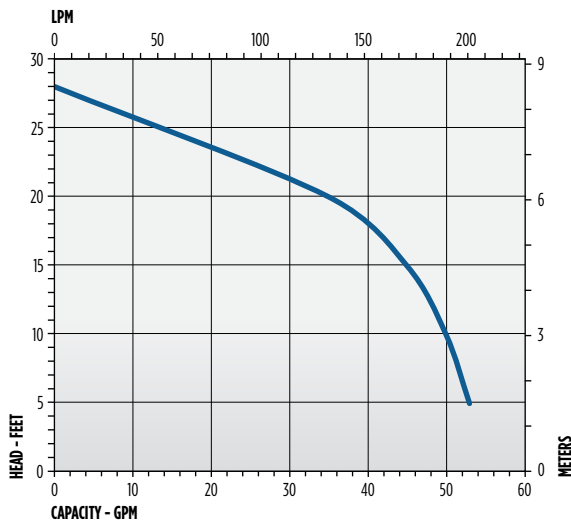
6EC SERIES - 1/3 HP

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)

9EN 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

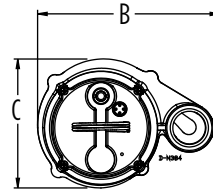
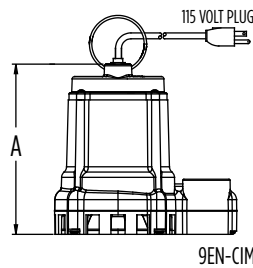
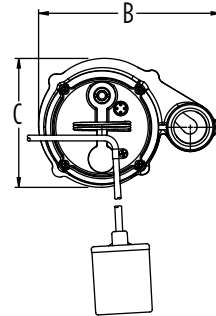
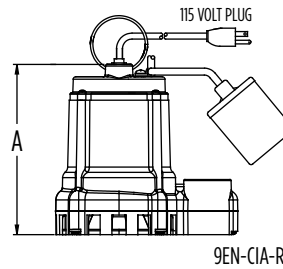
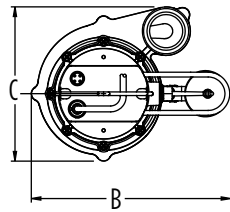
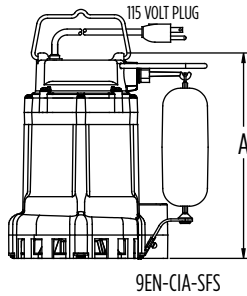
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'	25'		
115	60	9	17	920	80	70	60	45	25	32	14.1
208/230	50/60	4	7.5	800	80	70	60	45	25	32	14.1

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
509260	9EN-CIA-SFS	4/10	115	Integral Float Switch	7" - 10" 17.8 cm - 25.4 cm	2" - 5" 5 cm - 12.7 cm	20' 6.1 m	27.5 lbs 12.47 Kg
509261	9EN-CIA-SFS	4/10	115	Integral Float Switch	7" - 10" 17.8 cm - 25.4 cm	2" - 5" 5 cm - 12.7 cm	30' 9.1 m	28.5 lbs 12.93 Kg
509209	9EN-CIA-RF	4/10	115	Piggyback Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	20' 6.1 m	27.5 lbs 12.47 Kg
509210	9EN-CIA-RF	4/10	115	Piggyback Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	30' 9.1 m	28.5 lbs 12.93 Kg
509221	9EN-CIA-RF	4/10	208-230	Piggyback Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	20' 6.1 m	27.5 lbs 12.47 Kg
509207	9EN-CIM	4/10	115	Manual	-	-	20' 6.1 m	26.5 lbs 12.02 Kg
509208	9EN-CIM	4/10	115	Manual	-	-	30' 9.1 m	27.5 lbs 12.47 Kg
509219	9EN-CIM	4/10	208-230	Manual	-	-	20' 6.1 m	27 lbs 12.25 Kg

EFFLUENT PUMPS

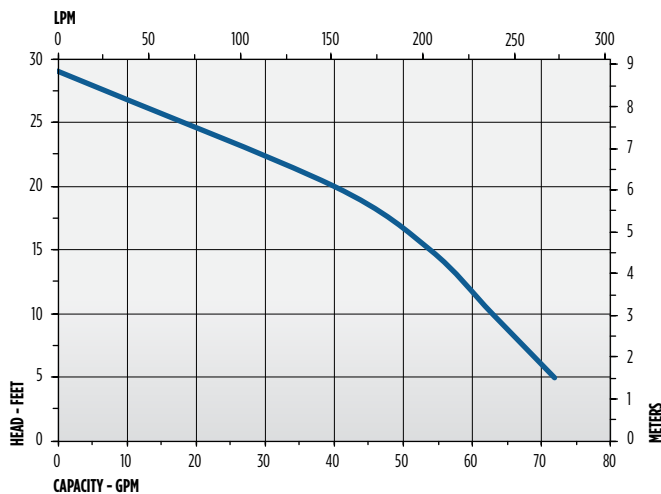
9EN SERIES - 4/10 HP

ENGINEERING DATA



Model	A	B	C
9EN-CIA-SFS	10.76" 27.33 cm	10.54" 26.54 cm	8.07" 20.49 cm
9EN-CIA-RF	9.15" 23.24 cm	9.6" 24.38 cm	6.8" 17.27 cm
9EN-CIM	9.15" 23.24 cm	9.6" 24.38 cm	6.8" 17.27 cm

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' 9EN-CIA-RF and 9EN-CIM models

9ENH 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

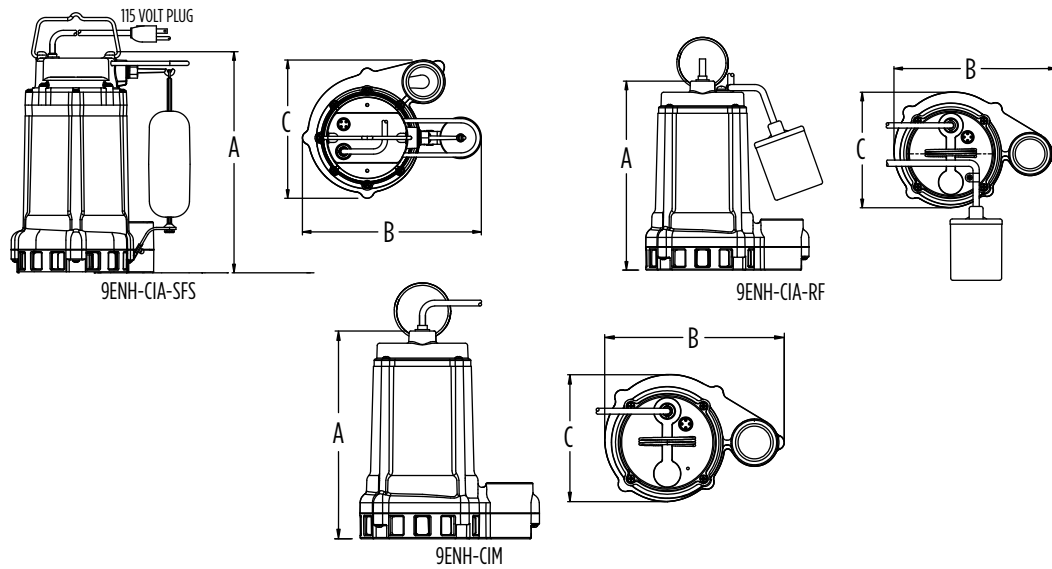
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		5'	10'	20'	30'	40'		
115	60	9	16	1045	70	60	50	30	10	45	19.5
208-230	60	4.5	8.2	1045	70	60	50	30	10	45	19.5

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
509239	9ENH-CIA-SFS	4/10	115	Integral Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	20' 6.1 m	38 lbs 17.24 Kg
509240	9ENH-CIA-SFS	4/10	115	Integral Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	30' 9.1 m	39 lbs 17.69
509233	9ENH-CIA-RF	4/10	115	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	38 lbs 17.24 Kg
509234	9ENH-CIA-RF	4/10	115	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	30' 9.1 m	39 lbs 17.69
509231	9ENH-CIM	4/10	115	Manual	-	-	20' 6.1 m	37 lbs 16.78 Kg
509232	9ENH-CIM	4/10	115	Manual	-	-	30' 9.1 m	38 lbs 17.24 Kg
509237	9ENH-CIA-RF	4/10	208-230	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	37 lbs 16.78 Kg
509238	9ENH-CIA-RF	4/10	208-230	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	30' 9.1 m	38 lbs 17.24 Kg
509235	9ENH-CIM	4/10	208-230	Manual	-	-	20' 6.1 m	37 lbs 16.78 Kg
509236	9ENH-CIM	4/10	208-230	Manual	-	-	30' 9.1 m	38 lbs 17.24 Kg

EFFLUENT PUMPS

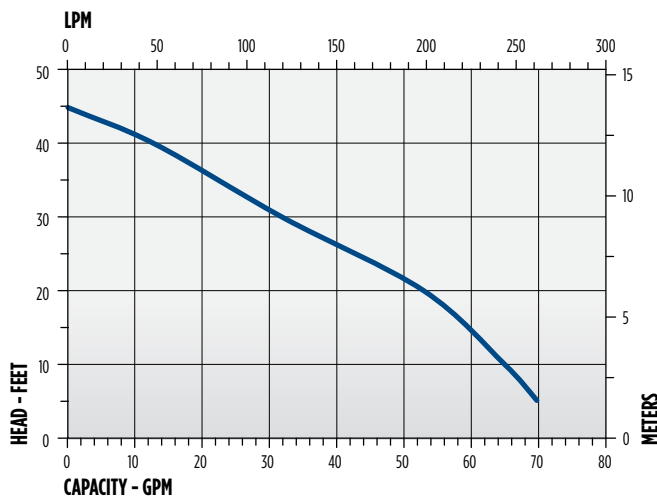
9ENH SERIES - 4/10 HP

ENGINEERING DATA



Model	A	B	C
9ENH-CIA-SFS	12.9" 32.77 cm	10.54" 26.54 cm	8.07" 20.49 cm
9ENH-CIA-RF	11.03" 28.01 cm	9.53" 24.21 cm	6.74" 17.12 cm
9ENH-CIM	11.03" 28.01 cm	9.53" 24.21 cm	6.74" 17.12 cm

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' 9ENH-CIA-RF and 9ENH-CIM models

10EN-CB SERIES - 1/2 HP

APPLICATIONS

Dewatering and light effluent wastewater removal

FEATURES

- 1/2 hp PSC motor with thermal overload protection
- Energy saving low amp draw
- Cooler running motor which extends the life of the pump
- Cast bronze housing with polypropylene base
- Brass screws, stainless steel bolts and handle
- Mechanical seals (stainless steel spring, nitrile parts, carbon and ceramic faces)
- Upper and lower sintered sleeve bearings
- 1-1/2" FNPT discharge
- Handles liquid and solid waste materials up to 1/2" diameter
- Available in manual or automatic operation:
 - Integral snap-action float switch
 - On Level 7" - 10"
 - Off Level 2" - 5"
- Fully submersible



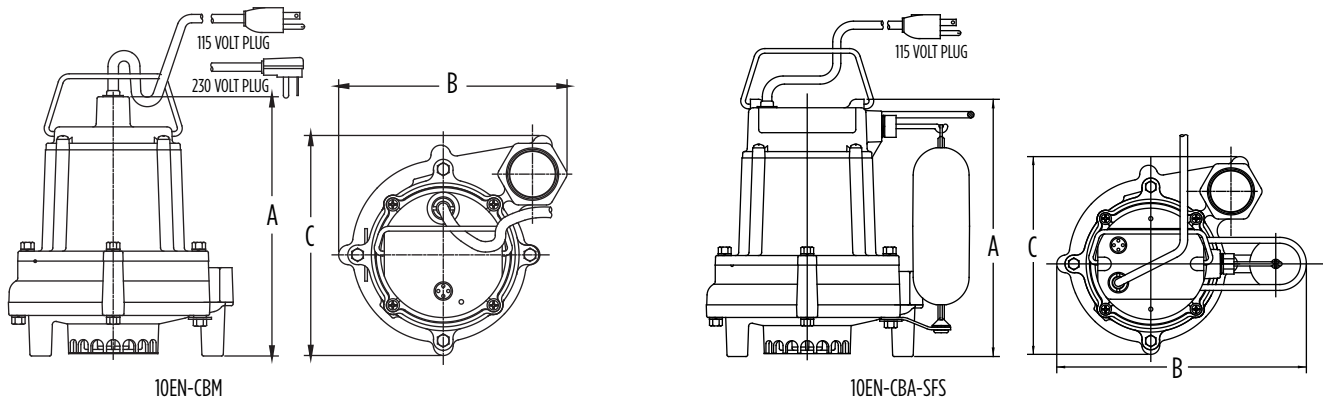
SERIES SPECIFICATIONS

Item No.	Model No.	HP	Volts	Solids Size (dia. in)	Running Amps/Watts	Performance (GPM @ Head)				Shut-Off		Cord Length (ft)	Weight
						5'	10'	15'	20'	Ft	PSI		
511341	10EN-CBM	1/2	115	1/2"	8/850	67	61	50	40	30	13	10	29 lbs 13.1 kg
511342	10EN-CBA-SFS	1/2	115	1/2"	8/850	67	61	50	40	30	13	10	29.2 lbs 13.2 kg
511343	10EN-CBA-SFS	1/2	115	1/2"	8/850	67	61	50	40	30	13	20	32.5 lbs 14.7 kg

EFFLUENT PUMPS

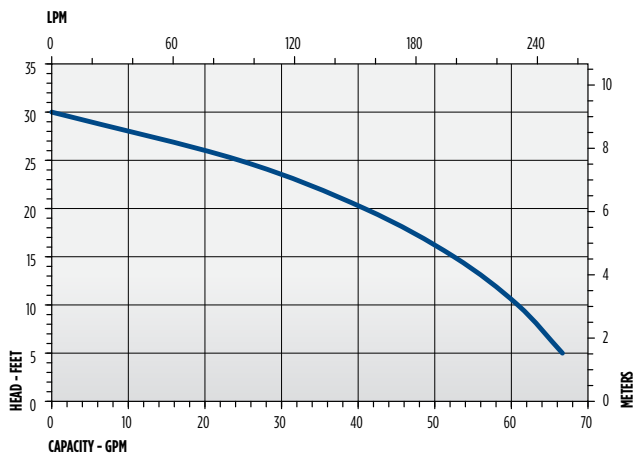
10EN-CB SERIES - 1/2 HP

ENGINEERING DATA



Model	A	B	C
10EN-CBM	9.8" 24.89 cm	8.7" 22.1 cm	8.3" 21.08 cm
10EN-CBA-SFS	10.18" 25.86 cm	10.6" 26.92 cm	8.39" 21.31 cm

PERFORMANCE DATA



CONSTRUCTION

Cover	Polycarbonate
Motor Housing	Cast bronze
Impeller Material	Nylon
Volute	Cast bronze/polypropylene
Power Cord	SJTW
Mechanical Shaft Seal	Nitrile with carbon and ceramic faces
Fasteners	Brass, stainless steel
Shaft	Cold-rolled steel
Bearings	Upper and lower sintered sleeve bearings
Power Cord	SJTW **SJTOW

10EC SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

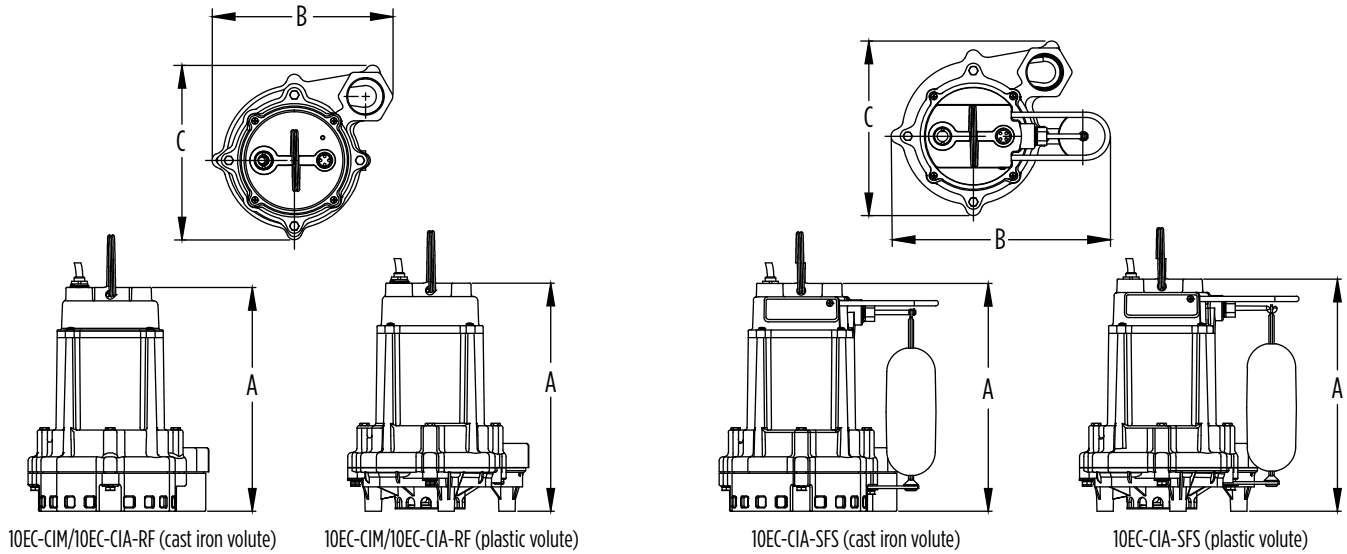
Volts	Hz	Amps	Watts	Performance (GPM at Height in Feet)					Shut-Off (ft)	PSI
				5'	10'	15'	20'	30'		
115	60	6.5	750	67	57	52	47	28	36	15.6
230	60	3.5	750	67	57	52	47	28	36	15.6

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

EFFLUENT PUMPS

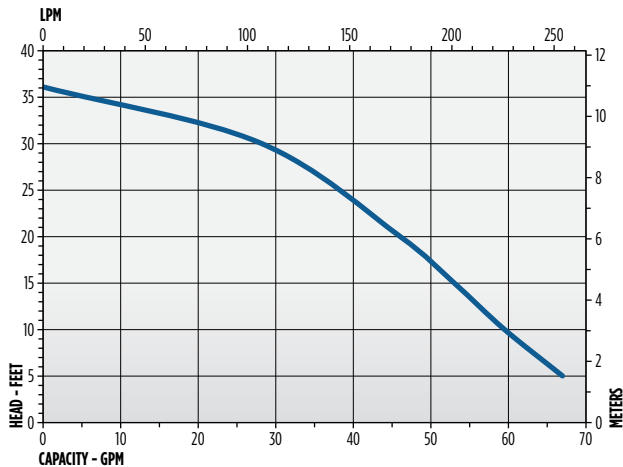
10EC SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

