

# Professional Water Systems Equipment



**FPS**



Franklin Electric

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# Model Number Nomenclature

## Pump & Motor Brand/Series Codes:

FA = FPS 4400  
FE = FPS Environmental  
FP = FPS Brand

## Jet Brand/Series Codes:

F = FPS  
P = Pro Series  
CWJ = CWJ Series (Convertible)  
CWJH = CWJ High Head (Shallow Well)  
SWJ = Shallow Well Jet  
RP = RP2 Series (Convertible)

## Horsepower Codes:

HP	1/3	1/2	3/4	1	1.5	2	3	5	7.5	10	15	20
Code	03	05	07	1	15	2	3	5	7	10	15	20
HP	25	30	35	40	50	60	75	100	125	150	175	200
Code	25	30	35	40	50	60	75	100	125	150	175	200

## Material Codes:

CI = Cast Iron  
P = Plastic  
S = Stainless Steel  
D = Ductile Iron

## Mounting Codes:

SAx = SAE Engine Drive (where x = 1, 2, 3, etc.)  
BF = Bearing Frame  
CC = Close Coupled  
KT = Kit

## Impeller Dia Codes:

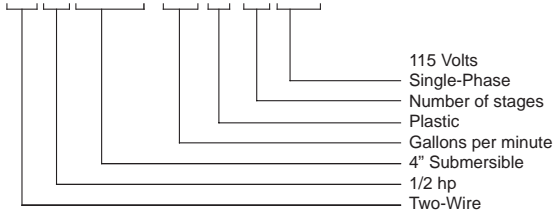
A = 0            J = 8  
B = 1            K = 9  
C = 2            L = 10  
D = 3            M = 11  
E = 4            N = 12  
F = 5            P = 13  
G = 6            Q = 14  
H = 7

# Model Number Nomenclature

## 4" 5-25 GPM Submersible Pump/Motors:

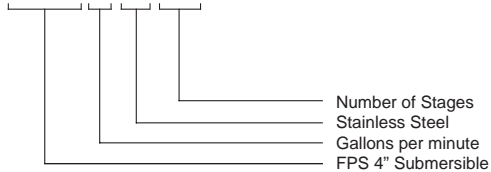
2-Wire Example:

**T 5 F4P 10 P 8 S1**



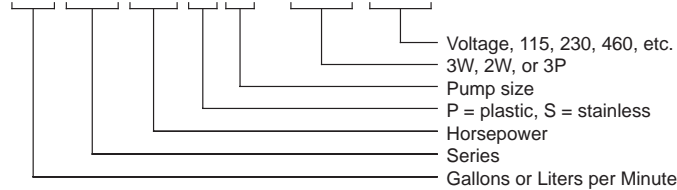
Pump-end Example:

**F4P 7 X 25**



## 4" High Capacity & 6" Submersible Pumps/Motors:

**35 FA 15 S 4 - 3W 230**

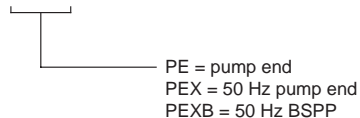


Examples:

45FA1S4-2W230 = 45 gpm, FPS 4400, Stainless Steel / 1 hp, 230 V, 2-wire motor  
 35FA15SA-3W230 = 35 gpm, FPS 4400, Stainless Steel / 1.5 hp, 230 V, 3-wire motor

## Pump End:

**90 FA 5 S 4 - PE**

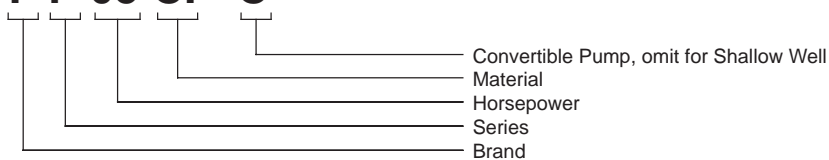


Examples:

45FA3S4-PE = 45 gpm, FPS 4400, 3 hp, Stainless Steel, Pump End  
 25FE1P4-PEXB = 25 gpm, FPS E-Series, 1 hp, Plastic, 50 Hz Pump End BSPP Threads

## Jet Pumps:

**F P 05 CI - C**



Examples:

FCWJH05CI = FPS Brand, High Head Jet, 1/2 hp, Cast Iron, Shallow Well  
 FSWJ07P = FPS Brand, Shallow Well Jet, 3/4 hp, Plastic  
 FP1CI-C = FPS Brand, Pro Series, 1 hp, Cast Iron, Convertible  
 FRP05CI-C = FPS Brand, RP2 Series, 1/2 hp, Cast Iron, Convertible

### FPS 4400

5, 7, 10, 18 and 25 GPM Models



## FPS 4400

### Features:

- 5 performance ranges - 5, 7, 10, 18 & 25 gpm.
- Ceramic shaft sleeve and rubber discharge bearing protect shaft and eliminate sand wear.
- Intermediate bearing included in 5-25 gpm units greater than 24" in length and/or 2 hp and higher to provide improved shaft stability.
- Thermoplastic impellers and stages for maximum efficiency.
- Stainless steel and thermoplastic models include removable check valve systems.
- Urethane Eye & Hub Seals are remarkably resistant to abrasives, allowing sand and other abrasives to pass through each stage without wear or damage.
- Powered by Franklin corrosion-resistant 4" submersible motors.
- Maximum water temperature with proper flow is 120 °F, consult factory for further details.
- Removable suction screen on thermoplastic and stainless steel units, screens prevent debris from clogging impellers and provides full flow performance.



NRTL/C  
CSA 108  
UL 778

## 4" Submersible Pump

### FPS 4400 5-25 GPM

Stainless Steel Units Ordering Information (See pg. 2-3 for model number explanation)

1/2 - 1.5 HP Single-Phase Units									
GPM	HP	Stages	Volts	2-Wire			3-Wire		
				Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
5	1/2	13	115	T5F4P5X13-S1	93680513	29	5F4P5X13-S1	93682513	27
	1/2	13	230	T5F4P5X13-S2	93681513	29	5F4P5X13-S2	93683513	27
	3/4	18	230	T7F4P5X18-S2	93680518	32	7F4P5X18-S2	93681518	31
	1	21	230	T1F4P5X21-S2	93680521	38	1F4P5X21-S2	93681521	35
	1.5	28	230	T15F4P5X28-S2	93680528	42	15F4P5X28-S2	93681528	41
7	1/2	9	115	T5F4P7X9-S1	93680709	28	5F4P7X9-S1	93682709	28
	1/2	9	230	T5F4P7X9-S2	93681709	28	5F4P7X9-S2	93683709	28
	3/4	12	230	T7F4P7X12-S2	93680712	31	7F4P7X12-S2	93681712	32
	1	15	230	T1F4P7X15-S2	93680715	37	1F4P7X15-S2	93681715	35
	1.5	20	230	T15F4P7X20-S2	93680720	47	15F4P7X20-S2	93681720	46
10	1/2	8	115	T5F4P10X8-S1	93681008	27	5F4P10X8-S1	93683008	26
	1/2	8	230	T5F4P10X8-S2	93682008	27	5F4P10X8-S2	93684008	26
	3/4	11	230	T7F4P10X11-S2	93681011	32	7F4P10X11-S2	93682011	31
	1	14	230	T1F4P10X14-S2	93681014	34	1F4P10X14-S2	93682014	35
	1.5	19	230	T15F4P10X19-S2	93681019	48	15F4P10X19-S2	93682019	45
18	3/4	8	230	T7F4P18X8-S2	93681808	26	7F4P18X8-S2	93682808	30
	1	10	230	T1F4P18X10-S2	93681810	34	1F4P18X10-S2	93682810	34
	1.5	14	230	T15F4P18X14-S2	93681814	46	15F4P18X14-S2	93682814	45
25	1	7	230	T1F4P25X7-S2	93682507	32	1F4P25X7-S2	93683507	35
	1.5	10	230	T15F4P25X10-S2	93682510	45	15F4P25X10-S2	93683510	43

Notes: All Dimensions are in inches. Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.

## 4" Submersible Pump

### FPS 4400 5-25 GPM

Stainless Steel Pump Ends Ordering Information (See pg. 2-3 for model number explanation)

1/2 - 5 HP Pump Ends					
GPM	HP	Stages	Model No.	Order No.	Wt.
5	1/2	13	F4P5X13	93600513	11
	3/4	18	F4P5X18	93600518	12
	1	21	F4P5X21	93600521	15
	1.5	28	F4P5X28	93600528	17
	2	38	F4P5X38	93600538	20
7	1/2	9	F4P7X9	93600709	10
	3/4	12	F4P7X12	93600712	9
	1	15	F4P7X15	93600715	12
	1.5	20	F4P7X20	93600720	16
	2	25	F4P7X25	93600725	16
	3	33	F4P7X33	93600733	20
10	1/2	8	F4P10X8	93601008	9
	3/4	11	F4P10X11	93601011	10
	1	14	F4P10X14	93601014	12
	1.5	19	F4P10X19	93601019	15
	2	24	F4P10X24	93601024	16
	3	31	F4P10X31	93601031	18
	5	44	F4P10X44	93601044	21
18	3/4	8	F4P18X8	93601808	9
	1	10	F4P18X10	93601810	10
	1.5	14	F4P18X14	93601814	12
	2	18	F4P18X18	93601818	12
	3	24	F4P18X24	93601824	16
	5	39	F4P18X39	93601839	27
25	1	7	F4P25X7	93602507	9
	1.5	10	F4P25X10	93602510	10
	2	12	F4P25X12	93602512	12
	3	17	F4P25X17	93602517	14
	5	27	F4P25X27	93602527	18

**Notes:** All Dimensions are in inches. Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.

# 4" Submersible Pump

## FPS 4400 5-25 GPM

Thermoplastic Units Ordering Information (See pg. 2-3 for model number explanation)

1/2 - 1.5 HP Single-Phase Units									
GPM	HP	Stages	Volts	2-Wire			3-Wire		
				Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
5	1/2	13	115	T5F4P5P13-S1	93660513	26	5F4P5P13-S1	93662513	25
	1/2	13	230	T5F4P5P13-S2	93661513	26	5F4P5P13-S2	93663513	25
	3/4	18	230	T7F4P5P18-S2	93660518	29	7F4P5P18-S2	93661518	30
	1	21	230	T1F4P5P21-S2	93660521	33	1F4P5P21-S2	93661521	34
7	1/2	9	115	T5F4P7P9-S1	93660709	24	5F4P7P9-S1	93662709	24
	1/2	9	230	T5F4P7P9-S2	93661709	24	5F4P7P9-S2	93663709	24
	3/4	12	230	T7F4P7P12-S2	93660712	28	7F4P7P12-S2	93661712	28
	1	15	230	T1F4P7P12-S2	93660715	33	1F4P7P12-S2	93661715	32
	1.5	20	230	T15F4P7P20-S2	93660720	44	15F4P7P20-S2	93661720	43
10	1/2	8	115	T5F4P10P8-S1	93661008	24	5F4P10P8-S1	93663008	24
	1/2	8	230	T5F4P10P8-S2	93662008	24	5F4P10P8-S2	93664008	24
	3/4	11	230	T7F4P10P11-S2	93661011	28	7F4P10P11-S2	93662011	28
	1	14	230	T1F4P10P14-S2	93661014	31	1F4P10P14-S2	93662014	32
	1.5	19	230	T15F4P10P19-S2	93661019	46	15F4P10P19-S2	93662019	42
18	3/4	8	230	T7F4P18P8-S2	93661808	28	7F4P18P8-S2	93662808	27
	1	10	230	T1F4P18P10-S2	93661810	31	1F4P18P10-S2	93662810	30
	1.5	14	230	T15F4P18P14-S2	93661814	40	15F4P18P14-S2	93662814	39
25	1	7	230	T1F4P25P7-S2	93662507	30	1F4P25P7-S2	93663507	33
	1.5	10	230	T15F4P25P10-S2	93662510	43	15F4P25P10-S2	93663510	39

Note: All listed above have 1-1/4" NPT discharge and feature our removable Flomatic™ poppet assembly.

Thermoplastic 1/2 - 2 HP Pump Ends								
GPM	HP	Stages	Volts	Ordering Info.		Dimensions		Wt.
				Model No.	Order No.	Shell	PEA	
5	1/2	13	N.A.	F4P5P13	93670513	12.03	17.56	8
	3/4	18	N.A.	F4P5P18	93670518	16.00	21.53	10
	1	21	N.A.	F4P5P21	93670521	18.37	23.90	11
7	1/2	9	N.A.	F4P7P9	93670709	9.75	15.28	4
	3/4	12	N.A.	F4P7P12	93670712	12.43	17.96	7
	1	15	N.A.	F4P7P15	93670715	15.12	20.65	8
	1.5	20	N.A.	F4P7P20	93670720	19.56	25.09	10
10	1/2	8	N.A.	F4P10P8	93671008	8.87	14.40	6
	3/4	11	N.A.	F4P10P11	93671011	11.56	17.09	7
	1	14	N.A.	F4P10P14	93671014	14.25	19.78	8
	1.5	19	N.A.	F4P10P19	93671019	20.81	26.34	12
18	3/4	8	N.A.	F4P18P8	93671808	11.56	17.09	7
	1	10	N.A.	F4P18P10	93671810	14.00	19.53	7
	1.5	14	N.A.	F4P18P14	93671814	18.93	24.46	10
	2	18	230	F4P18P18	93671818	25.93	31.46	11
25	1	7	N.A.	F4P25P7	93672507	10.31	15.84	6
	1.5	10	N.A.	F4P25P10	93672510	14.00	19.53	8
	2	12	230	F4P25P12	93672512	18.56	24.09	9

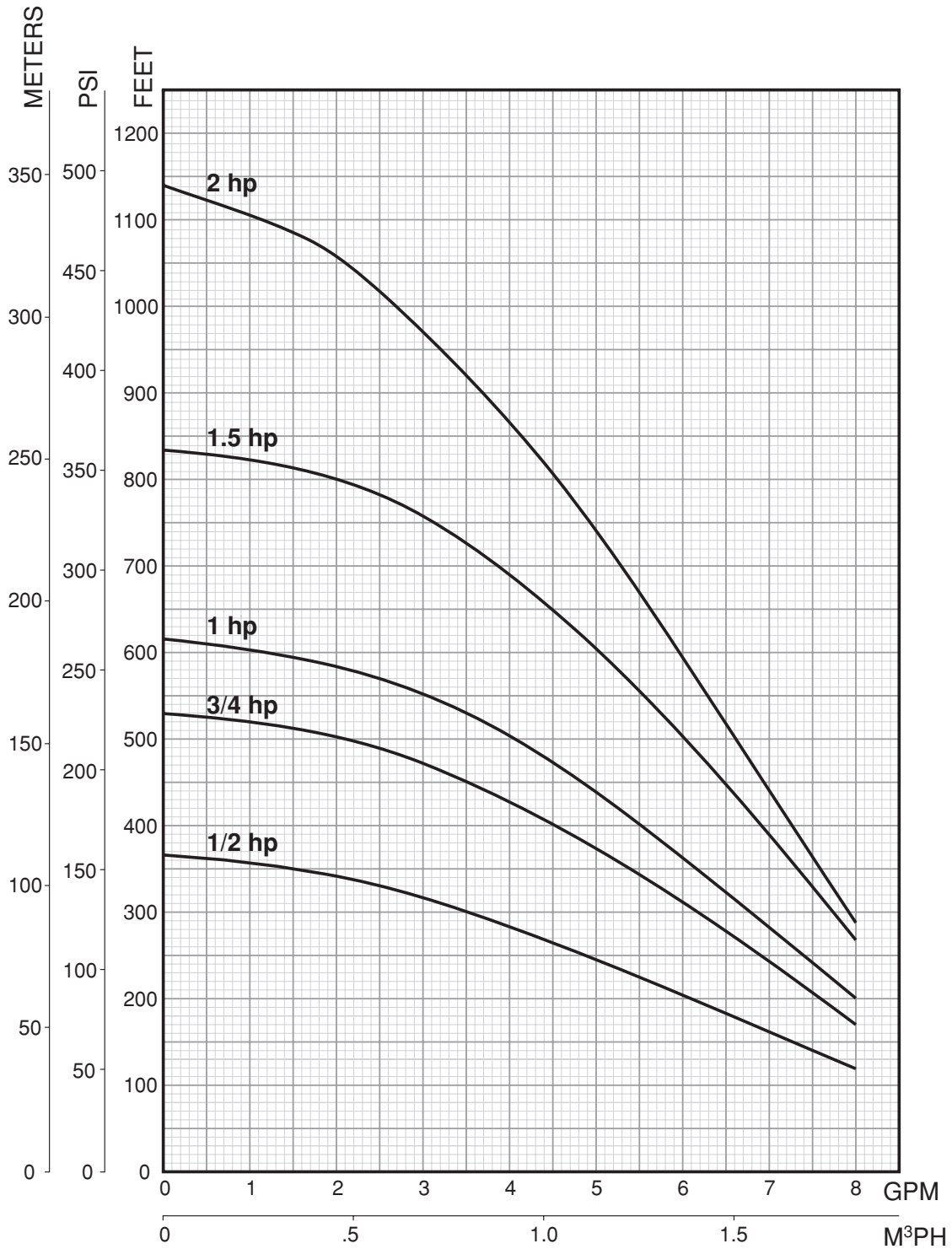
Note: All dimensions are in inches. Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.



# 4" Submersible Pump

## FPS 4400

### 5 GPM Performance Curves



# 4" Submersible Pump

## FPS 4400

### 5 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

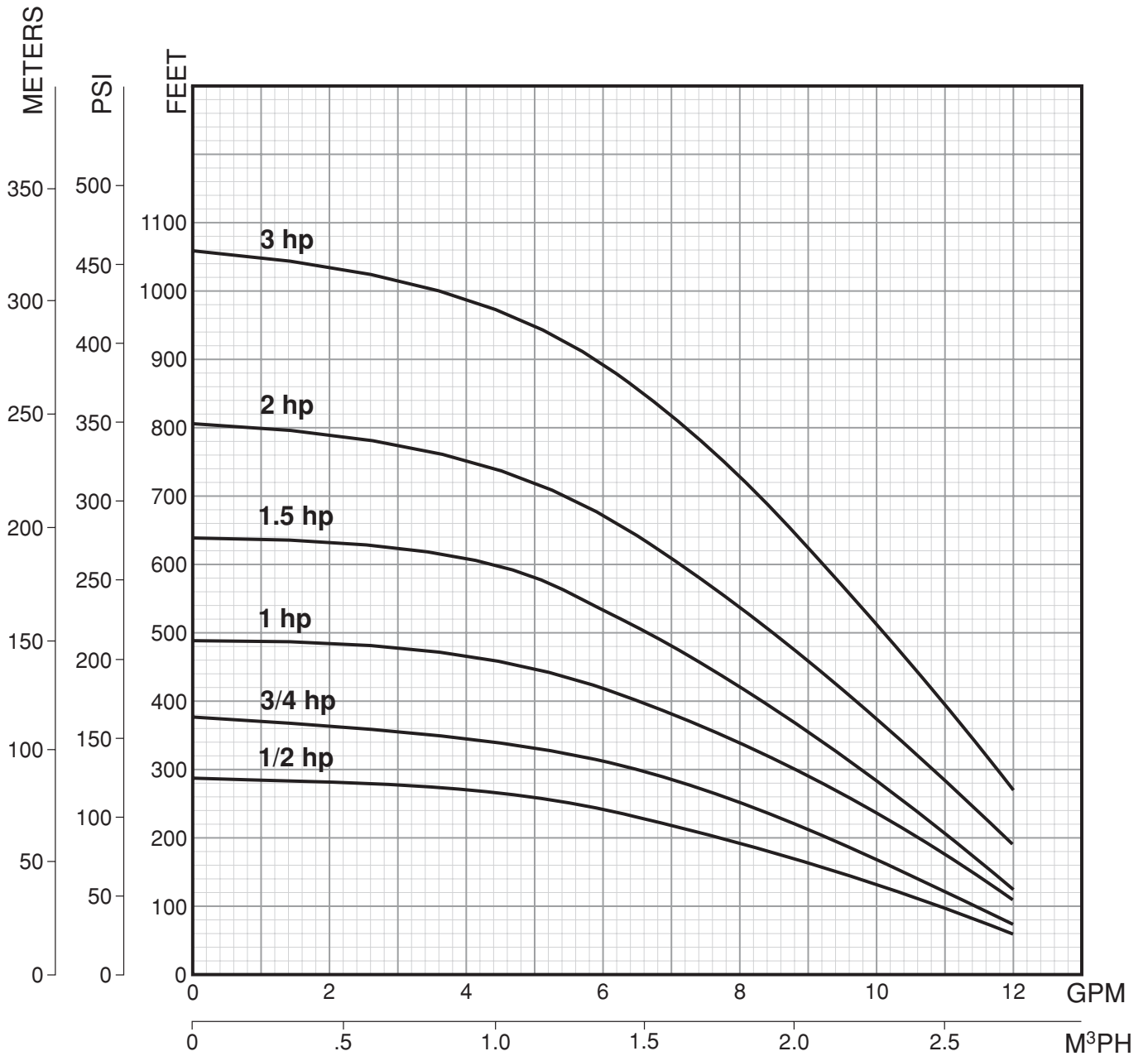
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																								
		20	40	60	80	100	120	140	160	180	200	240	260	300	340	360	400	440	480	500		600	700	800	900	1000
1/2	0	-	-	-	-	-	8	7	7	6	6	5	4	3												
	20	-	-	-	7	7	6	6	5	5	4	3	3	2												
	30	-	-	7	7	6	6	5	5	4	4	3	2													
	40	-	7	7	6	6	5	5	4	4	3	2														
	50	7	7	6	6	5	5	4	4	3	2															
	60	7	6	6	5	5	4	4	3	2																
	80	6	5	5	4	4	3	2	1																	
Shut-off PSI		149	140	131	122	114	105	96	88	79	70	53	45	27												
3/4	0	-	-	-	-	-	-	-	-	7	7	7	6	6	5	5	4	3								
	20	-	-	-	-	-	-	7	7	7	6	6	6	5	4	4	3	2								
	30	-	-	-	-	8	7	7	7	6	6	6	5	5	4	4	3	2								
	40	-	-	-	8	7	7	7	6	6	6	5	5	4	3	3										
	50	-	-	7	7	7	6	6	6	6	5	5	5	4	3	2										
	60	7	7	7	7	6	6	6	6	5	5	5	4	3	2											
	80	7	7	6	6	6	6	5	5	5	4	4	3	3												
Shut-off PSI		220	211	203	194	185	177	168	159	151	142	125	116	99	81	73	55	38								
1	0	-	-	-	-	-	-	-	-	8	7	7	6	6	6	5	5	4	4							
	20	-	-	-	-	-	-	-	7	7	7	6	6	6	5	5	5	4	3	2						
	30	-	-	-	-	-	-	7	7	7	7	6	6	5	5	5	4	3	2	2						
	40	-	-	-	-	-	7	7	7	6	6	6	6	5	5	4	4	3	2	1						
	50	-	-	-	-	7	7	7	6	6	6	6	5	5	4	4	3	2	1							
	60	-	-	-	7	7	7	6	6	6	6	5	5	5	4	4	3	1								
	80	7	7	7	7	6	6	6	6	6	5	5	5	4	3	3	2									
Shut-off PSI		257	248	239	231	222	213	205	196	187	179	161	153	135	118	109	92	75	58	49						
1.5	0	-	-	-	-	-	-	-	-	-	-	-	7	7	7	6	6	6	6	5	3					
	20	-	-	-	-	-	-	-	-	-	-	7	7	7	7	6	6	6	6	5	5	4	3			
	30	-	-	-	-	-	-	-	-	-	7	7	7	7	6	6	6	6	5	5	4					
	40	-	-	-	-	-	-	-	-	7	7	7	7	6	6	6	6	6	5	5	4					
	50	-	-	-	-	-	-	-	7	7	7	7	7	6	6	6	5	5	5	4	3					
	60	-	-	-	-	-	7	7	7	7	7	6	6	6	6	5	5	5	4	4	3					
	80	-	-	-	-	7	7	7	7	7	6	6	6	6	5	5	5	4	4	3						
Shut-off PSI		351	343	334	325	317	308	300	291	282	274	256	248	230	213	204	187	170	152	144	100	57				
2	0	-	-	-	-	7	7	7	6	6	6	5	5	5	4	4	4	3	3	3	2	1				
	20	-	-	-	7	7	7	6	6	6	6	5	5	5	4	4	4	3	2	2	2					
	30	-	-	-	7	7	7	6	6	6	5	5	5	4	4	4	3	3	2	1	1					
	40	-	-	7	7	7	6	6	6	6	5	5	5	4	4	4	3	2	2	1						
	50	-	-	7	7	7	6	6	6	5	5	5	4	4	4	3	3	2	2	1						
	60	-	8	7	7	7	6	6	6	5	5	5	4	4	3	3	2	2								
	80	8	7	7	7	6	6	6	6	5	5	4	4	3	3	2	2	1								
Shut-off PSI		450	429	407	385	364	342	320	299	277	255	234	212	191	169	147	126	104	82	61	39	17				

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.

# 4" Submersible Pump

## FPS 4400

### 7 GPM Performance Curves



# 4" Submersible Pump

## FPS 4400

### 7 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

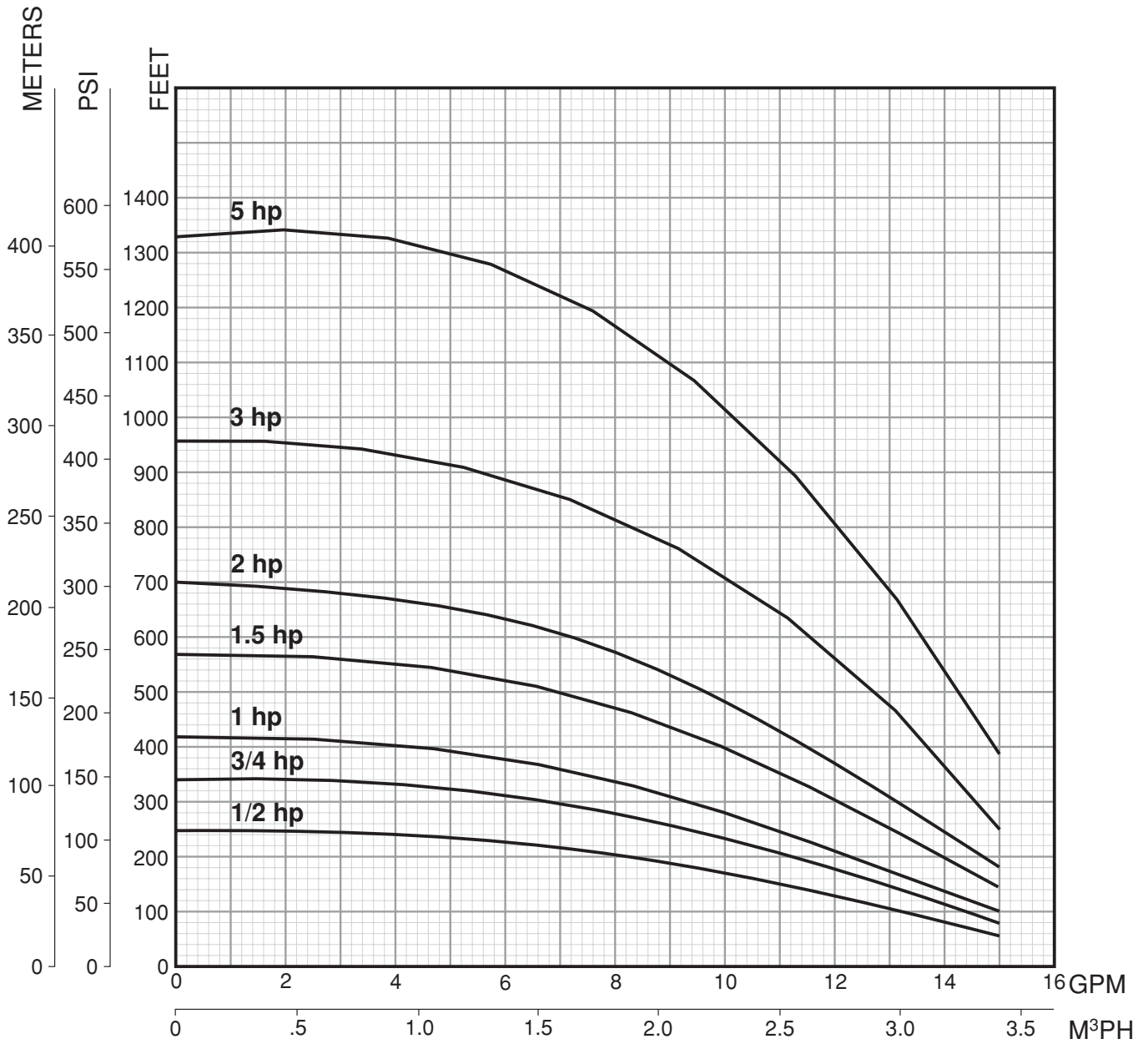
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																								
		20	40	60	80	100	120	140	160	180	200	240	260	300	340	360	400	440	480	500	600		700	800	900	1000
1/2	0	-	-	12	11	10	10	9	9	8	7	6	4													
	20	11	11	10	9	9	8	8	7	6	5															
	30	11	10	9	9	8	8	7	6	5	3															
	40	10	9	9	8	8	7	6	5	3																
	50	9	9	8	7	7	6	5	3																	
	60	9	8	8	7	6	5	3																		
	80	7	6	5	3																					
Shut-off PSI		116	108	99	90	82	73	64	56	47	38	21	12													
3/4	0	-	-	-	11	11	10	10	9	9	9	8	7	6	4	2										
	20	12	11	11	10	10	9	9	9	8	8	7	6	3												
	30	11	11	10	10	9	9	9	8	8	7	6	5													
	40	11	10	10	9	9	9	8	8	7	6	5	3													
	50	10	10	9	9	9	8	8	7	6	6	2														
	60	10	9	9	8	8	8	7	6	5	4															
	80	9	8	8	7	7	6	5	3																	
Shut-off PSI		154	146	137	129	120	111	103	94	85	77	59	51	33	16	7										
1	0	-	-	-	-	12	11	11	11	10	10	9	9	8	8	7	6	5	2							
	20	-	-	12	11	11	10	10	10	10	9	9	8	7	7	6	4	1								
	30	-	12	11	11	10	10	10	9	9	9	8	8	7	6	5	3									
	40	12	11	11	10	10	10	10	9	9	9	8	8	7	6	5	4									
	50	11	11	10	10	10	9	9	9	8	8	7	7	6	4											
	60	11	10	10	10	9	9	9	8	8	8	7	6	5	3											
	80	10	9	9	9	9	8	8	7	7	6	5	4													
Shut-off PSI		203	194	185	177	168	160	151	142	134	125	108	99	81	64	56	38	21	4							
1.5	0	-	-	-	-	-	12	11	11	11	10	10	10	9	9	9	8	7	7	6	4					
	20	-	-	-	11	11	11	11	10	10	10	9	9	9	8	8	7	7	6	5						
	30	-	-	11	11	11	11	10	10	10	10	9	9	8	8	7	7	6	5	5						
	40	-	11	11	11	11	10	10	10	10	9	9	9	8	8	7	7	6	4	3						
	50	11	11	11	11	10	10	10	10	9	9	9	8	8	7	7	6	5	3	2						
	60	11	11	11	10	10	10	10	9	9	9	8	8	7	7	6	6	4	2	1						
	80	10	10	10	10	9	9	9	9	8	8	8	7	7	6	5	4	2								
Shut-off PSI		268	260	251	242	234	225	216	208	199	180	173	164	147	130	121	104	87	69	61	17					
2	0	-	-	-	-	-	11	11	10	10	9	9	9	9	8	8	7	6	5	3	1					
	20	-	-	-	11	11	10	9	9	9	8	8	7	6	5	3	1									
	30	-	-	12	11	10	10	9	9	9	8	8	7	6	4	2										
	40	-	12	11	10	10	9	9	9	8	8	7	6	5	3	1										
	50	12	11	10	10	9	9	9	8	8	7	6	4	2												
	60	12	11	10	9	9	9	8	8	7	7	5	4	1												
	80	11	10	10	9	9	9	8	8	7	6	5	3													
Shut-off PSI		325	304	282	261	239	217	196	174	152	131	109	87	66	44	22										
3	0	-	-	-	-	-	11	11	10	10	9	9	9	9	8	8	7	6	5	4	3					
	20	-	-	-	12	11	10	10	10	9	9	9	9	8	8	7	7	6	4	3	1					
	30	-	-	-	12	11	10	10	9	9	9	9	8	8	8	7	6	5	4	2						
	40	-	-	12	11	11	10	10	9	9	9	9	8	8	7	7	6	4	3	1						
	50	-	-	12	11	10	10	9	9	9	9	9	8	8	7	6	5	4	2							
	60	-	12	11	11	10	10	9	9	9	9	8	8	7	7	6	4	3	1							
	80	12	11	11	10	10	9	9	9	9	8	8	7	6	5	4	2									
Shut-off PSI		436	415	393	371	350	328	306	285	263	241	220	198	177	155	133	112	90	68	47	25					

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.

# 4" Submersible Pump

## FPS 4400

### 10 GPM Performance Curves



# 4" Submersible Pump

## FPS 4400

### 10 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

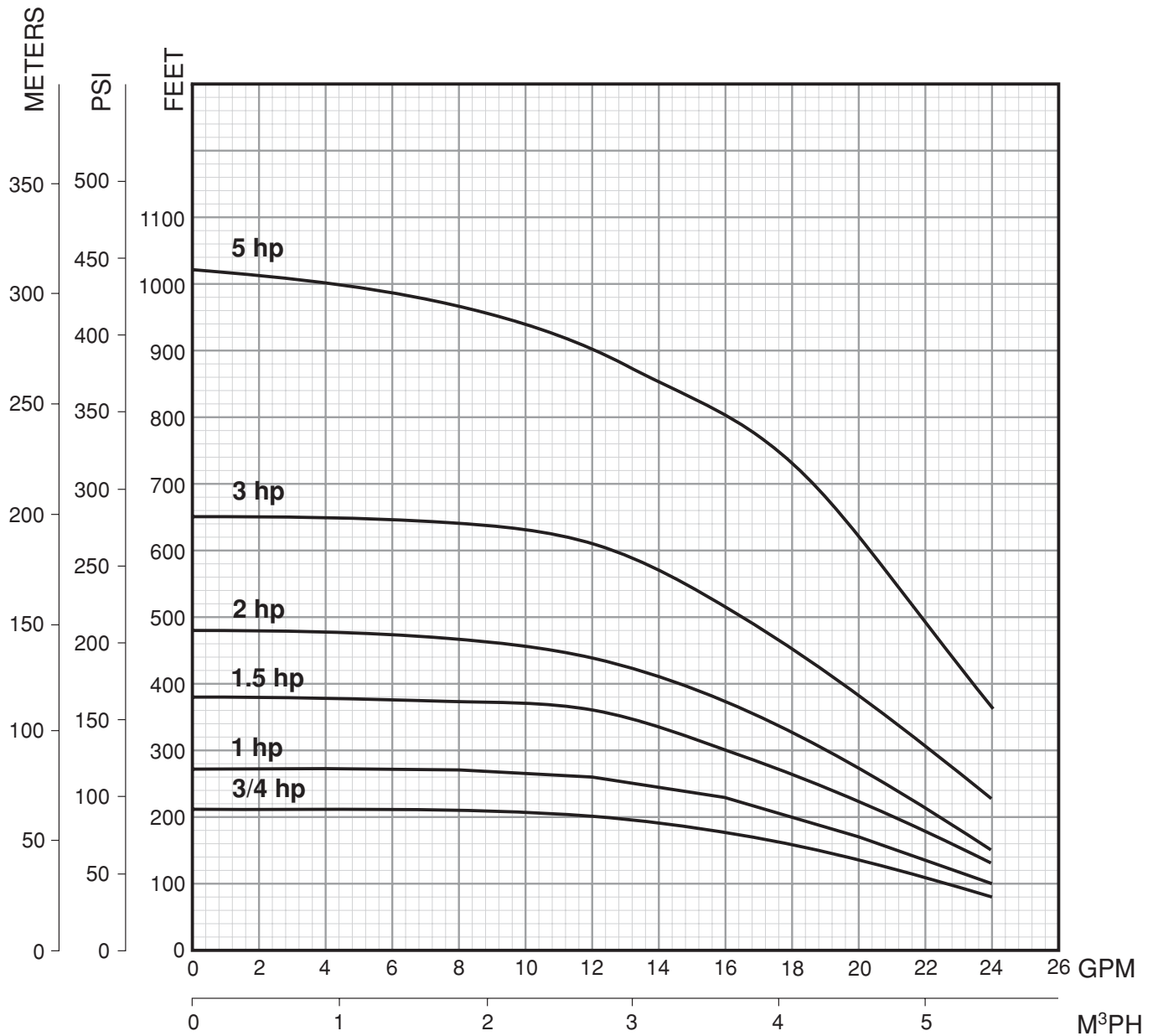
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																									
		20	40	60	80	100	120	140	160	180	200	240	260	300	340	360	400	440	480	500		600	700	800	900	1000	
1/2	0	-	-	15	13	12	12	11	10	9	8	2														Shut-off 245 ft	
	20	14	13	12	12	11	10	9	7																		
	30	13	12	11	11	10	9	7																			
	40	12	11	11	10	9	7																				
	50	11	11	10	8	6																					
	60	10	10	8	6	4																					
	80	7	5																								
Shut-off PSI		97	88	80	71	62	54	45	36	28	19	2															
3/4	0	-	-	-	15	14	13	13	12	11	11	9	9	6												Shut-off 339 ft	
	20	-	14	14	13	12	12	11	11	10	9	7	5														
	30	14	14	13	12	12	11	10	10	9	8	5	4														
	40	13	13	12	12	11	10	10	9	8	7																
	50	13	12	12	11	10	10	10	8	7	5																
	60	12	12	11	10	9	9	8	6	5																	
	80	11	10	9	8	7	6	4																			
Shut-off PSI		138	129	120	112	103	95	86	77	69	60	43	34	17													
1	0	-	-	-	-	15	14	13	13	12	12	11	10	9	8	7	4									Shut-off 427 ft	
	20	-	-	14	14	13	13	12	12	11	11	9	9	8	6	4											
	30	-	14	14	13	12	12	11	11	10	10	9	8	7	4												
	40	14	14	13	12	12	11	11	10	10	9	8	7	5													
	50	14	13	12	12	11	11	10	10	9	9	7	6	3													
	60	13	12	12	11	11	10	10	9	9	7	6	5														
	80	12	11	10	10	9	9	8	8	7	6																
Shut-off PSI		176	167	158	150	141	132	124	115	106	98	80	72	54	37	29	11										
1.5	0	-	-	-	-	-	-	15	14	14	14	13	12	12	11	10	10	9	8	7					Shut-off 570 ft		
	20	-	-	-	-	14	14	14	13	13	12	12	11	11	10	9	9	8	6	5							
	30	-	-	-	14	14	14	13	13	12	12	11	11	10	9	9	8	7	4								
	40	-	-	14	14	14	13	13	13	12	12	11	10	10	9	8	7	6									
	50	-	14	14	14	13	13	12	12	12	11	10	10	9	8	8	6	4									
	60	14	14	14	13	13	12	12	12	11	11	10	10	9	8	7	5										
	80	13	13	13	12	12	11	11	11	10	10	9	8	7	6	4											
Shut-off PSI		238	229	220	212	203	194	186	177	168	160	142	134	116	99	90	73	56	38	30							
2	0	-	-	-	-	-	-	-	15	14	14	13	13	12	12	11	10	10	9	7					Shut-off 704 ft		
	20	-	-	-	-	-	-	14	14	14	13	13	12	12	11	11	10	10	9	8	5						
	30	-	-	-	-	-	14	14	14	13	13	13	12	12	11	11	10	9	8	8	4						
	40	-	-	-	-	14	14	14	13	13	13	12	12	11	11	10	10	9	8	7	1						
	50	-	-	-	14	14	14	13	13	13	13	12	12	11	10	10	9	8	7	7							
	60	-	-	14	14	14	13	13	13	13	12	12	12	11	10	10	9	9	8	7	6						
	80	14	14	14	13	13	12	12	12	11	11	10	9	8	7	6	4	2									
Shut-off PSI		296	287	278	270	261	252	244	235	226	218	200	192	174	157	148	131	114	96	88	45						
3	0	-	-	-	-	-	-	-	-	15	14	14	14	14	13	13	12	12	11	10	8	5			Shut-off 960 ft		
	20	-	-	-	-	-	-	-	-	15	14	14	14	13	13	13	12	12	12	10	9	7	2				
	30	-	-	-	-	-	-	-	-	15	14	14	14	14	13	13	13	12	12	11	10	8	6				
	40	-	-	-	-	-	-	-	15	14	14	14	14	13	13	13	12	12	11	11	10	8	5				
	50	-	-	-	-	-	-	15	14	14	14	14	13	13	13	13	12	12	11	11	9	8	5				
	60	-	-	-	-	-	15	14	14	14	14	13	13	13	13	12	12	12	11	11	9	7	4				
	80	-	-	-	14	14	14	14	14	13	13	13	13	12	12	12	11	10	10	8	5						
Shut-off PSI		406	397	389	380	371	363	354	345	337	328	311	302	285	267	259	241	224	207	198	155	112	69	26			
5	0	-	-	-	14	14	13	12	12	11	10	9	7	5											Shut-off 1330 ft		
	20	-	-	-	14	13	13	12	11	10	9	8	6														
	30	-	-	-	14	13	13	12	11	10	9	8	6														
	40	-	-	14	14	13	13	12	11	10	9	7	5														
	50	-	-	14	14	13	12	12	11	10	8	7	4														
	60	-	-	14	14	13	12	11	10	9	8	6															
	80	-	14	14	13	12	12	11	10	9	7	5															
Shut-off PSI		532	489	445	402	359	316	272	229	186	142	99	56	12													

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.

# 4" Submersible Pump

## FPS 4400

### 18 GPM Performance Curves



# 4" Submersible Pump

## FPS 4400

### 18 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																				Shut-off					
		20	40	60	80	100	120	140	160	180	200	240	260	300	340	360	400	440	480	500	600		700	800	900	1000	
3/4	0	-	-	-	-	24	22	21	19	18	16	12														Shut-off 215 ft	
	20	-	23	22	20	18	18	15	10																		
	30	23	22	20	19	17	15	9																			
	40	21	20	18	17	15	8																				
	50	20	18	17	14	7																					
	60	19	17	14																							
Shut-off PSI		84	75	67	58	49	41	32	23	15	6																
1	0	-	-	-	-	24	22	21	20	19	18	15	11													Shut-off 273 ft	
	20	-	-	23	22	21	20	18	17	16	14																
	30	-	23	22	21	20	18	17	16	13	8																
	40	23	22	21	20	18	17	16	13	7																	
	50	22	21	19	18	17	16	13																			
	60	20	19	18	17	15	12																				
80	17	16	13																								
Shut-off PSI		109	100	92	83	74	66	57	48	40	31	14	5														
1.5	0	-	-	-	-	-	-	23	22	21	19	18	16	13	12											Shut-off 380 ft	
	20	-	-	-	24	23	22	21	20	19	17	15	13														
	30	-	-	24	23	22	21	21	20	19	18	15	14	9													
	40	-	24	23	22	21	21	20	19	18	17	14	13														
	50	24	23	22	21	20	19	19	18	16	15	13	8														
	60	23	22	21	20	19	18	17	16	15	14	8															
80	20	20	19	18	17	15	14	13	9																		
Shut-off PSI		155	146	138	129	120	112	103	94	86	77	60	51	34	16	8											
2	0	-	-	-	-	-	-	-	23	23	22	21	20	19	17	16	15	12	2							Shut-off 480 ft	
	20	-	-	-	-	24	23	22	22	21	21	19	19	17	15	14	11										
	30	-	-	-	24	23	22	22	21	20	20	19	18	16	14	12	7										
	40	-	-	24	23	22	22	21	20	20	19	18	17	15	12	10											
	50	-	24	23	22	22	21	20	20	19	19	17	16	14	10	4											
	60	24	23	22	22	21	20	20	19	18	18	16	15	12	4												
80	22	21	21	20	19	18	17	16	15	13	11																
Shut-off PSI		198	189	181	172	163	155	146	137	129	120	103	94	77	59	51	33	16									
3	0	-	-	-	-	-	-	-	-	-	23	23	22	21	20	19	18	17	16	12						Shut-off 650 ft	
	20	-	-	-	-	-	-	-	-	24	23	22	22	21	20	19	18	17	15	15	12						
	30	-	-	-	-	-	-	-	24	23	22	22	21	20	19	18	17	16	15	14							
	40	-	-	-	-	-	-	24	23	22	22	21	20	19	18	18	17	15	14	12							
	50	-	-	-	-	-	24	23	22	22	21	20	20	19	18	17	16	15	13	12							
	60	-	-	-	-	24	23	22	22	21	21	20	19	18	17	16	15	13	11	8							
80	-	24	23	22	22	21	20	20	19	18	18	17	16	15	13	10											
Shut-off PSI		272	263	255	246	237	229	220	211	203	194	177	168	151	133	125	107	90	73	64	21						
5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	24	23	22	22	21	20	18	16	12	4	Shut-off 1027 ft		
	20	-	-	-	-	-	-	-	-	-	-	-	-	-	23	23	22	22	21	21	19	17	14	9			
	30	-	-	-	-	-	-	-	-	-	-	-	-	-	23	23	22	22	21	21	20	19	17	13		7	
	40	-	-	-	-	-	-	-	-	-	-	-	-	-	23	22	22	21	21	20	20	18	16	12		4	
	50	-	-	-	-	-	-	-	-	-	-	-	-	-	23	23	22	22	21	20	20	18	15	11		2	
	60	-	-	-	-	-	-	-	-	-	-	-	-	23	23	22	22	21	21	20	20	19	18	14		10	
80	-	-	-	-	-	-	-	-	23	23	22	22	22	21	21	20	19	19	18	16	12	5					
Shut-off PSI		435	427	418	409	401	392	383	375	366	357	340	331	314	296	288	270	253	236	227	184	141	98	55	12		

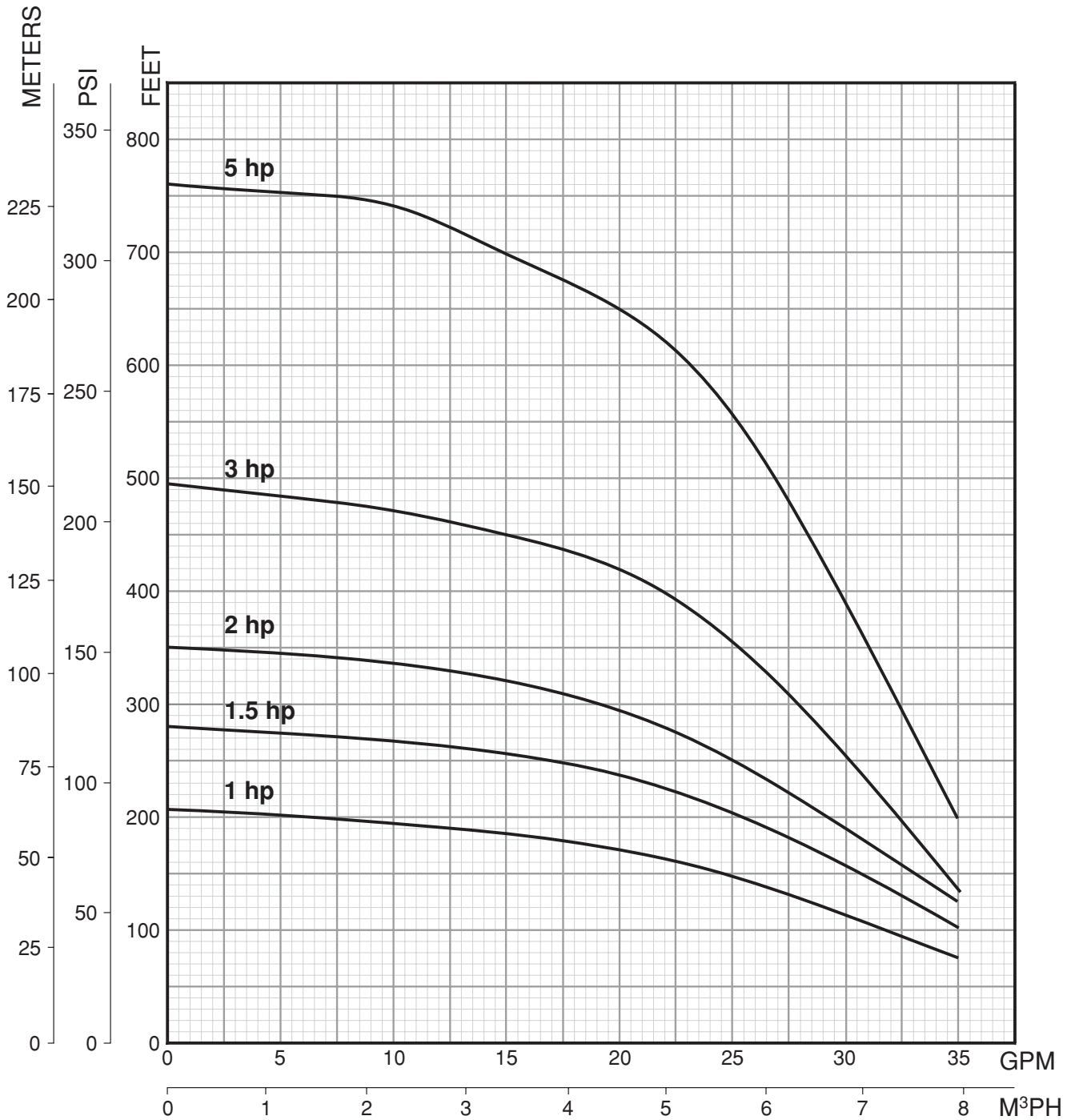
Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.



# 4" Submersible Pump

## FPS 4400

### 25 GPM Performance Curves



# 4" Submersible Pump

## FPS 4400

### 25 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																			Shut-off					
		20	40	60	80	100	120	140	160	180	200	240	260	300	340	360	400	440	480	500		600	700	800	900	1000
1	0	-	-	-	34	31	29	26	23	16	6															
	20	-	33	31	28	25	22	15																		
	30	33	31	28	25	21	14																			
	40	30	27	24	19	10																				
	50	27	24	19	9																					
	60	23	17	8																						
Shut-off PSI		81	72	64	55	46	38	29	20	12	3															
1.5	0	-	-	-	-	35	33	31	29	28	25	19	13													
	20	-	-	34	33	31	29	27	25	22	18															
	30	-	34	32	31	29	27	24	22	18	9															
	40	33	32	30	28	26	24	21	15	6																
	50	32	30	28	26	24	20	15	4																	
	60	30	28	26	23	20	15	2																		
80	25	22	18	11																						
Shut-off PSI		113	104	96	87	78	70	61	52	44	35	18	9													
2	0	-	-	-	-	35	33	32	30	29	26	24	19	7												
	20	-	-	-	35	33	32	30	28	27	25	21	18	5												
	30	-	-	34	33	32	30	28	27	25	23	18	13													
	40	-	34	32	31	29	28	26	24	23	20	11														
	50	34	32	31	29	28	26	24	22	20	16															
	60	34	32	29	28	26	24	22	19	16	9															
80	28	27	25	23	21	18	14	5																		
Shut-off PSI		142	133	125	116	107	99	90	81	73	64	47	38	21												
3	0	-	-	-	-	-	34	34	33	32	30	29	28	26	25	22	17	6								
	20	-	-	-	-	34	34	33	32	31	30	28	28	26	23	22	16	4								
	30	-	-	-	34	33	33	32	31	30	29	27	27	25	21	19	11									
	40	-	35	34	33	32	31	31	30	29	28	26	25	23	18	14										
	50	35	34	33	32	32	31	30	29	28	27	25	24	20	13	8										
	60	34	33	32	31	31	30	29	28	27	26	24	22	20	8											
80	32	31	30	29	28	28	27	26	25	23	19	16	4													
Shut-off PSI		205	196	188	179	170	162	153	144	136	127	110	101	84	66	58	40	23	6							
5	0	-	-	-	-	-	-	-	-	35	34	33	32	31	30	29	28	27	26	23	14					
	20	-	-	-	-	-	-	-	34	34	33	32	32	31	30	29	28	27	26	25	20	9				
	30	-	-	-	-	-	-	34	34	33	33	32	31	30	29	29	28	26	25	24	18					
	40	-	-	-	-	-	34	34	33	33	32	31	31	29	28	28	27	25	24	23	15					
	50	-	-	-	-	34	34	33	33	32	32	31	30	29	28	27	26	25	23	22	13					
	60	-	-	-	34	34	33	33	32	32	31	30	29	28	27	27	25	24	22	21	10					
80	34	34	33	33	32	32	31	31	30	30	29	28	27	26	25	23	21	18	16							
Shut-off PSI		321	312	304	295	286	278	269	260	252	243	226	217	200	182	174	156	139	122	113	70	26				

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.

### FPS 4400 High Capacity

35, 45, 60 and 90 GPM Models



## FPS 4400

### Features:

- 4 performance ranges - 35, 45, 60 & 90 gpm.
- Stainless steel discharge head and motor bracket.
- High flow impellers and stages are glass-filled Noryl® for maximum efficiency.
- Ceramic shaft sleeve and rubber discharge bearing eliminates sand wear.
- Intermediate bearing for increased shaft stability.
- Floating eye and hub seals for improved performance and efficiency.
- Stainless steel hex pump shaft, shell and shaft coupling.
- High capacity upthrust assembly for protection during start-up and operation (45, 60 and 90 gpm models).
- Powered by Franklin's corrosion-resistant 4" submersible motors.
- 2" NPT Discharge.
- Check valve must be ordered separately. See page 48.

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## 4" Submersible Pump

### FPS 4400 High Capacity

35-90 GPM Stainless Steel Units Ordering Information (See pg. 2-3 for model number explanation)

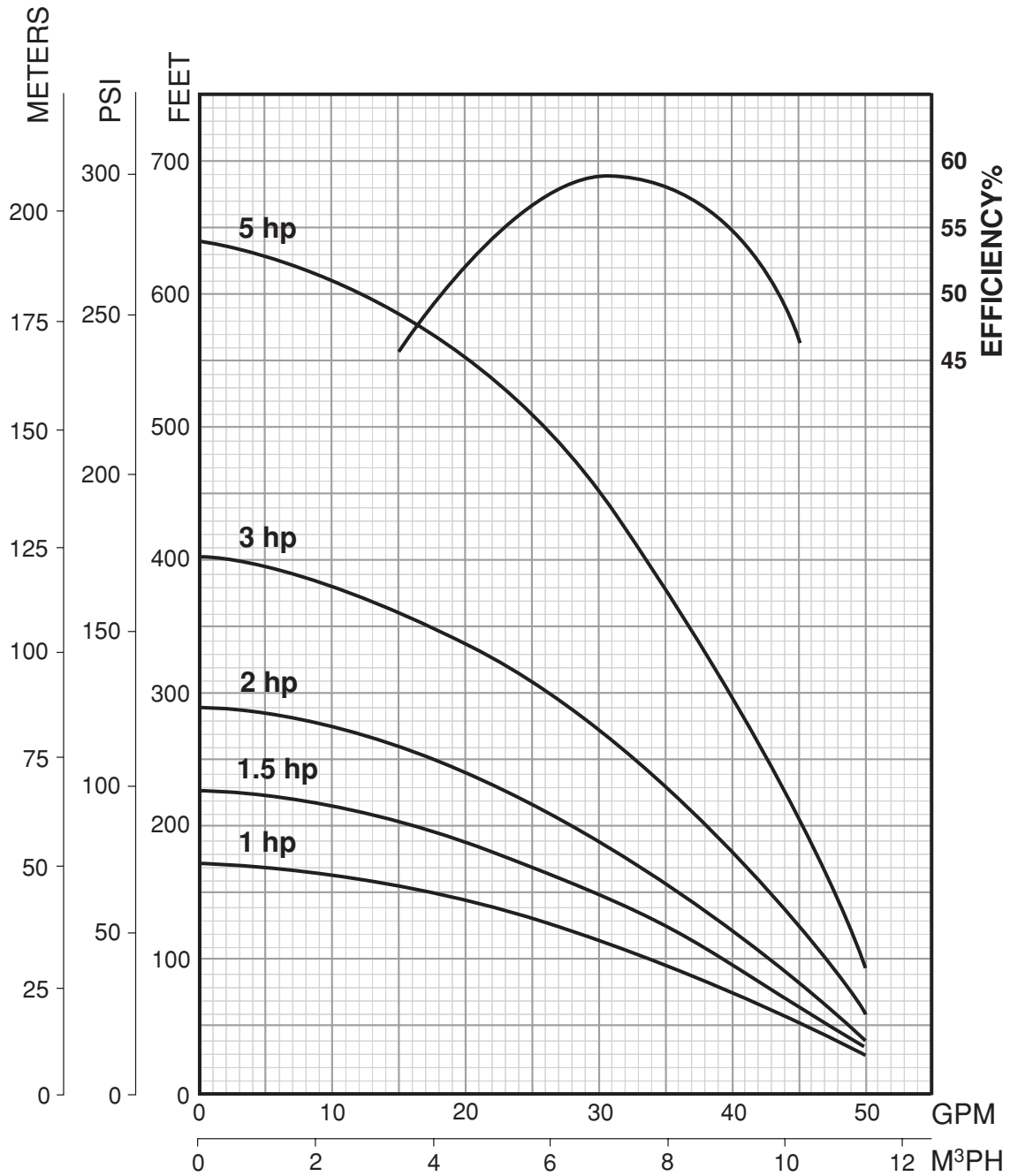
1 - 10 HP 4" Pump Ends								
GPM	HP	Stages	Ordering Info.			Dimensions		Wt.
			Old Model No.	New Model No.	Order No.	Shell	PEA	
35	1	6	F4P35X6	35FA1S4-PE	93613506	11.10	15.00	9
	1.5	8	F4P35X8	35FA15S4-PE	93613508	13.60	17.50	10
	2	10	F4P35X10	35FA2S4-PE	93613510	16.10	20.00	11
	3	14	F4P35X14	35FA3S4-PE	93613514	21.10	25.00	13
	5	22	F4P35X22	35FA5S4-PE	93613522	31.10	35.00	17
45	1.5	6	F4P45X6	45FA15S4-PE	93614506	17.10	21.00	15
	2	8	F4P45X8	45FA2S4-PE	93614508	21.60	25.50	16
	3	11	F4P45X11	45FA3S4-PE	93614511	28.35	32.25	19
	5	18	F4P45X18	45FA5S4-PE	93614518	43.85	47.75	25
	7.5	26	F4P45X26	45FA7S4-PE	93614526	61.35	65.25	33
60	2	6	F4P60X6	60FA2S4-PE	93616006	17.10	21.00	15
	3	8	F4P60X8	60FA3S4-PE	93616008	21.60	25.50	17
	5	13	F4P60X13	60FA5S4-PE	93616013	32.85	36.75	21
	7.5	17	F4P60X17	60FA7S4-PE	93616017	41.35	45.25	25
	10	24	F4P60X24	60FA10S4-PE	93616024	57.10	61.00	31
90	2	5	F4P90X5	90FA2S4-PE	93919005	18.66	22.56	15
	3	7	F4P90X7	90FA3S4-PE	93619007	24.66	28.56	17
	5	12	F4P90X12	90FA5S4-PE	93619012	39.66	43.56	21
	7.5	19	F4P90X19	90FA7S4-PE	93619019	60.60	64.50	27

**Notes:** All dimensions are in inches. Discharge is 2" NPT. Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.

1 - 1.5 HP Single-Phase Units											
GPM	HP	Stages	Volts	2-Wire				3-Wire			
				Old Model No.	New Model No.	Order No.	Wt.	Old Model No.	New Model No.	Order No.	Wt.
35	1	6	230	T1F4P35X6-S2	35FA1S4-2W230	93613606	33	1F4P35X6-S2	35FA1S4-3W230	93613706	33
	1.5	8	230	T15F4P35X8-S2	35FA15S4-2W230	93613608	41	15F4P35X8-S2	35FA15S4-3W230	93613708	39
45	1.5	6	230	T15F4P45X6-S2	45FA15S4-2W230	93614606	46	15F4P45X6-S2	45FA15S4-3W230	93614706	44

**Notes:** All listed above have 2" NPT discharge. Order check valve separately.  
Pump and motor will be individually cartoned and require assembly.

