

RHEEM WATER HEATERS

GAS^①



Classic ♦29 gal (29-32N)
 ♦PROG- ♦40 gal (40-38N)
 ♦6-Year Warranty

Classic ♦40 gal (40-40N)
 ♦PROG- ♦50 gal (50-40N)
 ♦6-Year Warranty ♦75 gal (75-76N)

LOWBOY ♦30 gal (30S-30N)
 ♦PROG- ♦40 gal (40S-34N)
 ♦6-Year Warranty

MOBILE HOME ②
 ♦6-Year Warranty 30 gal (30-32N)
 40 gal (40-34N)

6 Year*

	Width x Height to vent top	Recovery/(NAT) Flue Size / Energy Factor
\$ 1,172.00	16½ x 59¾	32 / 3 / .63
1,135.00	19 x 61½	38 / 3 / .62
\$ 1,180.00	19½ x 63¼	40 / 3 / .62
1,334.00	21½ x 62½	40 / 3 / .62
2,329.00	26¼ x 64	75 / 4 / .53
\$ 1,273.00	19¾ x 49⅞	30 / 3 / .63
1,240.00	21 x 52⅞	34 / 3 / .62
\$ 1,718.00	16½ x 59⅞	32 / 3 / .63
1,822.00	18½ x 61½	34 / 3 / .62

ELECTRIC

Classic
 ♦PROE-
 ♦6-Year Warranty

	30 gal (E30-M2)	40 gal (E40-M2)	50 gal (E50-T2)
\$ 863.00	20¼ x 37½	.95	
940.00	20¼ x 48¼	.95	
1,013.00	20¾ x 58⅞	.95	

Classic
 ♦PROE-Short
 ♦6-Year Warranty

\$ 968.00	28 gal (E28-S2)	23 x 30	.95
1,025.00	36 gal (E36-S2)	24¼ x 31½	.95

Classic
 ♦PROE-POU
 POINT OF USE
 ♦6-Year Warranty

\$ 554.00	2.5 gal (E2-1)	+ 9¾ x 14
655.00	6 gal (E6-1)*	* 15¾ x 15¼
890.00	10 gal (E10-1)*	* 15¾ x 23
991.00	15 gal (E15-1)*	* 17¾ x 24¼
1,010.00	20 gal (E20-1)*	* 19¾ x 25¼

*(120v & 240v Models)
 *2,000 Watts
 » Side connections «

Protection-Plus #SP20865 \$125.00
Tank Warranty 4-year extension.
6 year warranty ⇒ 10 year warranty

♦ **Gas Water Heaters** ♦
 Meets the new ANSI Z21.10.1 code for
 Flammable Vapor Ignition Resistance protocols.
 With Piezo push-button gas igniter.

*** Tank Warranty is 6-years**
Parts have a 6-year warranty.

① All Prices are for NATURAL GAS
 For LPG add \$ 66.00 to the Retail Price.
 ② Mobile Home is set for Natural Gas,
 can be field converted to LPG.
 Recovery = GPH Recovery at 90° rise.

All non-compact electric heaters have 2 interlocked
4500W / 240V elements w/ 21 GPH recovery @ 90° rise.
 + = ½"ips water connections (¾"ips for relief valve).
 * = Tanks have ¾" side inlets for water / relief valve
 * = Water / relief valve does not come with these units.

FACTS ABOUT WATER

1 Gal of fresh water = **8.333** lb.
 1 cubic foot of water = **7.48** Gal

Water expands 4.34% when heated from 40°F to 212°F.
 A 40 gal water heater will gain an extra .5 gal of water volume when heating water from 50°F to 120°F.
 If a house has a check valve on the incoming cold water line, a small expansion tank might be needed to prevent the P&T valve from continuously opening.

1 Foot of Head = **.433** #/sq.ft
 2.31 Feet of Head = **1** #/sq.ft
 115.5 Feet of Head = **50** #/sq.ft

The **Static-Head** of a water system equals the height difference between the water surface in a water tank and the faucet in the house.

The **Dynamic-Head** of a water system equals the **Static-Head** minus the **Friction-Loss** in the piping, fittings, and valves.

A 1000' run of 1" PVC pipe from a water tank 100' higher than a house will have a **Static-Head** of 43psi. The **Dynamic-Head** will be less than 29psi @ 10gpm. For 1 1/4" Pipe the **Dynamic-Head** will be 39psi @ 10gpm.

GAS & ELECTRICITY

1 kWh = **3,412** BTU
 4,500 Watts = **15,354** BTU

1 HP = **745.7** Watts
 1 kW = **1.341** HP

1 Gal of Propane = **91,000** BTU
 1 Cu. Ft of Natural gas = **1,075** BTU

1 psi of Gas = **27.68"** Water Column
 1 psi of Gas = **2.036"** Mercury Column

7" Water Column (Nat) = **4.04** Ounces/Sq. In.
 11" Water Column (LPG) = **6.34** Ounces/Sq. In.

1 Therm = **100,000** BTU
 1.05 Therm = **100** cubic feet (Nat)

For Electric Water Heaters

$$GPH = .4096x \frac{Watts}{Temp.Rise}$$

GPH is gal / hour of hot water at a given temperature:
 e.g. a 4500watt electric element produces 20.5 GPH @ a 90° Temperature Rise (ground water Temp ~50°F to normal water heater Temp ~ 140°F)

$$Amps = \frac{Watts}{Volts}$$

e.g., a 4500watt 240volt electric element draws **18.75 amps**,
 a 2000watt 120volt electric element draws **16.67 amps**.

