

# **FPS**

## **Professional Water Systems Equipment**



**Franklin Electric**

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# Model Number Nomenclature

## Pump & Motor Brand/Series Codes:

FA = FPS 4400  
FV = FPS Series V  
FE = FPS Environmental  
FP = FPS Brand

## Centrifugal Pump Series Codes:

F = FPS  
VJ = VersaJet (Shallow Well)  
P = Pro Series (Convertible)  
CWJ = CWJ Series (Convertible)  
CWJH = CWJ High Head (Convertible)  
SWJ = Shallow Well Jet  
TB = Turf Boss (Sprinkler)  
TY = Typhoon (Sprinkler)  
BT = BT4 (Horizontal Booster)

## Horsepower Codes:

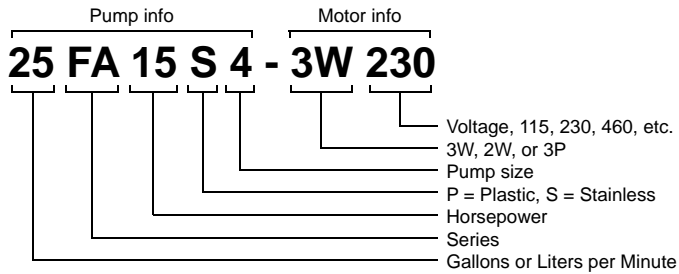
HP	1/3	1/2	3/4	1	1.5	2	3	5	7.5	10	15	20
Code	03	05	07	1	15	2	3	5	7	10	15	20
HP	25	30	35	40	50	60	75	100	125	150	175	200
Code	25	30	35	40	50	60	75	100	125	150	175	200

## Material Codes:

CI = Cast Iron  
P = Plastic  
S = Stainless Steel

# Model Number Nomenclature

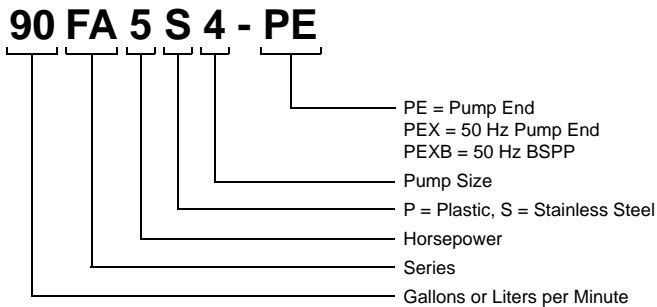
## 4" 5-25 GPM Submersible Pumps/Motors:



### Examples:

15FA1S4-2W115 = 15 gpm, FPS 4400 Tri-Seal, Stainless Steel, 1 hp, 115 V, 2-wire Motor  
10FA15SA-3W230 = 10 gpm, FPS 4400 Tri-Seal, Stainless Steel, 1.5 hp, 230 V, 3-wire Motor

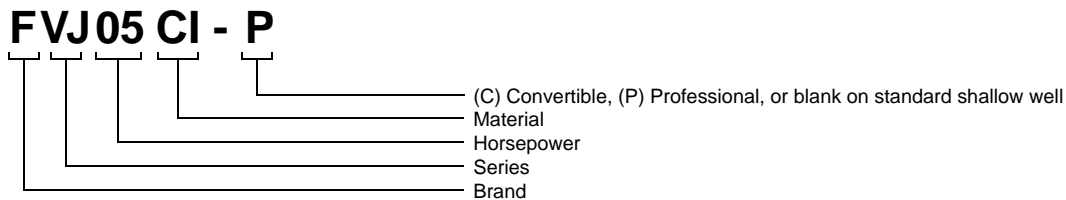
## Pump End:



### Examples:

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

## Centrifugal Pumps:



### Examples:

FVJ07CI-P = FPS Brand, VersaJet, 3/4 hp, Cast Iron, Professional  
FTB2CI = FPS Brand, Turf Boss, 2 hp, Cast Iron  
FP1CI-C = FPS Brand, Pro Series, 1 hp, Cast Iron, Convertible

## Submersible Pumps

# 4" Tri-Seal Pumps

### Features



## FPS 4400

### 4" 4400 Tri-Seal

The standard FPS 4400 4" submersible pump features the new Tri-Seal floating stage system. This new stage system further improves efficiency and protects against wear when pumping abrasives (sand). All FPS 4400 pumps are unconditionally guaranteed against sand locking in abrasive well conditions for one full year. For details on how to become a registered dealer and receive a 5-year warranty, contact your local distributor.

#### Features:

- 300 series stainless steel hub floats with the impeller maintaining a positive seal.
- Phenolic washer provides downthrust protection.
- Celcon<sup>®</sup> impeller provides high efficiency performance and abrasion resistance.
- Noryl<sup>®</sup> diffuser and disc - proven abrasion resistant material.
- Floating stage design allows impeller to float independently.
- Removable, spring-loaded check valve.
- Maximum water temperature: 120 °F / 49 °C.
- Ceramic shaft sleeve and rubber discharge bearing protect shaft and eliminate sand wear.
- Powered by Franklin Electric corrosion-resistant super stainless 4" submersible motors with lightning protection.

Celcon<sup>®</sup> is a Registered Trademark of the Celanese Corporation.  
Noryl<sup>®</sup> is a Registered Trademark of G.E.

Patented impeller hub seal system seals radially and axially to prevent fluid recirculation, providing high performance in the harshest conditions.

CSA CERTIFIED  
PUMP END ONLY



Drinking Water  
NSF/ANSI 61

## Tri-Seal<sup>™</sup> Floating Stage System

U.S. Patent No. 7,290,984

# Submersible Pumps

## 4" Tri-Seal Pumps

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

### Stainless Steel Ordering Information

GPM	HP	Stg	Volts	2-Wire		3-Wire	
				Model No.	Order No.	Model No.	Order No.
5	1/2	8	115	5FA05S4-2W115	93810505	5FA05S4-3W115	93810530
	1/2	8	230	5FA05S4-2W230	93810510	5FA05S4-3W230	93810535
	3/4	12	230	5FA07S4-2W230	93810515	5FA07S4-3W230	93810540
	1	15	230	5FA1S4-2W230	93810520	5FA1S4-3W230	93810545
	1.5	21	230	5FA15S4-2W230	93810525	5FA15S4-3W230	93810550
7	1/2	7	115	7FA05S4-2W115	93810705	7FA05S4-3W115	93810730
	1/2	7	230	7FA05S4-2W230	93810710	7FA05S4-3W230	93810735
	3/4	10	230	7FA07S4-2W230	93810715	7FA07S4-3W230	93810740
	1	13	230	7FA1S4-2W230	93810720	7FA1S4-3W230	93810745
	1.5	18	230	7FA15S4-2W230	93810725	7FA15S4-3W230	93810750
10	1/2	6	115	10FA05S4-2W115	93811005	10FA05S4-3W115	93811030
	1/2	6	230	10FA05S4-2W230	93811010	10FA05S4-3W230	93811035
	3/4	8	230	10FA07S4-2W230	93811015	10FA07S4-3W230	93811040
	1	11	230	10FA1S4-2W230	93811020	10FA1S4-3W230	93811045
	1.5	15	230	10FA15S4-2W230	93811025	10FA15S4-3W230	93811050
15	1/2	4	115	15FA05S4-2W115	93811505	15FA05S4-3W115	93811530
	1/2	4	230	15FA05S4-2W230	93811510	15FA05S4-3W230	93811535
	3/4	6	230	15FA07S4-2W230	93811515	15FA07S4-3W230	93811540
	1	8	230	15FA1S4-2W230	93811520	15FA1S4-3W230	93811545
	1.5	11	230	15FA15S4-2W230	93811525	15FA15S4-3W230	93811550
20	3/4	5	230	20FA07S4-2W230	93812015	20FA07S4-3W230	93812040
	1	7	230	20FA1S4-2W230	93812020	20FA1S4-3W230	93812045
	1.5	10	230	20FA15S4-2W230	93812025	20FA15S4-3W230	93812050
25	1	6	230	25FA1S4-2W230	93812520	25FA1S4-3W230	93812545
	1.5	8	230	25FA15S4-2W230	93812525	25FA15S4-3W230	93812550

Notes: Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.

# Submersible Pumps

## 4" Tri-Seal Pumps

Features & Ordering Information (See pgs. 2-3 for model number explanation)

### Plastic Ordering Information

GPM	HP	Stg	Volts	2-Wire		3-Wire	
				Model No.	Order No.	Model No.	Order No.
5	1/2	8	115	5FA05P4-2W115	93780505	5FA05P4-3W115	93780530
	1/2	8	230	5FA05P4-2W230	93780510	5FA05P4-3W230	93780535
	3/4	12	230	5FA07P4-2W230	93780515	5FA07P4-3W230	93780540
	1	15	230	5FA1P4-2W230	93780520	5FA1P4-3W230	93780545
	1.5	21	230	5FA15P4-2W230	93780525	5FA15P4-3W230	93780550
7	1/2	7	115	7FA05P4-2W115	93780705	7FA05P4-3W115	93780730
	1/2	7	230	7FA05P4-2W230	93780710	7FA05P4-3W230	93780735
	3/4	10	230	7FA07P4-2W230	93780715	7FA07P4-3W230	93780740
	1	13	230	7FA1P4-2W230	93780720	7FA1P4-3W230	93780745
	1.5	18	230	7FA15P4-2W230	93780725	7FA15P4-3W230	93780750
10	1/2	6	115	10FA05P4-2W115	93781005	10FA05P4-3W115	93781030
	1/2	6	230	10FA05P4-2W230	93781010	10FA05P4-3W230	93781035
	3/4	8	230	10FA07P4-2W230	93781015	10FA07P4-3W230	93781040
	1	11	230	10FA1P4-2W230	93781020	10FA1P4-3W230	93781045
	1.5	15	230	10FA15P4-2W230	93781025	10FA15P4-3W230	93781050
15	1/2	4	115	15FA05P4-2W115	93781505	15FA05P4-3W115	93781530
	1/2	4	230	15FA05P4-2W230	93781510	15FA05P4-3W230	93781535
	3/4	6	230	15FA07P4-2W230	93781515	15FA07P4-3W230	93781540
	1	8	230	15FA1P4-2W230	93781520	15FA1P4-3W230	93781545
	1.5	11	230	15FA15P4-2W230	93781525	15FA15P4-3W230	93781550
20	3/4	5	230	20FA07P4-2W230	93782015	20FA07P4-3W230	93782040
	1	7	230	20FA1P4-2W230	93782020	20FA1P4-3W230	93782045
	1.5	10	230	20FA15P4-2W230	93782025	20FA15P4-3W230	93782050
25	1	6	230	25FA1P4-2W230	93782520	25FA1P4-3W230	93782545
	1.5	8	230	25FA15P4-2W230	93782525	25FA15P4-3W230	93782550

Notes: Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.

# Submersible Pumps

## 4" Tri-Seal Pumps

Features & Ordering Information (See pgs. 2-3 for model number explanation)

### Pump End Assemblies Only Ordering Information

Plastic				
GPM	HP	Stg	Model No.	Order No.
5	1/2	8	5FA05P4-PE	93790505
	3/4	12	5FA07P4-PE	93790510
	1	15	5FA1P4-PE	93790515
	1.5	21	5FA15P4-PE	93790520
7	1/2	7	7FA05P4-PE	93790705
	3/4	10	7FA07P4-PE	93790710
	1	13	7FA1P4-PE	93790715
	1.5	18	7FA15P4-PE	93790720
10	1/2	6	10FA05P4-PE	93791005
	3/4	8	10FA07P4-PE	93791010
	1	11	10FA1P4-PE	93791015
	1.5	15	10FA15P4-PE	93791020
15	1/2	4	15FA05P4-PE	93791505
	3/4	6	15FA07P4-PE	93791510
	1	8	15FA1P4-PE	93791515
	1.5	11	15FA15P4-PE	93791520
20	3/4	5	20FA07P4-PE	93792010
	1	7	20FA1P4-PE	93792015
	1.5	10	20FA15P4-PE	93792020
25	1	6	25FA1P4-PE	93792515
	1.5	8	25FA15P4-PE	93792520

**Notes:** Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.

Stainless Steel				
GPM	HP	Stg	Model No.	Order No.
5	1/2	8	5FA05S4-PE	93820505
	3/4	12	5FA07S4-PE	93820510
	1	15	5FA1S4-PE	93820515
	1.5	21	5FA15S4-PE	93820520
	2	26	5FA2S4-PE	93820525
7	1/2	7	7FA05S4-PE	93820705
	3/4	10	7FA07S4-PE	93820710
	1	13	7FA1S4-PE	93820715
	1.5	18	7FA15S4-PE	93820720
	2	24	7FA2S4-PE	93820725
10	3	32	7FA3S4-PE	93820730
	1/2	6	10FA05S4-PE	93821005
	3/4	8	10FA07S4-PE	93821010
	1	11	10FA1S4-PE	93821015
	1.5	15	10FA15S4-PE	93821020
15	2	18	10FA2S4-PE	93821025
	3	24	10FA3S4-PE	93821030
	5	39	10FA5S4-PE	93821035
	1/2	4	15FA05S4-PE	93821505
	3/4	6	15FA07S4-PE	93821510
20	1	8	15FA1S4-PE	93821515
	1.5	11	15FA15S4-PE	93821520
	2	14	15FA2S4-PE	93821525
	3	19	15FA3S4-PE	93821530
	5	31	15FA5S4-PE	93821535
25	3/4	5	20FA07S4-PE	93822010
	1	7	20FA1S4-PE	93822015
	1.5	10	20FA15S4-PE	93822020
	2	12	20FA2S4-PE	93822025
	3	16	20FA3S4-PE	93822030
	5	26	20FA5S4-PE	93822035
	7.5	39	20FA7S4-PE	93822040
10	52	20FA10S4-PE	93822045	
25	1	6	25FA1S4-PE	93822515
	1.5	8	25FA15S4-PE	93822520
	2	10	25FA2S4-PE	93822525
	3	14	25FA3S4-PE	93822530
	5	23	25FA5S4-PE	93822535
	7.5	35	25FA7S4-PE	93822540
10	44	25FA10S4-PE	93822545	