## FPS 4400 High Capacity 35 GPM Performance Curves



**Notes:** 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

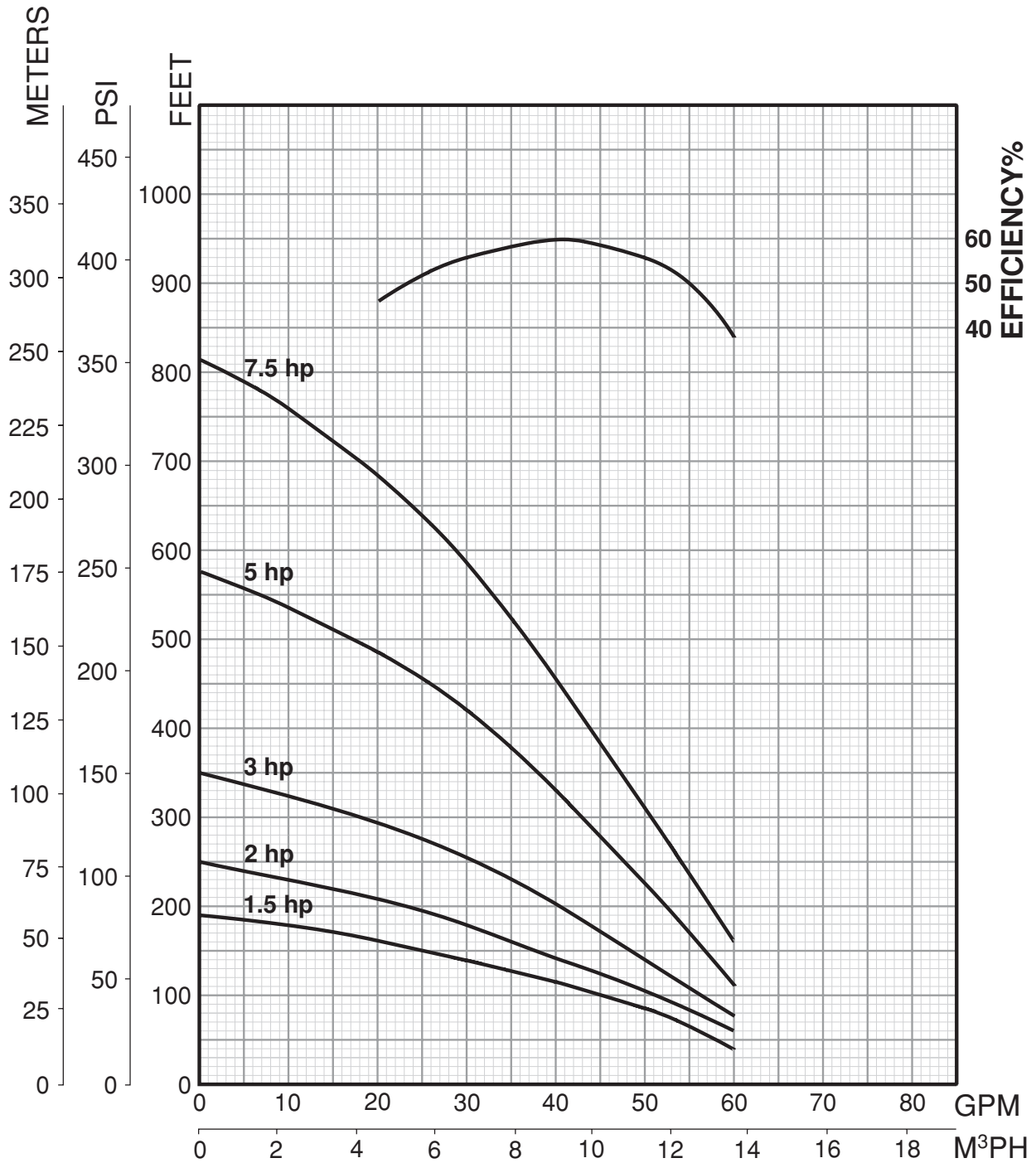
# 4" Submersible Pump

## FPS 4400 High Capacity 35 GPM Performance Charts

### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																							
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	450	500	550	600
1	0	-	48	44	39	34	28	21	11																
	20	42	37	32	26	18	7																		
	30	36	31	25																					
	40	30	24	15																					
	50	23	14																						
	60	12																							
	70																								
	80																								
Shut-off PSI		65	57	48	39	31	22	13	5																
1.5	0	-	49	46	43	40	36	32	27	22	16	8													
	20	45	42	39	35	31	26	20	14																
	30	41	38	34	30	25	20	13																	
	40	37	33	29	24	18	11																		
	50	33	29	24	18	10																			
	60	28	23	17	9																				
	70	22	16	7																					
	80	14	3																						
Shut-off PSI		89	81	72	63	54	46	37	28	20	11	2													
2	0	-	50	48	45	43	40	37	34	31	28	24	19	14	7										
	20	47	45	42	39	36	33	30	27	22	18	13	3												
	30	44	41	39	36	33	30	26	22	17	12														
	40	41	38	35	32	29	25	21	16	10															
	50	38	35	32	29	25	20	16	9																
	60	35	31	28	24	20	15	8																	
	70	31	27	23	19	14	6																		
	80	27	23	18	13	4																			
Shut-off PSI		116	107	99	90	81	73	64	55	47	38	29	21	12	3										
3	0	-	-	50	48	47	46	44	42	39	37	35	33	31	28	26	23	19	15	10					
	20	49	48	47	45	43	41	39	37	35	33	30	28	25	22	18	14	8							
	30	48	46	45	43	41	39	37	35	32	30	27	25	21	17	13	7								
	40	46	44	42	40	38	36	34	32	29	27	24	20	17	12	5									
	50	44	42	40	38	36	34	31	29	26	24	20	16	12	4										
	60	42	40	38	36	33	31	29	26	23	19	15	11	2											
	70	39	37	35	33	31	28	26	22	19	15	10													
	80	37	35	33	30	28	25	22	18	14	9														
Shut-off PSI		165	156	148	139	130	122	113	104	96	87	78	70	61	52	44	35	26	18	9					
5	0	-	-	-	-	50	49	48	47	46	45	44	43	42	40	39	38	37	36	34	33	30	25	20	12
	20	-	-	49	48	48	47	46	45	44	42	41	40	39	38	36	35	34	33	32	30	26	20	13	
	30	-	49	48	47	46	45	44	43	42	41	40	39	38	36	35	34	33	31	30	28	23	17	8	
	40	49	48	47	46	45	44	43	42	41	40	39	37	36	35	34	32	31	30	28	26	21	13		
	50	48	47	46	45	44	43	42	41	40	38	37	36	35	33	32	31	30	28	26	24	18	9		
	60	47	46	45	44	43	42	41	39	38	37	36	34	33	32	31	29	28	26	24	21	14			
	70	46	45	44	43	42	40	39	38	37	35	34	33	32	31	29	27	25	23	21	18	10			
	80	45	44	42	41	40	39	38	36	35	34	33	32	30	29	27	25	23	20	18	15	3			
Shut-off PSI		268	259	251	242	233	225	216	207	199	190	181	173	164	155	147	138	129	121	112	103	82	60	38	17

## FPS 4400 High Capacity 45 GPM Performance Curves



**Notes:** 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.  
 3. Performance for former XP models are the same as 45 gpm models.

# 4" Submersible Pump

## FPS 4400 High Capacity 45 GPM Performance Charts

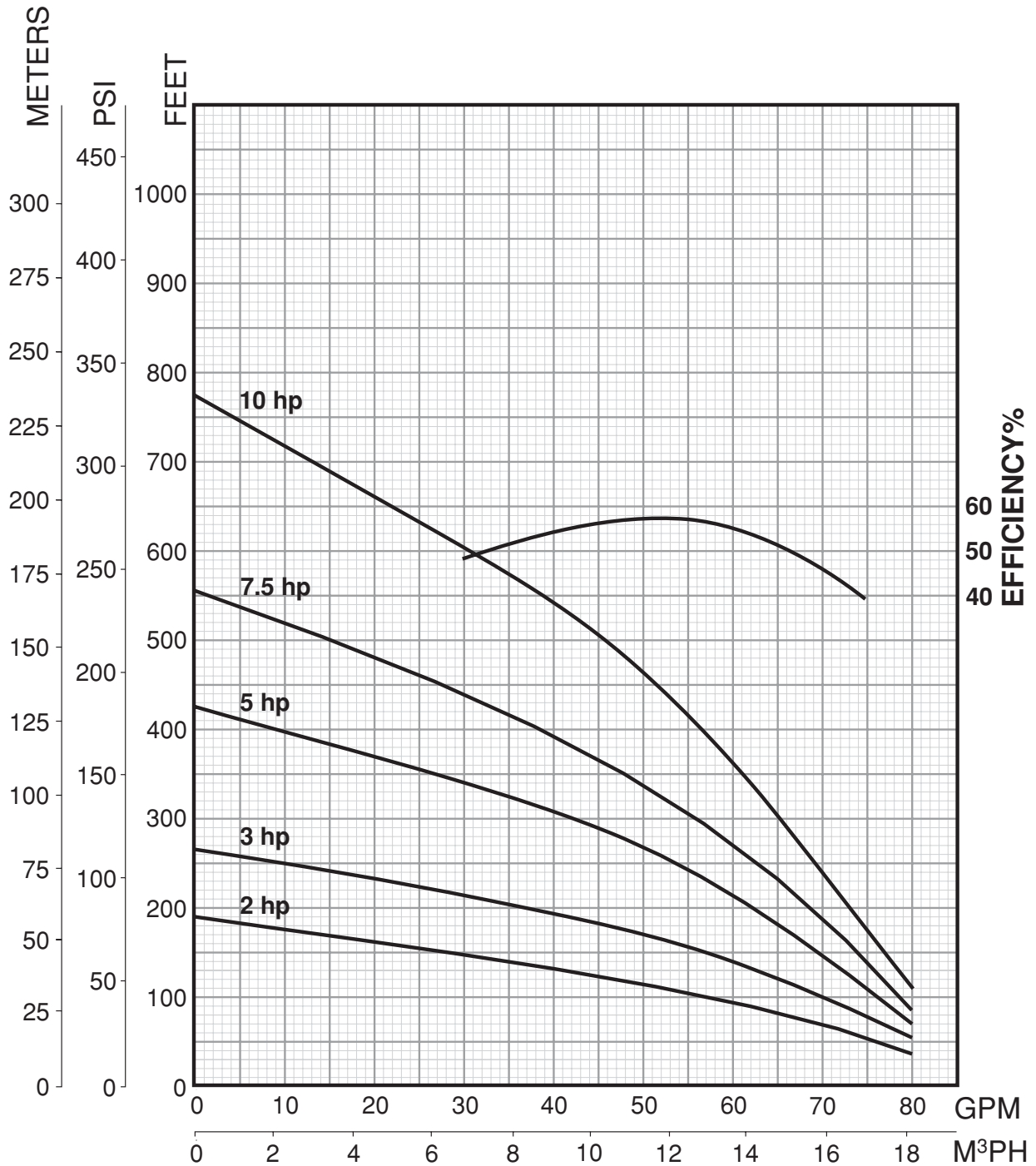
### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																		
		20	40	60	80	100	120	140	160	180	200	240	260	280	300	320	340	360	380	400
1.5	0	68	62	57	52	46	39	31												
	10	62	56	51	45	38	29	19												
	20	55	50	44	36	28	17	5												
	30	49	42	35	26	16	3													
	40	41	34	25	14															
	50	33	23	12																
	60	22	10																	
Shut-off PSI		74	65	56	48	39	30	22	13	4										
2	0	71	65	60	56	52	48	44	40	35	29									
	10	64	59	55	51	48	44	40	34	28	20									
	20	58	54	51	47	43	39	33	27	19	9									
	30	54	50	47	43	38	32	26	17	7										
	40	50	46	42	37	32	24	16	5											
	50	45	41	36	31	23	14	3												
	60	41	36	29	22	13	1.5													
Shut-off PSI		104	95	87	78	69	61	52	43	35	26	9								
3	0	72	68	65	62	59	56	53	50	47	43	36	31	26	20					
	10	68	64	61	58	55	52	49	46	43	39	30	25	19	12					
	20	64	61	58	55	52	49	46	42	38	34	24								
	30	60	57	54	52	48	45	42	38	34	29	17								
	40	57	54	51	48	45	41	37	33	28	22	16								
	50	54	51	47	44	41	37	32	27	21	15									
	60	50	47	44	40	36	31	26	20	14										
	70	46	43	39	35	31	25	19	13											
	80	43	39	35	30	24	18	12												
	90	38	34	29	24	18	11													
100	33	28	23	16	9															
Shut-off PSI		143	134	126	117	108	100	91	82	74	65	48	39	30	22	13	4			
5	0	-	-	69	66	63	61	59	57	55	53	50	48	46	44	42	40	38	36	33
	20	68	65	63	60	57	56	54	52	51	49	46	44	42	40	38	35	32	29	26
	40	62	60	57	56	54	52	50	48	48	47	45	39	37	34	32	28	25	21	
	60	57	55	51	51	50	48	46	44	43	41	36	33	31	27	24	20	16		
	80	53	51	49	47	46	44	42	40	38	35	30	26	23	19					
	100	49	47	45	43	41	39	37	34	32	29	25	18							
	120	45	43	41	39	36	34	31	28	24	20	16								
	140	40	38	35	33	30	27	23	19											
	160	35	32	29	26	22	18													
170	31	28	25	21	17															
Shut-off PSI		236	227	219	210	201	193	184	175	167	158	141	132	123	115	106	97	89	80	71
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																		
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
7.5	0	-	-	-	57	54	50	47	44	40	36	32	28	24	18	11	3			
	20	-	-	57	54	50	47	44	40	36	32	28	24	18	11	3				
	40	-	58	54	51	48	45	41	37	33	29	24	18	12	5					
	60	58	55	52	48	45	41	37	33	29	25	19	12	5						
	80	55	52	48	45	41	37	33	29	25	19	12	5							
	100	52	48	45	42	38	34	30	25	20	14	6								
	120	49	45	42	38	34	30	25	21	14	7									
	140	45	42	38	35	30	26	21	15	7										
	160	42	39	35	31	26	21	15	8											
	180	39	35	31	27	22	16	8												
	200	35	31	27	22	16	9													
220	32	27	22	17	10															
Shut-off PSI		331	310	288	266	245	223	201	180	158	136	115	93	71	50	28	6			



# 4" Submersible Pump

## FPS 4400 High Capacity 60 GPM Performance Curves



- Notes:**
1. Performance shown does not include friction loss in the drop pipe.
  2. All performance data is based on rated motor nameplate voltage.
  3. Performance for former XP models are the same as 60 gpm models.

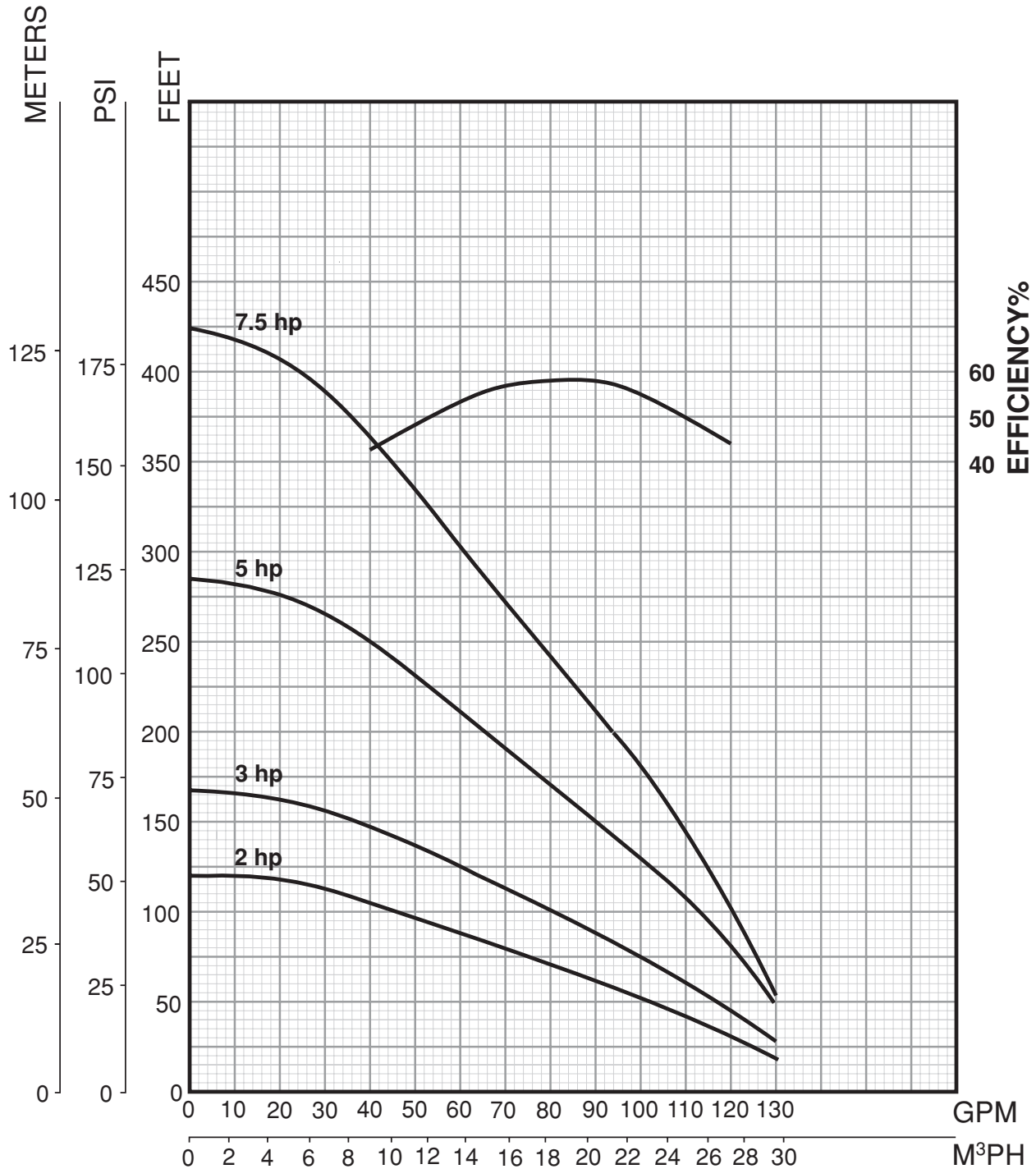
# 4" Submersible Pump

## FPS 4400 High Capacity 60 GPM Performance Charts

### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																	
		Shaded Areas Indicate Most Efficient Performance																	
		20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
2	0	87	84	81	78	75	72	69	66	62	58	54	49						
	10	80	77	74	71	68	65	61	57	52	47	42	36						
	20	74	70	67	64	60	56	51	46	40	34	26	18						
	30	66	63	59	54	49	44	38	31	24	16								
	40	57	53	48	42	36	29	21	13										
	50	46	40	34	27	19													
	60	32	24	16															
Shut-off PSI		74	69	65	61	56	52	48	43	39	30	26	22	17	13	9	4		
3	0	90	87	85	83	81	79	76	74	72	70	67	65	62	59	56	53	49	
	10	84	82	80	78	76	74	71	69	67	64	61	58	55	51	47	43	38	
	20	79	77	75	73	71	68	66	63	60	57	54	50	46	42	37	32	26	
	30	74	72	70	68	65	59	56	53	49	45	40	35	30	24				
	40	69	67	64	62	58	55	52	48	43	39	34	28	22					
	50	63	61	58	54	50	46	42	37	32	26								
	60	56	63	49	45	41	36	30	24										
Shut-off PSI		108	104	100	95	91	87	82	78	74	69	65	61	56	52	48	43	39	
HP	PSI	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	
5	0	85	85	80	80	75	75	70	70	65	65	60	55	50	45	45	35	30	
	10	85	80	80	75	75	70	70	65	60	60	55	50	45	40	35	30	25	
	20	80	80	75	75	70	70	65	60	60	55	50	45	40	35	30	25	15	
	30	80	75	75	70	65	65	60	60	55	50	45	40	35	30	20	15	5	
	40	75	70	70	65	65	60	55	55	50	45	40	35	30	25	10	5		
	50	70	70	65	65	60	55	55	50	45	40	35	25	25	10	5			
	60	70	65	65	60	55	50	50	45	40	30	25	20	10	5				
	70	65	60	60	55	50	45	40	35	30	25	15	10						
	80	60	60	55	50	45	40	35	30	25	15	10							
	90	60	55	50	45	40	35	30	20	15	5								
100	55	50	45	40	35	30	20	15	5										
Shut-off PSI		173	165	156	147	139	130	121	113	104	95	87	78	69	61	52	43	35	
HP	PSI	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	
7.5	0	-	78	73	68	63	56	49	40	28	15	2							
	20	78	73	68	63	56	49	40	28	15	2								
	40	75	69	64	58	50	41	30	18	3									
	60	70	64	58	50	42	31	18	4										
	80	65	59	51	43	32	19	5											
	100	59	52	43	32	20	6												
	120	52	44	33	21	8													
	140	44	34	21	8														
160	35	22	9																
Shut-off PSI		221	199	177	156	134	113	91	69	48	26	4							
10	0	-	-	75	72	69	65	61	56	51	45	38	30	21	13	4			
	20	-	75	72	69	65	61	56	51	46	38	31	22	14	5				
	40	75	72	69	65	61	56	51	45	39	31	22	14	5					
	60	73	69	66	62	57	52	47	40	32	24	15	6						
	80	70	66	62	57	52	47	40	32	24	15	6							
	100	66	62	58	53	48	41	34	25	16	7								
	120	63	58	53	48	41	34	25	16	8									
	140	58	53	48	42	34	26	17	8										
160	54	49	43	35	27	18	9												
Shut-off PSI		312	290	269	247	225	204	182	161	139	117	96	74	52	31	9			

## FPS 4400 High Capacity 90 GPM Performance Curves



**Notes:** 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

# 4" Submersible Pump

## FPS 4400 High Capacity 90 GPM Performance Charts

### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet Shaded Areas Indicate Most Efficient Performance																	
		20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
2	0	130	120	110	100	90	80	70	60	45	30	10							
	10	105	100	90	80	70	55	40	20										
	20	85	75	65	50	35	15												
	30	60	45	30	10														
	40	25	5																
Shut-off PSI		43	39	35	30	26	22	17	13	9	4								
3	0	140	130	120	115	105	100	95	90	80	75	65	55	45	30	15			
	10	120	110	105	100	95	85	80	70	65	55	40	25	10					
	20	105	95	90	85	80	70	60	50	35	20	54							
	30	90	80	75	65	55	45	35	15										
	40	75	65	55	40	30	10												
	50	50	40	25	5														
60	20																		
Shut-off PSI		64	59	55	51	46	42	38	33	29	25	20	16	12	7	3			
HP	PSI	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	
5	0	145	135	125	120	110	105	95	85	80	70	55	45	30	10				
	10	135	125	115	110	100	95	85	75	65	55	40	25	10					
	20	125	115	110	100	95	85	75	65	55	40	25	5						
	30	115	105	100	90	85	75	65	50	40	20	5							
	40	105	100	90	80	70	60	50	35	20									
	50	95	90	80	70	60	45	35	15										
	60	90	80	70	60	45	30	15											
	70	80	70	55	45	30	10												
	80	65	55	40	25	5													
	90	50	40	25	5														
100	35	20																	
Shut-off PSI		115	106	97	89	80	71	63	54	45	37	28	19	11	2				
HP	PSI	20	50	80	110	140	170	200	230	260	290	320	350	380	410	440	470	500	
7.5	0	140	135	125	115	110	100	95	85	75	65	55	45	30	15				
	20	130	120	110	105	95	90	80	70	60	50	35	20	5					
	30	120	115	105	100	90	85	75	65	55	40	25	10						
	40	115	110	100	95	85	75	65	55	45	30	10							
	50	110	105	95	85	80	70	60	45	30	15								
	60	105	95	90	80	70	60	50	35	20	5								
	80	95	85	75	65	55	40	25	10										
	100	80	70	60	50	35	20												
	120	65	55	40	25	10													
	140	45	35	20															
160	25	10																	
Shut-off PSI		175	162	149	136	123	110	97	84	71	58	45	32	19	6				

## 6" Submersible Pump

### FPS 4400 High Capacity 50 and 75 GPM Models



## FPS 4400

### Features:

- Heavy-duty stainless steel discharge head and motor bracket.
- Stainless steel shaft, shell, intake screen and cable shield for corrosion resistance and longer life.
- Stainless steel wear ring and Urethane floating eye seal for improved performance and efficiency.
- Glass-filled Noryl® impeller stage assemblies for incredible strength and durability.
- Ceramic shaft sleeve and rubber discharge bearing minimizes bearing wear and shaft misalignment without affecting pump efficiency.
- 3" NPT tapping in heavy-duty stainless steel discharge head.
- Fastener kit supplied for both 4" and 6" motors. Enabling 5-10 HP units to be mounted to either a 4" or 6" submersible motor.
- One year unconditional warranty against failure from sand locking in abrasive well conditions.

\* Noryl® is a Registered Trademark of G.E.

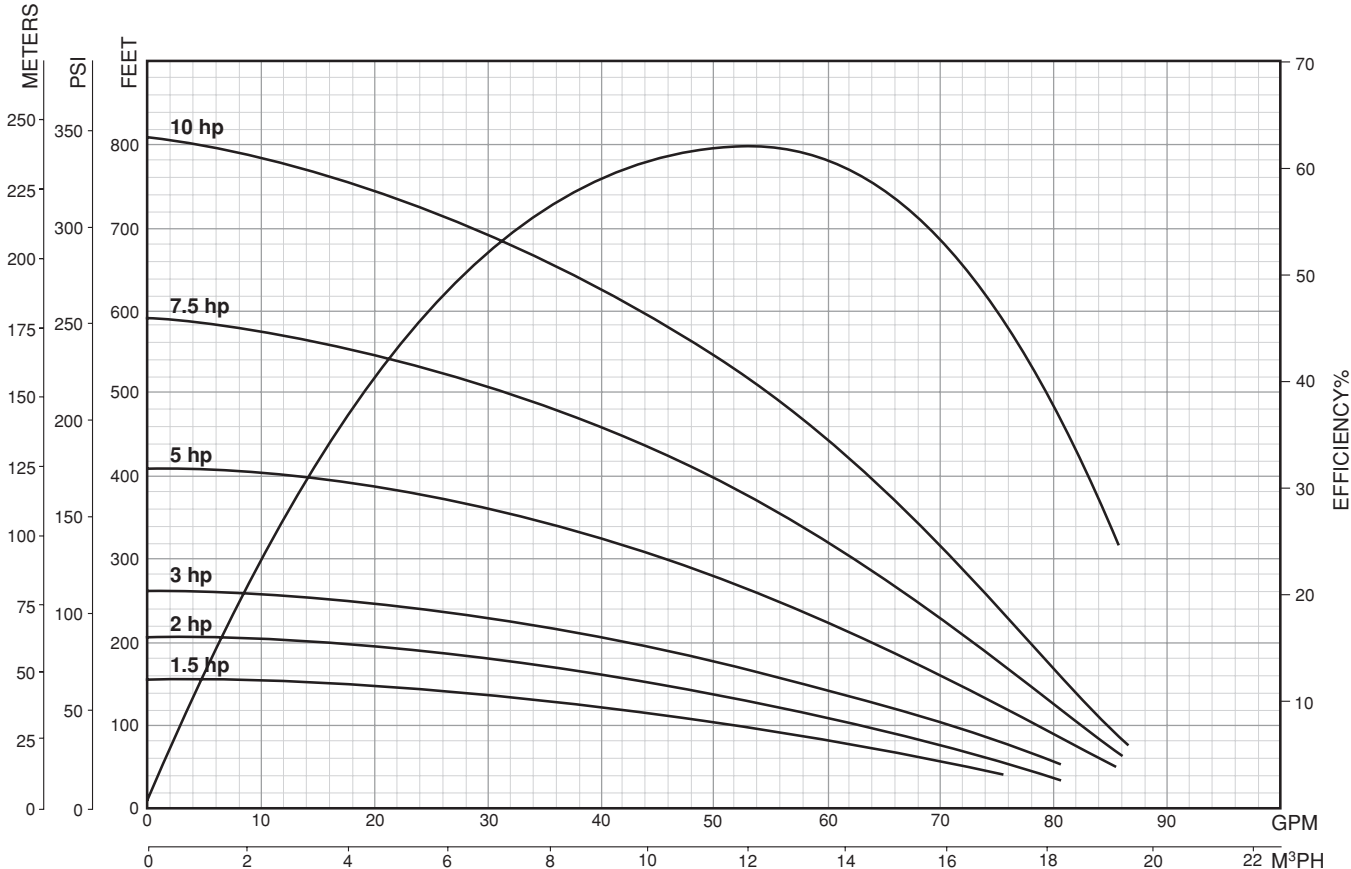
### Ordering Information (See pg. 2-3 for model number explanation)

1-1/2 - 25 HP 6" Pump Ends								
GPM	HP	Stages	Motor Fit	Ordering Info.			Dimensions	Wt.
				Old Model No.	New Model No.	Order No.	Pump End Only	
50	1.5	3	4"	F6P50X4	50FA15S6-PE	94825003	13.51	30
	2	4	4"	F6P50X5	50FA2S6-PE	94825004	15.13	31
	3	5	4"	F6P50X6	50FA3S6-PE	94825005	16.76	32
	5	8	4" & 6"	F6P50X10	50FA5S6-PE	94825008	21.63	36
	7.5	11	4" & 6"	F6P50X15	50FA7S6-PE	94825011	26.51	40
	10	15	4" & 6"	F6P50X20	50FA10S6-PE	94825015	32.94	46
75	3	3	4"	F6P75X3	75FA3S6-PE	94827503	13.51	30
	5	5	4" & 6"	F6P75X5	75FA5S6-PE	94827505	16.76	32
	7.5	7	4" & 6"	F6P75X8	75FA7S6-PE	94827507	20.01	35
	10	9	4" & 6"	F6P75X10	75FA10S6-PE	94827509	23.26	38
	15	13	6"	F6P75X15	75FA15S6-PE	94827513	29.76	43
	20	17	6"	F6P75X20	75FA20S6-PE	94827517	36.19	48
	25	23	6"	F6P75X24	75FA25S6-PE	94827523	46.00	54

**Note:** All dimensions are in inches. Discharge is 3" NPT. Maximum diameter across cable guard is 5.5" on all models. Weight in pounds.

# 6" Submersible Pump

## FPS 4400 High Capacity 50 GPM Performance Curves



# 6" Submersible Pump

## FPS 4400 High Capacity 50 GPM Performance Charts

### Capacities in U.S. Gallons per Minute

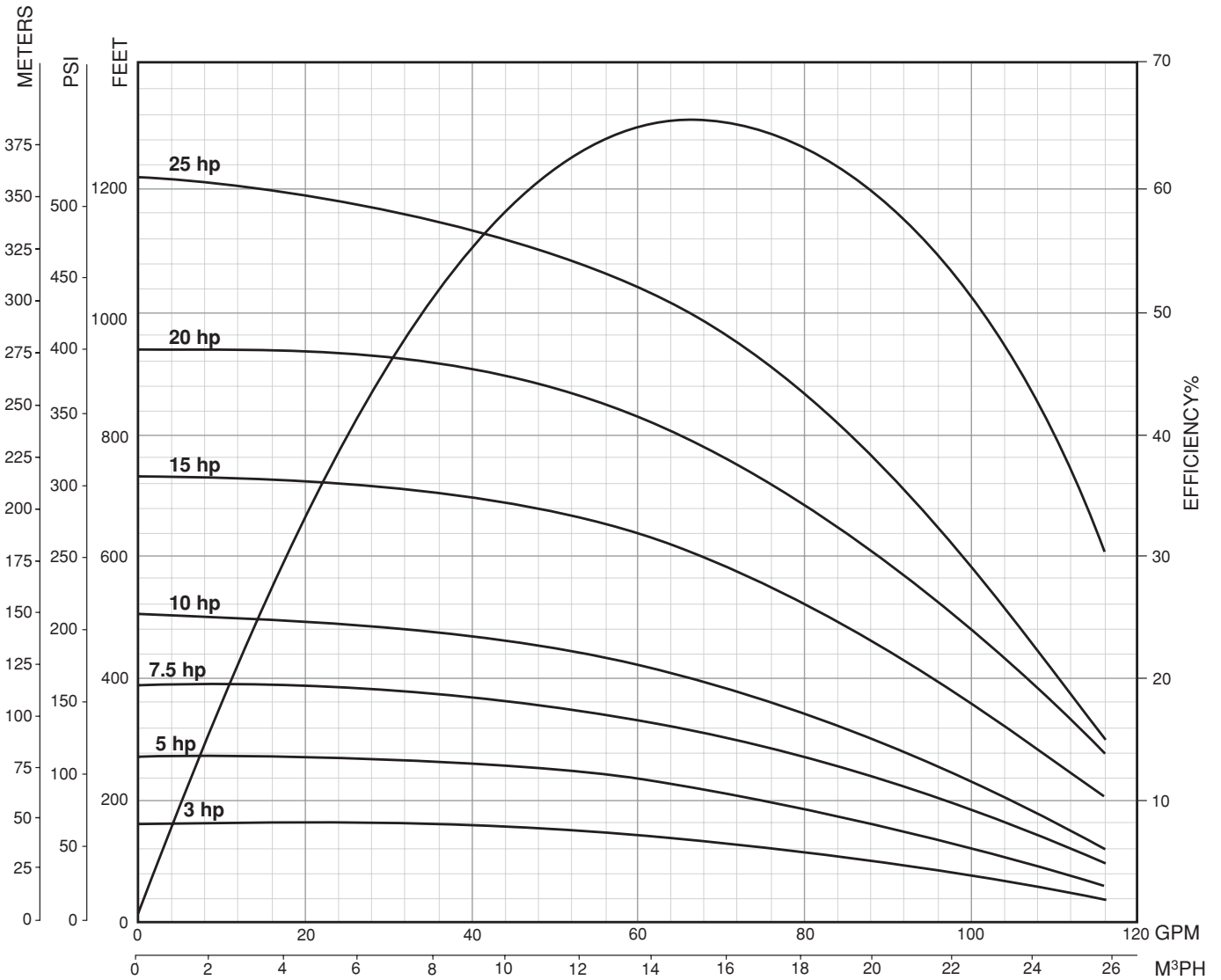
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																							Shut-off
		40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750	800			
1.5	0	73	69	61	52	38	27																	158 ft	
	20	59	48	36	20																				
	30	47	34	14																					
	40	32	10																						
	50																								
Shut-off PSI		51	42	34	25	16	8																		
2	0	79	74	68	63	56	48	39	30	11													210 ft		
	20	66	61	54	45	37	25																		
	30	60	53	45	34	22																			
	40	52	43	34	20																				
	50	42	33	19																					
	60	30	12																						
Shut-off PSI		74	65	56	48	39	30	22	13	4															
3	0	-	78	74	70	65	58	55	49	41	15												263 ft		
	20	72	68	64	58	54	47	38	33	20															
	30	67	63	57	52	45	38	30	15																
	40	61	57	51	45	38	29	14																	
	50	56	49	45	37	29	14																		
	60	48	41	35	25	12																			
Shut-off PSI		97	88	79	71	62	53	45	36	27	6														
5	0	-	-	-	78	75	73	70	67	64	55	45	34	12									420 ft		
	20	-	77	74	72	69	66	63	57	56	45	34	16												
	30	77	74	71	68	65	62	59	56	52	41	25													
	40	74	71	67	65	62	59	55	50	46	36	16													
	50	71	67	64	62	58	54	50	46	42	27														
	60	67	65	60	57	53	50	45	41	36	19														
Shut-off PSI		164	156	147	139	130	121	113	104	95	74	52	30	9											
7.5	0	-	-	-	-	-	78	76	74	72	67	62	57	49	42	29	16						592 ft		
	20	-	-	79	78	75	74	72	70	68	62	57	49	41	30	17									
	30	-	79	77	75	73	71	70	68	65	60	53	47	37	26	12									
	40	79	77	74	73	71	69	67	65	62	57	49	42	29	18										
	50	76	74	72	71	70	67	65	62	60	54	47	37	26	14										
	60	74	72	70	69	67	65	61	60	58	52	45	32	19											
Shut-off PSI		239	230	222	213	204	196	187	178	170	148	126	105	83	61	40	18								
10	0	-	-	-	-	-	-	-	79	77	74	70	67	63	58	55	49	45	36	28	17	6	807 ft		
	20	-	-	-	-	-	79	77	76	74	71	67	63	59	56	50	46	37	29	18	8				
	30	-	-	-	-	78	77	75	74	72	70	65	61	57	52	47	40	29	27	14					
	40	-	-	-	78	76	75	73	72	71	67	64	60	54	49	43	36	29	18						
	50	-	-	79	77	75	73	72	71	69	65	62	57	53	47	41	34	26	14						
	60	-	78	76	74	73	72	70	69	68	64	60	54	49	44	38	29	18							
Shut-off PSI		332	323	315	306	297	289	280	272	263	241	220	198	176	155	133	111	90	68	46	25	3			

Discharge tapping 3" FNPT.

- Notes: 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

# 6" Submersible Pump

## FPS 4400 High Capacity 75 GPM Performance Curves





# 6" Submersible Pump

## FPS 4400 High Capacity 75 GPM Performance Charts

### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																				Shut-off							
		40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750		800	850	900	950	1000		
3	0	115	104	96	86	74	55																					Shut-off 163 ft	
	20	93	82	70	51																								
	30	80	67	46																									
	40	65	41																										
	50	37																											
	Shut-off PSI		53	45	36	27	19	10																					
5	0	-	-	105	102	96	89	83	76	65																		Shut-off 261 ft	
	20	105	100	93	88	82	73	65	52																				
	30	99	92	87	80	72	64	49																					
	40	92	88	79	69	62	45																						
	50	85	76	69	62	44																							
	60	77	68	58	42																								
Shut-off PSI		96	87	78	70	61	52	44	35	26																			
7.5	0	-	-	-	-	-	107	103	99	94	84	69	50															Shut-off 392 ft	
	20	-	109	105	100	97	94	90	85	79	71	50																	
	30	108	104	100	97	93	88	83	78	69	63	40																	
	40	108	104	99	96	93	88	83	77	73	51																		
	50	103	100	96	92	87	82	75	70	63	40																		
	60	100	95	91	85	80	75	69	63	55																			
Shut-off PSI		152	144	135	126	118	109	100	92	93	61	40	18																
10	0	-	-	-	-	-	-	110	106	104	97	88	77	65	48													Shut-off 460 ft	
	20	-	-	-	-	109	106	103	99	96	88	79	66	48															
	30	-	-	-	108	106	102	99	96	93	84	74	60	40															
	40	-	-	108	105	102	99	96	92	89	80	68	52																
	50	-	108	103	102	99	93	92	89	84	74	62	42																
	60	107	103	100	98	96	91	88	84	80	68	53																	
Shut-off PSI		202	193	184	176	167	158	150	141	132	111	89	67	46	24														
15	0	-	-	-	-	-	-	-	-	-	110	105	100	95	89	81	74	65	56	39								Shut-off 732 ft	
	20	-	-	-	-	-	-	-	-	-	110	105	101	94	89	81	76	67	58	41									
	30	-	-	-	-	-	-	-	-	-	110	104	98	92	86	80	72	66	49										
	40	-	-	-	-	-	-	-	-	110	107	102	96	90	82	75	70	58	40										
	50	-	-	-	-	-	-	110	107	104	99	94	86	80	72	65	49	30											
	60	-	-	-	-	110	109	107	103	102	96	90	82	76	69	58	46												
Shut-off PSI		300	291	282	274	265	256	248	239	230	209	187	165	144	122	101	79	57	36	14									
20	0	-	-	-	-	-	-	-	-	-	-	-	110	106	103	98	92	88	83	78	69	63	54	40				Shut-off 939 ft	
	20	-	-	-	-	-	-	-	-	-	-	110	106	102	98	91	89	84	78	72	64	58	44						
	30	-	-	-	-	-	-	-	-	-	-	110	109	105	98	94	90	86	80	75	69	61	50	35					
	40	-	-	-	-	-	-	-	-	-	110	107	102	98	91	88	84	79	72	68	55	45							
	50	-	-	-	-	-	-	-	-	110	109	105	100	95	91	87	80	75	70	63	52	38							
	60	-	-	-	-	-	-	-	-	110	107	102	98	93	88	84	80	73	66	58	45								
Shut-off PSI		389	381	372	363	355	346	337	329	320	298	277	255	233	212	190	168	147	125	103	82	60	39	17					
25	0	-	-	110	107	102	99	96	94	91	86	83	78	75	71	65	58	51	38									Shut-off 1210 ft	
	20	-	110	107	103	100	96	93	90	86	82	79	75	72	66	60	51	39											
	30	-	109	106	101	99	95	92	89	85	81	77	73	71	64	58	47	34											
	40	110	107	104	100	97	93	91	87	82	79	75	71	67	62	52	42												
	50	109	106	101	99	95	92	89	85	81	77	73	69	65	57	47	35												
	60	108	104	100	97	94	91	88	84	80	75	71	67	62	54	42													
Shut-off PSI		394	372	361	329	307	286	264	242	221	199	177	156	134	113	91	69	48	26										

Discharge tapping 3" FNPT.

- Notes: 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

### FPS 4000

5, 8, 12, 16, and 22 GPM Models



## FPS 4000

### Features:

- 5 performance ranges - 5, 8, 12, 16, & 22 gpm.
- Available with thermoplastic discharge and motor bracket or stainless steel discharge and motor bracket.
- Ceramic bearing sleeve has proven its durability with years of flawless performance in our 4000 submersible.
- Hex rubber bearing has an extra large surface to assure shaft stability and multiple flow channels to keep small particulates away from bearing surfaces.
- Celcon® disk allows for close tolerances for increased performance.
- Stainless steel upthrust washer prevents excessive wear in severe applications.
- Built-in Flomatic™ check valve keeps water in your system at all times.
- Removable suction screen on thermoplastic and stainless steel units prevents debris from clogging impellers and provides full flow performance.
- Stainless steel shaft features high quality, premium materials at a competitive price.
- Powered by Franklin corrosion-resistant 4" submersible motors.

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Flomatic™ is a Trademark of the Danfoss Corporation.



NRTL/C  
CSA 108  
UL 778

# 4" Submersible Pump

## FPS 4000

### 5-22 GPM Thermoplastic Units Ordering Information (See pg. 2-3 for model number explanation)

1/2 - 1.5 HP Single-Phase Units									
GPM	HP	Stages	Volts	2-Wire			3-Wire		
				Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
5	1/2	13	115	T5E4D5P13-S1	93620513	26	5E4D5P13-S1	93622513	25
	1/2	13	230	T5E4D5P13-S2	93621513	26	5E4D5P13-S2	93623513	25
	3/4	18	230	T7E4D5P18-S2	93620518	29	7E4D5P18-S2	93621518	30
	1	21	230	T1E4D5P21-S2	93620521	33	1E4D5P21-S2	93621521	34
	1.5	28	230	This rating not available in thermoplastic construction					
8	1/2	9	115	T5E4D8P9-S1	93620809	24	5E4D8P9-S1	93622809	24
	1/2	9	230	T5E4D8P9-S2	93621809	24	5E4D8P9-S2	93623809	24
	3/4	12	230	T7E4D8P12-S2	93620812	28	7E4D8P12-S2	93621812	28
	1	15	230	T1E4D8P15-S2	93620815	33	1E4D8P15-S2	93621815	33
	1.5	21	230	T15E4D8P21-S2	93620821	42	15E4D8P21-S2	93621821	42
12	1/2	7	115	T5E4D12P7-S1	93620127	24	5E4D12P7-S1	93623207	24
	1/2	7	230	T5E4D12P7-S2	93621207	24	5E4D12P7-S2	93624207	24
	3/4	9	230	T7E4D12P9-S2	93620129	28	7E4D12P9-S2	93621209	28
	1	12	230	T1E4D12P12-S2	93621212	31	1E4D12P12-S2	93622212	32
	1.5	17	230	T15E4D12P17-S2	93621217	38	15E4D12P17-S2	93622217	39
16	3/4	8	230	T7E4D16P8-S2	93621608	28	7E4D16P8-S2	93622608	27
	1	10	230	T1E4D16P10-S2	93621610	31	1E4D16P10-S2	93622610	30
	1.5	14	230	T15E4D16P14-S2	93621614	40	15E4D16P14-S2	93622614	39
22	3/4	5	230	T7E4D22P5-S2	93620225	27	7E4D22P5-S2	93622205	27
	1	7	230	T1E4D22P7-S2	93620227	30	1E4D22P7-S2	93622207	33
	1.5	9	230	T15E4D22P9-S2	93620229	40	15E4D22P9-S2	93622209	39

**Note:** All listed above have 1-1/4" NPT discharge and feature our removable Flomatic™ poppet assembly.

## 4" Submersible Pump

### FPS 4000

5-22 GPM Thermoplastic P.E. Ordering Information (See pg. 2-3 for model number explanation)

1/2 - 2 HP Pump Ends						
GPM	HP	Stages	Volts	Model No.	Order No.	Wt.
5	1/2	13	N.A.	E4D5P13	93630513	8
	3/4	18	N.A.	E4D5P18	93630518	10
	1	21	N.A.	E4D5P21	93630521	11
8	1/2	9	N.A.	E4D8P9	93630809	4
	3/4	12	N.A.	E4D8P12	93630812	7
	1	15	N.A.	E4D8P15	93630815	8
	1.5	21	N.A.	E4D8P21	93630821	10
12	1/2	7	N.A.	E4D12P7	93631207	6
	3/4	9	N.A.	E4D12P9	93631209	7
	1	12	N.A.	E4D12P12	93631212	8
	1.5	17	N.A.	E4D12P17	93631217	12
16	3/4	8	N.A.	E4D16P8	93631608	7
	1	10	N.A.	E4D16P10	93631610	7
	1.5	14	N.A.	E4D16P14	93631614	10
	2	18	230	E4D16P18	93631618	11
22	3/4	5	N.A.	E4D22P5	93632205	6
	1	7	N.A.	E4D22P7	93632207	7
	1.5	9	N.A.	E4D22P9	93632209	8
	2	11	230	E4D22P11	93632211	10

**Note:** All listed above have 1-1/4" NPT discharge and feature our removable Flomatic™ poppet assembly.

# 4" Submersible Pump

## FPS 4000

### 5-22 GPM Stainless Steel Units Ordering Information (See pg. 2-3 for model number explanation)

1/2 - 2 HP Single-Phase Units									
GPM	HP	Stages	Volts	2-Wire			3-Wire		
				Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
5	1/2	13	115	T5E4D5X13-S1	93640513	26	5E4D5X13-S1	93642513	25
	1/2	13	230	T5E4D5X13-S2	93641513	26	5E4D5X13-S2	93643513	25
	3/4	18	230	T7E4D5X18-S2	93640518	29	7E4D5X18-S2	93641518	30
	1	21	230	T1E4D5X21-S2	93640521	33	1E4D5X21-S2	93641521	34
	1.5	28	230	T15E4D5X28-S2	93640528	43	15E4D5X28-S2	93641528	44
8	1/2	9	115	T5E4D8X9-S1	93640809	24	5E4D8X9-S1	93642809	24
	1/2	9	230	T5E4D8X9-S2	93641809	24	5E4D8X9-S2	93643809	24
	3/4	12	230	T7E4D8X12-S2	93640812	28	7E4D8X12-S2	93641812	28
	1	15	230	T1E4D8X15-S2	93640815	33	1E4D8X15-S2	93641815	33
	1.5	21	230	T15E4D8X21-S2	93640821	42	15E4D8X21-S2	93641821	42
12	1/2	7	115	T5E4D12X7-S1	93640127	24	5E4D12X7-S1	93643207	24
	1/2	7	230	T5E4D12X7-S2	93641207	24	5E4D12X7-S2	93644207	24
	3/4	9	230	T7E4D12X9-S2	93640129	28	7E4D12X9-S2	93641209	28
	1	12	230	T1E4D12X12-S2	93641212	31	1E4D12X12-S2	93642212	32
	1.5	17	230	T15E4D12X17-S2	93641217	38	15E4D12X17-S2	93642217	39
16	3/4	8	230	T7E4D16X8-S2	93641608	28	7E4D16X8-S2	93642608	27
	1	10	230	T1E4D16X10-S2	93641610	31	1E4D16X10-S2	93642610	30
	1.5	14	230	T15E4D16X14-S2	93641614	40	15E4D16X14-S2	93642614	39
22	3/4	5	230	T7E4D22X5-S2	93640225	27	7E4D22X5-S2	93642205	27
	1	7	230	T1E4D22X7-S2	93640227	30	1E4D22X7-S2	93642207	33
	1.5	9	230	T15E4D22X9-S2	93640229	40	15E4D22X9-S2	93642209	39

**Note:** All listed above have 1-1/4" NPT discharge and feature our removable Flomatic™ poppet assembly.

# 4" Submersible Pump

## FPS 4000

5-22 GPM Stainless Steel P.E. Ordering Information (See pg. 2-3 for model number explanation)

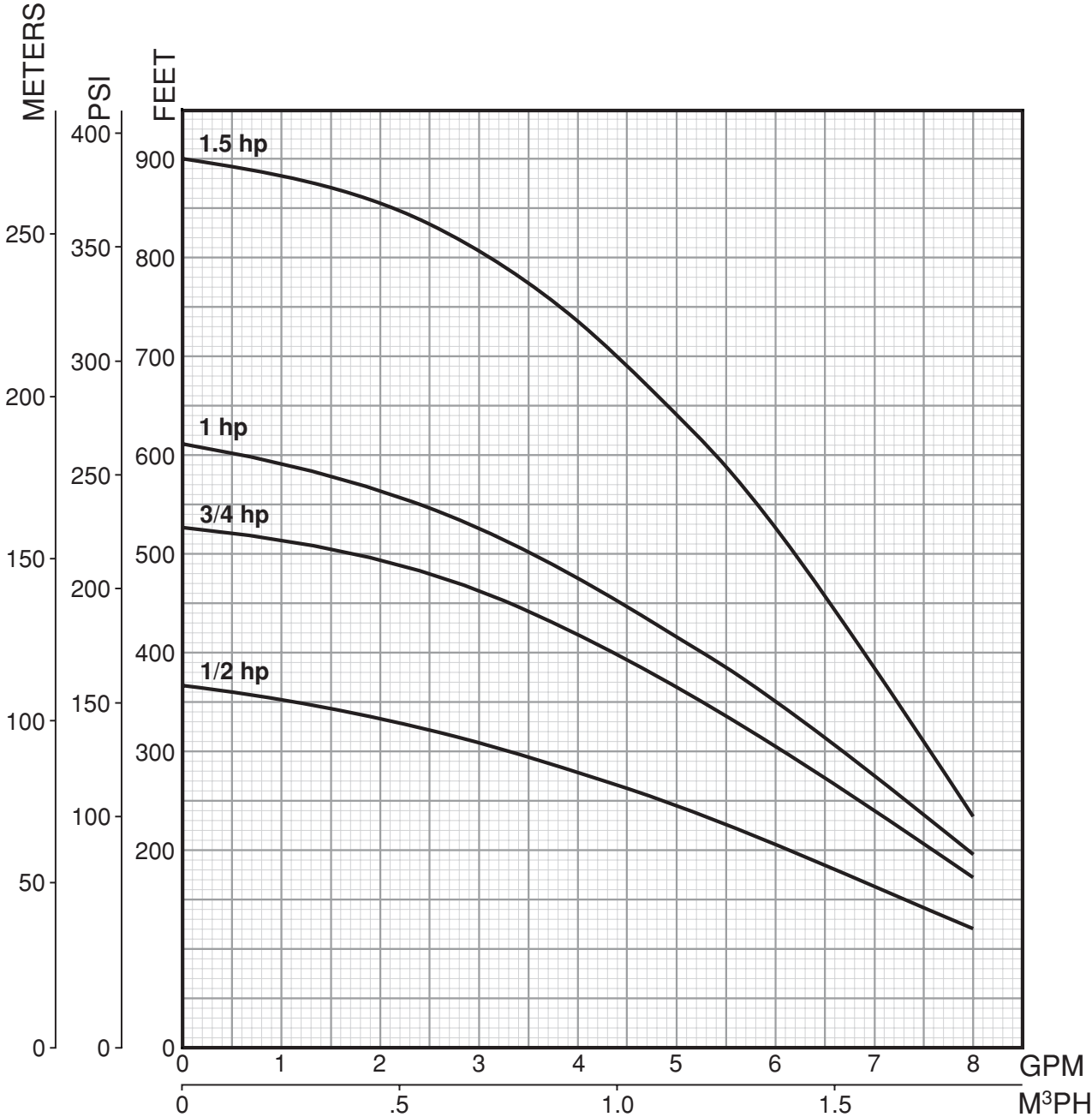
1/2 - 2 HP Pump Ends						
GPM	HP	Stages	Volts	Model No.	Order No.	Wt.
5	1/2	13	N.A.	E4D5X13	93650513	9
	3/4	18	N.A.	E4D5X18	93650518	11
	1	21	N.A.	E4D5X21	93650521	12
	1.5	28	N.A.	E4D5X28	93650528	14
8	1/2	9	N.A.	E4D8X9	93650809	5
	3/4	12	N.A.	E4D8X12	93650812	8
	1	15	N.A.	E4D8X15	93650815	9
	1.5	21	N.A.	E4D8X21	93650821	11
12	1/2	7	N.A.	E4D12X7	93651207	7
	3/4	9	N.A.	E4D12X9	93651209	8
	1	12	N.A.	E4D12X12	93651212	9
	1.5	17	N.A.	E4D12X17	93651217	13
16	3/4	8	N.A.	E4D16X8	93651608	8
	1	10	N.A.	E4D16X10	93651610	8
	1.5	14	N.A.	E4D16X14	93651614	11
	2	18	230	E4D16X18	93651618	11
22	3/4	5	N.A.	E4D22X5	93652205	7
	1	7	N.A.	E4D22X7	93652207	8
	1.5	9	N.A.	E4D22X9	93652209	9
	2	11	230	E4D22X11	93652211	10

**Note:** All listed above have 1-1/4" NPT discharge and feature our removable Flomatic™ poppet assembly.

# 4" Submersible Pump

## FPS 4000

### 5 GPM Performance Curves



# 4" Submersible Pump

## FPS 4000

### 5 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																								
		20	40	60	80	100	120	140	160	180	200	240	260	300	340	360	400	440	480	500	600		700	800	900	1000
1/2	0	-	-	-	-	-	8	7	7	6	6	5	4	3												
	20	-	-	-	7	7	6	6	5	5	4	3	3	2												
	30	-	-	7	7	6	6	5	5	4	4	3	2													
	40	-	7	7	6	6	5	5	4	4	3	2														
	50	7	7	6	6	5	5	4	4	3	2															
	60	7	6	6	5	5	4	4	3	2																
	80	6	5	5	4	4	3	2	1																	
Shut-off PSI		149	140	131	122	114	105	96	88	79	70	53	45	27												
3/4	0	-	-	-	-	-	-	-	-	7	7	7	6	6	5	5	4	3								
	20	-	-	-	-	-	-	7	7	7	6	6	6	5	4	4	3	2								
	30	-	-	-	-	8	7	7	7	6	6	6	5	5	4	4	2									
	40	-	-	-	8	7	7	7	6	6	6	5	5	4	3	3										
	50	-	-	7	7	7	6	6	6	6	5	5	5	4	3	2										
	60	7	7	7	7	6	6	6	6	5	5	5	4	3	2											
	80	7	7	6	6	6	6	5	5	5	4	4	3	3												
Shut-off PSI		220	211	203	194	185	177	168	159	151	142	125	116	99	81	73	55	38								
1	0	-	-	-	-	-	-	-	-	-	8	7	7	6	6	6	5	5	4	4						
	20	-	-	-	-	-	-	-	7	7	7	6	6	6	5	5	5	4	3	2						
	30	-	-	-	-	-	-	7	7	7	7	6	6	5	5	5	4	3	2	2						
	40	-	-	-	-	-	7	7	6	6	6	6	5	5	4	4	3	2	1							
	50	-	-	-	-	7	7	7	6	6	6	6	5	5	4	4	3	2	1							
	60	-	-	-	7	7	7	6	6	6	6	5	5	5	4	4	3	1								
	80	7	7	7	7	6	6	6	6	6	5	5	5	4	3	3	2									
Shut-off PSI		257	248	239	231	222	213	205	196	187	179	161	153	135	118	109	92	75	58	49						
1.5	0	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	6	6	6	6	5	3				
	20	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	6	6	6	5	5	4	3			
	30	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	6	6	6	6	5	5	4			
	40	-	-	-	-	-	-	-	-	-	7	7	7	7	6	6	6	6	6	5	5	4				
	50	-	-	-	-	-	-	-	-	7	7	7	7	7	6	6	6	5	5	5	4	3				
	60	-	-	-	-	-	-	7	7	7	7	7	7	6	6	6	6	5	5	4	4	3				
	80	-	-	-	-	7	7	7	7	7	7	6	6	6	5	5	5	4	4	3						
Shut-off PSI		351	343	334	325	317	308	300	291	282	274	256	248	230	213	204	187	170	152	144	100	57				

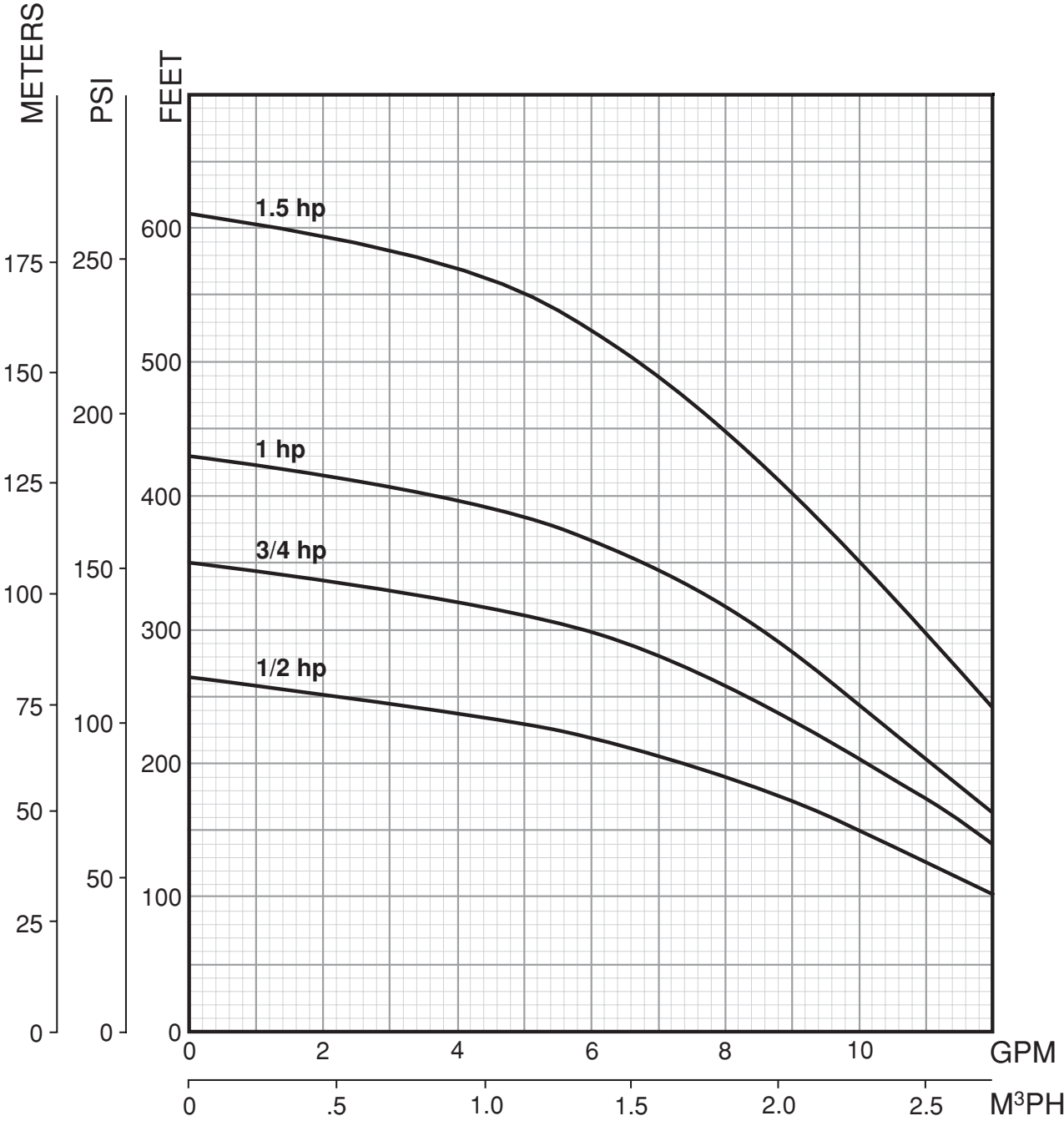
Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.