10ENH SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

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



SERIES SPECIFICATIONS

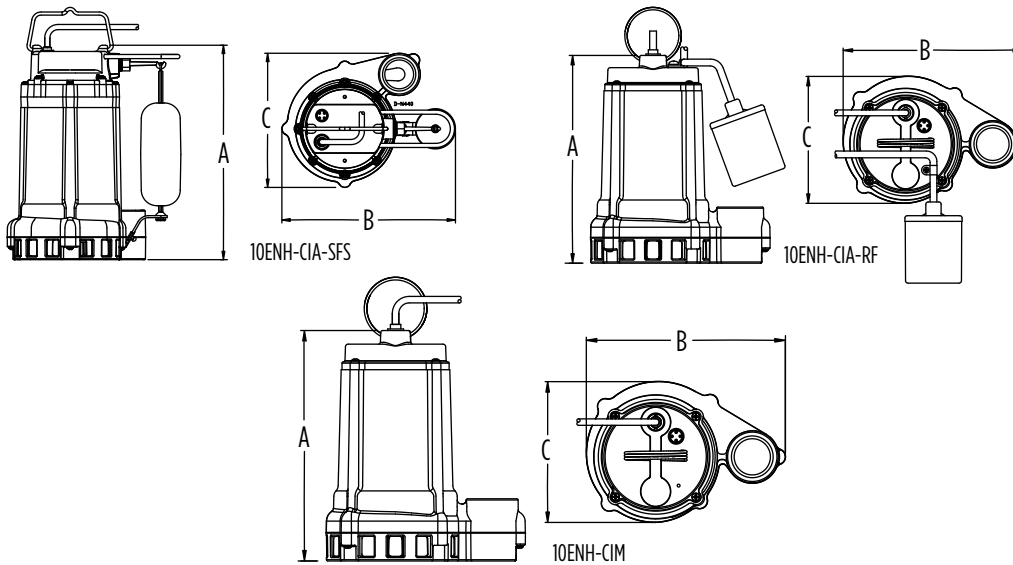
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		5'	10'	20'	30'	40'		
115	60	9.5	16	1045	60	50	40	30	15	60	26
208-230	60	5	8.2	750	55	50	40	25	10	50	21.6

Item No.	Model	HP	Volts	Switch Type/Operation	On Level	Off Level	Cord	Weight
511602	10ENH-CIA-SFS	1/2	115	Integral Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	20' 6.1 m	38 lbs 17.24 Kg
511603	10ENH-CIA-SFS	1/2	115	Integral Float Switch	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	30' 9.1 m	39 lbs 17.69 Kg
511573	10ENH-CIA-RF	1/2	115	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	38 lbs 17.24 Kg
511574	10ENH-CIA-RF	1/2	115	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	30' 9.1 m	39 lbs 17.69 Kg
511571	10ENH-CIM	1/2	115	Manual	-	-	20' 6.1 m	37 lbs 16.78 Kg
511572	10ENH-CIM	1/2	115	Manual	-	-	30' 9.1 m	38 lbs 17.24 Kg
511577	10ENH-CIA-RF	1/2	208-230	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	38 lbs 17.24 Kg
511578	10ENH-CIA-RF	1/2	208-230	Piggyback Float Switch	9" - 12" 22.86 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	30' 9.1 m	39 lbs 17.69 Kg
511575	10ENH-CIM	1/2	208-230	Manual	-	-	20' 6.1 m	37 lbs 16.78 Kg
511576	10ENH-CIM	1/2	208-230	Manual	-	-	30' 9.1 m	38 lbs 17.24 Kg

EFFLUENT PUMPS

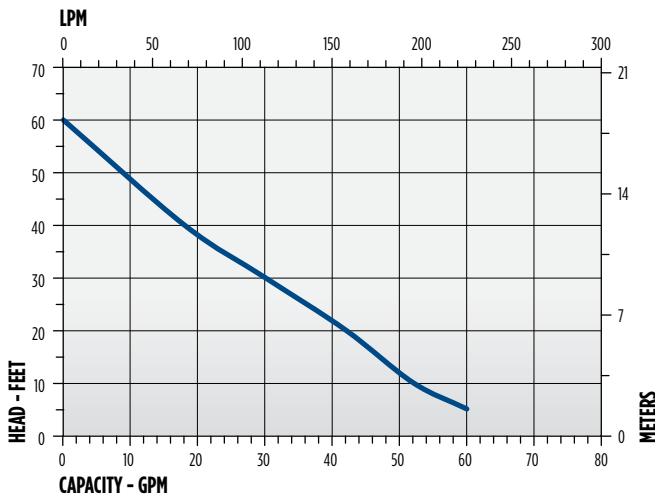
10ENH SERIES - 1/2 HP

ENGINEERING DATA



Model	A	B	C
10ENH-CIA-SFS	12.9" 32.77 cm	10.45" 26.54 cm	8.07" 20.50 cm
10ENH-CIA-RF	11.03" 28.02 cm	9.53" 24.21 cm	6.74" 17.12 cm
10ENH-CIM	11.03" 28.02 cm	9.53" 24.21 cm	6.74" 17.12 cm

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' 10ENH-CIA-RF and 10ENH-CIM models

HT-10EN HIGH TEMPERATURE - 1/2 HP

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

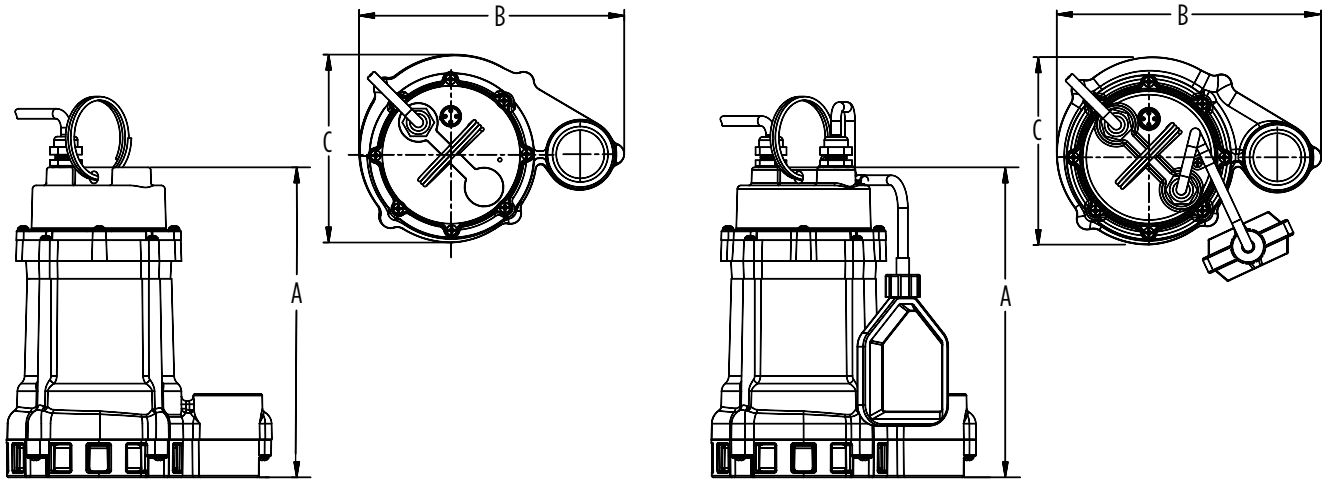
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'	25'		
115	60	10.5	21	900	75	65	60	40	20	30	13

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

EFFLUENT PUMPS

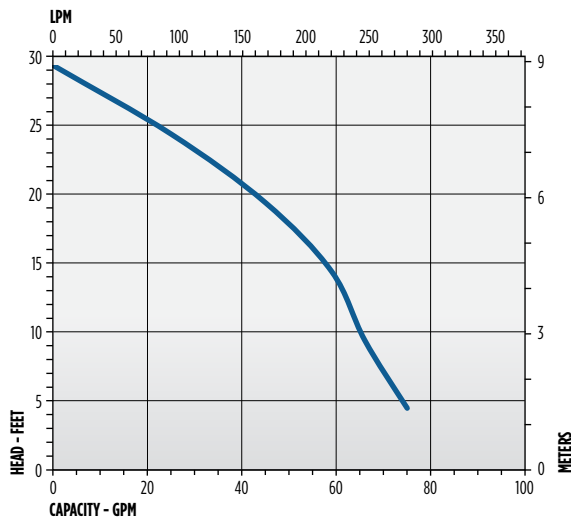
HT-10EN HIGH TEMPERATURE - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

ESP50 SERIES - 1/2 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Oil-free motor
- Designed for continuous duty
- Handles solids up to 3/4" (19 mm) diameter
- 1-1/2" NPT (38 mm) discharge
- Multiple switch options for automatic operation
- 120 °F (49 °C) liquid temperature rating
- cCSAus listed



SERIES SPECIFICATIONS

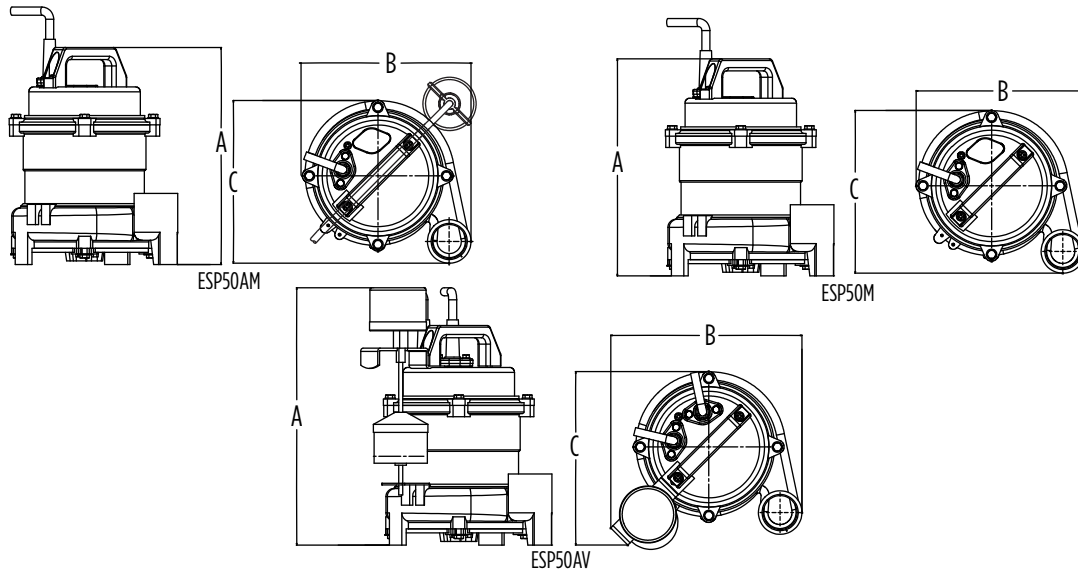
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		15'	20'	25'		
115	60	6.7	12.9	650	61	51	36	31	13.4

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
620187	ESP50AM	1/2	115	Piggyback Mechanical	11.4" 28.9 cm	4.7" 11.9 cm	20' 6.1 m	33 lbs 15.0 Kg
620178	ESP50AV	1/2	115	Vertical Mechanical	7.5" 19.1 cm	4.5" 11.4 cm	20' 6.1 m	31 lbs 14.1 Kg
620174	ESP50M	1/2	115	Manual	-	-	20' 6.1 m	31 lbs 14.1 Kg

EFFLUENT PUMPS

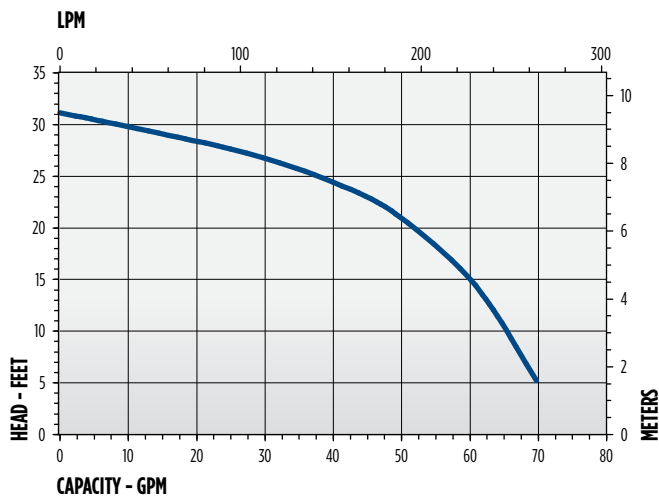
ESP50 SERIES - 1/2 HP

ENGINEERING DATA



Model	A	B	C
ESP50AM	10.59" 26.9 cm	8.23" 20.9 cm	7.95" 20.2 cm
ESP50M	10.59" 26.9 cm	9.33" 23.7 cm	8.46" 21.5 cm
ESP50AV	10.3" 26.16 cm	8.23" 20.9 cm	7.95" 20.2 cm

PERFORMANCE DATA



CONSTRUCTION

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

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

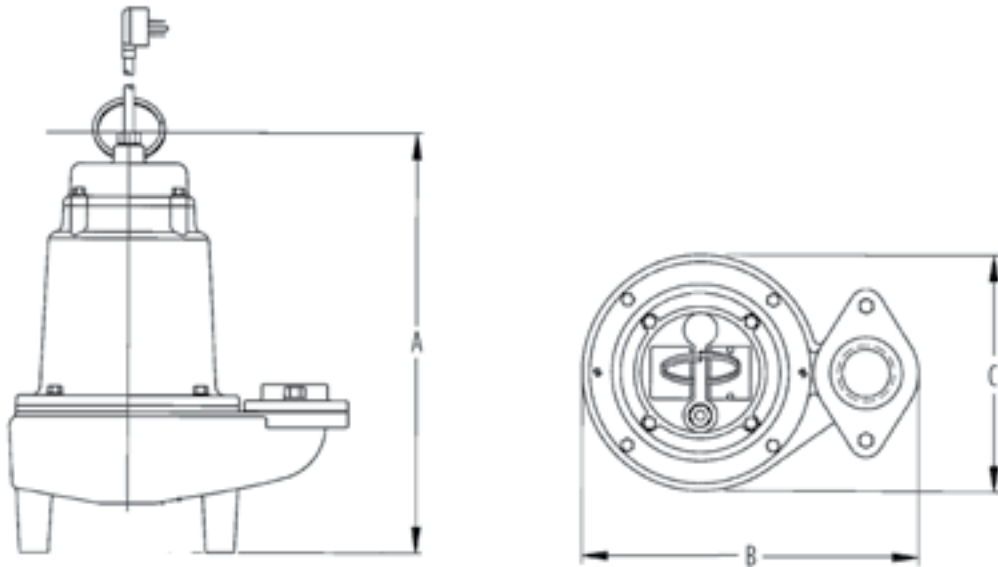
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

*** CSA only

EFFLUENT PUMPS

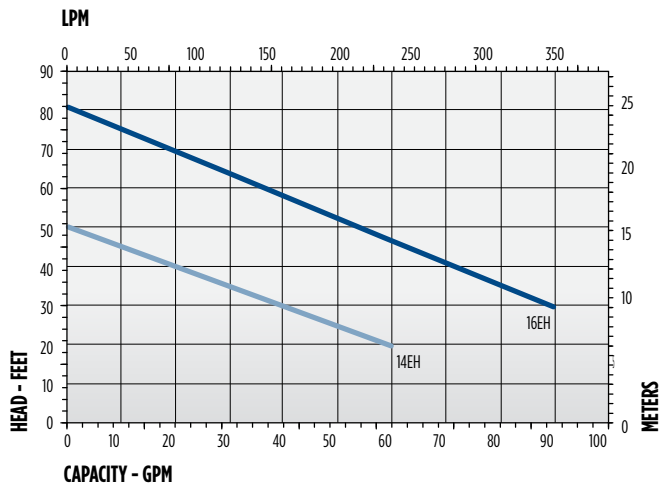
14EH/16EH SERIES - 1/2 HP, 1 HP

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	

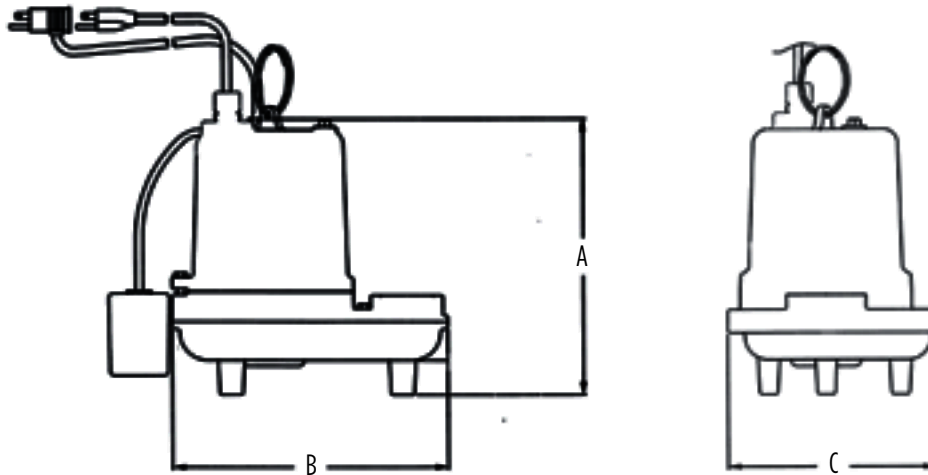
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

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

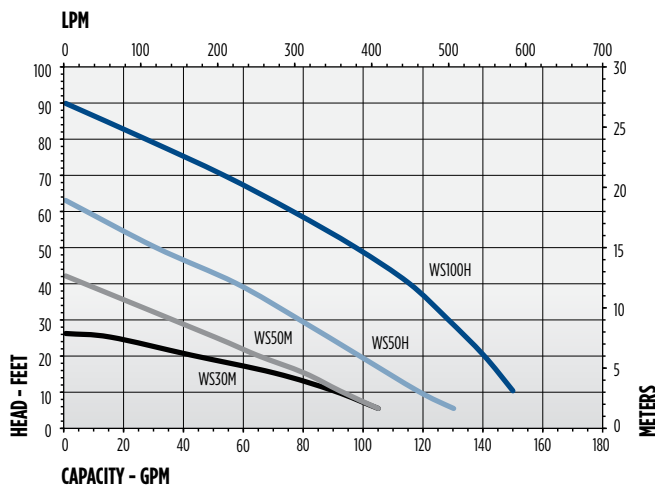
WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

