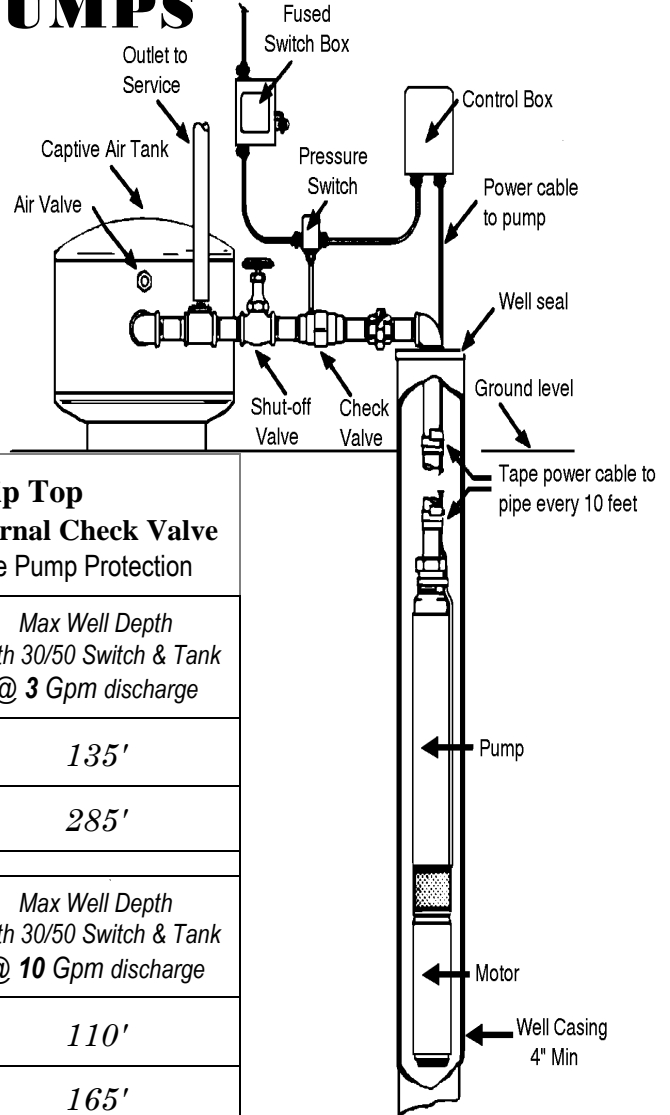


Sta-Rite PUMPS

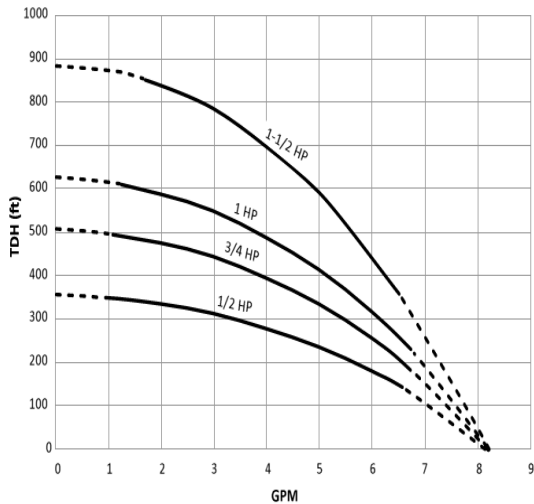
Conversion Factors
 1 Foot of Head = .433 psi
 1 psi = 2.31 Feet of Head
 50 psi = 115 Feet of Head