# 4" Submersible Pump

## FPS 4000

### 8 GPM Performance Curves



# 4" Submersible Pump

## FPS 4000

### 8 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

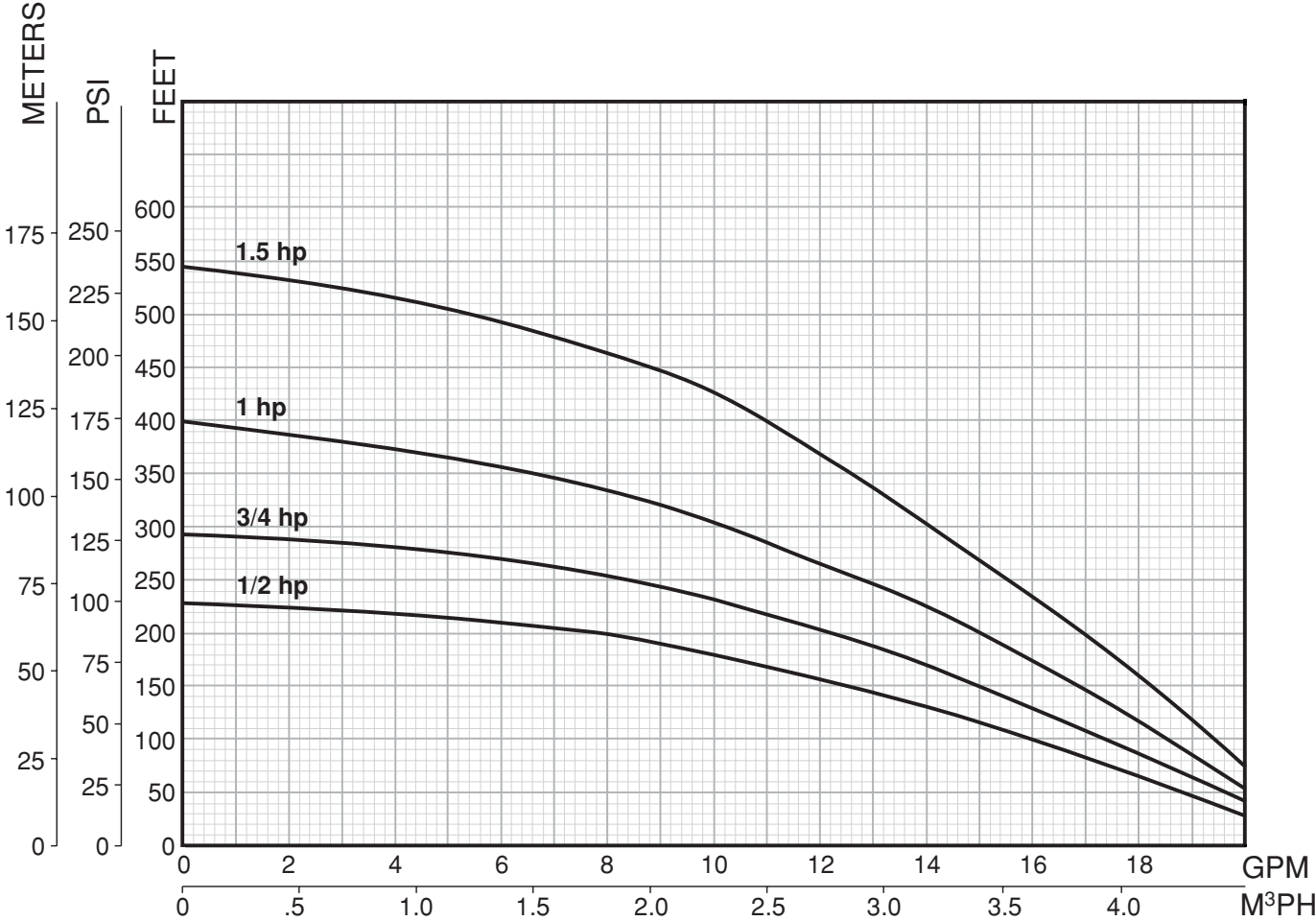
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet																			
		20	40	60	80	100	140	180	200	240	280	300	340	380	400	440	480	500	600		700
1/2	0	-	-	-	-	-	11	10	9	6											Shut-off 265 ft
	10	-	-	-	-	12	10	9	7	3											
	20	-	-	-	12	11	9	7	5												
	30	-	-	12	11	10	8	5	2												
	40	-	11	10	10	9	7	1													
	50	11	10	10	9	8	4														
	60	10	10	9	8	6															
	70	10	9	8	6	3															
	80	9	7	5	2																
Shut-off PSI		110	102	93	84	76	58	41	32	15											
3/4	0	-	-	-	-	-	11	10	10	9	8	4									Shut-off 350 ft
	10	-	-	-	-	-	12	10	10	9	7	6									
	20	-	-	-	-	-	11	10	9	8	5	3									
	30	-	-	-	-	12	10	9	9	7	2										
	40	-	-	-	12	11	10	9	8	5											
	50	-	-	11	11	10	9	8	6	1											
	60	12	11	10	10	10	9	6	4												
	70	11	10	10	10	9	7	4													
	80	10	10	9	9	8	6														
Shut-off PSI		149	140	132	123	114	97	80	71	54	36	28	10								
1	0	-	-	-	-	-	-	12	10	10	9	8	7	5	2						Shut-off 430 ft
	10	-	-	-	-	-	-	11	11	10	9	9	7	5	4						
	20	-	-	-	-	-	-	11	10	9	9	8	6	3	1						
	30	-	-	-	-	-	11	10	10	9	8	7	5	1							
	40	-	-	-	-	12	11	10	9	8	7	6	3								
	50	-	-	-	12	11	10	9	9	8	6	4									
	60	-	-	12	11	10	10	9	8	7	4	2									
	70	-	12	11	10	10	9	8	7	5	2										
	80	11	11	10	10	10	9	7	6	3											
Shut-off PSI		188	180	171	162	154	136	119	110	93	76	67	50	32	24	6					
1.5	0	-	-	-	-	-	-	-	-	11	11	10	9	9	9	8	7	2			Shut-off 612 ft
	10	-	-	-	-	-	-	-	-	12	11	10	10	9	9	8	7	7			
	20	-	-	-	-	-	-	-	-	11	10	10	9	9	9	8	6	6			
	30	-	-	-	-	-	-	-	12	11	10	10	9	9	8	7	5	4			
	40	-	-	-	-	-	11	11	10	10	9	9	8	8	6	4	3				
	50	-	-	-	-	-	11	10	10	10	9	9	8	8	7	5	3	1			
	60	-	-	-	-	-	11	10	10	10	9	9	8	7	6	4	1				
	70	-	-	-	-	12	11	10	10	9	9	8	7	6	5	2					
	80	-	-	-	12	11	10	10	9	9	8	8	7	5	3						
Shut-off PSI		-	-	-	236	227	210	193	184	167	149	141	123	106	97	80	63	54	11		

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.

# 4" Submersible Pump

## FPS 4000

### 12 GPM Performance Curves



# 4" Submersible Pump

## FPS 4000

### 12 GPM Performance Charts

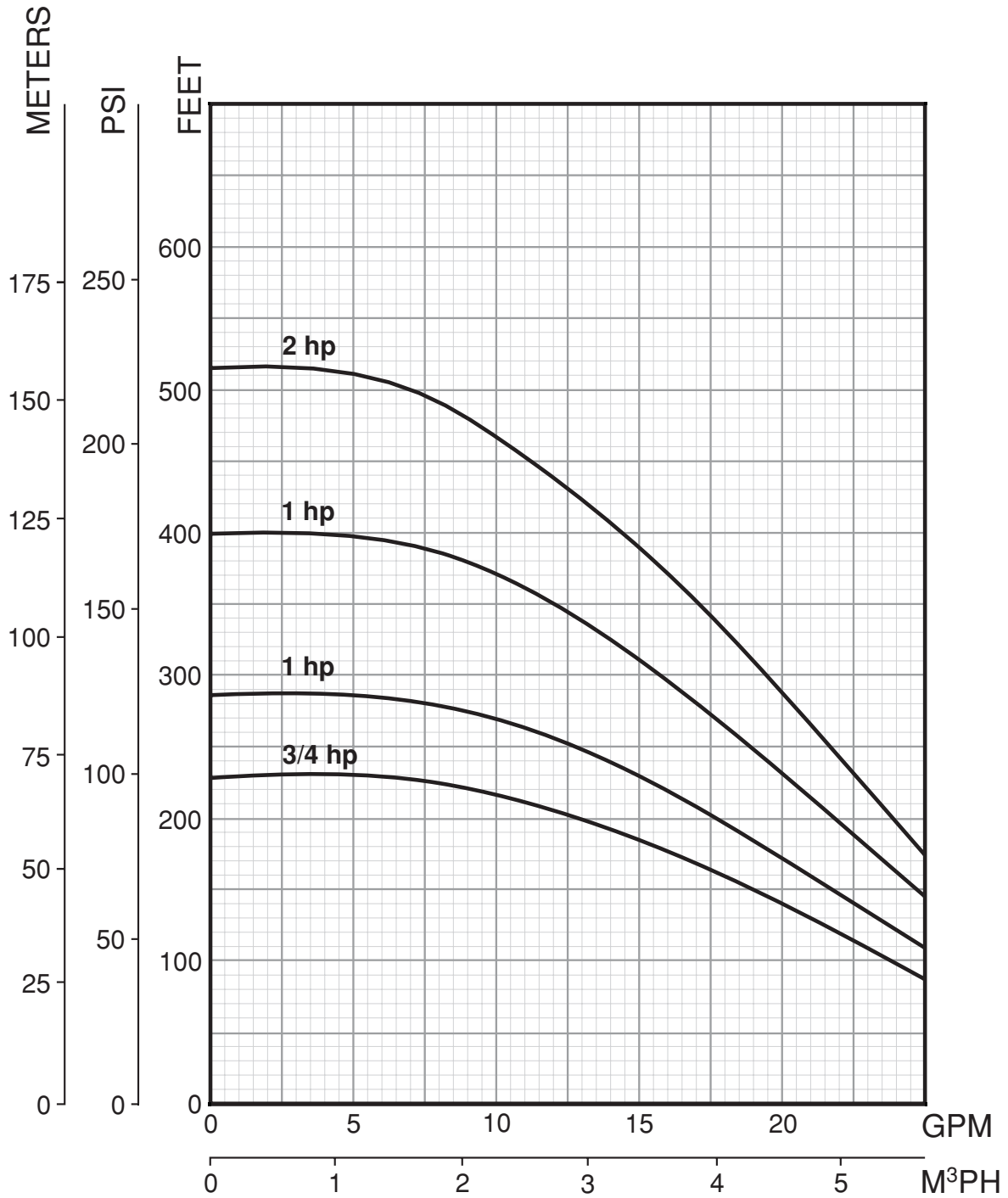
#### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet Shaded Areas Indicate Most Efficient Performance																
		20	40	60	80	100	140	180	200	240	280	300	340	380	400	440	480	500
1/2	0	-	19	18	17	16	14	12	7									
	10	19	18	17	16	15	12	7	2									
	20	18	16	16	15	13	9	2										
	30	16	15	14	13	11	5											
	40	15	14	13	11	8												
	50	14	13	11	8	4												
	60	12	10	7	3													
	70	10	7	3														
80	6	2																
Shut-off PSI		91	82	74	65	56	39	22	13									
3/4	0	-	20	19	18	17	15	14	13	9	3							
	10	20	19	18	17	16	15	13	11	6								
	20	18	17	17	16	15	14	11	8	2								
	30	17	17	16	15	14	12	8	5									
	40	16	16	15	14	13	10	5	1									
	50	16	15	14	13	12	7											
	60	15	14	13	11	9	4											
	70	14	13	11	9	6												
80	12	11	9	6	3													
Shut-off PSI		118	109	100	92	83	66	48	40	23	5							
1	0	-	-	20	19	18	17	16	15	14	12	10	7	3				
	10	-	20	19	18	17	16	15	14	12	10	9	5					
	20	20	19	18	17	17	16	14	13	11	8	7	2					
	30	19	18	17	17	16	15	13	1	10	6	4						
	40	18	17	17	16	15	14	12	11	8	4	1						
	50	17	16	16	15	15	13	11	9	6	1							
	60	16	16	15	14	14	12	9	7	3								
	70	16	15	14	13	13	10	7	5									
80	15	14	13	12	11	8	5	2										
Shut-off PSI		165	156	147	139	130	113	95	87	69	52	43	26	9				
1.5	0	-	-	-	20	19	18	17	17	16	15	14	13	12	11	9	7	5
	10	-	-	20	19	18	17	16	16	15	14	14	13	11	10	8	5	3
	20	-	20	19	18	18	17	16	16	15	14	13	12	10	9	6	3	
	30	20	19	18	18	17	16	16	15	14	13	12	11	9	7	4		
	40	19	18	18	17	17	16	15	15	14	12	12	10	7	6	2		
	50	18	18	17	17	16	15	15	14	13	11	10	8	5	4			
	60	17	17	17	16	16	15	14	13	12	10	9	7	3	1			
	70	17	16	16	16	15	14	13	13	11	9	8	5	1				
80	16	16	16	15	15	14	13	12	10	8	6	3						
Shut-off PSI		227	219	210	201	193	175	158	149	132	115	106	89	71	68	45	28	19

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

## FPS 4000

### 16 GPM Performance Curves



# 4" Submersible Pump

## FPS 4000

### 16 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

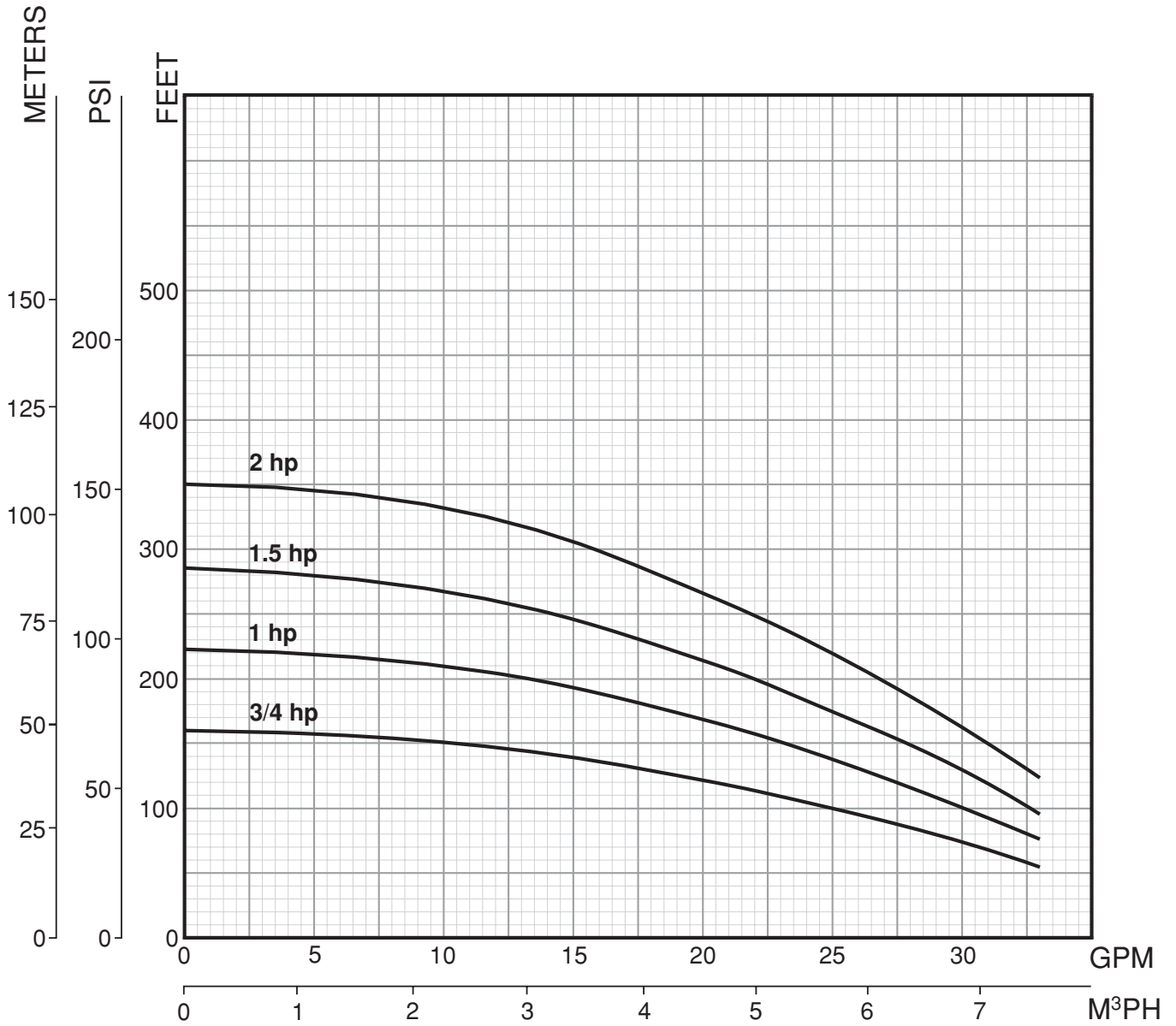
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet Shaded Areas Indicate Most Efficient Performance																	
		20	40	60	80	100	140	180	200	240	280	300	340	380	400	440	480	500	
3/4	0	-	-	-	-	23	20	17	13										
	10	-	-	-	22	21	18	12	6										
	20	-	-	22	20	19	16	5											
	30	25	22	20	19	18	11												
	40	21	20	19	17	15	2												
	50	20	19	17	14	9													
	60	19	17	13	8														
	70	16	13	6															
	80	12	5																
Shut-off PSI		91	82	74	65	56	39	22	13										
1	0	-	-	-	-	-	21	19	18	15	5								
	10	-	-	-	-	23	20	18	17	10									
	20	-	-	-	23	21	19	16	14	3									
	30	-	-	22	21	20	18	13	9										
	40	25	22	20	20	19	16	8	1										
	50	22	20	19	19	17	12												
	60	20	19	18	17	15	6												
	70	19	18	17	14	11													
	80	18	17	14	10	4													
Shut-off PSI		115	106	97	89	80	63	45	37	19	2								
1.5	0	-	-	-	-	-	-	22	21	19	18	17	14	7					
	10	-	-	-	-	-	23	21	20	18	17	15	10	1					
	20	-	-	-	-	-	21	20	19	17	15	13	6						
	30	-	-	-	25	23	20	19	18	16	13	9							
	40	-	-	24	22	21	19	18	17	14	8	4							
	50	-	24	22	21	19	18	17	16	11	3								
	60	24	22	21	20	19	18	15	13	7									
	70	22	21	20	19	18	17	13	10	2									
	80	20	20	19	18	18	15	10	6										
Shut-off PSI		165	156	147	139	130	113	95	87	69	52	43	26	9					
2	0	-	-	-	-	-	-	25	23	21	20	19	18	16	15	12	8	5	
	10	-	-	-	-	-	-	23	22	20	19	19	17	15	14	10	4	1	
	20	-	-	-	-	-	24	22	21	20	18	18	16	13	12	7			
	30	-	-	-	-	-	23	21	20	19	18	17	15	11	9	3			
	40	-	-	-	-	24	21	20	19	18	17	16	13	9	6				
	50	-	-	-	24	22	21	19	19	17	16	14	11	5	2				
	60	-	25	23	22	21	20	19	18	16	14	12	8	1					
	70	25	23	22	21	20	19	18	17	15	12	10	4						
	80	23	22	21	20	20	18	17	16	14	10	7							
Shut-off PSI		214	206	197	188	180	162	145	136	119	102	93	76	58	50	32	15	6	

Notes: 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

# 4" Submersible Pump

## FPS 4000

### 22 GPM Performance Curves



# 4" Submersible Pump

## FPS 4000

### 22 GPM Performance Charts

#### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet Shaded Areas Indicate Most Efficient Performance																	
		20	40	60	80	100	140	180	200	240	280	300	340	380	400	440	480	500	
3/4	0	-	-	-	29	25	14												Shut-off 159 ft
	10	-	32	28	25	21													
	20	32	28	24	20	11													
	30	27	24	19	9														
	40	23	18	7															
	50	16	5																
	60	3																	
	70																		
	80																		
Shut-off PSI		61	52	43	35	26	9												
1	0	-	-	-	-	30	25	19	13										Shut-off 221 ft
	10	-	-	33	29	27	23	12	2										
	20	-	32	29	27	25	18												
	30	31	28	26	24	22	9												
	40	28	26	24	21	16													
	50	26	24	20	15	6													
	60	23	20	14	4														
	70	19	12	3															
	80	11	1																
Shut-off PSI		87	79	70	61	53	35	18	10										
1.5	0	-	-	-	-	-	28	25	23	16	4								Shut-off 288 ft
	10	-	-	-	33	30	26	23	20	10									
	20	-	-	32	30	28	24	19	15	2									
	30	-	32	29	28	26	22	14	8										
	40	31	29	27	26	24	18	7											
	50	29	27	25	23	21	13												
	60	27	25	23	20	17	5												
	70	25	23	20	16	11													
	80	22	19	15	10	2													
Shut-off PSI		116	107	99	90	81	64	47	38	21	3								
2	0	-	-	-	-	-	32	28	27	24	20	16	6						Shut-off 351 ft
	10	-	-	-	-	-	29	26	25	22	16	11							
	20	-	-	-	-	31	28	25	24	19	10	3							
	30	-	-	-	31	29	26	23	21	17	2								
	40	-	33	30	28	27	25	21	18	8									
	50	32	30	28	27	26	23	17	13										
	60	30	28	27	26	24	20	12	6										
	70	28	27	25	24	22	16	5											
	80	26	25	24	22	19	10												
Shut-off PSI		143	134	126	117	108	91	74	65	48	30	22	4						

**Notes:** 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.



## Submersible Accessories

### Ordering Information



Check Valves



Poppet



Reducer Bushing



T-Handle Poppet Wrench

#### Check Valves - Silicone Bronze

Description	Inlet	Outlet	Case Qty.	Order No.	Wt.
<b>Flomatic™ 4221LEB</b>	1-1/4" MNPT	1" FNPT	36	91980631	1.25
<b>Flomatic™ 4242LEB</b>	1-1/4" MNPT	1-1/4" FNPT	36	91980649	1.75

#### Check Valves - Stainless Steel

Description	Inlet	Outlet	Case Qty.	Order No.	Wt.
<b>Flomatic™ #4221LSS2</b>	1-1/4" MNPT	1" FNPT	49	91985317	1.4
<b>Flomatic™ #4242SS2</b>	1-1/4" MNPT	1-1/4" FNPT	49	91985309	1.5

#### Check Valves - Ductile Iron

Description	Inlet	Outlet	Carton Qty.	Order No.	Wt.
<b>Simmons #658SB</b>	2" MNPT	2" FNPT	1	91982157	3.5
<b>Simmons #660SB</b>	3" MNPT	3" FNPT	1	91981266	10
<b>Simmons #661SB</b>	4" MNPT	4" FNPT	1	91980334	21

#### Flomatic™ Poppet with Removable Ring (Patent Pending)

Description	Order No.	Wt.
<b>Flomatic™ Poppet with Removable Ring (Patent Pending)</b>	91985259R	0.1
<b>T-Handle Poppet Wrench</b>	23498207	1

#### Reducer Bushing

Description	Inlet	Outlet	PSI Rating	Order No.	Wt.
<b>White PVC Bushing</b>	1-1/4" MNPT	1" FNPT	200 PSI	31031008R	0.2

**Note:** Flomatic™ is a trademark of the Danfoss Corporation.

## Constant Pressure Systems

### SubDrive QuickPAK Constant Pressure Pump System



# QuickPAK

#### Features:

- Motor, pump and drive in one package
- Selection based on flow requirement
- System-specific performance curve
- Available in NEMA 1 or NEMA 3R rated enclosures
- 5-year warranty on QuickPAK components

#### Ordering Information

NEMA 1 Enclosure		
Model No.	Order No.	SubDrive
SDQP 7-600	93800775	SD75
SDQP 7-1050	93800715	SD150
SDQP 10-420	93801075	SD75
SDQP 10-750	93801015	SD150
SDQP 18-295	93801876	SD75
SDQP 18-540	93801816	SD150
SDQP 25-215	93802575	SD75
SDQP 25-405	93802515	SD150
SDQP 35-145	93803575	SD75
SDQP 35-280	93803515	SD150
SDQP 60-160	93806015	SD150
SDQP 90-105	93809015	SD150

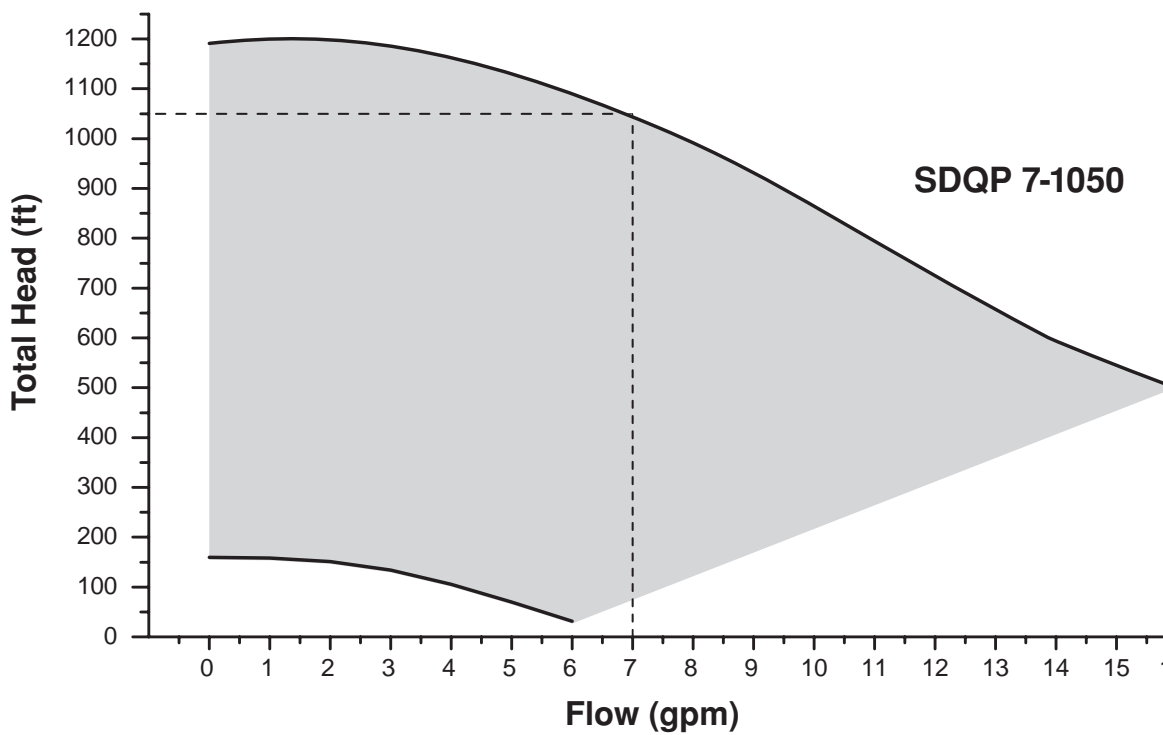
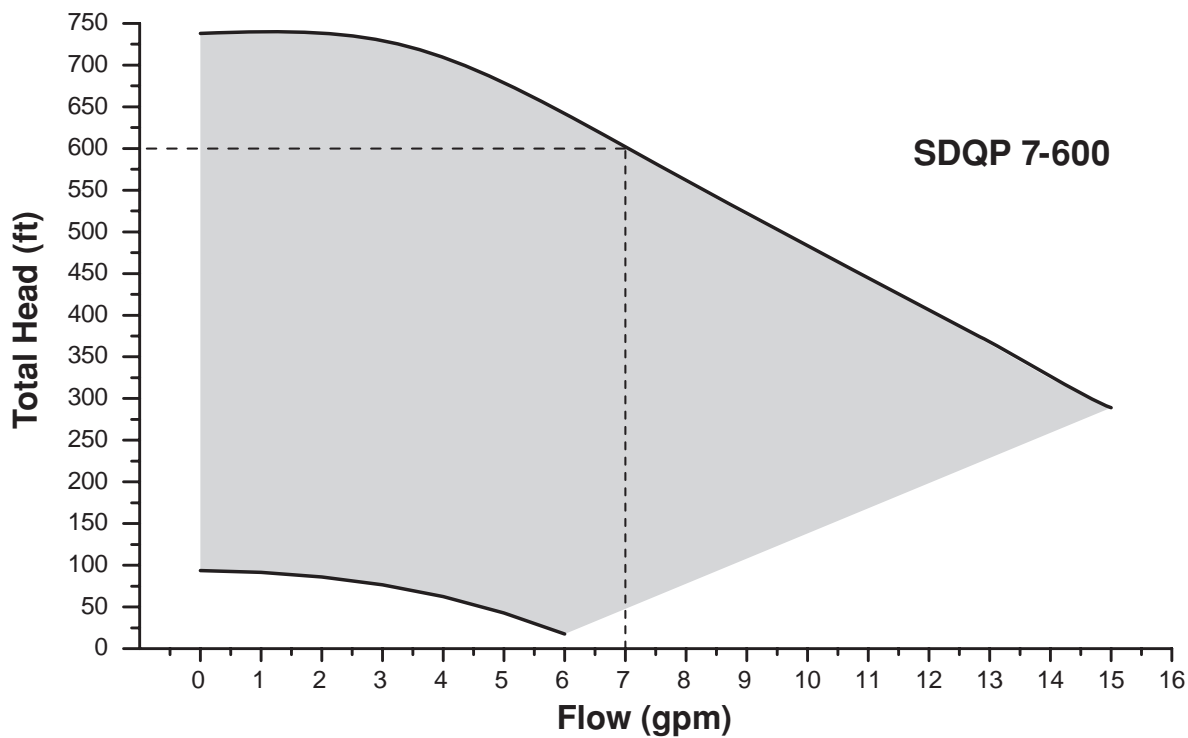
  

NEMA 3R Enclosure		
Model No.	Order No.	SubDrive
SDQP 7-600-3R	93800780	SD75-3R
SDQP 10-420-3R	93801080	SD75-3R
SDQP 18-295-3R	93801881	SD75-3R
SDQP 25-215-3R	93802580	SD75-3R
SDQP 35-145-3R	93803580	SD75-3R

Example: SubDrive QuickPak XX(Flowrate)-XXX(Feet of Head)

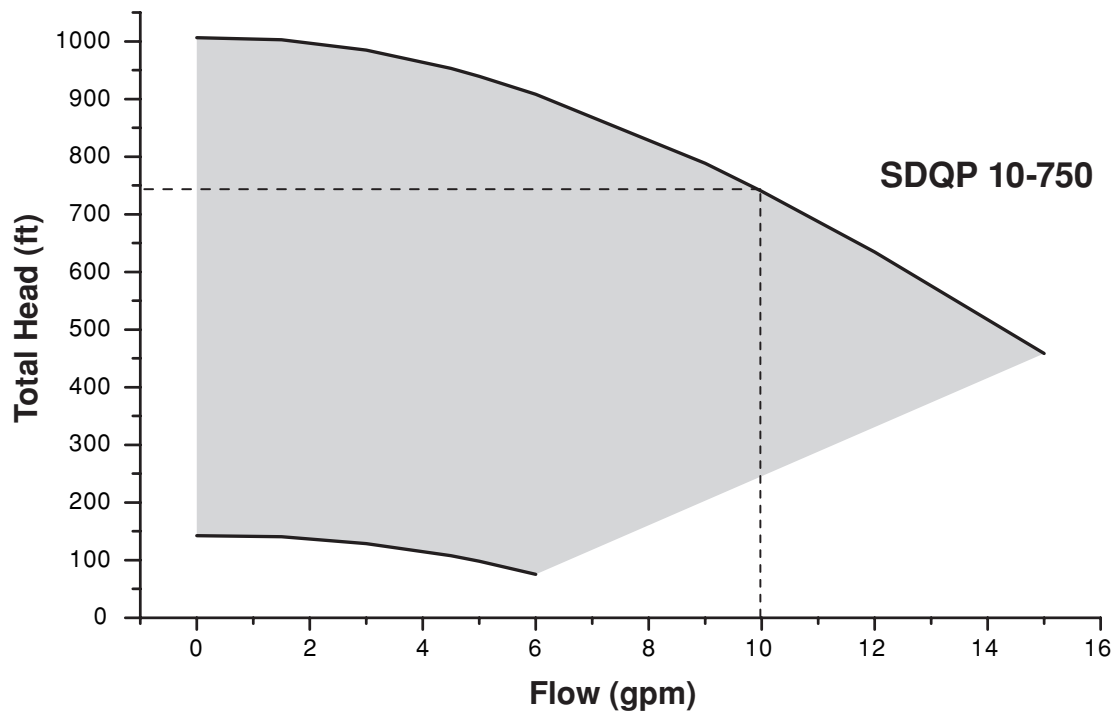
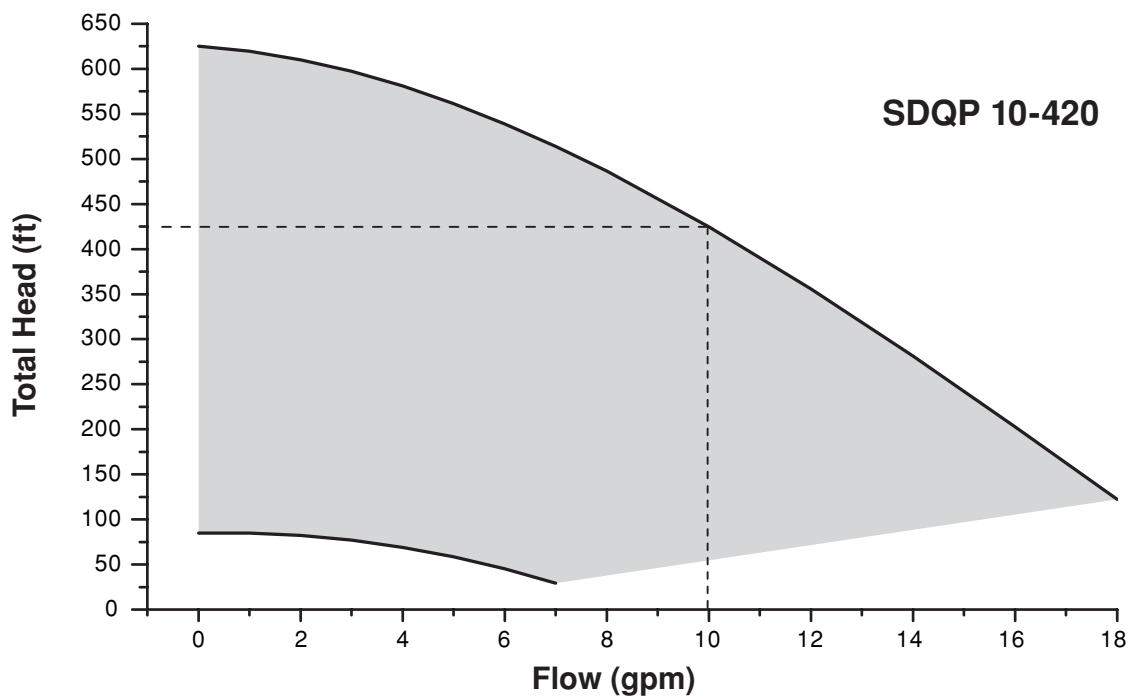
# SubDrive QuickPAK

Performance Curves



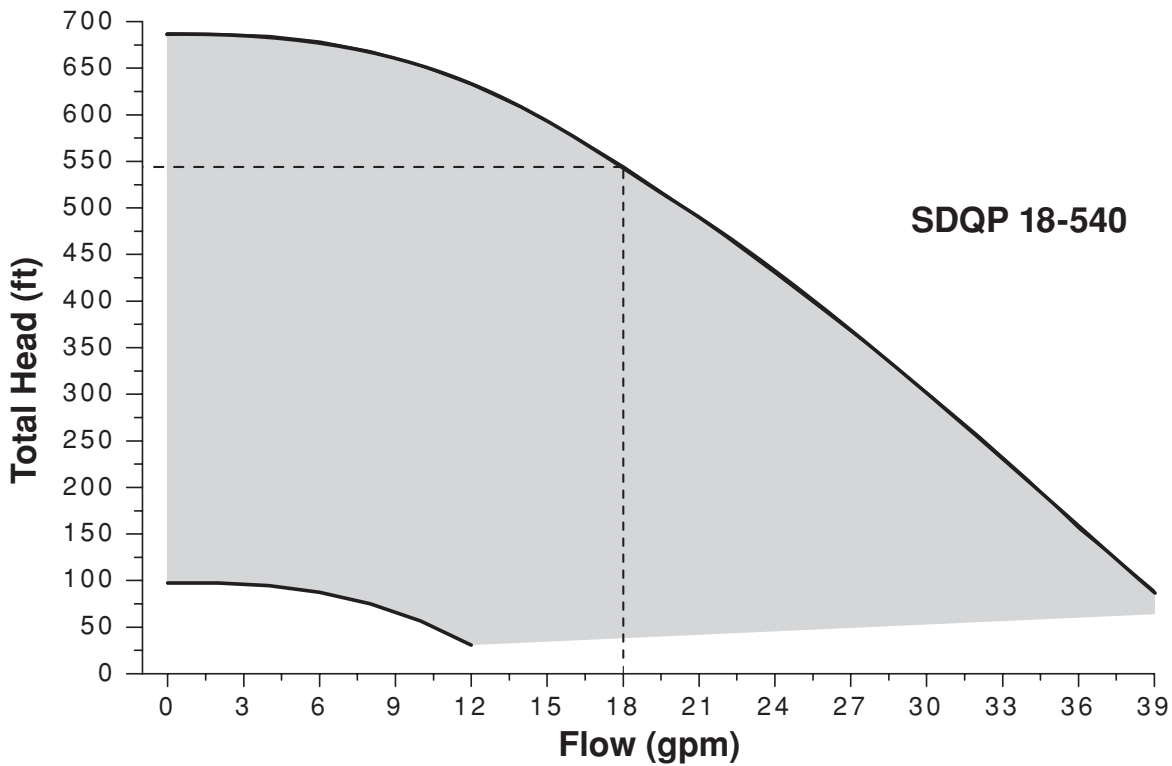
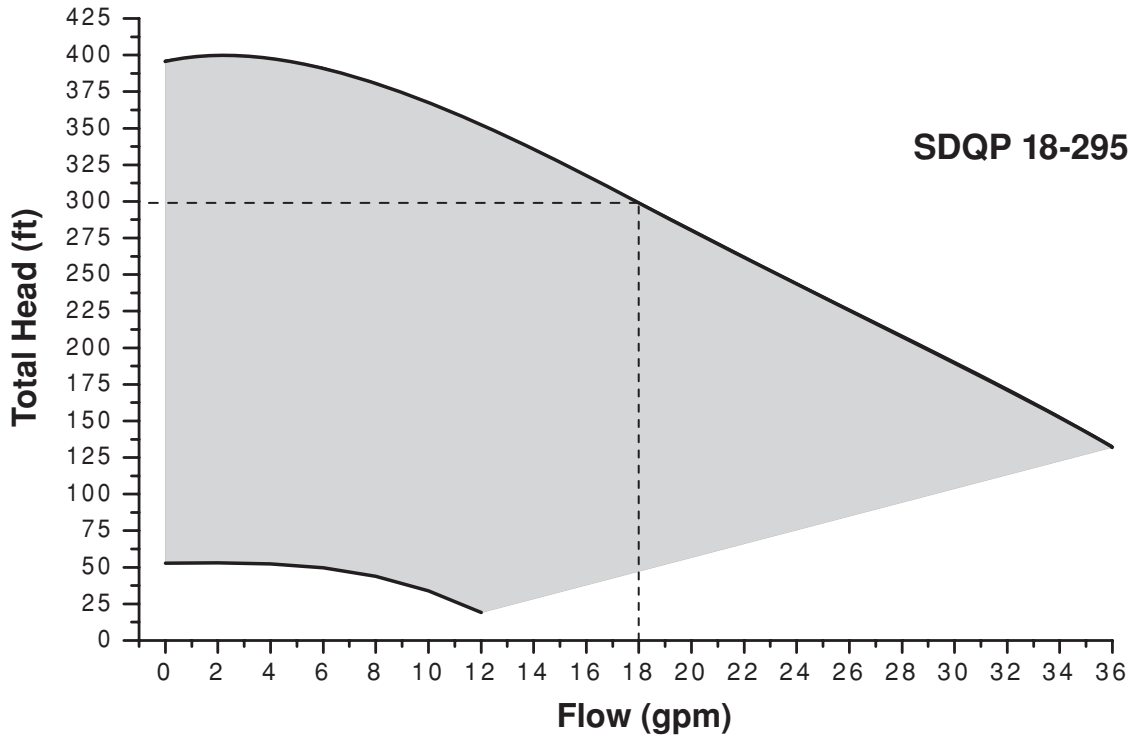
## SubDrive QuickPAK

### Performance Curves



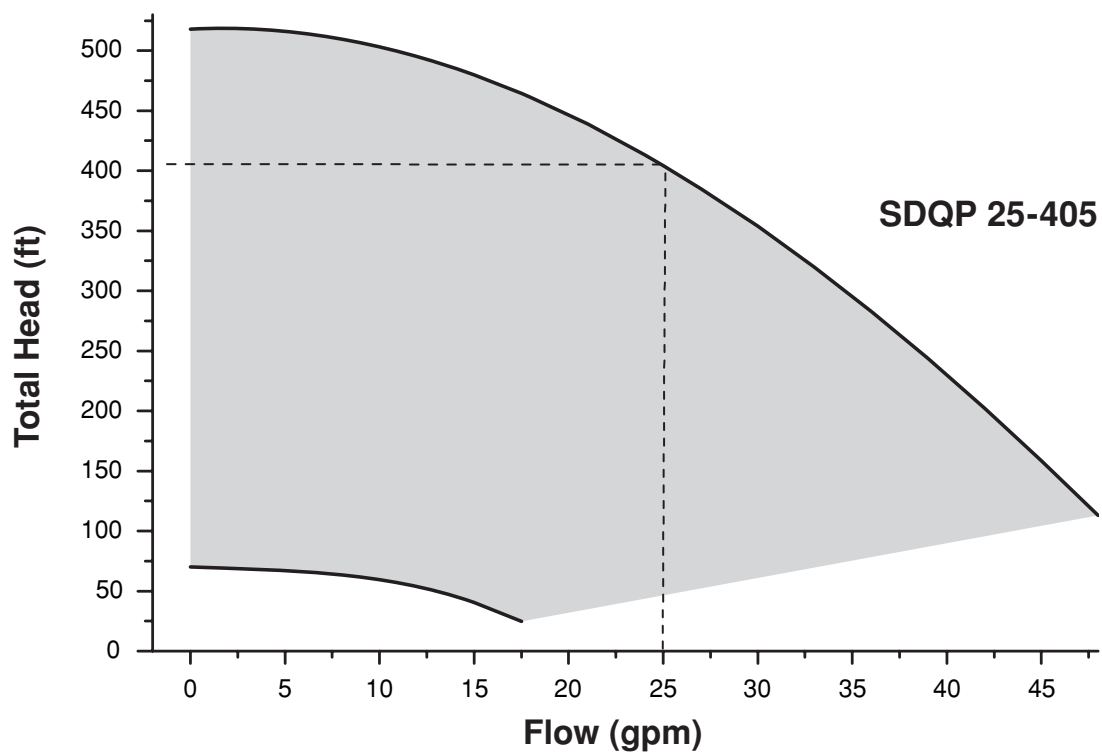
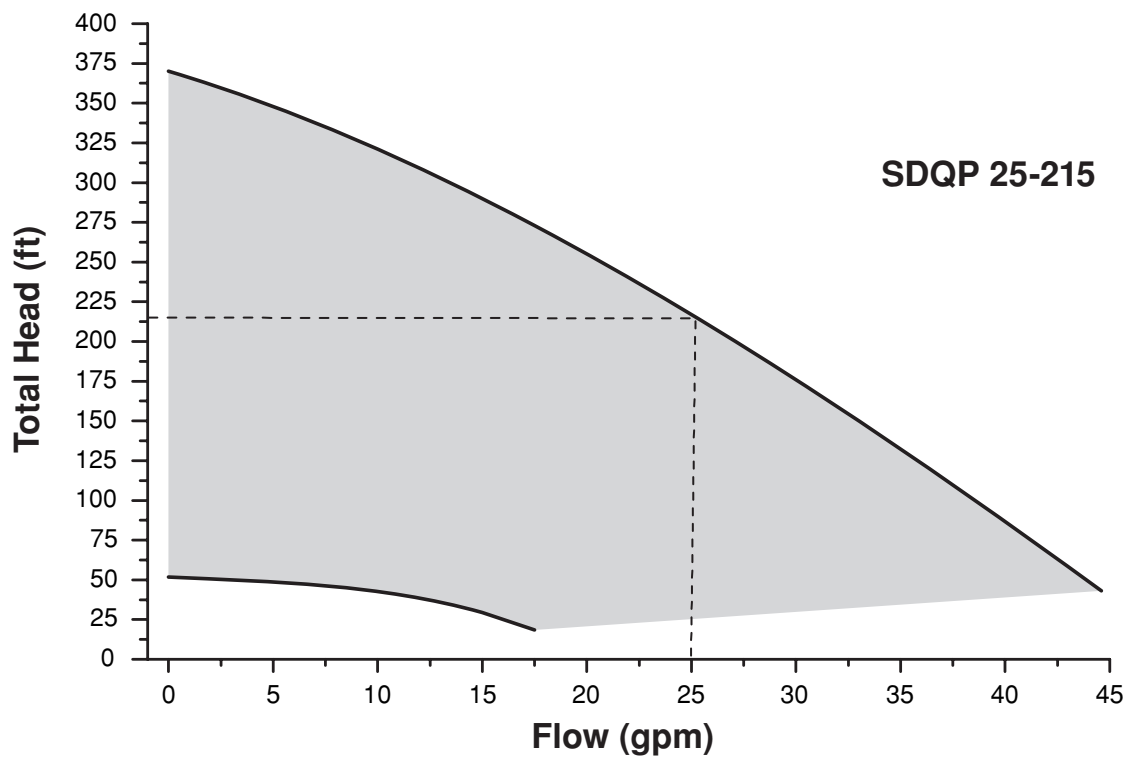
# SubDrive QuickPAK

## Performance Curves



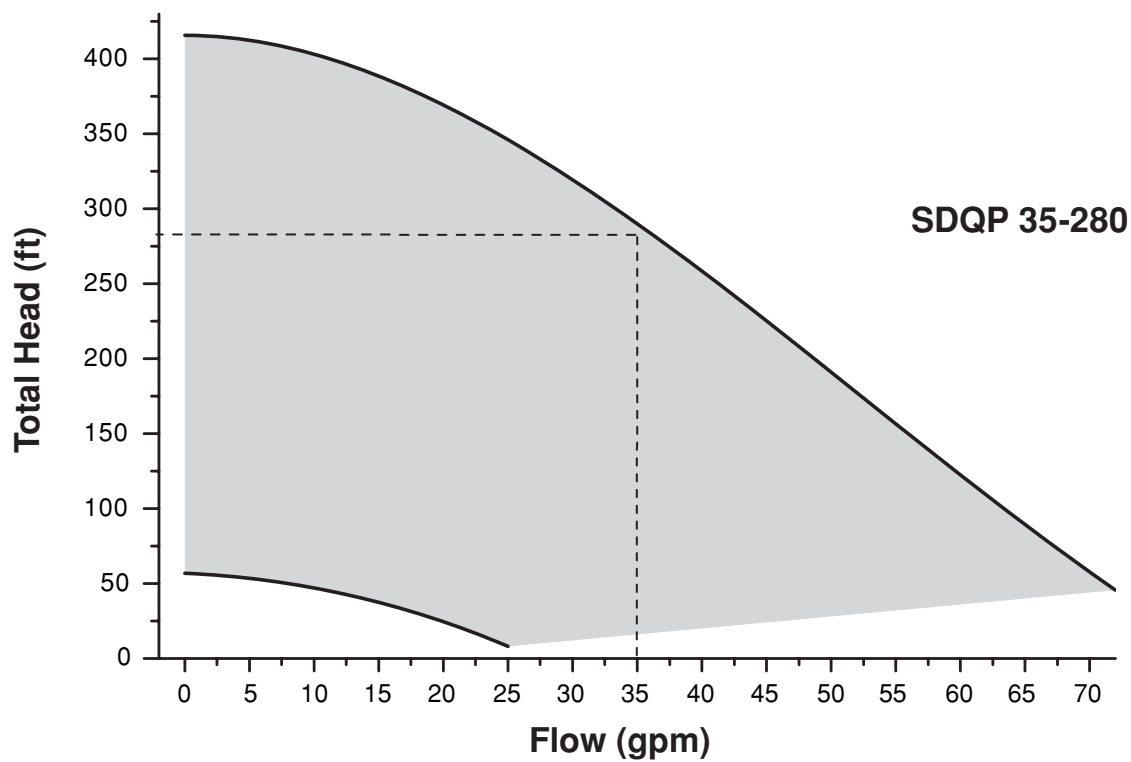
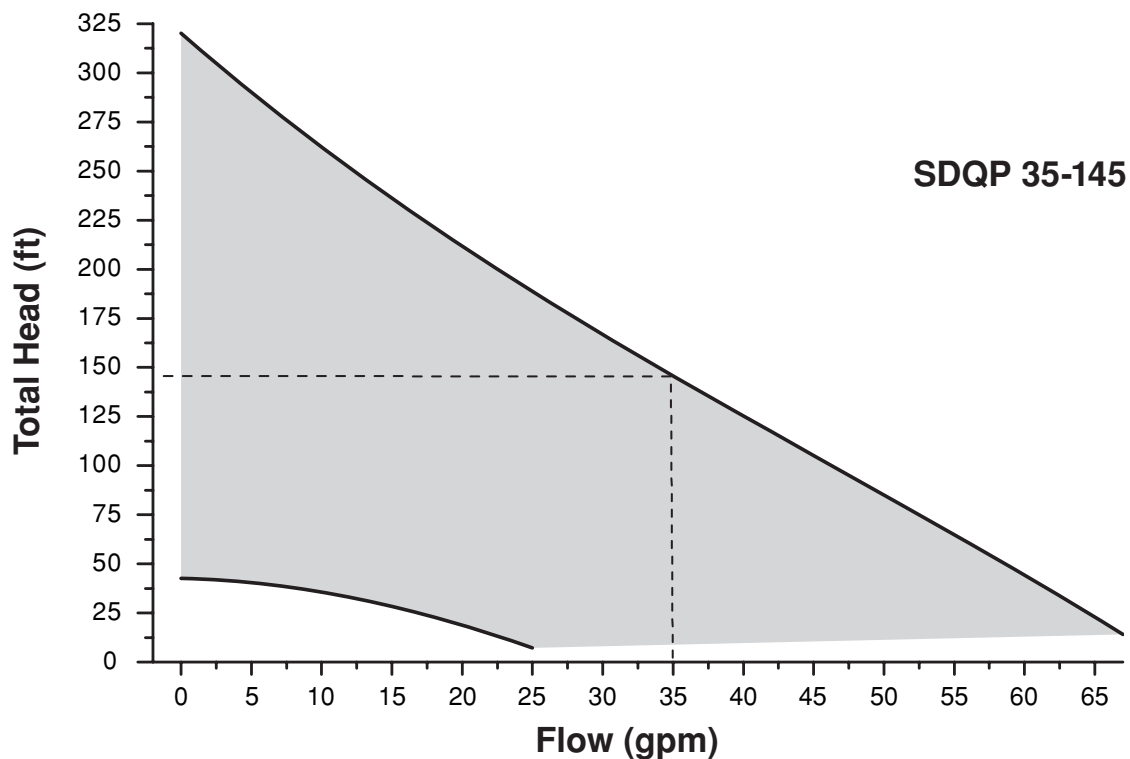
## SubDrive QuickPAK

### Performance Curves

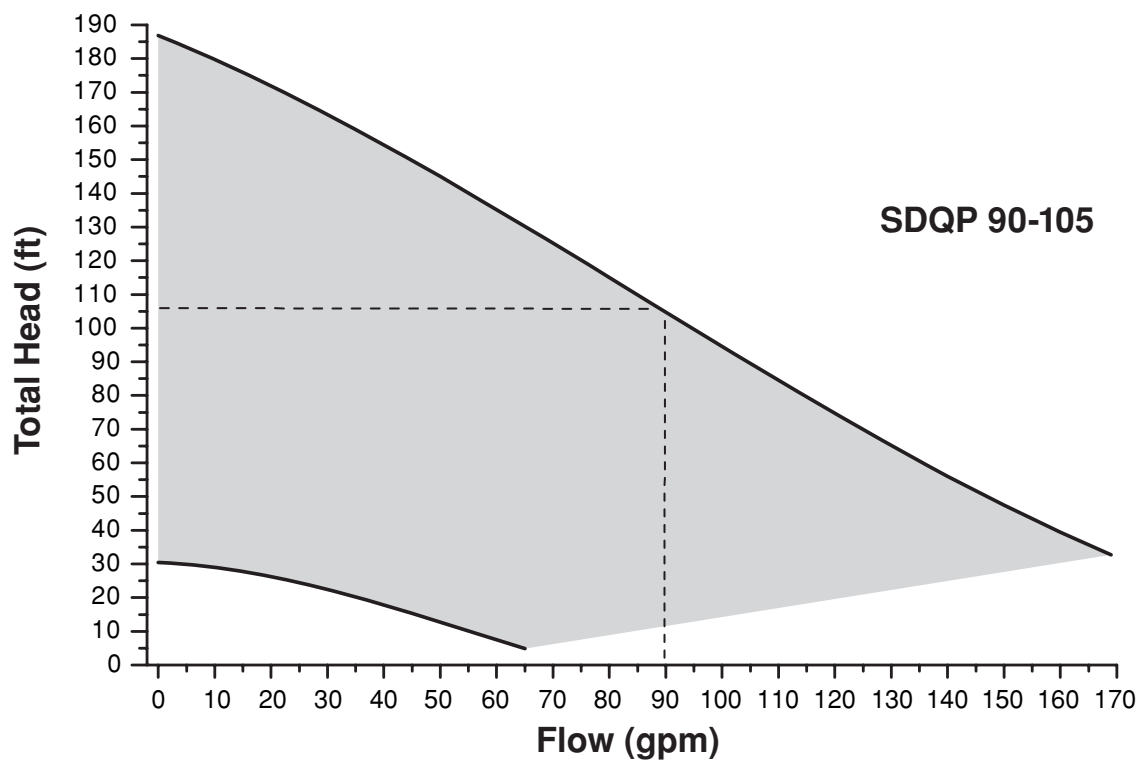
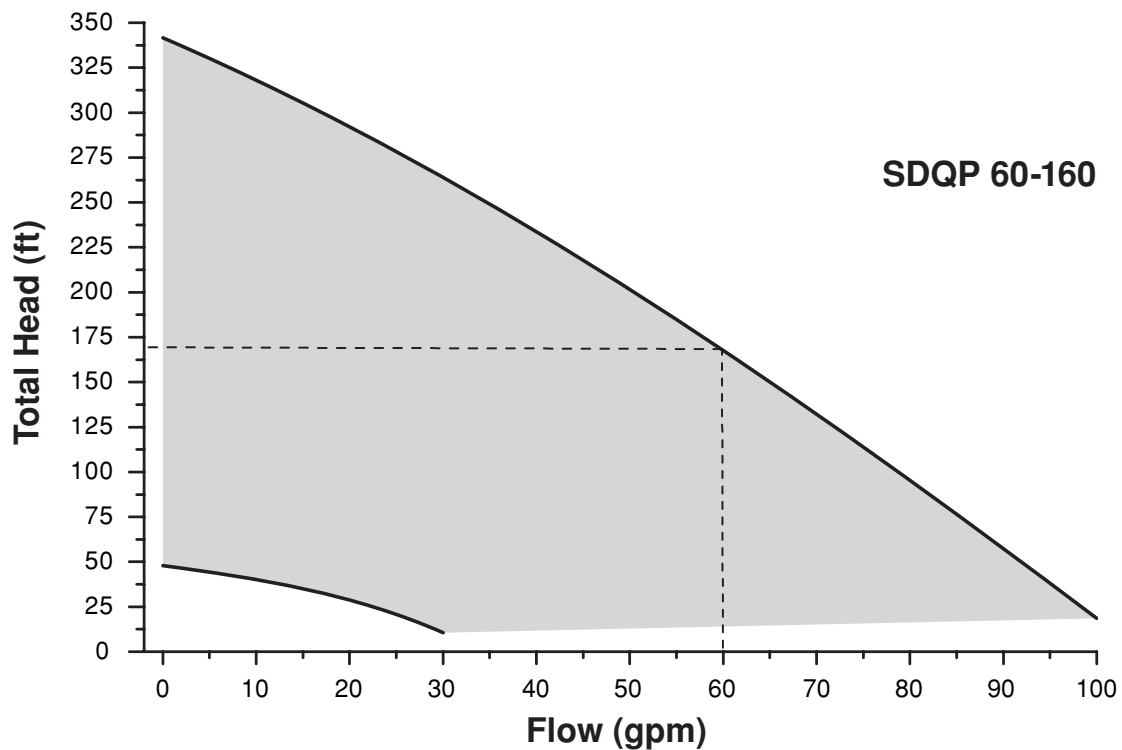


# SubDrive QuickPAK

## Performance Curves



## SubDrive QuickPAK Performance Curves





# Constant Pressure Systems

## MonoDrive/SubDrive

MonoDrive, MonoDriveXT, SubDrive75, SubDrive150 & SubDrive300

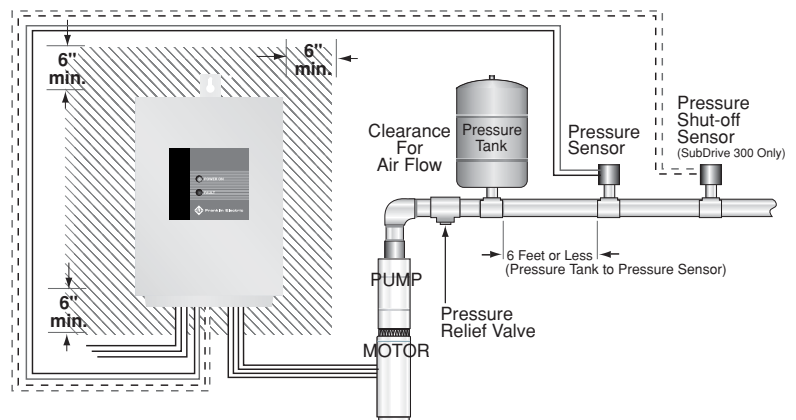


### Features:

- Constant water pressure with a wide range of settings (25 to 80 psi)
- Soft start feature prevents water hammer and increases motor life
- Works with small pressure tanks or with larger tanks already in place
- UL and CUL listed
- Smart Reset® technology allows well recovery before restarting the pump
- Single-phase input power with three-phase motor performance (SD75, SD150, SD300)
- Excellent radio frequency interference shielding
- Easy to install

### Applications:

- Residential Water Systems
  - City-like water pressure
  - Smaller tank saves space in garages & basements
- Landscape Irrigation Systems
  - Even distribution of water in zones
  - Eliminates need for separate systems
- Water Treatment Systems
  - More efficient back-flushing
  - Eliminates need for multiple pumps
- Geothermal Systems