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

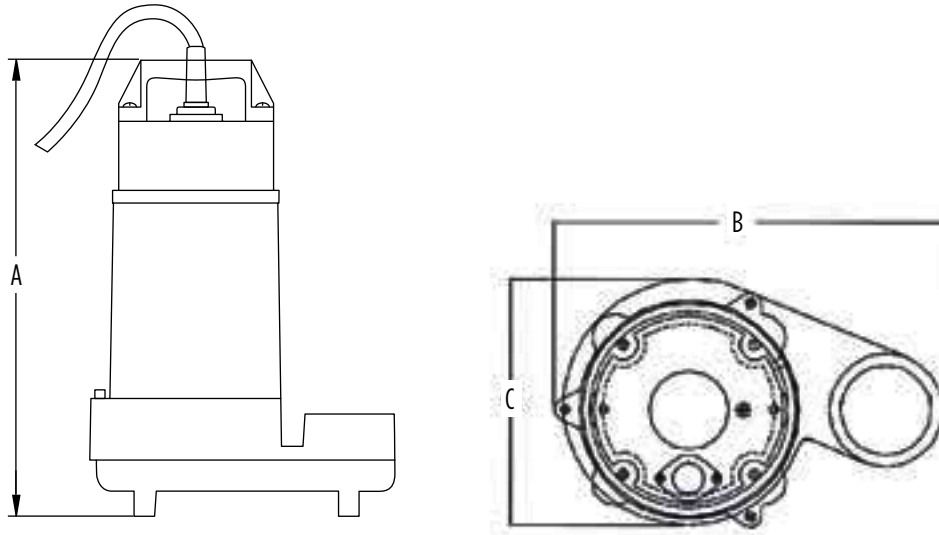
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		20'	25'	30'	35'	40'		
115	60	10.2	39	1100	83	74	62	48	30	45	19.5

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

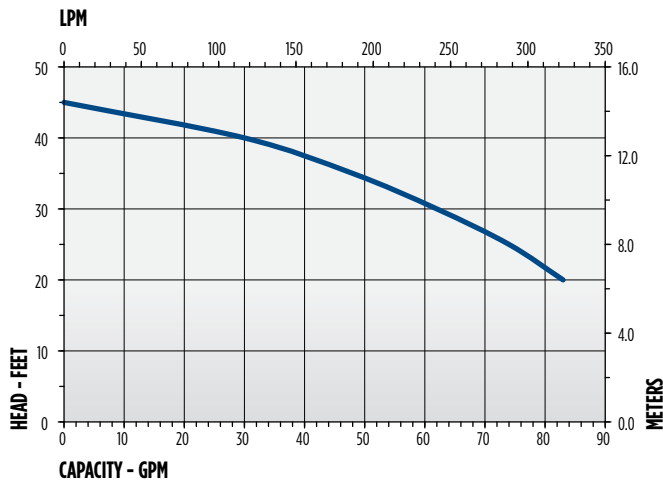
WSV50 EFFLUENT SERIES - 1/2 HP

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

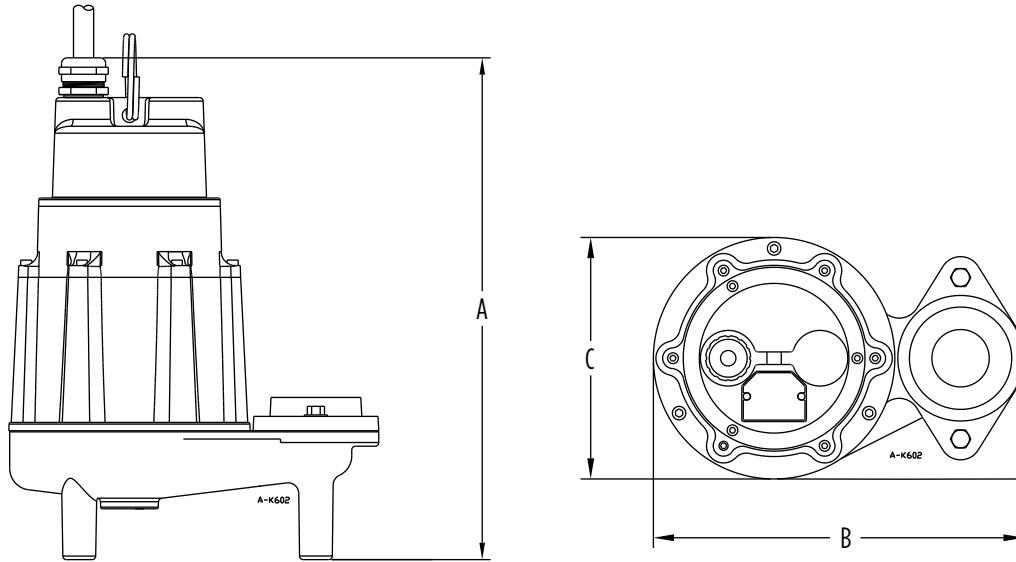
* Single-phase pumps can use a mechanical float switch or a single-phase control panel for automatic on/off

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

EFFLUENT PUMPS

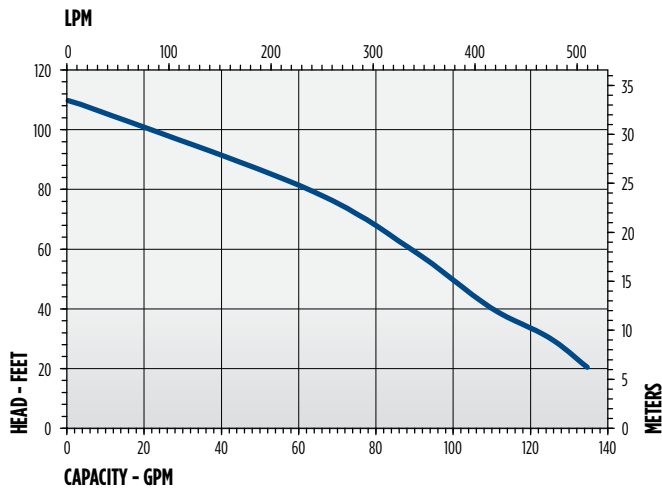
20E SERIES - 2 HP

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



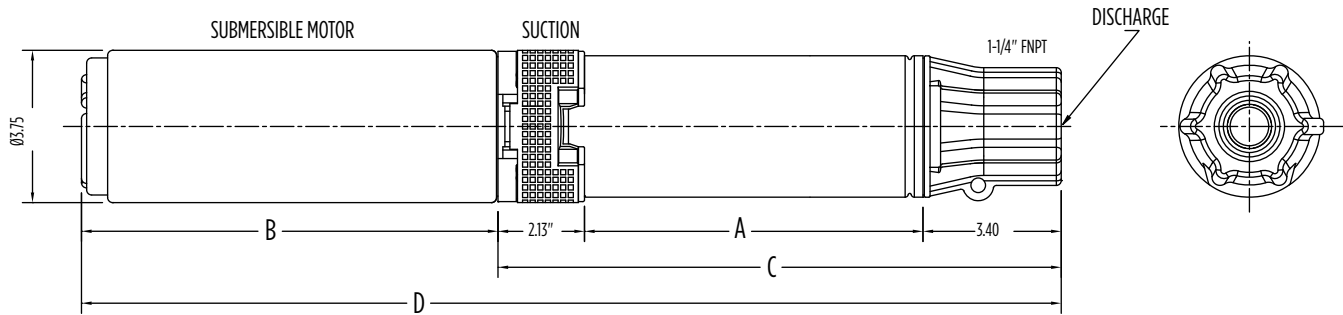
SERIES SPECIFICATIONS

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

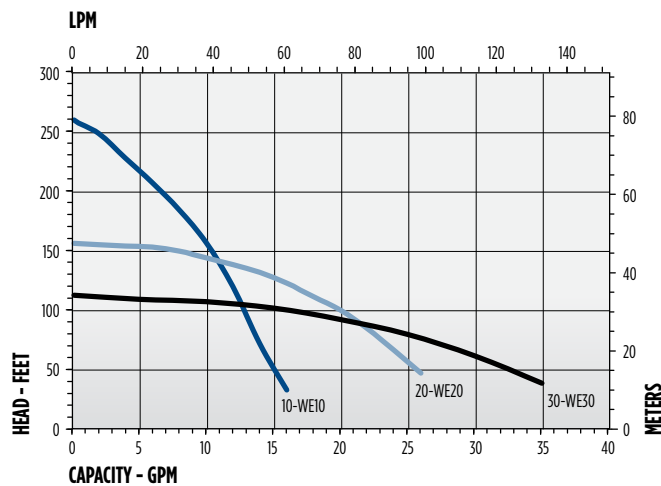
WE SERIES - 1/2 HP

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



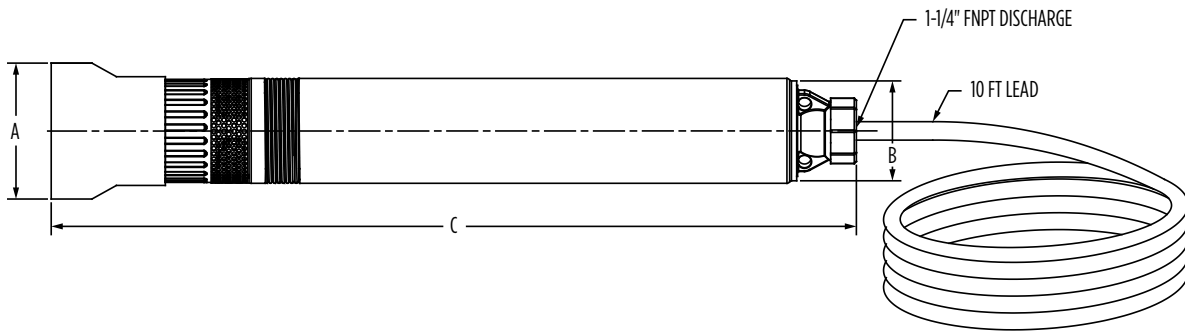
SERIES SPECIFICATIONS

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

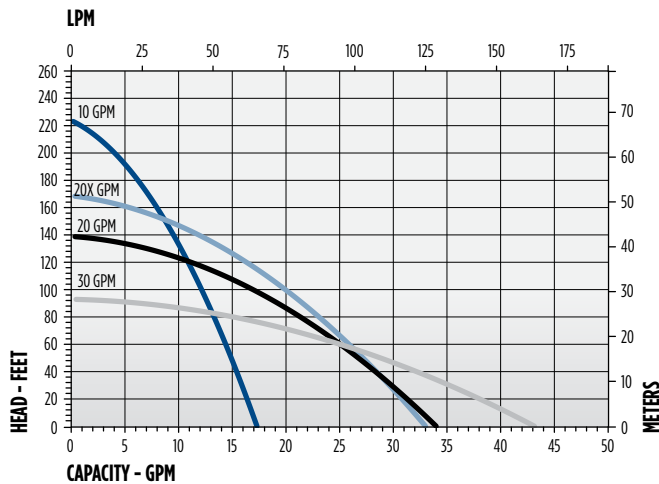
C1 SERIES - 1/2 HP

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

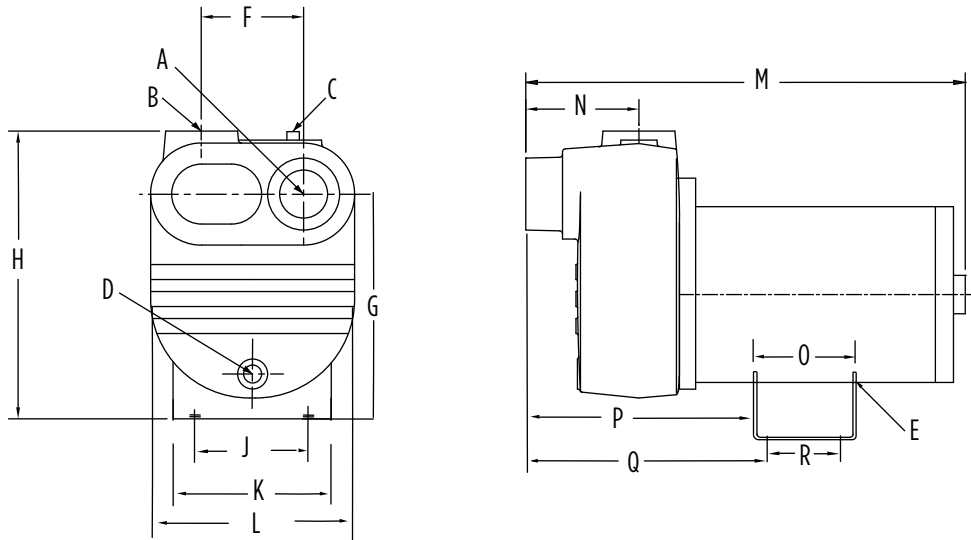
HP	Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)								Shut-Off (ft)	PSI
			FLA	Start		20'	25'	30'	35'	40'	45'	50'			
1/2	115/230	60	8.4/4.2	42/21.60	810	45	39	31	24	16	8	-	50	21.6	
3/4	115/230	60	14.3/7.1	71.5/36.2	1000	58	53	44	36	29	18	10	56	23.8	

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

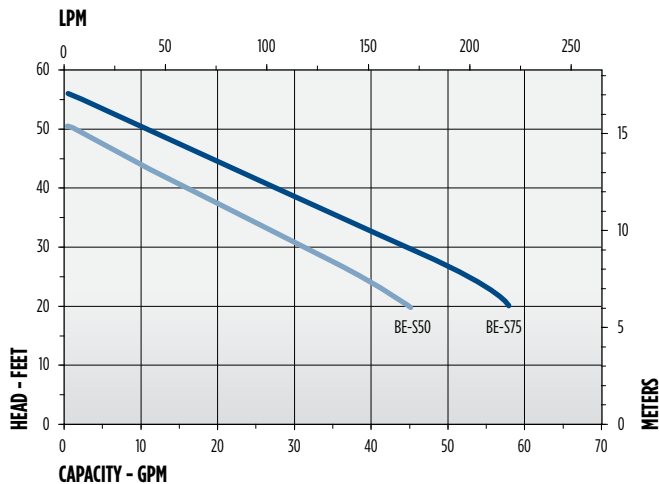
BE SERIES - 1/2 HP, 3/4 HP

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

9SN 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) 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

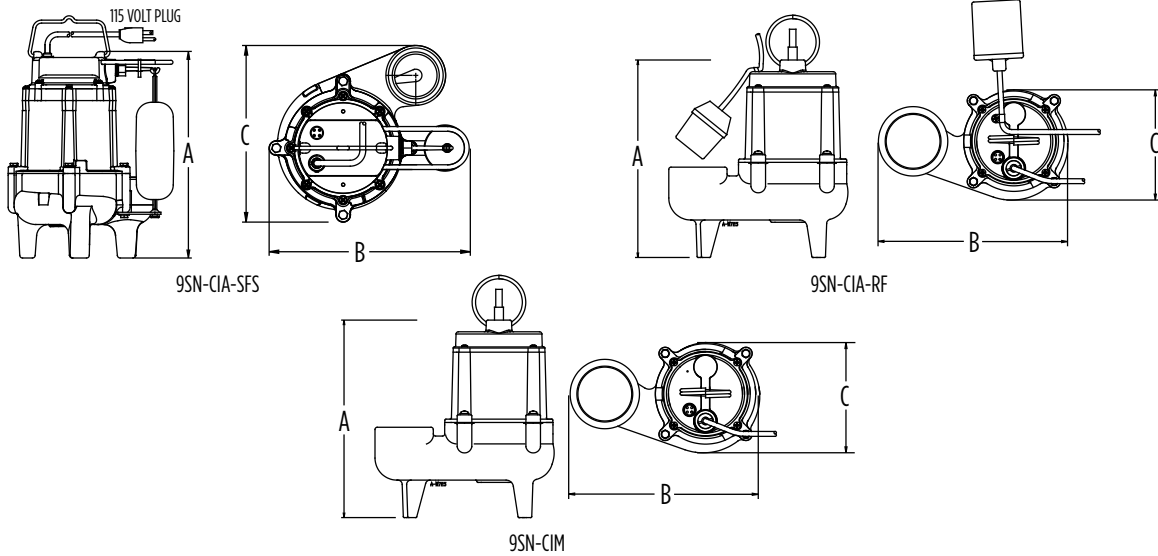
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	8.5	17	850	110	70	30	20	8.7
208/230	50/60	4	7.5	800	110	70	30	20	8.7

Item No.	Model	HP	Volts	Discharge	Switch Type/ Operation	On Level	Off Level	Cord	Weight
509228	9SN-CIA-SFS	4/10	115	2"	Integral Snap-Action Float	9" - 12" 22.26 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	38.5 lbs 17.5 kg
509204	9SN-CIA-RF	4/10	115	2"	Piggyback Mechanical Float	13.5" - 15.5" 34.29 cm - 39.37 cm	7" - 9" 17.78 cm - 22.86 cm	20' 6.1 m	38.4 lbs 17.4 kg
509215	9SN-CIA-RF	4/10	115	3"	Piggyback Mechanical Float	13.5" - 15.5" 34.29 cm - 39.37 cm	7" - 9" 17.78 cm - 22.86 cm	20' 6.1 m	38.4 lbs 17.4 kg
509226	9SN-CIM	4/10	115	3"	Manual	-	-	20' 6.1 m	36 lbs 16.3 kg
509203	9SN-CIM	4/10	115	2"	Manual	-	-	20' 6.1 m	36 lbs 16.3 kg
509217	9SN-CIM	4/10	208-230	2"	Manual	-	-	20' 6.1 m	36 lbs 16.3 kg
509227	9SN-CIM	4/10	208-230	3"	Manual	-	-	20' 6.1 m	36 lbs 16.3 kg

SEWAGE PUMPS

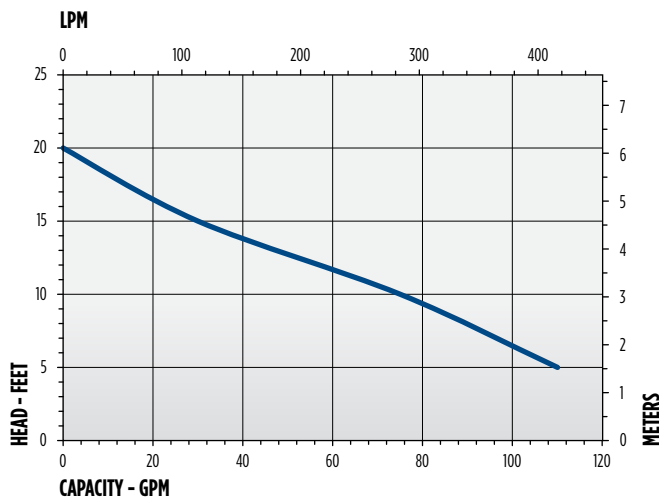
9SN SERIES - 4/10 HP

ENGINEERING DATA



Model	A	B	C
9SN-CIA-SFS	13.12" 33.33 cm	10.54" 26.77 cm	9.25" 23.5 cm
9SN-CIA-RF	11.4" 28.96 cm	11.64" 29.5 cm	6.8" 17.27 cm
9SN-CIM	11.4" 28.96 cm	11.64" 29.5 cm	6.8" 17.27 cm