Friction Loss per 100' of PVC Pipe #/Sq. Inch

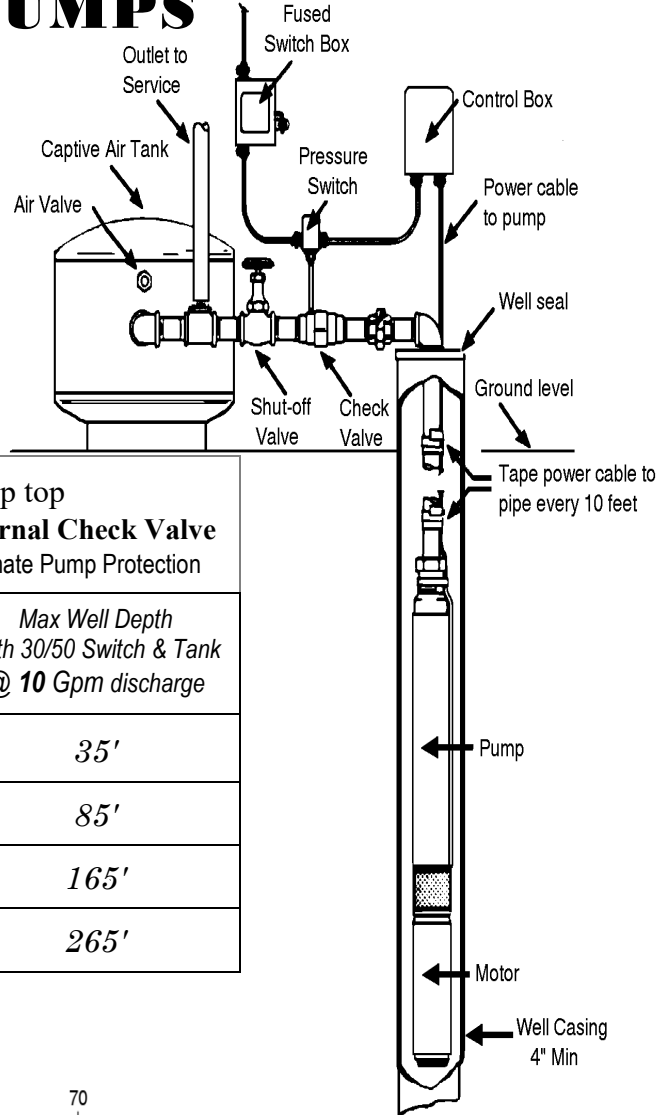
GPM	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
1	.49	.12				
2	1.76	.45	.14	.04	.02	
5	9.60	2.44	.76	.20	.09	.03
7		4.56	1.41	.37	.18	.05
10		8.82	2.73	.72	.34	.10
15			6.00	1.42	.70	.20
20			9.84	2.59	1.22	.36
25				4.05	1.80	.55
30				5.49	2.59	.77
35				7.30	3.45	1.02
40				9.35	4.42	1.31
45	<i>Use Next Pipe Size</i>			11.63	5.49	1.63
50				14.14	6.68	1.98
60					9.36	2.77
80						4.73
100						7.15

Friction Loss per 100' of Poly Pipe #/Sq. Inch

GPM	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	GPM
	.50	.12					1
	1.82	.44	.13	.03			2
		2.42	.73	.19	.09		5
		4.52	1.36	.35	.16	.05	7
			2.63	.68	.32	.09	10
			5.50	1.42	.80	.21	15
			9.61	2.45	1.14	.33	20
				3.55	1.70	.51	25
				5.19	2.42	.71	30
				6.90	3.23	.94	35
				8.84	4.13	1.21	40
	<i>Use Next Pipe Size</i>			10.99	5.14	1.50	45
					6.25	1.83	50
					8.75	2.56	60
						4.36	80
						6.59	100

Sta-Rite PUMPS

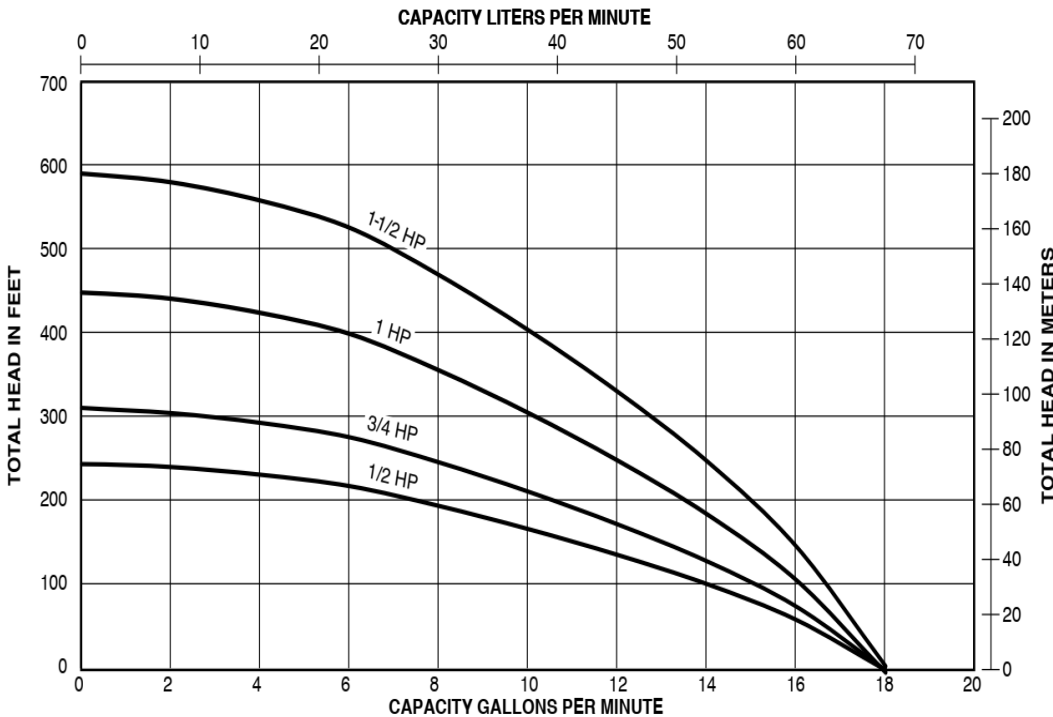
Conversion Factors
 1 Foot of Head = .433 psi
 1 psi = 2.31 Feet of Head
 50 psi = 115 Feet of Head