## Constant Pressure Systems

### Specifications

#### MonoDrive, MonoDriveXT, SubDrive75, SubDrive150 & SubDrive300

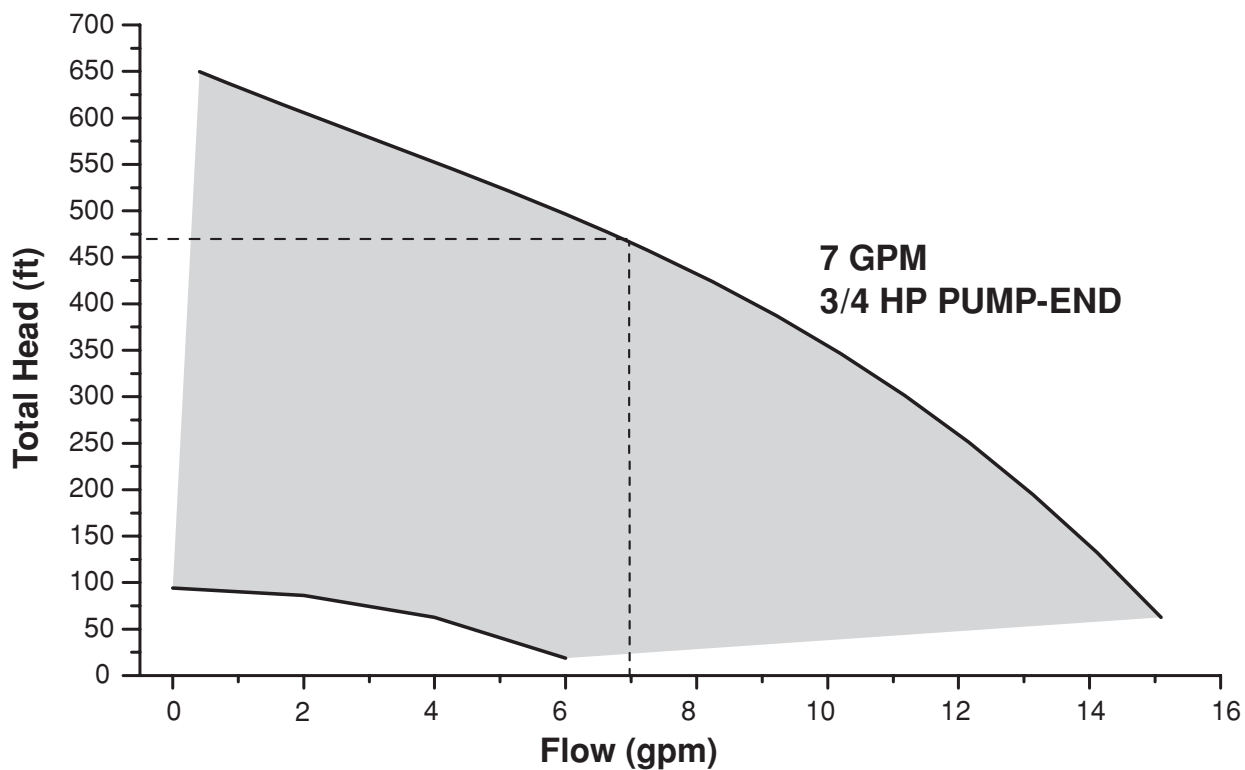
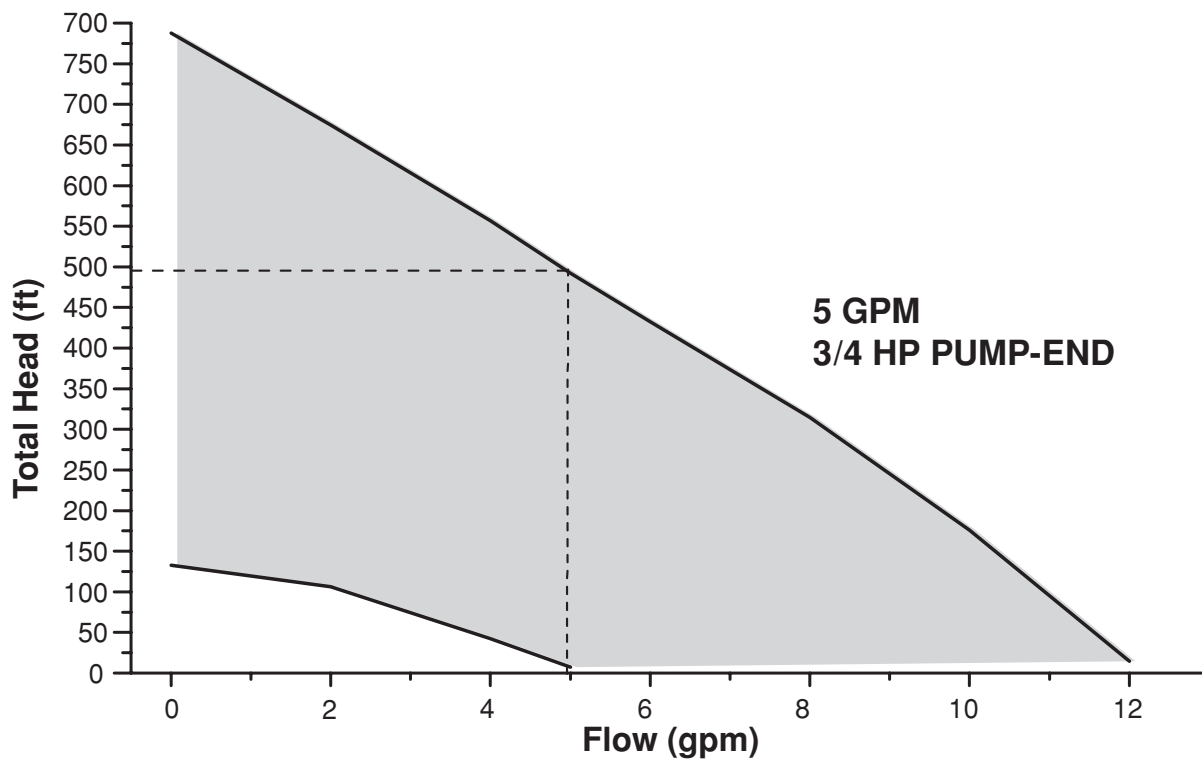
Input (From Power Source)					
Model	Order No./ Exposure	Voltage	Frequency	Max Amps (RMS)	Power Factor
<b>MonoDrive</b>	587 020 3110 / N1* 587 020 3113 / N3R*	190-260 V single-phase	60/50 Hz	5.7 A (1/2 hp), 8.7 A (3/4 hp), 11 A (1 hp)	1 (Constant)
<b>MonoDriveXT</b>	587 020 4110 / N1*	190-260 V single-phase	60/50 Hz	13 A (1.5 hp), 16 A (2 hp)	1 (Constant)
<b>SubDrive75</b>	587 020 3380 / N1* 587 020 3383 / N3R*	190-260 V single-phase	60/50 Hz	11 A	1 (Constant)
<b>SubDrive150</b>	587 020 4150 / N4*	190-260 V single-phase	60/50 Hz	23 A	1 (Constant)
<b>SubDrive300</b>	587 020 6300 / N4*	190-260 V single-phase	60/50 Hz	36 A	1 (Constant)

Output (To Motor)			
Model	Voltage	Frequency	Max Amps (RMS)
<b>MonoDrive</b>	Variable / 1-phase	Variable (30 - 60 Hz)	4.0 A (1/2 hp), 6.6 A (3/4 hp), 9.0 A (1 hp)
<b>MonoDriveXT</b>	Variable / 1-phase	Variable (30 - 60 Hz)	10 A (1.5 hp), 12 A (2 hp)
<b>SubDrive 75</b>	Variable / 3-phase	Variable (30 - 80 Hz)	5.9 A
<b>SubDrive150</b>	Variable / 3-phase	Variable (30 - 80 Hz)	10.9 A
<b>SubDrive300</b>	Variable / 3-phase	Variable (30 - 80 Hz)	17.8 A

For Use With:						
Model	Pump Rating	Motor Rating	Pressure Sensor (included)	Controller Weight	Carton Size	Shipping Weight
<b>MonoDrive</b>	1/2, 3/4 or 1 hp (Selectable)	1/2, 3/4 or 1 hp single-phase	External	13.8 lbs / 6.25 kg	16.5" x 12" x 9"	17 lbs / 7.7 kg
<b>MonoDriveXT</b>	1.5 or 2 hp (Selectable)	1.5 or 2 hp single-phase	External	13.8 lbs / 6.25 kg	16.5" x 12" x 9"	20 lbs / 9 kg
<b>SubDrive75</b>	3/4, 1 or 1.5 hp (Selectable)	1.5 hp, 230 VAC three-phase	External	13.8 lbs / 6.25 kg	16.5" x 12" x 9"	17 lbs / 7.7 kg
<b>SubDrive150</b>	1.5, 2 or 3 hp (Selectable)	3 hp, 230 VAC three-phase	External	17 lbs / 7.75 kg	16.5" x 12" x 9"	20.25 lbs / 9.2 kg
<b>SubDrive300</b>	3 or 5 hp (Selectable)	5 hp, 230 VAC three-phase	External	34 lbs / 15.5 kg	17.25" x 20" x 13.5"	38 lbs / 17.3 kg

## SubDrive75

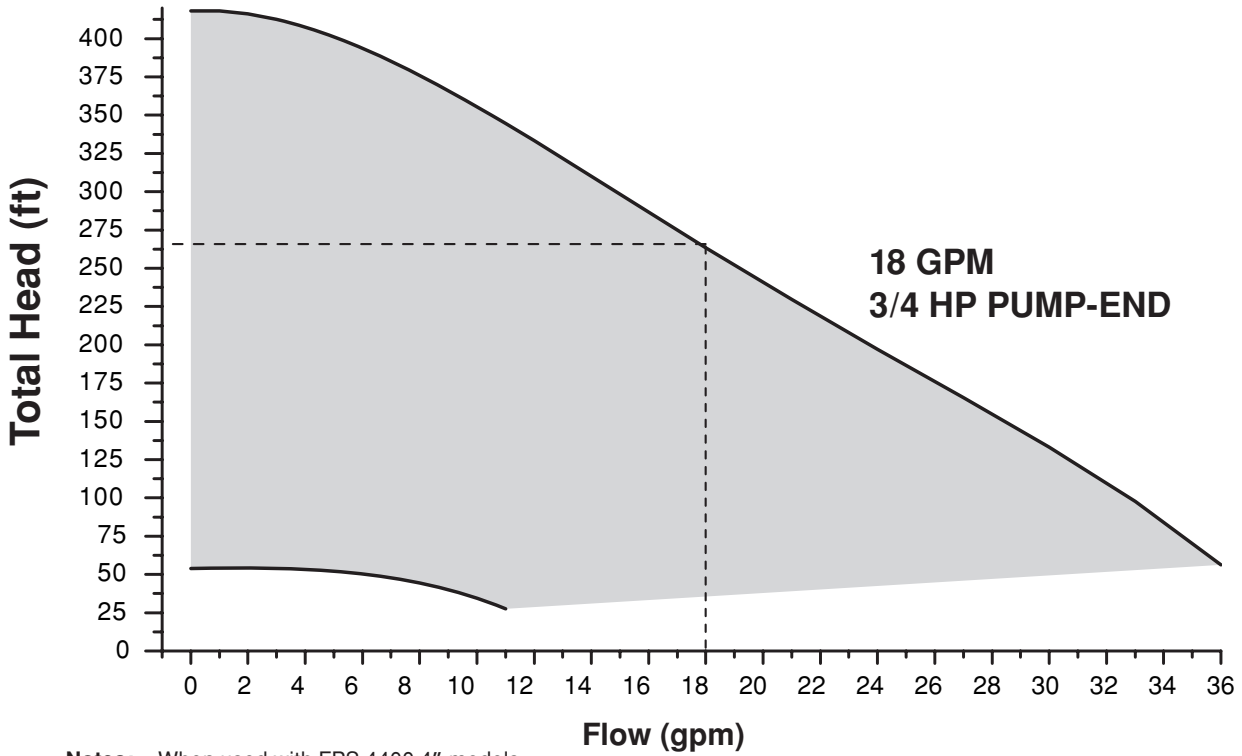
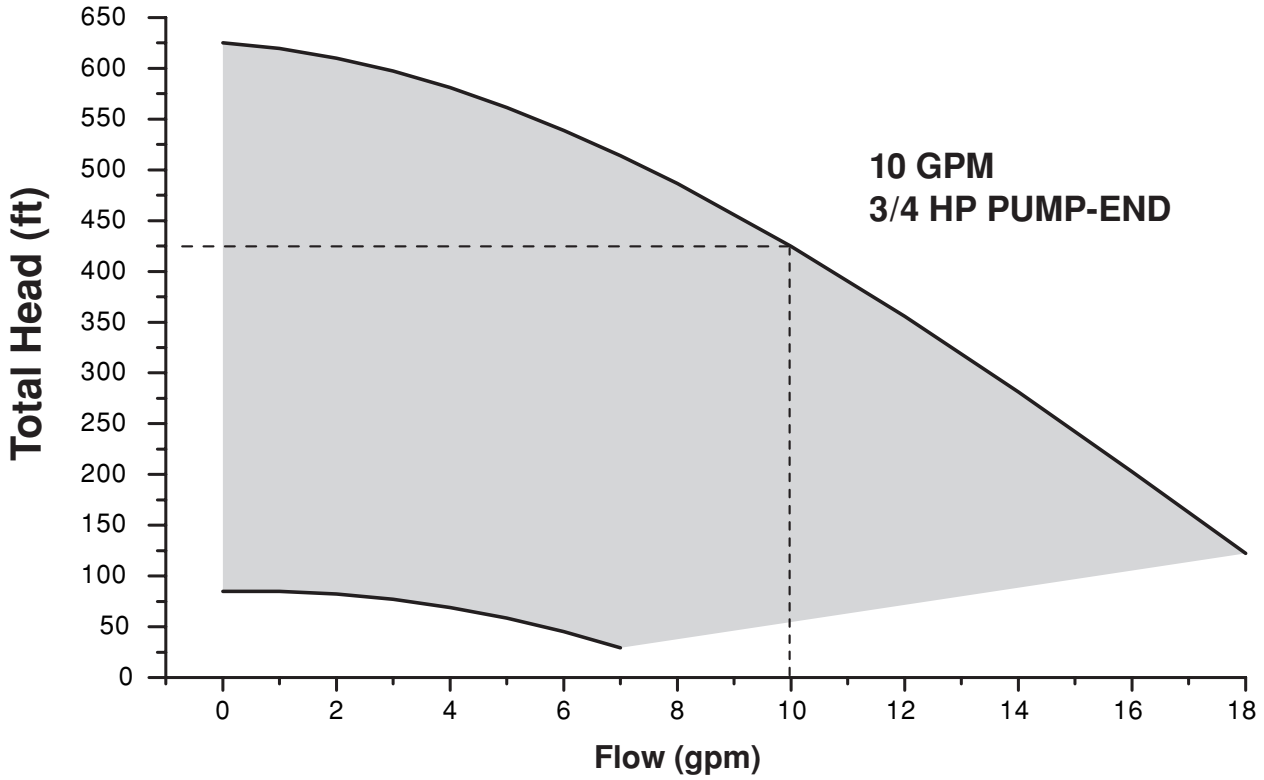
### Performance Curves



Notes: When used with FPS 4400 4" models.

## SubDrive75

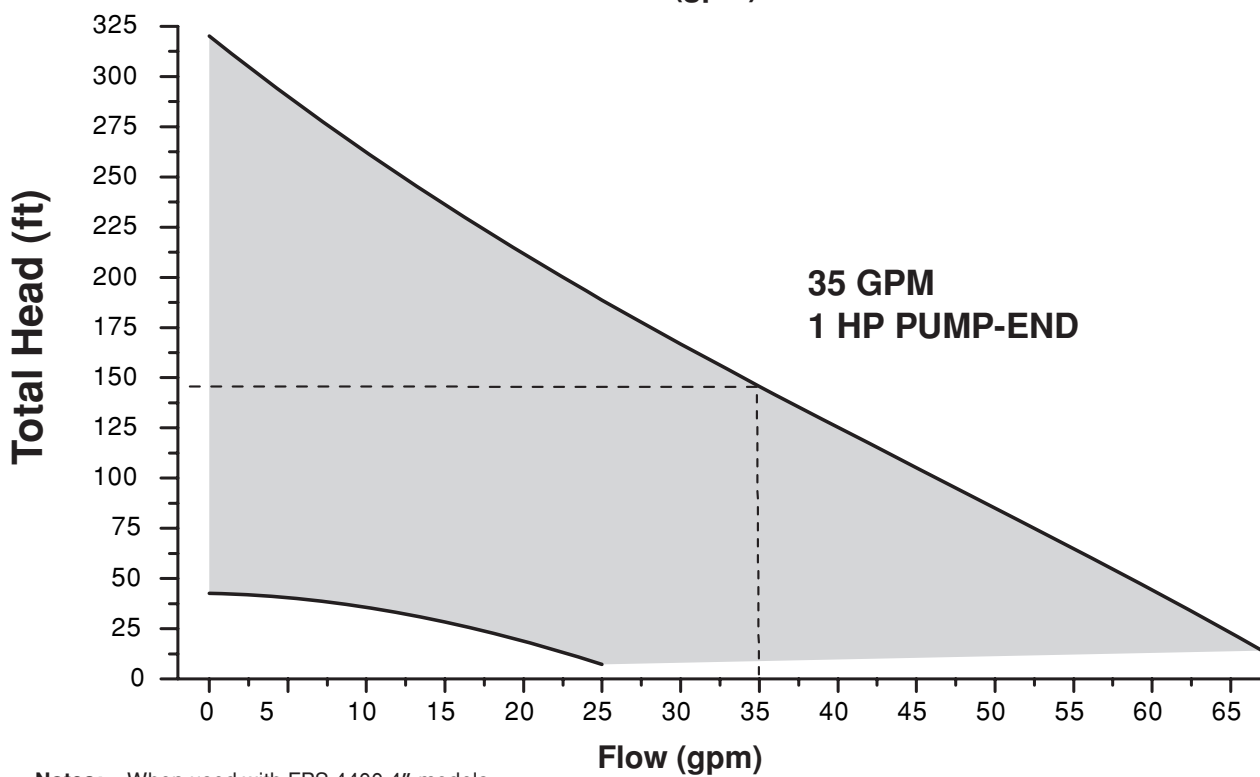
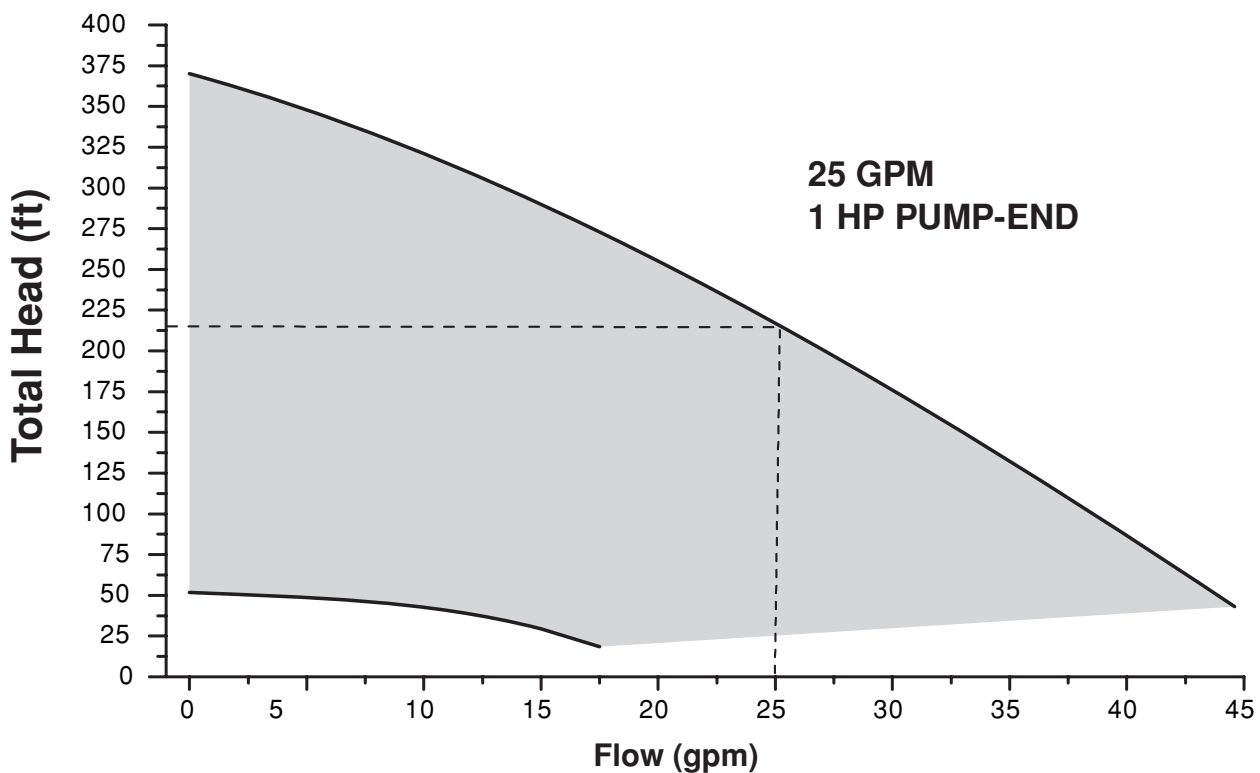
### Performance Curves



Notes: When used with FPS 4400 4" models.

## SubDrive75

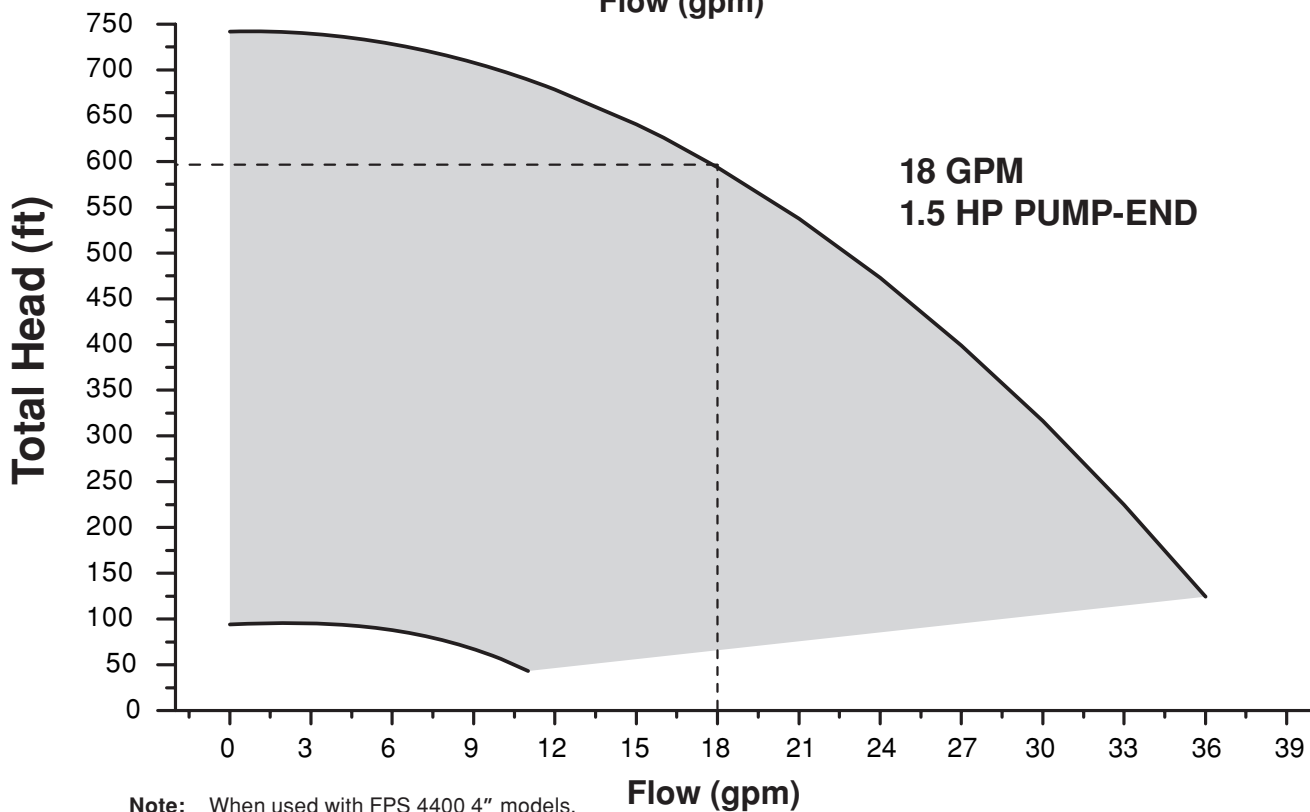
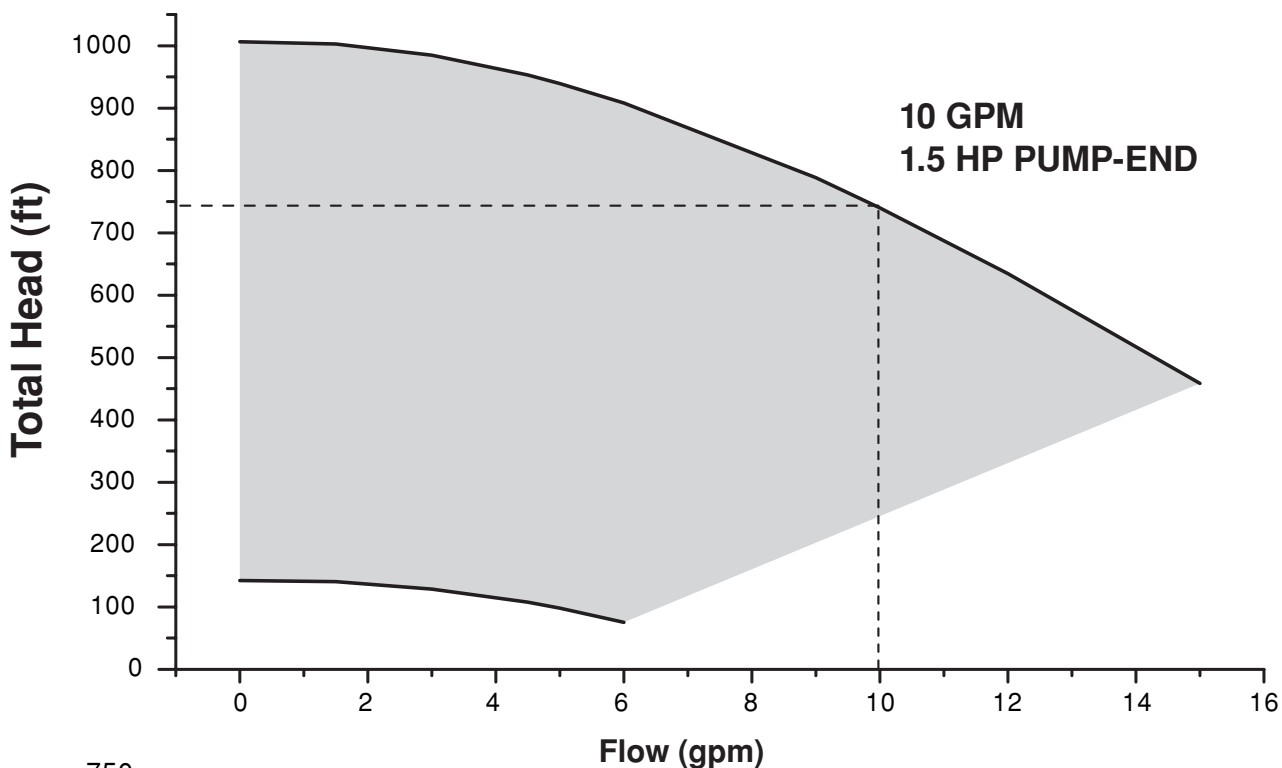
### Performance Curves



Notes: When used with FPS 4400 4" models.

## SubDrive150

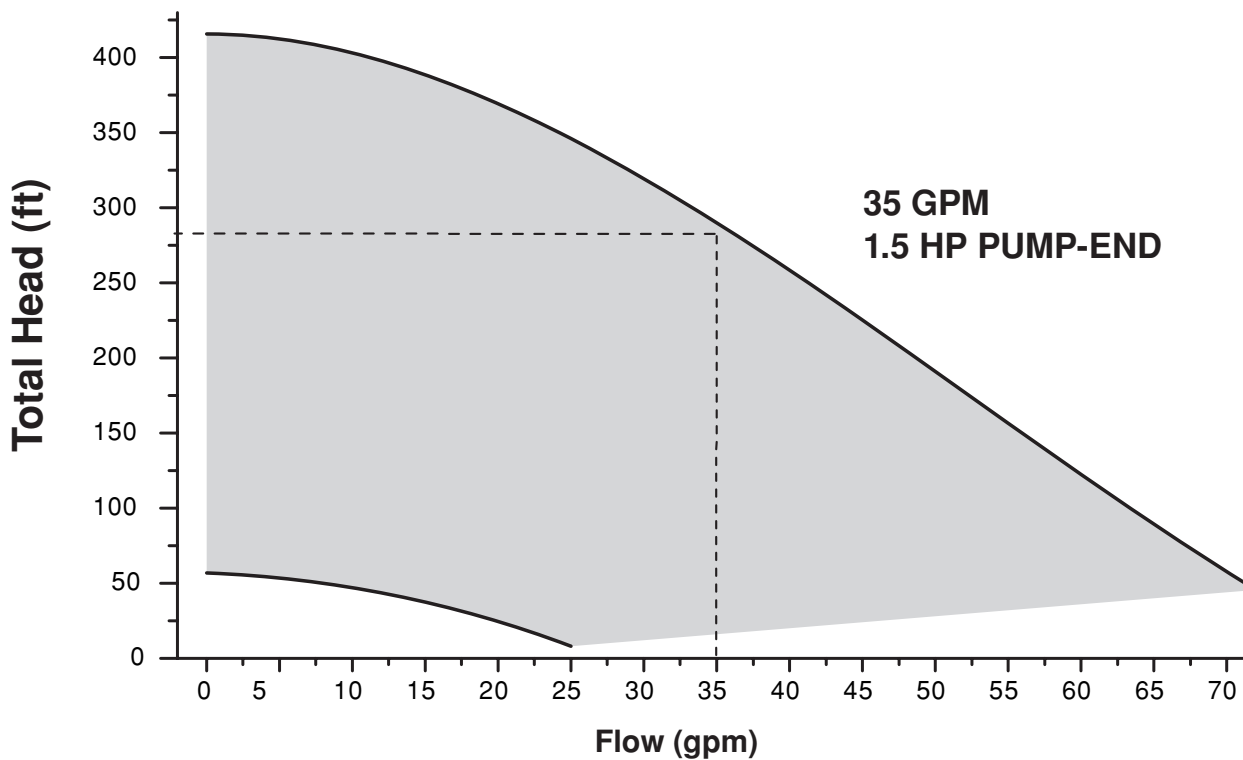
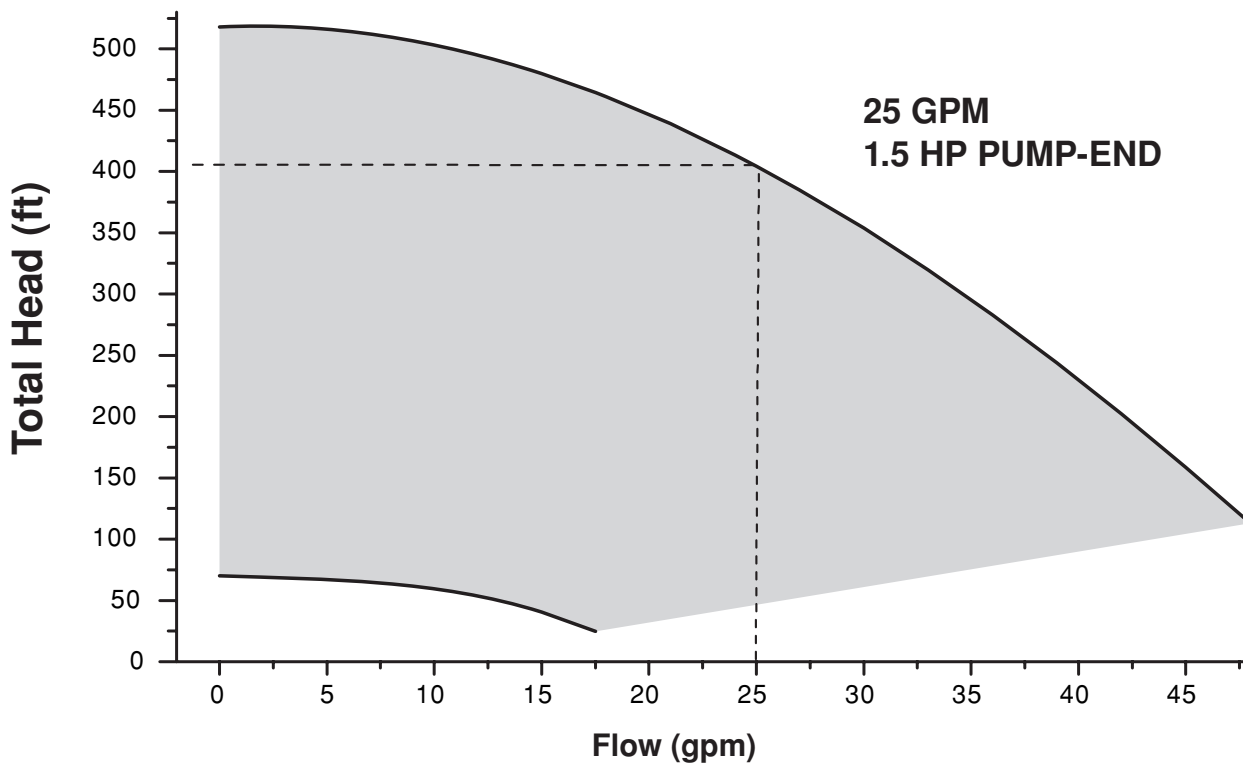
### Performance Curves



Note: When used with FPS 4400 4" models.

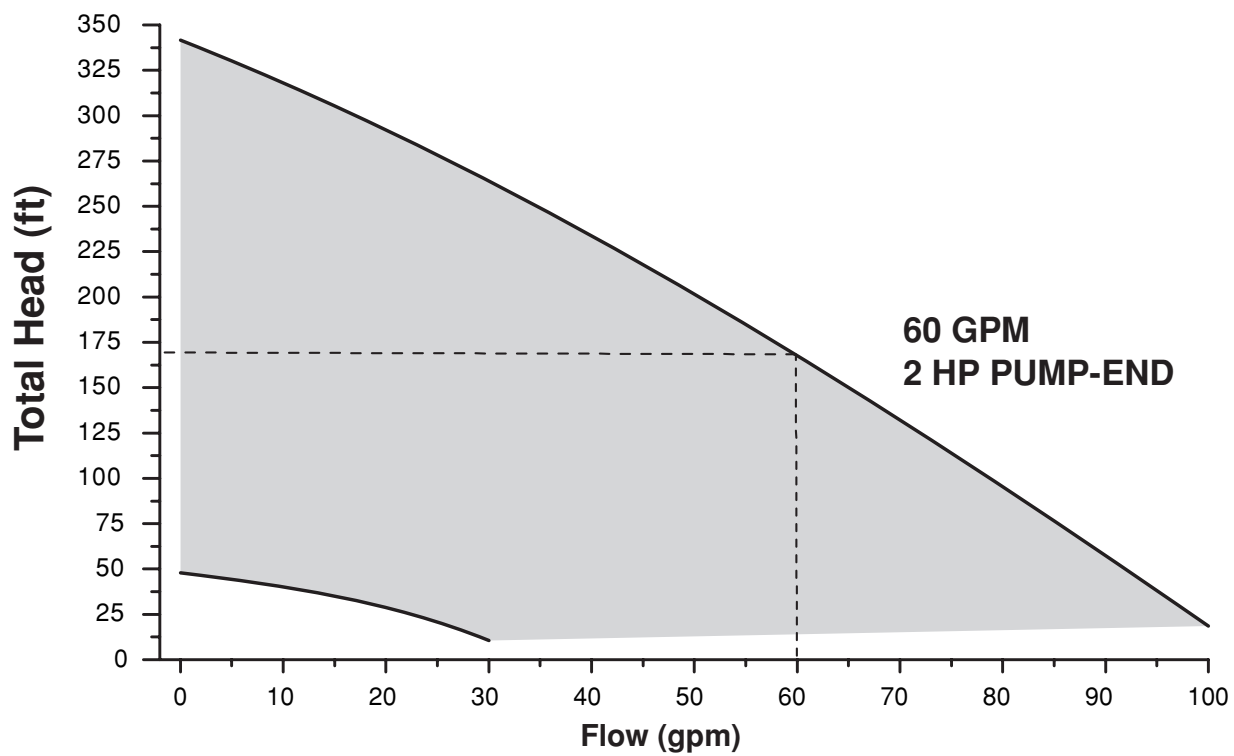
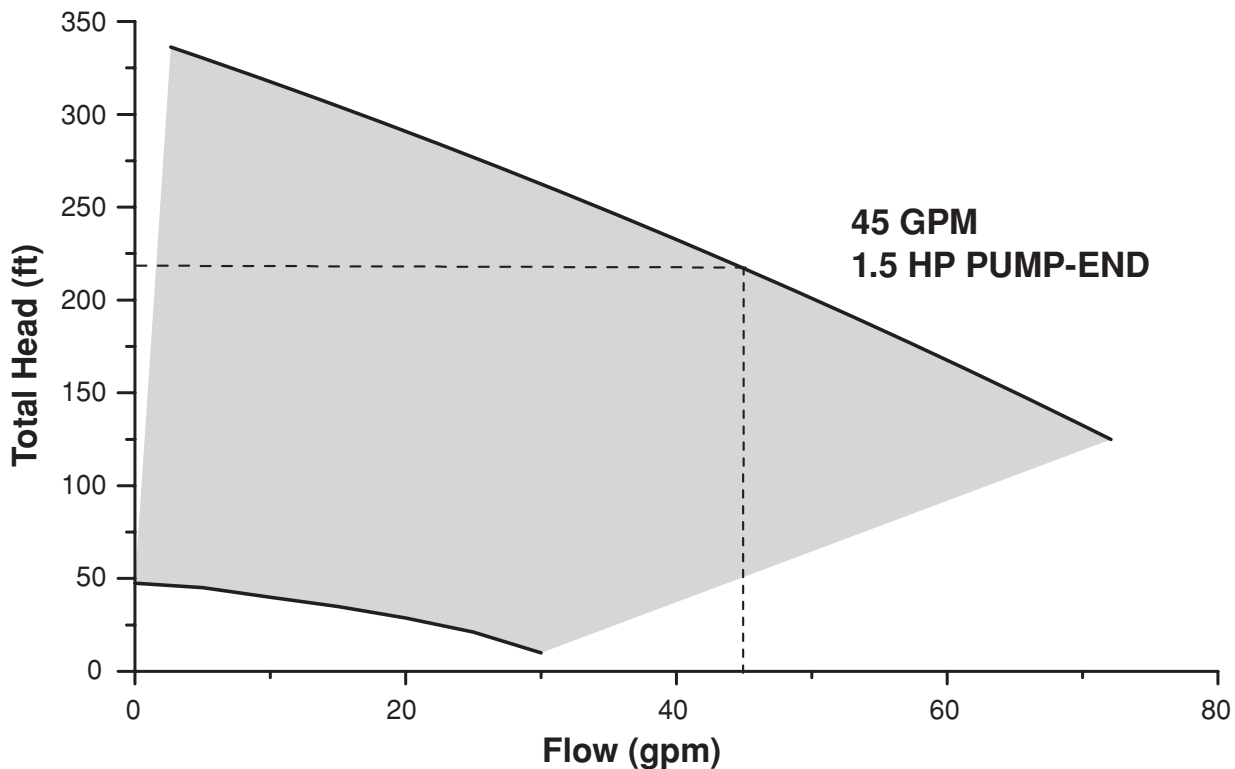
## SubDrive150

### Performance Curves



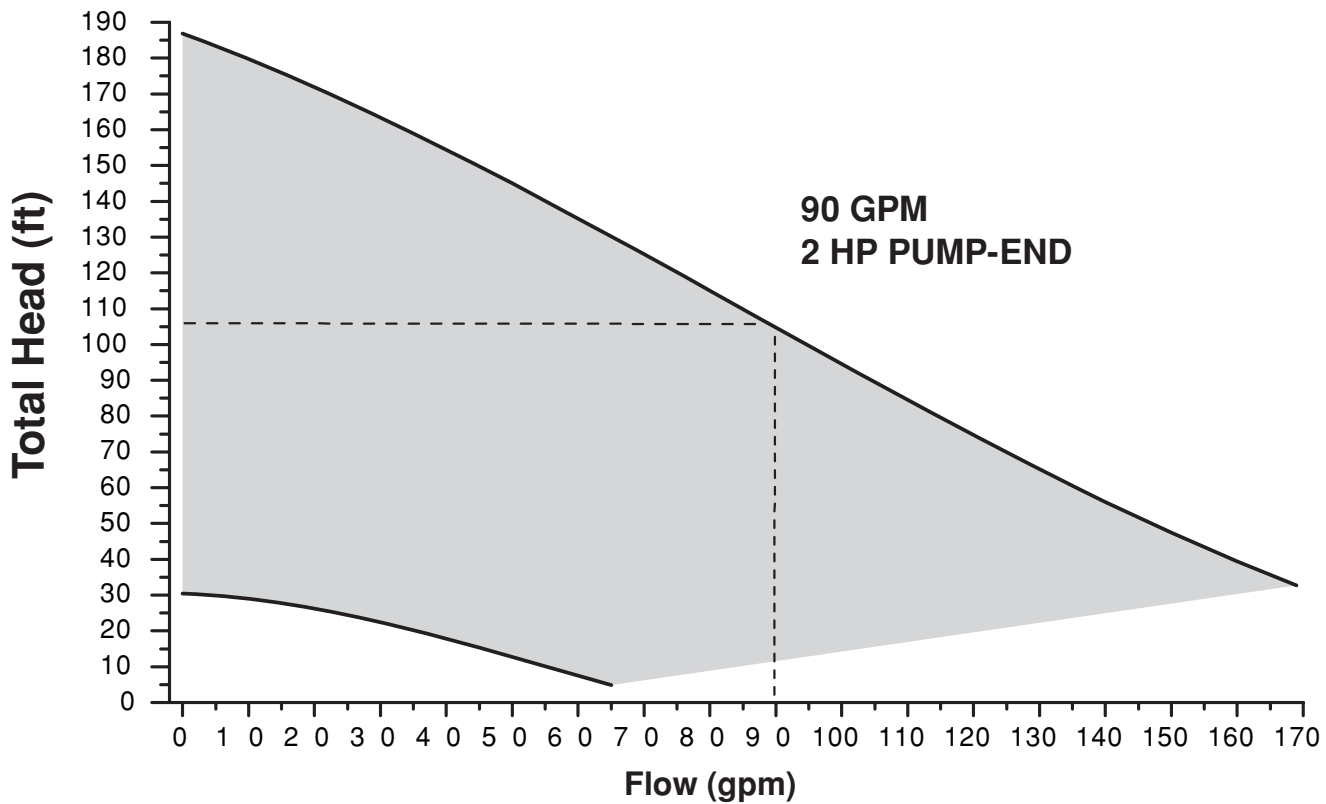
## SubDrive150

### Performance Curves

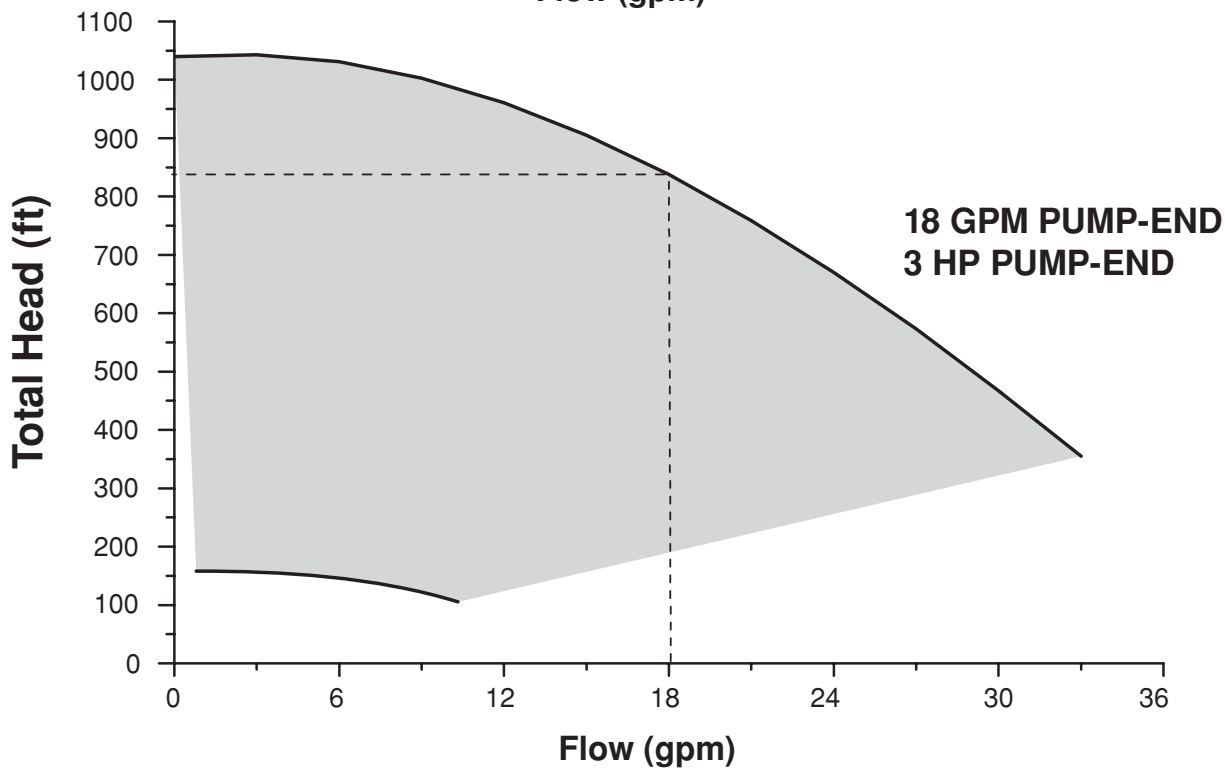
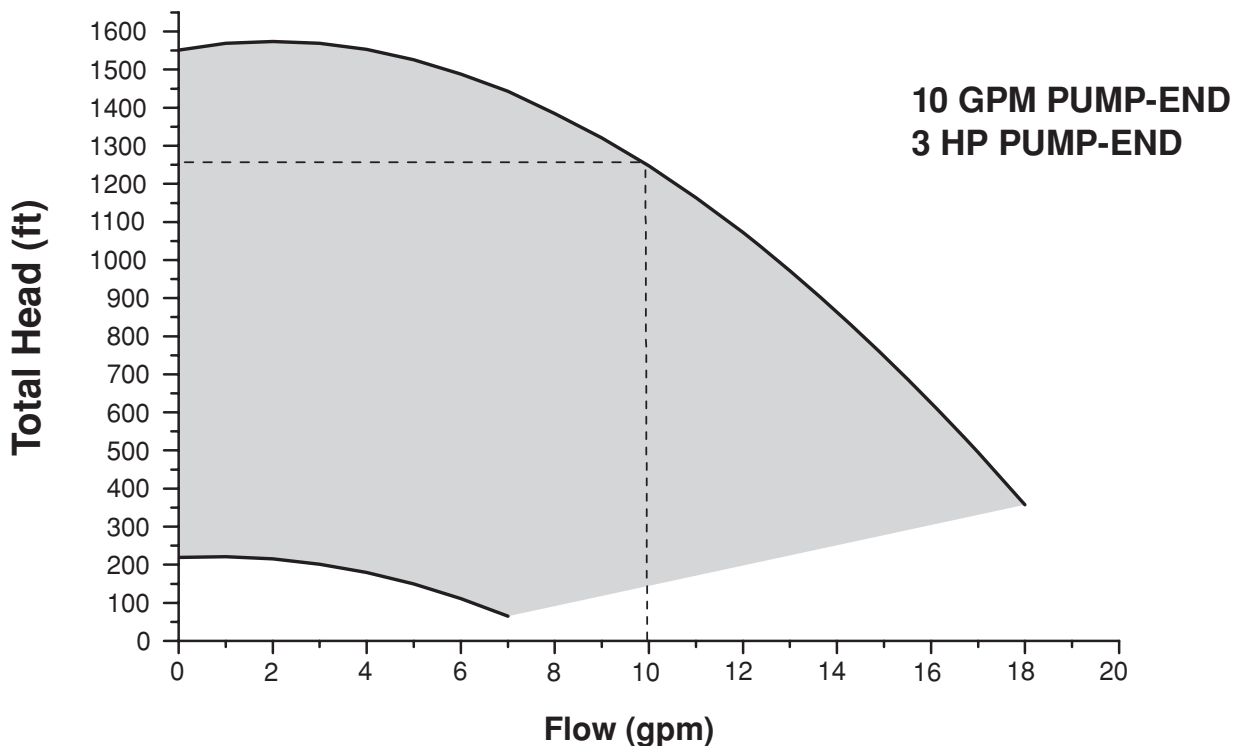




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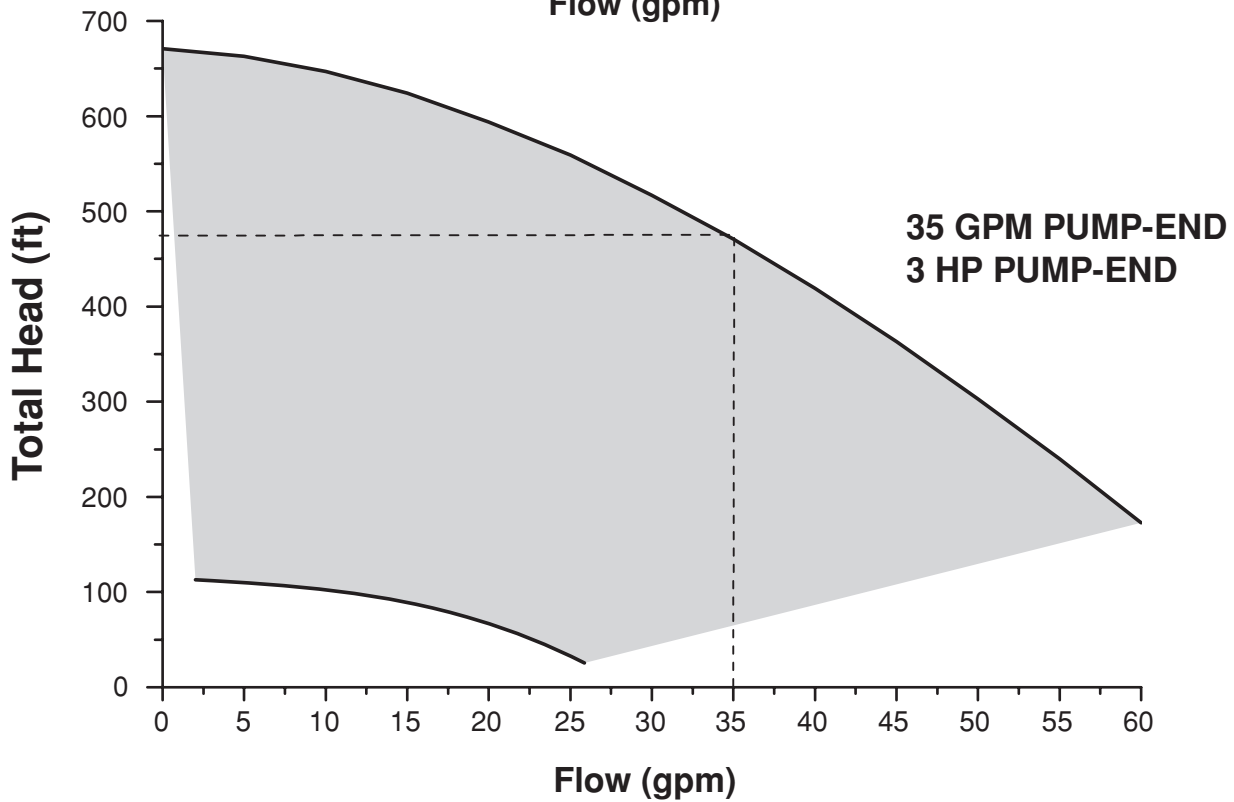
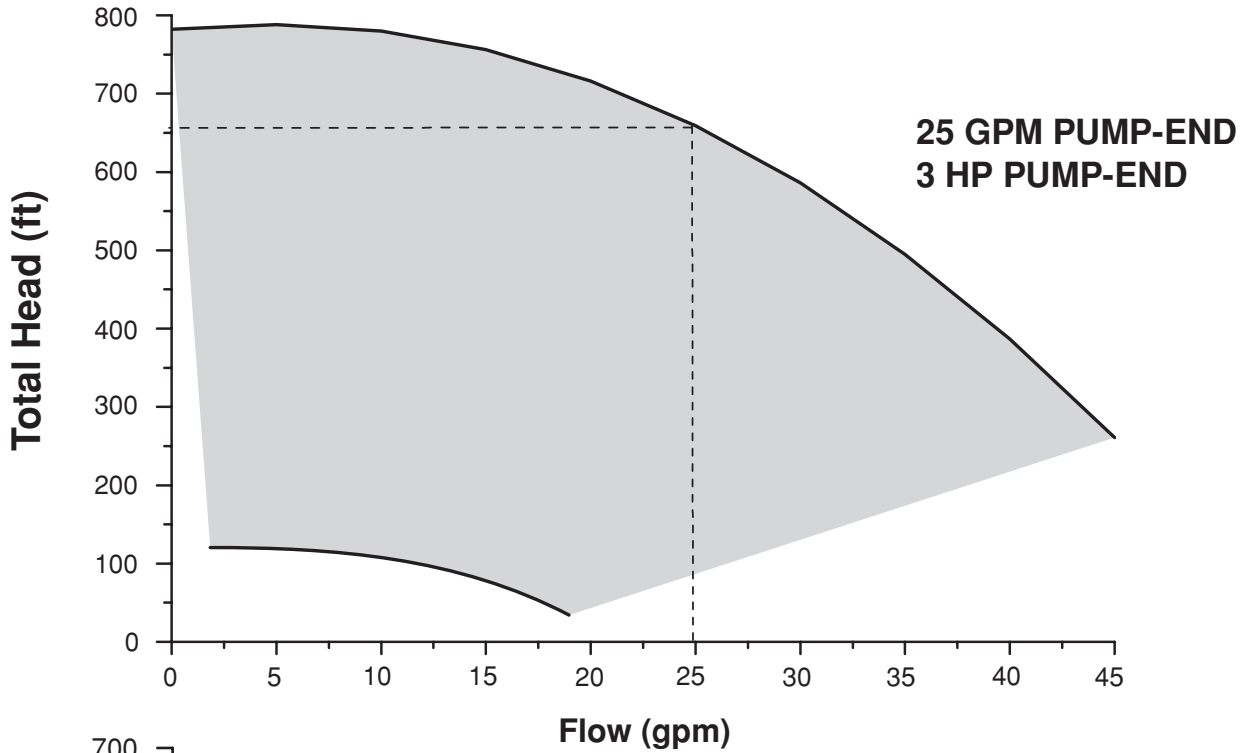


## SubDrive300 Performance Curves



Note: When used with FPS 4400 4" models.

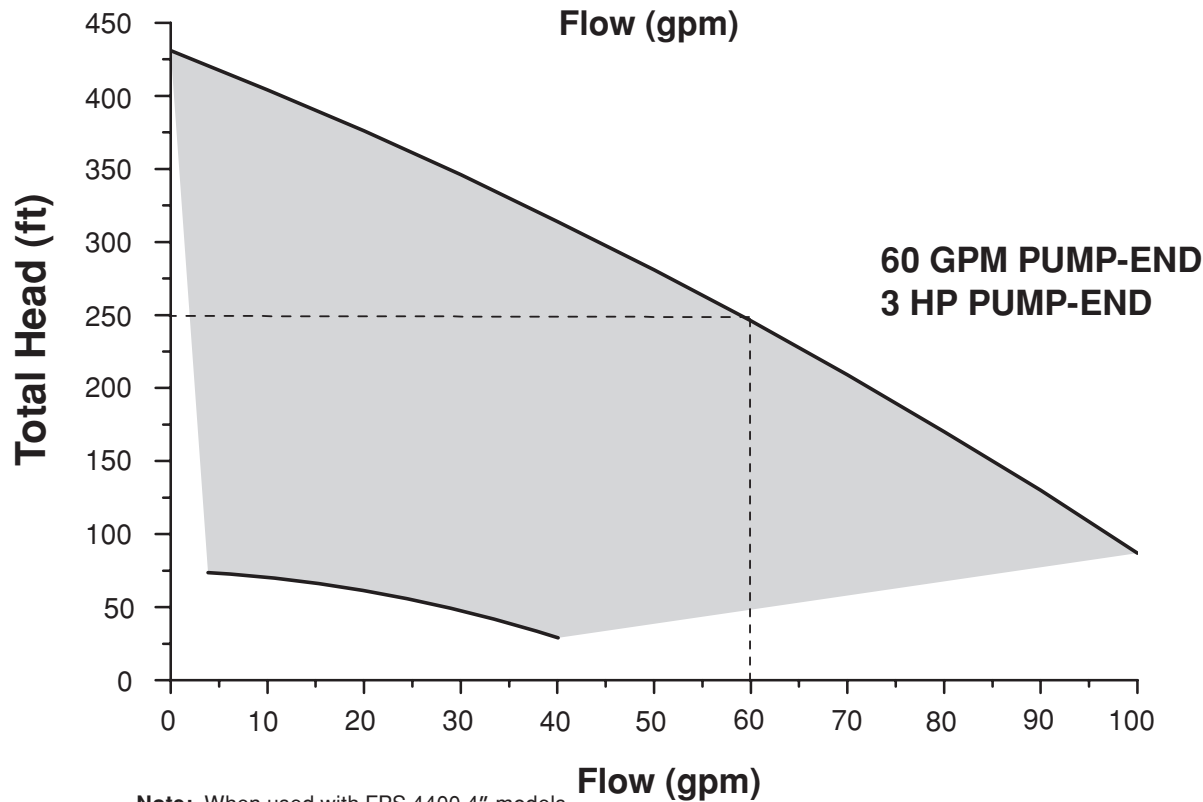
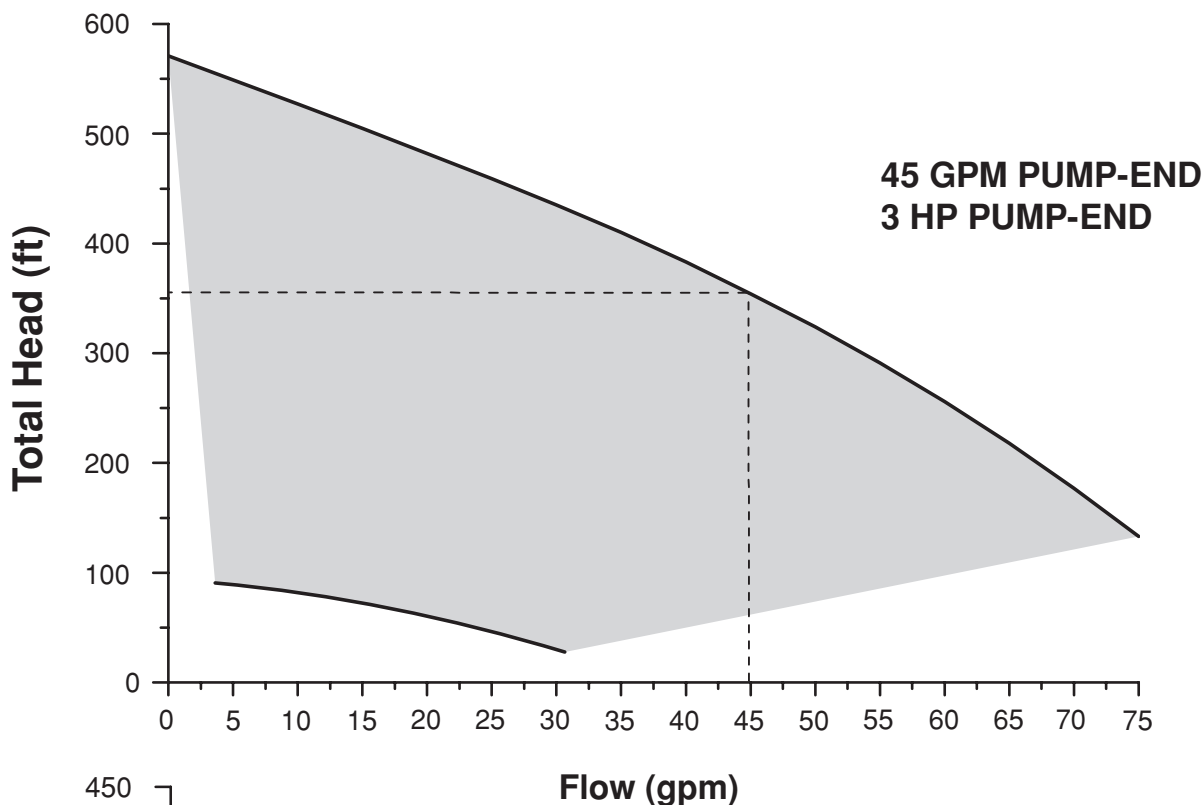
## SubDrive300 Performance Curves



**Note:** When used with FPS 4400 4" models.

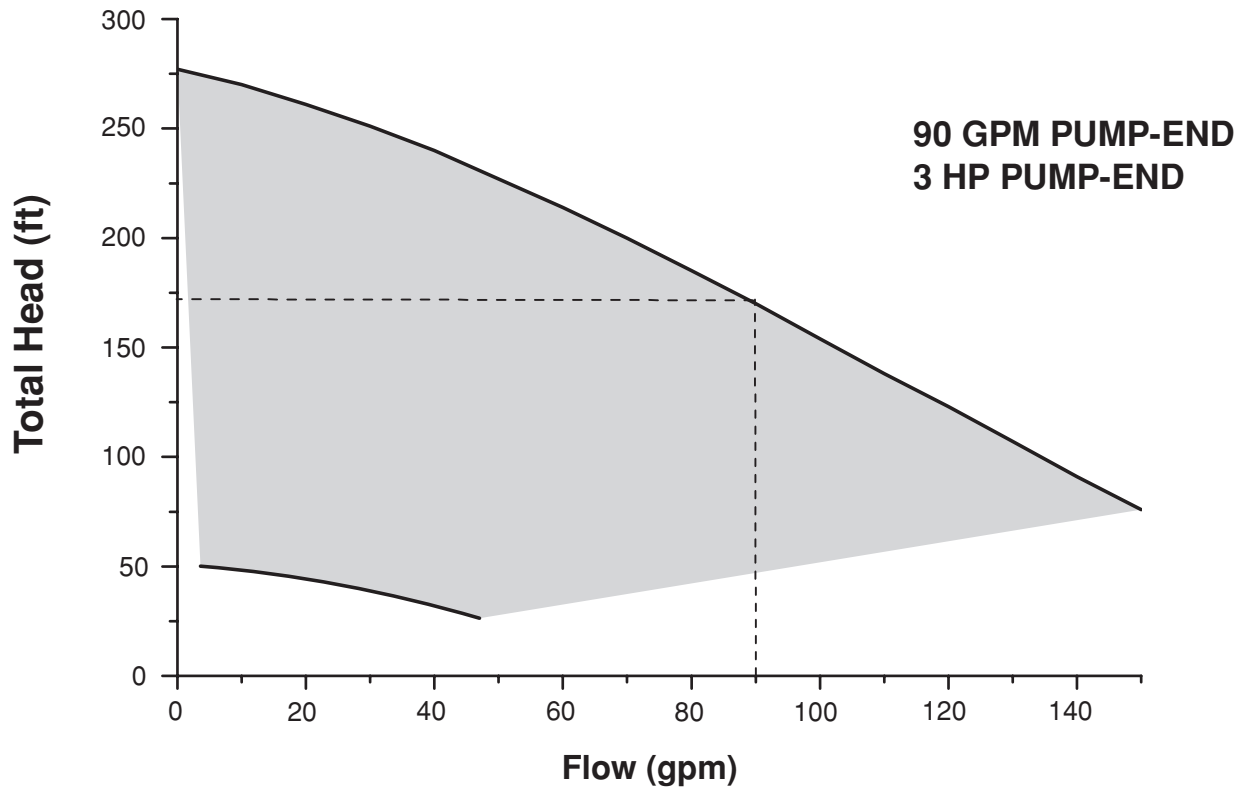
## SubDrive300

### Performance Curves



Note: When used with FPS 4400 4" models.