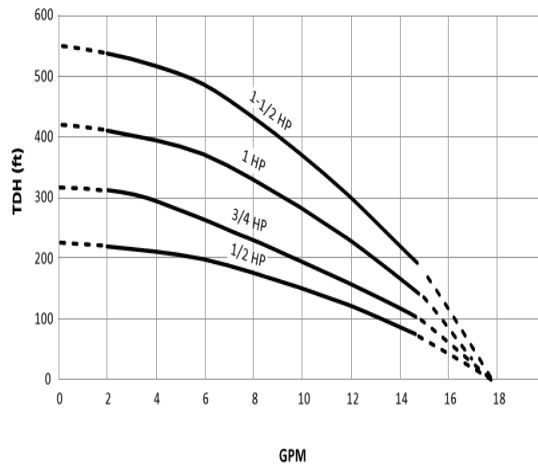
Submersible Pumps

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 Pumptec™ for Ultimate Pump Protection				
SK-5gpm Series				Max Well Depth With 30/50 Switch & Tank @ 3 Gpm discharge
4" Submersible Pumps		Total head @ 5 Gpm discharge		
S5K05231	\$ 630.00	1/2 HP	210' of Head	135'
S5K07231	760.00	3/4 HP	300' of Head	285'
SK-10gpm Series				Max Well Depth With 30/50 Switch & Tank @ 10 Gpm discharge
4" Submersible Pumps		Total head @ 10 Gpm discharge		
S10K07231	\$ 648.00	3/4 HP	200' of Head	110'
S10K10231	815.00	1 HP	280' of Head	165'
S10K15231	1,095.00	1 1/2 HP	380' of Head	265'

PUMP PERFORMANCE - 5 GPM



PUMP PERFORMANCE - 10 GPM



Control Boxes

1/2 HP	\$ 95.00
3/4 HP	100.00
1 HP	104.00
1 1/2 HP	160.00

Franklin Pumptec Pump Protector

1/3-1 1/2 HP	\$ 310.00
<ul style="list-style-type: none"> • Protect Against Dry Well • Rapid Cycling • High or Low Voltage 	

FACTS ABOUT WATER

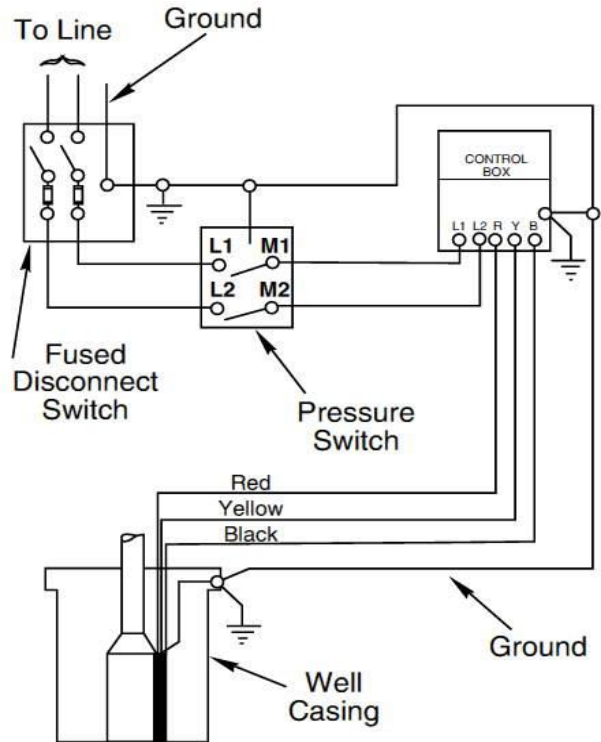
- 1 Foot of Head = .433 LB/sq.ft
- 2.31 Feet of Head = 1 LB/sq.ft
- 115.5 Feet of Head = 50 LB/sq.ft
- 1 Gal of fresh water = 8.333 lb.
- 1 cubic foot of water = 7.48 Gal = 62.33 lb.

Water expands 4.34% when heated from 40°F to 212°F. A 40 gal water heater will gain an extra 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.

The Static-Head of a water system equals the height difference between a water tank or pump 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 the house will have a **Static-Head** of 43psi. The **Dynamic-Head** will be less than 29psi @ 10gpm. Using 1 1/4" PVC pipe will give a **Dynamic-Head** of 39psi @ 10gpm.



1 HP = 745.7 Watts 1 kW = 1.341 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	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	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