Submersible Pumps

Stainless Steel 4" Submersible Pump with 1 1/4" fip top
3-Wire with ground 230 volt • 12 Month Warranty • With Internal Check Valve
 *Price Includes Control Box • * Add Optional Pentek S"PP-233-1.5 for Ultimate Pump Protection

SK-10_{gpm} Series			Total head @ 10 Gpm discharge	Max Well Depth With 30/50 Switch & Tank @ 10 Gpm discharge
4" Submersible Pumps				
S10K05231	\$ 949.00	1/2 HP	100' of Head	35'
S10K07231	1,115.00	3/4 HP	200' of Head	85'
S10K10231	1,410.00	1 HP	280' of Head	165'
S10K15231	1,910.00	1 1/2 HP	380' of Head	265'



Control Boxes

1/2 HP	\$ 178.00
3/4 HP	188.00
1 HP	195.00
1 1/2 HP	305.00

Pentek SPP-233-1.5 Pump Protector

1/3-1 1/2 HP	\$ 588.00
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- Protect Against Dry Well
- Rapid Cycling
- High or Low Voltage

FACTS ABOUT WATER

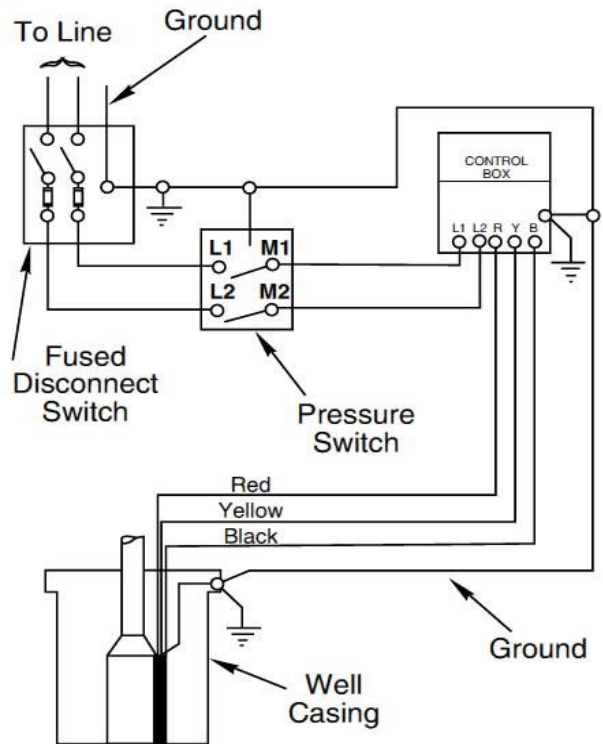
- 1 Foot of Head = .433 *psi*
- 2.31 Feet of Head = 1 *psi*
- 115.5 Feet of Head = 50 *psi*
- 1 Gal of fresh water = 8.333 lb.
- 1 cubic foot of water = 7.48 Gal = 62.33 lb.

Water expands 4.34% when heated from 40°F to 212°F. A 40 gal water heater will gain an extra $\frac{2}{3}$ gal of water volume when heating water from 55°F to 120°F. If a house has a check valve on the incoming cold-water line, a small expansion tank might be needed to prevent the P&T valve from continuously opening.

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The **Dynamic-Head** of a water system equals the **Static-Head** minus the **Friction-Loss** in the piping, fittings, and valves.

A 1000' run of 1" PVC pipe from a water tank 100' higher than the house will have a **Static-Head** of 43psi. The **Dynamic-Head** will be less than 29psi @ 10gpm. Using 1 $\frac{1}{4}$ " PVC pipe will give a **Dynamic-Head** of 39psi @ 10gpm.



$$1 \text{ HP} = 745.7 \text{ Watts} \quad 1 \text{ kW} = 1.341 \text{ HP}$$

$$I(\text{Current Draw}) = \text{HP} \times (745.7 \text{ Watts}) / V(\text{Volts})$$

Water Line Storage Capacities
Gallons per 100' = D²(Pipe Diameter Inches) x 4.085
 e.g. 100' of 1" water line holds 4.085gal of water.

Friction Loss per 100' of PVC Pipe

Pounds / Sq. Inch

GPM	Friction Loss per 100' of PVC Pipe					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
1	.43	.12				
2	.86	.24	.13	.04	.01	
5	4.87	1.36	.39	.12	.06	.02
7	8.95	2.49	.72	.21	.10	.04
10	17.03	4.74	1.37	.40	.20	.07
15	↘	10.06	2.90	.85	.43	.14
20		17.13	4.94	1.45	.74	.25
25		↘	7.45	2.18	1.12	.37
30			10.46	3.06	1.57	.52
35			13.91	4.07	2.09	.70
40			↘	5.22	2.68	.89
45	Use Next Pipe Size		6.49	3.33	1.11	
50			7.88	4.04	1.35	
60			↘	5.67	1.89	
80				9.68	3.22	
100				14.61	4.87	

Friction Loss per 100' of Poly Pipe

Pounds / Sq. Inch

GPM	Friction Loss per 100' of Poly Pipe					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
1	.56	.15				
2	1.84	.48	.15	.04		
5	9.04	2.38	.76	.21	.10	
7	13.00	3.70	1.20	.32	.18	.05
10	30.95	8.08	2.56	.69	.33	.10
15	↘	16.58	5.25	1.42	.68	.21
20		↘	8.69	2.36	1.13	.34
25			12.92	3.50	1.67	.51
30			↘	4.82	2.31	.70
35				6.36	3.03	.92
40				8.08	3.84	1.17
45	Use Next Pipe Size		10.02	4.76	1.44	
50			↘	5.76	1.73	
60				7.97	2.42	
80				↘	4.02	
100					6.00	