## SubDrive300 Performance Curves



**Note:** When used with FPS 4400 4" models.

## Control Boxes



### Standard Control Box Features:

- Rain-tight two piece enclosure
- 1/3 - 1 hp Quick Disconnect control boxes are equipped with Franklin's exclusive QD Relay
- 1/1.5 - 15 hp include overloads, relays and capacitors

### Deluxe Control Box Features:

- Rain-tight two piece enclosure
- 2 - 15 hp are equipped with magnetic starter
- Includes relays, overload and capacitors

Control Type	HP	Volts	Model / Order No.	Wt.
Quick Disconnect Control Boxes (QD), Capacitor Start-Induction Run	1/3	115	28010249	3
	1/3	230	28010349	3
	1/2	115	28010449	3
	1/2	230	28010549	3
	3/4	230	28010749	3
	1	230	28010849	3
Capacitor Run Control Boxes (CRC)	1/2	230	28240550	5
	3/4	230	28240750	5
	1	230	28240850	5
Standard Capacitor Start Capacitor Run Control Boxes	1 / 1.5	230	28230081	7
	2	230	28230181	7
	3	230	28230281	7
	5	230	28211381	8
4" Deluxe Control Boxes	2	230	28230183	7
	3	230	28230283	8
	5	230	28211393	12

## Pumptec Motor Protection System

### Single-Phase Motor Protection



#### Pumptec Features:

- For single-phase motors 1/3 - 1 1/2 hp, 115/230 V, 2 or 3-wire
- Protects against low-yield wells, drop in water level and low voltage
- Manual or Auto Reset (2 min. - 90 min.)
- IR Command & Control
- Run and Fault Indicator Lights

#### Pumptec-Plus Features:

- For single-phase motors 1/2 - 5 hp, 230 V, 2 or 3-wire
- Protects against low-yield wells, high or low voltage, drop in water level, rapid cycling, water logged tank
- Manual or Auto Reset (1 min. - 4 hrs.)
- Run and Fault indicator lights

#### QD Pumptec Features:

- For Franklin 3-wire single-phase submersible motors 1/3-1 hp, 230 V
- Protects against low-yield wells, drop in water level, clogged well screen, air or gas locked pump, and low voltage
- Auto or manual reset
- Surge resistant
- Moisture and insect resistant
- Solid state electronic circuitry
- Mounts in existing Franklin QD Control Box

Control Type	HP	Volts	Model / Order No.	Wt.
Q.D. PUMPTEC	1/3 - 1	115/230	58000701	1
PUMPTEC	1/2 - 1.5	115/230	58000206	3
PUMPTEC-PLUS	1/2 - 5	230	58000601	6

# Three-Phase Panel

### Three-Phase Motor Control Panel

#### Features:

- UL approved, NEMA 3R enclosure
- Class R fusible disconnect
- Service entrance rated
- Lightning arrestor
- Motor logic protected
- NEMA contractor
- Door wind hinge
- Pilot device and alarm terminal block
- H-O-A switch
- Manual push-to-start switch
- Easy hookup





## Three-Phase Control Panel

# Three-Phase Panel

## Three-Phase Motor Control Panel

HP	Description					Model No.
	Overload	Volts	HZ	AMP Rating	Weight	
3	Motor Logic	200	60	6-18	56	2811012203
		230	60	6-18	56	2811013303
		460	60	3-9	56	2811014402
		575	60	3-9	56	2811015502
	SubMonitor	200	60	ALL	56	2811012200
		230	60	ALL	56	2811013300
		460	60	ALL	56	2811014400
		575	60	ALL	56	2811015500
5	Motor Logic	200	60	9-27	56	2811012204
		230	60	9-27	56	2811013303
		460	60	3-9	56	2811014402
		575	60	3-9	56	2811015502
	SubMonitor	200	60	ALL	56	2811012200
		230	60	ALL	56	2811013300
		460	60	ALL	56	2811014400
		575	60	ALL	56	2811015500
7.5	Motor Logic	200	60	15-45	60	2811042206
		230	60	15-45	60	2811043304
		460	60	6-18	56	2811014403
		575	60	6-18	56	2811015503
	SubMonitor	200	60	ALL	60	2811042200
		230	60	ALL	60	2811043300
		460	60	ALL	56	2811014400
		575	60	ALL	56	2811015500
10	Motor Logic	200	60	15-45	60	2811042206
		230	60	15-45	60	2811043306
		460	60	9-27	56	2811014404
		575	60	6-18	56	2811015503
	SubMonitor	200	60	ALL	60	2811042200
		230	60	ALL	60	2811043300
		460	60	ALL	56	2811014400
		575	60	ALL	56	2811015500
15	Motor Logic	200	60	30-90	147	2812042208
		230	60	30-90	145	2812043308
		460	60	9-27	56	2811044404
		575	60	9-27	56	2811015504
	SubMonitor	200	60	ALL	147	2812042200
		230	60	ALL	145	2812043300
		460	60	ALL	56	2811014400
		575	60	ALL	56	2811015500
20	Motor Logic	200	60	30-90	145	2812052208
		230	60	30-90	145	2812053308
		460	60	15-45	60	2811044406
		575	60	15-45	60	2811045504
	SubMonitor	200	60	ALL	145	2812052200
		230	60	ALL	145	2812053300
		460	60	ALL	60	2811034400
		575	60	ALL	60	2811045500
25	Motor Logic	200	60	30-90	145	2812062208
		230	60	30-90	145	2812063308
		460	60	15-45	60	2811044406
		575	60	15-45	60	2811045506
	SubMonitor	200	60	ALL	145	2812062200
		230	60	ALL	145	2812063300
		460	60	ALL	60	2811044400
		575	60	ALL	60	2811045500

## SubMonitor Three-Phase Motor Protection



# SubMonitor

### Features:

- Quick, menu-driven set-up
- Digital display shows voltage and current on all three legs at once
- Fault messages in easily understandable text
- Rated for 190 to 600 volts
- No need for additional turns around the CT or to add external CTs
- Password protection option
- DIN rail mounting option
- Stored fault, setting changes, and pump run-time information easily accessed through display head
- Detachable NEMA 3R display unit easily mounted on panel door
- Turn-and-push adjustment knob
- Base unit can operate independent of detachable head
- 5 Languages: English, French, Spanish, Portuguese, & German
- UL 508 Listed

### Protects Against:

- Under/Overload
- Under/Overtoltage
- Current Unbalance
- Phase Reversal
- False Start (Chattering)
- Overheated Motor  
(if equipped with Subtrol Heat sensor)

### Applications:

SubMonitor is designed to protect 3-phase pumps with service factor amp ratings (SFA) from 5 to 350 A (approx. 3 to 200 HP). Current, voltage, and motor temperature are monitored using three integrated current transformers. A digital display provides current and voltage readings for all three legs and allows the user to set up the SubMonitor quickly and easily.

Description	Model / Order No.	Wt.
SubMonitor - Standard	58600050	4
SubMonitor - Premium*	58600051	4

\*Includes lightning arrestor and 3-year warranty

## Submersible Motors

### 4" Single-Phase Motors and Leads

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
<b>4" Motors 2-Wire 1-Phase</b>	1/2	115	300	24450490	18
	1/2	230	300	24450590	18
	3/4	230	300	24450790	21
	1	230	650	24450890	24
	1.5	230	650	24430990	31
<b>4" Motors 3-Wire 1-Phase</b>	1/2	115	300	21450490	19
	1/2	230	300	21450590	19
	3/4	230	300	21450790	21
	1	230	650	21450890	24
	1.5	230	650	22430092	28
	2	230	650	22430192	33
	3	230	900	22430226	41
	3	230	1500	22430252	55
<b>4" Sand Fighter</b>	3	230	1500	22430284	55
	5	230	1500	22430384	70
Type	Description		Wire Size	Model / Order No.	Wt.
<b>4" Motor Leads</b>	48" - 2-wire		#14 AWG	152552905	1
	120" - 2-wire w/SJOOW		#14 AWG	152365903	1
	48" - 3-wire		#14 AWG	152553905	1
	100" - 3-wire		#14 AWG	152553906	1

**Note:** Some Franklin motors, controls, & parts are not stock items and may need to be special ordered.

# Submersible Motors

## 4" Three-Phase Motors

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
<b>4" Motors 3-Phase Standard Construction</b>	1/2	200	300	23450192	18
	1/2	230	300	23451192	18
	1/2	460	300	23452194	18
	3/4	200	300	23450292	21
	3/4	230	300	23451292	21
	3/4	460	300	23452294	21
	1	200	650	23450392	24
	1	230	650	23451392	24
	1	460	650	23452394	24
	1.5	200	650	23450492	24
	1.5	230	650	23451492	24
	1.5	460	650	23452494	24
	1.5	575	650	23453494	24
	2	200	650	23430592	28
	2	230	650	23431592	28
	2	460	650	23432594	28
	2	575	650	23433594	28
	3	200	900	23430626	35
	3	230	900	23431626	35
	3	460	900	23432626	35
	3	575	900	23433626	35
	3	200	1500	23430652	42
	3	230	1500	23431652	42
	3	460	1500	23432652	42
	5	200	1500	23430752	55
	5	230	1500	23431752	55
	5	460	1500	23432752	55
	5	575	1500	23433752	55
	7.5	200	1500	23430852	70
	7.5	230	1500	23431852	70
7.5	460	1500	23432852	70	
7.5	575	1500	23433852	70	
10	460	1500	23459534	75	
<b>4" Motors 3-Phase Sand Fighter</b>	3	200	1500	23430684	42
	3	230	1500	23431684	42
	3	460	1500	23432684	42
	5	200	1500	23430784	55
	5	230	1500	23431784	55
	5	460	1500	23432784	55
	7.5	200	1500	23430884	70
	7.5	230	1500	23431884	70
	7.5	460	1500	23432884	70
<b>4" Motors 3-Phase Coal Bed Methane</b>	3	200	1500	23430682	42
	3	230	1500	23431682	42
	3	460	1500	23432682	42
	5	200	1500	23430782	55
	5	230	1500	23431782	55
	5	460	1500	23432782	55
	7.5	200	1500	23430882	70
	7.5	230	1500	23431882	70
	7.5	460	1500	23432882	70
10	460	1500	23459582	75	

**Note:** Some Franklin motors, controls, & parts are not stock items and may need to be special ordered.

## Submersible Motors

### 6" Single-Phase

Motors, Control Boxes, Leads and Arrestors

#### 6" Single Phase Motors

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
6" Motors 1-Phase	5	230	3000	22611090	110
	7.5	230	3000	22611190	123
	10	230	3500	22611290	141
	15	230	3500	22611390	154
6" Motors 1-Phase Sand Fighter	5	230	3000	22611080	110
	7.5	230	3000	22611180	123
	10	230	3500	22611280	141
	15	230	3500	22611380	154

#### 6" Control Boxes

Control Type	HP	Volts	Model / Order No.	Wt.
6" Standard Control Boxes	7.5	230	28220192	12
	10	230	28220292	14
6" Deluxe Control Boxes	7.5	230	28220193	13
	10	230	28220293	15
	15	230	28220393	17
	15*	230	28220396	28

\* Special extra large control box providing higher cycle rates and wiring room

#### 6" Leads

Type	Description	Wire Size	Model / Order No.	Wt.
6" Motor Leads	13' - 3-Wire with ground (All hp)	#8 AWG	305517901	4

#### Lightning Arrestors

Item	Type	Rating	Model / Order No.
Lightning Arrestors	1-Phase	0-125 Volts to ground	150814902
	3-Phase	0-650 Volts to ground	155440901

**Note:** Some Franklin motors, controls, & parts are not stock items and may need to be special ordered.

## 6" Three-Phase Motors (without Subtrol Heat Sensor)

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
<b>6" Motors 3-Phase Standard Construction 30 °C AMB</b>	5	200	3500	23665090	101
	5	230	3500	23660090	101
	5	460	3500	23661090	101
	5	575	3500	23662090	101
	7.5	200	3500	23665190	108
	7.5	230	3500	23660190	108
	7.5	460	3500	23661190	108
	7.5	575	3500	23662190	108
	10	200	3500	23665290	116
	10	230	3500	23660290	116
	10	460	3500	23661290	116
	10	575	3500	23662290	116
	15	200	3500	23665390	129
	15	230	3500	23660390	129
	15	460	3500	23661390	129
	15	575	3500	23662390	129
	20	200	3500	23665490	145
	20	230	3500	23660490	145
	20	460	3500	23661490	145
	20	575	3500	23662490	145
	25	200	3500	23665590	156
	25	230	3500	23660590	156
	25	460	3500	23661590	156
	25	575	3500	23662590	156
	30	200	3500	23665690	174
	30	230	3500	23660690	174
	30	460	3500	23661690	174
	30	575	3500	23662690	174

**Note:** Some Franklin motors, controls, & parts are not stock items and may need to be special ordered.

## Submersible Motors

### 6" Three-Phase Motors (with Subtrol Heat Sensor)

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
<b>6" Motors 3-Phase Sand Fighter 30 °C AMB</b>	5	200	3500	23665081	101
	5	230	3500	23660081	101
	5	460	3500	23661081	101
	7.5	200	3500	23665181	108
	7.5	230	3500	23660181	108
	7.5	460	3500	23661181	108
	10	200	3500	23665281	116
	10	230	3500	23660281	116
	10	460	3500	23661281	116
	15	200	3500	23665381	129
	15	230	3500	23660381	129
	15	460	3500	23661381	129
	20	200	3500	23665481	145
	20	230	3500	23660481	145
	20	460	3500	23661481	145
	25	200	3500	23665581	156
	25	230	3500	23660581	156
	25	460	3500	23661581	156
	30	200	3500	23665681	174
	30	230	3500	23660681	174
30	460	3500	23661681	174	
40	460	6000	23661781	202	

**Note:** Some Franklin motors, controls, & parts are not stock items and may need to be special ordered.

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
<b>6" Motors 3-Phase Water Well Construction 50 °C AMB</b>	50	460	7500	27661860	300
	60	460	7500	27661960	330

## 6" Three-Phase Motors (without Subtrol Heat Sensor)

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
6" Motors 3-Phase Water Well High-Temp 90 °C Non-Subtrol 90 °C AMB	5	200	4500	27665000	116
	5	230	4500	27660000	116
	5	460	4500	27661000	116
	7.5	200	4500	27665100	129
	7.5	230	4500	27660100	129
	7.5	460	4500	27661100	129
	10	200	4500	27665200	145
	10	230	4500	27660200	145
	10	460	4500	27661200	145
	15	200	4500	27665300	156
	15	230	4500	27660300	156
	15	460	4500	27661300	156
	20	200	4500	27665400	174
	20	230	4500	27660400	174
	20	460	4500	27661400	174
	25	200	7500	27665501	202
	25	230	7500	27660501	202
	25	460	7500	27661501	202
	30	200	7500	27665601	300
	30	230	7500	27660601	300
30	460	7500	27661601	300	
40	460	7500	27661701	330	



## Submersible Motors

### 8" Three-Phase

#### Motors and Leads (Standard and Sand Fighter)

Motor Type	HP	Volts	Thrust Rating	Model / Order No.	Wt.
<b>8" Motors 3-Phase Standard Construction</b>	40	460	10000	23960060	320
	50	460	10000	23960160	345
	60	460	10000	23960260	375
	75	460	10000	23960360	430
	100	460	10000	23960460	530
	125	460	10000	23910560	700
<b>8" Motors 3-Phase Sand Fighter</b>	40	460	10000	23960085	320
	50	460	10000	23960185	345
	60	460	10000	23960285	375
	75	460	10000	23960385	430
	100	460	10000	23960485	530
	125	460	10000	23910585	700
	150	460	10000	23910685	840
	175	460	10000	23910785	925
	200	460	10000	23910885	1040
Type	Description	Wire Size	Model / Order No.	Wt.	
<b>8" Motor Leads</b>	13' - 3W (40-60 hp)	#8 AWG	305516901	5	
	13' - 3W (75-125 hp)	#4 AWG	305210901	6	
	13' - 3W (150-200 hp)	#2 AWG	305315901	8	

## Furnas ESP 100 Starters and Kits

Indoor Enclosure								
1-Phase Motor Voltage			Starter Size	Amp Range	Control Circuit Voltage			Wt.
230					24 V Coil	200-208 V Coil	230/460 V Coil*	
5			1	13-27	14DSF32BJ51	14DSF32BD51	14DSF32BC51	14
7½			1¾	20-40	14ESG32BJ51	14ESG32BD51	14ESG32BC51	14
10			2½	30-60	14GSJ32BJ51	14GSJ32BD51	14GSJ32BC51	23
3-Phase Motor Voltage			Starter Size	Amp Range	Control Circuit Voltage			Wt.
200	230	460			24 V Coil	200-208 V Coil	230/460 V Coil*	
--	½	1	00	.75-3	14BSB32BJ51	14BSB32BD51	14BSB32BC51	11
1½	1½	2	00	2.5-10	14BSD32BJ51	14BSD32BD51	14BSD32BC51	11
2	2	5	0	2.5-10	14CSD32BJ51	14CSD32BD51	14CSD32BC51	14
3	3	--	0	9-18	14CSE32BJ51	14CSE32BD51	14CSE32BC51	14
5	5	10	1	13-27	14DSF32BJ51	14DSF32BD51	14DSF32BC51	14
10	10	15	1¾	20-40	14ESG32BJ51	14ESG32BD51	14ESG32BC51	14
--	--	25	2	22-45	14FSH32BJ51	14FSH32BD51	14FSH32BC51	23
15	15	30	2½	30-60	14GSJ32BJ51	14GSJ32BD51	14GSJ32BC51	23
25	25	50	3	45-90	14HSK32BJ51	14HSK32BD51	14HSK32BC51	37
30	30	60	3½	57-115	14ISL32BJ51	14ISL32BD51	14ISL32BC51	37

\* Dual voltage coils are wired high

Field Modification Kits			
Description	Starter Size	Order No.	Wt.
<b>Start, Stop Push Button</b>	00 - 3½	49APB5	1
	4	49AP05	1
<b>Hand-Off-Auto Selector Switch</b>	00 - 3½	49ASB1	1
	4	49AS01	1
<b>Pilot Light w/ Red Lens (Neon resistor: 115,230,460 V)</b>	00 - 2½	50D24999	1
	3 - 3½	50D55072	1
<b>Normally Open Auxiliary Contact</b>	00 - 3½	49AAF0	1
<b>Normally Closed Auxiliary Contact</b>	00 - 3½	49AAFC	1

Due to the wide variety of horsepower, motor and control voltages available, not all models are normally stocked. Call customer service for availability.

No returns or exchanges on electrical equipment.

Selecting the appropriate size and model starter:

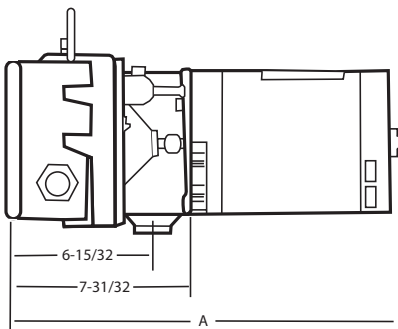
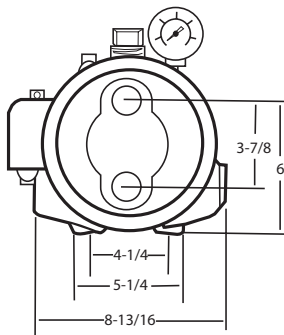
- 1 Determine the phase, voltage, horsepower and service factor ampere rating of the motor.
- 2 Determine the control circuit voltage used to control the starter's operation.
- 3 Depending on single or three phase voltage, select from either the upper or lower chart.
- 4 Starting at upper left corner of the chosen chart, select the motor voltage rating, drop down and stop at a value equal to or greater than the horsepower rating of the motor.
- 5 Slide over to Amp Range column and verify that starter amp range is sufficient to carry the service factor amp draw of the motor. If not, move down to the next size starter.
- 6 Slide over to the column representing the control circuit voltage to be used.
- 7 The 11 digit Furnas model number represents the appropriate starter for the application.
- 8 Select field modifications (if needed) based upon starter size.

These starters each have 3 poles plus a holding contact and are intended for use on 3-phase motors. They can be used on 3 - 10 hp, 230 V single phase motors by following the sizing steps outlined above and by wiring the starter according to the detailed instructions provided for single-phase motor control.

## Pro Series



NRTL/C  
CSA 108  
UL 778



# Pro Series

## Features:

- Heavy-duty cast iron case and bronze impeller ensure optimum durability.
- Thermoplastic diffuser is molded for efficiency and dependability.
- Screw-in injector for easy conversion from shallow to deep well installation.
- Shaft coupling designed for easy removal of pump motor.
- Mechanical shaft seal ensures leakproof fit and continuous water lubrication.
- High service factor 56C-frame motor for maximum performance.
- Hardware kit allows for versatility of installation and includes pressure gauge, plugs, shallow well injector, and bypass plug.
- Adjustable pressure switch is factory-installed at 30/50 psi.
- Connections  
1-1/4" FNPT Suction  
1" FNPT Discharge  
1" FNPT Drive Line
- Maximum temperature of 140 °F.

Dimensions			
Old Series No.	New Model No.	HP	A
5ED	FP05CI-C	1/2	18.65
7ED	FP07CI-C	3/4	19.15
1ED	FP1CI-C	1	19.65

**Note:** Dimensions will vary according to motor manufacturer.

# Convertible Jet Pumps

## Pro Series

### Ordering Information (See pg. 2-3 for model number explanation)

Pro Convertible Jet Pumps									
Old Model No.	New Model No.	HP	Suction x Discharge	Voltage	Pump Unit		Deep Well Injector		
					Order No.	Wt.	Suction Lift	Order No.	Wt.
5EDCWJPRO-S	FP05CI-C	1/2	1-1/4" x 1"	115/230	91140005	48	30 - 60 ft	147E1120	7
							50 - 100 ft	147E0915	7
7EDCWJPRO-S	FP07CI-C	3/4	1-1/4" x 1"	115/230	91140007	51	30 - 60 ft	147E1023	7
							50 - 100 ft	147E1118	7
1EDCWJPRO-S	FP1CI-C	1	1-1/4" x 1"	115/230	91140010	53	30 - 60 ft	147E1125	7
							50 - 100 ft	147E1120	7

- Notes:** 1) Order deep well injector separately.  
2) Minimum inside well diameter requirement of 4" for deep well injectors.

Optional Injector for High Head Performance		
Injector Ordering No.	New Model No.	HP
18-1278-03-R	FP1CI-C	1

Pressure Gauge	
Ordering No.	Pressure Reading
9193-4018	0-100 PSI

### Required for Deep Well Installations:



Parallel Pipe Injectors

# Convertible Jet Pumps

## Pro Series

### Shallow Well Performance Charts

Pro 1-1/4" Suction x 1" Discharge				Discharge Pressure - PSI									Shut-off Pressure PSI
Old Series	New Series	Injector Order No.	Total Suction Lift ft	30	35	40	45	50	55	60	65	70	
				Gallons per Minute									
5ED 1/2 hp	FP05 1/2 hp	18-1278-03-R	5	15.5	13.5	11	8.5	6	4	2			65
			10	13.5	12.5	10	7.5	5	3	1			63
			15	11.5	10.5	8.5	6	4	2				60
			20	9.5	9	7.5	5	3	1				58
			25	7	7	6	4	2					55
7ED 3/4 hp	FP07 3/4 hp	18-1279-02-R	5	19	18.5	18	16	12.5	9.5	6.5	3.5		70
			10	16.5	16	15.5	14	10	8	4.5	1.5		68
			15	14.5	14	13.5	12.5	9.5	6.5	3.5			66
			20		11.5	11	10	8	5	2			63
			25			8.5	8	6.5	3.5	1			61
1ED 1 hp	FP1 1 hp	18-1280-09-R	5	23	22.5	22	21.5	20	17.5	14	10.5	7	81
			10		19.5	19	18.5	17.5	15.5	12.5	9	5.5	78
			15		16.5	16	15.5	15	13.5	11	7.5	4.5	76
			20			13.5	13	12.5	11.5	9.5	6	2.5	74
			25				10	10	9.5	7.5	4.5	1	71

Old Series	New Series	Injector Order No.	Total Suction Lift ft	Discharge Pressure - PSI									Shut-off Pressure PSI
				50	55	60	65	70	75	80	85	90	
				Gallons per Minute									
High Head 1ED 1 hp	High Head FP1 1 hp	18-1278-03-R	5			11	10	7.5	5.5	3.5	1.5		90
			10			10	8.5	6.5	4.5	2.5			88
			15			9	7.5	5.5	3.5	1.5			84
			20			8	6	4	2				81
			25			7	5	3	1				78

- Notes:**
1. Pressure Switch Pre-Set 30-50 psi.
  2. The appropriate injector is included with the units.
  3. Maximum pump working pressure is 150 psi.
  4. All the above discharge pressures were measured using 1-1/4" PVC suction pipe and 1-1/4" foot valve.

# Convertible Jet Pumps

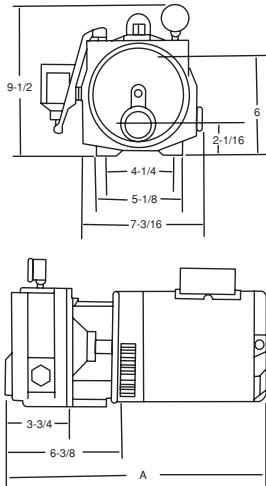
## Pro Series

### Deep Well Performance Charts

Pro 1-1/4" Suction x 1" Discharge 1" Drive Pipe				Discharge Pressure - PSI									Shut-off Pressure PSI	Inj. Min. Operating Pressure
Old Series	New Series	Injector Order No.	Total Suction Lift ft	30	35	40	45	50	55	60	65	70		
Gallons per Minute														
5ED 1/2 hp	FP05 1/2 hp	147E-1120	30	9	7	5.5	4	2.5	1.5				65	18
			40	7.5	6	4	3	1.5				59		
			50	6	4.5	3	2	1				56		
			60	5	3.5	2	1					52		
5ED 1/2 hp	FP05 1/2 hp	147E-0915	50	6	5	4	3	2.5	2	1			74	23
			60	5	4	3.5	2.5	2	1			70		
			70	4	3.5	2.5	2	1.5				65		
			80	3.5	3	2	1.5	1				61		
			90	3	2	1.5	1					57		
100	2.5	1.5	1						52					
7ED 3/4 hp	FP07 3/4 hp	147E-1023	30	15.5	13.5	11	8.5	6.5	4	2			66	18
			40	13.5	11.5	9	7	4.5	2.4			61		
			50	11	9.5	7	5	3				57		
			60	9	7.5	5	3	1				53		
7ED 3/4 hp	FP07 3/4 hp	147E-1118	50	9	8	7	6	4.5	3.5	3	2	1	80	23
			60	8	7	6	4.5	4	3	2	1.5	77		
			70	6.5	5.5	4.5	3.5	3	2	1		72		
			80	6	5	4	3	2	1.5			67		
			90	5	4	3	2	1.5				63		
100	4	3	2.5	1.5	1				30					
1ED 1 hp	FP1 1 hp	147E-1125	30	19.5	17	14.5	12	9.5	7	5			72	30
			40	17.5	15	12.5	10	7.5	5	3		67		
			50	15.5	13	10.5	8	5.5	3.5	1		63		
			60	13	10.5	8.5	6	3.5	1.5			59		
1ED 1 hp	FP1 1 hp	147E-1120	50		11	9.5	8	6.5	5	4	3	2	82	36
			60		10	8	7	5.5	4	3	2	1	78	
			70		8	7	6	4.5	3	2	1		73	
			80		7	6	4.5	3.5	2	1.5		70		
			90		6	5	3.5	2.5	1.5			65		
100		5	4	3	1.5				61					

- Notes:**
1. Pressure Switch Pre-Set 30-50 psi.
  2. Maximum pump working pressure is 150 psi.
  3. All the above discharge pressures were measured using 1-1/4" PVC suction pipe and 1-1/4" foot valve and 1" drive pipe.

## RP2 Series



## RP2 Series

### Features:

- Heavy-duty cast iron construction for long life.
- Thermoplastic impeller and diffuser for increased efficiency.
- Cast-iron case will handle booster pump applications up to 150 psi.
- Shaft coupling designed for easy removal of pump motor.
- Mechanical shaft seal ensures leakproof fit.
- High service factor 56C-frame motors for maximum performance.
- “Convertible” Hardware includes pressure gauge, plugs, by-pass plug, and shallow well injector (screw-in injector allows easy conversion from shallow to deep well installation.)
- Adjustable pressure switch is factory-installed at 20/40 PSI.
- Connections
  - 1-1/4" FNPT Suction
  - 1" FNPT Discharge
  - 1" FNPT Drive Line
- Maximum temperature 140 °F.

\* For Pressure Gauges, See page 95.

Dimensions		
Model No.	HP	A
FRP05CI-C	1/2	14-3/8
FRP07CI-C	3/4	15-3/8

Note: Dimensions will vary according to motor manufacturer.

Optional Injector for High Head Performance		
Injector Ordering No.	Model No.	HP
18-1247-01-R	FRP07CI-C	3/4

### Ordering Information (See pg. 2-3 for model number explanation)

RP2 Convertible Jet Pumps								
Model No.	HP	Suction x Discharge	Voltage	Pump Unit		Deep Well Injector		
				Order No.	Wt.	Suction Lift	Order No.	Wt.
FRP05CI-C	1/2	1-1/4" x 1"	115/230	91021626	40	30 - 60 ft	147E0919	7
						60 - 90 ft	147E1018	7
FRP07CI-C	3/4	1-1/4" x 1"	115/230	91021634	42	30 - 60 ft	147E1123	7
						60 - 90 ft	147E1118	7

Notes: 1) Order deep well injector separately. 2) Minimum inside well diameter requirement of 4" for deep well injectors.

# Convertible Jet Pumps

## RP2 Series Performance Charts

### Shallow Well Performance

RP2 1-1/4" Suction x 1" Discharge			Discharge Pressure - PSI									Shut-off Pressure PSI
Model No.	Injector Order No.	Total Suction Lift ft	30	35	40	45	50	55	60	65	70	
			Gallons per Minute									
FRP05CI-C 1/2 hp	18-1247-01-R	5	13	12.5	11.5	10	7.5	5.5	3.5	1.5		69
		10	11.5	11	10	8.5	6.5	4.5	2.5			67
		15	10	9.5	9	7.5	5.5	3.5	1.5			64
		20	8	8	7.5	6.5	4.5	2.5				62
		25	6	6	5.5	5	3.5	1.5				59
FRP07CI-C 3/4 hp	18-1248-00-R	5	20	18.5	16	12.5	8	1.5				56
		10	17.5	16.5	14	10	4					52
		15	16	15	12	8						50
		20	13	12	10	4						47
		25		9.5	7							43
FRP07CI-C High Head 3/4 hp	18-1247-01-R	5		12	12	12	11	9	7	5	2.5	76
		10		11	10.5	10.5	10	8	6	4	1.5	74
		15		9.5	9	9	9	7	5	3		71
		20		8	8	7.5	7.5	6	4	2		69
		25		6.5	6.5	6	6	5	3	1		67

Notes: 1) The appropriate injector is included with the units.  
2) All the above discharge pressures were measured using 1-1/4" PVC suction pipe and 1-1/4" foot valve.

### Deep Well Performance

RP2 1-1/4" Suction x 1" Discharge/ 1" Drive Pipe			Discharge Pressure - PSI								Shut-off Pressure PSI	Inj. Min. Operating Pressure
Model No.	Injector Order No.	Total Suction Lift ft	30	35	40	45	50	55	60	65		
			Gallons per Minute									
FRP05CI-C 1/2 hp	147E-0919-R	30	8.5	7	5.5	4.5	3	2	1		66	20
		40	7	6	4.5	3.5	2	1			62	
		50	6	5	3.5	2	1				57	
		60	5	3.5	2.5	1.5					53	
FRP05CI-C 1/2 hp	147E-1018-R	60	6	5	4	3	2	1			66	23
		70	5	4	3	2	1.5				62	
		80	4	3	2	1.5					56	
		90	3	2	1.5					51		
FRP07CI-C 3/4 hp	147E-1123-R	30	12	10	8.5	6.5	5	3			62	28
		40	10	8.5	7	5	3	1			58	
		50	8.5	7	5	3	1				54	
		60	6.5	5	3	1.5					49	
FRP07CI-C 3/4 hp	147E-1118-R	60	7.5	6.5	6	5	4	3	2.5	1.5	75	30
		70	7	6	5	4	3	2	1		69	
		80	5.5	4	3.5	2.5	2	1			64	
		90	4.5	3.5	2.5	2	1				57	

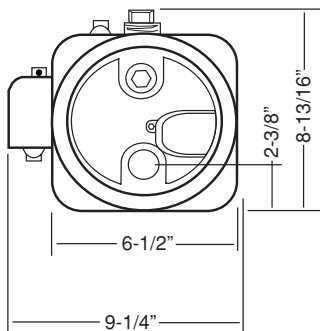
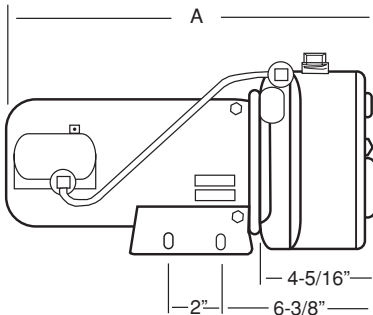
Notes: 1) Deep well injectors must be ordered separately.  
2) All the above discharge pressures were measured using 1-1/4" PVC suction pipe and 1-1/4" foot valve and 1" drive pipe.



## CWJ Series



NRTL/C  
CSA 108  
UL 778



# CWJ Series

### Features:

- Thermoplastic impeller assures increased hydraulic efficiency.
- Thermoplastic diffuser is molded for efficiency and dependability.
- Cast-iron case for maximum durability.
- Square flange motor with threaded shaft for direct mounting of impeller.
- Mechanical shaft seal ensures leakproof fit.
- Pressure switch is factory installed at 20/40 psi.
- “Convertible” Hardware includes plugs, by-pass plug, and shallow well injector. (Screw-in injector allows for easy conversion from shallow to deep well installation).
- Pressure gauge can be ordered separately.
- Connections
  - 1-1/4" FNPT Suction
  - 1" FNPT Discharge
  - 1" FNPT Drive Line
- Maximum temperature 140 °F.

Dimensions		
Model No.	HP	A
FCWJ05CI-C	1/2	15-13/16
FCWJ07CI-C	3/4	16-5/16
FCWJ1CI-C	1	16-3/16

**Note:** Dimensions will vary according to motor manufacturer.

# Convertible Jet Pumps

## CWJ Series

### Ordering Information (See pg. 2-3 for model number explanation)

FCWJ Series Convertible Jet Pumps									
Old Model No.	New Model No.	HP	Suction x Discharge	Voltage	Pump Unit		Deep Well Injector		
					Order No.	Wt.	Suction Lift	Order No.	Wt.
5EDCWJ-S	FCWJ05CI-C	1/2	1-1/4" x 1"	115/230	91050005	36	30 - 60 ft	147E1118	7
							60 - 90 ft	147E1115	7
7EDCWJ-S	FCWJ07CI-C	3/4	1-1/4" x 1"	115/230	91050007	38	30 - 60 ft	147E1123	7
							60 - 90 ft	147E1118	7
1EDCWJ-S	FCWJ1CI-C	1	1-1/4" x 1"	115/230	91050010	41	30 - 60 ft	147E1123	7
							60 - 90 ft	147E1118	7
5EDCWJH-S	FCWJH05CI-C	1/2	1-1/4" x 1"	115/230	91050050	36	High head configuration FCWJH pumps are for shallow well application only.		
7EDCWJH-S	FCWJH07CI-C	3/4	1-1/4" x 1"	115/230	91050075	38			
1EDCWJH-S	FCWJH1CI-C	1	1-1/4" x 1"	115/230	91050100	41			

- Notes:** 1) Order deep well injector separately.  
2) Minimum inside well diameter requirement of 4" for deep well injectors.

Optional Injector for High Head Performance		
Injector Ordering No.	Model No.	HP
18-1200-12-R	FCWJ05CI-C	1/2
18-1247-01-R	FCWJ07CI-C	3/4
18-1247-01-R	FCWJ1CI-C	1

Pressure Gauge	
Ordering No.	Pressure Reading
9193-4018-R	0-100 PSI

### Required for Deep Well Installations:



Parallel Pipe Injectors

# Convertible Jet Pumps

## CWJ Series

### Shallow Well Performance Charts

Series	Injector Order No.	Total Suction Lift ft	Discharge Pressure - PSI									Shut-off Pressure PSI
			30	35	40	45	50	55	60	65	70	
			Gallons per Minute									
FCWJ 1/2 hp	18-1247-01-R	5	12	10	7.5	5	2					55
		10	11	9	6	3.5						53
		15	10	8	5	2						51
		20	9.5	6.5	4	1						49
		25	8	5	2							47
FCWJ 3/4 hp	18-1248-00-R	5	21.5	19.5	15.5	10.5	5					53
		10	21	18	13.5	8						51
		15	20	16.5	11	6.5						49
		20	18	14	9	2						47
		25	16	12	6							45
FCWJ 1 hp	18-1701-00-R	5	19.8	18.8	16.6	14	10.3	5.5				60
		10	18.1	17.5	15.6	12.6	8.6	3.5				58
		15	15	14.5	14.2	10.8	6.6	1.3				56
		20	12.6	12.5	12.7	8.8	4.1					54
		25	10	9.8	9.3	6.8	1.6					52
High Head FCWJH 1/2 hp	18-1200-12-R	5	6	5.6	5	4.3	3.5	2.6	1.6	0.6		68
		10	5.3	4.9	4.6	4	3	1.9	0.9			65
		15	4.9	4.6	4.2	3.5	2.5	1.5	0.6			63
		20	4.4	4.2	3.9	3	2.1	1.1	0.3			61
		25	3.4	3.2	3	2.3	1.4	0.6				58
High Head FCWJH 3/4 hp	18-1247-01-R	5			11.5	10.8	10	8.6	7	4.5	2	69
		10				10.1	9	7	5	2.8	0.5	66
		15				9.2	8	6.2	4.2	2		64
		20				8.2	7	5.4	3	0.5		61
		25				5.9	5	3.5	1.5			58
High Head FCWJH 1 hp	18-1247-01-R	5		12	12	12	11	9	7	5	2.5	76
		10		11	10.5	10.5	10	8	6	4	1.5	74
		15		9.5	9	9	9	7	5	3		71
		20		8	8	7.5	7.5	6	4	2		69
		25		6.5	6.5	6	6	5	3	1		67

- Notes:**
1. The appropriate shallow well injector is included with the units.
  2. All the above discharge pressures were measured using 1-1/4" PVC suction pipe and 1-1/4" foot valve.

# Convertible Jet Pumps

## CWJ Series

### Deep Well Performance Charts

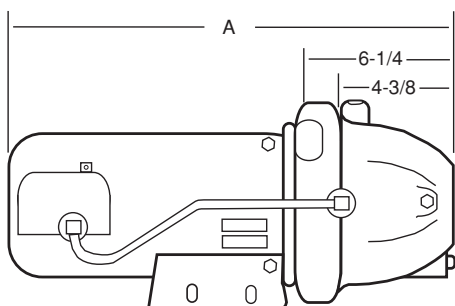
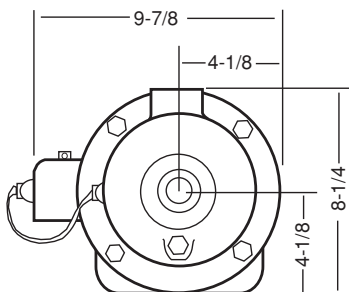
CWJ 1-1/4" Suction x 1" Discharge 1" Drive Pipe			Discharge Pressure - PSI								Shut-off Pressure PSI
Series	Injector Order No.	Total Suction Lift ft	30	35	40	45	50	55	60	65	
			Gallons per Minute								
FCWJ 1/2 hp	147E-1118	30	6.0	4.6	3.6	2.7	1.8	0.9	0.1		61
		40	4.8	3.6	2.7	1.8	1.0	0.2			57
		50	4.0	2.8	2.0	1.1	0.3				52
		60	3.0	1.9	1.1	0.3					47
	147E-1115	60	2.6	2.0	1.5	0.9	0.4				54
		70	2.1	1.6	1.1	0.5					51
		80	1.6	1.1	0.6	0.1					46
		90	1.1	0.6	0.1						42
FCWJ 3/4 hp	147E-1123	30	12.5	10.3	8.1	6.0	3.8	1.9	0.1		61
		40	10.8	8.5	6.4	4.2	2.2	0.4			56
		50	9.0	6.6	4.5	2.4	0.6				52
		60	7.0	4.8	2.9	1.0					48
	147E-1118	60	6.9	5.7	4.5	3.5	2.5	1.6	0.8	0.1	66
		70	5.8	4.7	3.6	2.7	1.9	1.0	0.3		63
		80	4.8	3.7	2.7	2.0	1.1	0.3			58
		90	3.7	2.9	2.1	1.3	0.5				54
FCWJ 1 hp	147E-1123	30	13.6	11.3	9.5	7.3	5.3	3.2	1.6		65
		40	11.3	9.5	7.3	5.3	3.5	1.6			60
		50	9.0	7.5	5.6	3.7	1.9	0.1			56
		60	7.0	6.0	4.2	2.3	0.5				52
	147E-1118	60	7.4	6.1	5.1	4.1	3.3	2.4	1.6	0.8	70
		70	6.5	5.4	4.5	3.5	2.6	1.8	1.0	0.3	67
		80	5.4	4.4	3.5	2.6	1.8	1.0	0.3		62
		90	4.4	3.5	2.8	1.9	1.1	0.3			57

- Notes:**
1. Deep Well injectors must be ordered separately.
  2. All the above discharge pressures were measured using 1-1/4" PVC suction pipe, 1-1/4" foot valve and 1" drive pipe.

## SWJ Series



NRTL/C  
CSA 108  
UL 778



# SWJ Series

### Features:

- Available in non-corrosive thermoplastic or cast iron models.
- Replaceable in-line nozzle / venturi design for maximum hydraulic efficiency and ease of service.
- Self cleaning, anti-clogging injector screen.
- Thermoplastic impeller and diffuser ensure increased hydraulic performance.
- Floating stainless steel eye seal for maximum performance and efficiency.
- Square-flange mounting provides easy serviceability without disturbing the plumbing.
- Built-in drain plug for easy winterizing and servicing.
- Mechanical shaft seal allows positive protection against leaking.
- Order pressure gauge separately.
- Pressure switch is installed and set at 20/40 psi.
- Handles water temperatures up to 120 °F and working pressure up to 75 psi.
- 1" FNPT discharge, 1-1/4" FNPT suction.

Dimensions		
Series	HP	A
<b>FSWJ05</b>	1/2	17-5/8
<b>FSWJ07</b>	3/4	18-1/4

**Note:** Dimensions will vary according to motor manufacturer.

# Shallow Well Jet Pumps

## SWJ Series Performance Charts

		Discharge Pressure - PSI								Shut-off Pressure PSI
HP	Total Suction Lift ft	30	35	40	45	50	55	60	65	
		Gallons per Minute								
1/2	5	12.0	10.7	9.1	7.2	4.9	2.8	0.9	-	62
	10	-	10.0	8.4	6.3	3.9	1.9	-	-	60
	15	-	-	7.7	5.3	3.0	0.9	-	-	57
	20	-	-	6.4	4.3	2.2	0.2	-	-	55
	25	-	-	5.0	3.3	1.4	-	-	-	53
3/4	5	-	16.0	14.4	12.6	10.6	8.3	5.0	1.8	68
	10	-	-	13.5	11.8	9.7	6.9	3.6	0.2	65
	15	-	-	-	11.0	8.8	5.4	2.2	-	63
	20	-	-	-	9.0	7.2	3.9	0.8	-	60
	25	-	-	-	-	5.6	2.3	-	-	58

Plastic Pump Body						
Old Model No.	New Model No.	HP	Suction x Discharge	Voltage	Pump Unit	
					Order No.	Wt.
5EDCWJP-S	FSWJ05P	1/2	1-1/4" x 1"	115/230	91090005	23
7EDCWJP-S	FSWJ07P	3/4	1-1/4" x 1"	115/230	91090007	31

Cast Iron Pump Body						
Old Model No.	New Model No.	HP	Suction x Discharge	Voltage	Pump Unit	
					Order No.	Wt.
5EDCWJC-S	FSWJ05CI	1/2	1-1/4" x 1"	115/230	91090500	28
7EDCWJC-S	FSWJ07CI	3/4	1-1/4" x 1"	115/230	91090700	34

## Jet Pump Accessories

### Ordering Information

Deep Well 2-Pipe Injectors for 4" Wells			
Pump Model	Suction Lift	Order No.	Wt.
FP05CI-C	50 - 100 ft	147E0915	7
FP07CI-C	30 - 60 ft	147E1023	
FCWJ05CI-C	60 - 90 ft	147E1115	
	30 - 60 ft	147E1118	
FP07CI-C	50 - 100 ft	147E1118	
FCWJ07CI-C, FCWJ1CI-C	60 - 90 ft	147E1118	
FP05CI-C	30 - 60 ft	147E1120	
FP1CI-C	50 - 100 ft	147E1120	
FCWJ07CI-C, FP1CI-C	30 - 60 ft	147E1123	
FP1CI-C	30 - 60 ft	147E1125	

Injector kit includes: Cast iron body, thermoplastic nozzle & venturi, bronze foot valve.

Accessory Description	Order No.	Wt.
4-in-1 Foot valve, 3/4" - 1-1/2"	21339	1
Cast Iron Horizontal Check Valve, Poppet Type Bronze, 1-1/4" F x 1-1/4" M	91980680	4

**Note:** For touch-up paint, see your local Sherwin Williams paint store for part #1415066.



Parallel Pipe Injector



4 in 1 Footvalve



Horizontal Check Valve

# Convertible Jet Pumps

## Jet Pump Accessories

### Ordering Information

Screw-In Shallow Well Injectors			
Pump Model	Inj. Code	Order No.	Wt.
FCWJ05CI-C	1017	18120012R	0.5
FCWJ05CI-C, FCWJH07CI-C FCWJH1CI-C	1023	18124701R	
FCWJ07CI-C	1034	18124800R	
FP05CI-C, FP1CI-C	1024	18127803R	
FP07CI-C	1027	18127902R	
FP1CI-C	1028	18128009R	
FCWJ1CI-C	1234	18170100R	

Pressure Switches			
Description	PSI Setting	Order No.	Wt.
Global Series	20/40	PRSW2040	1
	30/50	PRSW3050	1
	40/60	PRSW4060	1
Furnas Pro Series	20/40	69ES1AZ2040	1
	30/50	69ES1AZ3050	1
	40/60	69ES1AZ4060	1

Pressure Gauge, 0 -100 psi, 1/4" b.m.	9193-4018	1
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Shallow Well Injector



Furnas Pressure Switch



Global Pressure Switch



Pressure Gauge



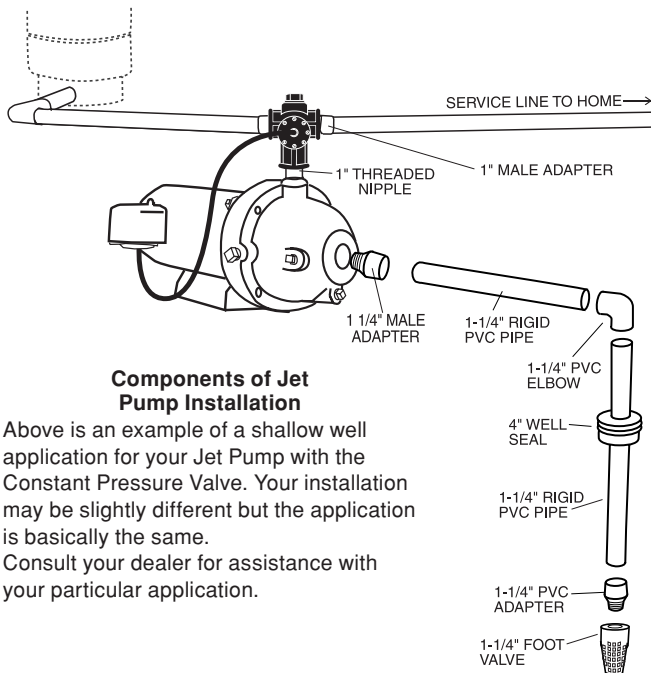
## AQ80



# AQ80

### Features:

- Constant pressure at flow rates of 1/2 gpm or higher, eliminating the annoying pressure fluctuations common with pump/tank systems.
- Pump runs continuously while service is needed, eliminating short cycling, the major cause of motor wear and failure.
- Handles flow rates up to 20 gpm. For flow rates above 20 gpm, AquaGenies may be connected in parallel to handle each 20 gpm increment.
- Retrofit to any existing pump & pressure tank system.



### Components of Jet Pump Installation

Above is an example of a shallow well application for your Jet Pump with the Constant Pressure Valve. Your installation may be slightly different but the application is basically the same. Consult your dealer for assistance with your particular application.

### AQ80

Works at any flow rate **above 1/2 gpm**. Provides **constant pressure** at each specific flow rate delivered by the pump. (Pressure will be slightly different for each flow rate.) A pressure tank is recommended for optimum performance. **Maximum operating pressure: 80 psi.** (If installed with a submersible pump that develops more than 80 psi at the inlet of the AQ80, use a pressure regulator to protect the AquaGenie from excessive pressure.)

Model	Preset Outlet Pressure	Inlet	Outlet	Tank Connection	Max. Inlet Pressure	Order No.	Wt.
AQ80	None	1"	1"	1"	80 psi	91987321	2

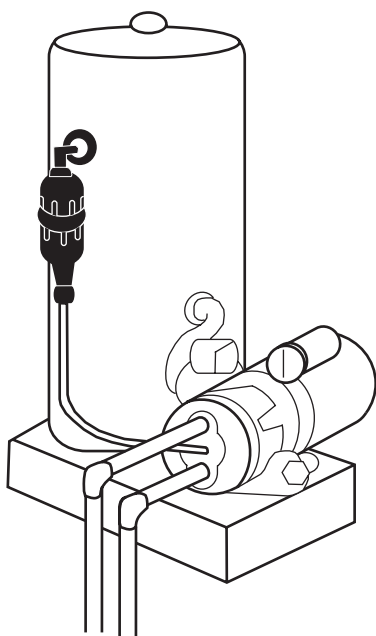
### 225A Jet Charger



## 225A Jet Charger

### Features:

- Specifically designed to prevent water-logging typically associated with a conventional galvanized pressure tank.
- Automatically maintains a proper balance of air and water volume in the tank.
- Eliminates frequent starts and stops, thus extending motor life and reducing power consumption.
- Eliminates tank draining normally required with waterlogged tanks.
- Eliminates need for other costly equipment.
- Unit consists of 225A jet charger, reducer bushing, adapter nut, 3/8" polyethylene tubing and male connector.



Ordering Information		
Model No.	Ordering No.	Wt.
225A	9190-8012	2

### E Series

#### High Head Filtered Environmental Pump



#### Applications:

- Filtered Effluent Service
- Aeration
- Ornamental Fountains / Waterfalls

#### Features:

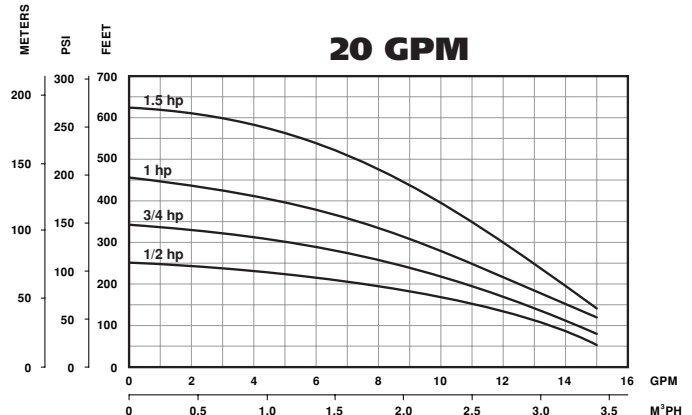
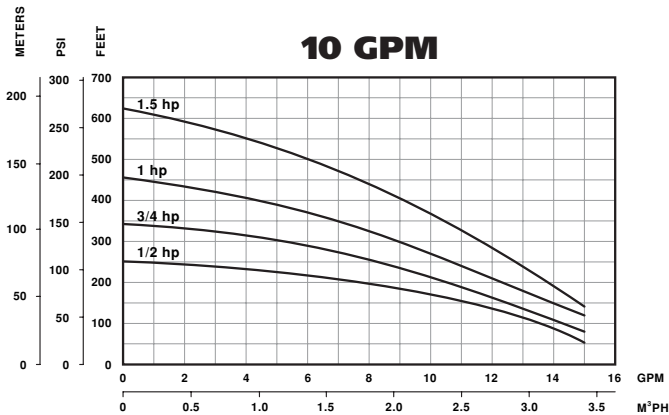
- Ideal for effluent pumping applications.
- Thermoplastic discharge and motor bracket are tough and non-corrosive. They cannot be harmed or damaged by minerals, metals, and other substances typically found in water.
- Heavy duty, 300 V, 10' SJOW motor leads.
- Ceramic bearing sleeve has time proven durability for years of reliable service.
- Hex rubber bearing has extra large surface assuring shaft stability and multiple flow channels keeping partials away from bearing surfaces.
- Proven Noryl® staging allows close tolerances and increased performance.
- Stainless steel up thrust washer prevents excessive wear in severe applications.
- Removable built in check valve.
- Powered by Franklin Electric Super Stainless submersible motor.
- Built in lightning protection

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# 4" Environmental Pump

## E Series

Performance Curves and Ordering Information (See pg. 2-3 for model number explanation)



Order No.	Model	GPM	HP	Volt	Wire	Wt.
94741005	10FE05P4-2W115	10	1/2	115	2	24
94741010	10FE05P4-2W230	10	1/2	230	2	24
94741015	10FE07P4-2W230	10	3/4	230	2	28
94741020	10FE1P4-2W230	10	1	230	2	31
94741025	10FE15P4-2W230	10	1.5	230	2	46
94751005	10FE05P4-PE	10	1/2	N/A	2	6
94751010	10FE07P4-PE	10	3/4	N/A	N/A	7
94751015	10FE1P4-PE	10	1	N/A	N/A	8
94751020	10FE15P4-PE	10	1.5	N/A	N/A	12
94742005	20FE05P4-2W115	20	1/2	115	2	25
94742010	20FE05P4-2W230	20	1/2	230	2	25
94742015	20FE07P4-2W230	20	3/4	230	2	28
94742020	20FE1P4-2W230	20	1	230	2	31
94742025	20FE15P4-2W230	20	1.5	230	2	40
94752005	20FE05P4-PE	20	1/2	N/A	N/A	6
94752010	20FE07P4-PE	20	3/4	N/A	N/A	7
94752015	20FE1P4-PE	20	1	N/A	N/A	8
94752020	20FE15P4-PE	20	1.5	N/A	N/A	10
94752025	20FE2P4-PE	20	2	N/A	N/A	11

# Self-Priming Sprinkler Pumps

## TY Series

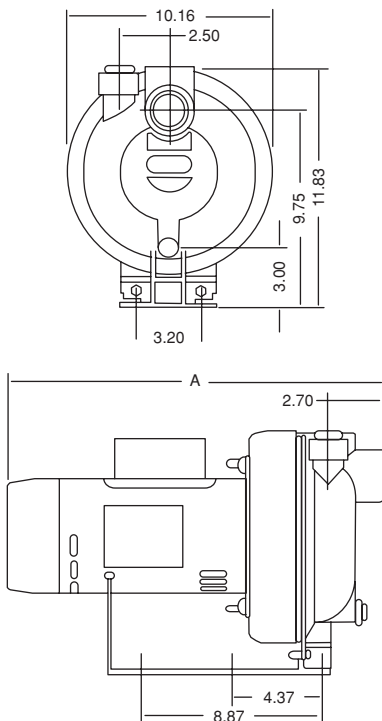
### Thermoplastic Centrifugal Pumps



The self-priming sprinkler pump is ideal as a lawn sprinkler pump, or for general recirculation.

#### Features:

- Self-priming with large 1" priming port.
- Non-corrosive thermoplastic case with engineered-flow, high-efficiency, low-noise design.
- High performance, thermoplastic hydraulics, including floating eye seal and stainless steel impeller wear ring.
- 1-1/2" FNPT threaded suction and discharge.
- Built in drain plug to facilitate servicing/winterizing.
- Square-flange motor design.
- Easy motor toggle switch changes from 230 V to 115 V without rewiring. (Not available on 2 hp)
- Available in 3/4, 1, 1.5, and 2 hp.
- Handles water temperatures up to 120 °F and working pressure up to 75 psi.