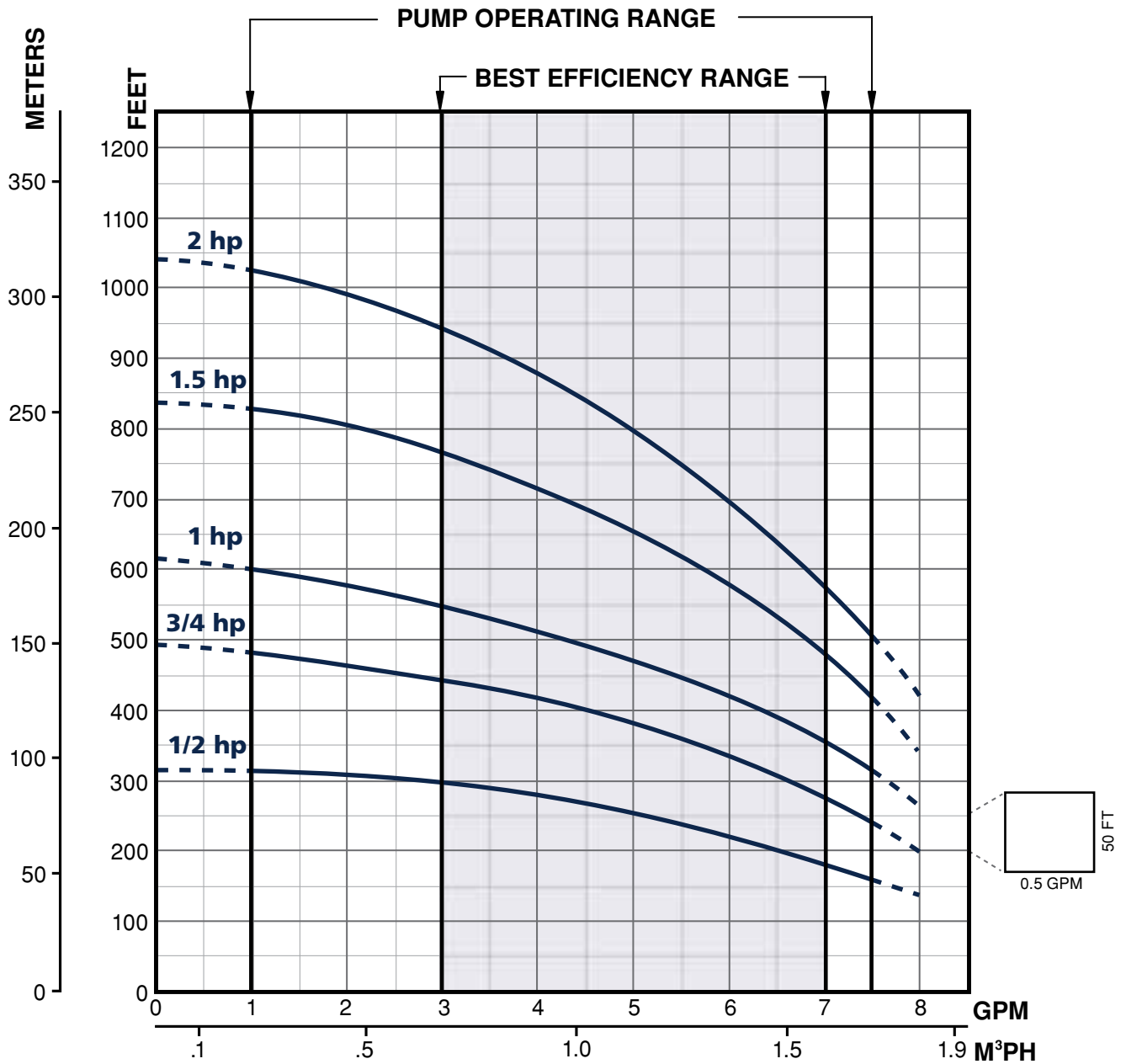
**Notes:** Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.



# Submersible Pumps

## 4" Tri-Seal Pumps

### 5 GPM Performance Curves



# Submersible Pumps

## 4" Tri-Seal Pumps

### 5 GPM Performance Charts

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

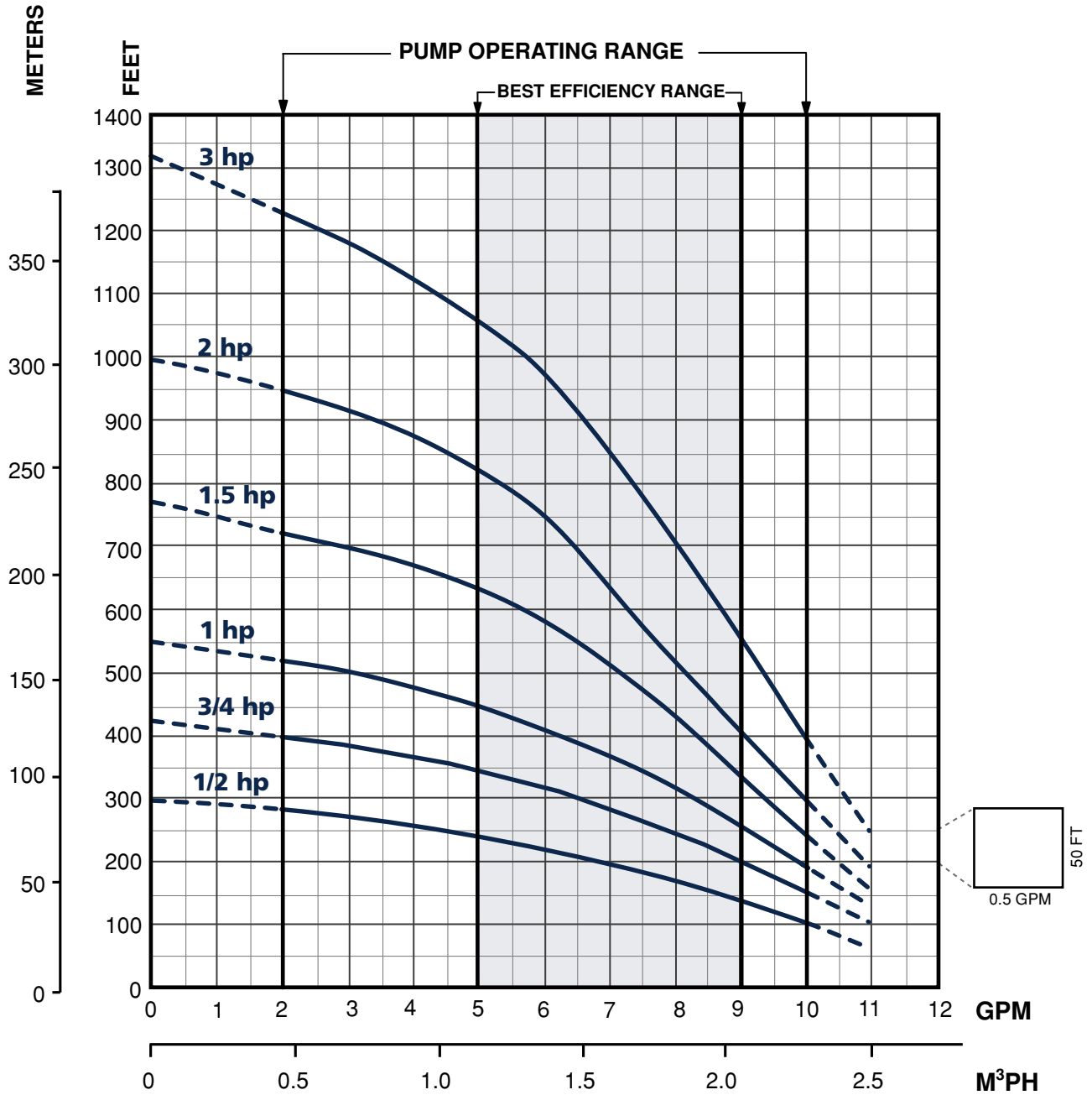
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																							
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700		800	900	1000
1/2	0							7	7	6	6	5	4												Shut-off 315 ft
	20					8	7	6	6	5	5	3	2												
	30				7	7	6	6	5	5	4	2													
	40			7	7	6	6	5	5	4	3														
	50		7	6	6	6	5	5	4	2															
	60	7	7	6	6	5	4	4	2																
	80	6	6	5	4	3																			
Shut-off PSI		127	119	110	101	93	84	75	67	58	49	32	23												
3/4	0										7	7	7	6	5	4	3								Shut-off 495 ft
	20								7	7	7	6	6	6	5	4	3								
	30							7	7	7	6	6	6	5	5	3									
	40						7	7	7	6	6	6	5	4	2										
	50					7	7	7	6	6	6	5	5	4											
	60				7	7	7	6	6	6	5	5	4	3											
	80		7	7	7	6	6	6	5	5	4	3	3												
Shut-off PSI		205	196	188	179	171	162	153	145	136	127	110	101	84	58	41	23								
1	0												8	7	6	6	5	4	4						Shut-off 615 ft
	20											7	7	7	6	5	4	3							
	30										7	7	7	6	5	5	3	2							
	40									7	7	7	7	6	5	4	3								
	50								7	7	7	7	6	6	4	3									
	60							7	7	7	7	6	6	5	4										
	80						7	7	7	6	6	5	5	4											
Shut-off PSI		257	248	240	231	222	214	205	197	188	179	162	153	136	110	93	75	58	49						
1.5	0														7	7	7	6	5	4	2				Shut-off 835 ft
	20													7	7	7	6	6	6	5	3				
	30													7	7	7	6	6	6	4	3				
	40													7	7	7	6	6	6	5	4	2			
	50												7	7	7	6	6	5	5	3					
	60												7	7	7	6	6	5	5	5	3				
	80									7	7	7	7	6	6	5	5	4	4	2					
Shut-off PSI		352	344	335	326	318	309	300	292	283	274	257	249	231	205	188	171	153	145	101	58	15			
2	0															7	7	7	6	5	4	3			Shut-off 1040 ft
	20															7	7	7	7	6	5	4	2		
	30															7	7	7	7	6	6	5	3		
	40															7	7	7	6	6	6	5	3		
	50															7	7	7	6	6	6	5	4	3	
	60															7	7	7	6	6	6	5	4	3	
	80													7	7	7	7	6	6	6	5	3			
Shut-off PSI		441	432	424	415	406	398	389	381	372	363	346	337	320	294	277	259	242	233	190	147	104	60		

- 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 Pumps

## 4" Tri-Seal Pumps

### 7 GPM Performance Curves



# Submersible Pumps

## 4" Tri-Seal Pumps

### 7 GPM Performance Charts

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

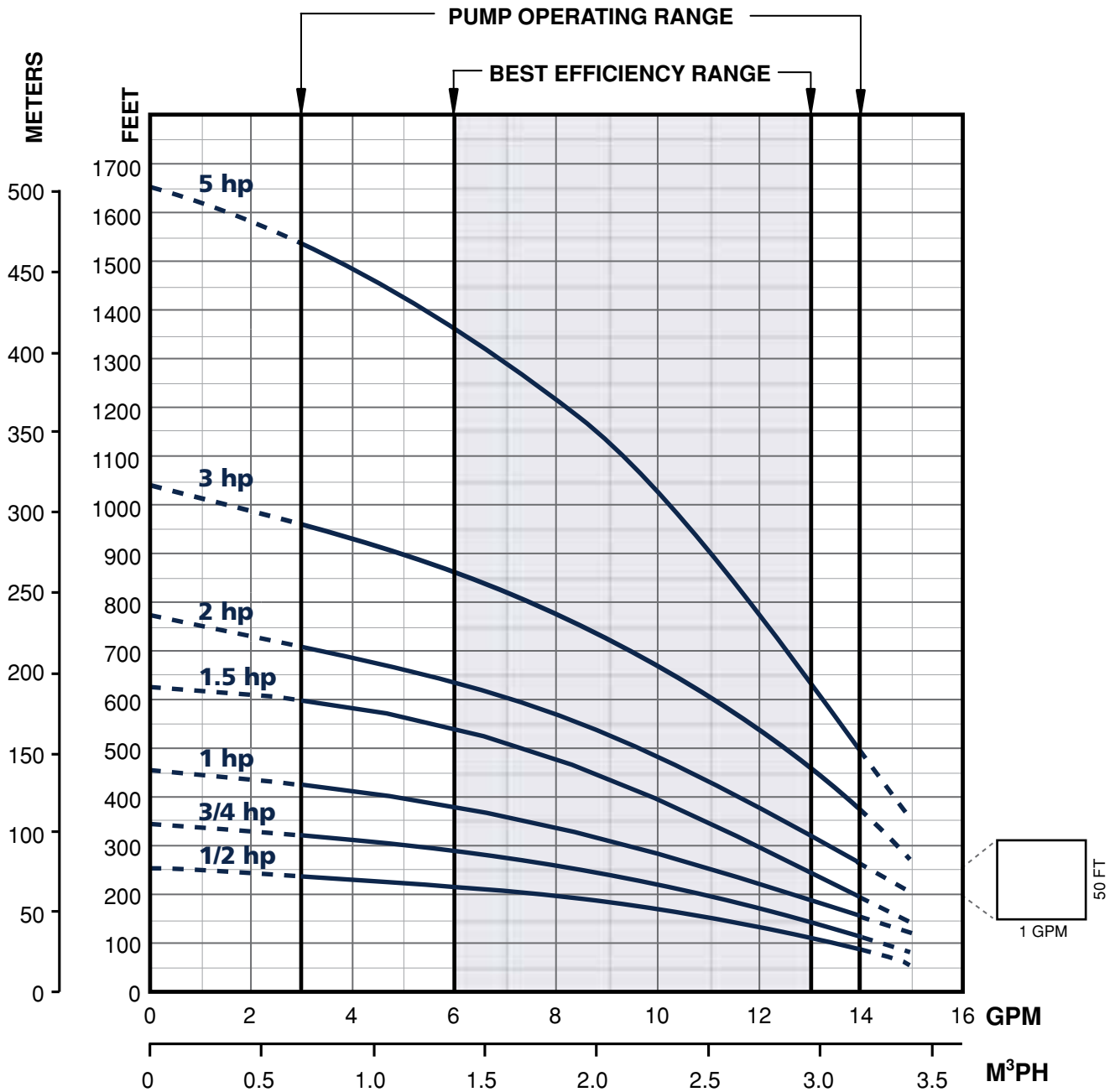
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																						
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700	800	900	1000
1/2	0				10	10	9	9	8	7	6	5	4											
	20		10	9	9	8	8	7	6	5	4													
	30	10	9	9	8	7	7	6	5	4	3													
	40	9	9	8	8	7	6	5	4	3														
	50	9	8	7	7	6	5	4	3															
	60	8	7	6	6	5	4	3																
	80	6	5	4	3																			
Shut-off PSI		121	112	103	95	86	77	69	60	52	43	26	17											
3/4	0					10	10	9	9	9	8	7	6	4										
	20		10	10	10	10	9	9	8	8	7	6	6	4										
	30		10	10	10	9	9	8	8	7	7	6	5	3										
	40	10	10	10	9	9	8	8	7	7	6	5	4											
	50	10	9	9	9	8	8	7	7	6	6	4	3											
	60	9	9	9	8	8	7	7	6	6	5	3												
	80	8	8	8	7	6	6	5	5	4	3													
Shut-off PSI		174	165	156	148	139	130	122	113	104	96	78	70	52	26									
1	0						10	10	10	9	9	8	8	7	6	5	3	3						
	20					10	10	10	9	9	9	8	8	7	6	5	4							
	30			10	10	10	10	9	9	9	8	8	7	6	5	4								
	40		10	10	10	10	9	9	9	8	8	7	7	6	4	3								
	50	10	10	10	10	9	9	9	8	8	8	7	6	5	3									
	60	10	10	9	9	9	9	8	8	8	7	6	6	5	3									
	80	9	9	9	8	8	8	7	7	7	6	5	5	3										
Shut-off PSI		226	218	209	200	192	183	174	166	157	148	131	123	105	79	62	45	27	18					
1.5	0							10	10	10	9	9	9	8	8	7	7	7	5	2				
	20						10	10	10	10	9	9	9	8	8	7	7	6	6	4				
	30				10	10	10	10	9	9	9	9	8	8	7	7	6	6	3					
	40			10	10	10	10	9	9	9	9	9	8	8	7	7	6	6	5	3				
	50		10	10	10	10	9	9	9	9	9	8	8	8	7	6	6	5	5					
	60	10	10	10	10	9	9	9	9	8	8	8	7	7	6	6	5	4						
	80	10	10	9	9	9	9	9	8	8	8	8	7	7	6	5	4	3						
Shut-off PSI		322	313	305	296	287	279	270	261	253	244	227	218	201	175	158	140	123	114	71	28			
2	0								10	10	10	10	9	9	9	8	8	8	7	6	5	3		
	20							10	10	10	10	10	9	9	9	8	8	7	7	6	6	4		
	30							10	10	10	10	10	9	9	9	8	8	8	7	7	6	5	4	
	40						10	10	10	10	10	9	9	9	9	8	8	7	7	7	6	5	3	
	50				10	10	10	10	10	9	9	9	9	9	8	8	8	7	7	7	6	5	3	
	60			10	10	10	10	10	9	9	9	9	9	8	8	7	7	7	7	6	4			
	80	10	10	10	10	10	9	9	9	9	9	8	8	7	7	7	6	6	5	3				
Shut-off PSI		421	412	404	395	386	378	369	360	352	343	326	317	300	274	257	239	222	213	170	127	84	40	
3	0			10	9	9	8	7	7	6	5	4	2											
	20		10	9	9	8	8	7	6	6	5	3												
	30		10	9	9	8	8	7	6	6	4	3												
	40		10	9	9	8	7	7	6	5	4													
	50	10	10	9	8	8	7	7	6	5	4													
	60	10	10	9	8	8	7	7	6	5	3													
	80	10	9	8	8	7	7	6	5	4	2													
Shut-off PSI		523	480	437	394	350	307	264	221	177	134	91	48											