GOULD Shallow Well JET PUMPS

Cast Iron Pump Housing, **Noryl** Impeller, Shallow Well Nozzle
 30/50 Pressure Switch & Pressure Gauge ♦ 115/230v ♦ **1 Year** Warranty
 ♦♦ 1/4" Inlet - 1" outlet ♦ Built-in overload with auto reset ♦♦



JS+ Shallow Well

J+ Series Shallow Well Pumps

		Gpm @ 50psi & 5' Suction	Max. Shut-off psi	Gpm @ 50psi & 25' Suction	Max. Shut-off psi
J5SH	1,065.00	7.7 Gpm	83 #	5.0 Gpm	73 #
J7S	1,307.00	12.5 Gpm	70 #	6.4 Gpm	59 #
J10S	1,435.00	16.6 Gpm	74 #	10.4 Gpm	65 #
J15S	1,851.00	25.0 Gpm	80 #	14.0 Gpm	71 #

JS+ Series Capacity (GPM) Discharge psi

Models	HP Max / Run Amps	Depth to Water	Discharge psi				Shut Off (PSI)
			30#	40#	50#	60#	
J5SH	1/2 HP 10.8 / 5.4 Amps 968 Watts 25 / 15 Breaker	5'	11.3	11.0	7.7	4.8	83
		10'	10.0	9.6	7.0	4.2	81
		15'	8.6	8.3	6.3	3.7	79
		20'	7.0	6.8	5.8	3.2	76
		25'	5.2	5.2	5.0	2.8	73
J7S	3/4 HP 14.8 / 7.4 Amps 1,336 Watts 30 / 15 Breaker	5'	21.3	18.3	12.5	6.6	70
		10'	18.8	17.3	11.3	5.0	68
		15'	16.4	15.5	9.6	3.7	66
		20'	13.6	13.2	8.3	2.0	63
		25'	10.0	9.9	6.4	1.0	59
J10S	1 HP 16.2 / 8.1 Amps 1,592 Watts 30 / 20 Breaker	5'	24.8	24.4	16.6	9.9	74
		10'	22.9	22.2	15.8	8.6	72
		15'	19.8	19.5	13.8	6.9	70
		20'	16.6	16.6	12.2	5.6	67
		25'	12.5	12.4	10.4	3.6	65
J15S	1 1/2 HP 21.4 / 10.7 Amps 1,950 Watts 40 / 20 Breaker	5'	26.6	26.3	25.0	15.6	80
		10'	24.7	24.3	22.6	13.9	77
		15'	21.6	21.5	20.4	12.9	75
		20'	18.1	18.0	17.6	12.0	73
		25'	14.0	14.0	14.0	10.1	71

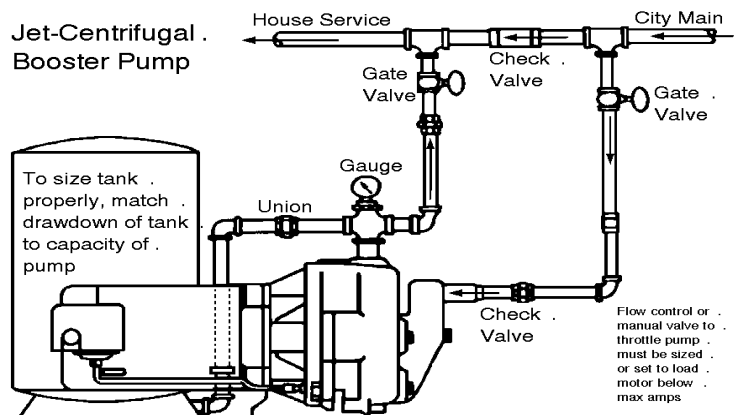
Conversion Factors

1 Foot of Head = .433 psi

1 psi = 2.31 Feet of Head

50 psi = 115 Feet of Head

0 psi = 231 Feet of Head

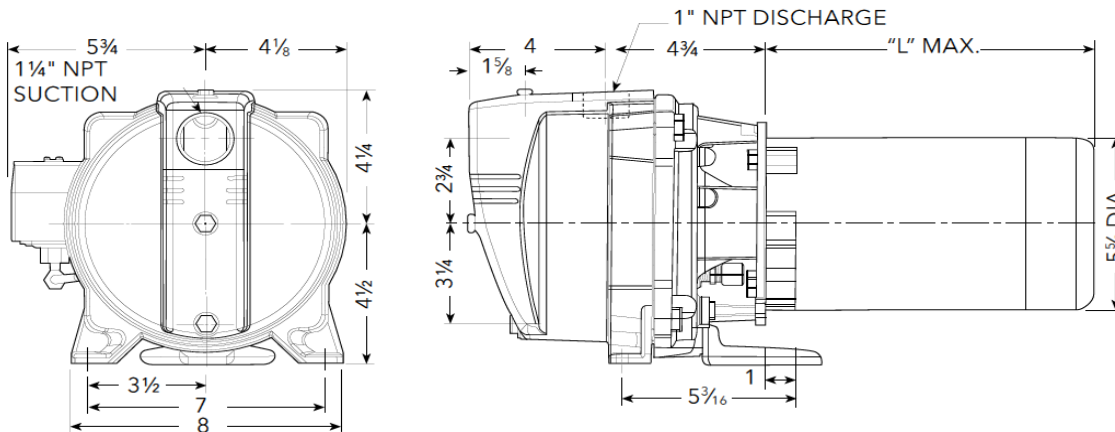


Maximum Motor Cable Length (feet)