#### Dimensions

HP	Frame	A
3/4	48	18-1/4"
1	48	18-1/2"
1.5	48	18-3/8"
2	56	19-7/8"

**Note:** Dimensions will vary according to motor manufacturer.

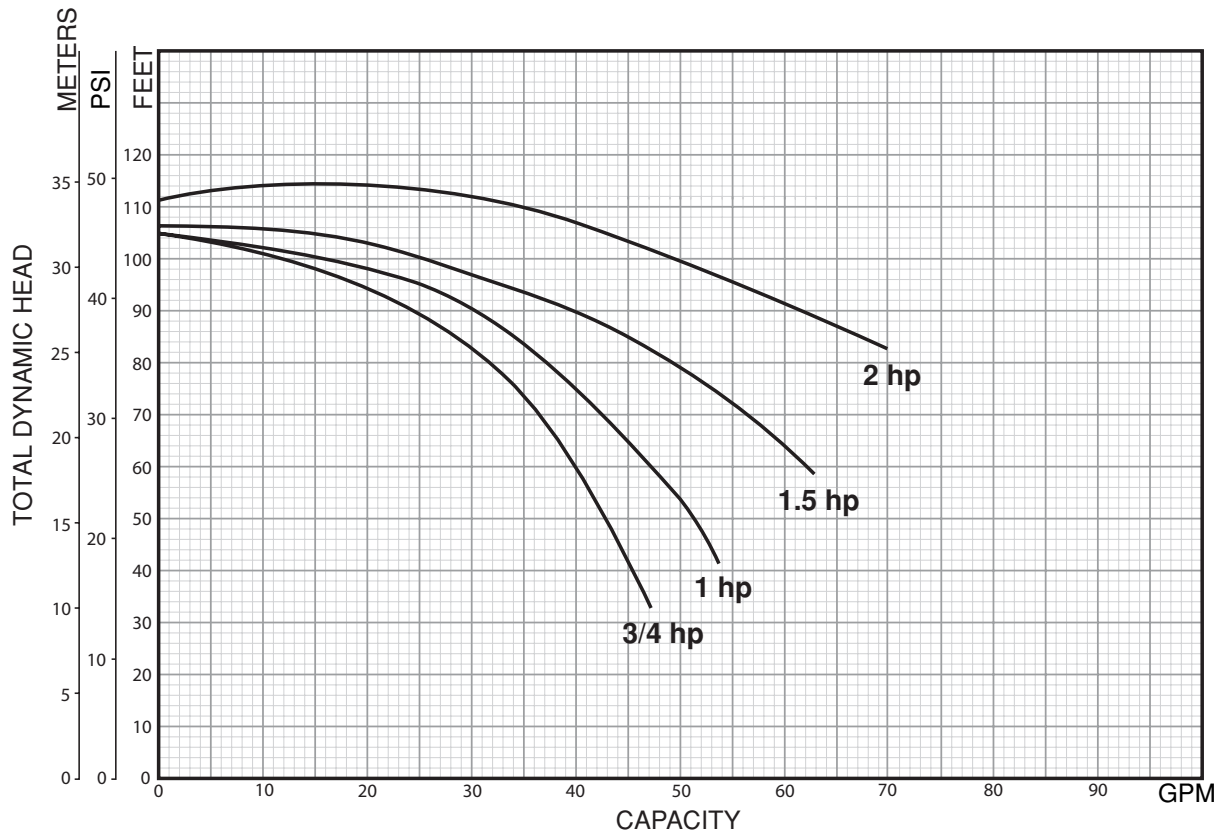
#### Self-Priming Lawn Sprinkler Pumps

Model	HP	Voltage	Pump Unit	
			Order No.	Wt.
7FPTY	3/4	115/230	93372007	37
10FPTY	1	115/230	93372010	38
15FPTY	1.5	115/230	93372015	40
20FPTY	2	230	93372020	43

# Self-Priming Sprinkler Pumps

## TY Series

### Thermoplastic Performance Curves and Charts



Model No.	Total Suction Lift in ft	Discharge PSI					Shut off Pressure (PSI)
		20	25	30	35	40	
		Capacity in GPM					
<b>7FPTY</b> <b>3/4 hp</b>	5	43	39	35	28	16	42
	10	41	37	32	23	-	40
	15	39	35	29	18	-	38
	20	38	33	25	-	-	35
<b>10FPTY</b> <b>1 hp</b>	5	50	45	40	33	21	43
	10	49	44	37	29	7	41
	15	46	41	35	24	-	39
	20	44	39	31	12	-	36
<b>15FPTY</b> <b>1.5 hp</b>	5	65	60	54	44	30	44
	10	64	57	50	38	21	42
	15	61	54	46	31	7	40
	20	58	50	41	23	-	37
<b>20FPTY</b> <b>2 hp</b>	5	79	76	72	65	52	46
	10	78	74	69	59	45	44
	15	76	72	67	54	38	42
	20	74	70	63	47	20	39

# Self-Priming Sprinkler Pumps

## TYCI Series Cast Iron Centrifugal Pumps

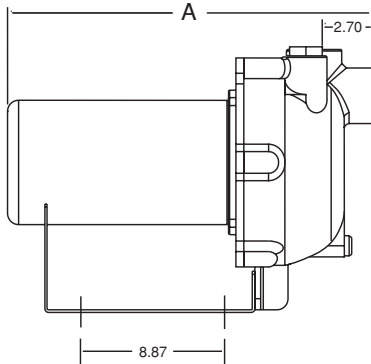
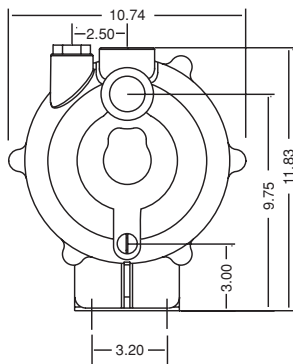


# EPS

## TYCI series

### Features:

- Heavy duty cast iron case with engineered high efficiency, quiet run design.
- High performance, thermoplastic hydraulics, including floating eye seal and stainless steel impeller wear ring.
- 1-1/2" FNPT threaded suction and discharge ports.
- Self-priming with large 1" priming port.
- Built in drain plug to facilitate servicing/winterizing.
- Handles water temperatures up to 120 °F and working pressure up to 75 psi.
- All models have 2 compartment motors.
- Easy motor toggle switch changes from 230 V to 115 V without rewiring. (Not available on 2 hp)



Dimensions		
HP	Frame	A
3/4	48	18-1/4"
1	48	18-1/2"
1.5	48	18-3/8"
2	56	19-7/8"

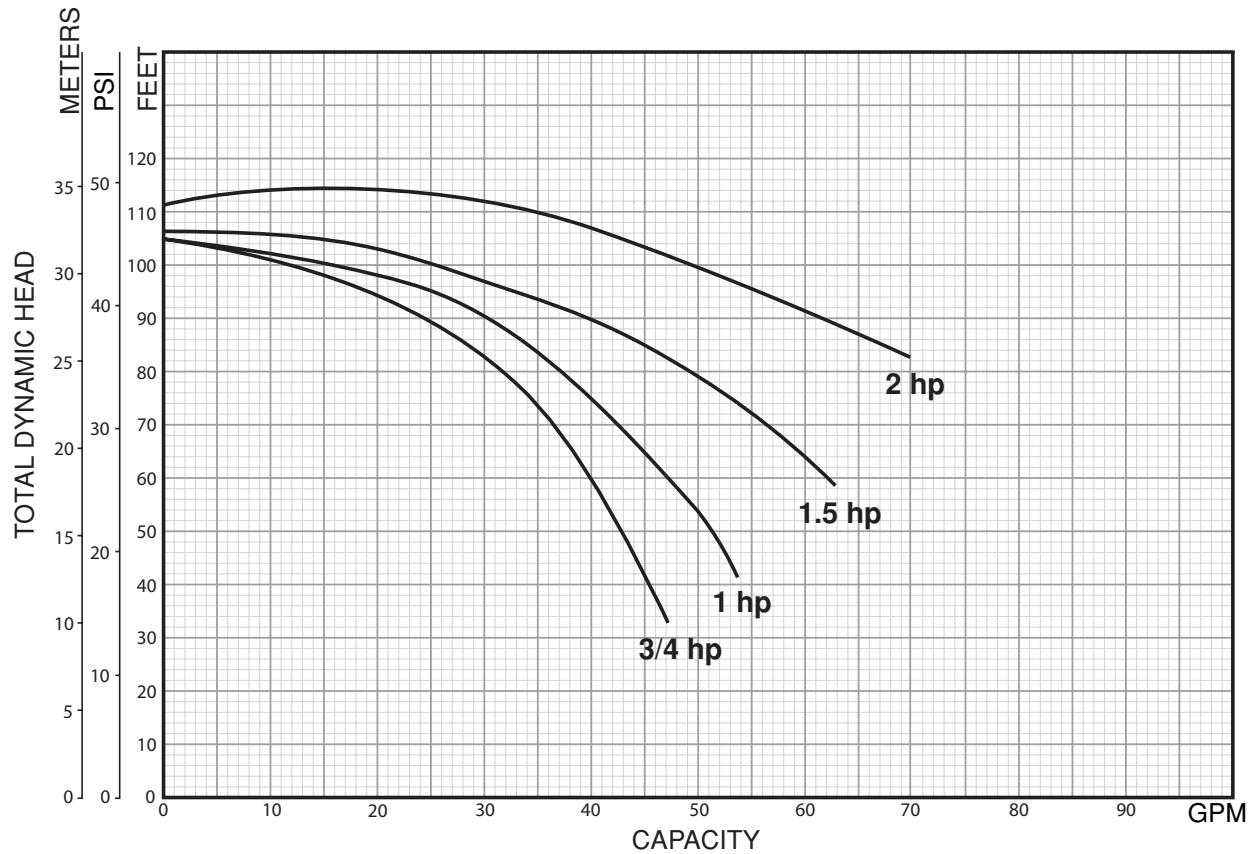
**Note:** Motor dimensions will vary according to motor manufacturer.

Self-Priming Lawn Sprinkler Pump				
Model	HP	Voltage	Pump Unit	
			Order No.	Wt.
7FPTYCI	3/4	115/230	93373007	51
10FPTYCI	1	115/230	93373010	66
15FPTYCI	1.5	115/230	93373015	82
20FPTYCI	2	230	93373020	99

# Self-Priming Sprinkler Pumps

## TYCI Series

### Cast Iron Performance Curves and Charts



Model No.	Total Suction Lift in ft	Discharge PSI					Shut off Pressure (PSI)
		20	25	30	35	40	
		Capacity in GPM					
7P TC I 3/4 hp	5	43	39	35	28	16	42
	10	41	37	32	23	-	40
	15	39	35	29	18	-	38
	20	38	33	25	-	-	35
10F FY C 1 hp	5	50	45	40	33	21	43
	10	49	44	37	29	7	41
	15	46	41	35	24	-	39
	20	44	39	31	12	-	36
15FFY C 1.5 hp	5	65	60	54	44	30	44
	10	64	57	50	38	21	42
	15	61	54	46	31	7	40
	20	58	50	41	23	-	37
20F FY C 2 hp	5	79	76	72	65	52	46
	10	78	74	69	59	45	44
	15	76	72	67	54	38	42
	20	74	70	63	47	20	39



## HJ Series Self-Priming Centrifugal Pumps



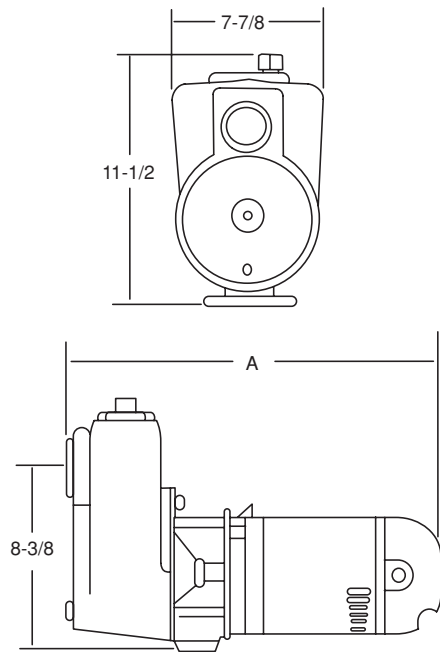
# FPS

## HJ series

The HJ Series Lawn Sprinkler Pumps are designed to handle a large capacity of water at high pressure. They are ideal for continuous use on lawn sprinkler systems, for garden irrigation, for boosting city main pressures and for recirculating water.

### Features:

- Stub shaft motor with bronze coupling and bronze impeller offers easy serviceability and premium construction features.
- Cast iron pump case. Large capacity case ensures excellent self-priming performance.
- Thermoplastic diffuser for improved pressures.
- Mechanical shaft seal ensures leakproof fit and continuous water lubrication.
- Two-compartment motor for easy service. All motors are single-phase 115/230 V.



### Dimensions

HP	A
1	17-5/8"
1.5	18-5/8"
2	19-5/8"

**Note:** Dimensions will vary according to motor manufacturer.

### HJ Series Lawn Sprinkler Pumps

Model No.	HP	Suction x Discharge	Voltage	Pump Unit	
				Order No.	Wt.
1FPHJ	1	1-1/2" x 1-1/2"	115/230	93371876	56
15FPHJ	1.5	2" X 1-1/2"	115/230	93371884	61
2FPHJ	2	2" X 1-1/2"	230	93371892	65

## HJ Series

### Performance Curves and Charts



### High Flow Full Service Factor

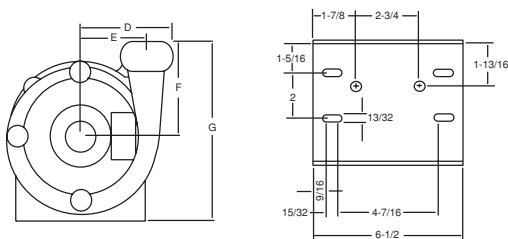
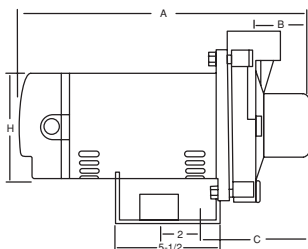
Model No.	Total Suction Lift in ft	Discharge PSI					Shut Off Pressure (PSI)
		20	25	30	35	40	
1FPHJ 1 hp	5	44	43	40	33	22	41
	10	41	39	36	30	-	41
	15	38	37	34	25	-	39
	20	34	33	30	-	-	36
15FPHJ 1.5 hp	5	45	44	44	43	41	52
	10	44	44	43	42	40	48
	15	40	40	39	38	36	46
	20	37	36	36	34	32	44
2FPHJ 2 hp	5	61	60	59	56	50	49
	10	59	58	56	53	45	48
	15	57	57	55	51	40	45
	20	50	48	47	44	35	42

# End Suction Centrifugal Pumps

## DDD/DDS Series Cast Iron and Stainless Steel



NRTL/C  
CSA108  
UL778



### Features:

- Available in Cast Iron (DDD Series) or Stainless Steel (DDS Series) models.

### DDD Series Features:

- Cast iron seal plate for dependable high temperature operation.
- Glass-filled thermoplastic impeller for increased efficiency and dependable high temperature operation.
- Back pull-out design provides access to internal parts without disturbing the plumbing.
- Mechanical shaft seal insures a leakproof fit and continuous water lubrication.
- Maximum temperature limit of 140 °F and maximum working pressure of 150 psi.
- Square flange open drip-proof motor for easy service and reliability.
- Available in single and three-phase models.
- Enclosed impeller design for increased efficiencies.
- Chemical resistant thermoplastic impeller.

### DDS Series Features:

All of the DDD Series features above except:

- Viton Mechanical shaft seal for added chemical resistance.
- 304SS Case and seal plate.

### Dimensions

HP	Suct. (NPT)	Disch. (NPT)	A	B	C	D	E	F	G	H
1/2	1-1/4"	1"	14-11/16"	2-3/8"	5-5/16"	4-7/16"	3-1/2"	4-5/8"	8-3/4"	5-1/2"
3/4	1-1/4"	1"	14-11/16"	2-3/8"	5-5/16"	4-7/16"	3-1/2"	4-5/8"	8-3/4"	5-1/2"
1	1-1/4"	1"	14-11/16"	2-3/8"	5-5/16"	4-7/16"	3-1/2"	4-5/8"	8-3/4"	5-1/2"
1.5	1-1/4"	1"	15-3/16"	2-3/8"	5-5/16"	4-7/16"	3-1/2"	4-5/8"	8-3/4"	5-1/2"
2	1-1/2"	1-1/4"	16-11/16"	2-13/16"	6-1/8"	5"	3-9/16"	5"	9-1/8"	6-5/16"
2.5	2"	1-1/2"	16-11/16"	2-13/16"	6-1/8"	5"	3-9/16"	5"	9-1/8"	6-5/16"

# End Suction Centrifugal Pumps

## DDD/DDS Series

Ordering Information (See pg. 2-3 for model number explanation)

### DDD Series - Cast Iron

DDD Series Centrifugal Pump Units								
Series	Suction x Discharge	HP	Single-Phase			Three-Phase - 208-230/460 Volt		
			Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
DDD	1-1/4" x 1"	1/2	5FPDDD1-S	93176928	27	5FPDDD1-T	93177991	27
		3/4	7FPDDD1-S	93176936	31	7FPDDD1-T	93178007	31
		1	1FPDDD1-S	93176944	33	1FPDDD1-T	93178015	33
		1.5	15FPDDD1-S	93176951	38	15FPDDD1-T	93178023	38
	1-1/2" x 1-1/4"	2	2FPDDD1-1/4-S	93176969	48	2FPDDD1-1/4-T	93178031	48
	2" x 1-1/2"	2.5	25FPDDD1-1/2S	93176977	46	-	-	-

### DDS Series - Stainless Steel

DDS Series Centrifugal Pump Units								
Series	Suction x Discharge	HP	Single-Phase			Three-Phase - 208-230/460 Volt		
			Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
DDS	1-1/4" x 1"	1/2	5FPDDS1-S	93178056	25	5FPDDS1-T	93178098	25
		3/4	7FPDDS1-S	93178064	29	7FPDDS1-T	93178106	29
		1	1FPDDS1-S	93178072	31	1FPDDS1-T	93178114	31
		1.5	15FPDDS1-S	93178080	36	15FPDDS1-T	93178122	36

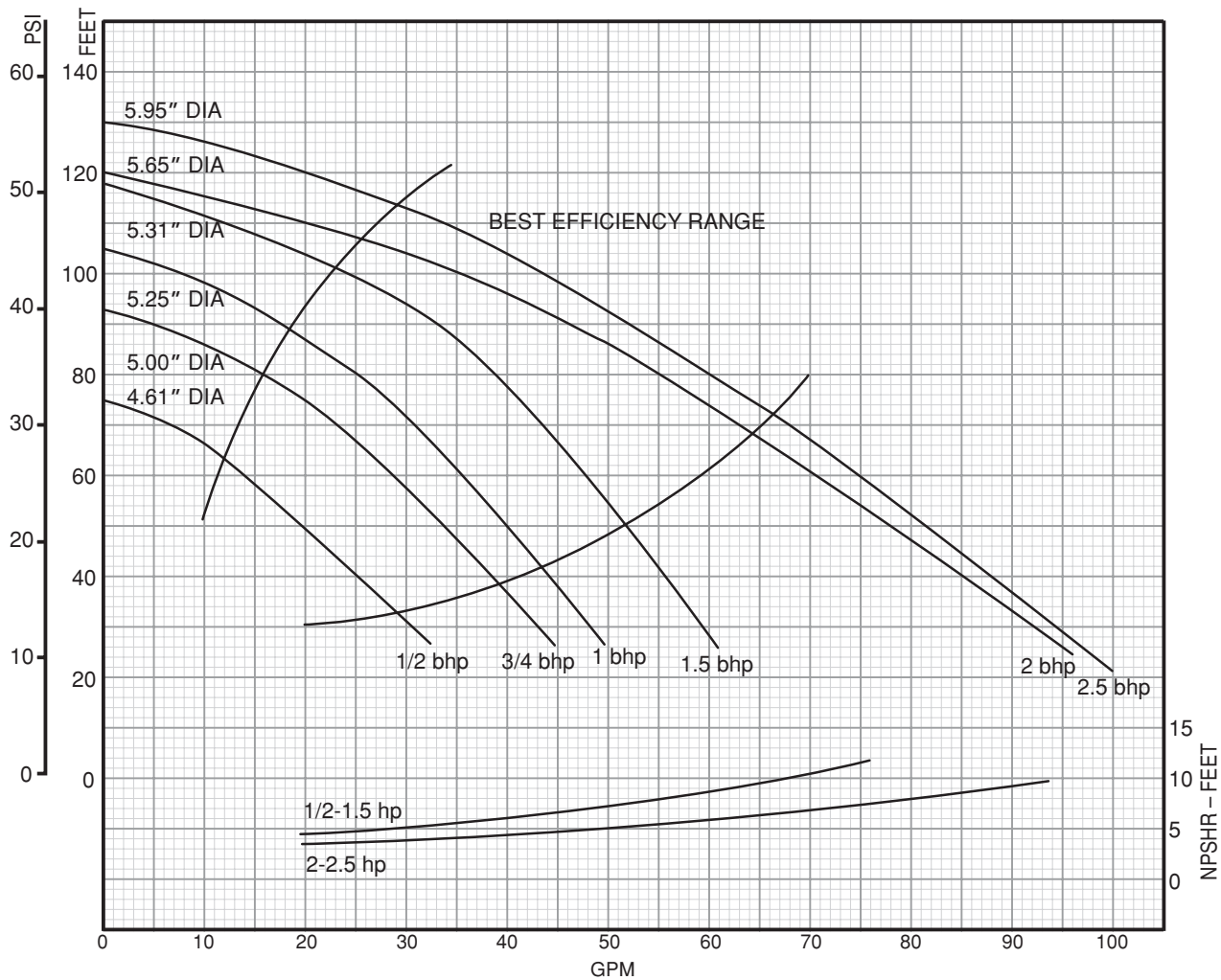
### Pump End Kits

Series	Suction x Discharge	HP	Order No.	Wt.
DDD	1-1/4" x 1"	1/2-1.5	93177413R348	12
DDS			93177413R378	
DDD	1-1/2" x 1-1/4"	2	93177413R358	15
	2" x 1-1/2"	2.5	93177413R368	14

# End Suction Centrifugal Pumps

## DDD/DDS Series

### Performance Curves and Charts



HP	Suction x Discharge	Capacities GPM											Shut Off Head (ft)	
		Total Head in Ft												
		30	35	40	45	50	60	70	80	90	100	110		
1/2	1-1/4" x 1"	30	27	25	22	19	14	-	-	-	-	-	-	74
3/4	1-1/4" x 1"	-	41	38	36	34	29	23	16	-	-	-	93	
1	1-1/4" x 1"	-	-	-	42	40	36	31	25	18	-	-	105	
1.5	1-1/4" x 1"	-	-	-	-	52	47	44	39	34	25	-	118	
2	1-1/2" x 1-1/4"	-	-	-	-	-	-	64	56	47	36	23	121	
2.5	2" x 1-1/2"	-	-	-	-	-	-	68	61	53	45	35	131	

Note: All performance data based on rated nameplate voltage.

## HB4 Series Horizontal Booster Pumps



### Applications:

- Boosting water pressure from either city mains or private water systems
- Pressure washing buildings and floors
- Poultry houses
- Spray Cooling Equipment
- Lawn and Crop Irrigation
- Evaporative cooling system/misters
- Water Circulation
- General Purpose pumping
- Reverse Osmosis- Stainless Steel HB4
- Filtration- Stainless Steel HB4

### Ordering Information

Cast Iron Models				
GPM	HP	Single-Phase		
		Model No.	Order No.	Wt.
5	1	1FHB4P5C15-S	91270515	48
8	1/2	5FHB4P8C9-S	91270809	37
	3/4	7FHB4P8C11-S	91270811	42
12	3/4	7FHB4P12C7-S	91271207	40
	1	1FHB4P12C9-S	91271209	44
16	1	1FHB4P16C7-S	91271607	43
22	1.5	15FHB4P22C7-S	91272207	50

Note: Single-phase 1/2 - 2HP motors rated 115/230 volts.

Stainless Steel Models				
GPM	HP	Single-Phase		
		Model No.	Order No.	Wt.
5	1	1FHB4P5S15-S	91274822	48
8	1/2	5FHB4P8S9-S	91274830	37
	3/4	7FHB4P8S11-S	91274848	42
12	3/4	7FHB4P12S7-S	91274855	40
	1	1FHB4P12S9-S	91274863	44
16	1	1FHB4P16S7-S	91274871	43
22	1.5	15FHB4P22S7-S	91274889	50

### Cast Iron Models Feature:

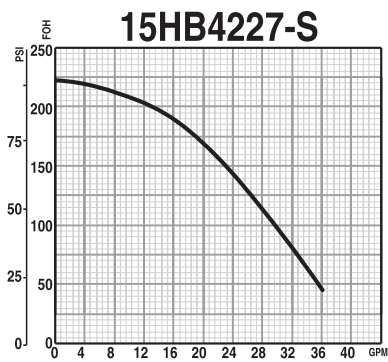
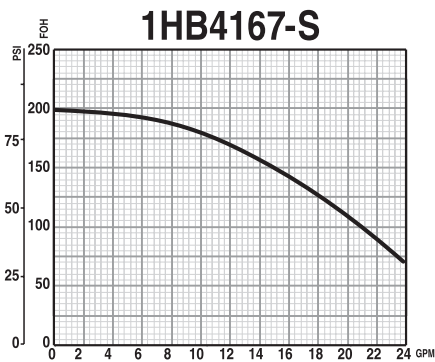
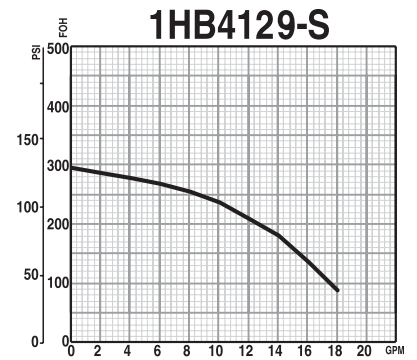
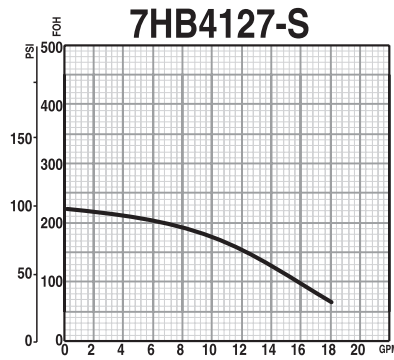
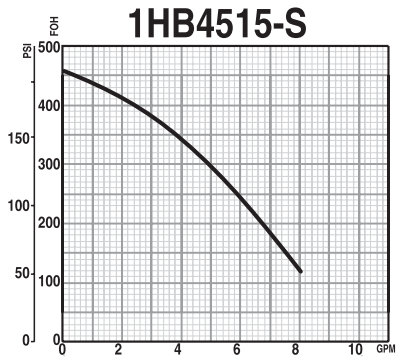
- Custom O-ring seal for reliable high pressure sealing.
- Thermoplastic impellers and diffusers for increased efficiency
- Open drip-proof motors
- Standard 5/8" type 21 shaft seal
- Durable, precision machined stainless steel shell
- Field Selectable motors- 115 V or 230 V
- Convenient, sturdy carrying handle
- Proven ceramic discharge bearing design for high resistance to abrasive materials and corrosion
- Cast iron motor bracket and stainless steel discharge with 1" NPT
- Two piece brass coupling for easy field serviceability

### Stainless Steel Models Feature:

All of the Cast Iron features except:

- Stainless Steel motor bracket and discharge with 1" NPT
- Two piece stainless steel coupling for easy field serviceability
- Viton Mechanical Shaft Seal for added chemical resistance

## HB4 Series Performance Curves



## H4 Series Horizontal Booster Pumps



# FPS

## H4 series

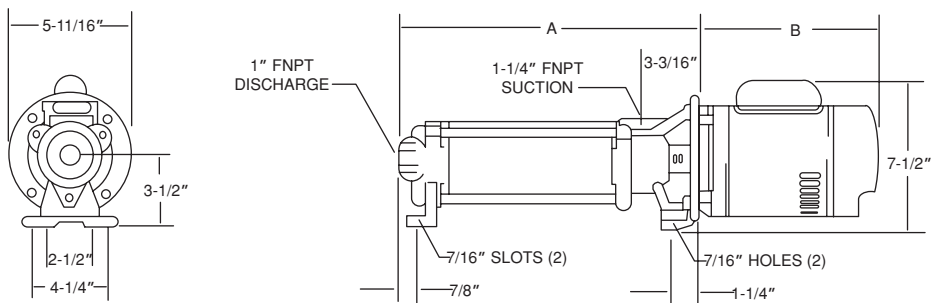
This multi-purpose pump is ideal for boosting water pressure around the home, industry or farm and is constructed with field-proven hydraulics. Available in a variety of sizes for many applications 1/3 - 3 hp and 5, 10, 18 and 25 gpm performance ranges.

### Features:

- Heavy-duty cast iron discharge housing and suction bracket for long life
- Thermoplastic impellers and diffusers are molded for increased efficiency and include floating eye seal, ceramic shaft sleeve and rubber discharge bearing
- Stainless steel shell and shaft for increased durability
- Shaft coupling for easy serviceability
- Tie rod construction for easy disassembly
- Cast iron support foot for extra stability
- Open drip-proof motors
- 1/3 and 1/2 hp models have 6-foot grounded cord and carrying handle
- Maximum water temperature is 120 °F
- Maximum operating pressure is 400 psi
- Handles up to 150 psi incoming pressure and handles up to 10 ft of suction lift

Dimensions		
Model	A	B
3FH4P5-7	14-3/16	10.19
5FH4P5-10	16-9/16	10.44
7FH4P5-14	19-3/4	11.19
1FH4P5-18	22-13/16	11.44
3FH4P10-4	12-1/4	10.19
5FH4P10-6	14-1/16	10.44
7FH4P10-9	16-11/16	11.19
1FH4P10-12	19-3/8	11.44
15FH4P10-16	22-13/16	11.94
5FH4P18-5	13-15/16	10.44
7FH4P18-7	16-1/6	11.19
1FH4P18-9	18-3/16	11.44
15FH4P18-12	21-5/6	11.94
2FH4P18-15	24-1/2	11.66
7FH4P25-F	14-13/16	11.19
1FH4P25-6	16-1/16	11.44
15FH4P25-9	19-3/4	11.94
2FH4P25-11	22-3/16	11.66
3FH4P25-16	28-1/4	12.66

**Note:** Dimensions will vary according to motor manufacturer.





# Booster Pumps

## H4 Series Ordering Information

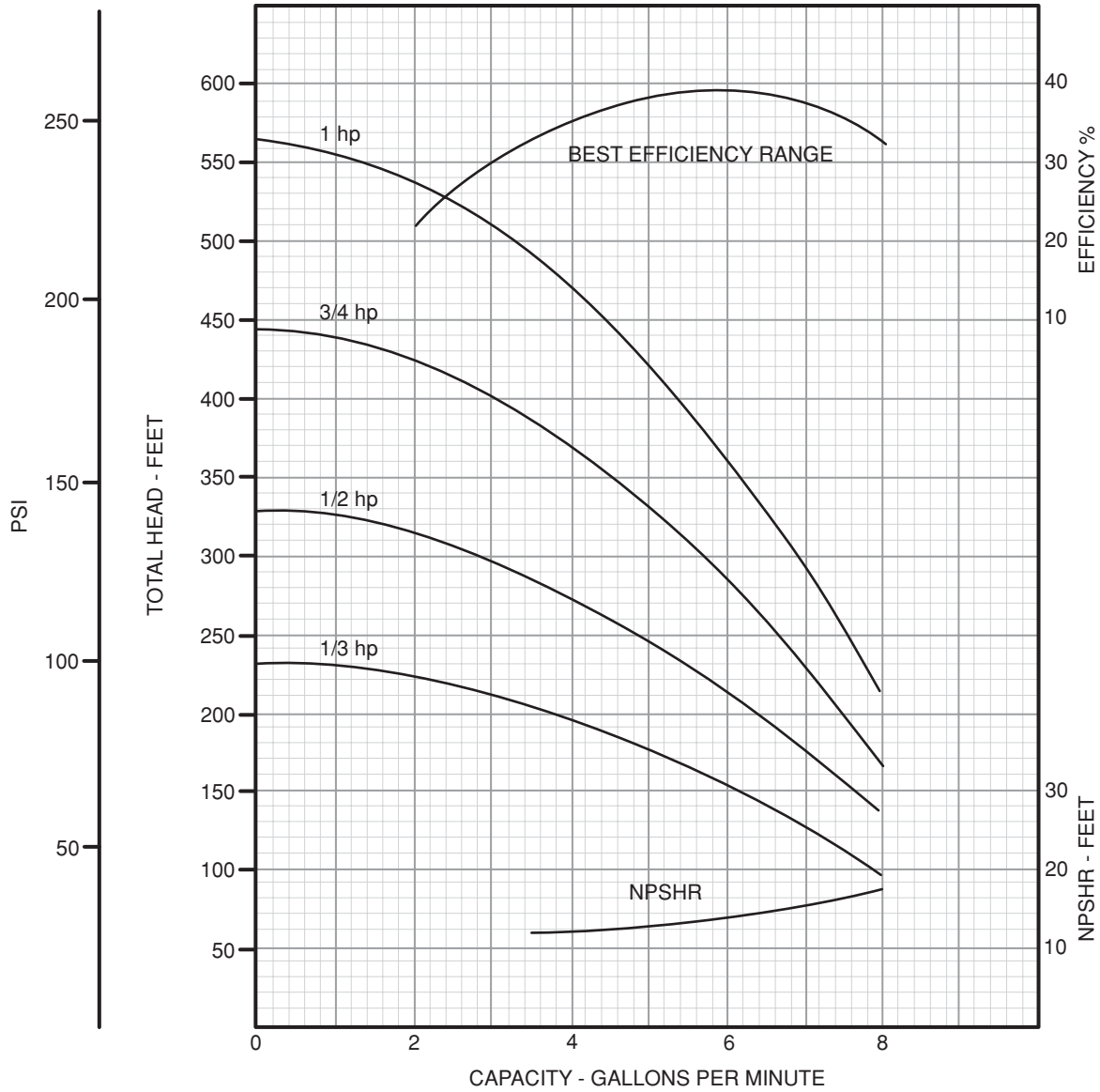
H4 Horizontal Booster Pumps with Open Drip Proof Motors							
GPM	HP	Single-Phase			Three-Phase - 208-230/460 Volt		
		Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
5	1/3	3FH4P57-S	91241507	35	3FH4P57-T	91243507	35
	1/2	5FH4P510-S	91241510	37	5FH4P510-T	91243510	37
	3/4	7FH4P514-S	91241514	42	7FH4P514-T	91243514	41
	1	1FH4P518-S	91241518	46	1FH4P518-T	91243518	44
10	1/3	3FH4P104-S	91242104	25	3FH4P104-T	91243104	31
	1/2	5FH4P106-S	91242106	36	5FH4P106-T	91243106	36
	3/4	7FH4P109-S	91242109	39	7FH4P109-T	91243109	38
	1	1FH4P1012-S	91242112	45	1FH4P1012-T	91243112	43
	1.5	15FH4P1016-S	91242116	51	15FH4P1016-T	91243116	51
18	1/2	5FH4P185-S	91242805	36	5FH4P185-T	91243805	36
	3/4	7FH4P187-S	91242807	39	7FH4P187-T	91243807	38
	1	1FH4P189-S	91242809	43	1FH4P189-T	91243809	42
	1.5	15FH4P1812-S	91242812	51	15FH4P1812-T	91243812	49
	2	2FH4P1815-S	91242815	55	2FH4P1815-T	91243815	55
25	3/4	7FH4P255-S	91243505	38	7FH4P255-T	91244505	37
	1	1FH4P256-S	91243506	42	1FH4P256-T	91244506	40
	1.5	15FH4P259-S	91243509	49	15FH4P259-T	91244509	47
	2	2FH4P2511-S	91243511	54	2FH4P2511-T	91244511	54
	3	3FH4P2516-S	91243516	65	3FH4P2516-T	91244516	64

**Note:** Single-Phase 1/3 - 2 hp motors rated 115/230 V. Single-Phase 3 hp motor rated 230 V. Three-Phase motors rated 208-230/460 V.

H4 Booster Pump Ends					H4 Booster Pumps - 575 Volt		
GPM	HP	Pump Ends			Three-Phase - 575 Volt		
		Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
5	1/3	3FH4P57	91240507	22	3FH4P57-T5	91244507	35
	1/2	5FH4P510	91240510	23	5FH4P510-T5	91244510	37
	3/4	7FH4P514	91240514	25	7FH4P514-T5	91244514	41
	1	1FH4P518	91240518	26	1FH4P518-T5	91244518	44
10	1/3	3FH4P104	91241004	17	3FH4P104-T5	91244104	31
	1/2	5FH4P106	91241006	22	5FH4P106-T5	91244106	36
	3/4	7FH4P109	91241009	21	7FH4P109-T5	91244109	38
	1	1FH4P1012	91241012	24	1FH4P1012-T5	91244112	43
	1.5	15FH4P1016	91241016	26	15FH4P1016-T5	91244116	51
18	1/2	5FH4P185	91241805	22	5FH4P185-T5	91244805	36
	3/4	7FH4P187	91241807	22	7FH4P187-T5	91244807	38
	1	1FH4P189	91241809	23	1FH4P189-T5	91244809	42
	1.5	15FH4P1812	91241812	25	15FH4P1812-T5	91244812	49
	2	2FH4P1815	91241815	27	2FH4P1815-T5	91244815	55
25	3/4	7FH4P255	91242505	22	7FH4P255-T5	91245505	37
	1	1FH4P256	91242506	22	1FH4P256-T5	91245506	40
	1.5	15FH4P259	91242509	24	15FH4P259-T5	91245509	47
	2	2FH4P2511	91242511	25	2FH4P2511-T5	91245511	54
	3	3FH4P2516	91242516	28	3FH4P2516-T5	91245516	64

## H4 Series

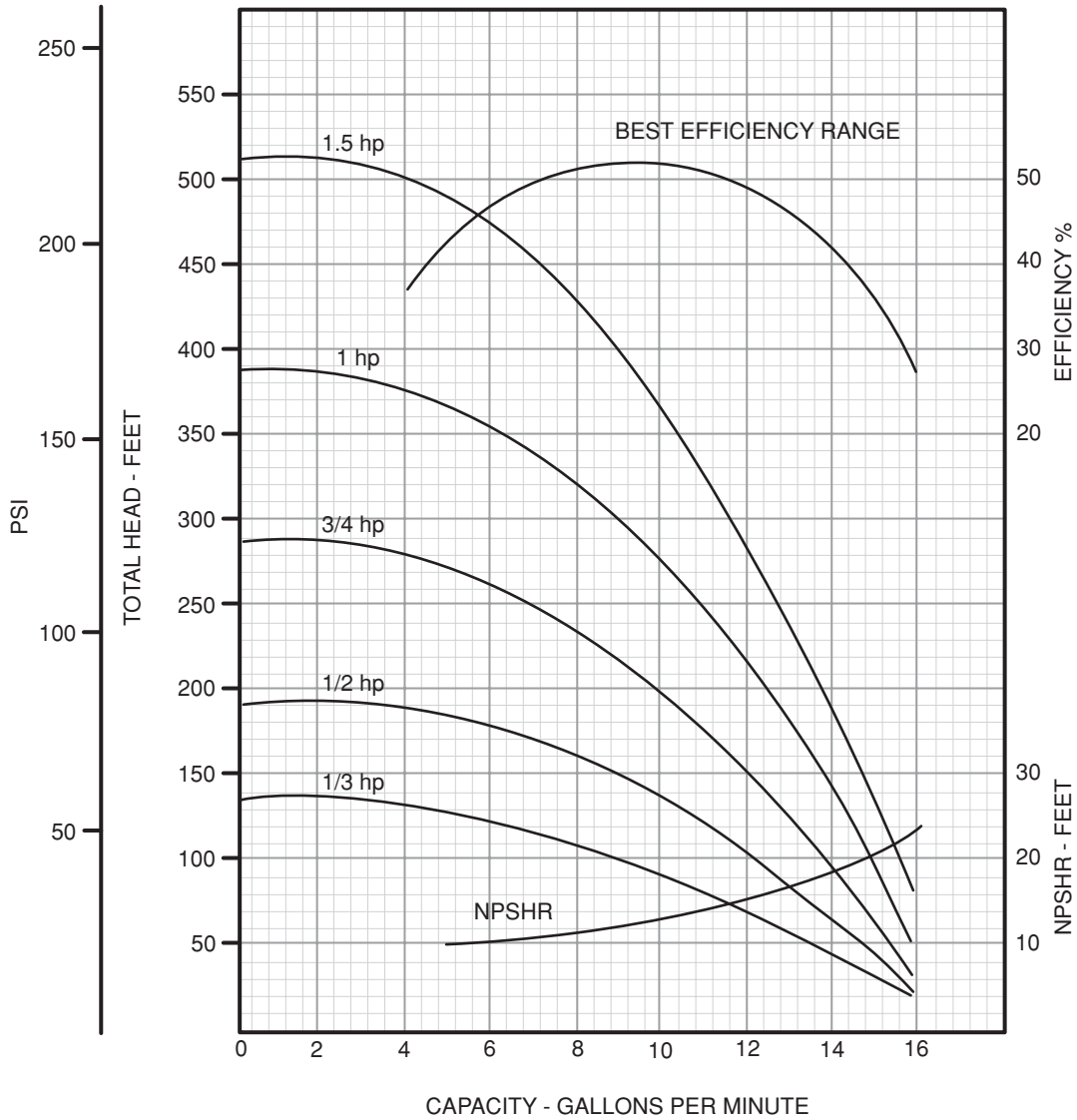
### 5 GPM Performance Curves and Chart



HP	Discharge Pressure at Pump with no Lift (Capacities in GPM)																			Max Pres. (PSI)	
	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220		230
1/3	8.1	7.3	6.5	5.6	4.5	3.1															98
1/2			7.9	7.3	6.8	6.2	5.6	4.8	4.0	2.9											140
3/4					7.8	7.4	7.0	6.6	6.1	5.7	5.2	4.6	4.1	3.4	2.5						192
1							7.8	7.5	7.2	6.8	6.5	6.2	5.8	5.4	5.1	4.7	4.2	3.7	3.1	2.3	244

## H4 Series

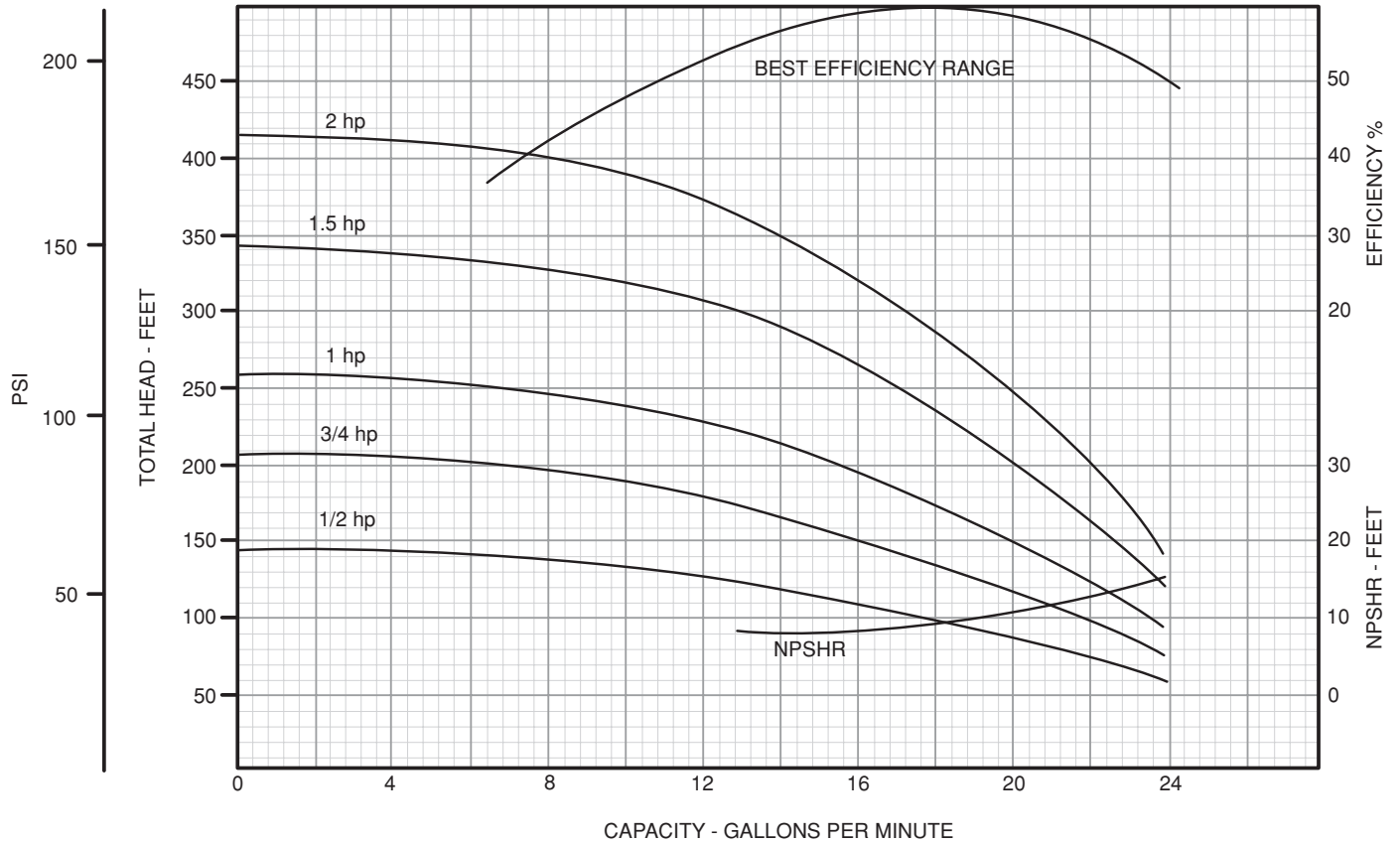
### 10 GPM Performance Curves and Chart



HP	Discharge Pressure at Pump with no Lift (Capacities in GPM)																				Max Pres. (PSI)
	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	
1/3	14.4	12.6	10.5	7.5																	56
1/2	15.3	14.2	13.1	11.8	10.3	8.3	4.6														84
3/4	15.8	15.1	14.4	13.6	12.7	11.8	10.8	9.7	8.4	6.9	4.3										125
1	16.2	15.7	15.2	14.6	14.1	13.5	12.9	12.2	11.5	10.8	9.9	8.9	7.8	6.3	4.2						166
1.5	16.7	16.2	15.8	15.3	14.9	14.4	14.0	13.5	13.1	12.6	12.1	11.6	11.0	10.4	9.8	9.1	8.4	7.6	6.6	5.3	220

## H4 Series

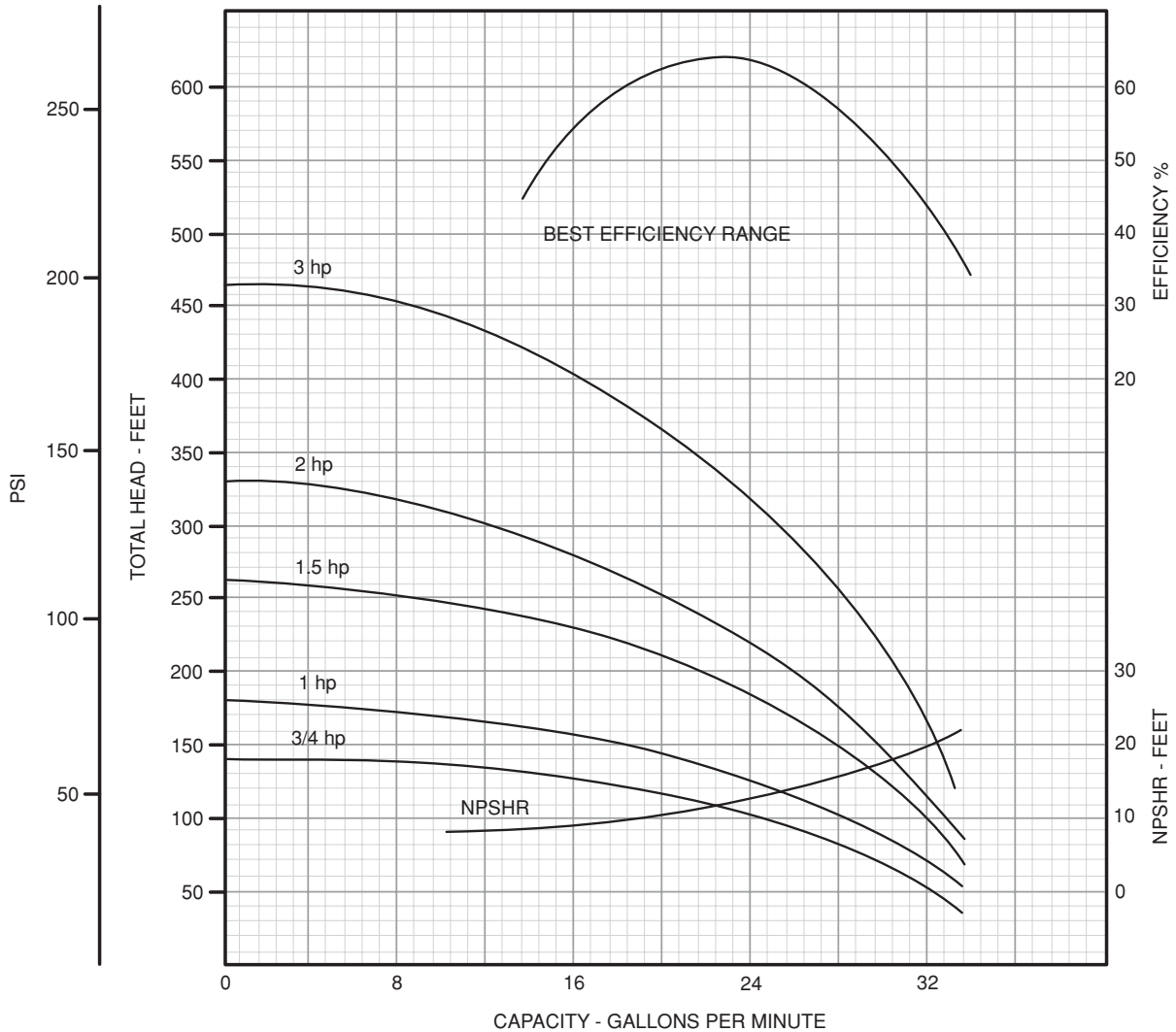
### 18 GPM Performance Curves and Chart



HP	Discharge Pressure at Pump with no Lift (Capacities in GPM)																Max Pres. (PSI)
	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	
1/2	24.3	21.7	18.1	13.7													60
3/4	25.2	24.0	22.4	20.3	17.6	14.4	10.0										88
1	25.7	24.7	23.8	22.2	20.5	18.4	16.2	13.8	10.2	4.0							111
1.5	26.0	25.4	24.8	24.0	23.3	22.3	21.1	19.8	18.2	16.4	14.4	12.0	8.2				148
2	26.5	26.0	25.4	24.7	24.0	23.4	22.5	21.6	20.5	19.4	18.1	16.7	15.3	13.6	11.6	8.4	179

## H4 Series

### 25 GPM Performance Curves and Chart



HP	Discharge Pressure at Pump with no Lift (Capacities in GPM)																		Max Pres. (PSI)
	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	
3/4	33.0	30.0	26.4	20.8															61
1	34.0	31.8	28.8	25.4	21.2	14.8													76
1.5	35.4	34.0	32.8	31.0	29.0	26.6	24.0	20.8	17.0										112
2	35.8	34.7	33.8	32.6	31.2	29.4	27.4	25.2	22.8	20.8	16.8	12.0							138
3	36.2	35.5	34.6	33.8	33.0	32.2	31.2	30.2	29.2	27.8	26.6	25.0	23.2	21.6	19.6	17.2	14.0	9.6	198

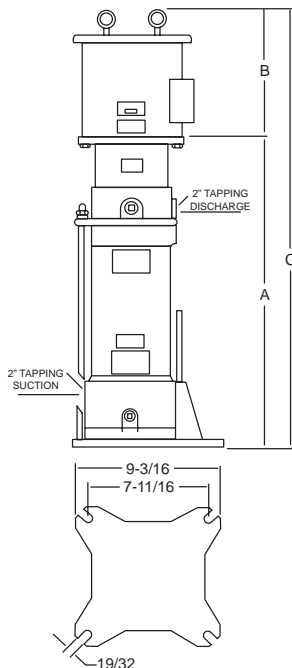
## V6 Series High Pressure Vertical



The V6 Booster Pump is ideal for industrial/commercial applications where water pressure boosting is required. Designed with Premium hydraulics for reliability and excellent performance. The V650 is available in 1.5 hp through 7.5 hp models. The V675 is available in 3 hp through 7.5 hp models.

### Features:

- Heavy-duty cast iron discharge housing and motor bracket for long life
- Stainless steel shell, shaft coupling and pump shaft for increased durability
- Top access to mechanical seal for easy replacement of seal without disturbing the plumbing or disassembling the pump
- Standard thrust motors which are available through normal distribution channels
- High flow impellers and stages are glass-filled Noryl for added durability and strength
- Unique design allowing rotation of either suction or discharge in 90 degree increments for optimum installation flexibility
- Tie-rod construction for easy disassembly and service to impeller stack
- Maximum water temperature is 120 °F
- Maximum operating pressure is 150 psi
- 2" FNPT Suction x 2" FNPT Discharge



### 50 GPM

HP	A	B		C	
		1-Phase	3-Phase	1-Phase	3-Phase
1.5	16-1/2"	10-1/2"	9-15/16"	27"	26-7/16"
2	18-1/8"	10-1/2"	9-15/16"	28-11/16"	28-1/16"
3	19-3/4"	11-3/16"	10-5/8"	30-15/16"	30-3/16"
5	25-3/8"	15-9/16"	14-3/4"	41-1/16"	40-1/8"
7.5	30-3/8"	15-7/8"	15-7/8"	46-1/4"	46-1/4"

### 75 GPM

HP	A	B		C	
		1-Phase	3-Phase	1-Phase	3-Phase
3	14-7/8"	12-7/8"	12-1/8"	27-3/4"	27"
5	20-1/2"	15-3/4"	14-1/2"	36-1/4"	35"
7.5	23-7/8"	15-7/8"	22-3/8"	39-3/4"	46-1/4"

**Note:** Shaft turns counter clockwise if viewed from above motor.

## V6 Series

### High Pressure Booster Pumps Ordering Information (See pg. 2-3 for model number explanation)

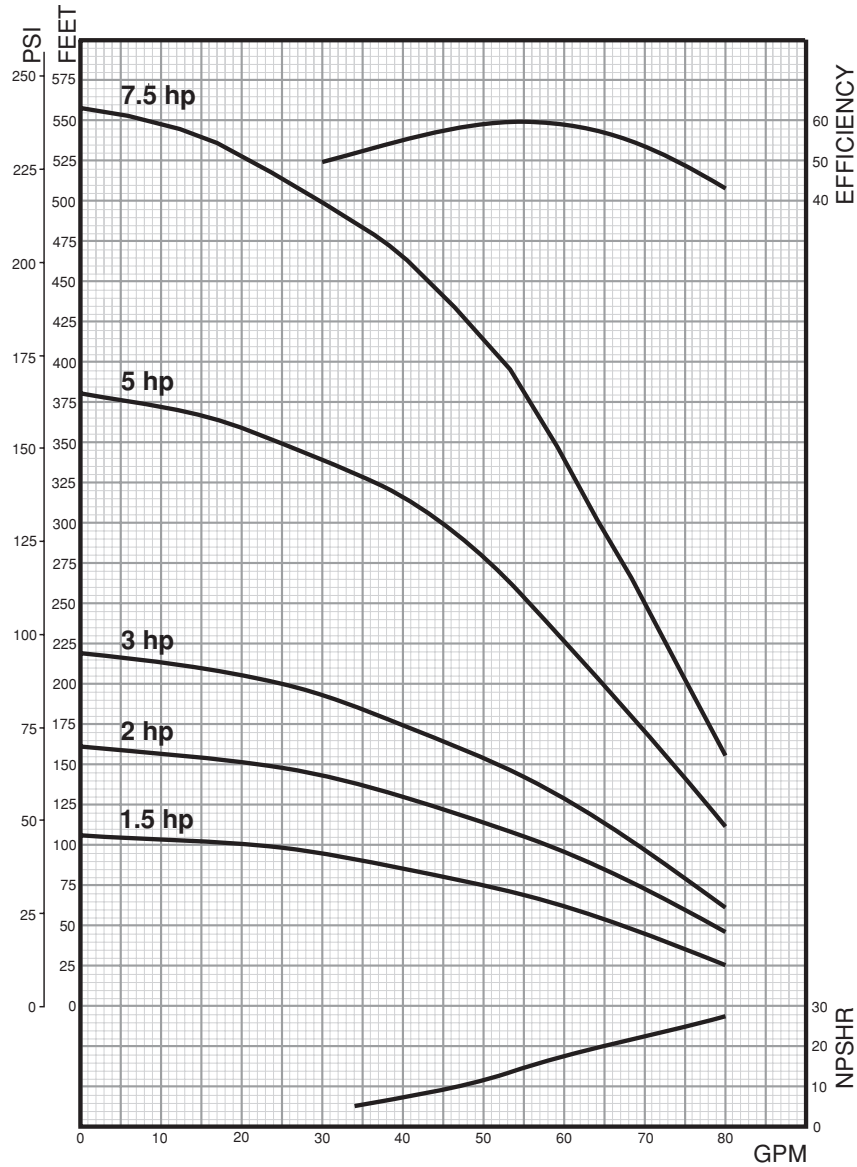
V6 Vertical Booster Pumps with Open Drip Proof Motors							
GPM	HP	Single-Phase			Three-Phase - 208-230/460 V		
		Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
50	1.5	15FVB6P50-2-S	91303915	100	15FVB6P50-2-T	91304913	103
	2	2FVB6P50-3-S	91303923	105	2FVB6P50-3-T	91303964	108
	3	3FVB6P50-4-S	91303931	109	3FVB6P50-4-T	91303972	112
	5	5FVB6P50-7-S	91304301	208	5FVB6P50-7-T	91304327	188
	7.5	Not Available in Single-Phase			75FVB6P50-10-T	91304293	225
75	3	3FVB6P75-2-S	91304244	106	3FVB6P75-2-T	91304251	108
	5	5FVB6P75-4-S	91304350	208	5FVB6P75-4-T	91304368	182
	7.5	Not Available in Single-Phase			75FVB6P75-6-T	91304269	222

**Note:** Single-Phase 1/3 - 2 hp motors rated 115/230 V. Single-Phase 3-5 hp motor rated 230 V. Three-Phase motors rated 208-230/460 V.

1.5 - 7.5 HP V6 Series Booster Pump Ends					V6 Booster Pump - 575 V		
GPM	HP	Pump Ends Only			Three-Phase - 575 V		
		Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
50	1.5	15FVB6P50-2	91304053	65	15FVB6P50-2-T5	91309019	103
	2	2FVB6P50-3	91304061	72	2FVB6P50-3-T5	91309020	108
	3	3FVB6P50-4	91304079	74	3FVB6P50-4-T5	91309021	112
	5	5FVB6P50-7	91304335	89	5FVB6P50-7-T5	91309034	188
	7.5	75FVB6P50-10	91304343	95	75FVB6P50-10-T5	91309035	225
75	3	3FVB6P75-2	91304277	70	3FVB6P75-2-T5	91309036	108
	5	5FVB6P75-4	91304376	75	5FVB6P75-4-T5	91309037	182
	7.5	75FVB6P75-6	91304285	84	75FVB6P75-6-T5	91309038	222

## V6 Series

### 50 GPM Performance Curves and Chart



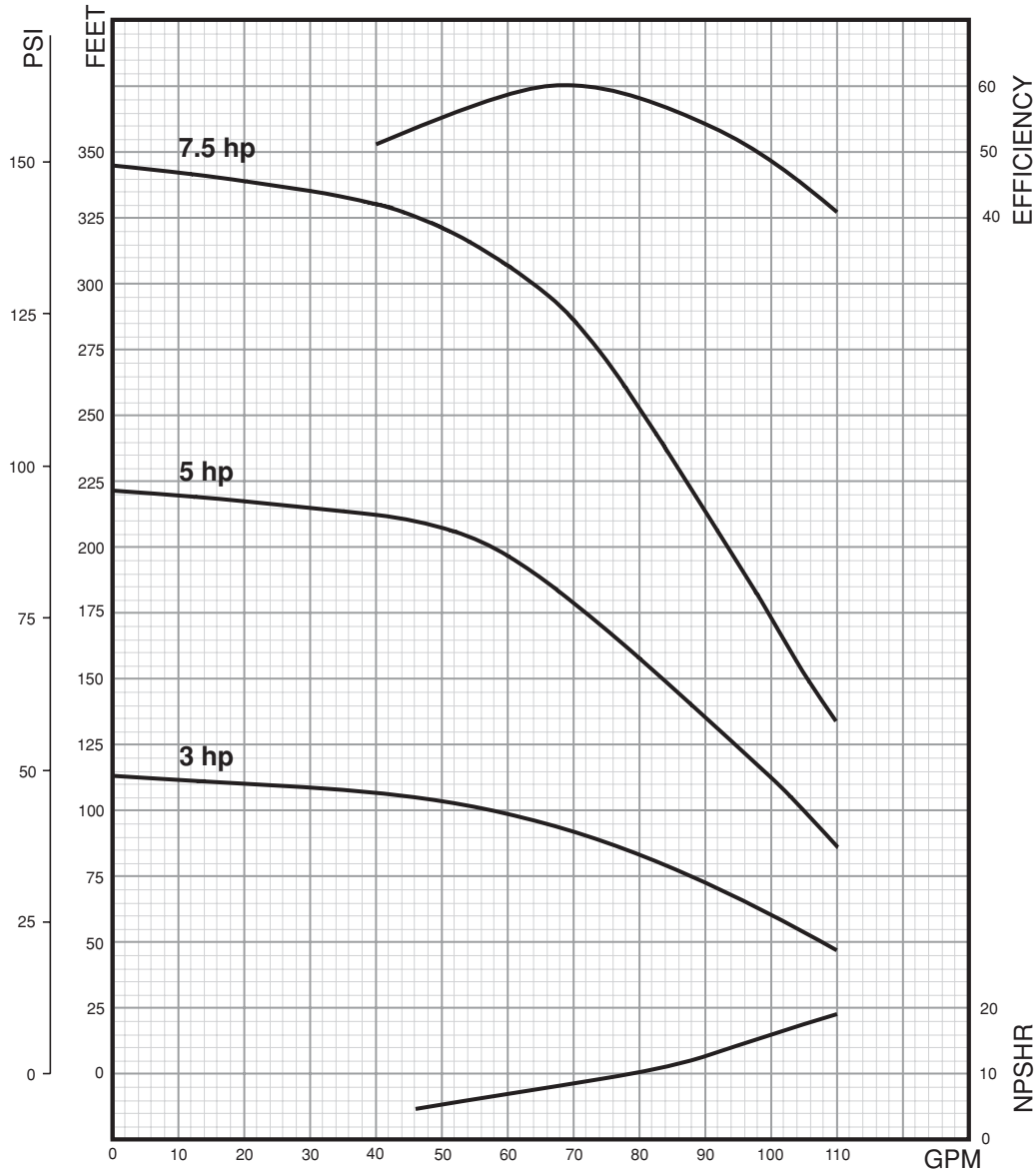
HP	Discharge Pressure at Pump with no Lift (Capacities in GPM)																							Max Pres. (PSI)
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	
1.5	82	70	56	34																				46
2		80	72	62	50	35																		69
3			78	72	65	57	47	35	18															95
5					79	75	71	67	63	60	54	48	42	35	25	10								165
7.5								79	77	74	71	68	65	62	59	55	51	47	43	38	31	25	17	238

**Notes:** 1. Total discharge pressure of 1.5 thru 7.5 hp. V6 series units should not exceed 150 psi.  
 2. Total discharge pressure of 75FVB6P50 units should not exceed 400 psi.