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' 9SN-CIA-RF and 9SN-CIM models

10SN 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

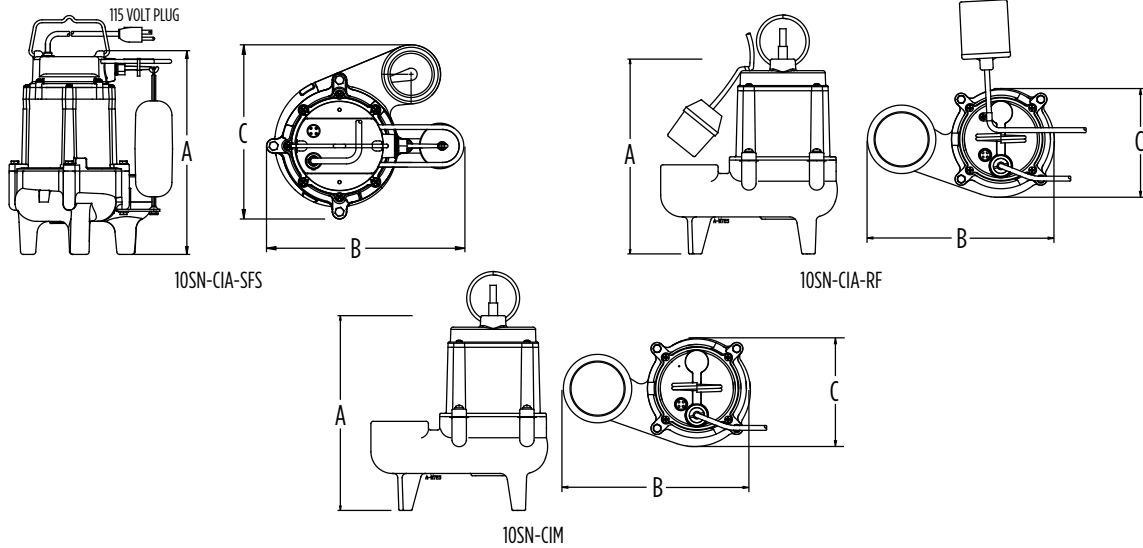
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	9.5	17	1000	120	95	70	25	10.9
208/230	50/60	4.5	7.5	900	120	95	70	25	10.8

Item No.	Model	HP	Volts	Discharge	Switch Type/Operation	On Level	Off Level	Cord	Weight
511346	10SN-CIA-SFS	1/2	115	2"	Integral Snap-Action Float	9" - 12" 22.26 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	37.5 lbs 17.5 Kg
511323	10SN-CIA-RF	1/2	115	2"	Piggyback Mechanical Float	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	20' 6.1 m	36.5 lbs 16.56 Kg
511326	10SN-CIA-RF	1/2	115	3"	Piggyback Mechanical Float	9" - 14" 22.86 cm - 35.56 cm	2" - 6" 5 cm - 15.24 cm	20' 6.1 m	37.5 lbs 17.5 Kg
511344	10SN-CIM	1/2	115	3"	Manual	-	-	20' 6.1 m	36.5 lbs 16.56 Kg
511322	10SN-CIM	1/2	115	2"	Manual	-	-	20' 6.1 m	35.5 lbs 16.1 Kg
511328	10SN-CIM	1/2	208-230	2"	Manual	-	-	20' 6.1 m	36 lbs 16.33 Kg
511345	10SN-CIM*	1/2	208-230	3"	Manual	-	-	20' 6.1 m	36 lbs 16.33 Kg

SEWAGE PUMPS

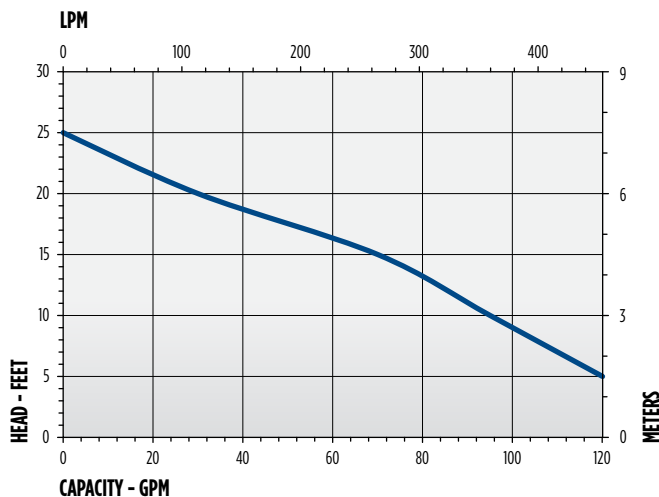
10SN SERIES - 1/2 HP

ENGINEERING DATA



Model	A	B	C
10SN-CIA-SFS	13.12" 33.33 cm	10.54" 26.77 cm	9.25" 23.5 cm
10SN-CIA-RF	11.4" 28.96 cm	11.64" 29.5 cm	6.8" 17.27 cm
10SN-CIM	11.4" 28.96 cm	11.64" 29.5 cm	6.8" 17.27 cm

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 sintered sleeve and lower ball bearings
Power Cord	SJTW **SJTOW

* On SFS models

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

WSV52 SERIES - 1/2 HP

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

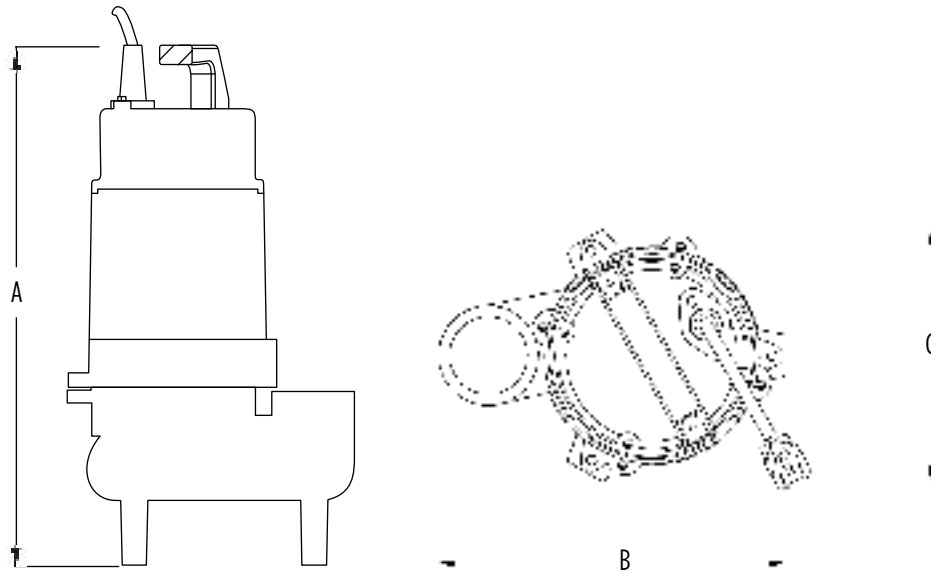
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)				Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'	20'		
115	60	6	12	650	90	75	57	35	25	10.8

Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
620236	WSV52HAM	1/2	115	Piggyback Mechanical Float Switch	Adjustable	Adjustable	20' 6.1 m	57 lbs 25.85 Kg
620235	WSV52HM	1/2	115	Manual	-	-	20' 6.1 m	55 lbs 24.95 Kg

SEWAGE PUMPS

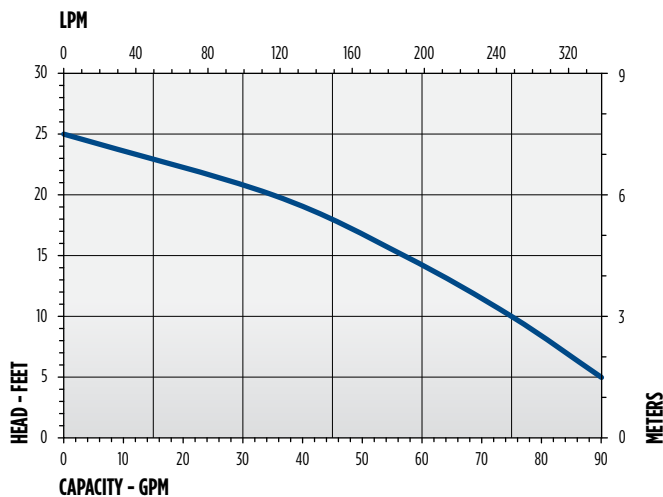
WSV52 SERIES - 1/2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

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

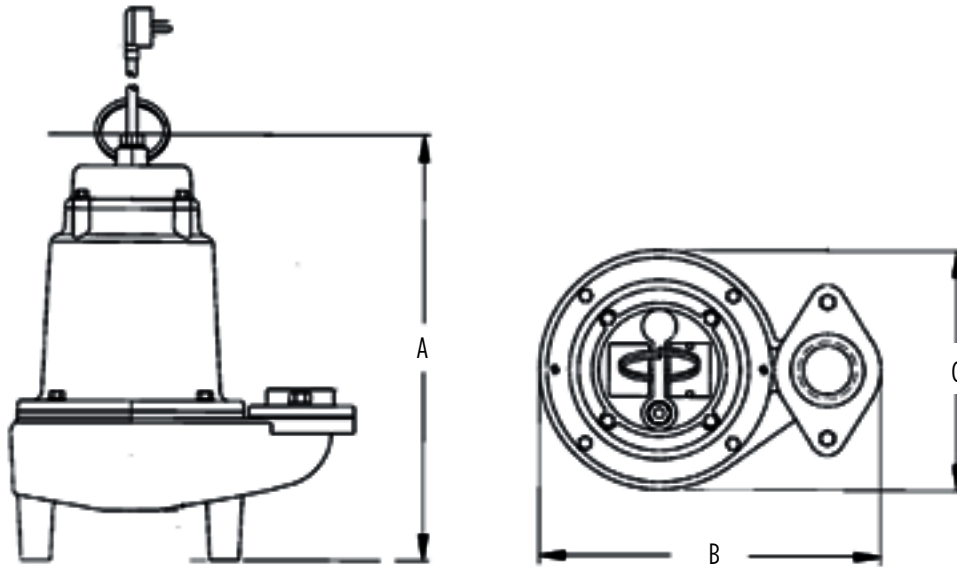
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)		Shut-Off (ft)	PSI
		FLA	Start		10'	20'		
115	60	11.6	21	1100	100	35	25	10.8
208-240	60	4.6	7.8	1100	100	35	25	10.8

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

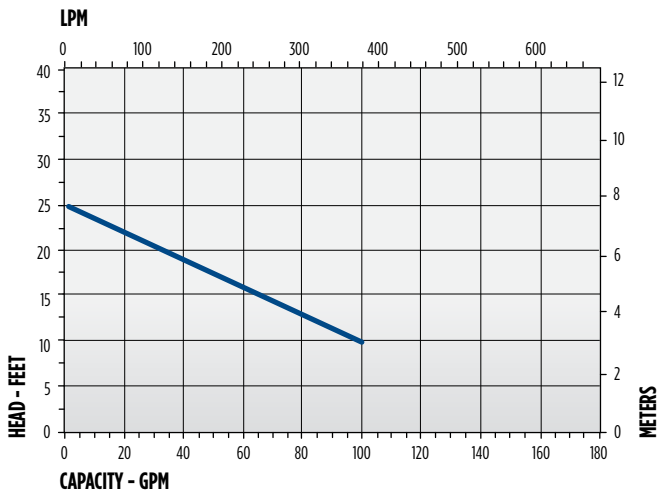
14S SERIES - 1/2 HP

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

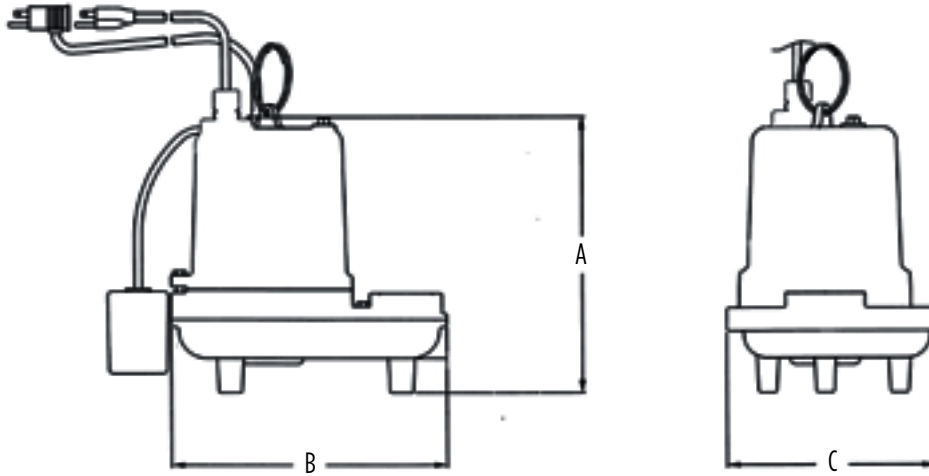
** Three-phase pumps must have a three-phase control panel for automatic or manual operation

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

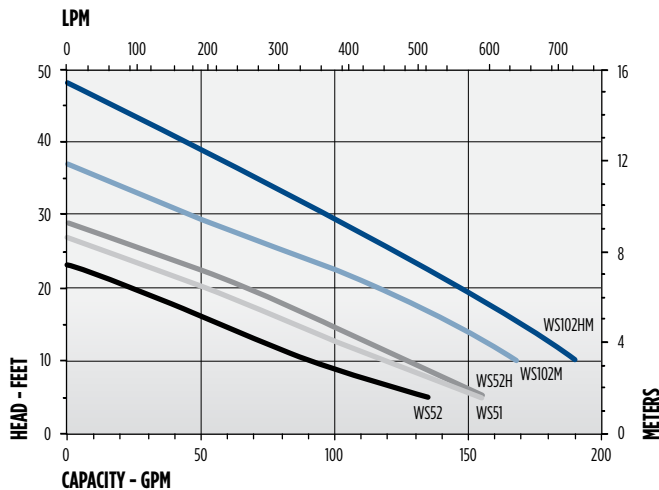
WS SERIES - 1/2 HP, 1 HP

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

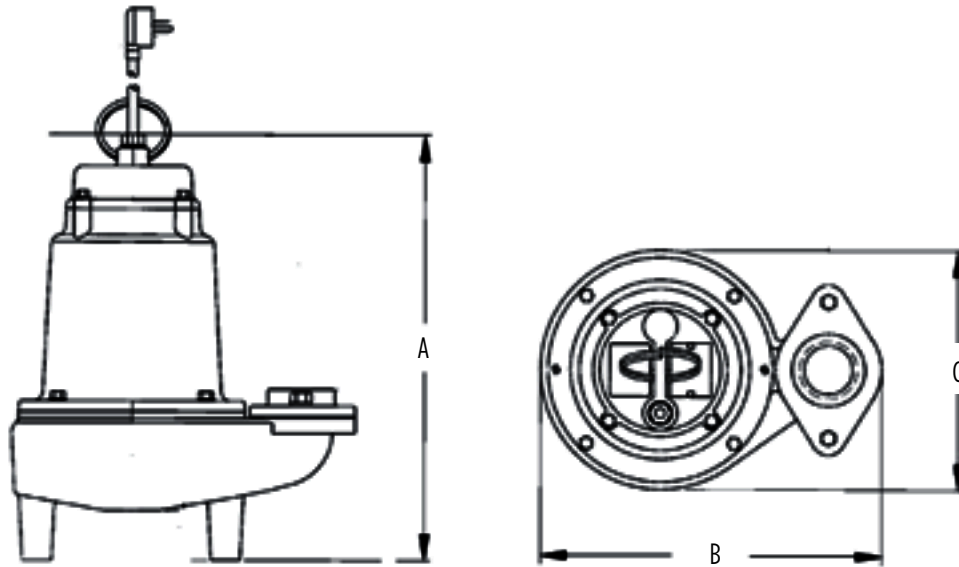
Item No.	Model	HP	Volts	Phase	Switch Type/ Operation	Cord	Weight
514750	16S-CIM	1	200-208	3**	Manual	20' 6.1 m	88 lbs 39.92 Kg
514625	16S-CIM	1	200-208	1	Manual	20' 6.1 m	88 lbs 39.92 Kg
514620	16S-CIM	1	230	1	Manual	20' 6.1 m	94 lbs 42.64 Kg
514720	16S-CIM	1	230	3**	Manual	20' 6.1 m	89 lbs 40.37 Kg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

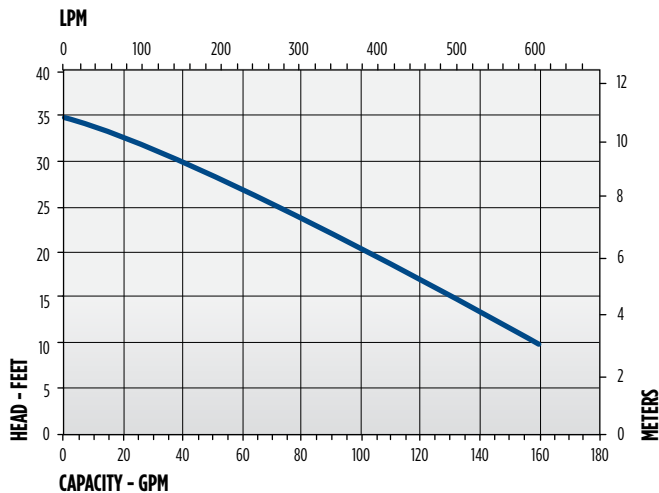
16S SERIES - 1 HP

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

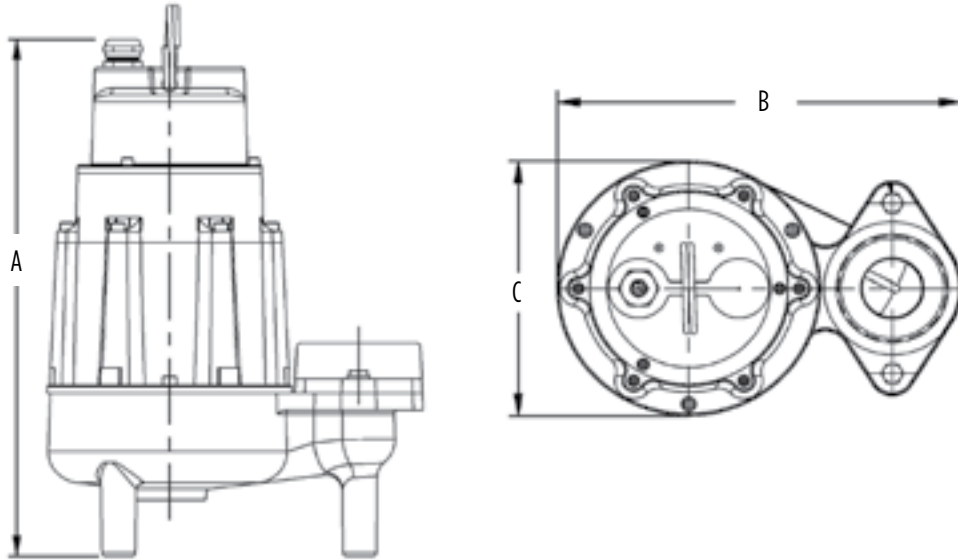
Item No.	Model	HP	Volts	Phase	Switch Type/ Operation	Cord	Weight
520300	18S-CIM	1-1/2	208	1	Manual	20' 6.1 m	94 lbs 42.64 Kg
520302	18S-CIM	1-1/2	200-208	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520301	18S-CIM	1-1/2	230	1	Manual	20' 6.1 m	96 lbs 43.54 Kg
520303	18S-CIM	1-1/2	230	3**	Manual	20' 6.1 m	94 lbs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