Motor Rating		Copper Wire Size					
Volts	HP	14	12	10	8	6	4
115	½	100'	160'	250'	390'	620'	960'
230	½	400'	650'	1020'	1610'	2510'	3880'
	¾	300'	480'	760'	1200'	1870'	2890'
	1	250'	400'	630'	990'	1540'	2380'
	1½	190'	310'	480'	770'	1200'	1870'
	2	150'	250'	390'	620'	970'	1530'

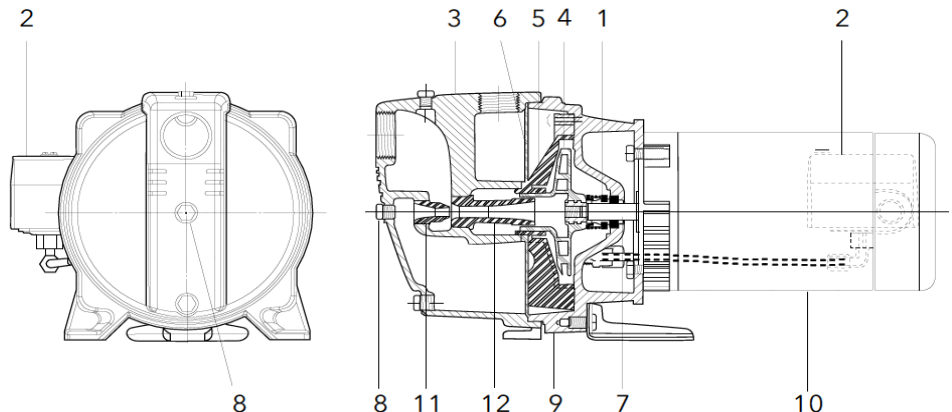
DIMENSIONS AND WEIGHTS

Model	J5S	J5SH	J7S	J10S	J15S
Wt. (lbs.)	43	43	47	50	60
Length	17¼	17¼	18¼	18¾	19¼
Width	9⅞				
Height	8¾				
HP	½	½	¾	1	1½
"L" Max.	8½	8½	9½	10	10½

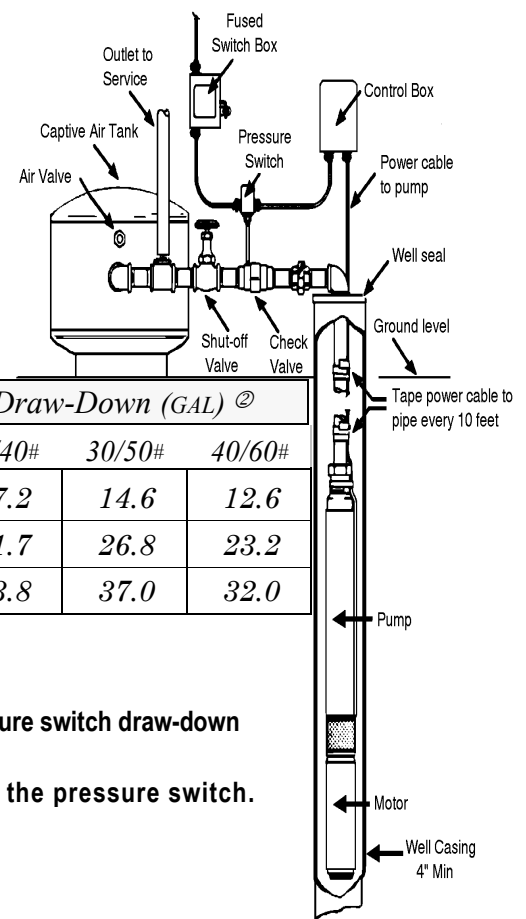
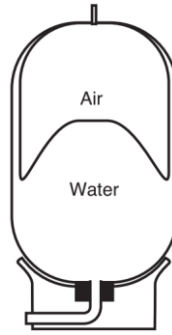
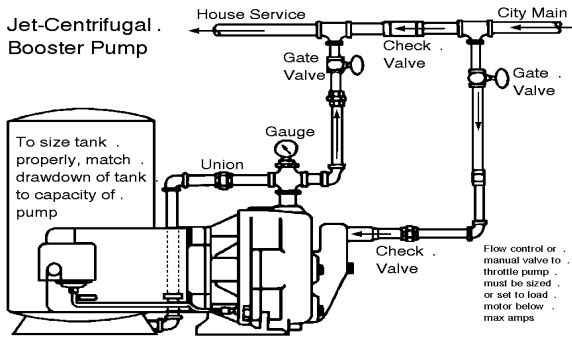


COMPONENTS

Item No.	Description
1	Mechanical seal
2	Pressure switch
3	Casing
4	Impeller
5	Diffuser (Guidevane)
6	Diaphragm
7	Stainless steel shaft
8	Nozzle clean-out plug
9	Motor adapter
10	Motor
11	Nozzle
12	Venturi (diffuser)



WATER SYSTEMS TANKS & FITTINGS



WELLMATE FIBERGLASS TANKS

Model [Ⓛ]	List	Inlet	Width x Height	Draw-Down (GAL) [Ⓢ]		
				20/40#	30/50#	40/60#
WM-14WB.....(=47gal)	1,164.00	1 1/4" Fip	22" x 42 1/4"	17.2	14.6	12.6
WM-25WB.....(=86gal)	1,180.00	1 1/4" Fip	24 1/2" x 56 1/2"	31.7	26.8	23.2
WM-35WB... (=119gal)	1,395.00	1 1/4" Fip	24 1/2" x 74"	43.8	37.0	32.0

(=86Gal) → drawdown is equal to an #86 non-diaphragm pressure tank. Etc.

① Maximum Working Pressure 125# ♦ 5 Year Warranty

② To find your minimum tank size: Match your system flow rate GPM to your pressure switch draw-down GPM to provide at least 1 minute pump run time.

The empty tank pressure should be 2psi less than the cut-in pressure of the pressure switch.