- 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 Pumps

## 4" Tri-Seal Pumps

### 10 GPM Performance Curves



# Submersible Pumps

## 4" Tri-Seal Pumps

### 10 GPM Performance Charts

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

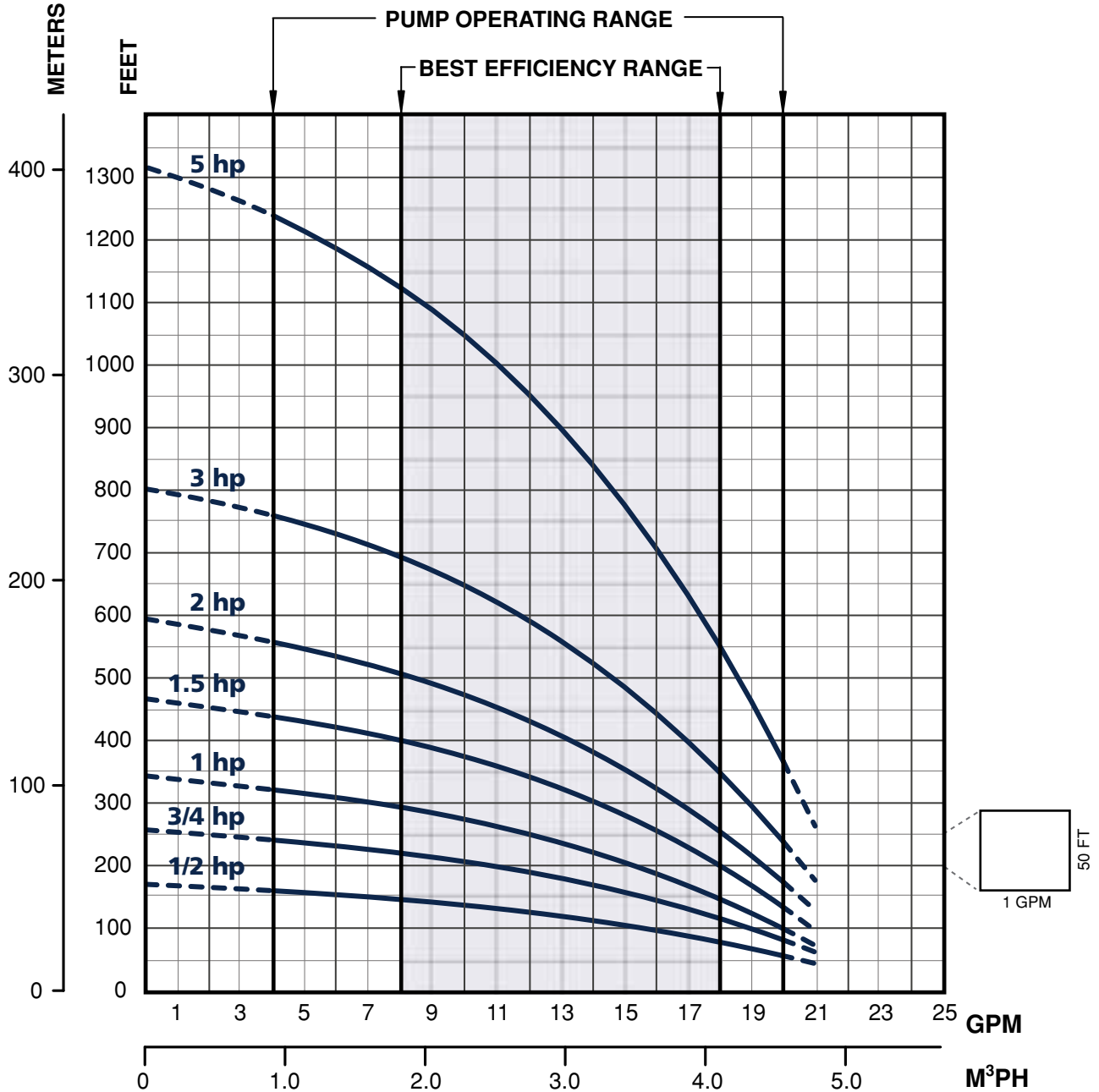
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																							
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700	800	900	1000	
1/2	0				14	13	12	11	10	9	7														
	20	14	13	13	12	11	10	8	6	3															
	30	13	13	12	11	10	8	6	3																
	40	13	12	11	10	8	6	3																	
	50	12	11	9	8	5	3																		
	60	11	10	7	4																				
	80	8	6	4																					
Shut-off PSI		97	88	80	71	62	54	45	36	28	19														
3/4	0				14	13	13	12	11	10	7	8	4												
	20		14	14	13	12	11	10	9	8	6	4													
	30	14	14	13	12	12	11	10	9	8	7	3													
	40	14	13	12	12	11	10	9	8	7	6														
	50	13	12	11	11	10	9	8	7	5	3														
	60	12	11	11	10	9	8	6	5																
	80	11	10	9	8	6	5																		
Shut-off PSI		137	129	120	111	103	94	85	77	68	59	42	34	16											
1	0					14	13	13	12	11	10	9	7	4											
	20					14	13	13	12	11	11	9	9	7	3										
	30				14	13	13	12	11	11	10	9	8	6											
	40			14	13	13	12	11	11	10	9	8	7	5											
	50		14	13	12	12	11	11	10	9	8	7	6												
	60	13	12	12	11	11	10	10	9	8	8	5	4												
	80	12	12	11	10	10	9	8	7	6	5														
Shut-off PSI		183	174	157	148	140	131	123	114	105	97	79	71	53	27	10									
1.5	0								14	13	13	12	12	10	9	9	8	7							
	20							14	13	13	12	12	11	11	9	8	7	6	5						
	30						14	13	13	12	12	11	11	10	8	8	6	5	4						
	40					14	13	13	12	12	12	11	10	10	8	7	6	4							
	50				14	13	13	12	12	12	11	10	10	9	8	6	5	3							
	60		14	13	13	12	12	11	11	11	10	9	9	7	6	4									
	80	13	13	13	12	12	11	11	11	10	10	9	9	8	6	3									
Shut-off PSI		257	248	240	231	222	214	205	197	188	179	162	153	136	110	93	75	41	32						
2	0										14	13	13	12	11	10	10	9	6						
	20										14	13	13	12	11	10	9	9	8	5					
	30									14	13	13	12	12	10	10	9	8	8	4					
	40								14	13	13	12	12	11	10	9	9	8	7	3					
	50							14	13	13	12	12	11	11	10	9	8	7	6						
	60				14	13	13	12	12	12	11	11	11	10	9	8	7	6	5						
	80		14	13	13	13	12	12	11	11	10	9	8	8	6	4	4								
Shut-off PSI		324	316	307	298	290	281	272	264	255	246	229	220	203	177	160	143	125	117	73					
3	0													14	13	13	12	12	11	9	7	5			
	20														14	13	13	12	12	10	8	6	3		
	30														14	13	13	12	12	11	10	8	5		
	40														14	14	13	12	12	11	11	9	7	4	
	50											14	14	14	13	12	12	11	11	11	9	7	4		
	60										14	14	14	13	13	12	12	11	11	10	9	6	3		
	80									14	14	13	13	12	12	11	11	10	10	8	5				
Shut-off PSI		438	430	421	413	404	395	387	378	369	361	343	335	317	291	274	257	240	231	188	144	101	58		
5	0				14	13	13	12	11	11	10	9	8	6	5										
	20				14	13	12	12	11	10	9	8	7	6	4										
	30				14	13	12	12	11	10	9	8	7	5	4										
	40				14	13	12	11	11	10	9	8	7	5	3										
	50			14	13	13	12	11	10	9	9	7	6	5	3										
	60			14	13	13	12	11	10	9	8	7	6	4											
	80		14	14	13	12	11	11	10	9	8	7	5	3											
Shut-off PSI		670	626	583	540	497	453	410	367	324	280	237	194	151	107										

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 Pumps

## 4" Tri-Seal Pumps

### 15 GPM Performance Curves



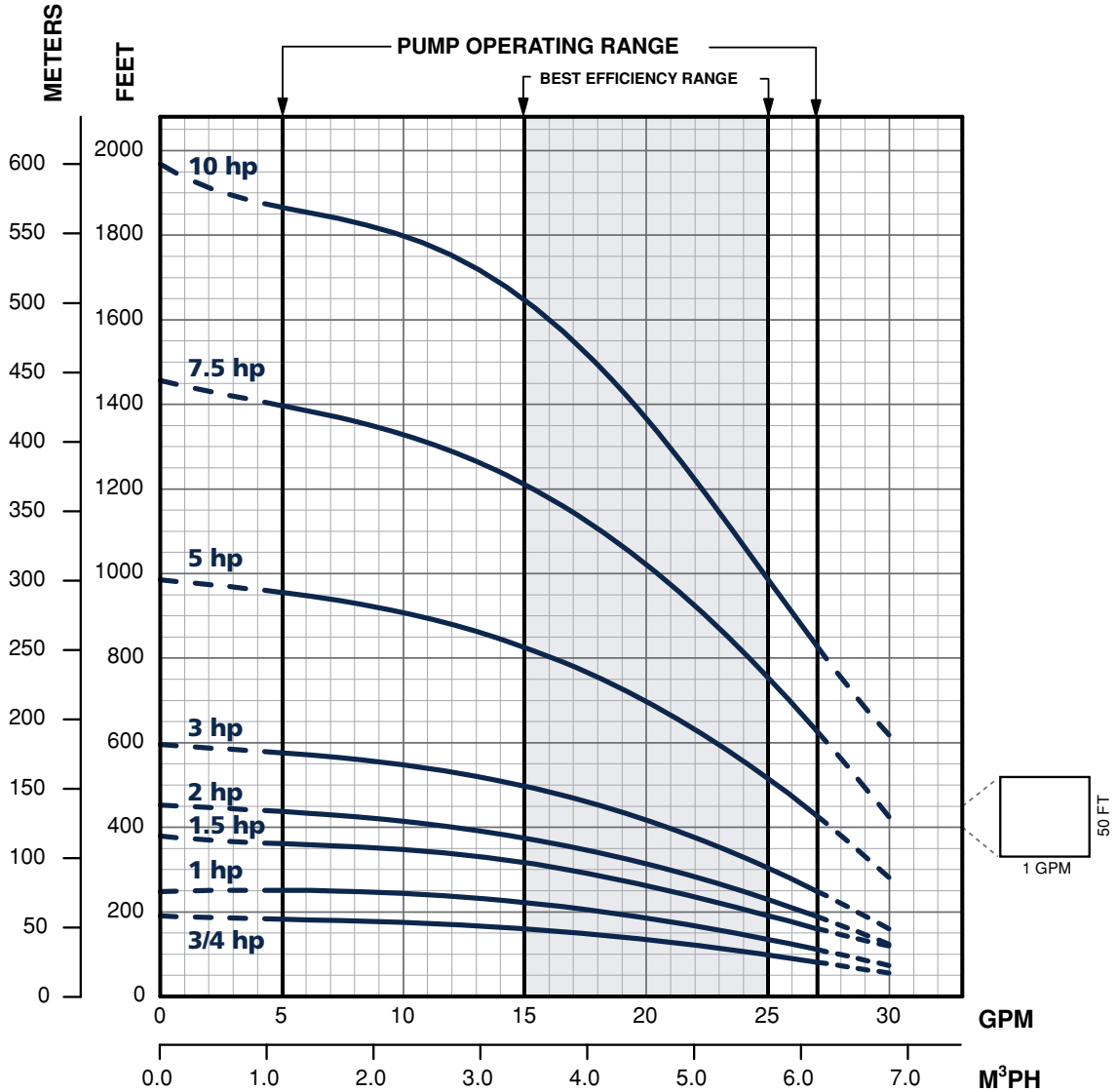




# Submersible Pumps

## 4" Tri-Seal Pumps

### 20 GPM Performance Curves



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

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																			Shut-off 190 ft				
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600		700	800	900	1000
3/4	0				24	22	21	18	14																
	20		23	21	19	17	12																		
	30	23	21	19	17	11																			
	40	21	19	17	10																				
	50	19	16	10																					
	60	14																							
Shut-off PSI		74	65	56	48	39	30	22	13																