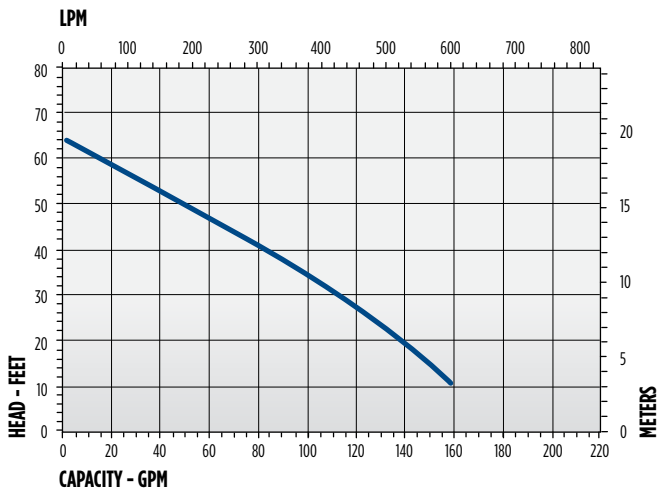
18S SERIES - 1-1/2 HP

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

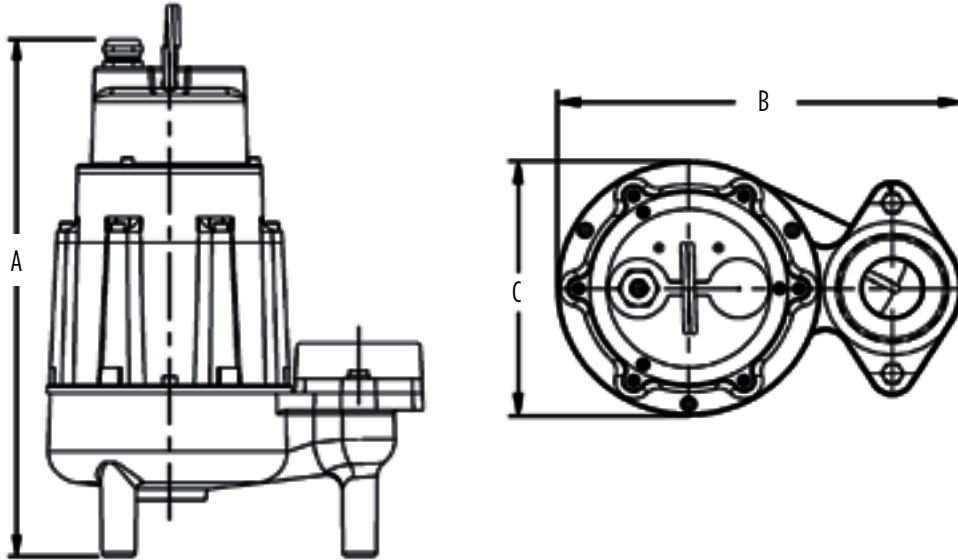
Item No.	Model	HP	Volts	Phase	Switch Type/Operation	Cord	Weight
520125	20S-CIM	2	200-208	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520100	20S-CIM	2	208-230	1	Manual	20' 6.1 m	96 lbs 43.54 Kg
520150	20S-CIM	2	230	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg
520175	20S-CIM	2	460	3**	Manual	20' 6.1 m	96 lbs 43.54 Kg

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

SEWAGE PUMPS

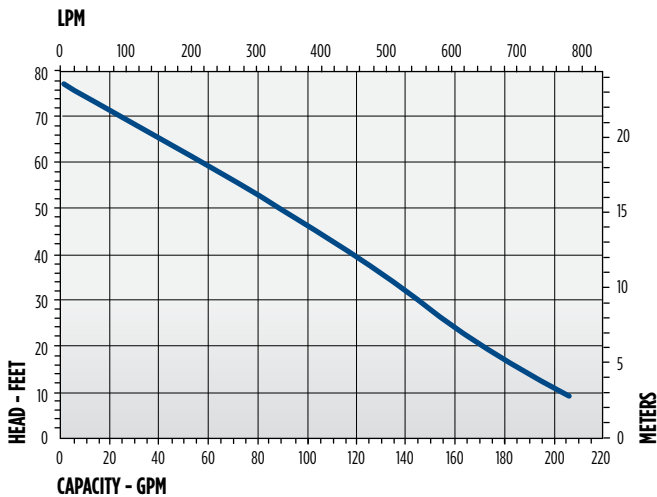
20S SERIES - 2 HP

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
509673	9JF2V2D	2"	2"	Float	-	4/10
509674	9JF2V2DA1	2"	2"	Float	Indoor	4/10
509675	9JF2V2DA3	2"	2"	Float	Indoor/Outdoor	4/10
509676	9JF2V3D	2"	3"	Float	-	4/10
509677	9JF2V3DA1	2"	3"	Float	Indoor	4/10
509678	9JF2V3DA3	2"	3"	Float	Indoor/Outdoor	4/10
509679	9JF3V2D	3"	2"	Float	-	4/10
509680	9JF3V2DA1	3"	2"	Float	Indoor	4/10
509681	9JF3V2DA3	3"	2"	Float	Indoor/Outdoor	4/10
509682	9JF3V3D	3"	3"	Float	-	4/10
509683	9JF3V3DA1	3"	3"	Float	Indoor	4/10
509684	9JF3V3DA3	3"	3"	Float	Indoor/Outdoor	4/10
509687	9JP2V2D	2"	2"	ECM	-	4/10
509688	9JP2V2DA1	2"	2"	ECM	Indoor	4/10
509691	9JP3V2D	3"	2"	ECM	-	4/10

511673	10JF2V2D	2"	2"	Float	-	1/2
511674	10JF2V2DA1	2"	2"	Float	Indoor	1/2
511675	10JF2V2DA3	2"	2"	Float	Indoor/Outdoor	1/2
511676	10JF2V3D	2"	3"	Float	-	1/2
511677	10JF2V3DA1	2"	3"	Float	Indoor	1/2
511678	10JF2V3DA3	2"	3"	Float	Indoor/Outdoor	1/2
511679	10JF3V2D	3"	2"	Float	-	1/2
511680	10JF3V2DA1	3"	2"	Float	Indoor	1/2
511681	10JF3V2DA3	3"	2"	Float	Indoor/Outdoor	1/2
511682	10JF3V3D	3"	3"	Float	-	1/2
511683	10JF3V3DA1	3"	3"	Float	Indoor	1/2
511684	10JF3V3DA3	3"	3"	Float	Indoor/Outdoor	1/2
511687	10JP2V2D	2"	2"	ECM	-	1/2
511688	10JP2V2DA1	2"	2"	ECM	Indoor	1/2

Note: Check valve not included.

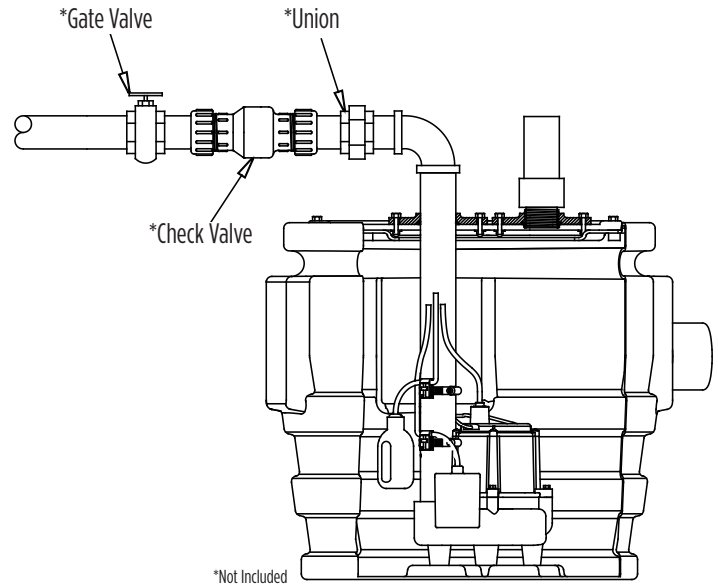
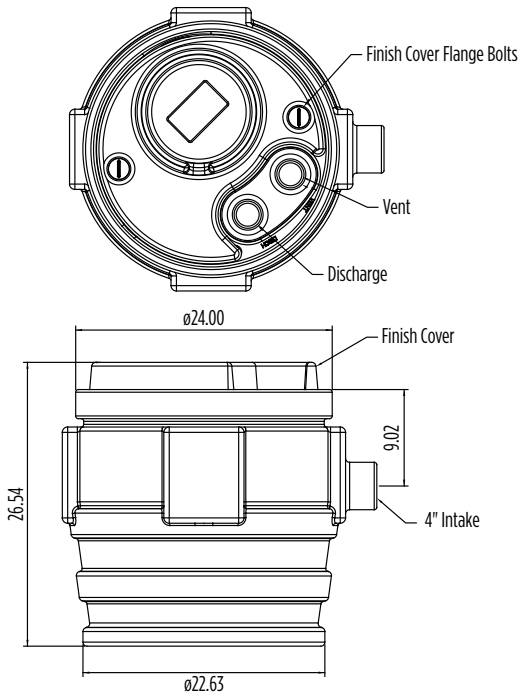


Basin Assemblies			
Item No.	Model No.	Vent	Discharge
513615	PPJ2V2D	2"	2"
513616	PPJ2V3D	2"	3"
513617	PPJ3V3D	3"	3"
513618	PPJ3V2D	3"	2"

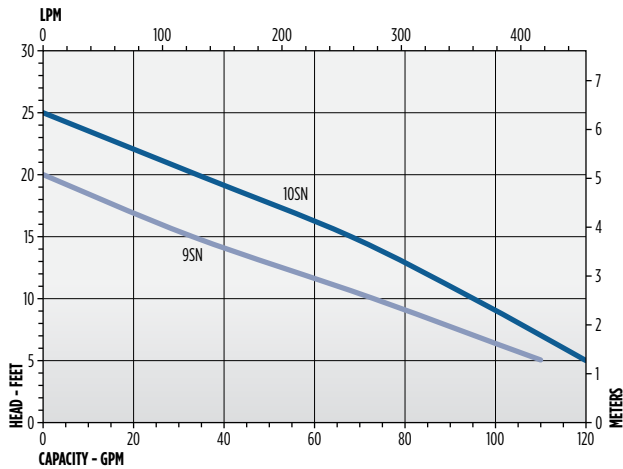
Note: Pump and switch assembly not included.

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
509661	9SF2V2D	2"	2"	Float	-	4/10
509662	9SF2V2DA1	2"	2"	Float	Indoor	4/10
509663	9SF2V2DA3	2"	2"	Float	Indoor/Outdoor	4/10
509664	9SF2V3D	2"	3"	Float	-	4/10
509665	9SF2V3DA1	2"	3"	Float	Indoor	4/10
509666	9SF2V3DA3	2"	3"	Float	Indoor/Outdoor	4/10
509667	9SF3V2D	3"	2"	Float	-	4/10
509668	9SF3V2DA1	3"	2"	Float	Indoor	4/10
509669	9SF3V2DA3	3"	2"	Float	Indoor/Outdoor	4/10
509670	9SF3V3D	3"	3"	Float	-	4/10
509671	9SF3V3DA1	3"	3"	Float	Indoor	4/10
509672	9SF3V3DA3	3"	3"	Float	Indoor/Outdoor	4/10
509685	9SP2V2D	2"	2"	ECM	-	4/10
509686	9SP2V2DA1	2"	2"	ECM	Indoor	4/10

511661	10SF2V2D	2"	2"	Float	-	1/2
511662	10SF2V2DA1	2"	2"	Float	Indoor	1/2
511663	10SF2V2DA3	2"	2"	Float	Indoor/Outdoor	1/2
511664	10SF2V3D	2"	3"	Float	-	1/2
511665	10SF2V3DA1	2"	3"	Float	Indoor	1/2
511666	10SF2V3DA3	2"	3"	Float	Indoor/Outdoor	1/2
511667	10SF3V2D	3"	2"	Float	-	1/2
511668	10SF3V2DA1	3"	2"	Float	Indoor	1/2
511669	10SF3V2DA3	3"	2"	Float	Indoor/Outdoor	1/2
511670	10SF3V3D	3"	3"	Float	-	1/2
511671	10SF3V3DA1	3"	3"	Float	Indoor	1/2
511672	10SF3V3DA3	3"	3"	Float	Indoor/Outdoor	1/2
511685	10SP2V2D	2"	2"	ECM	-	1/2
511686	10SP2V2DA1	2"	2"	ECM	Indoor	1/2

Note: Check valve not included.

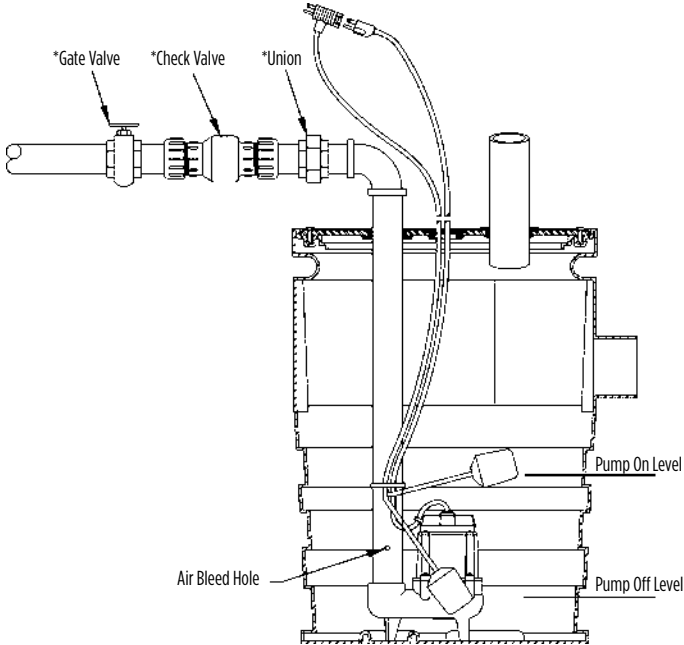
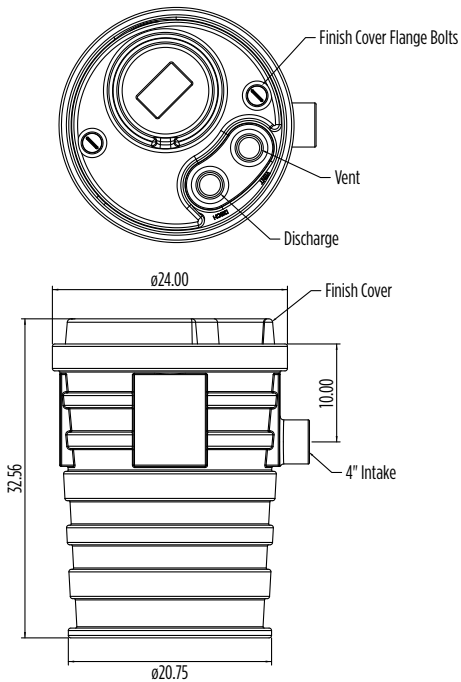


Basin Assemblies			
Item No.	Model No.	Vent	Discharge
513611	PPS2V2D	2"	2"
513612	PPS2V3D	2"	3"
513613	PPS3V3D	3"	3"
513614	PPS3V2D	3"	2"

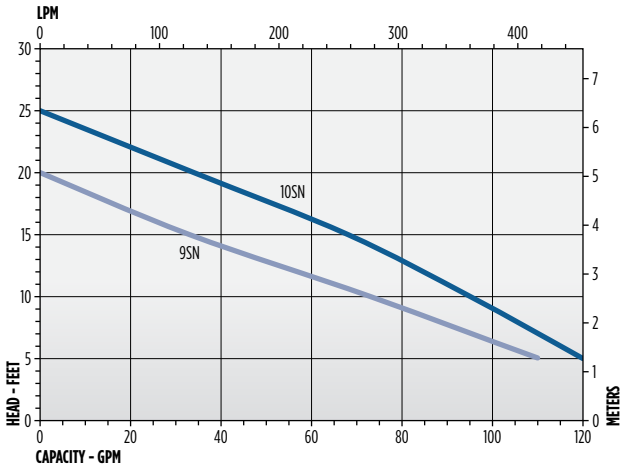
Note: Pump and switch assembly not included.