*Pump Check

*Foot Valves

Plastic Screens

1/2"	\$ 11.95		
3/4"	15.88	\$ 13.65	\$ 2.29
1"	21.75	18.50	2.67
1 1/4"	28.50	25.85	3.82
1 1/2"	41.10	36.00	4.61
2"	69.45	61.65	5.35

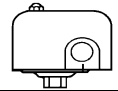
* = No-Lead Brass spring checks & foot valves

4-IN-1 Plastic Foot Valve	\$ 16.95
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Pressure Switches

(Import)



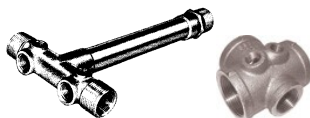
MPSM1 [Ⓛ]	- 30/50 ~ 40/60 ~ 50/70	\$ 16.60
MPSM4 [Ⓢ]	- 30/50 ~ 40/60 ~ 50/70	16.95
MPSP [Ⓢ]	- 30/50 ~ 40/60	19.50
XHD [Ⓢ]	- 60/80 ~ 80/100	108.00
DG2	Rod-Float Switch Emptying	89.00
DG2-R	Rod-Float Switch Filling	96.00

Ⓛ On/Off Switch, Ⓢ With Low Pressure Cut-off,

Ⓢ With Pulsation Plug, Ⓢ Xtra Heavy Duty

Pressure Gauges

2" Face	100# (import)	\$ 4.95
2" Face	(15#,...,600#)	11.35
2 1/2" Face		15.50
2 1/2" Face	liquid filled	28.00
Water Test Gauge	160#	19.20



PVC

SS

Tank Tee

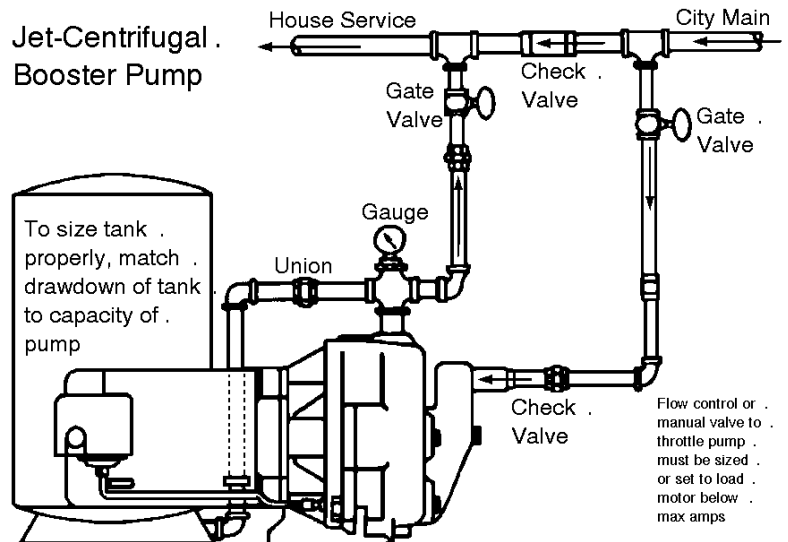
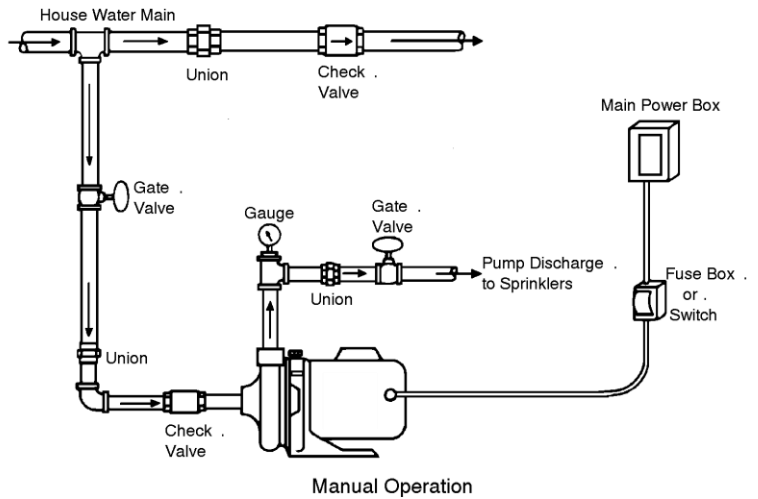
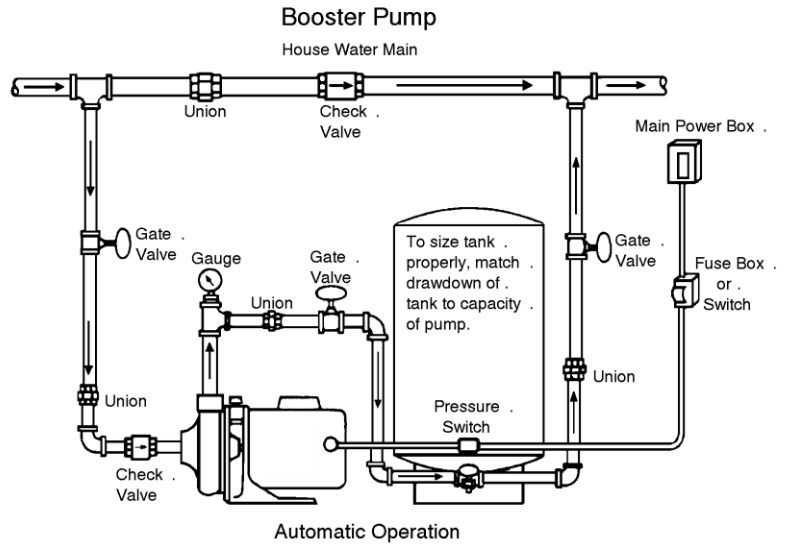
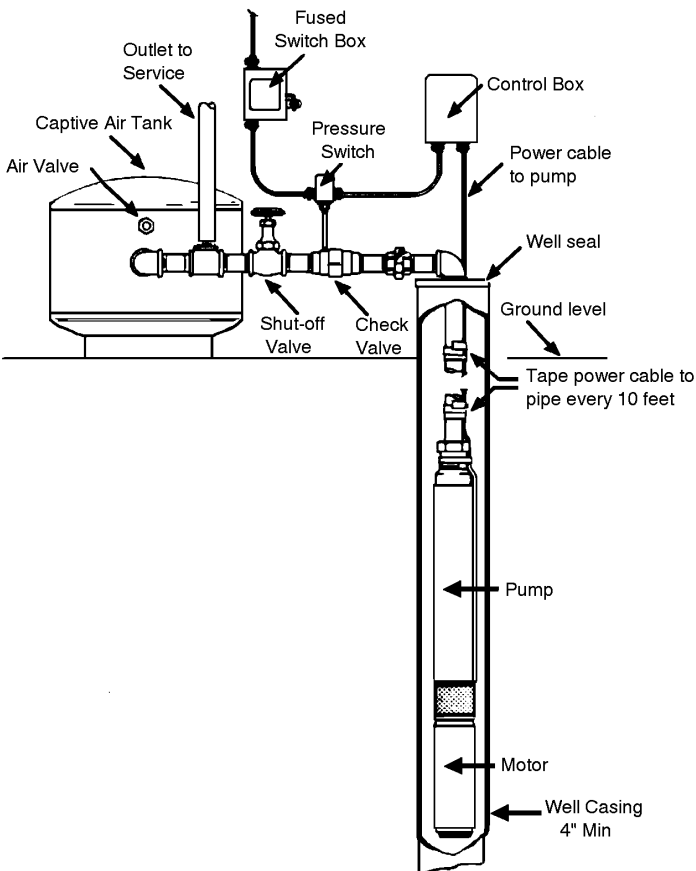
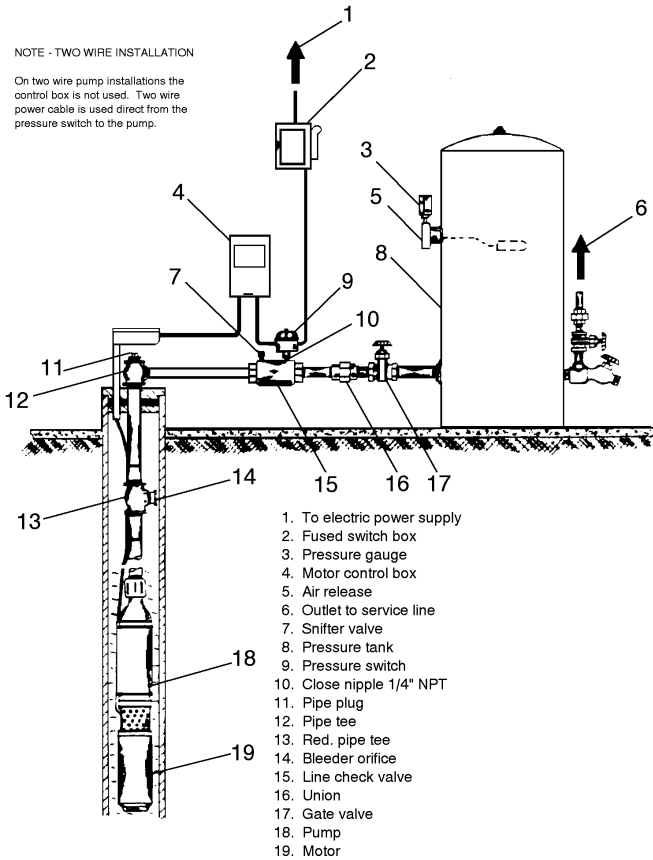
1 1/4" Mip x 1" Fip	PVC	\$ 12.75
1"	STAINLESS STEEL	33.60
1 1/4"	STAINLESS STEEL	41.45