# Submersible Pumps

## 4" Tri-Seal Pumps 20 GPM Performance Charts

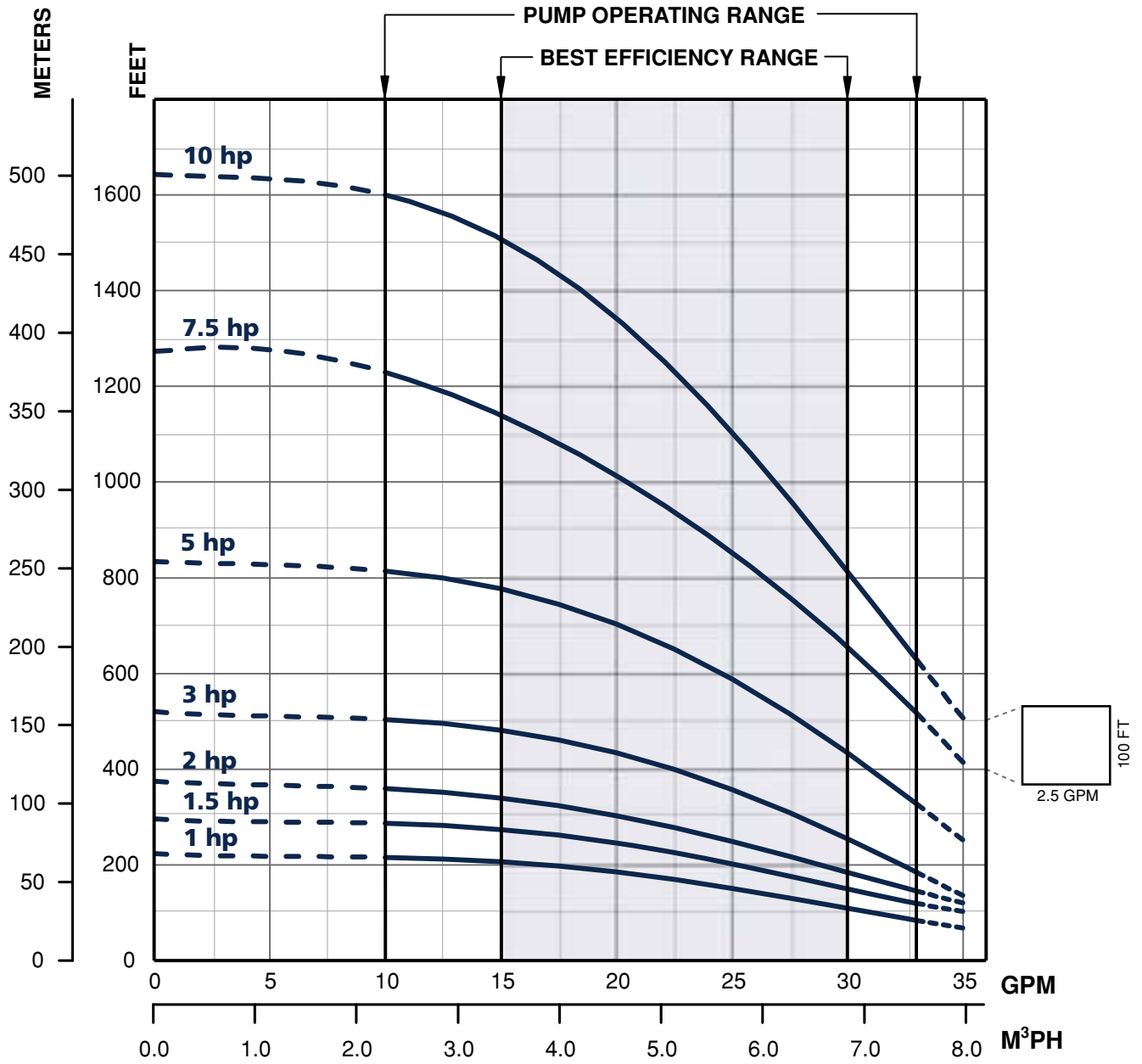
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																								
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500		600	700	800	900	1000	
1	0						26	25	23	20	18	11														Shut-off 251 ft
	20				27	26	24	22	20	18	15	8														
	30		27	26	24	22	19	17	14	7																
	40	27	25	23	21	19	17	13																		
	50	25	23	21	19	16	12																			
	60	23	21	18	16	11																				
	70	20	18	15	10																					
	80	18	15	9																						
	Shut-off PSI	100	91	83	74	66	57	48	40	31	22	5														
1.5	0								27	26	24	22	20	17	6											Shut-off 379 ft
	20						27	25	24	23	21	18	16	10												
	30					26	25	24	22	21	20	16	13													
	40				26	25	23	22	21	19	18	13	8													
	50		27	26	25	23	22	21	19	17	15	7														
	60	27	26	24	23	22	20	19	17	15	11															
	70	26	24	23	21	20	19	17	14	11	5															
	80	24	23	21	20	18	16	14	10																	
	Shut-off PSI	156	147	138	130	121	112	104	95	86	78	60	52	34	8											
2	0											24	23	20	16	12										Shut-off 453 ft
	20										24	21	20	17	12											
	30									24	23	22	20	19	16											
	40								24	23	22	21	19	17	14											
	50						24	23	22	20	19	16	14	10												
	60					24	23	22	20	19	18	14	12													
	80			24	23	21	20	19	18	16	14															
	Shut-off PSI	187	179	170	161	153	144	135	127	118	110	92	84	66	40	23										
	3	0													24	22	20	18	16	14						
20													24	23	20	17	15	12	10							
30												24	23	21	18	16	13	10								
40											24	23	22	20	17	14	11									
50										24	24	22	21	19	16	13										
60									24	24	23	21	20	18	14	10										
80							24	23	22	20	18	17	15	10												
Shut-off PSI		251	242	234	225	216	208	199	190	182	173	156	147	130	104	87	69	52	43							
5		0																	24	23	20	16				
	20																	24	21	18	13					
	30																	24	23	20	17	11				
	40																	24	23	23	20	16	10			
	50																	24	22	22	17	15				
	60																	24	23	22	21	18	14			
	80																	24	23	22	21	20	16	10		
	Shut-off PSI	416	408	399	390	382	373	364	356	347	339	321	313	295	269	252	235	217	209	165	122	79				
	7.5	0					27	26	24	22	20	18	15	11	5											
20						27	25	23	22	19	17	14	9													
30						26	25	23	21	19	16	13	7													
40						26	24	23	21	18	16	12	6													
50						26	24	22	20	18	15	11														
60				27	27	26	24	22	20	17	14	9														
80		27	26	26	24	23	21	19	16	12	6															
Shut-off PSI		440	423	414	371	327	284	241	197	154	111	68	24													
10		0								26	25	23	22	21	20	18	16	13	9							
	20								27	25	24	23	22	20	19	17	15	12	7							
	30								27	25	24	23	21	20	19	17	14	11	6							
	40								26	25	23	22	21	20	18	16	14	10								
	50								27	26	24	23	22	21	20	18	16	13	8							
	60								27	26	24	23	22	21	19	18	15	12	7							
	80								26	25	24	22	21	20	19	17	14	10	5							
	Shut-off PSI	662	644	636	592	549	506	462	419	376	333	289	246	203	159	116	73									

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 Pumps

## 4" Tri-Seal Pumps

### 25 GPM Performance Curves



# Submersible Pumps

## 4" Tri-Seal Pumps

### 25 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	120	140	160	180	200	240	260	300	360	400	440	480	500	600		700	800	900	1000	
1	0			35	33	31	28	26	24	21	17															Shut-off 222 ft
	20		32	30	28	25	22	18	15																	
	30	32	29	27	25	22	19																			
	40	29	27	25	22	19																				
	50	26	24	21	16																					
	60	24	21	17																						
Shut-off PSI		87	79	70	61	53	44	35	27	18	10															
1.5	0						33	31	29	27	25	21	19												Shut-off 297 ft	
	20					32	30	28	26	24	22	19	16													
	30			32	30	28	26	24	22	19	16															
	40	33	32	29	27	25	23	21	19	15																
	50	32	29	27	25	23	21	18																		
	60	29	27	25	23	20	18																			
80	24	22	20	17																						
Shut-off PSI		120	111	103	94	85	77	68	59	51	42	25	16													
2	0							33	32	30	28	25	24	20											Shut-off 375 ft	
	20					34	33	31	29	28	26	25	21	20												
	30				34	33	31	29	28	26	24	23	19	17												
	40			34	33	31	29	28	26	24	23	21	17													
	50	33	32	30	29	27	26	24	22	20	18															
	60	32	30	28	27	26	24	22	20	18																
80	28	26	25	23	21	20	17																			
Shut-off PSI		154	145	136	128	119	110	102	93	84	76	58	50	32												
3	0									33	32	30	29	28	24	22	19	15							Shut-off 519 ft	
	20						33	32	32	31	30	28	27	25	22	19										
	30						33	32	32	31	30	29	27	26	24	20										
	40						33	32	31	30	29	28	26	25	22	18										
	50				33	32	31	31	30	29	28	27	24	23	21	15										
	60		33	32	31	31	30	29	28	26	25	23	22	19												
80	32	31	30	29	28	27	26	25	24	23	20	19	15													
Shut-off PSI		216	207	199	190	181	173	164	155	147	138	121	112	95	69	52	34	17								
5	0														33	32	31	30	28	28	24	20			Shut-off 833 ft	
	20														33	32	30	30	28	27	26	22	17			
	30														33	33	31	30	28	27	26	25	21	15		
	40														33	32	32	31	29	28	27	25	24	20		
	50														33	33	32	31	30	28	27	25	24	23		19
	60														33	33	32	31	31	30	28	26	25	23		22
80							33	33	32	31	31	30	29	28	26	25	23	21	20							
Shut-off PSI		352	343	326	317	309	300	291	283	274	257	248	231	205	187	170	153	144	101	58						
7.5	0									33	32	30	29	26	23	20	17	12							Shut-off 1281 ft	
	20									33	31	30	28	25	22	19	15									
	30										33	32	32	30	27	24	21	18	14							
	40											33	32	32	31	29	27	24	21	17	12					
	50												33	33	32	31	29	26	23	20	17					
	60													33	32	32	31	31	28	25	22	19	16			
80														33	32	32	31	30	27	24	21	18	13			
Shut-off PSI		425	399	382	364	347	338	295	252	208	165	122	78	35												
10	0																								Shut-off 1642 ft	
	20																									
	30																									
	40																									
	50																									
	60																									
80																										
Shut-off PSI		581	555	538	520	503	494	451	408	365	321	278	235	191	148	105	61	18								

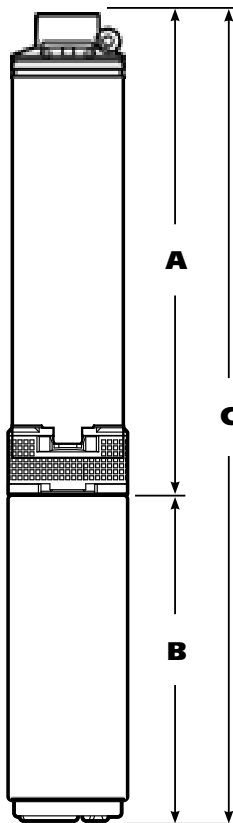
**Notes:** 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.

# Submersible Pumps

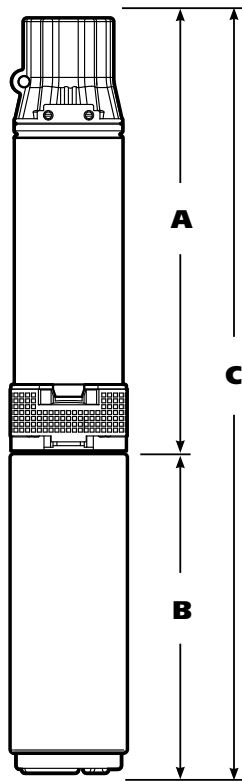
## 4" Tri-Seal Pumps

### Dimensions

**Stainless Steel**



**Thermoplastic**



Notes: All lengths are in inches  
 All weights are in pounds  
 Maximum diameter with cable guard is 3.90"

### Plastic with 2-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	14.12	9.51	23.63	8	26
	3/4	12	17.41	10.64	28.05	9	30
	1	15	19.87	11.73	31.60	10	34
	1.5	21	24.81	15.10	39.91	12	43
7	1/2	7	13.30	9.51	22.81	7	25
	3/4	10	15.76	10.64	26.40	8	29
	1	13	18.23	11.73	29.96	10	34
	1.5	18	22.34	15.10	37.44	11	42
10	1/2	6	12.97	9.51	22.48	7	25
	3/4	8	14.69	10.64	25.33	8	29
	1	11	17.44	11.73	29.17	9	33
	1.5	15	21.06	15.10	36.16	10	41
15	1/2	4	11.45	9.51	20.96	6	24
	3/4	6	12.97	10.64	23.61	7	28
	1	8	14.69	11.73	26.42	8	32
	1.5	11	17.44	15.10	32.54	9	40
20	3/4	5	13.65	10.64	24.29	6	28
	1	7	16.10	11.73	27.83	7	31
	1.5	10	19.77	15.10	34.87	8	39
25	1	6	14.88	11.73	26.61	7	31
	1.5	8	17.32	15.10	32.42	8	39