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)



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	509204	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	509204	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	509204	115	4/10	940022 2" - 51 mm
509029	9S-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	509215	115	4/10	940022 2" - 51 mm
509030	9S-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	509215	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	509209	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	509204	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	509204	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	509204	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	509204	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	509204	115	4/10	-
509069	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	3" 76 mm	509215	115	4/10	940023 3" - 76 mm
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	509204	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	509204	115	4/10	940022 2" - 51 mm
509076	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" 51 mm	3" 76 mm	509215	115	4/10	-
509078	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" 51 mm	3" 76 mm	509215	115	4/10	940023 3" - 76 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	511323	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	509215	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	
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	509215	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	511323	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	511323	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	511323	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	511323	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	511323	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	511344	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	511326	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	511326	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	511323	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)

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	509203	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	509203	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	509203	115	4/10	940022 2" 51 mm	-
509075	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	3" 76 mm	509215	115	4/10	-	-
509077	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" 51 mm	3" 76 mm	509215	115	4/10	940023 3" 76 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	509203	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	511323	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	511323	115	1/2	940022 2" 51 mm	513288 Indoor High Water
620054	WSV52S-FP	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	620236	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)

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
513119	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 (READY TO INSTALL)

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	509203	115	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940698	9S-DPLX	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	2" 51 mm	2" 51 mm	509217	208-230	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940728	9S-DPLX	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	2" 51 mm	3" 76mm	509226	115	4/10	940023 3" - 76 mm	513258 1221W120H6A17A
14940729	9S-DPLX	24" x 36" 61 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	2" 51 mm	3" 76mm	509227	208-230	4/10	940023 3" - 76 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	511322	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	511328	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	511344	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	511345	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	509203	115	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940703	9S-DPLX	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	2" 51 mm	2" 51 mm	509217	208-230	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940731	9S-DPLX	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	3" 76mm	3" 76mm	509226	115	4/10	940023 3" - 76 mm	513258 1221W120H6A17A
14940732	9S-DPLX	30" x 36" 76 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	3" 76mm	3" 76mm	509227	208-230	4/10	940023 3" - 76 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	511322	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	511328	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	511344	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	511345	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 (READY TO INSTALL) [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-DLX	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	509203	115	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940714	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	509217	208-230	4/10	940022 2" - 51 mm	513258 1221W120H6A17A
14940734	9S-DPLX	36" x 36" 91.4 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	3" 76mm	3" 76mm	509226	115	4/10	940023 3" - 76 mm	513258 1221W120H6A17A
14940735	9S-DPLX	36" x 36" 91.4 cm x 91.4 cm	Structural Foam	Cast Iron	1-Piece	Steel	3" 76mm	3" 76mm	509227	208-230	4/10	940023 3" - 76 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	511345	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	511322	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	511328	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	511344	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-DLX	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

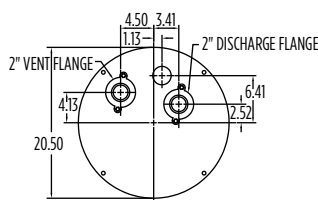
Item No.	Model
113075	4" cast iron hub

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

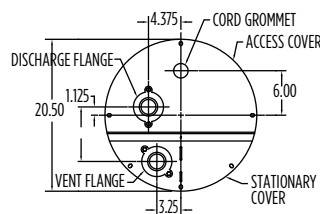
Item No.	Model
113076	4" vinyl hub
113081	8" cast iron hub

ENGINEERING DATA

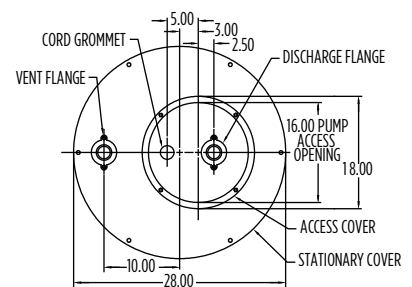
18" X 30" COVER



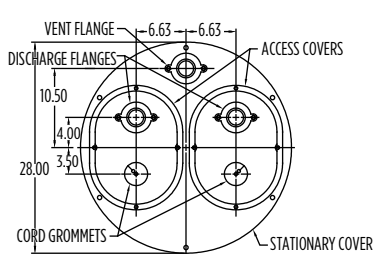
18" X 30" COVER



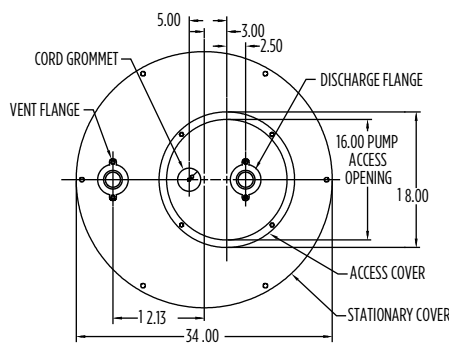
24" X 36" SIMPLEX COVER



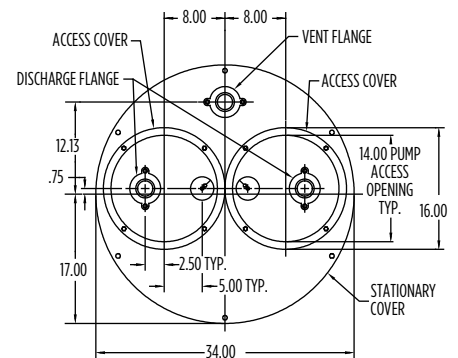
24" X 36" DUPLEX COVER



30" X 36" SIMPLEX COVER



30" X 36" DUPLEX COVER

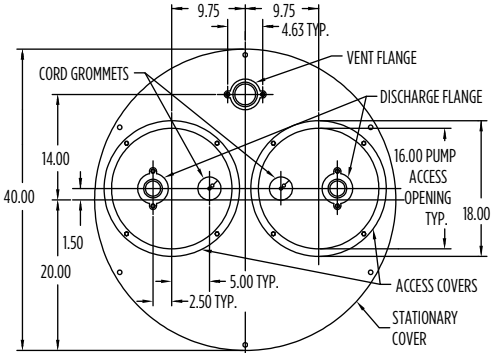


PACKAGE SYSTEMS

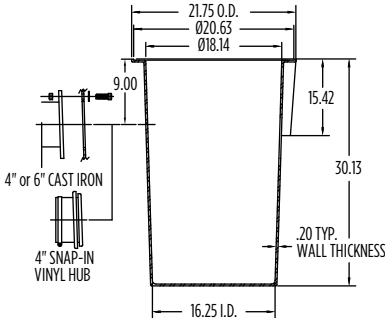
SIMPLEX AND DUPLEX SYSTEMS

ENGINEERING DATA

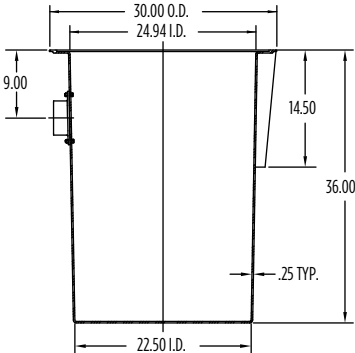
36" X 36" DUPLEX COVER



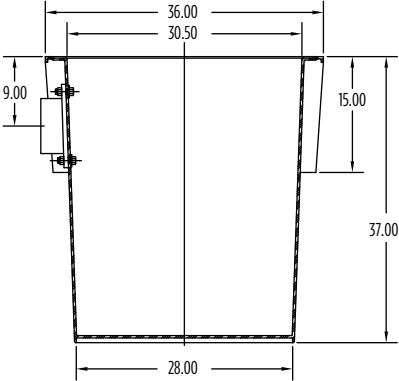
18" X 30" BASIN



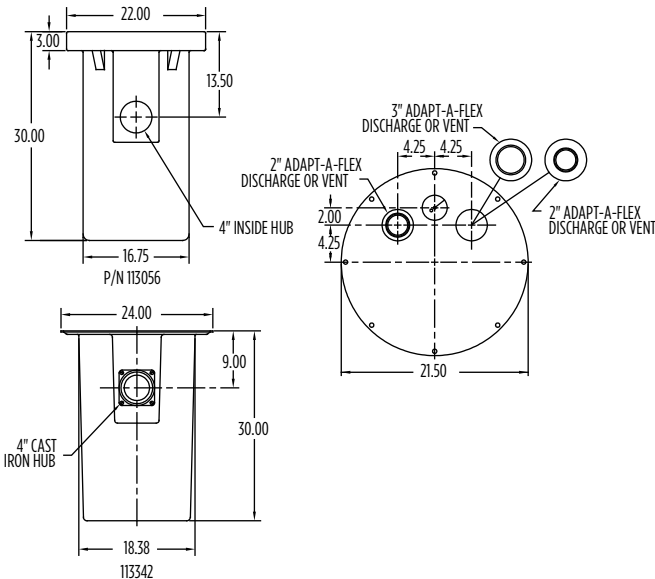
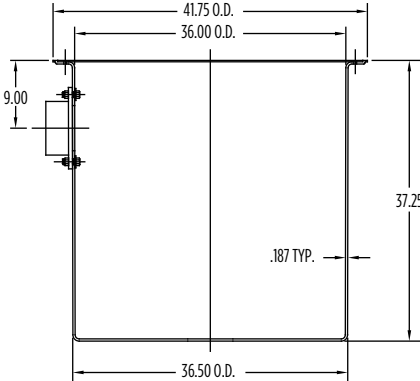
24" X 30" BASIN



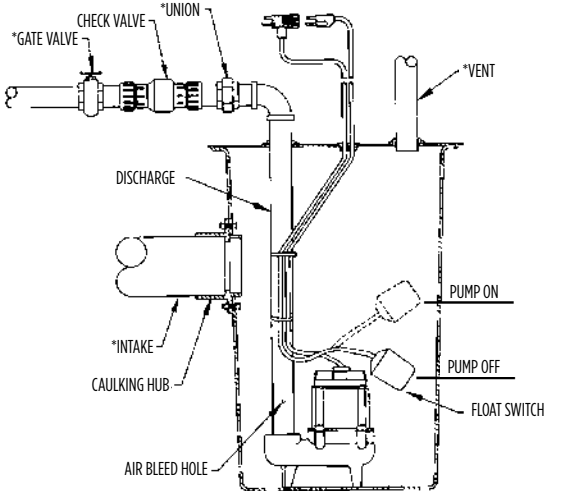
30" X 36" BASIN



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	Cover	Pump HP	Pump Performance
509081	WCR-9SP	Structural Foam	4/10	110 gpm @ 5' 416.4 lpm @ 1.5 m
509082	WCR-9SS	Steel	4/10	110 gpm @ 5' 416.4 lpm @ 1.5 m

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

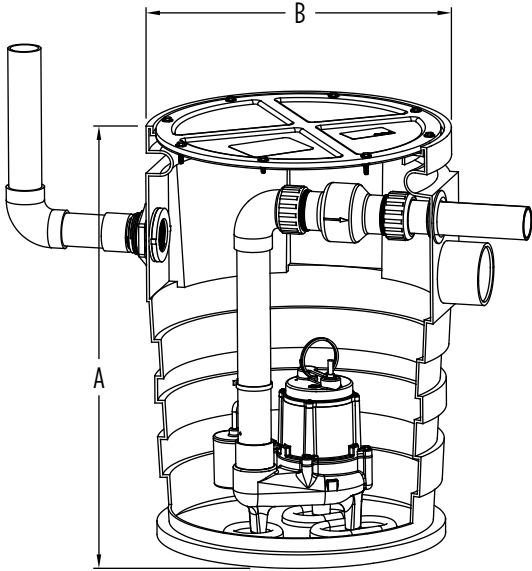
PUMP SPECIFICATIONS

Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)			Shut-Off (ft)	PSI
		FLA	Start		5'	10'	15'		
115	60	8.5	17	850	110	70	30	20	8.7
208/230	50/60	4	7.5	800	110	70	30	20	8.7

Item No.	Model	HP	Volts	Discharge	Switch Type/ Operation	On Level	Off Level	Cord	Weight
509228	9SN-CIA-SFS	4/10	115	2"	Integral Snap-Action Float	9" - 12" 22.26 cm - 30.48 cm	3" - 6" 7.62 cm - 15.24 cm	20' 6.1 m	35.5 lbs 16.1 Kg
509204	9SN-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
509215	9SN-CIA-RF	4/10	115	3"	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
509226	9SN-CIM	4/10	115	3"	Manual	-	-	20' 6.1 m	35.5 lbs 16.1 Kg
509203	9SN-CIM	4/10	115	2"	Manual	-	-	20' 6.1 m	34.5 lbs 15.65 Kg
509217	9SN-CIM	4/10	208-230	2"	Manual	-	-	20' 6.1 m	36 lbs 16.33 Kg
509227	9SN-CIM	4/10	208-230	3"	Manual	-	-	20' 6.1 m	36 lbs 16.33 Kg

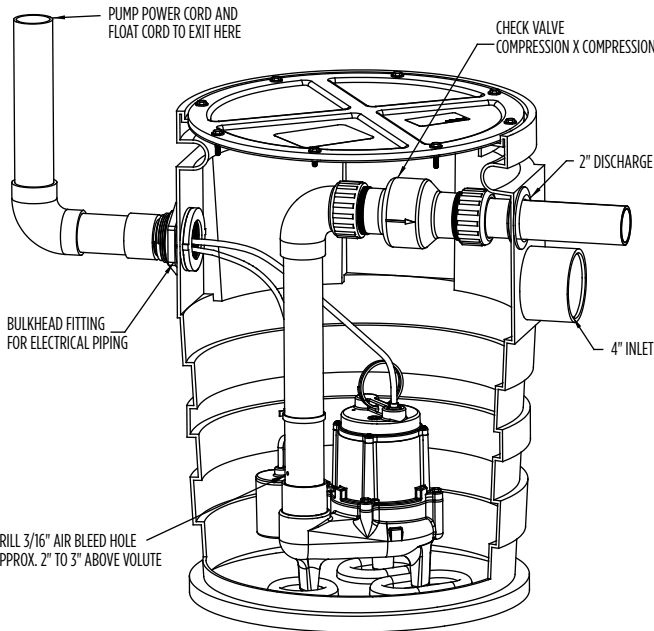
WCR SERIES - WATER COLLECTION & REMOVAL SYSTEMS

ENGINEERING DATA

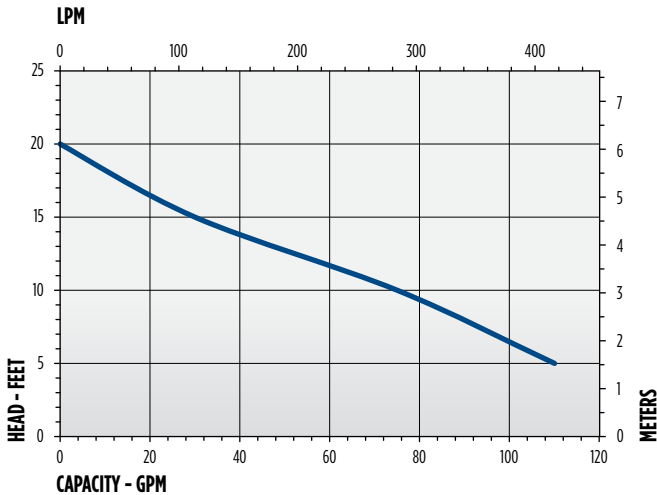


A	B
30"	22"
76.2 cm	55.88 cm

TYPICAL INSTALLATION



PERFORMANCE DATA



GP-M SERIES - 2 HP

APPLICATIONS

Ideal for residential sewage waste transfer where high head conditions exist

FEATURES

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

Shown with optional leg kit 599078 - GLK



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

SERIES SPECIFICATIONS

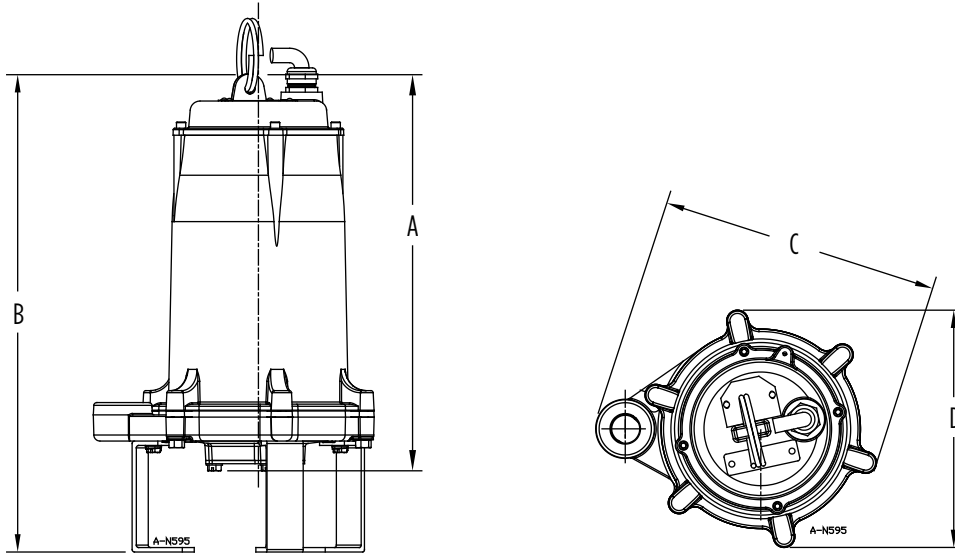
Item No.	Model	Listing	HP	Volts	Hz	Phase	Full Load		Performance (GPM @ Head)						Shut-Off	PSI	Cord	Weight
							Amps	Watts	20'	40'	60'	80'	100'	120'				
*520862	GP-M231-15	UL/CSA	2	208-230	60	1	13.9	3200	32	31	30	25	20	10	130	56	15	81
*520864	GP-M231-30	UL/CSA	2	208-230	60	1	13.9	3200	32	31	30	25	20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

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

GRINDER PUMPS

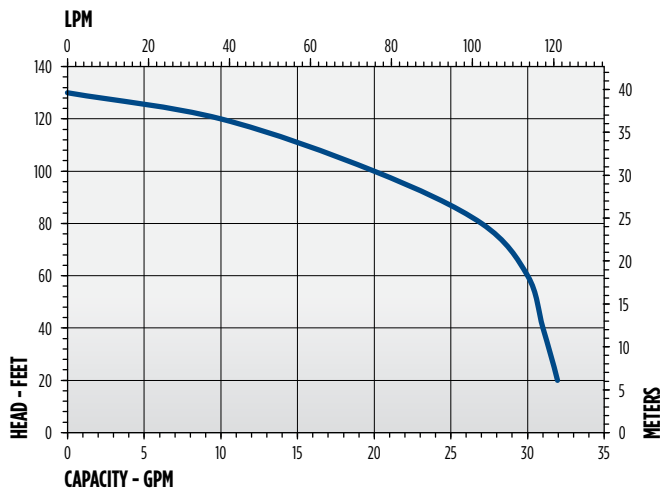
GP-M SERIES - 2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

GP-A SERIES - 2 HP

APPLICATIONS

Ideal for residential sewage waste transfer where high head conditions exist

FEATURES

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



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

SERIES SPECIFICATIONS

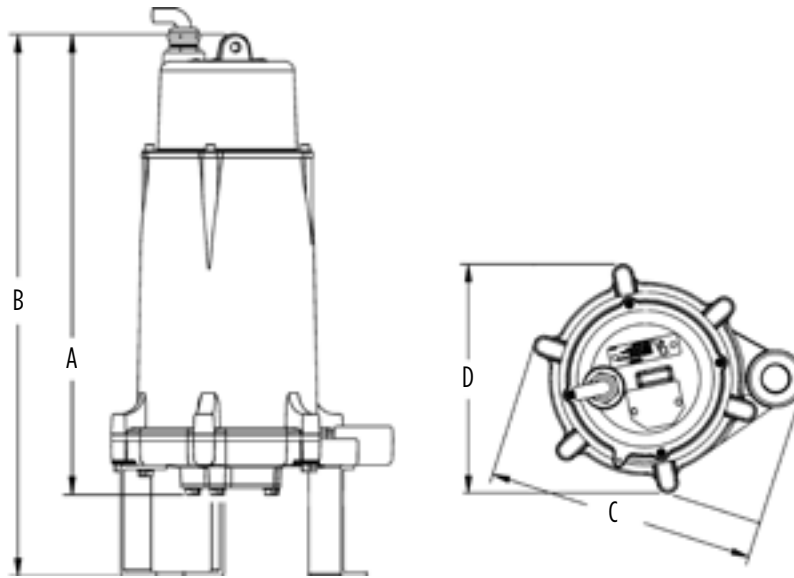
Item No.	Model	HP	Volts	Hz	Phase	Full Load		Switch Type/ Operation	Performance (GPM @ Height in Feet)						Shut-Off (ft)	PSI	Cord	Weight
						Amps	Watts		20'	40'	60'	80'	100'	120'				
520861	GP-A231-20	2	208-230	60	1	13.9	3200	Mechanical Float	32	31	30	25	20	10	130	56	20' 6.1 m	101 lbs 45.8 Kg
*520863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