Typical Installations

NOTE - TWO WIRE INSTALLATION

On two wire pump installations the control box is not used. Two wire power cable is used direct from the pressure switch to the pump.



MYERS SUMP & SEWAGE PUMPS



Sump Pumps

(10' cord, 115Volt)

		Hp	Head	Gpm @ Average Head	Discharge Size	Solids
MS33T10	\$ 328.00	1/3	24'	20 Gpm @ 20'	1 1/2"	1/4"
*ME 40P-1	696.00	4/10	30'	58 Gpm @ 15'	1 1/2"	3/4"

* = This pump come with Piggy-back mechanical float switches.



Sewage Pumps

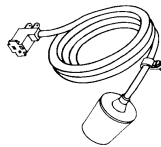
(2" Solids & Discharge Size, 20' Cord)

		Hp	Volts	Max Head	Gpm @ Average Head
SRM4-PC-1 *	\$ 777.00	4/10	115v	18'	25 Gpm @ 15'
SRM4-PC-2 *	790.00	4/10	240v	18'	25 Gpm @ 15'
MW50-11P *	1,015.00	1/2	115v	27'	40 Gpm @ 22'
MW50-21P *	1,015.00	1/2	240v	27'	40 Gpm @ 22'
MWH50-21P *	2,515.00	1/2	240v	38'	40 Gpm @ 30'
MW100-21	2,400.00	1	240v	48'	40 Gpm @ 41'
MW200-21	2,848.00	2	240v	70'	40 Gpm @ 59'

* = These pumps come with Piggy-back mechanical float switches.