### Plastic with 3-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	14.12	9.51	23.63	8	27
	3/4	12	17.41	10.64	28.05	9	30
	1	15	19.87	11.73	31.60	10	34
	1.5	21	24.81	13.60	38.41	12	40
7	1/2	7	13.30	9.51	22.81	7	26
	3/4	10	15.76	10.64	26.40	8	29
	1	13	18.23	11.73	29.96	10	34
	1.5	18	22.34	13.60	35.94	11	39
10	1/2	6	12.97	9.51	22.48	7	26
	3/4	8	14.69	10.64	25.33	8	29
	1	11	17.44	11.73	29.17	9	33
	1.5	15	21.06	13.60	34.66	10	38
15	1/2	4	11.45	9.51	20.96	6	25
	3/4	6	12.97	10.64	23.61	7	28
	1	8	14.69	11.73	26.42	8	32
	1.5	11	17.44	13.60	31.04	9	37
20	3/4	5	13.65	10.64	24.29	6	28
	1	7	16.10	11.73	27.83	7	31
	1.5	10	19.77	13.60	33.37	8	36
25	1	6	14.88	11.73	26.61	7	31
	1.5	8	17.32	15.10	30.92	8	36

Note: PE - Pump end only PMA - Pump and motor assembly

# Submersible Pumps

## 4" Tri-Seal Pumps Dimensions

### Stainless Steel with 2-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	13.57	9.51	23.08	10	28
	3/4	12	16.86	10.64	27.50	12	33
	1	15	19.33	11.73	31.06	14	38
	1.5	21	24.26	15.10	39.36	17	48
7	1/2	7	12.75	9.51	22.26	9	27
	3/4	10	15.22	10.64	25.86	11	32
	1	13	17.68	11.73	29.41	13	37
	1.5	18	21.80	15.10	36.90	15	46
10	1/2	6	12.39	9.51	21.90	9	27
	3/4	8	14.14	10.64	24.78	10	31
	1	11	16.85	11.73	28.58	11	35
	1.5	15	20.48	15.10	35.58	14	45
15	1/2	4	10.64	9.51	20.15	7	25
	3/4	6	12.39	10.64	23.03	9	30
	1	8	14.14	11.73	25.87	10	34
	1.5	11	16.85	15.10	31.95	11	42
20	3/4	5	13.10	10.64	23.74	8	29
	1	7	15.55	11.73	27.28	9	33
	1.5	10	19.22	15.10	34.32	11	42
25	1	6	14.33	11.73	26.06	9	33
	1.5	8	16.77	15.10	31.87	10	41

Note: PE - Pump end only  
PMA - Pump and motor assembly

### Stainless Steel with 3-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	13.57	9.51	23.08	10	29
	3/4	12	16.86	10.64	27.50	12	33
	1	15	19.33	11.73	31.06	14	38
	1.5	21	24.26	13.60	37.86	17	45
	2	26	30.46	15.10	45.56	20	N/A
7	1/2	7	12.75	9.51	22.26	9	28
	3/4	10	15.22	10.64	25.86	11	32
	1	13	17.68	11.73	29.41	13	37
	1.5	18	21.80	13.60	35.40	15	43
	2	24	26.73	15.10	41.83	19	N/A
10	3	32	35.39	19.04	54.43	23	N/A
	1/2	6	12.39	9.51	21.90	9	28
	3/4	8	14.14	10.64	24.78	10	31
	1	11	16.85	11.73	28.58	11	35
	1.5	15	20.48	13.60	34.08	14	42
15	2	18	25.26	15.10	40.36	15	N/A
	3	24	30.70	19.04	49.74	19	N/A
	5	39	44.20	29.19	73.39	27	N/A
	1/2	4	10.64	9.51	20.15	7	26
	3/4	6	12.39	10.64	23.03	9	30
20	1	8	14.14	11.73	25.87	10	34
	1.5	11	16.85	13.60	30.45	11	39
	2	14	19.57	15.10	34.67	13	N/A
	3	19	26.17	19.04	45.21	16	N/A
	5	31	37.00	29.19	66.19	23	N/A
25	3/4	5	13.10	10.64	23.74	8	29
	1	7	15.55	11.73	27.28	9	33
	1.5	10	19.22	13.60	32.82	11	39
	2	12	21.66	15.10	36.76	12	N/A
	3	16	26.55	19.04	45.59	14	N/A
	5	26	40.86	29.19	70.05	20	N/A
	7.5	39	60.77	29.60	90.37	27	N/A
10	52	76.66	32.60	109.26	35	N/A	
25	1	6	14.33	11.73	26.06	9	33
	1.5	8	16.77	13.60	30.37	10	38
	2	10	19.22	15.10	34.32	11	N/A
	3	14	24.11	19.04	43.15	13	N/A
	5	23	37.19	28.19	66.38	18	N/A
	7.5	35	55.88	29.60	85.48	25	N/A
	10	44	66.88	32.60	99.48	30	N/A

## Submersible Pumps

### 4" Series V Pumps

#### Features



CSA Certified  
Pump End Only



Drinking Water  
NSF/ANSI 61



#### 4" Submersible Series V

The standard FPS Series Five submersible pump features unique hydraulics that improve efficiency and minimize wear even when pumping abrasives. Discharge and motor brackets are available in thermoplastic or stainless steel with a removable check valve system. Available in 5, 7, 10, 15, 20 and 25 gpm, 1/2 - 5 horsepower. For details on how to become a registered dealer and receive a 5-year warranty, contact your local distributor.

#### Features:

- 6 performance ranges: 5, 7, 10, 15, 20 and 25 gpm.
- Horsepower ranges: 1/2 -5.
- Discharge head and motor bracket produced with industry proven, engineered materials. Available in 300 series stainless steel or high quality thermoplastic resins.
- Large wrench flat area on the discharge head for ease of installation.
- Dry run designed top bearing positively supports the 300 series stainless steel 7/16" hex shaft.
- Removable internal check valve.
- Powered by Franklin Electric corrosion-resistant super stainless 4" submersible motors with lightning protection.
- Maximum water temperature with proper flow is 120 °F/49 °C. Consult factory for details.

# Submersible Pumps

## 4" Series V Pumps

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

### Stainless Steel Ordering Information

GPM	HP	Stg	Volts	2-Wire		3-Wire	
				Model No.	Order No.	Model No.	Order No.
5	1/2	8	115	5FV05S4-2W115	95420505	5FV05S4-3W115	95420530
	1/2	8	230	5FV05S4-2W230	95420510	5FV05S4-3W230	95420535
	3/4	12	230	5FV07S4-2W230	95420515	5FV07S4-3W230	95420540
	1	15	230	5FV1S4-2W230	95420520	5FV1S4-3W230	95420545
	1.5	21	230	5FV15S4-2W230	95420525	5FV15S4-3W230	95420550
7	1/2	7	115	7FV05S4-2W115	95420705	7FV05S4-3W115	95420730
	1/2	7	230	7FV05S4-2W230	95420710	7FV05S4-3W230	95420735
	3/4	10	230	7FV07S4-2W230	95420715	7FV07S4-3W230	95420740
	1	13	230	7FV1S4-2W230	95420720	7FV1S4-3W230	95420745
	1.5	18	230	7FV15S4-2W230	95420725	7FV15S4-3W230	95420750
10	1/2	6	115	10FV05S4-2W115	95421005	10FV05S4-3W115	95421030
	1/2	6	230	10FV05S4-2W230	95421010	10FV05S4-3W230	95421035
	3/4	8	230	10FV07S4-2W230	95421015	10FV07S4-3W230	95421040
	1	11	230	10FV1S4-2W230	95421020	10FV1S4-3W230	95421045
	1.5	15	230	10FV15S4-2W230	95421025	10FV15S4-3W230	95421050
15	1/2	4	115	15FV05S4-2W115	95421505	15FV05S4-3W115	95421530
	1/2	4	230	15FV05S4-2W230	95421510	15FV05S4-3W230	95421535
	3/4	6	230	15FV07S4-2W230	95421515	15FV07S4-3W230	95421540
	1	8	230	15FV1S4-2W230	95421520	15FV1S4-3W230	95421545
	1.5	11	230	15FV15S4-2W230	95421525	15FV15S4-3W230	95421550
20	3/4	5	230	20FV07S4-2W230	95422015	20FV07S4-3W230	95422040
	1	7	230	20FV1S4-2W230	95422020	20FV1S4-3W230	95422045
	1.5	10	230	20FV15S4-2W230	95422025	20FV15S4-3W230	95422050
25	1	6	230	25FV1S4-2W230	95422520	25FV1S4-3W230	95422545
	1.5	8	230	25FV15S4-2W230	95422525	25FV15S4-3W230	95422550

Notes: Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.



# Submersible Pumps

## 4" Series V Pumps

Features & Ordering Information (See pgs. 2-3 for model number explanation)

### Plastic Ordering Information

GPM	HP	Stg	Volts	2-Wire		3-Wire	
				Model No.	Order No.	Model No.	Order No.
5	1/2	8	115	5FV05P4-2W115	95400505	5FV05P4-3W115	95400530
	1/2	8	230	5FV05P4-2W230	95400510	5FV05P4-3W230	95400535
	3/4	12	230	5FV07P4-2W230	95400515	5FV07P4-3W230	95400540
	1	15	230	5FV1P4-2W230	95400520	5FV1P4-3W230	95400545
	1.5	21	230	5FV15P4-2W230	95400525	5FV15P4-3W230	95400550
7	1/2	7	115	7FV05P4-2W115	95400705	7FV05P4-3W115	95400730
	1/2	7	230	7FV05P4-2W230	95400710	7FV05P4-3W230	95400735
	3/4	10	230	7FV07P4-2W230	95400715	7FV07P4-3W230	95400740
	1	13	230	7FV1P4-2W230	95400720	7FV1P4-3W230	95400745
	1.5	18	230	7FV15P4-2W230	95400725	7FV15P4-3W230	95400750
10	1/2	6	115	10FV05P4-2W115	95401005	10FV05P4-3W115	95401030
	1/2	6	230	10FV05P4-2W230	95401010	10FV05P4-3W230	95401035
	3/4	8	230	10FV07P4-2W230	95401015	10FV07P4-3W230	95401040
	1	11	230	10FV1P4-2W230	95401020	10FV1P4-3W230	95401045
	1.5	15	230	10FV15P4-2W230	95401025	10FV15P4-3W230	95401050
15	1/2	4	115	15FV05P4-2W115	95401505	15FV05P4-3W115	95401530
	1/2	4	230	15FV05P4-2W230	95401510	15FV05P4-3W230	95401535
	3/4	6	230	15FV07P4-2W230	95401515	15FV07P4-3W230	95401540
	1	8	230	15FV1P4-2W230	95401520	15FV1P4-3W230	95401545
	1.5	11	230	15FV15P4-2W230	95401525	15FV15P4-3W230	95401550
20	3/4	5	230	20FV07P4-2W230	95402015	20FV07P4-3W230	95402040
	1	7	230	20FV1P4-2W230	95402020	20FV1P4-3W230	95402045
	1.5	10	230	20FV15P4-2W230	95402025	20FV15P4-3W230	95402050
25	1	6	230	25FV1P4-2W230	95402520	25FV1P4-3W230	95402545
	1.5	8	230	25FV15P4-2W230	95402525	25FV15P4-3W230	95402550

Notes: Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.

# Submersible Pumps

## 4" Series V Pumps

Features & Ordering Information (See pgs. 2-3 for model number explanation)

### Pump End Assemblies Only Ordering Information

Plastic				
GPM	HP	Stg	Model No.	Order No.
5	1/2	8	5FV05P4-PE	95410500
	3/4	12	5FV07P4-PE	95410501
	1	15	5FV1P4-PE	95410502
	1.5	21	5FV15P4-PE	95410503
7	1/2	7	7FV05P4-PE	95410700
	3/4	10	7FV07P4-PE	95410701
	1	13	7FV1P4-PE	95410702
	1.5	18	7FV15P4-PE	95410703
10	1/2	6	10FV05P4-PE	95411000
	3/4	8	10FV07P4-PE	95411001
	1	11	10FV1P4-PE	95411002
	1.5	15	10FV15P4-PE	95411003
15	1/2	4	15FV05P4-PE	95411500
	3/4	6	15FV07P4-PE	95411501
	1	8	15FV1P4-PE	95411502
	1.5	11	15FV15P4-PE	95411503
20	3/4	5	20FV07P4-PE	95412001
	1	7	20FV1P4-PE	95412002
	1.5	10	20FV15P4-PE	95412003
25	1	6	25FV1P4-PE	95412501
	1.5	8	25FV15P4-PE	95412502