*No float

GRINDER PUMPS

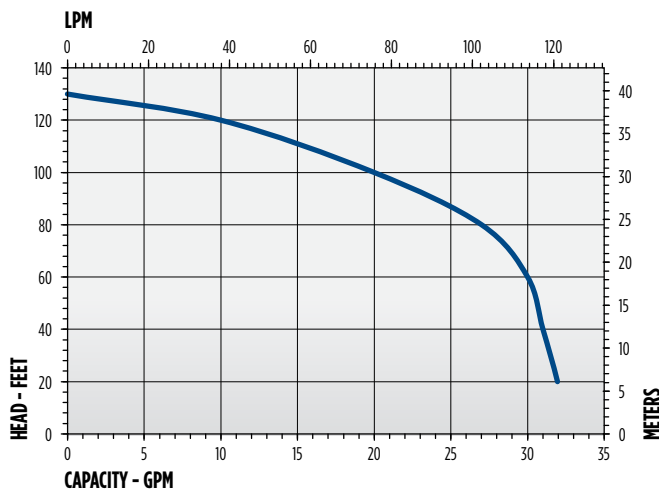
GP-A SERIES - 2 HP

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

SIMPLEX GRINDER PACKAGES

APPLICATIONS

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

FEATURES

PUMP FEATURES

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

SYSTEM FEATURES

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



SERIES SPECIFICATIONS

SIMPLEX GRINDER PACKAGE SYSTEM**

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

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

PUMPS

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

CONTROL FLOATS

Item No.	Model	Volts
950266	CFSS	115/230

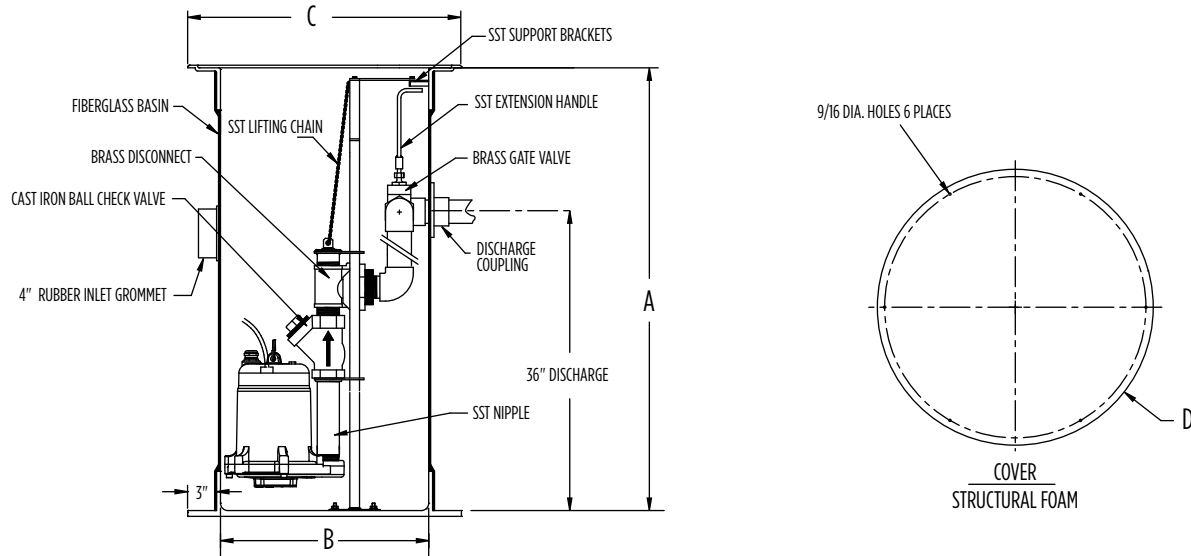
CONTROL PANEL

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

GRINDER PACKAGES

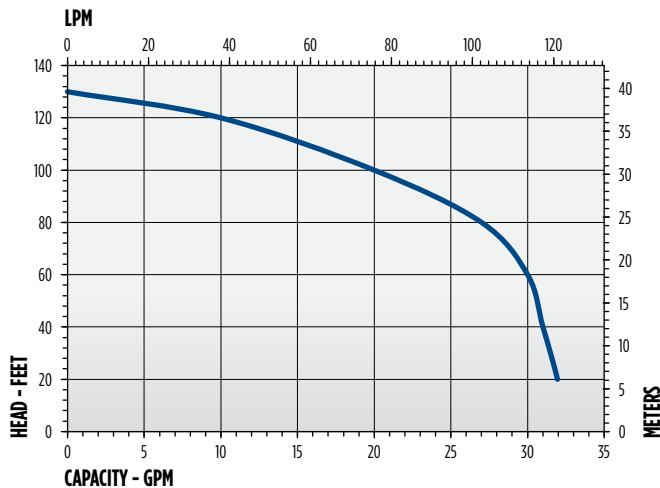
SIMPLEX GRINDER PACKAGES

ENGINEERING DATA



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

PUMP PERFORMANCE DATA



DUPLEX GRINDER PACKAGES

APPLICATIONS

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

FEATURES

PUMP FEATURES

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

SYSTEM FEATURES

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



SERIES SPECIFICATIONS

DUPLEX GRINDER PACKAGE SYSTEM**

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

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

PUMPS

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

CONTROL PANEL

Item No.	Model	Volts
513355	1026540	208/230

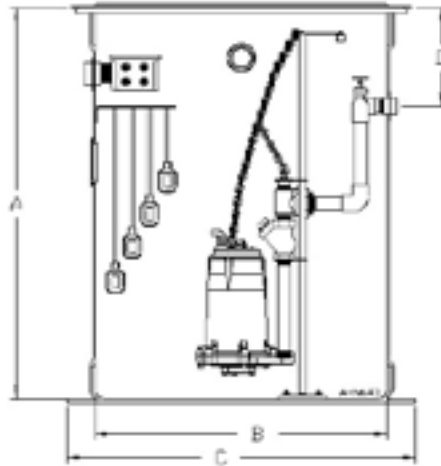
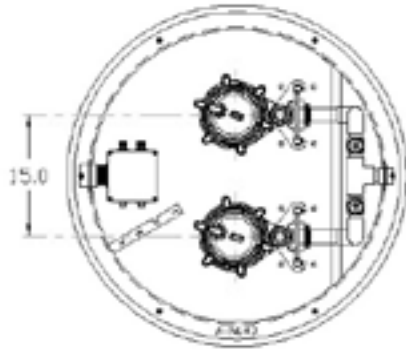
CONTROL FLOATS

Item No.	Model	Volts
950266	CFSW	115/230

GRINDER PACKAGES

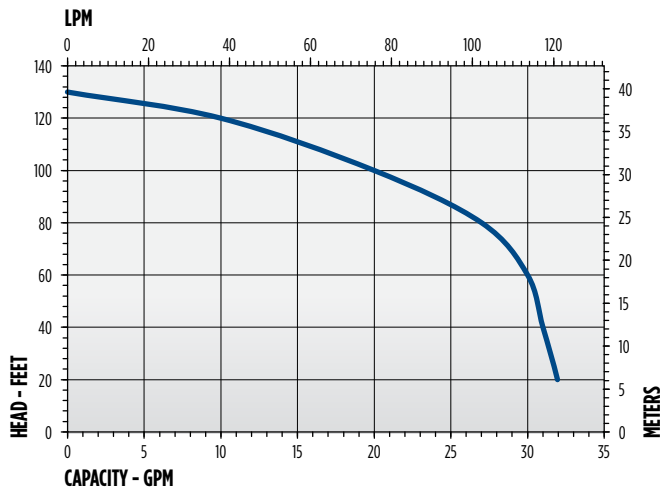
DUPLEX GRINDER PACKAGES

ENGINEERING DATA



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

PUMP PERFORMANCE DATA



SIMPLEX HARD PIPED PACKAGES

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

SIMPLEX GRINDER HARD PIPED PACKAGE SYSTEM**

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

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

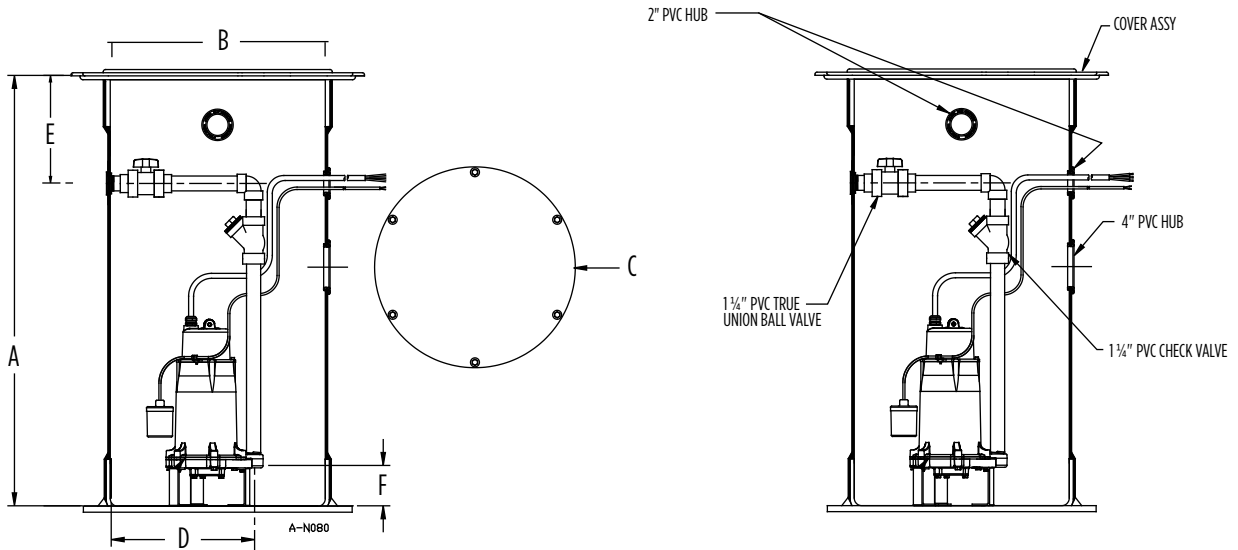
PUMP

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

GRINDER PACKAGES

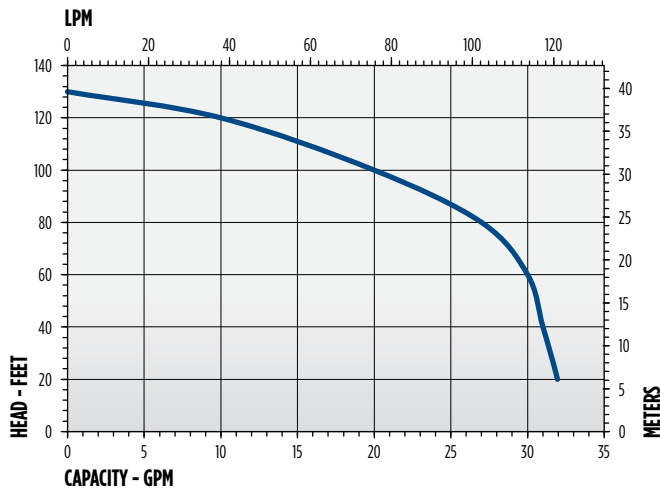
SIMPLEX HARD PIPED PACKAGES

ENGINEERING DATA



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

PUMP PERFORMANCE DATA



DUPLEX HARD PIPED PACKAGES

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

DUPLEX GRINDER HARD PIPED PACKAGE SYSTEM**

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

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

PUMP

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

CONTROL PANEL

Item No.	Model	Volts
513355	1026540	208/230

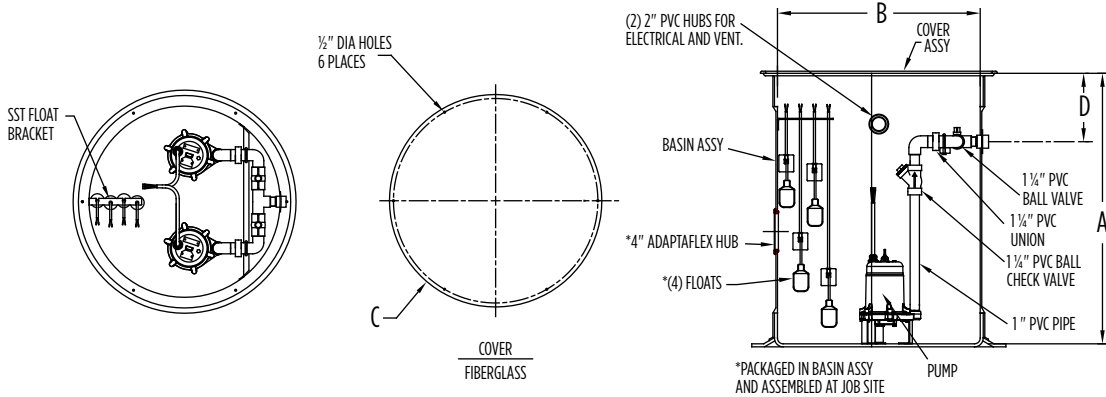
FLOATS

Item No.	Model	Volts
950266	CFSW	115/230

GRINDER PACKAGES

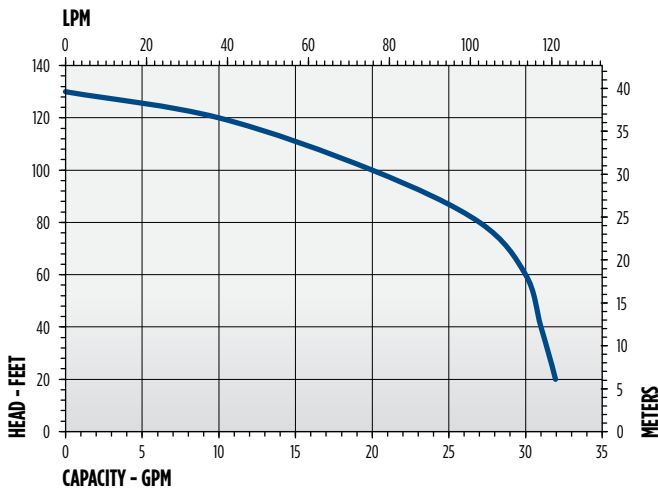
DUPLEX HARD PIPED PACKAGES

ENGINEERING DATA



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

PUMP PERFORMANCE DATA



GRINDER RETROFIT KIT

APPLICATIONS

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

FEATURES

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



SERIES SPECIFICATIONS

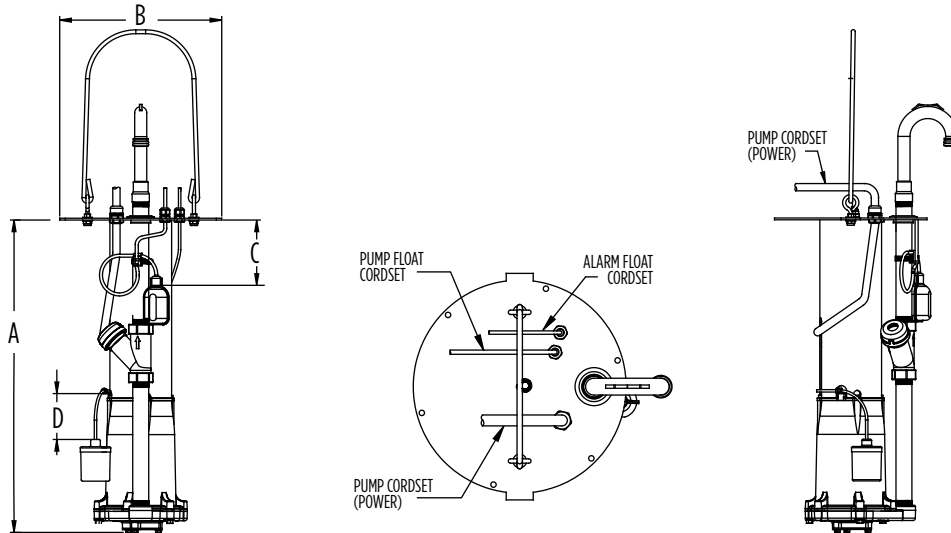
Volts	Hz	Amps		Watts	Performance (GPM @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		40'	60'	80'	100'	120'		
208-230	60	13.9	65	3200	31	30	25	20	10	130	56

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

GRINDER PACKAGES

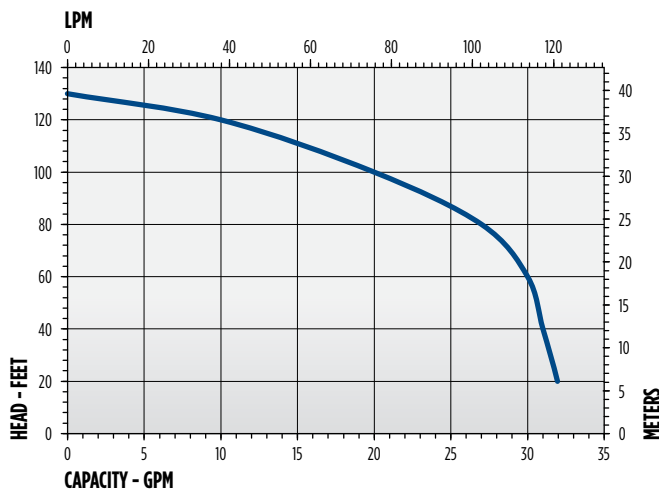
GRINDER RETROFIT KIT

ENGINEERING DATA



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

PERFORMANCE DATA



CONSTRUCTION

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

ACCESSORIES

PIGGYBACK DIAPHRAGM SWITCH

APPLICATIONS

- Converts manual pumps to automatic operation

FEATURES

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



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

PIGGYBACK MECHANICAL VERTICAL FLOAT SWITCH

APPLICATIONS

- Converts manual pumps to automatic operation

FEATURES

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



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

PIGGYBACK MECHANICAL FLOAT SWITCH

APPLICATIONS

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

FEATURES

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



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


ACCESSORIES

DOUBLE-FLOAT PIGGYBACK MECHANICAL FLOAT SWITCH

APPLICATIONS

- Pump control

FEATURES

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



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

VERTICAL DIAPHRAGM SWITCH

APPLICATIONS

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

FEATURES

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



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

SUMP PUMP SWITCH REPAIR KIT

APPLICATIONS

- Switch repair kit

FEATURES

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



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

SUMP PUMP DISCHARGE KITS

APPLICATIONS

- Discharging water out of the basement sump

FEATURES

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



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

ACCESSORIES

HWAB ALARM

APPLICATIONS

- Indoor high water alarm

FEATURES

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



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

303HWXT ALARM

APPLICATIONS

- Indoor/outdoor high water alarm

FEATURES

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



Item No.	Model	Volts
513273	303HWXT	115

INDOOR DUPLEX PUMP CONTROL ALTERNATOR AND ALARM SYSTEM

APPLICATIONS

- Switch repair kit

FEATURES

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



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

LOW VOLTAGE WATER ALARM

APPLICATIONS

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

FEATURES

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



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

ACCESSORIES

CONTROLS (SIMPLEX SYSTEMS)