## V6 Series

### 75 GPM Performance Curves and Chart



HP	Discharge Pressure at Pump with no Lift (Capacities in GPM)														Max Pres. (PSI)
	20	30	35	40	50	60	70	80	90	100	110	120	130	140	
3	100	82	70	50											48
5			108	104	94	86	76	58	20						93
7.5						106	100	94	88	82	76	66	56	20	143

**Note:** 1. Total discharge pressure of V6 Series units should not exceed 150 psi.

# Replacement Motors

## JM Frame Centrifugal Pumps Ordering Information

Replacement Motors For Jet and Small Centrifugal Pumps								
Pump Series	Frame	HP	Single-Phase			Three-Phase		
			Voltage	Order No.	Wt.	Voltage	Order No.	Wt.
Pro Series HJ H4	56C Keyed Shaft	1/2	115/230	90102294R	18	208-230/460	90102419R	19
		3/4	115/230	90102302R	25	208-230/460	90102427R	27
		1	115/230	90102310R	29	208-230/460	90102435R	29
		1.5	115/230	90102328R	30	208-230/460	90102443R	30
		2	115/230	90102336R	33	208-230/460	90102450R	33
		3	230	90102897R	40	208-230/460	90110628R	68
H4	56C Keyed Shaft	1/2	Not Available in Single-Phase			575	90109372R	19
		3/4				575	90109380R	27
		1				575	90109398R	29
		1.5				575	90109406R	30
		2				575	90109414R	33
		3				575	90179961R	68
VB6	56C Keyed Shaft	1.5	115/230	90118910R	31	208-230/460	90118977R	30
		2	115/230	90118928R	34	208-230/460	90118985R	35
		3	230	90119181R	41	208-230/460	90119207R	69
	TC K. Shaft	5	230	90119199R	35	208-230/460	90119215R	58
		7.5	230	Not Available		208-230/460	90119017R	74
HJ	56J Threaded Shaft	1/3	115/230	90177817R	17	Not Available in Three-Phase		
		1/2	115/230	90100637R	18			
		3/4	115/230	90100561R	25			
		1	115/230	90100579R	29			
		1.5	115/230	90100587R	30			
		2	115/230	90119116R	34			
SHJ	56J Threaded Shaft	1	115/230	90100629R	25	Not Available in Three-Phase		
		1.5	115/230	90100603R	30			
		2	115/230	90100611R	33			
		2.5	115/230	90100645R	34			
DDD DDS HB4	56Z Square Flange	1/2	115/230	90106246R	18	208-230/460	90106758R	9
		3/4	115/230	90106253R	25	208-230/460	90106766R	10
		1	115/230	90106261R	29	208-230/460	90106774R	12
		1.5	115/230	90106279R	30	208-230/460	90106782R	14
		2	115/230	90106287R	33	208-230/460	90106790R	17
		2.5	115/230	90106295R	35	Not Available in Three-Phase		
CWJ	56Z Square Flange	1/2	115/230	90101106R	18	Not Available in Three-Phase		
		3/4	115/230	90103227R	25			
		1	115/230	90103235R	29			
SWJ TY TYCI	56Z Square Flange	1/2	115/230	90101315R	18	Not Available in Three-Phase		
		3/4	115/230	90101327R	25			
		1	115/230	90101331R	29			
		1.5	115/230	90101345R	30			
		2	115/230	90101352R	33			

**Notes:** 56C - Round flange motors have a 5/8" diameter shaft with 3/16" x 3/16" keyway.  
 56J - Round flange motors have a 5/8" diameter shaft with 7/16-20 UNF-2A thread.  
 56Z - Square flange motors have a 5/8" diameter shaft with 1/2-20 UNC-2A thread.

## Q.D. Control Box Parts Ordering Information

Q.D. Control Box Parts For Single-Phase 1/3 - 1 HP Submersible Motors				
HP Voltage Model No.	Rating	No. Req.	Component Part No.	Kit Order No.
1/3 hp - 115 V 2801024915	Start Capacitor 159-191 MFD, 110 V	1	275464125	305207925
	QD Relay	1	223415905	305101905
1/3 hp - 230 V 2801034915	Start Capacitor 43-53 MFD, 220 V	1	275464126	305207926
	QD Relay	1	223415901	305101901
1/2 hp - 115 V 2801044915	Start Capacitor 250-300 MFD, 125 V	1	275464201	305207951
	QD Relay	1	223415906	305101906
1/2 hp - 230 V 2801054915	Start Capacitor 59-71 MFD, 220 V	1	275464105	305207905
	QD Relay	1	223415902	305101902
3/4 hp - 230 V 2801074915	Start Capacitor 86-103 MFD, 220 V	1	275464118	305207918
	QD Relay	1	223415903	305101903
1 hp - 230 V 2801084915	Start Capacitor 105-126 MFD, 220 V	1	275464113	305207913
	QD Relay	1	223415904	305101904
1/2 hp - 230 V CRC 2824055015	Start Capacitor 43-53 MFD, 220 V	1	275464126	305207926
	Run Capacitor 15 MFD, 370 V	1	156362101	305203907
	QD Relay	1	223415912	305105901
3/4 hp - 230 V CRC 2824075015	Start Capacitor 59-71 MFD, 220 V	1	275464105	305207905
	Run Capacitor 23 MFD, 370 V	1	156362102	305203908
	QD Relay	1	223415913	305105902
1 hp - 230 V CRC 2824085015	Start Capacitor 86-103 MFD, 220 V	1	275464118	305207918
	Run Capacitor 23 MFD, 370 V	1	156362102	305203908
	QD Relay	1	223415914	305105903

Replacement Parts for Older Style Q.D. Control Boxes				
Description	Rating	No. Req.	Component Part No.	Kit Order No.
Voltage Relay Kit*	115 Volt with bracket and screws	1	155031901	305102901
	230 Volt with bracket and screws	1	155031902	305102902
	208 Volt with bracket and screws	1	155031903	305102903
Capacitor Overload Assembly**	1/3 hp, 115 Volt	1	151033973	305218973
	1/3 hp, 230 Volt	1	151033974	305218974
	1/2 hp, 115 Volt	1	151033975	305218975
	1/2 hp, 230 Volt	1	151033976	305218976
	3/4 hp, 230 Volt	1	151033978	305218978
	1 hp, 230 Volt	1	151033979	305218979
Overload Kit***	1.5 hp, 230 Volt	1	151033980	305218980
	1/3 hp, 115 Volt	1	N/A	305100901
	1/3 hp, 230 Volt	1		305100902
	1/2 hp, 115 Volt	1		305100903
	1/2 hp, 230 Volt	1		305100904
	3/4 hp, 230 Volt	1		305100905
	1 hp, 230 Volt	1		305100906

**Notes:** Some Franklin motors, controls & parts are not stock items and may need to be special ordered.

\* Voltage relay kits will replace either current, voltage, or solid state switch relays.

\*\* O-D control boxes produced H85 or later do not contain an overload in the capacitor.

\*\*\* On winding thermal overloads were added to three-wire motors rated 1/3-1 hp in A85. If a control box dated H85 or later is applied with a motor dated M84 or earlier, overload protection can be provided by adding an overload kit to the control box.

## "Standard" Control Box Parts Ordering Information

"Standard" Control Box Parts For Single-Phase 1.5 - 10 HP 4" & 6" Submersible Motors					
HP Size Model No.	Rating	No. Req.	Component Part No.	Kit Order No.	
<b>1/1.5 hp - 4"</b> <b>2823008110</b>	Start Capacitor 105-126 MFD, 220 V	1	275464113	305207913	
	Run Capacitor 10 MFD, 370 V	1	155328102	305204902	
	Overload	1	275411107	305215907	
	Relay - 230 V*	1	155031102	305213902	
<b>2 hp - 4"</b> <b>2823018110</b>	Start Capacitor 105-126 MFD, 220 V	1	275464113	305207913	
	Run Capacitor 20 MFD, 370 V	1	155328103	305204903	
	Start Overload	1	275411117	305215917	
	Run Overload	1	275411113	305215913	
	Relay - 230 V*	1	155031102	305213902	
<b>3 hp - 4"</b> <b>2823028110</b>	Start Capacitor 208-250 MFD, 220 V	1	275463111	305206911	
	Run Capacitor 45 MFD, 370 V	1	155327109	305203909	
	Start Overload	1	275411118	305215918	
	Run Overload	1	275411115	305215915	
<b>5 hp - 4" &amp; 6"</b> <b>2821138110</b>	Relay - 230 V*	1	155031102	305213902	
	Start Capacitor 270-324 MFD, 330 V	1	275468119	305208919	
	Run Capacitor 40 MFD, 370 V	2	155327114	305203914	
	Start Overload	1	275411119	305215919	
	Run Overload	1	275406102	305214902	
<b>7.5 hp - 6"</b> <b>2822019210</b>	Relay - 230V*	1	155031102	305213902	
	Start Capacitor 270-324 MFD, 330 V	1	275468119	305208919	
	Start Capacitor 216-259 MFD, 330 V	1	275468118	305208918	
	Run Capacitor 45 MFD, 370 V	1	155327109	305203909	
	Start Overload	1	275411102	305215902	
	Run Overload	1	275406122	305214922	
<b>10 hp - 6"</b> <b>2822029210</b>	Relay - 230V*	1	155031601	305213961	
	Start Capacitor 270-324 MFD, 330 V	1	275468119	305208919	
	Start Capacitor 350-420 MFD, 330 V	1	275468120	305208920	
	Run Capacitor 35 MFD, 370 V	2	155327102	305203902	
	Start Overload	1	275406103	305214903	
	Run Overload	1	155409101	155409101	
<b>All</b>	Relay - 230V*	1	155031601	305213961	
	Lightning Arrestor	1	150814902	150814902	
<b>208 V Relay *</b>	Relay 1.5-3 hp (replaces 155031102)	1	155031103	305213903	
	Relay 5-15 hp (replaces 155031601)	1	155031602	305213904	

**Notes:** Some Franklin motors, controls & parts are not stock items and may need to be special ordered.

\* For 208 V systems or where line voltage is between 200 V and 210 V a low voltage relay is required.

Use relay part number 155031103 in place of 155031102 on 1.5 through 3 hp applications.

Use the next size larger cable that specified in 230 V table. Boost transformers are an alternative to special relay and cable.

## "Deluxe" Control Box Parts Ordering Information

"Deluxe" Control Box Parts For Single-Phase 2 - 15 HP 4" & 6" Submersible Motors					
HP Size Model No.	Rating	No. Req.	Component Part No.	Kit Order No.	
<b>2 hp - 4"</b> <b>2823018310</b>	Start Capacitor 105-126 MFD, 220 V	1	275464113	305207913	
	Run Capacitor 20 MFD, 370 V	1	155328103	305204903	
	Start Overload	1	275411117	305215917	
	Run Overload	1	275411113	305215913	
	Contactactor	1	155325102	305226901	
	Relay - 230 V	1	155031102	305213902	
<b>3 hp - 4"</b> <b>2823028310</b>	Start Capacitor 208-250 MFD, 220 V	1	275463111	305206911	
	Run Capacitor 45 MFD, 370 V	1	155327109	305203909	
	Start Overload	1	275411118	305215918	
	Run Overload	1	275411115	305215915	
	Contactactor	1	155325102	305226901	
	Relay - 230 V	1	155031102	305213902	
<b>5 hp - 4" &amp; 6"</b> <b>2821138310</b> or <b>2821139310</b>	Start Capacitor 270-324 MFD, 330 V	1	275468119	305208919	
	Run Capacitor 40 MFD, 370 V	2	155327114	305203914	
	Start Overload	1	275411119	305215919	
	Run Overload	1	275406102	305214902	
	Contactactor	1	155326101	305347903	
	Relay - 230 V	1	155031601	305213961	
<b>7.5 hp - 6"</b> <b>2822019310</b>	Start Capacitor 270-324 MFD, 330 V	1	275468119	305208919	
	Start Capacitor 216-259 MFD, 330 V	1	275468118	305208918	
	Run Capacitor 45 MFD, 370 V	1	155327109	305203909	
	Start Overload	1	275411102	305215902	
	Run Overload	1	275406121	305214921	
	Contactactor	1	155326102	305347902	
<b>10 hp - 6"</b> <b>282202931</b>	Relay - 230 V	1	155031601	305213961	
	Start Capacitor 270-324 MFD, 330 V	1	275468119	305208919	
	Start Capacitor 350-420 MFD, 330 V	1	275468120	305208920	
	Run Capacitor 35 MFD, 370 V	2	155327102	305203902	
	Start Overload	1	275406103	305214903	
	Run Overload	1	155409101	155409101	
<b>15 hp - 6"</b> <b>2822039310</b> <b>2822039330</b>	Contactactor	1	155326102	305347902	
	Relay - 230 V	1	155031601	305213961	
	Start Capacitor 350-420 MFD, 330 V	2	275468119	305208919	
	Start Capacitor 161-193 MFD, 330 V	1	275463122	305206912	
	Run Capacitor 45 MFD, 370 V	3	155327109	305203909	
	Start Overload	1	275406103	305214903	
<b>15 hp - 6"</b> <b>2822039621</b> <b>X-Large</b> <b>Enclosure</b>	Run Overload	1	155409102	155409102	
	Contactactor	1	155429101	305347901	
	Relay - 230 V	1	155031601	305213961	
	Start Capacitor 350-420 MFD, 330 V	2	275468119	305208919	
	Start Capacitor 161-193 MFD, 330 V	1	275463122	305206912	
	Run Capacitor 45 MFD, 370 V	3	155327109	305203909	
<b>All</b>	Start Overload	1	275406103	305214903	
	Run Overload	1	155409102	155409102	
<b>208V Relay*</b>	Contactactor	1	155429101	305347901	
	Relay - 230 V	2	155031601	305213961	
<b>All</b>	Lightning Arrestor	1	150814902	150814902	
	Relay 1.5-5 hp (replaces 155031102)	1	155031103	305213903	
<b>208V Relay*</b>	Relay 5-15 hp (replaces 155031601)	1	155031602	305213904	

**Notes:** Some Franklin motors, controls & parts are not stock items and may need to be special ordered.

\* For 208 V systems or where line voltage is between 200 V and 210 V a low voltage relay is required.

Use relay part number 155031103 in place of 155031102 on 1.5 through 3 hp applications.

Use the next size larger cable that specified in 230 V table. Boost transformers are an alternative to special relay and cable.

**Service Parts Kits**

Ordering Information by Pump Model and Size

DDD Repair Kits - Includes Impeller, Square Ring, Mechanical Seal, Wear-Ring, and Fasteners		
Description	Part No.	Repair Models
<b>Impeller Kit</b>	05388608K	5DD1
	05388707K	7DD1
	05388806K	1DD1
	05388905K	15DD1
	05389002K	2DD1
	05389101K	25DD1
<b>Fastener Kit</b>	14443402K	Repairs all DDD models
<b>Seal, O-Ring Kit</b>	24017345	Includes Mechanical Seal & O-Ring

## Service Parts Kits

### Ordering Information by Pump Model and Size

#### SWJ Repair Kits - Includes Impeller, Diffuser, Wear Ring, Mechanical Seal, O-Ring & Disk.

Description	Part No.	Repair Models
Impeller Kit	05392204RKIT	FSWJ05
	05392303RKIT	FSWJ07
Fastener Kit	14443204K	FSWJ

#### CWJ & DEEP Repair Kits - Includes Impeller, Diffuser, Wear Ring, Mechanical Seal, O-Ring, and Disc.

Impeller Kit	24013906	1/2 hp Deep, FCWJ05
	05392303RKIT	3/4 hp Deep, FCWJ07
	05385703RKIT	1 hp Deep, FCWJ1
Fastener Kit	1443204K	Deep, FCWJ
Seal, O-Ring Kit	24008500	Includes Mech. Seal & all O-Rings

#### RP2 Repair Kits - Includes Impeller, Diffuser, Wear Ring, Mechanical Seal, & Square Ring.

RP2 Impeller Kit	24012106	FRP05
	24012205	FRP07
Fastener	14443303K	RP2, Pro Series & HJ
Seal, Square Ring Kit	24012304	Includes Mech. Seal & all O-Rings and Square Rings

#### Pro Series Repair Kits - Includes Impeller, Diffuser, Wear Ring, Mechanical Seal, & Square Ring.

Pro Series Impeller Kit (For units built after 7/96)	24014508	FP05
	24014607	FP07
	24014904	FP1

## Service Parts Kits

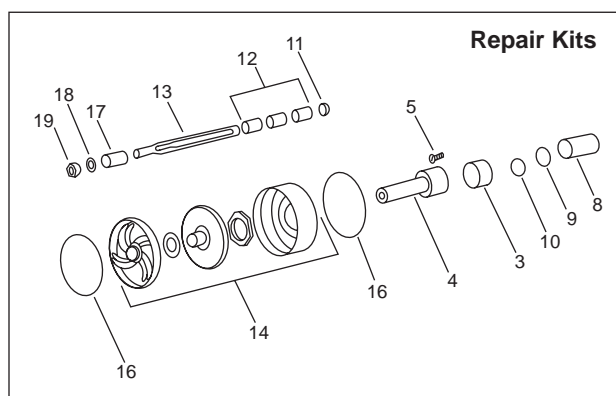
### Ordering Information by Pump Model and Size

#### TY, TYCI Hydraulic Repair Kits - Includes Impeller, Diffuser, Wear Ring, Mechanical Seal, Square Ring, and O-Ring.

Description	Part No.	Repair Models
Impeller Kit	05034103RKIT	7FPTY, S10TY, 7FPTYCI
	05034202RKIT	10FPTY, S15TY, 10FPTYCI
	05034400RKIT	15FPTY, S20TY, 15FPTYCI
	05034001RKIT	20FPTY, S25TY, 20FPTYCI

#### H4 Booster Repair Kits

Description	Part No.	Repair Models
H4 Component Kit	24017519	Small Parts for all models
Fastener Kit	14443907K	Repairs all H4 Boosters



#### Tie Rod Booster Repair Kits

H4 5-7	9132-2073	*H4 18-5	9132-2156
H4 5-10	9132-2081	*H4 18-7	9132-2164
H4 5-14	9132-2099	*H4 18-9	9132-2172
H4 518	9132-2107	*H4 18-12	9132-2180
		*H4 18-15	9132-2198
H4 10-4	9132-2859		
H4 10-6	9132-2115	H4 25-5	9132-2206
H4 10-9	9132-2123	H4 25-6	9132-2214
H4 10-12	9132-2131	H4 25-9	9132-2222
H4 10-16	9132-2149	H4 25-11	9132-2230
		H4 25-16	9132-2248
		H4 25-27	9132-5001

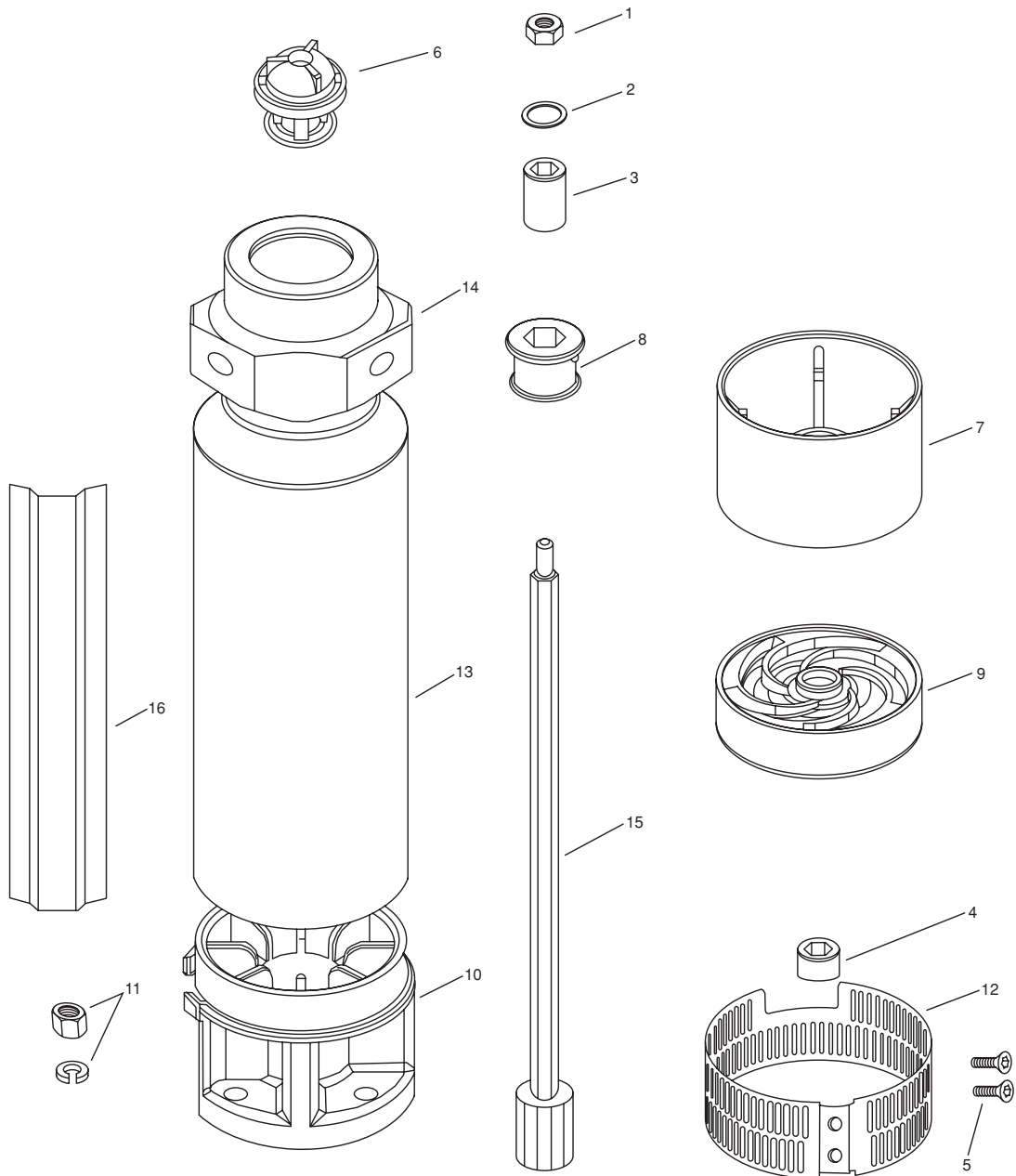
#### V6 Booster Repair Kits

Description	Part No.	Repair Model
Fastener Kit	14444004K	Repairs all V6 Boosters



## 4" Submersible Parts

Parts for all Models (5-25 GPM)



## 4" Submersible Parts

### Parts for all Models (5-25 GPM)

Fig. No.	Part No.	Description	4000		4400		
			Plastic	SS	Plastic	*Brass	SS
1	14-1371-03-R	SS Hex Nut 5/16-24	1	1	1	x	1
2	14-0756-00-R	Washer	1	1	1	x	1
3	08-2888-03-R	**Hub Sleeve .375 x 1 Hex Ceramic (F/ units Prior to 1/ 05)	x	x	x	x	x
	08-2903-06-R	Hub Sleeve 7/16 Hex Ceramic ( F / units blt. After 1/05 )	1	1	1		2 or 4***
4	08-2770-06-R	**Spacer 0680 x .44 ID x 053 L ( F/ units Blt. Prior to 1/05)	x	x	x	x	x
	08-2963-03-R	Sleeve 7/16 Hex x .571 GFN	1	1	1		1 or 3***
5	14-4243-03-R	Cable Shield Screws	2	2	2		
	14-4257-06-R	Cable Shield Screws				x	
	14-4412-08-R	Cable Shield Screws					2
6	9198-5259	Flowmatic Check Valve	1	1	1		1
7	08-2323-02-R	Bearing Support 2.08 long			1		1
8	08-2888-05-R	Rbr. Brg. 1-1/4 x 11/16 hex	1	1	1		1
9	04-5883-07	**5 gpm Stage Assy.7/16 hex			CA	x	CA
	04-5884-06	**7 gpm Stage Assy. 7/16 hex			CA	x	CA
	04-5879-03	**8 gpm Stage Assy. 7/16 hex		CA			
	04-5869-05	**10 gpm Stage Assy. 7/16 hex			CA	x	CA
	04-5880-00	**12 gpm Stage Assy. 7/16 hex	CA	CA			
	04-5881-09	**16 gpm Stage Assy. 7/16 hex	CA	CA			
	04-5826-07	**18 gpm Stage Assy. 7/16 hex			CA	x	CA
	04-5882-08	**22 gpm Stage Assy. 7/16 hex	CA	CA			
10	04-5867-07	**25 gpm Stage Assy. 7/16 hex			CA	x	CA
	02-1207-07-R	Bracket Plastic 3-7/16 LHT #5795 w/ screen #12	1		1		
	02-1679-06	*Bracket Brass - Discontinued 2001				x	
	02-1681-02-R	Stainless Steel Bracket 3-7/16THD		1			1
11	14-3914-03-R	Fastener Kit ( 4 each Per Kit )	1	1	1	x	1
12	22-5582-09-R	Screen 11.43 L x 1.50 W Black Poly.	1	1	1	x	1
13	Not Available	Pump Shell - See 4" Subm. Product Index for replacement pump end	x	x	x	x	x
14	Not Available	1-1/4" Discharge head	x	x	x	x	x
15	Not Available	7/16" Hex Stainless Steel Pump Shaft	x	x	x	x	x
16	Not Available	Cable Guard	x	x	x	x	x

\* Effective Jan.2001 Brass 4" units were discontinued and parts are no longer available.

\*\* Effective Jan. 1, 2005 the 4" subm. Pump Shaft size was changed from 3/8" HEX to 7/16" HEX.

\*\*\* Quantity required if unit has intermediate bearing support.

x - Not sold as a replacement part.

CA - Contact Franklin Electric Customer Service for assistance.

For replacement parts consult the Factory or See product index for replacement Pump end.

## 4" Submersible Parts

Parts for all Models (35-90 GPM)

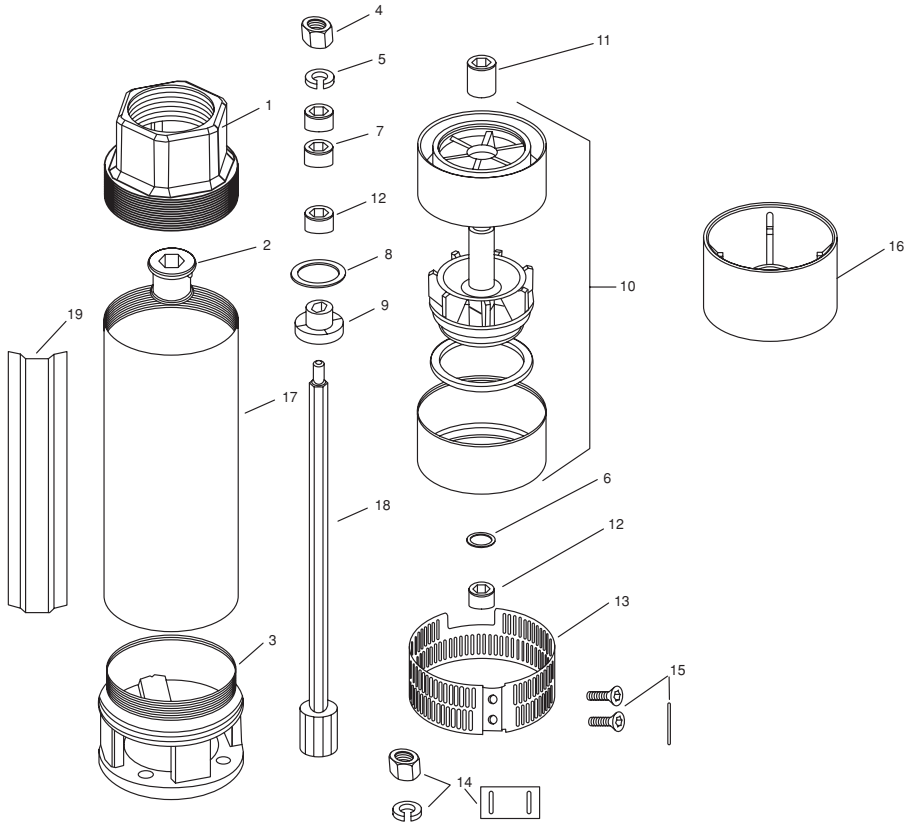


Fig. No.	Part No.	Description
1	03-0905-03-R	2" Stainless Steel Discharge Housing w/ rubber bearing
	04-5340-04-R	Cast Iron Disch. Housing w/ rbr. brg. (prior to 8/01) DISCONTINUED
2	08-2888-05-R	Rubber Bearing
3	02-1707-02-R	Stainless Steel Hi-Cap Bracket
	02-1134-05-R	Cast Iron Mtr. Bracket (prior to 8/01) DISCONTINUED Stainless Steel Replaces
4	14-4347-08-R	Stainless Hex Nut 5/16-24 w/ Nylock
5	14-0756-00-R	Stainless Steel Washer 11/32 D x 5/8 x 1/16
6	14-1249-03-R	Brs. Washer .065 x .050 x .003
7	08-2903-06-R	Hub Sleeve Hex 7/16 x 468L Ceramic (6 each required)
8	14-4223-07-R	Thrust Washer 1-5/16 x .71 x 1/8 (not required on 35 gpm model)
9	08-2893-08-R	Thrust Journal (not required on 35 gpm model)
10	04-5783-08-R	35 gpm Stage Assembly (1 x no of stages required)
	04-5341-03-R	45 gpm Stage Assembly (1 x no. of stages required)
	04-5343-01-R	60 gpm Stage Assembly (1 x no. of stages required)
	04-5300-02-R	90 gpm Stage Assembly (1 x no. of stages required)
11	08-2506-23-R	Hex Sleeve 7/16 x 1L (1 x no. of stages required) (45 & 60 gpm models only)
12	08-2960-06-R	Hex Sleeve .460" (2 ea. for 35 gpm & 1ea. for all other models)
	08-2506-23-R	Hex Sleeve 7/16 x 1L (2 required only for models built prior to 8/01)
13	22-5925-05-R	Screen 302SS 1.50 x 12 for 35 thru 90 gpm
	22-0579-05-R	Screen (units built prior to 8/01)
14	14-3914-03-R	Fastener Kit (4 each per kit) with #22569404 lead protector
15	14-4412-08-R	Fastener Kit 8/32 x 1/4 MS Hex Wash .410SS (2 each per kit)
16	08-2961-05-R	Bearing Support Stage w/ bearing 35 gpm thru 90 gpm models
17	Not Available	Pump Shell - Not sold as a replacement part
18	Shaft Assy.	Consult Factory for size and availability
19	Cable shield	Consult Factory for size and availability

**6" Submersible Parts**  
 Parts for all Models (50-75 GPM)

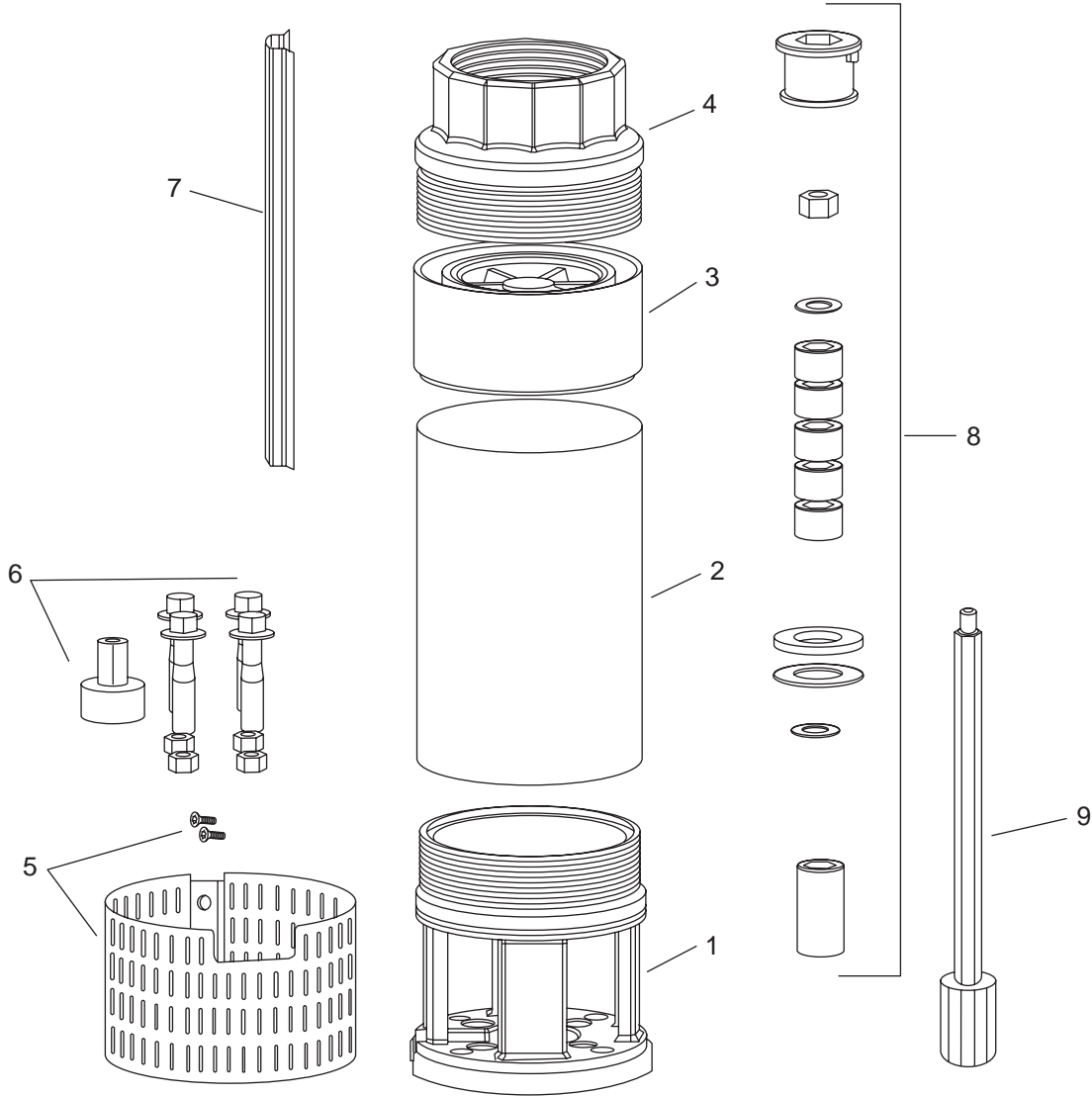


Fig. No.	Part No.	Description
1	02-1708-01-R	S.S. Bracket (All hp's)
2	Pump Shell	Consult Factory for Size and Availability
3	04-5648-03	50 gpm Stage assembly for 1.5 hp & 2 hp
	04-5647-04	50 gpm Stage assembly for 3, 5, 7.5, 10 hp
	04-5649-02	75 gpm Stage assembly for 3 hp & 5 hp
	04-5650-08	75 gpm Stage assembly for 7.5, 10, 15, 20 hp
4	04-5820-03-R	S.S. Discharge (3" NPT)
5	22-5957-08-R	S.S. Screen with mach. Screws (2ea.)
6	14-4421-07	4" & 6" Motor Fastener Kit
7	Cable Shield	Consult Factory for Size and Availability
8	04-5848-01	Bearing and Spacer Repair Kit
9	Shaft	Consult Factory for Size and Availability

## Model SWJ Parts for Shallow Well Jet Pumps

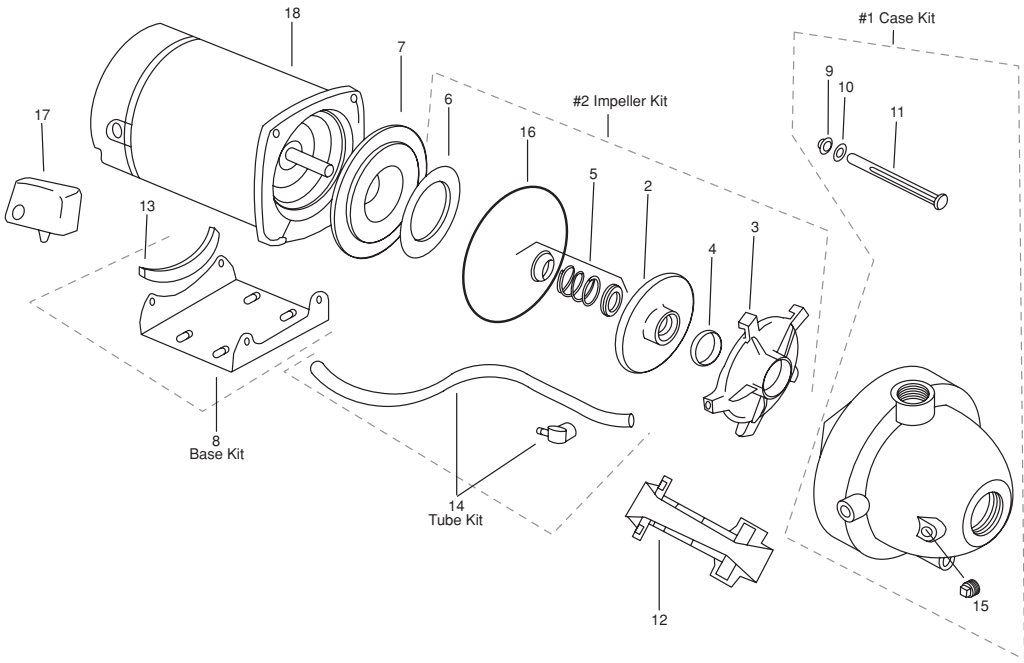


Fig. No.	Part No.	Description
1	03-0873-00-K	Case Kit "P" Plastic w/fasteners & plugs
	03-0892-08-K	Case Kit "C" Cast Iron w/fasteners & plugs
<b>Impeller Kits include; Impeller,Diffuser,Wear-Ring,Mech.Seal,O-Ring,Disk #2,3,4,5,6,18</b>		
2	05-3800-37-RKIT	Impeller Kit #2794 @ 4.36D for S5CY - 5CCY
	05-3922-04-RKIT	Impeller Kit #2794 @ 4.47D for 1/2 hp and S-3/4 hp unity
	05-3923-03-RKIT	Impeller Kit #2794 @ 4.88D for 3/4 hp and S-1 hp unity
3	Diffuser	See # 2 Impeller Kit
4	08-0845-19-06PK	Wear-Ring Kit (6 ea. per kit)
5	10-0002-06	Mechanical Seal 5/8 (also included in impeller kits)
6	Disk	See # 2 Impeller Kit
7	11-1521-05-R	Seal Plate 6.165" Dia.
8	12-1057-06-R	Base assembly with rubber protector #13
*9,10,11	*14-4432-04-K	Fastener Kit (all Models)
12	18-0449-09-R	Nozzle & Venturi assembly for 1/2 hp and S-3/4 hp unity
	18-0450-05-R	Nozzle & Venturi assembly for 3/4 hp and S-1 hp unity
13	Rubber Protector	See # 8 Base Assembly
14	31-1197-04-K	Tube Kit 1/4 X 14-1/2 poly-black w/ barb fittings #16
15	31-0059-11-06PK	Plug 1/4" Galv. (available in 6 pack kit only)
16	47-0361-48-02PK	O-Ring Kit 6 x 6-3/8 x 3/16 (2 per kit)
17	PRSW2040	Pressure Switch set 20-40
18	Motor	See Motor Selection Page
19	12-1149-06-BLK	Handle 4.37 x 5.03 x .75 Steel, Not Shown
20	23-4857-09	Cord 6 ft, Not Shown

\*Fastener Kits #14443204K include the following;  
 "P" models 4 ea. 3/8-16x2-3/4 hex capscrews #11--- 4 ea. 3/8-16 hex nuts #9-- - 4 ea.3/8 reg. Lock-washers #10  
 "C" models 4 ea. 3/8-16x1-1/4 hex capscrews #11

## Model CWJ

### Parts for Convertible Well Jet Pumps

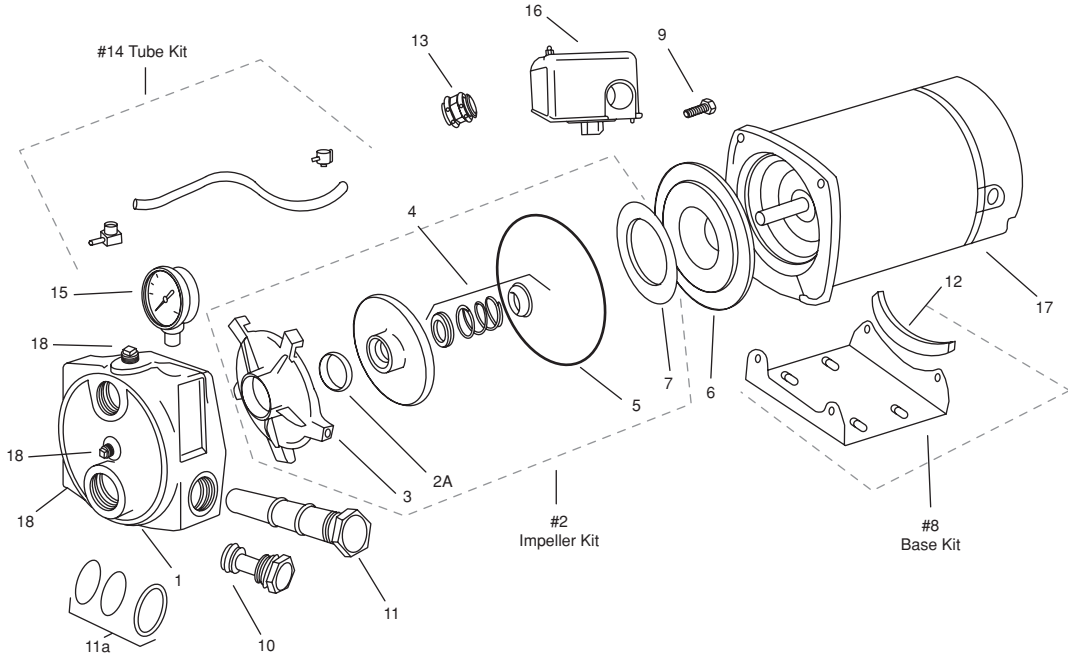


Figure No.	Part No.	Description
1	03-0838-05-R	Case Kit #11355 w/ wear-ring, plugs, capscrews. #1,2a,9,20,21
<b>All Impeller Kits include: Impeller, Diffuser, Wear-Ring, Mech. Seal, O-Ring, Disk. -No. 2,2a,3,4,5 &amp; 7</b>		
2	24-0139-06	Impeller Kit #2794 @ 4.47 D for 1/2 hp
	05-3923-03-RKIT	Impeller Kit #2794 @ 4.94 for 3/4 hp
	05-3857-03-RKIT	Impeller Kit #2794 @ 4.88 D for 1 hp
2A	08-0845-19-06PK	Wear Ring Kit (6 per kit) - also 1 is included with Impeller Kit
3	Diffuser	See #2 Impeller Kit
4	10-0002-06	Mechanical Seal (also included w/impeller kits)
5	47-0361-48-02PK	O-Ring Kit 6 x 6-3/8 x 3/16 (2 per kit)
6	11-1521-05-R	Seal Plate 6-1/2" dia.
7	Disk	See #2 Impeller Kit
8	12-1057-06-R	Base w/Protector #12
9	14443204-K	*Fastener Kit
10	18-1290-07-R	Deep Well Plug Assembly - with O-Rings
11	18-1248-00-R	Shallow Well Injector #1034 for 3/4 hp - with O-Rings
	18-1701-00-R	Shallow Well Injector #1234 for 1 hp - with O-Rings
	18-1247-01-R	Shallow Well Injector #1023 for 1/2 hp - with O-Rings
11a	24-0174-44	O-Ring Kit for shallow well injector #11 and deep well plug #10
12	Rubber Protector	See #8 Base Assembly
13	23-2647-08-R	Box Spacer
14	31-1197-04-K	Tube Kit 1/4 x 14-1/2' poly-black w/barb #16
15	9193-4018	Pressure Gauge 1/4" M 0-100#
16	PRSW2040	Pressure Switch set 20-40
17	Motor	See Motor Selection Page
18	Case Plugs	See #1 Case Kit
Kit	24-0085-00	CWJ - Convertible Jet Pump Seal/O-Ring Kit Includes Mech.-seal #4, case O-Ring #5, injector O-Rings #11a

\*Fastener Kit #14443204-K includes the following:  
4 each 3/8 - 16 x 1-1/4 Hex capscrews

## Model RP2

### Parts for Convertible Well Jet Pumps

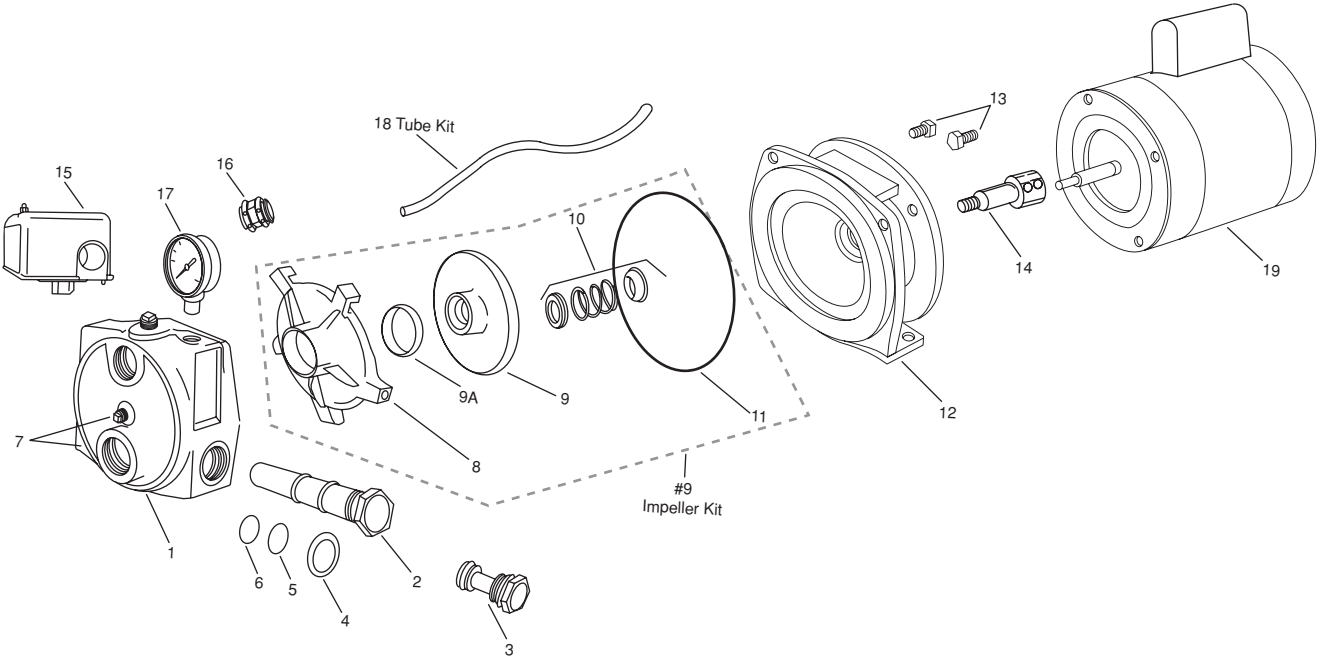
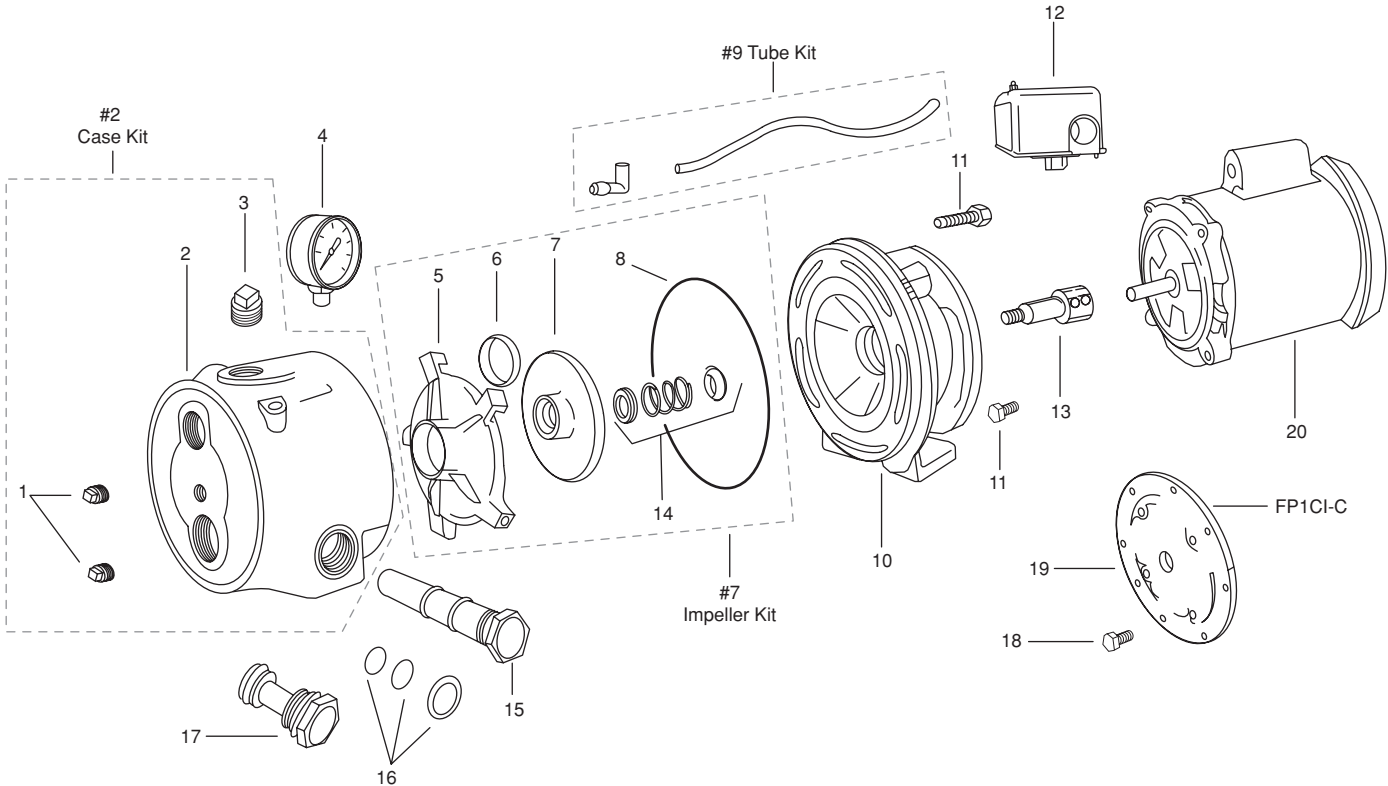


Figure No.	Part No.	Description
1	03-0636-09-R	Case Kit w/wear-ring #9 and plugs #7 & #22
2	18-1247-01-R	Shallow well injector #1023 for 1/2 hp - with O-Rings
3	18-1248-00-R	Shallow well injector #1034 for 3/4 hp - with O-Rings
3	18-1290-07-R	Deep well plug assembly - with O-Rings
4,5,6	24-0174-44	O-Ring Kit for shallow well injector and deep well plug #2 & #3
7	31-0059-11-06PK	Plug 1/4" galv. (available in 6 pack only)
<b>All Impeller Kits Include: Impeller, Diffuser, Mech. Seal, Sq.-Ring- Fig. No. 8,9,9A,10,11</b>		
8	Diffuser	See #9 Impeller Kit
9	24-0121-06	Impeller Kit #2794 @ 4.69 D - 7/16 T for 1/2 hp
9	24-0122-05	Impeller Kit #2794 @ 4.94 D - 7/16 T for 3/4 hp
9a	08-0845-19-06PK	Wear-Ring Kit (6 per kit)
10	10-1203-01	Mechanical Seal 3/4" (also included in impeller & Seal O-Ring kits)
11	47-0258-53-02PK	Square-Ring Kit 6 x 1/8 x 1/8 (2 per kit)
12	02-1101-04-R	Bracket w/ 4-3/4" imp-fit #4933 patt. For 1/2 hp models w/ capscrews #13
12	02-1102-03-R	Bracket w/ 5" imp-fit #4933 patt. For 3/4 hp models w/ capscrews #13
13	14443204-K	*Fastener Kit
14	07-21521-05-R001	Shaft Coupling 7/16 thread - with set screws #15
15	PRSW2040	Pressure Switch set 20-40
16	23-2647-08	Box Spacer
17	9193-4018	Pressure Gauge 0 - 100 lbs
18	31-1197-04-K	Tube Kit 1/4 x 14-1/2" poly-black w/barb #18
19	Motor	See Motor Selection page
Kit	24-0123-04	RP2 Convertible Jet Seal / Sq.-ring Kit Includes; Mech.Seal #10, Sq.-Ring #11, Shallow well Injector O-Rings (3) #4,5,6

\*Fastener Kit #14443203-K includes the following:  
8 each 3/8 - 16 x 3/4 plated Hex capscrews #13

# Model Pro Series

## Parts for Convertible Well Jet Pumps





## Model Pro Series Parts for Convertible Well Jet Pumps

Figure No.	Part No.	Description
1	31-0059-11-06PK	Plug 1/4" (6 per kit)
2	03-0642-01-R	Case #4974 w/plugs & wear-rings #6
3	31-0063-07	1" Plug
4	9193-4018	Pressure Gauge 0-100 lbs
5	Diffuser	See #7 Impeller Kit
6	08-0845-19-06PK	Wear Ring Kit (6 per kit)
<b>All Impeller Kits include: Impeller, Diffuser, Mech. Seal, Sq.-Ring, Wear-Ring. #5,6,7,9,12,15,16</b>		
7	24-0145-08	Impeller Kit #2794 @ 4-3/4 D for 1/2 hp
	24-0146-07	Impeller Kit #2794 @ 5 D for 3/4 hp
	24-0149-04	Impeller Kit #2794 @ 5-3/8 D for 1 hp
	24-0172-46	Impeller Kit #2794 @ 5-3/8 D for 1PRM3
<b>For units built prior to 7/96 use the following impeller repair kits, they include a new shaft coupling w/ 9/16" thread #14</b>		
7	24-0124-03	Impeller Kit #2794 @ 4-3/4 D for 1/2 hp
	24-0125-02	Impeller Kit #2794 @ 5 D for 3/4 hp
	24-0126-01	Impeller Kit #2794 @ 5-3/8 D for 1 hp
8	47-0262-57-02PK	Square-Ring Kit (2 per kit)
9	31-0020-09-R016	Copper tube kit 16-1/2" long with elbow #8
	31-1197-04-K	Tube Kit 1/4 x 14-1/2" long w/ barb #8
10	02-1255-08-R	Bracket Kit #4895 for 1/2 hp w/ fasteners
	02-1256-07-R	Bracket Kit #4895 for 3/4 hp w/ fasteners
	02-1272-07-R	Bracket Kit #4895 for 1 hp w/ fasteners
	02-1363-07-R	Bracket Kit #4895 for 1PRM3 w/ fasteners
11	14443303-K	*Fastener Kit
12	PRSW3050	Pressure Switch set 30-50PSI
13	07-3610-09-R001	Shaft Coupling 9/16 thrd. w/ set screws
	07-2152-05-R001	Shaft Coupling 7/16 thrd. w/ set screws
14	10-1203-01	Mechanical Seal 3/4" all but PRM3
	10-1202-02	Mechanical Seal 5/8" f/PRM3 only
15	18-1278-03-R	Shallow Well Injector #1024 for 1/2 hp
	18-1279-02-R	Shallow Well Injector #1027 for 3/4 hp
	18-1280-09-R	Shallow Well Injector #1028 for 1 hp
16	47-0123-48-R	O-Ring Kit for SW inj. & DW plug
17	18-1291-06-R	Deep Well plug assembly w/ O-Rings
18	14-1289-12-R	Pro Series capscrews 5/16-24x3/4 (4 each)
19	11-0280-08-R	Adapter flange for FP1CI-C
20	Motor	See Motor Selection Page
Kit	24-0127-00	Seal O-Ring Kit for Pro Series includes; mech.-seal, o-rings, and sq.-ring #9,16,18

\*Fastener Kit #14443303-K includes the following:  
 5 each 3/8 - 16 x 1-3/4 SS Hex Capscrews #12  
 4 each 3/8 - 16 x 3/4 Plated Hex Capscrews #15  
 4 each 3/8 - 16 x 7/8 Plated Hex Capscrews #15

## Models DDD & DDS Parts for Centrifugal Pumps

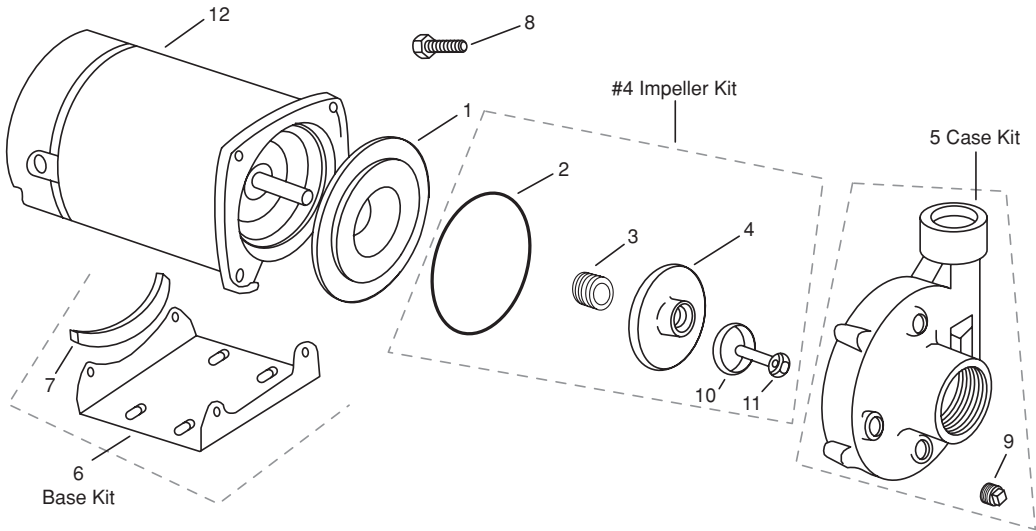


Figure No.	Part No. C.I.	Part No. S.S.	Description
1	11-1498-04-R		Seal Plate Cast Iron #11293 for DDD, RCFC
		11-0063-01-R	Seal Plate Stainless Steel for DDS
2	47-0258-53-02PK	47-0258-53-02PK	Square-Ring Kit 6 x 1/8 x 1/8 (2 per kit)
3	10-0002-06		Mechanical Seal 5/8 for DDD, RCFC Models
		10-1436-18	Mechanical Seal 5/8 Viton for DDS Models
<b>All Impeller Kits include; Impeller, Sq.-Ring, Mech. Seal, Wear-Ring and Fasteners Fig No's 2,3,4,10,11</b>			
4	05-3886-08-K	05-3886-16-K	1/2 hp Impeller Kit 4.605 dia. #11375
	05-3887-07-K	05-3887-15-K	3/4 hp Impeller Kit 5.0 dia. #11376
	05-3888-06-K	05-3888-14-K	1 hp Impeller Kit 5.25 dia. #11377
	05-3889-05-K	05-3889-13-K	1.5 hp Impeller Kit 5.315 dia. #11378
	05-3890-02-K		2 hp Impeller Kit 5.65 dia. #11338
	05-3891-01-K		2.5 hp Impeller Kit 5.95 dia. #11379
<b>Impellers for Units with Three-Phase Motors</b>			
4	05-9646-05-R	05-9646-05-R	1/2 hp Impeller 4.605 dia. #11375
	05-9650-00-R	05-9650-00-R	3/4 hp Impeller 5.0 dia. #11376
	05-9652-50-R	05-9652-50-R	1 hp Impeller 5.25 dia. #11377
	05-9653-15-R	05-9653-15-R	1.5 hp Impeller 5.315 dia. #11378
	05-9656-50-R	05-9656-50-R	2 hp Impeller 5.65 dia. #11338
5	03-0850-08-R	03-0850-17-R	Case Assembly Kit #11337 w/ plugs #11 for 1/2 hp thru 1.5 hp
	03-0851-07-R		Case Assembly Kit #11338 w/ plugs #11 for 2 hp
	03-0852-06-R		Case Assembly Kit #11338 w/ plugs #11 for 2.5 hp
6,7	12-1057-06-R	12-1057-06-R	Base Assembly Kit w/ motor pad #7 for 48 frame motor
	12-1060-03-K	12-1060-03-K	Base Assembly Kit w/ motor pad #7 for 56 frame motor
8,11	14-4434-02-K	14-4434-02-K	*Fastener Kit
9	31-0059-11-06PK	31-0059-11-06PK	Plug Kit 1/4" Galv. (6 per kit)
10	08-0845-19-06PK	08-0845-19-06PK	Wear-Ring Kit (6 per kit) for 1/2 hp thru 1.5 hp
	08-2697-06-R		Wear-Ring 302SS 2.08D x 1.801 D x .25 lg. for 2 hp & 2.5 hp
11	14-4353-09	14-4353-09	Capscrew 1/4-20 x 1-3/16 lg LH Hx. / Wash. for 2 hp 3 Ph.
	14-4354-08	14-4354-08	Capscrew 1/4-20 x 7/8 lg LH Hx. / Wash. for 1/2 thru 1/5 hp 3 Ph.
12	Motor	Motor	Contact your local Pump Systems Dealer