**Notes:** Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.

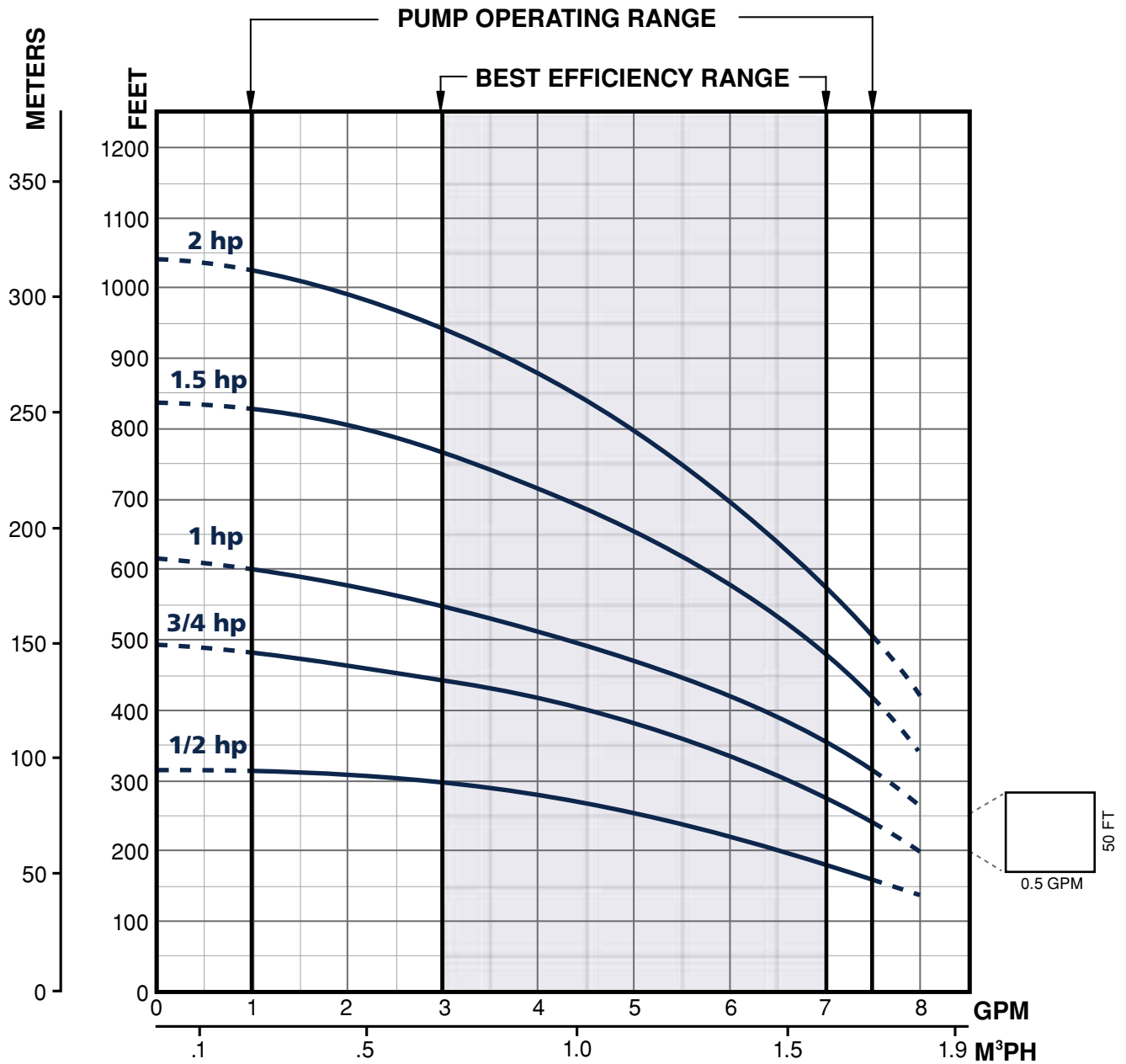
Stainless Steel				
GPM	HP	Stg	Model No.	Order No.
5	1/2	8	5FV05S4-PE	95430500
	3/4	12	5FV07S4-PE	95430501
	1	15	5FV1S4-PE	95430502
	1.5	21	5FV15S4-PE	95430503
	2	26	5FV2S4-PE	95430504
7	1/2	7	7FV05S4-PE	95430700
	3/4	10	7FV07S4-PE	95430701
	1	13	7FV1S4-PE	95430702
	1.5	18	7FV15S4-PE	95430703
	2	24	7FV2S4-PE	95430704
10	3	32	7FV3S4-PE	95430705
	1/2	6	10FV05S4-PE	95431000
	3/4	8	10FV07S4-PE	95431001
	1	11	10FV1S4-PE	95431002
	1.5	15	10FV15S4-PE	95431003
15	2	18	10FV2S4-PE	95431004
	3	24	10FV3S4-PE	95431005
	5	39	10FV5S4-PE	95431006
	1/2	4	15FV05S4-PE	95431500
	3/4	6	15FV07S4-PE	95431501
20	1	8	15FV1S4-PE	95431502
	1.5	11	15FV15S4-PE	95431503
	2	14	15FV2S4-PE	95431504
	3	19	15FV3S4-PE	95431505
	5	31	15FV5S4-PE	95431506
25	3/4	5	20FV07S4-PE	95432001
	1	7	20FV1S4-PE	95432002
	1.5	10	20FV15S4-PE	95432003
	2	12	20FV2S4-PE	95432004
	3	16	20FV3S4-PE	95432005
25	5	26	20FV5S4-PE	95432006
	1	6	25FV1S4-PE	95432501
	1.5	8	25FV15S4-PE	95432502
	2	10	25FV2S4-PE	95432503
	3	14	25FV3S4-PE	95432504
25	5	23	25FV5S4-PE	95432505

**Notes:** Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models.

# Submersible Pumps

## 4" Series V Pumps

### 5 GPM Performance Curves



# Submersible Pumps

## 4" Series V Pumps

### 5 GPM Performance Charts

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

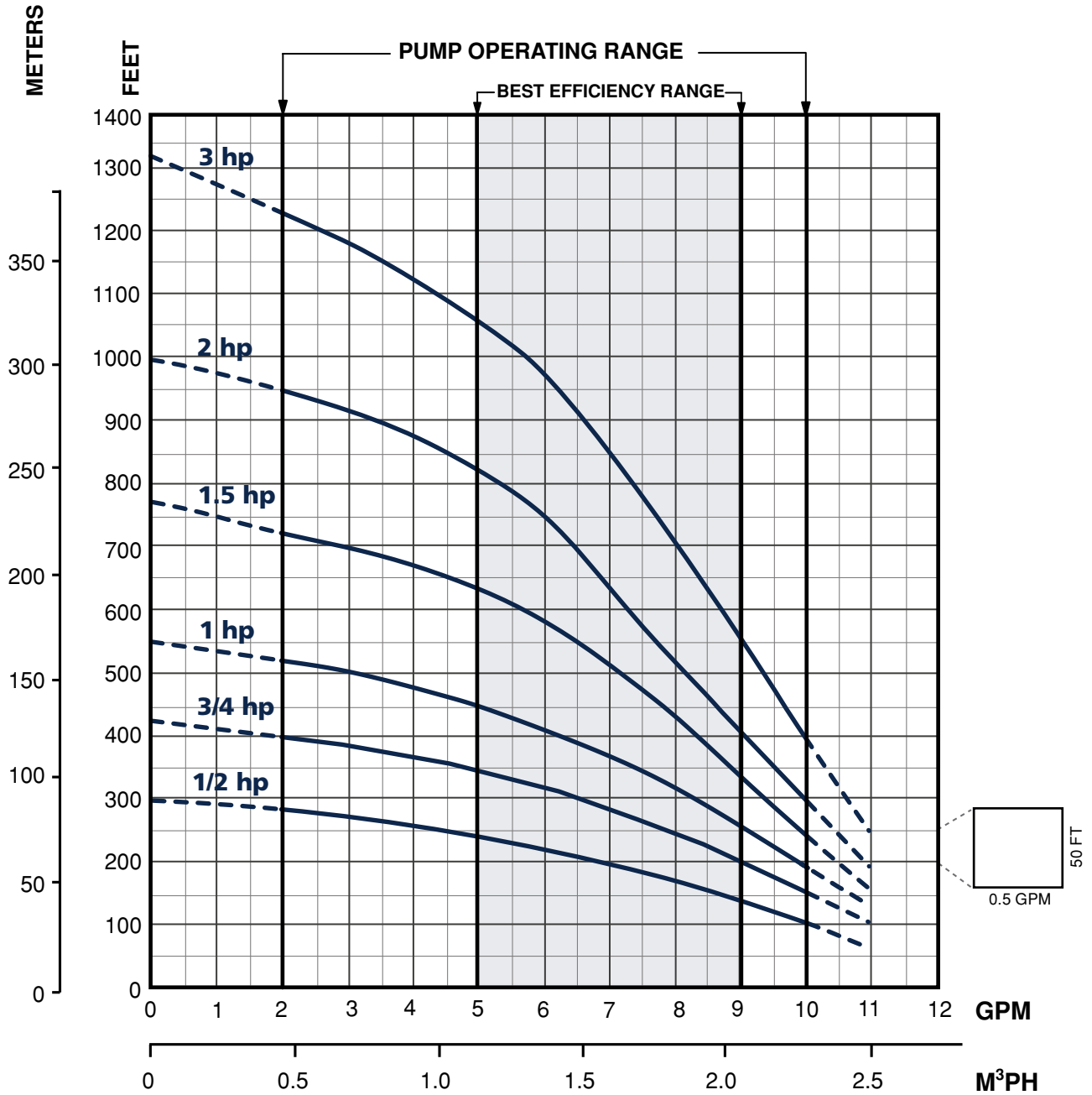
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																							
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700		800	900	1000
1/2	0							7	7	6	6	5	4												Shut-off 315 ft
	20					8	7	6	6	5	5	3	2												
	30				7	7	6	6	5	5	4	2													
	40			7	7	6	6	5	5	4	3														
	50		7	6	6	6	5	5	4	2															
	60	7	7	6	6	5	4	4	2																
	80	6	6	5	4	3																			
Shut-off PSI		127	119	110	101	93	84	75	67	58	49	32	23												
3/4	0										7	7	7	6	5	4	3								Shut-off 495 ft
	20								7	7	7	6	6	6	5	4	3								
	30							7	7	7	6	6	6	5	5	3									
	40						7	7	7	6	6	6	5	4	2										
	50					7	7	7	6	6	6	5	5	4											
	60				7	7	7	6	6	6	5	5	4	3											
	80		7	7	7	6	6	6	5	5	4	3	3												
Shut-off PSI		205	196	188	179	171	162	153	145	136	127	110	101	84	58	41	23								
1	0												8	7	6	6	5	4	4						Shut-off 615 ft
	20											7	7	7	6	5	4	3							
	30										7	7	7	6	5	5	3	2							
	40									7	7	7	7	6	5	4	3								
	50								7	7	7	7	6	6	4	3									
	60							7	7	7	7	6	6	5	4										
	80						7	7	7	6	6	5	5	4											
Shut-off PSI		257	248	240	231	222	214	205	197	188	179	162	153	136	110	93	75	58	49						
1.5	0														7	7	7	6	5	4	2				Shut-off 835 ft
	20													7	7	7	6	6	6	5	3				
	30													7	7	7	6	6	6	4	3				
	40													7	7	7	6	6	6	5	4	2			
	50												7	7	7	6	6	5	5	3					
	60												7	7	7	6	6	5	5	5	3				
	80										7	7	7	7	6	6	5	5	4	4	2				
Shut-off PSI		352	344	335	326	318	309	300	292	283	274	257	249	231	205	188	171	153	145	101	58	15			
2	0															7	7	7	6	5	4	3			Shut-off 1040 ft
	20															7	7	7	7	6	5	4	2		
	30															7	7	7	7	6	6	5	3		
	40															7	7	7	6	6	6	5	3		
	50															7	7	7	7	6	6	5	4	3	
	60															7	7	7	6	6	6	5	4	3	
	80														7	7	7	7	6	6	6	5	3		
Shut-off PSI		441	432	424	415	406	398	389	381	372	363	346	337	320	294	277	259	242	233	190	147	104	60		

- 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 Pumps

## 4" Series V Pumps

### 7 GPM Performance Curves



# Submersible Pumps

## 4" Series V Pumps

### 7 GPM Performance Charts

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

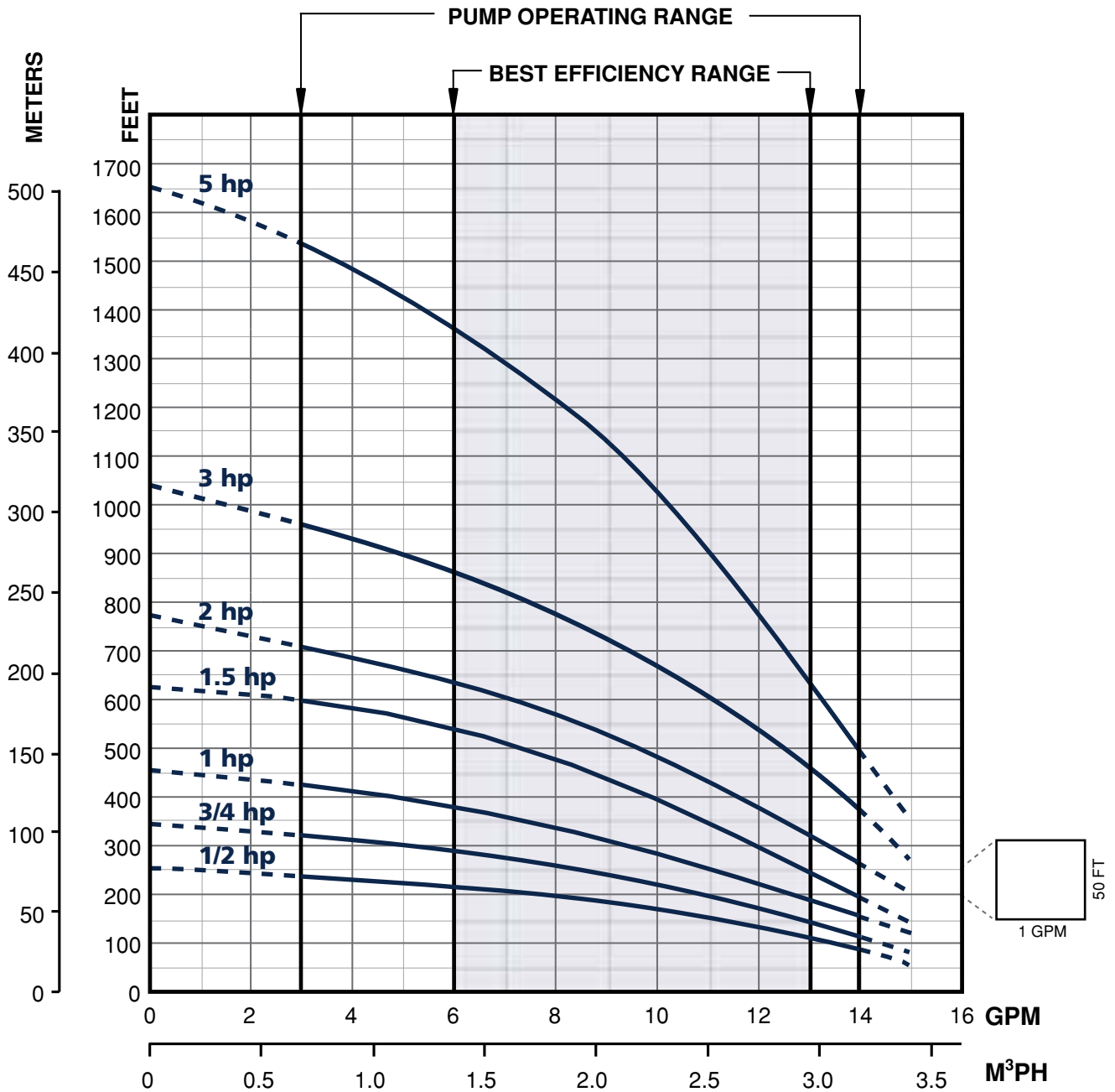
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																						
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700	800	900	1000
1/2	0				10	10	9	9	8	7	6	5	4											
	20		10	9	9	8	8	7	6	5	4													
	30	10	9	9	8	7	7	6	5	4	3													
	40	9	9	8	8	7	6	5	4	3														
	50	9	8	7	7	6	5	4	3															
	60	8	7	6	6	5	4	3																
	80	6	5	4	3																			
Shut-off PSI		121	112	103	95	86	77	69	60	52	43	26	17											
3/4	0					10	10	9	9	9	8	7	6	4										
	20		10	10	10	10	9	9	8	8	7	6	6	4										
	30		10	10	10	9	9	8	8	7	7	6	5	3										
	40	10	10	10	9	9	8	8	7	7	6	5	4											
	50	10	9	9	9	8	8	7	7	6	6	4	3											
	60	9	9	9	8	8	7	7	6	6	5	3												
	80	8	8	8	7	6	6	5	5	4	3													
Shut-off PSI		174	165	156	148	139	130	122	113	104	96	78	70	52	26									
1	0						10	10	10	9	9	8	8	7	6	5	3	3						
	20					10	10	10	9	9	9	8	8	7	6	5	4							
	30			10	10	10	10	9	9	9	8	8	7	6	5	4								
	40		10	10	10	10	9	9	9	8	8	7	7	6	4	3								
	50	10	10	10	10	9	9	9	8	8	8	7	6	5	3									
	60	10	10	9	9	9	9	8	8	8	7	6	6	5	3									
	80	9	9	9	8	8	8	7	7	7	6	5	5	3										
Shut-off PSI		226	218	209	200	192	183	174	166	157	148	131	123	105	79	62	45	27	18					
1.5	0							10	10	10	9	9	9	8	8	7	7	7	5	2				
	20						10	10	10	10	9	9	9	8	8	7	7	6	6	4				
	30				10	10	10	10	9	9	9	9	8	8	7	7	6	6	3					
	40			10	10	10	10	9	9	9	9	9	8	8	7	7	6	6	5	3				
	50		10	10	10	10	9	9	9	9	9	8	8	8	7	6	6	5	5					
	60	10	10	10	10	9	9	9	9	8	8	8	7	7	6	6	5	4						
	80	10	10	9	9	9	9	9	8	8	8	8	7	7	6	5	4	3						
Shut-off PSI		322	313	305	296	287	279	270	261	253	244	227	218	201	175	158	140	123	114	71	28			
2	0								10	10	10	10	9	9	9	8	8	8	7	6	5	3		
	20							10	10	10	10	10	9	9	9	8	8	7	7	6	6	4		
	30							10	10	10	10	10	9	9	9	8	8	7	7	6	5	4		
	40						10	10	10	10	10	9	9	9	9	8	8	7	7	6	5	3		
	50				10	10	10	10	10	9	9	9	9	9	8	8	7	7	7	6	5	3		
	60			10	10	10	10	10	9	9	9	9	9	8	8	7	7	7	6	4				
	80	10	10	10	10	10	9	9	9	9	9	8	8	7	7	6	6	5	3					
Shut-off PSI		421	412	404	395	386	378	369	360	352	343	326	317	300	274	257	239	222	213	170	127	84	40	
3	0			10	9	9	8	7	7	6	5	4	2											
	20		10	9	9	8	8	7	6	6	5	3												
	30		10	9	9	8	8	7	6	6	4	3												
	40		10	9	9	8	7	7	6	5	4													
	50	10	10	9	8	8	7	7	6	5	4													
	60	10	10	9	8	8	7	7	6	5	3													
	80	10	9	8	8	7	7	6	5	4	2													
Shut-off PSI		523	480	437	394	350	307	264	221	177	134	91	48											