APPLICATIONS

- Indoor/outdoor simplex alarm system and pump control

FEATURES

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



SINGLE-PHASE

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

THREE-PHASE

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

CONTROLS (DUPLEX SYSTEMS)

APPLICATIONS

- Indoor/outdoor duplex alarm system and pump control

FEATURES

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

SINGLE-PHASE

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

THREE-PHASE

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

JUNCTION BOXES

APPLICATIONS

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

FEATURES

- NEMA 4X waterproof fiberglass thermoplastic enclosure



Item No.	Model
513281	JB66-3

LG PLUGGER

APPLICATIONS

- For wiring a pumping station installation

FEATURES

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



Item No.	Model	Volts	Alarm	Float
513290	JPB120V	120	-	-
513292	JBPI20V-TA1	120	101HW	Yes
513294	JBPI20V-TAXT	120	303HWXT	Yes
513295	JBPI230V-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-112NPT	1-1/2" 38 mm
599133	CVCI-2NPT	2" 51 mm
599134	CVCI-3NPT	3" 76 mm

CAST IRON SLIP X SLIP UNION CHECK VALVE

FEATURES

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



Item No.	Model
599135	CVCI-2

ACCESSORIES

CV-112 CHECK VALVE

FEATURES

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

Item No.	Model	Material
577130	CV-112	PVC



CV-114/112 CHECK VALVE

FEATURES

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

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



CV-SE CHECK VALVE

FEATURES

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

Item No.	Model	Material
940021	CV-SE	ABS



CV-SE1 CHECK VALVE

FEATURES

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

Item No.	Model	Material
940019	CV-SE1	PVC



CV-SE2 CHECK VALVE

FEATURES

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

Item No.	Model	Material
940022	CV-SE2	PVC



CV-SE3 CHECK VALVE

FEATURES

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

Item No.	Model	Material
940023	CV-SE3	PVC



CV8V-2 CHECK VALVE

FEATURES

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

Item No.	Model	Material
599160	CVBV-2	ABS



CV8V-2U CHECK VALVE

FEATURES

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

Item No.	Model	Material
599161	CVBV-2U	PVC



ACCESSORIES

GP GRINDER SERIES (CONTROL PANEL AND ALARM)

APPLICATIONS

- Designed exclusively for the GP Manual Grinder Series

FEATURES

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



SIMPLEX

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

DUPLEX

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

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

JUNCTION BOX ALARM KIT

APPLICATIONS

- Designed specifically for auto grinder installations

FEATURES

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



Item No.	Model
513297	JBAK

GP CUTTERS

APPLICATIONS

- For GP Series

Item No.	Use
14940131	Replacement Cutter Kit

CONTROL FLOATS

APPLICATIONS

- For use with control panel and alarms

FEATURES

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



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

GRINDER LEG KIT

APPLICATIONS

- Grinders

FEATURES

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



Item No.	Model	Use
599078	GLK	For GP series only

CAPACITOR KIT

APPLICATIONS

- For GP series

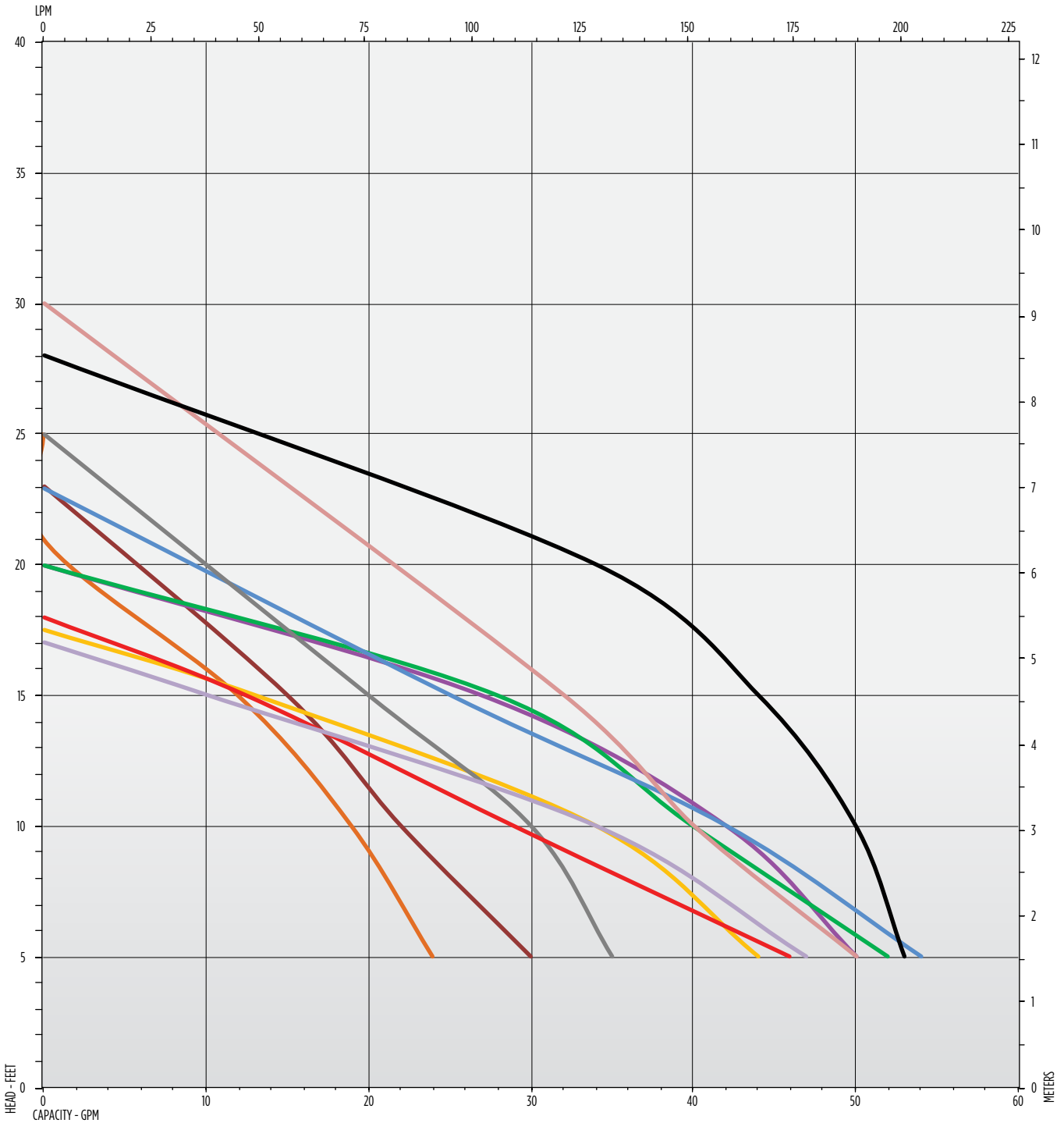
FEATURES

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

Item No.	Volt Range
520859	208-230

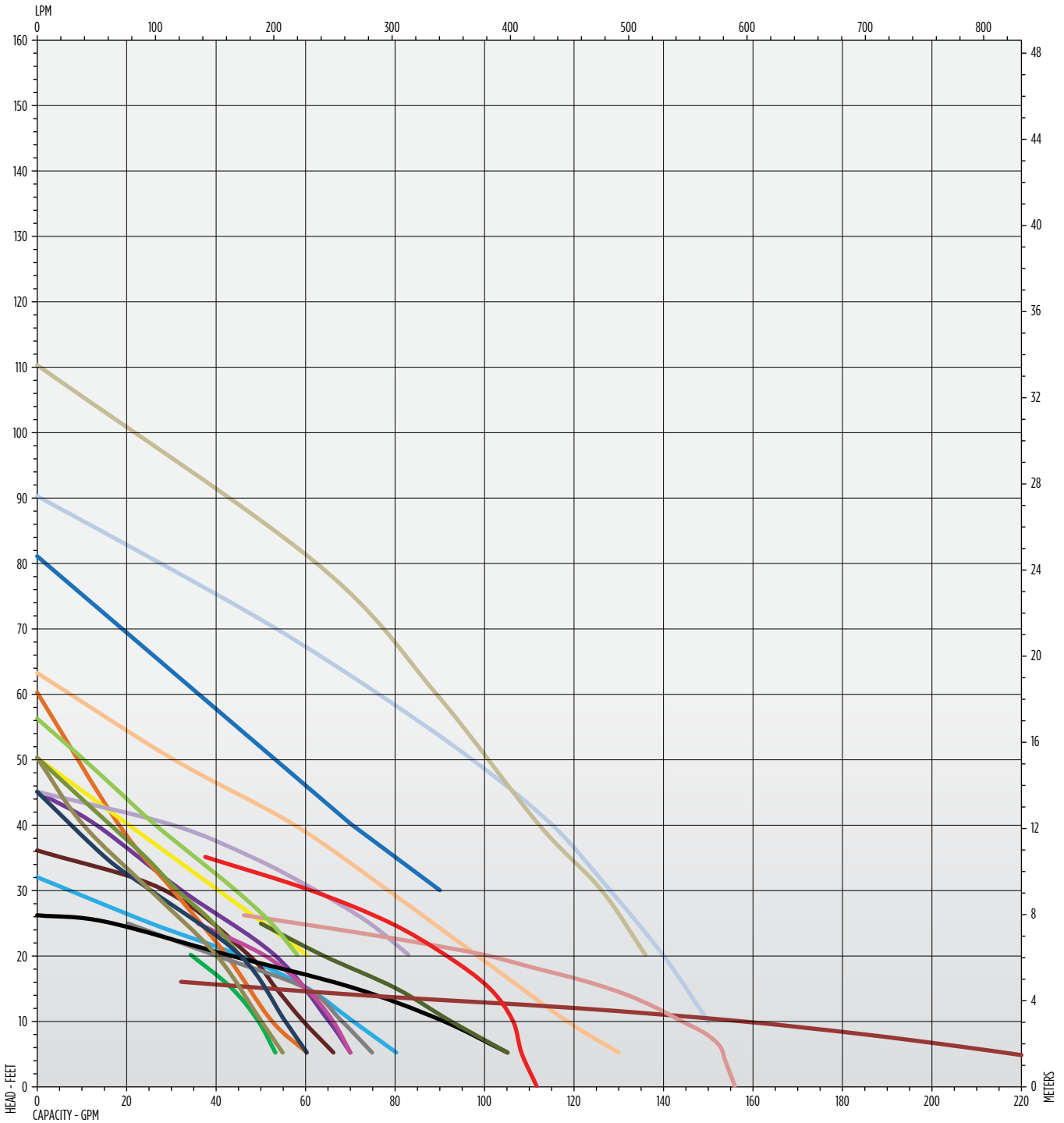
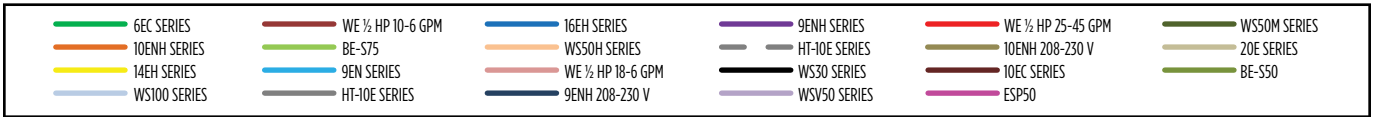
COMPOSITE CURVES

SUMP CURVES



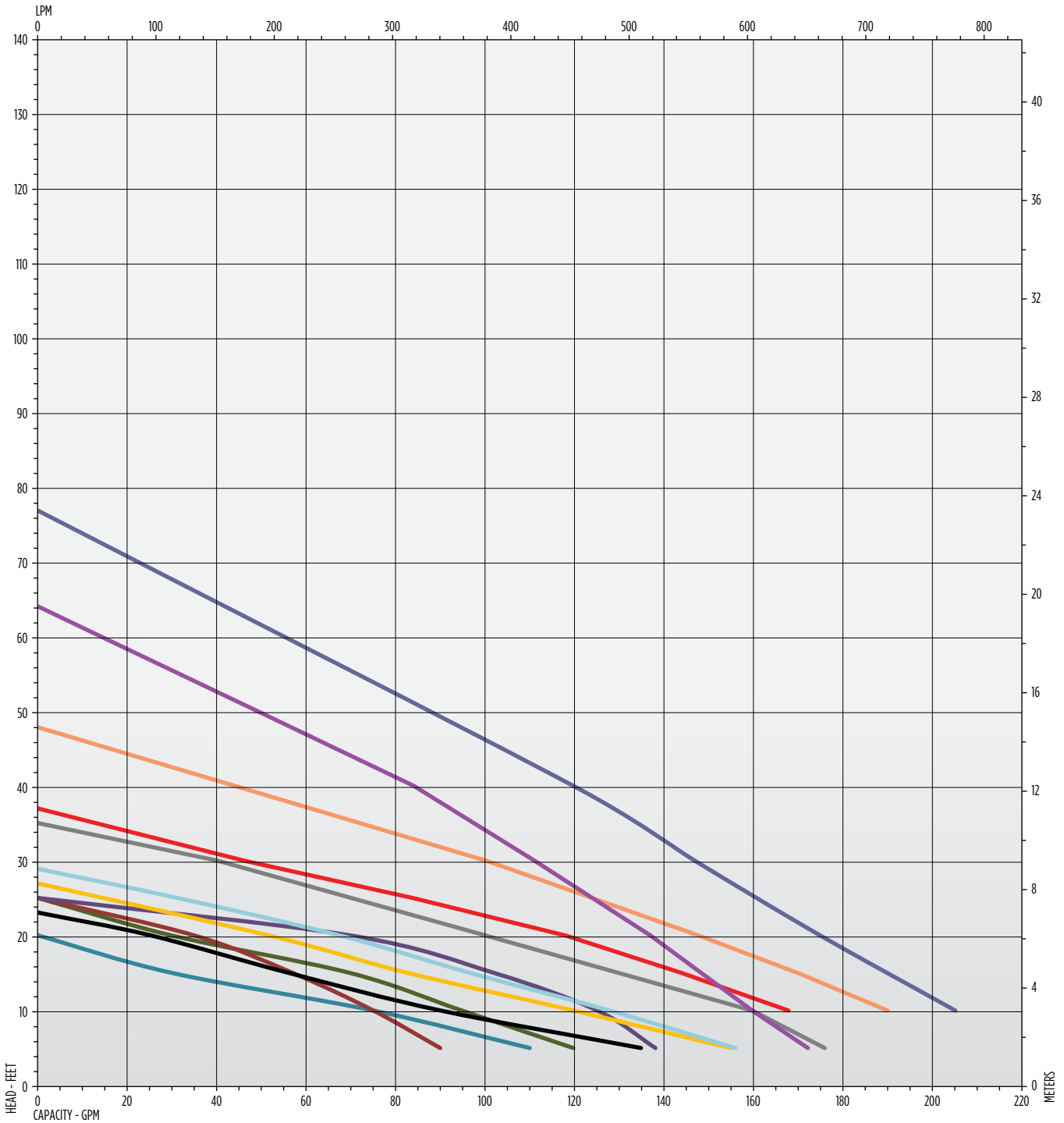
COMPOSITE CURVES

EFFLUENT CURVES



COMPOSITE CURVES

SEWAGE CURVES



GUIDELINES FOR SIZING

SYSTEM CAPACITY

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

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

FIGURE 1

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

FIGURE 2

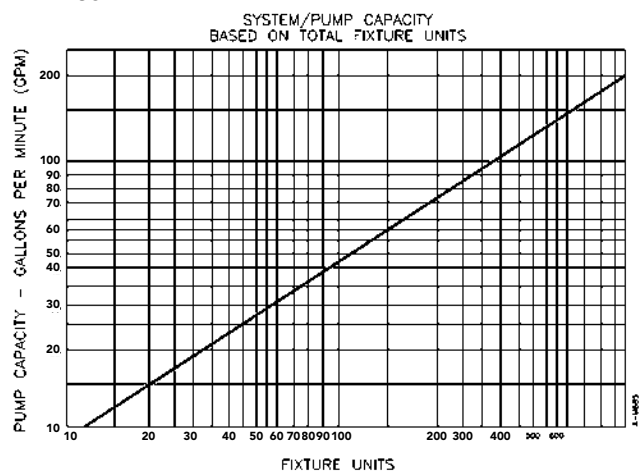
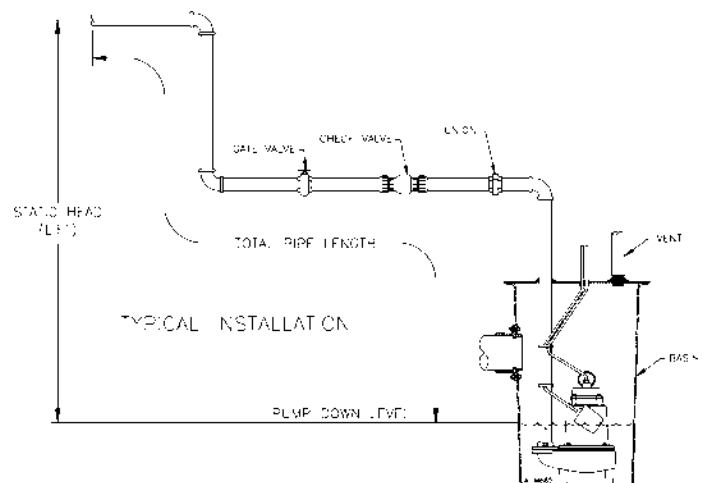


FIGURE 3



GUIDELINES FOR SIZING

TOTAL HEAD

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

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

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

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

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

FIGURE 4

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

FIGURE 5

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

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

GUIDELINES FOR SIZING

PUMP SELECTION

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

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

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

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

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

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

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

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

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

FIGURE 6

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

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

GUIDELINES FOR SIZING

EXAMPLE SIZING PROBLEM

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

- From Figure 1:

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

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

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

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

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

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

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

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

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

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

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

GUIDELINES FOR SIZING

SUMMARY WORKSHEET

Number of Fixture Units _____

Flow Rate (gpm) _____

Total Head Required _____

Pump Selection _____

Typical Single Family Dwelling Sewage Pump Chart

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

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

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SUMMARY WORKSHEET

FIGURE 7