\*Fastener Kit #14443402-K includes the following:  
 4 each 3/8 - 16 x 1-1/8 Plated Hex Capscrews #9  
 1 each 1/4 - 20 x 7/8 Hex Wash-Capscrews for 1/2 hp thru 1.5 hp 3-phase  
 1 each 1/4 - 20 x 1-3/6 Hex Wash-Capscrews for 2 hp 3-phase

## Models HJ & HJ2

### Parts for Self-Priming Centrifugal Pumps

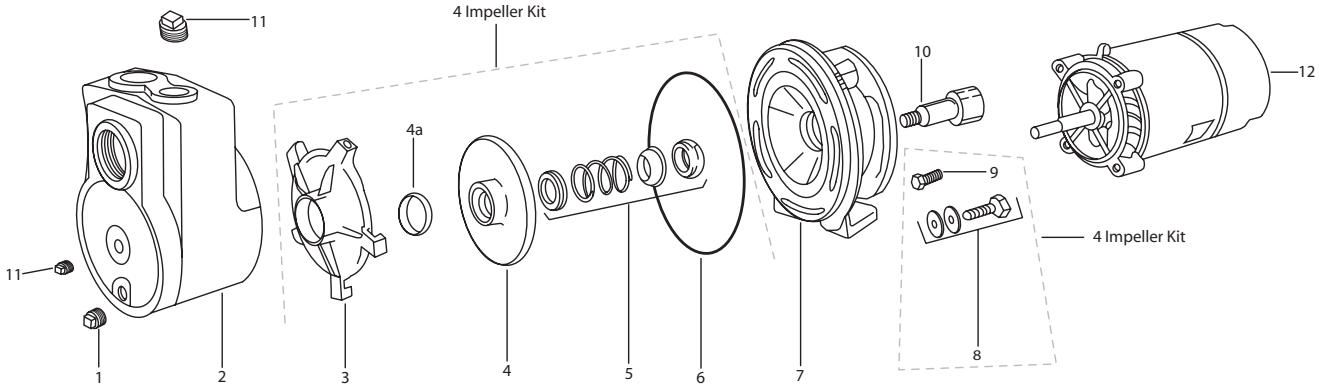


Figure No.	Part No.	Description
1	31-0061-17-R	Plug 1/2" NPT (included w/case #2)
2	03-0387-00-K	Case Kit #54360 w/plugs & wear-ring 1-1/2" T for 1 hp full rate & 1.5 hp up-rate
	03-0388-09-K	Case Kit #54360 w/plugs & wear-ring 2" T for 2 hp full rate & 2.5 hp up-rate
	03-0386-01-K	Case Kit #54360 w/plugs & wear-ring 2" T for 1.5 hp full rate & 2 hp up-rate
<b>Impeller Kits include the following; Impeller, Diffuser, Mech-Seal, Wear-Ring &amp; O-Ring Fig. #'s 3,4,4a,5,6,8,9</b>		
3	Diffuser	See #4 Impeller Kit
4	24-0173-03	Impeller Repair Kit for 1FPHJ - Brz. Imp. #2794 @ 5" D - 9/16T
	24-0173-11	Impeller Repair Kit for 15FPHJ - Brz. Imp. #2794 @ 5-17/32" D - 9/16T
	24-0173-29	Impeller Repair Kit for 2FPHJ1 - Brz. Imp. #2794 @ 5-13/16" D - 9/16T
	05-0776-15-RKIT	Impeller Repair Kit FPHJ - 3/4 hp full rate & 1 hp unity Plastic #2794 @ 4.75" - 7/16T
4A	05-2738-00-RKIT	Impeller Repair Kit FPHJ & 2 - 1 hp full rate 1.5 hp unity Plastic #2794 @ 5" D - 7/16T
	05-2727-03-RKIT	Impeller Repair Kit FPHJ - 1.5 hp full rate & 2 hp unity Plastic #2794 @ 5.38" D - 7/16T
	05-3267-07-RKIT	Impeller Repair Kit FPHJ - Imp. for 2 hp full rate & 2.5 hp unity Plastic #2794 @ 5.38" D - 7/16T
	08-0845-19-06PK	Wear-Ring Kit (6 each per kit)
5	10-1203-01	Mechanical Seal 3/4" for FPHJ
	10-1202-02	Mechanical Seal 5/8" for FPHJ2
6	47-0262-57-02PK	Sq. Ring Kit 7x3/32 x .212 NTRL. (2 each per kit)
7	02-1255-08-R	Bracket for 1 hp unity w/ fasteners 4-13/16 F #4895
	02-1256-07-R	Bracket for 1 hp full rate & 1.5 hp unity w/fasteners 5-1/16 F #4895
	02-1272-07-R	Bracket for 1.5 hp full rate & 2 & 2.5 hp unity w/fasteners 5-7/16 F #4895
	02-1364-06-R	Bracket for 1 hp unity FPHJ2 4-13/16 F #1113
	02-1362-08-R	Bracket for 1 hp full rate & 1.5 hp unity FPHJ2 5-1/16 F #1113
	02-1363-07-R	Bracket for 1.5 & 2FPHJ2 full rate & 2 & 2.5 hp unity w/ fasteners 5-7/16 F #1113
8,9	14-4433-03-K	*Fastener Kit
10	07-3610-09-R001	Coupling w/setscrews 9/16 thrd. FPHJ Mtr. Shaft
11	31-0059-11-06PK	Plug Kit 1/4" (6 each per kit)
12	Motor	See Motor Selection Page

\*Fastener Kit #14443303K includes the following:  
 5 each 3/8 - 16 x 1-3/4 Plated Hex Capscrews #8  
 4 each 3/8 - 16 x 3/4 Plated Hex Capscrews #9 for FPHJ  
 4 each 3/8 - 16 x 1 Plated Hex Capscrews #9 FPHJ2

## Models TY & TYCI

### Parts for Self-Priming Centrifugal Pumps

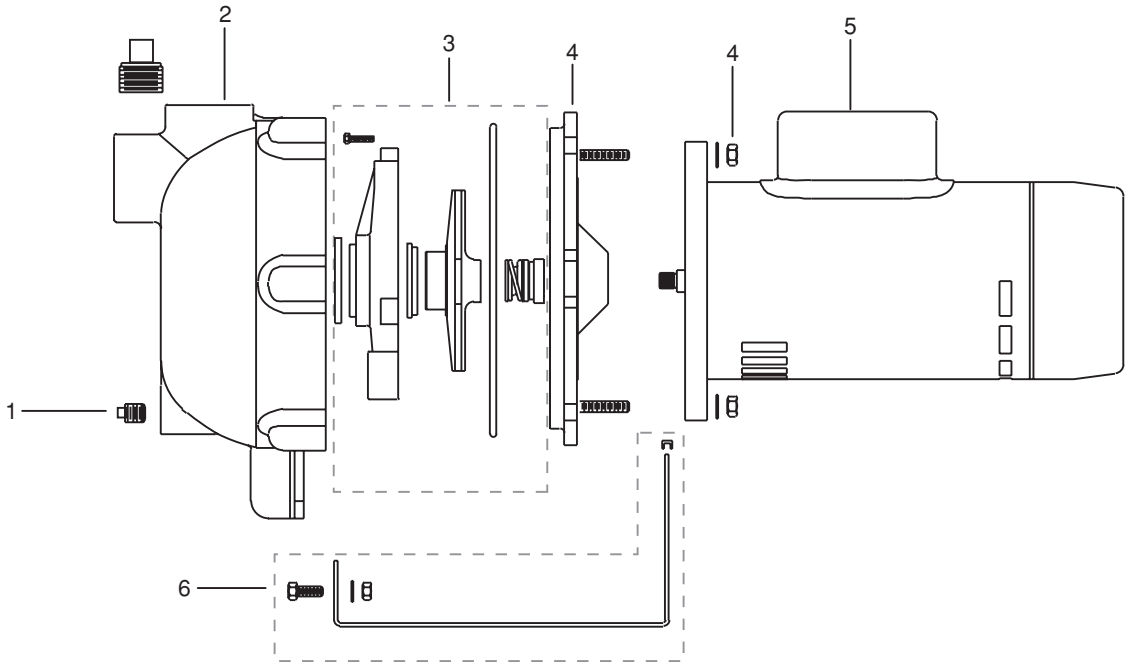


Figure No.	Part No.	Description
1	31-1609-06-02PK	Drain Plug Kit 1/4" with O-Ring for plastic unit (2 per kit)
	31-0059-11-06PK	Drain Plug Kit 1/4" for cast iron unit (6 per kit)
2	**03-0811-09-R	Replacement case assy. KIT for plastic units built prior to 4/20/05
	03-0908-00-R	Plastic Case w/plugs (for units built after 4/20/05)
	03-0045-06-R	Cast Iron Case w/ plugs
<b>Impeller Hydraulic Repair Kits include; Mech. Seal, Impeller, Eye Seal, Diffuser, Square-Ring, O-Ring</b>		
3	05-0341-03-RKIT	Hydraulic Imp./Diff. Repair kit for 7FPTY & S10FPTY #03412 @ 5.13D x .105P
	05-0342-02-RKIT	Hydraulic Imp./Diff. Repair kit for 10FPTY & S15FPTY #03423 @ 5.13D x .145P
	05-0344-00-RKIT	Hydraulic Imp./Diff. Repair kit for 15FPTY & S20FPTY #03444 @ 5.13D x .165P
	05-0340-01-RKIT	Hydraulic Imp./Diff. Repair kit for 20FPTY & S25FPTY #03401 @ 5.13D x .235P
4	11-0012-03-R	Seal Plate Assy. Cast Iron w/ studs, washers & nuts
	**11-0060-04-R	Plastic Seal Plate (discontinued on plastic units built after 4/20/05)
5	9010-1327-R	Motor 3/4HP - 115/230/1/60 56Z full service & 1 hp unity service
	9010-1331-R	Motor 1HP - 115/230/1/60 56Z full service & 1.5 hp unity service
	9010-1345-R	Motor 1.5HP - 115/230/1/60 56Z full service & 2.5 hp unity service
	9010-1352-R	Motor 2HP - 115/230/1/60 56Z full service & 1 hp unity service
6	12-1144-01-R	Base Assembly Kit w/fasteners and protector for 3/4, 1, 1.5 hp full service 48Fr. Mtr.
	12-1145-00-R	Base Assembly Kit w/fasteners and protector for 2 hp full service 56Fr. Mtr.
Kit	14-4447-07-K	Fastener Kit for Plastic Case
	14-1295-06-K	Fastener Kit for Cast Iron Case

**\*Note:** The following plastic parts used on units prior to 4/20/05 have been discontinued and the new Case Kit #03081109R000 replaces them; 11006004R, 42372300R, 03081109R.

## Model H4

### Parts for Booster Pumps

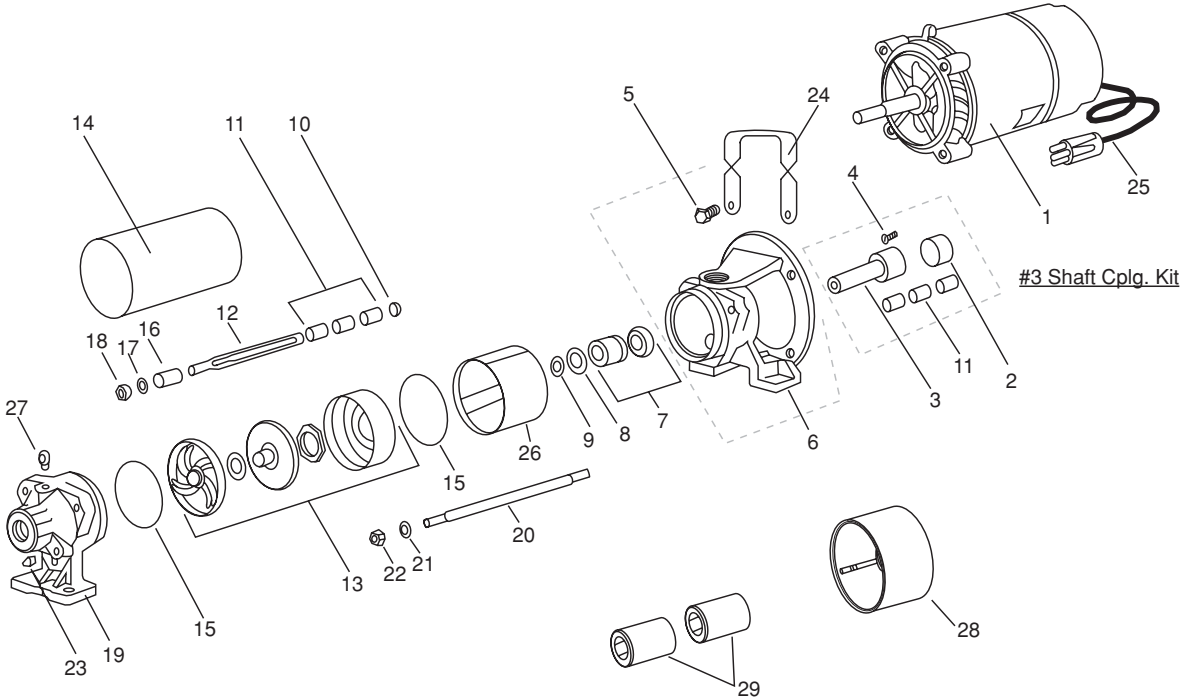


Figure No.	Part No.	Description
1	Motor	See Motor Selection page
2	23-2649-06-R	Piston Cup 5/8 x 3/8 x 3/32 (also included with #3 kit & 24-0175-19 kit)
3	07-9035-03-RKIT	Shaft Coupling Kit w/ #4 setscrews, #11 spacers, #2 cup
*4,5	14-4439-07-K	*Fastener Kit
6	03-0770-05-R	Bracket w/ fasteners #5 C.I. #11242
7	10-1203-01	Mechanical Seal 3/4" (also included component kit)
*8,9,10,11	Component Kit	H4 Booster Component Kit
12	Shaft	Consult the factory for size and availability
13	04-5330-06-R	5 gpm Stage Assembly 3/8" Shft.
	04-5329-09-R	10 gpm Stage Assembly 3/8" Shft.
	04-5621-04-R	18 gpm Stage Assembly 3/8" Shft.
	04-5505-05-R	25 gpm Stage Assembly 3/8" Shft.
14	Shell	Consult the factory for size and availability
15	47-0235-02-06PK	O-Ring Kit (6 each per kit) - (also included in component kit)
16,17,18	Component Kit	H4 Booster Component Kit
19	04-5461-07-R	Discharge Housing w/ rubber bearings and plugs
20	Studs	Consult the factory for size and availability (3 each required)
21,22	Component Kit	H4 Booster Component Kit
23	31-0059-11-06PK	Plug Kit 1/4' Galv. (6 each per kit)
24	12-1033-05-R	Motor Handle for 1/3 hp & 1/2 hp only
25	23-4857-09-R	Motor Cord
26	30-0274-03-R	Screen
27	16-1065-02-R	Air Valve 1/8" NPT (also included in component kit)
28	08-2323-02-R	Intermediate support w/ brg. (H425-27M only)
29	08-2888-03-R	Hub Sleeve 2 each required (H425-27M only)
<b>Component Kit</b>	24-0175-19	H4 Booster Component Kit includes; 7,8,9,10,11,15,16,17,18,21,22,27

\*Fastener Kit includes the following:

- 2 each 5/16 - 18 x 3/8 Socket set screws #4
- 4 each 3/8 - 16 x 7/8 Plated Hex Capscrews #5
- 1 each #8,9,10,17,18 & 3 each #21,22

## Model HB4 Parts for Booster Pumps

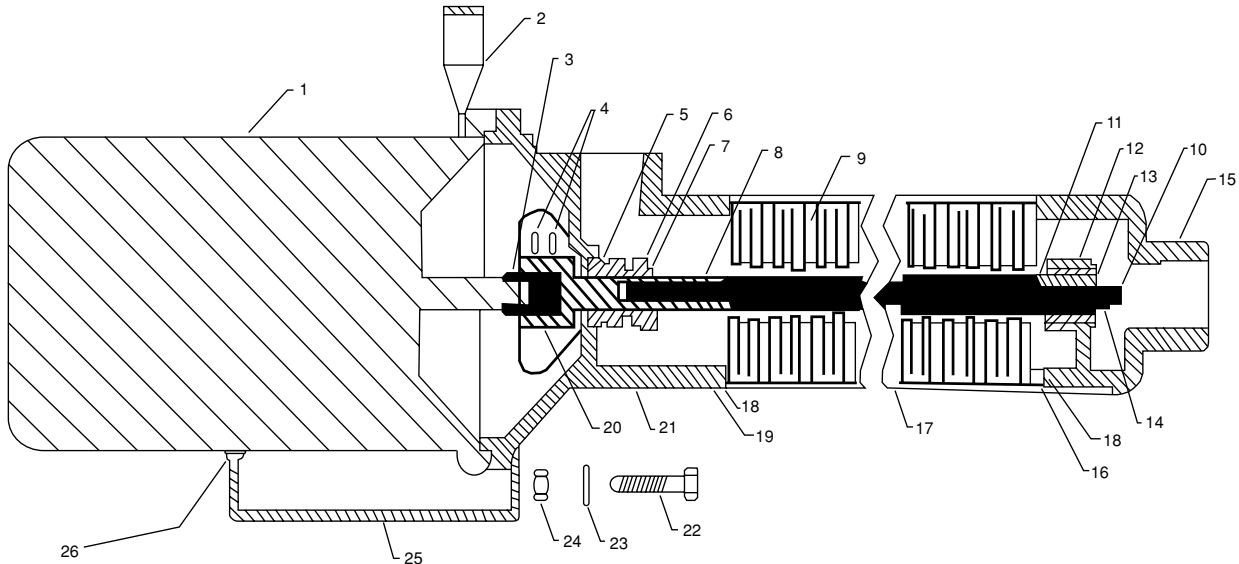
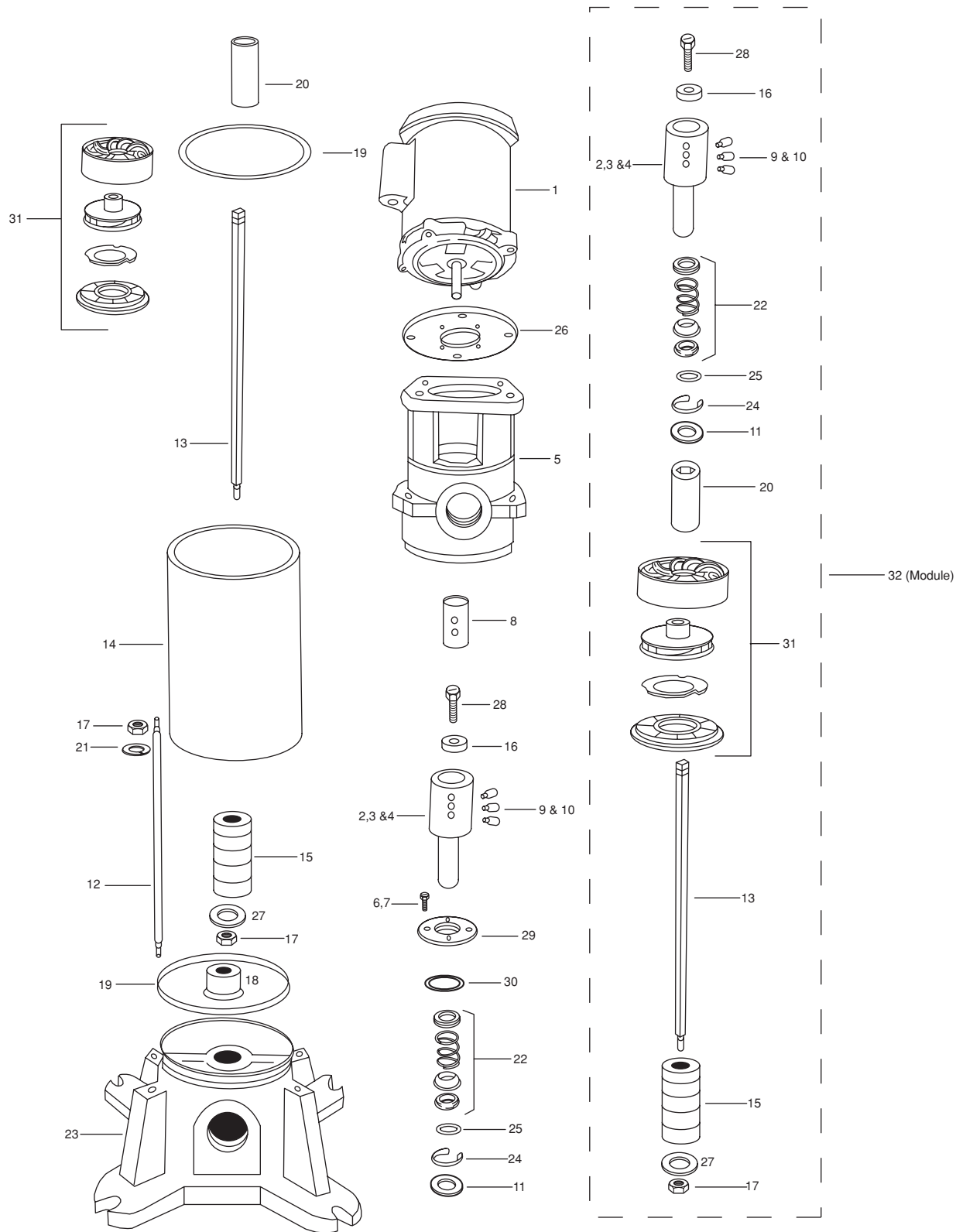


Figure No.	Part No.	Description	Figure No.	Part No.	Description
1	9010-6246-R	.5 hp 115/230/1/60 56Z 1.60SF	15	04-5856-00-R	HB4 Discharge hsg. SS
	9010-3227-R	.7 hp 115/230/1/60 56Z 1.27SF	16	08-2965-01-R	HB4 Seal Spacer
	9010-6261-R	1 hp 115/230/1/60 56Z 1.25SF	17	04-5866-08-R	Shell HB4 5-15 14-1/2" lg. SS
	9010-6279-R	1.5 hp 115/230/1/60 56Z 1.10SF		04-5852-04-R	Shell HB4 8-9 12-9 9-23/32" lg
2	12-1162-08-R	Handle 3 x 5	04-5854-02-R	Shell HB4 8-11 11-21/65" lg SS	
3	7717-7608-R	HB4 C Slip Cplg. brass Cast Iron Model	04-5864-00-R	Shell HB4 12-7 8-7/64" lg SS	
	7717-7616-R	HB4 S Slip Cplg. Stain. Stainless Steel Model	04-5865-07-R	Shell HB4 16-7 10" lg SS	
4	14-0002-02-R	Socket Set Screw 5/16	18	08-2958-00-R	HB4 Seal Spacer (brkt.)
5	10-1436-18	5/8 Mech. Seal f/Stainless Steel units #6 Viton	19	47-0235-02-06PK	O-Rings (6 per pack) (3 req'd)
	10-0002-06	5/8 Mech. Seal f/Cast Iron Units	20	7717-7509-R	HB4 C Shaft adpt. Brass CI Model
6	14-4443-01-R	Washer 21/32 x 1-5/16 x .085 SS		7717-7517-R	HB4 S Shaft adpt. Stain. SS Model
7	14-4444-00-R	Retaining Ring 5/8 ext. SS (1 each)	21	02-1745-22-R	HB4 Bracket Cast Iron Model
8	08-2966-00-R	Spacer .68 x .431 x .68 (2 required)		02-1745-30-R	HB4 Bracket SS Model
9	04-5330-06-R	5 gpm Stage Assy. 3/8" shaft	22	14-1299-10-R	Hex Cap. Plated 3/8-16x1-3/4 4 req'd
	04-5720-04-R	8 gpm Stage Assy. 3/8" shaft		23	14-0722-19-R
	04-5534-08-R	12 gpm Stage Assy. 3/8" shaft	24		14-0727-22-R
	04-5731-01-R	16 gpm Stage Assy. 3/8" shaft		14-0727-06-R	SS Hex Nut 3/8-16 6 req'd (SS)
10	04-5721-03-R	22 gpm Stage Assy. 3/8" shaft	25	12-1057-06-R	Base Assembly w/ protector
	7717-8309-R	Shaft HB4 5-15 14.45" lg.		26	22-5525-09-R
	7717-7806-R	Shaft HB4 8-9 & 12-9 10.50" lg.			
	7717-8002-R	Shaft HB4 8-11 12.10" lg.			
11	08-2889-04-R	Hub Sleeve 11/16 x .703 Ceramic			
12	08-2888-05-R	Bearing 1-1/4 x 11/16 Hex Rubber			
13	14-0113-06-R	Washer 1-3/8 x 9/16 x 1/8 Zinc			
14	14-4347-08-R	5/16-24 Hex hd. Nut w/nyl. Stainless Steel			

## Model V6

### Parts for Vertical Booster Pumps





## Model V6 (50-75 GPM) Parts for Vertical Booster Pumps

Figure No.	Part No.	Description
1	Motor	See Motor Selection Page
2	77-0759-01-R	Motor Coupling 56C / 140TC w/ 5/16 setscrews
3	77-0760-08-R	Motor Coupling 180TC 1-1/2" B w/ 3/8 setscrews
4	77-0761-07-R	Motor Coupling 210TC w/3/8-16 x 1/2 setscrews
5	04-5594-07-R	Motor Bracket #11405
6,7	14-4440-04K	*Fastener Kit
8	08-2938-05-R	Sleeve 5/8" x 7/8" x 1-5/8"
9,10,11	14-4440-04K	*Fastener Kit
12,13,14		Tie Rods, Shaft, Shell, - Consult factory for size and availability
15	08-2912-05-R	Ceramic Sleeve (5 each required) 1 x 5/8 Hex.
16,17	14-4440-04K	*Fastener Kit
18	08-2771-05-R	Rubber Bearing
19	47-0247-08-02PK	O-Ring Kit (2 per kit) 4-5/8 x 4-7/8 x 1/8 BN
20	08-2772-04-R	Spacer V650 - V675
21	14-4440-04K	*Fastener Kit
22	10-0369-03	Mechanical Seal 150PSI 1-1/4"
	10-0470-01	Mechanical Seal 400PSI 1-1/4"
23	04-5595-06-R	VB6 Base 2" NPT #11404
24	14-4440-04K	*Fastener Kit
25	47-0113-09-02PK	O-Ring Kit 9/16 x 3/4 x 3/32 (2 per kit)
26	11-1514-04-R	Motor adpt. Flg. 180TC thru 210TC frame w/ fasteners #11414
27	14-4277-02-R	Washer 1 x 7/16 x .105
28	14-4440-04K	*Fastener Kit
29	11-1515-03-R	Seal Plate
30	47-0138-59-02PK	Square-Ring Kit 2-1/8 x 3/32 x 3/32 BN (2 per kit)
31	04-5646-05-R	Stage Assembly V650
	04-5649-02-R	Stage Assembly V675
	22-5764-09	V6 end-play tool, not shown
32	9132-4517	VB650 1.5 hp 2 Stages
	9132-4525	VB650 2 hp 3 Stages
	9132-4533	VB650 3 hp 4 Stages
	9132-4541	VB650 5 hp 7 Stages
	9132-4566	VB650 7.5 hp 10 Stages
	9132-4582	VB675 3 hp 2 Stages
	9132-4590	VB675 5 hp 4 Stages
9132-4616	VB675 7.5 hp 6 Stages	
<b>Capscrew Kit</b>	14-4440-04K	Hex Cap. Kit 1/2-13x1 4 each required (24 per kit)
<b>Plug Kit</b>	31-0059-11-06PK	Plug Kit 1/4" (6 per kit)
<b>Plug Kit</b>	31-0061-17-R	Plug 1/2"

\*Fastener Kit #14444004K includes the following:

- 4 each 3/8 - 16 x 1 Plated Hex Capscrews #6
- 4 each 1/4 - 20 x 1/2 SS Hex Capscrews #7
- 3 each 3/8 - 16 x 1/2 Set Screws #9
- 3 each 5/16 - 18 x 1/2 Set Screws #10
- 1 each 5/8 Washer SS #11
- 6 each 3/8 - 16 Plated Hex Nut #17
- 4 each 3/8 Lockwashers #21
- 1 each Washer 13/16 x 21/64 x 1/4 SS #16
- 4 each 1/2-13 x 1 Plated Hex Capscrews
- 1 each Retainer Ring #24
- 1 each 5/16-24 x 1 Capscrew #28

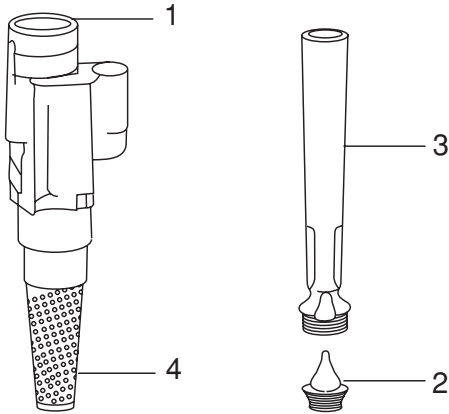
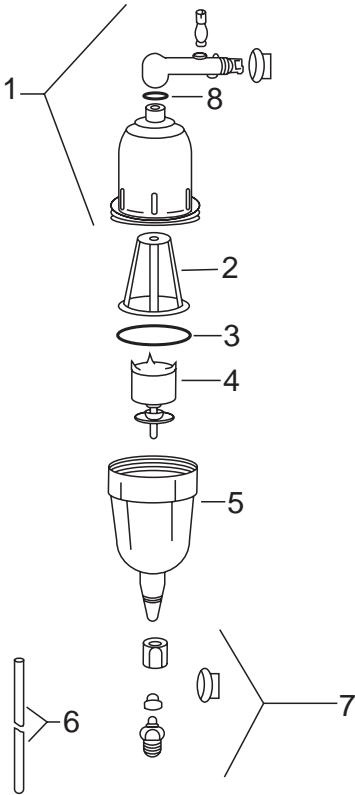


**Accessories**

**Parts for Jet Chargers & Injectors**

**Models 225A Jet Charger**

Figure No.	Part No.	Description
1	17-0176-09-R	Top Assembly
2	17-0082-02-R	Deflector
3	47-0228-01-R	O-Ring
4	17-0087-07-R	Float Assembly
5	17-0133-01-R	Bottom
6	31-0022-31-R060	Poly Tube 60"
7	17-0174-01-R	Tube Fitting Kit
8	47-0114-08	O-Ring



**Deep Well Injector Assembly 147E Cast Iron**

Figure No.	Part No.	Description
1	18-1191-07-R	Injector body cast iron 147E
2	18-0418-14-R*	Nozzle
3	18-0419-05-R*	Venturi
4	9198-7297-R	Foot valve 1-1/4 x 1 bronze

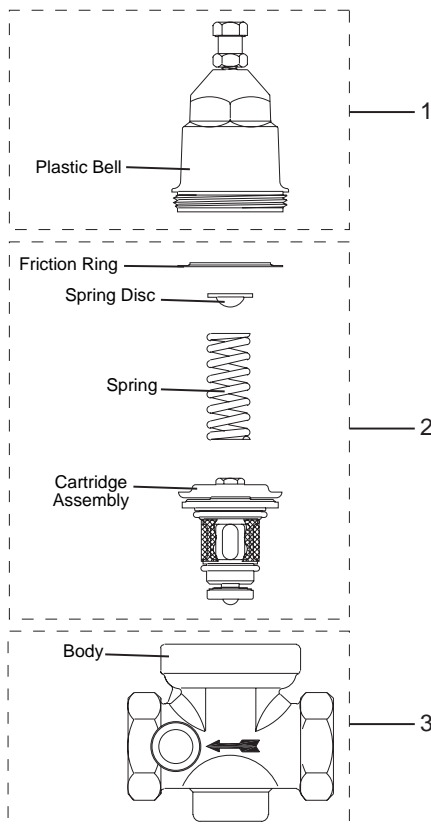
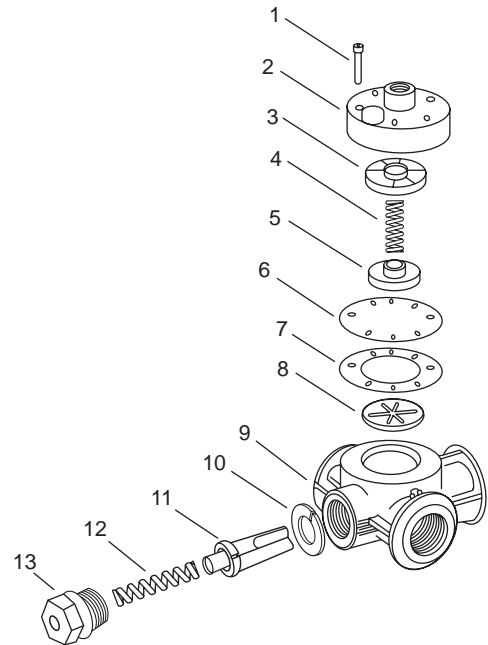
\*When ordering give proper injector code in addition to part ordering number.

## Accessories

### Parts for Valves

#### Models AQ 80 Valve

Figure No.	Part No.	Description
1	14-3900-09-R	Pan-Hd 10/16" x 1" (6 req'd)
2	16-0245-07-R	Upper Valve Body
3	30-0128-01-R	Upper Screen
4	16-0999-05-R	Spring
5	16-0128-09-R	Support Plate
6	13-0396-07-R	Diaphragm
7	13-0407-04-R	Gasket
8	30-0127-02-R	Lower Screen
9	16-0244-08-R	Lower Body
10	14-0153-09-R	Seal Washer
11	16-1053-06-R	Poppet
12	16-0079-08-R	Poppet Spring
13	16-0126-19-R	Lower Body Cap



#### Parts for AQ 400 Valve

Figure No.	Part No.	Description
1	1611-2500	Bell Assy AQ400-1
	1611-2807	Bell Assy AQ400-1-1/4
2	1611-2609	Cartridge Assy AQ400-1 w/ Spring
	1611-2906	Cartridge Assy AQ400-1-1/4 w/Spring
3	1611-2708	Body Brass AQ400-1
	1611-3003	Body Brass AQ400-1-1/4

## Single-Phase Motors

2 or 3 wire Cable, 60Hz (Service entrance to motor - max. length in feet)

Motor Rating			60° C Insulation - AWG Copper Wire Size												
Volts	HP	KW	14	12	10	8	6	4	3	2	1	0	00	000	0000
<b>115</b>	1/2	.37	100	160	250	390	620	960	1190	1460	1780	2160	2630	3140	3770
	1/2	.37	400	650	1020	1610	2510	3880	4810	5880	7170	8720			
<b>230</b>	3/4	.55	300	480	760	1200	1870	2890	3580	4370	5330	6470	7870		
	1	.75	250	400	630	990	1540	2380	2960	3610	4410	5360	6520		
	1.5	1.1	190	310	480	770	1200	1870	2320	2850	3500	4280	5240		
	2	1.5	150	250	390	620	970	1530	1910	2360	2930	3620	4480		
	3	2.2	<b>120</b>	190	300	470	750	1190	1490	1850	2320	2890	3610		
	5	3.7	0	0	<b>180</b>	280	450	710	890	1110	1390	1740	2170	2680	
	7.5	5.5	0	0	0	<b>200</b>	310	490	610	750	930	1140	1410	1720	
	10	7.5	0	0	0	0	<b>250</b>	390	490	600	750	930	1160	1430	1760
	15	11	0	0	0	0	<b>170</b>	<b>270</b>	340	430	530	660	820	1020	1260

Motor Rating			75° C Insulation - AWG Copper Wire Size												
Volts	HP	KW	14	12	10	8	6	4	3	2	1	0	00	000	0000
<b>115</b>	1/2	.37	100	160	250	390	620	960	1190	1460	1780	2160	2630	3140	3770
	1/2	.37	400	650	1020	1610	2510	3880	4810	5880	7170	8720			
<b>230</b>	3/4	.55	300	480	760	1200	1870	2890	3580	4370	5330	6470	7870	9380	
	1	.75	250	400	630	990	1540	2380	2960	3610	4410	5360	6520	7780	9350
	1.5	1.1	190	310	480	770	1200	1870	2320	2850	3500	4280	5240	6300	7620
	2	1.5	150	250	390	620	970	1530	1910	2360	2930	3620	4480	5470	6700
	3	2.2	<b>120</b>	190	300	470	750	1190	1490	1850	2320	2890	3610	4470	5550
	5	3.7	0	<b>110</b>	180	280	450	710	890	1110	1390	1740	2170	2680	3330
	7.5	5.5	0	0	<b>120</b>	200	310	490	610	750	930	1140	1410	1720	2100
	10	7.5	0	0	0	<b>160</b>	250	390	490	600	750	930	1160	1430	1760
	15	11	0	0	0	0	<b>170</b>	270	340	430	530	660	820	1020	1260

1 Foot = .3048 Meter

Lengths **not** in bold type meet the U.S. National Electrical Code ampacity for either individual conductors or jacketed 60 °C or 75 °C cable.

Lengths in bold type meet the National Electric Code ampacity only for individual conductor 60 °C or 75 °C cable, in free air or water, not in magnetic enclosure or conduit. If any other cable is used, the National Electric Code as well as the local codes should be observed. Flat molded and web cable is considered jacketed cable.

Cable lengths in tables allow for a 5% voltage drop running at maximum nameplate amperes. If 3% voltage drop is desired multiply table lengths by .6 to get maximum cable length.

Both tables are based on copper wire. If aluminum wire is used, it must be two sizes larger than copper wire and oxidation inhibitors must be used on connections.

**EXAMPLE:** If tables call for #12 copper wire, #10 aluminum wire would be required.

The portion of the total cable length which is between the supply and single phase control bos with a line contactor, should not exceed 25% of total maximum allowable to ensure reliable contactor operation. Single phase control boxes without line contactors may be connected at any point in the total cable length.

Contact Franklin Electric for 90 °C cable length.

## Three-Phase Motors

3-Phase 60°C Cable, 60Hz (Service entrance to motor - max. length in feet)

Motor Rating			60° C Insulation - AWG Copper Wire Size													MCM Copper Wire Size					
Volts	HP	kW	14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
200V 60Hz 3-Phase 3-Lead	1/2	.37	710	1140	1800	2840	4420														
	3/4	.55	510	810	1280	2030	3160														
	1	.75	430	690	1080	1710	2670	4140	5140												
	1.5	1.1	310	500	790	1260	1960	3050	3780												
	2	1.5	240	390	610	970	1520	2360	2940	3610	4430	5420									
	3	2.2	180	290	470	740	1160	1810	2250	2760	3390	4130									
	5	3.7	<b>110</b>	170	280	440	690	1080	1350	1660	2040	2490	3050	3670	4440	5030					
	7.5	5.5	0	0	200	310	490	770	960	1180	1450	1770	2170	2600	3150	3560					
	10	7.5	0	0	0	<b>230</b>	370	570	720	880	1090	1330	1640	1970	2390	2720	3100	3480	3800	4420	
	15	11	0	0	0	<b>160</b>	<b>250</b>	390	490	600	740	910	1110	1340	1630	1850	2100	2350	2570	2980	
	20	15	0	0	0	0	<b>190</b>	<b>300</b>	380	460	570	700	860	1050	1270	1440	1650	1850	2020	2360	
25	18.5	0	0	0	0	0	<b>240</b>	<b>300</b>	<b>370</b>	460	570	700	840	1030	1170	1330	1500	1640	1900		
30	22	0	0	0	0	0	0	<b>250</b>	<b>310</b>	<b>380</b>	470	580	700	850	970	1110	1250	1360	1590		
230V 60Hz 3-Phase 3-Lead	1/2	.37	930	1490	2350	3700	5760	8910													
	3/4	.55	670	1080	1700	2580	4190	6490	8060	9860											
	1	.75	560	910	1430	2260	3520	5460	6780	8290											
	1.5	1.1	420	670	1060	1670	2610	4050	5030	6160	7530	9170									
	2	1.5	230	510	810	1280	2010	3130	3890	4770	5860	7170	8780								
	3	2.2	240	390	620	990	1540	2400	2980	3660	4480	5470	6690	8020	9680						
	5	3.7	<b>140</b>	230	370	590	920	1430	1790	2190	2690	3290	4030	4850	5870	6650	7560	8460	9220		
	7.5	5.5	0	<b>160</b>	260	420	650	1020	1270	1560	1920	2340	2870	3440	4160	4710	5340	5970	6500	7510	
	10	7.5	0	0	<b>190</b>	310	490	760	950	1170	1440	1760	2160	2610	3160	3590	4100	4600	5020	5840	
	15	11	0	0	0	<b>210</b>	330	520	650	800	980	1200	1470	1780	2150	2440	2780	3110	3400	3940	
	20	15	0	0	0	0	<b>250</b>	400	500	610	760	930	1140	1380	1680	1910	2180	2450	2680	3120	
25	18.5	0	0	0	0	0	<b>320</b>	400	500	610	750	920	1120	1360	1540	1760	1980	2160	2520		
30	22	0	0	0	0	0	<b>260</b>	<b>330</b>	<b>410</b>	510	620	760	930	1130	1280	1470	1650	1800	2110		
380V 60Hz 3-Phase 3-Lead	1/2	.37	2690	4290	6730																
	3/4	.55	2000	3190	5010	7860															
	1	.75	1620	2580	4060	6390	9980														
	1.5	1.1	1230	1970	3100	4890	7630														
	2	1.5	870	1390	2180	3450	5400	8380													
	3	2.2	680	1090	1710	2690	4200	6500	8020	9830											
	5	3.7	400	640	1010	1590	2490	3870	4780	5870	7230	8830									
	7.5	5.5	270	440	690	1090	1710	2640	3260	4000	4930	5010	7290	8780							
	10	7.5	<b>200</b>	<b>320</b>	510	800	1250	1930	2380	2910	3570	4330	5230	6260	7390	8280	9340				
	15	11	0	0	<b>370</b>	590	920	1430	1770	2170	2690	3290	4000	4840	5770	6520	7430	8250	8990		
	20	15	0	0	0	<b>440</b>	700	1090	1350	1670	2060	2530	3090	3760	4500	5110	5840	6510	7120	8190	
	25	18.5	0	0	0	<b>360</b>	570	880	1100	1350	1670	2050	2510	3040	3640	4130	4720	5250	5740	6590	
	30	22	0	0	0	0	<b>470</b>	730	910	1120	1380	1700	2080	2520	3020	3430	3920	4360	4770	5490	
	40	30	0	0	0	0	0	<b>530</b>	660	820	1010	1240	1520	1840	2200	2500	2850	3170	3470	3990	
	50	37	0	0	0	0	0	0	<b>540</b>	<b>660</b>	820	1000	1220	1480	1770	2010	2290	2550	2780	3190	
	60	45	0	0	0	0	0	0	0	<b>560</b>	<b>690</b>	850	1030	1250	1500	1700	1940	2150	2350	2700	
	75	55	0	0	0	0	0	0	0	0	<b>570</b>	<b>700</b>	<b>860</b>	1050	1270	1440	1660	1850	2030	2350	
100	75	0	0	0	0	0	0	0	0	0	<b>510</b>	<b>630</b>	<b>760</b>	910	1030	1180	1310	1430	1650		
125	90	0	0	0	0	0	0	0	0	0	0	0	<b>620</b>	<b>740</b>	<b>840</b>	<b>950</b>	1060	1160	1330		
150	110	0	0	0	0	0	0	0	0	0	0	0	0	<b>620</b>	<b>700</b>	<b>790</b>	<b>880</b>	<b>960</b>	1090		
175	130	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>650</b>	<b>750</b>	<b>840</b>	<b>920</b>	1070		
200	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>630</b>	<b>700</b>	<b>760</b>	<b>880</b>		

## Three-Phase Motors Parts for Self-Priming Centrifugal Pumps

Motor Rating			60° C Insulation - AWG Copper Wire Size													MCM Copper Wire Size					
Volts	HP	KW	14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
460V 60Hz 3-Phase 3-Lead	1/2	.37	3770	6020	9460																
	3/4	.55	2730	4350	6850																
	1	.75	2300	3670	5770	9070															
	1.5	1.1	1700	2710	4270	6730															
	2	1.5	1300	2070	3270	5150	8050														
	3	2.2	1000	1600	2520	3970	6200														
	5	3.7	590	950	1500	2360	3700	5750													
	7.5	5.5	420	680	1070	1690	2640	4100	5100	6260	7680										
	10	7.5	310	500	790	1250	1960	3050	3800	4680	5750	7050									
	15	11	0	<b>340</b>	540	850	1340	2090	2600	3200	3930	4810	5900	7110							
	20	15	0	0	<b>410</b>	650	1030	1610	2000	2470	3040	3730	4580	5530							
	25	18.5	0	0	0	<b>530</b>	830	1300	1620	1990	2450	3010	3700	4470	5430						
	30	22	0	0	0	<b>430</b>	680	1070	1330	1640	2030	2490	3060	3700	4500	5130	5860				
	40	30	0	0	0	0	<b>500</b>	790	980	1210	1490	1830	2250	2710	3290	3730	4250				
	50	37	0	0	0	0	0	<b>640</b>	800	980	1210	1480	1810	2190	2650	3010	3420	3830	4180	4850	
	60	45	0	0	0	0	0	0	<b>540</b>	<b>670</b>	<b>830</b>	1020	1250	1540	1850	2240	2540	2890	3240	3540	4100
	75	55	0	0	0	0	0	0	0	0	<b>680</b>	<b>840</b>	1030	1260	1520	1850	2100	2400	2700	2950	3440
	100	75	0	0	0	0	0	0	0	0	0	<b>620</b>	<b>760</b>	<b>940</b>	1130	1380	1560	1790	2010	2190	2550
125	90	0	0	0	0	0	0	0	0	0	0	<b>740</b>	<b>890</b>	<b>1000</b>	1220	1390	1560	1700	1960		
150	110	0	0	0	0	0	0	0	0	0	0	0	<b>760</b>	<b>920</b>	<b>1050</b>	<b>1190</b>	1340	1460	1690		
175	130	0	0	0	0	0	0	0	0	0	0	0	0	<b>810</b>	<b>930</b>	<b>1060</b>	<b>1190</b>	1300	1510		
200	150	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>810</b>	<b>920</b>	<b>1030</b>	<b>1130</b>	1310		
575V 60Hz 3-Phase 3-Lead	1/2	.37	5900	9410																	
	3/4	.55	4270	6810																	
	1	.75	3630	5800	9120																
	1.5	1.1	2620	4180	6580																
	2	1.5	2030	3250	5110	8060															
	3	2.2	1580	2530	3980	6270															
	5	3.7	920	1480	2330	3680	5750														
	7.5	5.5	660	1060	1680	2650	4150														
	10	7.5	490	780	1240	1950	3060	4770	5940												
	15	11	<b>330</b>	530	850	1340	2090	3260	4060												
	20	15	0	<b>410</b>	650	1030	1610	2520	3140	3860	4760	5830									
	25	18.5	0	0	<b>520</b>	830	1300	2030	2530	3110	3840	4710									
	30	22	0	0	<b>430</b>	680	1070	1670	2080	2560	3160	3880	4770	5780	7030	8000					
	40	30	0	0	0	<b>500</b>	790	1240	1540	1900	2330	2860	3510	4230	5140	5830					
	50	37	0	0	0	0	<b>640</b>	1000	1250	1540	1890	2310	2840	3420	4140	4700	5340	5990	6530	7580	
	60	45	0	0	0	0	0	<b>850</b>	1060	1300	1600	1960	2400	2890	3500	3970	4520	5070	5530	6410	
	75	55	0	0	0	0	0	<b>690</b>	<b>860</b>	<b>1060</b>	1310	1600	1970	2380	2890	3290	3750	5220	4610	5370	
	100	75	0	0	0	0	0	0	0	<b>790</b>	<b>970</b>	<b>1190</b>	1460	1770	2150	2440	2790	3140	3430	3990	
125	90	0	0	0	0	0	0	0	0	<b>770</b>	<b>950</b>	<b>1160</b>	1400	1690	1920	2180	2440	2650	3070		
150	110	0	0	0	0	0	0	0	0	0	<b>800</b>	<b>990</b>	<b>1190</b>	1440	1630	1860	2080	2270	2640		
175	130	0	0	0	0	0	0	0	0	0	0	<b>870</b>	<b>1050</b>	<b>1270</b>	<b>1450</b>	1650	1860	2030	2360		
200	150	0	0	0	0	0	0	0	0	0	0	0	<b>920</b>	<b>1110</b>	<b>1260</b>	<b>1440</b>	1620	1760	2050		

See Footnotes on page 146 for information on figures in bold.

# Pipe Friction

## 1" thru 3" Pipe

1" Schedule 40 pipe 1.049 in. i.d. / Type L Copper tube 1.025 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
2.0	0.74	0.60	0.32	.078	0.41
3.0	1.11	1.26	0.68	1.17	0.87
4.0	1.49	2.14	1.15	1.56	1.48
5.0	1.86	3.24	1.75	1.95	2.23
6.0	2.23	4.54	2.45	2.34	3.13
8.0	2.97	7.73	4.16	3.11	5.35
10	3.71	11.7	6.31	3.89	8.08
12	4.46	16.4	8.85	4.67	11.3
14	5.20	21.8	11.8	5.45	15.0
16	5.94	27.9	15.1	6.22	19.2
18	6.68	34.7	18.7	7.00	23.9
20	7.43	42.1	22.8	7.78	29.0
25	9.29	63.6	34.6	9.74	43.9
30	11.1	89.2	48.1	11.7	61.4
40	14.9	152	82.0	15.5	105

1¼" Schedule 40 pipe 1.380 in. i.d. / Type L Copper tube 1.265 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
4.0	0.86	0.56	0.30	1.02	0.52
6.0	1.29	1.20	0.65	1.53	1.12
8.0	1.72	2.04	1.10	2.04	1.92
10	2.15	3.08	1.67	2.55	2.90
12	2.57	4.31	2.33	3.06	4.04
14	2.00	5.73	3.10	3.57	5.35
16	3.43	7.34	3.96	4.08	6.85
18	3.86	9.13	4.93	4.59	8.52
20	4.29	11.1	6.00	5.10	10.4
25	5.36	16.8	9.06	6.38	15.7
30	6.43	23.5	12.7	7.65	22.1
40	8.58	40.0	21.6	10.2	37.6
50	10.7	60.4	32.6	12.8	56.7
60	12.9	84.7	45.6	15.3	79.5
80	17.2	144	77.9	20.4	136

1½" Schedule 40 pipe 1.610 in. i.d. / Type L Copper tube 1.505 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
6.0	0.95	0.57	0.31	1.08	0.49
8.0	1.26	0.96	0.52	1.44	0.82
10	1.58	1.45	0.79	1.80	1.24
12	1.89	2.04	1.10	2.16	1.73
15	2.36	2.95	1.59	2.70	2.62
20	3.15	5.24	2.83	3.60	4.46
25	3.94	7.90	4.26	4.51	6.74
30	4.73	11.1	6.00	5.41	9.44
40	6.30	18.9	10.2	7.21	16.1
50	7.88	28.5	15.4	9.01	24.3
60	9.46	40.0	21.6	10.8	34.1
70	11.0	53.2	28.7	12.6	45.5
80	12.6	68.1	36.8	14.4	58.1
90	14.2	84.7	45.7	16.2	72.1
100	15.8	103	56.6	18.0	87.7

2" Schedule 40 pipe 2.067 in. i.d. / Type L Copper tube 1.985 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
10	0.96	0.43	0.23	1.07	0.35
15	1.44	0.92	0.50	1.60	.075
20	1.91	1.55	0.84	2.13	1.24
25	2.39	2.35	1.27	2.66	1.87
30	2.87	3.29	1.78	3.19	2.62
40	3.82	5.60	3.03	4.26	4.48
50	4.78	8.46	4.57	5.32	6.76
60	5.74	11.9	6.44	6.39	9.47
70	6.69	15.8	8.53	7.45	12.6
80	7.65	20.2	10.9	8.52	16.2
90	8.61	25.1	13.6	9.58	20.0
100	9.56	30.5	16.5	10.7	24.4
120	11.5	42.7	23.1	12.8	34.1
150	14.3	64.7	35.0	16.0	51.6
200	19.1	110	59.4	21.3	87.8

2½" Schedule 40 pipe 2.469 in. i.d. / Type L Copper tube 2.465 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
20	1.21	0.66	0.35	1.34	0.40
30	2.01	1.39	0.75	2.02	0.85
40	2.68	2.36	1.27	2.69	1.46
50	3.35	3.56	1.92	3.36	2.20
60	4.02	4.99	2.69	4.03	3.08
70	4.69	6.64	3.58	4.70	4.11
80	5.36	8.50	4.59	5.37	5.25
90	6.03	10.6	5.72	6.04	6.52
100	6.70	12.8	6.90	6.71	7.94
110	7.37	15.3	8.22	7.38	9.44
130	8.71	20.9	11.3	8.73	12.9
150	10.0	27.3	14.7	10.1	16.8
200	13.4	46.3	25.0	13.4	28.6
250	16.8	81.7	44.1	16.8	43.4
300	20.1	98.1	52.9	20.1	61.1

3" Schedule 40 pipe 3.000 in. i.d. / Type L Copper tube 2.945 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
40	1.82	0.91	0.49	1.88	0.62
60	2.72	1.94	1.04	2.82	1.31
80	3.63	3.30	1.77	3.76	2.22
100	4.54	4.98	2.67	4.70	3.35
120	5.45	6.98	3.75	5.64	4.70
140	6.35	9.28	4.98	6.58	6.25
160	7.26	11.9	6.38	7.52	8.00
180	8.16	14.8	7.93	8.46	9.94
200	9.08	17.9	9.64	9.40	12.1
250	11.3	27.1	14.6	11.8	18.3
300	13.6	38.0	20.4	14.1	25.6
350	15.9	50.6	27.1	16.5	34.0
400	18.2	64.7	34.7	18.8	43.6
450	20.5	80.5	43.2	21.2	54.2
500	22.7	97.8	52.5	23.5	65.8

**Note:** Chart shows friction loss per 100' of pipe. To convert to friction loss per foot, move decimal point 2 places to the left.

## 4" thru 6" Pipe

4" Schedule 40 pipe 4.026 in. i.d. / Type L Copper tube 3.905 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
50	1.26	0.33	0.16	1.34	0.24
75	1.89	0.70	0.34	2.01	0.50
100	2.52	1.19	0.58	2.68	0.85
125	3.15	1.80	0.87	3.35	1.28
150	3.78	2.53	1.22	4.01	1.80
200	5.05	4.29	2.08	5.35	3.05
250	6.30	6.45	3.12	6.69	4.63
300	7.57	9.09	4.41	8.02	6.47
350	8.82	12.0	5.82	9.36	8.60
400	10.1	15.5	7.52	10.7	11.1
500	12.6	23.4	11.3	13.4	16.6
600	15.1	32.8	15.9	16.0	23.4
700	17.6	43.6	21.1	18.7	31.2
800	20.2	55.8	27.0	21.4	39.9
900	22.7	69.3	33.6	24.1	49.6

5" Schedule 40 pipe 5.047 in. i.d. / Type L Copper tube 4.857 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
75	1.20	0.24		1.29	0.17
100	1.60	0.40		1.72	0.30
125	2.00	0.67		2.15	0.45
150	2.40	0.94		2.58	0.63
175	2.80	1.25		3.01	0.83
200	3.20	1.43		3.44	1.07
250	4.01	2.15		4.30	1.62
300	4.81	3.03		5.15	2.27
400	6.41	5.15		6.87	3.87
500	8.02	7.79		8.59	5.84
600	9.62	10.9		10.3	8.20
700	11.2	14.5		12.0	10.9
800	12.8	18.6		13.7	13.9
1000	16.0	28.1		17.2	21.2
1200	19.2	39.3		20.6	29.5

6" Schedule 40 pipe 6.065 in. i.d. / Type L Copper tube 5.845 in. i.d.

GPM	Velocity Ft/S	Friction Loss Ft Hd./100' of pipe		Velocity Ft/S	Ft Hd./ 100' Pipe Fric. Loss C=130
		Steel C=100	PVC C=140		
100	1.11	0.16	0.07	1.19	0.12
150	1.67	0.34	0.16	1.79	0.25
200	2.22	0.58	0.28	2.39	0.43
250	2.77	0.89	0.42	2.98	0.65
300	3.33	1.24	0.58	3.58	0.91
400	4.44	2.11	0.99	4.79	1.55
500	5.55	3.19	1.50	5.98	2.34
600	6.66	4.46	2.10	7.17	3.28
700	7.78	5.93	2.79	8.36	4.36
800	8.90	7.60	3.60	9.56	5.58
900	10.0	9.44	4.46	10.8	6.95
1000	11.1	11.5	5.44	12.0	8.45
1200	13.3	16.1	7.62	14.3	11.8
1400	15.6	21.4	10.1	16.7	15.7
1600	17.8	27.4	13.0	19.1	20.2

Note: Chart shows friction loss per 100' of pipe. To convert to friction loss per foot, move decimal point 2 places to the left.

### Fittings - Friction losses expressed as equivalent lengths of pipe (feet).

Type of Fitting	Material	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"	6"	8"	10"	12"
90° Std. Elbow/ run of Tee reduced to half six	Steel	3	4	4	5	6	8	-	10	13	15	20	25	30
	Plastic	6	7	8	9	10	14	-	17	-	25	-	-	-
	Copper	3	4	4	5	6	8	9	10	13	15	20	-	-
45° Elbow	Steel	1.3	1.7	2.1	2.6	3	3.6	-	4.7	5.9	7.1	9.4	12	14
	Plastic	2.5	3	4	5	6	7	-	9	-	13	13	-	-
	Copper	1.3	1.7	2.1	2.6	3	3.6	4.1	4.7	5.9	7.1	9.4	-	-

# Lost or Damaged Goods Information

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### **IMPORTANT**

Every carrier used by Franklin Electric, Inc. is required to verify and sign for the condition of and the number of pieces that are released to them for delivery. Our control and responsibility for any shipment ceases when the carrier signs the Bill of Lading. When you sign the Bill of Lading, you legally assume responsibility of the shipment being delivered. Please, thoroughly inspect each shipment immediately upon arrival.

If cartons, packages, or crates are received in short or damaged condition, it is important that you notify the driver and insist on a notation of the loss or damage across the face of the freight bill. Failure to do this could negate any opportunity you have to file a claim. Claims for short or damaged material must be filed in writing with the carrier immediately after delivery.

If concealed loss or damage is discovered, notify the carrier at once and request an inspection. It is also important that you do not discard the shipping carton or container. A concealed damage report should be made within ten (10) days of delivery of the shipment. The carrier's agent will make an inspection and usually will grant a concealed damage notation. If you give the carrier a clear receipt for the goods that have been damaged in transit, you do so at your own risk and expense.

We are willing to assist you to collect claims for loss or damage, but we are not responsible for collection of claims or replacement of material (shortage or damage) if not noted on the Bill of Lading at the time of delivery.

Due to frequent damage of heavy UPS shipments, Franklin Electric, Inc. does not ship orders over 75 lbs. by UPS unless customer agrees to take full responsibility.

For information or assistance contact:



**Franklin Electric**

Customer Service Department

800.269.0063

[www.franklin-electric.com](http://www.franklin-electric.com)



## U.S. LIMITED WARRANTY\*

### Franklin Electric, Inc.

Franklin Electric, Inc. warrants its new products to be free of defects in material and workmanship for a period of 1 year from date of installation or 2 years from date of manufacture, whichever comes first, WHEN installed in a domestic water systems application and pumping potable water only. Warranty does not cover applications pumping saltwater or other corrosive liquids. Consult and adhere to local codes for all applications.

Franklin Electric's warranty obligation with regard to equipment not of its own manufacture is limited to the warranty actually extended to Franklin Electric by its suppliers.

This warranty extends only to the original retail purchaser and only during the time in which the original retail purchaser occupies the site where the product was originally installed.

Requests for service under this warranty shall be made by contacting the installing Franklin Electric dealer (point of purchase) as soon as possible after the discovery of any alleged defect. Franklin Electric will subsequently take corrective action as promptly as reasonably possible.

Franklin Electric at its discretion may replace or repair any product that fails under this warranty after inspection by an authorized company representative or after Franklin Electric has received the product at our factory. Replacement or repair cannot be made until after the product is inspected. All charges or expenses for freight to and from the factory, removal and reinstallation of the product, or installation of a replacement product are the responsibility of the purchaser.

**THIS WARRANTY SUPERSEDES ANY WARRANTY NOT DATED OR BEARING AN EARLIER DATE. ANY IMPLIED WARRANTIES WHICH THE PURCHASER MAY HAVE, INCLUDING MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE WARRANTY PERIOD. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. IN NO EVENT SHALL FRANKLIN ELECTRIC BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above may not apply to you.**

This warranty does not apply to any product which has been subjected to negligence, alteration, accident, abuse, misuse, improper installation, vandalism, civil disturbances, or acts of God. The only warranties authorized by Franklin Electric are those set forth herein. Franklin Electric does not authorize other persons to extend any warranties with respect to its products, nor will Franklin Electric assume liability for any unauthorized warranties made in connection with the sale of its products.

**THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.**

\* Contact Franklin Electric, Inc. Export Division for International Warranty.



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