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 Pumps

## 4" Series V Pumps

### 10 GPM Performance Curves



# Submersible Pumps

## 4" Series V Pumps 10 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	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700	800	900	1000
1/2	0				14	13	12	11	10	9	7													
	20	14	13	13	12	11	10	8	6	3														
	30	13	13	12	11	10	8	6	3															
	40	13	12	11	10	8	6	3																
	50	12	11	9	8	5	3																	
	60	11	10	7	4																			
	80	8	6	4																				
Shut-off PSI		97	88	80	71	62	54	45	36	28	19													
3/4	0				14	13	13	12	11	10	7	8	4											
	20		14	14	13	12	11	10	9	8	6	4												
	30	14	14	13	12	12	11	10	9	8	7	3												
	40	14	13	12	12	11	10	9	8	7	6													
	50	13	12	11	11	10	9	8	7	5	3													
	60	12	11	11	10	9	8	6	5															
	80	11	10	9	8	6	5																	
Shut-off PSI		137	129	120	111	103	94	85	77	68	59	42	34	16										
1	0					14	13	13	12	11	10	9	7	4										
	20				14	13	13	12	11	11	9	9	7	3										
	30				14	13	13	12	11	11	10	9	8	6										
	40			14	13	13	12	11	11	10	9	8	7	5										
	50		14	13	12	12	11	11	10	9	8	7	6											
	60	13	12	12	11	11	10	10	9	8	8	5	4											
	80	12	12	11	10	10	9	8	7	6	5													
Shut-off PSI		183	174	157	148	140	131	123	114	105	97	79	71	53	27	10								
1.5	0								14	13	13	12	12	10	9	9	8	7						
	20							14	13	13	12	12	11	11	9	8	7	6	5					
	30					14	13	13	12	12	11	11	10	8	8	6	5	4						
	40				14	13	13	12	12	12	11	10	10	8	7	6	4							
	50			14	13	13	12	12	12	11	10	10	9	8	6	5	3							
	60		14	13	13	12	12	11	11	10	9	9	7	6	4									
	80	13	13	13	12	12	11	11	11	10	10	9	8	6	3									
Shut-off PSI		257	248	240	231	222	214	205	197	188	179	162	153	136	110	93	75	41	32					
2	0									14	13	13	12	11	10	10	9	6						
	20								14	13	13	12	12	11	10	9	8	5						
	30							14	13	13	12	12	10	10	9	8	8	4						
	40						14	13	13	12	12	11	10	9	9	8	7	3						
	50					14	13	13	12	12	11	11	10	9	8	7	6							
	60			14	13	13	12	12	12	11	11	10	9	8	7	6	5							
	80		14	13	13	13	12	12	11	11	10	9	8	6	4	4								
Shut-off PSI		324	316	307	298	290	281	272	264	255	246	229	220	203	177	160	143	125	117	73				
3	0												14	13	13	12	12	11	9	7	5			
	20												14	13	13	12	12	10	8	6	3			
	30												14	14	13	13	12	11	10	8	5			
	40												14	14	13	13	12	11	11	9	7	4		
	50										14	14	14	13	12	12	11	11	11	9	7	4		
	60									14	14	14	13	13	12	12	11	11	10	9	6	3		
	80								14	14	13	13	12	12	11	11	10	10	8	5				
Shut-off PSI		438	430	421	413	404	395	387	378	369	361	343	335	317	291	274	257	240	231	188	144	101	58	
5	0				14	13	13	12	11	11	10	9	8	6	5									
	20				14	13	12	12	11	10	9	8	7	6	4									
	30				14	13	12	12	11	10	9	8	7	5	4									
	40				14	13	12	11	11	10	9	8	7	5	3									
	50			14	13	13	12	11	10	9	9	7	6	5	3									
	60			14	13	13	12	11	10	9	8	7	6	4										
	80		14	14	13	12	11	11	10	9	8	7	5	3										
Shut-off PSI		670	626	583	540	497	453	410	367	324	280	237	194	151	107									

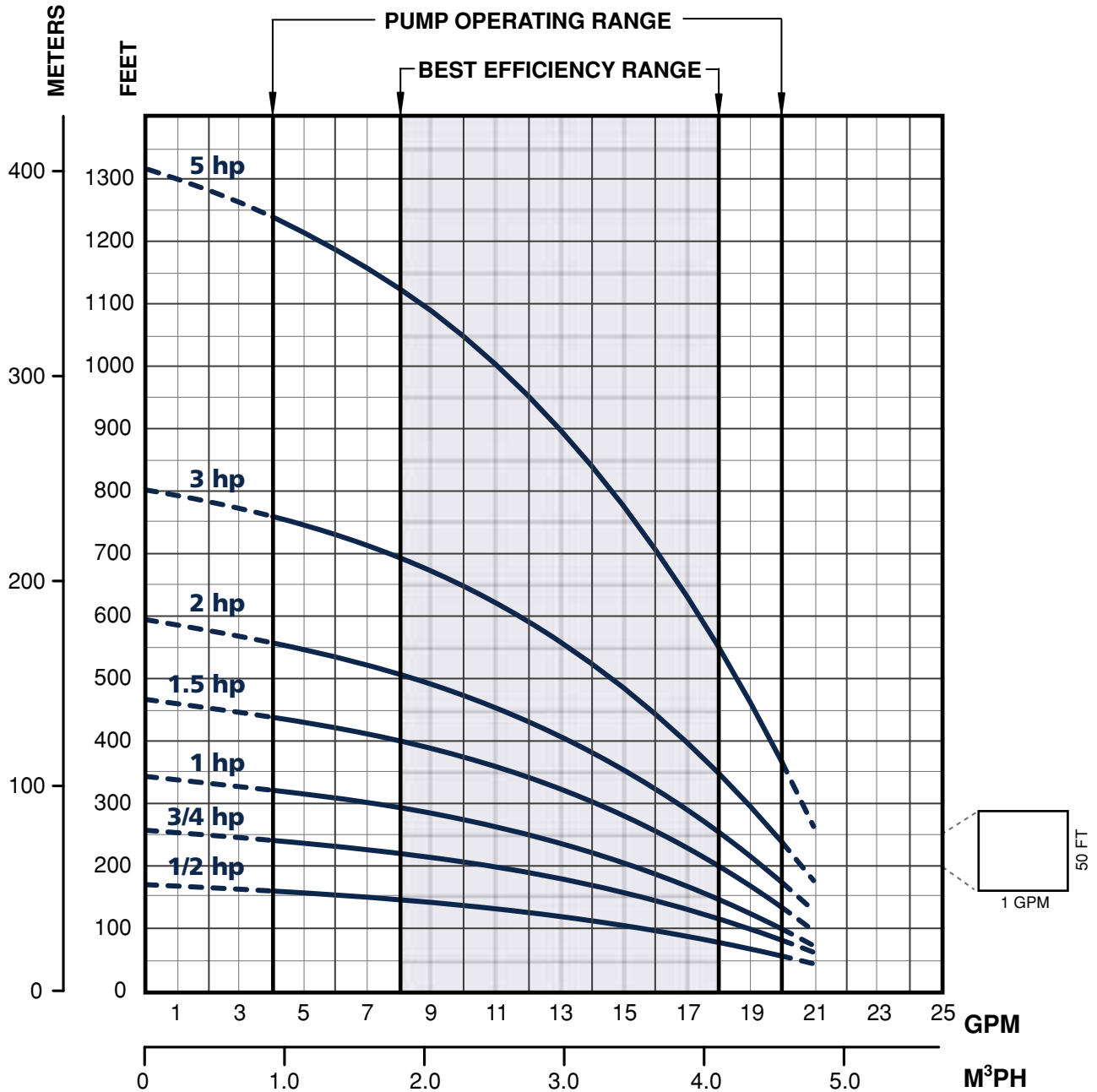
Notes: 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.



# Submersible Pumps

## 4" Series V Pumps

### 15 GPM Performance Curves



# Submersible Pumps

## 4" Series V Pumps 15 GPM Performance Charts

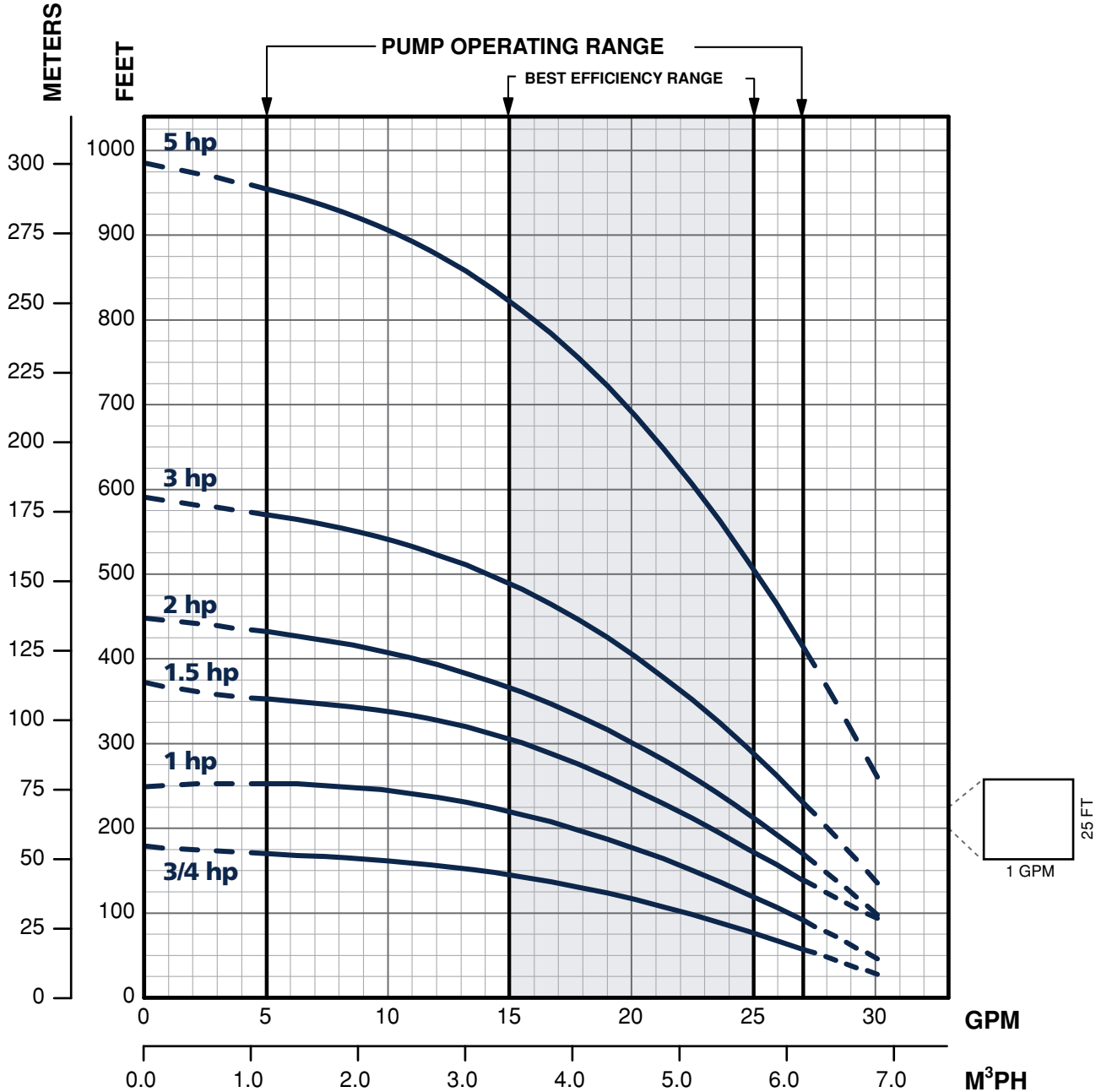
### Capacities in U.S. Gallons per Minute