Float Switches



Pump-Down To Empty

Maximum Current
Starting/Running

Pump-Up To Fill

PMPD 115v	\$ 135.00	Piggyback plug 20' cord	3/4Hp @ 115v	85A / 15A	\$ 135.00	PMPU 115v
PMPD 240v	138.00	Piggyback plug 20' cord	2Hp @ 240v	85A / 15A	138.00	PMPU 240v
PMPD WOP	124.00	20' cord less plug	2Hp @ 240v	85A / 15A	124.00	PMPU WOP
101 HW	204.00	Indoor Tank Alert high / low level float alarm			216.00	101 HL
101 HWX	286.00	Outdoor Tank Alert high level float alarm				

Check Valves



2" Union+Ball+Check Valve

\$ 120.00



Zoeller(2") 30-0151 Cast iron

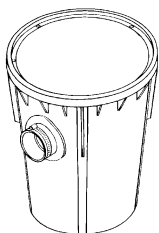
\$ 118.00



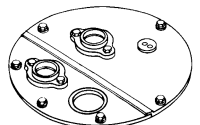
HCV200 Cast iron

\$ 121.00

Basins W/Lid



18" x 30" (30 Gal)	\$ 656.00	Structural Foam w/4" rubber hub
24" x 36" (72 Gal)	810.00	Structural Foam w/4" CI caulking hub



MYERS PUMP SYSTEMS

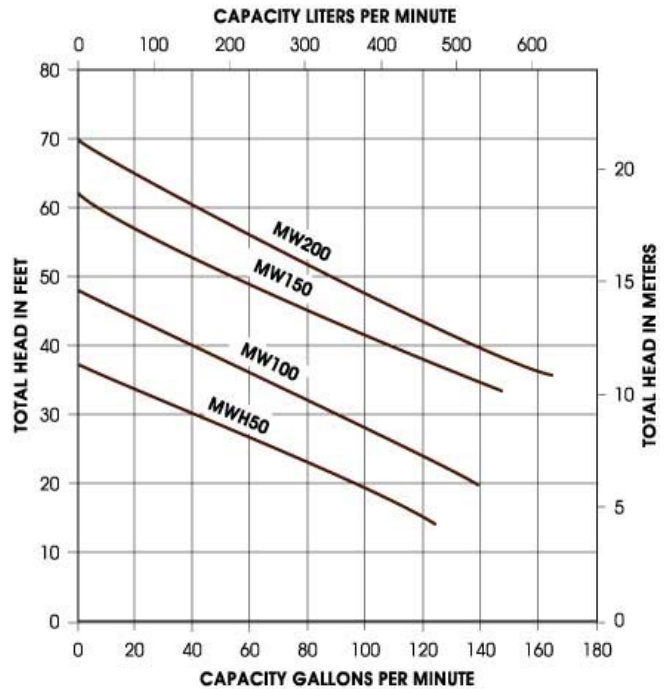
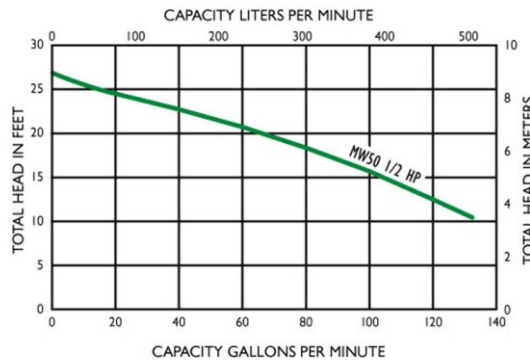
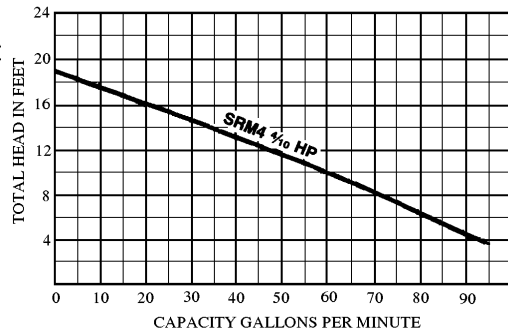
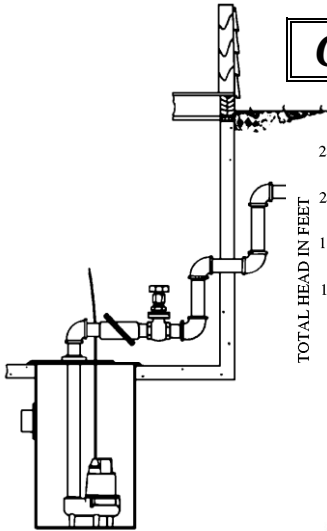
SRM4 Series

Residential Sewage Pump - 18' Lift - 2" Discharge - 2" Solids - 4/10 Hp - 115v - 20' cord

MW50 Series

Residential Sewage Pump - 27' Lift - 2" Discharge - 2" Solids - 1/2 Hp - 115v - 20' cord

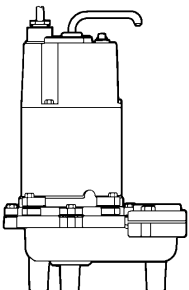
	A	B	C	D
	SRM4-PC-1	SRM4-PC-2	MW50-11P	MW50-21P
PUMP	\$ 777.00	790.00	1,015.00	1,015.00
BASIN - 18" x 30" w/lid	656.00	656.00	656.00	656.00
Zoeller (2") Check	118.00	118.00	118.00	118.00
COMPLETE SYSTEM	\$ 1,551.00	1,564.00	1,789.00	1,789.00



MW Series

Light Commercial Sewage Pump - 38', 48', 70' Lift - 2" Discharge - 2" Solids - 240v - 20' cord

	E	F	G
	MWH50-21P	MW100-21	MW200-21
PUMP	2,515.00	2,400.00	2,848.00
BASIN - 24" x 36" w/lid	810.00	810.00	810.00
HCV-200 (2") Check	121.00	121.00	121.00
PMPD-240v Switch	----	135.00	135.00
COMPLETE SYSTEM	3,446.00	3,466.00	3,3914.00



Add \$ 204.00 for 101HW tank alert alarm.
 Add \$ 99.00 for a 2" x 3" increaser.
 California Code requires a check and gate valve on all sewage systems.