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																												
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700	800	900	1000	1100	1200				
1/2	0			20	18	16	13	9	4																					
	20	19	17	15	12	8																								
	30	17	14	11	7																									
	40	14	11	6																										
	50	10	5																											
	60	4																												
	80																													
Shut-off PSI		65	56	48	39	30	22	13	4																					
3/4	0				20	19	18	16	15	13	11																			
	20		20	19	17	16	14	12	10	7																				
	30	20	18	17	16	14	12	10	6																					
	40	18	17	15	14	12	9	6																						
	50	17	15	13	11	9	5																							
	60	15	13	11	8	4																								
	80	10	7																											
Shut-off PSI		103	94	85	77	68	59	51	42	33	25																			
1	0				20	19	18	17	16	15	13	11	7																	
	20			20	19	18	17	16	15	14	12	9	6																	
	30	20	20	19	18	17	16	15	14	12	10	6																		
	40	19	19	18	17	16	15	13	12	10	8																			
	50	18	18	17	16	14	13	12	10	8	5																			
	60	17	16	15	14	13	11	10	7	4																				
	80	15	14	12	11	9	6																							
Shut-off PSI		140	131	123	114	105	97	88	79	71	62	45	36	19																
1.5	0				20	20	19	19	18	17	16	14	11	8	4															
	20				20	19	18	18	17	16	15	14	12	7																
	30			20	20	19	18	17	16	15	14	13	10	5																
	40		20	19	19	18	18	17	16	15	15	13	11	9																
	50	20	19	19	18	17	17	16	15	14	13	11	10	7																
	60	19	19	18	17	17	16	15	14	13	12	10	8	4																
	80	18	17	16	16	15	14	13	12	11	9	6																		
Shut-off PSI		193	185	176	167	159	150	141	133	124	115	98	89	72	46	29	11													
2	0							20	20	19	18	18	17	15	13	12	10	8												
	20						20	20	19	19	18	17	17	15	13	11	9	7	5											
	30					20	20	19	19	18	18	16	16	14	12	10	8	5												
	40			20	20	20	19	19	18	18	17	16	16	14	11	9	6													
	50		20	20	19	19	19	18	17	17	16	15	14	13	10	7	4													
	60	20	20	19	19	18	18	17	17	16	16	14	13	12	9	6														
	80	19	19	18	18	17	17	16	15	15	14	12	11	9	5															
Shut-off PSI		249	240	231	223	214	205	197	188	179	171	153	145	127	101	84	67	49	41											
3	0									20	20	19	18	17	16	15	15	12	8											
	20									20	20	20	19	19	18	17	16	15	14	13	10	5								
	30									20	20	20	19	19	18	18	16	15	14	13	13	9								
	40									20	20	20	19	19	18	18	17	16	15	14	13	12	8							
	50									20	20	20	19	19	19	18	18	17	15	14	13	12	11	7						
	60					20	20	20	19	19	19	18	17	17	16	15	14	12	11	10	5									
	80	20	20	20	20	19	19	19	18	18	17	16	16	15	13	12	11	9	8											
Shut-off PSI		339	330	321	313	304	295	287	278	269	261	243	235	217	191	174	157	139	131	87	44									
5	0															20	20	19	19	19	17	16	15	13	11	9	6			
	20															20	20	19	19	18	18	17	15	14	12	10	7	4		
	30															20	20	19	19	19	18	18	17	15	14	12	9	7		
	40															20	20	19	19	19	18	18	16	15	13	11	9	6		
	50															20	20	20	19	19	18	18	17	17	16	14	13	11	8	5
	60															20	20	20	20	19	19	18	17	17	16	14	12	10	8	4
	80								20	20	20	20	19	19	19	19	18	18	17	17	16	15	13	11	9	6				
Shut-off PSI		561	553	544	535	527	518	509	501	492	483	466	457	440	414	397	379	362	353	310	267	224	180	137	94	50				

- 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 Pumps

## 4" Series V Pumps 20 GPM Performance Curves



# Submersible Pumps

## 4" Series V Pumps 20 GPM Performance Charts

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

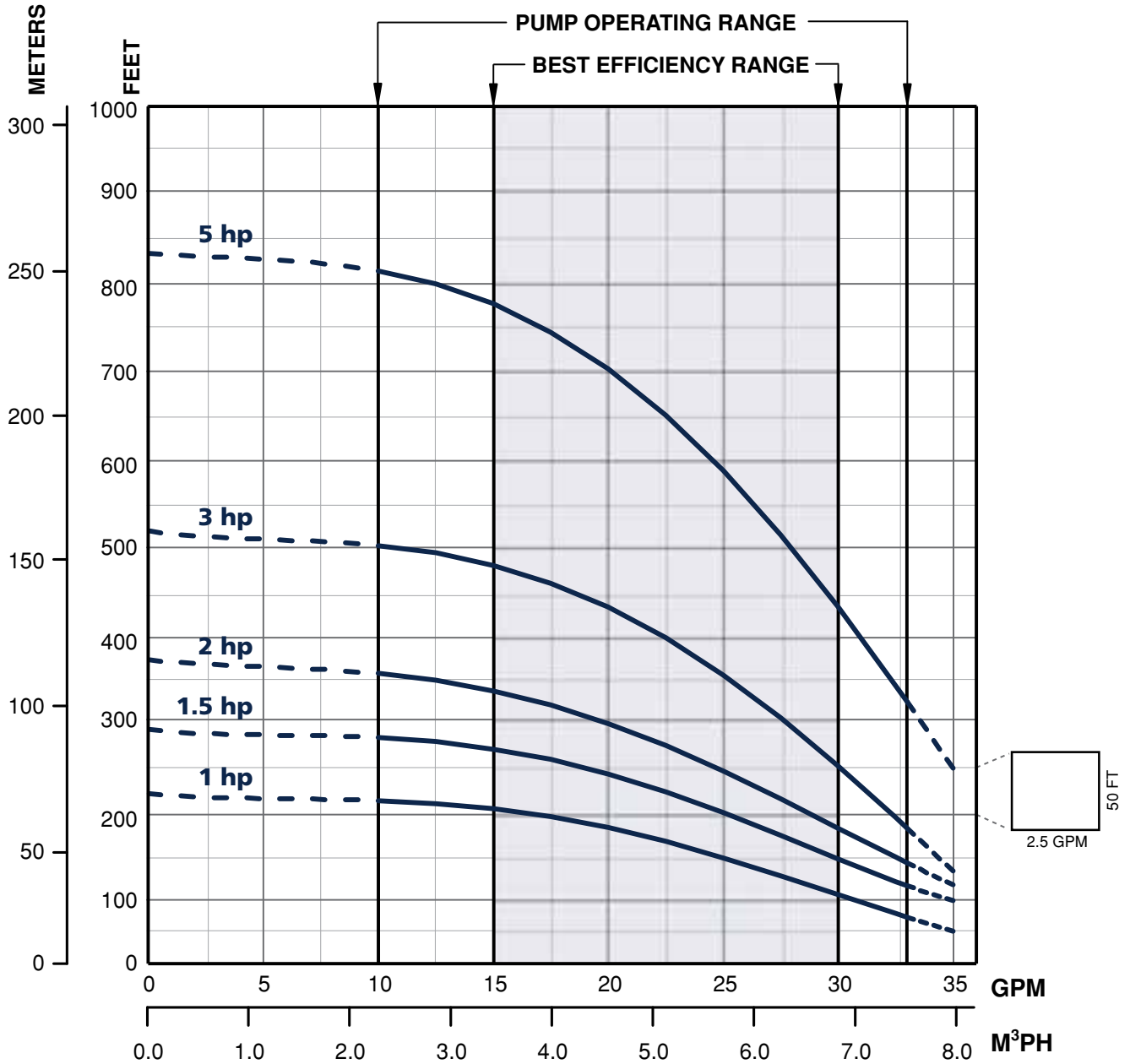
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																								
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480		500	600	700	800	900	1000	
3/4	0				24	22	21	18	14																	Shut-off 190 ft
	20		23	21	19	17	12																			
	30	23	21	19	17	11																				
	40	21	19	17	10																					
	50	19	16	10																						
	60	14																								
Shut-off PSI		74	65	56	48	39	30	22	13																	
1	0						26	25	23	20	18	11														Shut-off 251 ft
	20			27	26	24	22	20	18	15	8															
	30		27	26	24	22	19	17	14	7																
	40	27	25	23	21	19	17	13																		
	50	25	23	21	19	16	12																			
	60	23	21	18	16	11																				
Shut-off PSI		100	91	83	74	66	57	48	40	31	22	5														
1.5	0							27	26	24	22	20	17	6												Shut-off 379 ft
	20						27	25	24	23	21	18	16	10												
	30					26	25	24	22	21	20	16	13													
	40				26	25	23	22	21	19	18	13	8													
	50		27	26	25	23	22	21	19	17	15	7														
	60	27	26	24	23	22	20	19	17	15	11															
Shut-off PSI		156	147	138	130	121	112	104	95	86	78	60	52	34	8											
2	0										24	23	20	16	12											Shut-off 453 ft
	20										24	21	20	17	12											
	30									24	23	22	20	19	16											
	40								24	23	22	21	19	17	14											
	50							24	23	22	20	19	16	14	10											
	60					24	23	22	20	19	18	14	12													
Shut-off PSI		187	179	170	161	153	144	135	127	118	110	92	84	66	40	23										
3	0												24	22	20	18	16	14								Shut-off 601 ft
	20												24	23	20	17	15	12	10							
	30												24	23	21	18	16	13	10							
	40												24	23	22	20	17	14	11							
	50										24	24	22	21	19	16	13									
	60								24	24	23	21	20	18	14	10										
Shut-off PSI		251	242	234	225	216	208	199	190	182	173	156	147	130	104	87	69	52	43							
5	0															24	23	20	16							Shut-off 982 ft
	20															24	21	18	13							
	30															24	23	20	17	11						
	40															24	23	20	16	10						
	50															24	22	22	17	15						
	60															24	23	22	21	18	14					
Shut-off PSI		416	408	399	390	382	373	364	356	347	339	321	313	295	269	252	235	217	209	165	122	79				

- 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 Pumps

## 4" Series V Pumps

### 25 GPM Performance Curves



# Submersible Pumps

## 4" Series V Pumps 25 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	120	140	160	180	200	240	260	300	360	400	440	480	500	600		700	800	900	1000
1	0			35	33	31	28	26	24	21	17														
	20		32	30	28	25	22	18	15																
	30	32	29	27	25	22	19																		
	40	29	27	25	22	19																			
	50	26	24	21	16																				
	60	24	21	17																					
Shut-off PSI		87	79	70	61	53	44	35	27	18	10														
1.5	0						33	31	29	27	25	21	19												
	20				32	30	28	26	24	22	19														
	30			32	30	28	26	24	22	19	16														
	40	33	32	29	27	25	23	21	19	15															
	50	32	29	27	25	23	21	18																	
	60	29	27	25	23	20	18																		
80	24	22	20	17																					
Shut-off PSI		120	111	103	94	85	77	68	59	51	42	25	16												
2	0						33	32	30	28	25	24	20												
	20				34	33	31	29	28	26	25	21	20												
	30			34	33	31	29	28	26	24	23	19	17												
	40		34	33	31	29	28	26	24	23	21	17													
	50	33	32	30	29	27	26	24	22	20	18														
	60	32	30	28	27	26	24	22	20	18															
80	28	26	25	23	21	20	17																		
Shut-off PSI		154	145	136	128	119	110	102	93	84	76	58	50	32											
3	0								33	32	30	29	28	24	22	19	15								
	20						33	32	32	31	30	28	27	25	22	19									
	30					33	32	32	31	30	29	27	26	24	20										
	40				33	32	32	31	30	29	28	26	25	22	18										
	50			33	32	31	31	30	29	28	27	24	23	21	15										
	60		33	32	31	31	30	29	28	26	25	23	22	19											
80	32	31	30	29	28	27	26	25	24	23	20	19	15												
Shut-off PSI		216	207	199	190	181	173	164	155	147	138	121	112	95	69	52	34	17							
5	0												33	32	31	30	28	28	24	20					
	20													33	32	30	30	28	27	26	22	17			
	30														33	33	31	30	28	27	26	25	21		
	40															33	32	32	31	29	28	27	25	24	
	50																33	33	32	31	30	28	27	25	
	60																	33	32	31	31	30	28	26	
80																		33	32	31	31	30	28		
Shut-off PSI		352	343	326	317	309	300	291	283	274	257	248	231	205	187	170	153	144	101	58					

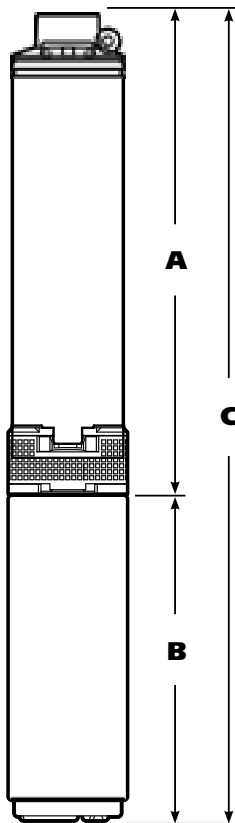
- Notes:** 1. Performance shown does not include friction loss in the drop pipe.  
2. All performance data is based on rated motor nameplate voltage.

# Submersible Pumps

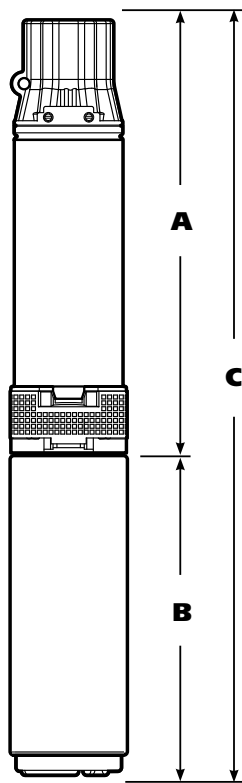
## 4" Series V Pumps

### Dimensions

**Stainless Steel**



**Thermoplastic**



Notes: All lengths are in inches  
 All weights are in pounds  
 Maximum diameter with cable guard is 3.90"

#### Plastic with 2-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	14.29	9.51	23.80	8	26
	3/4	12	17.80	10.64	28.44	9	30
	1	15	20.28	11.73	32.01	10	34
	1.5	21	25.23	15.10	40.33	12	43
7	1/2	7	13.47	9.51	22.98	7	25
	3/4	10	15.95	10.64	26.59	8	29
	1	13	18.62	11.73	30.35	10	34
	1.5	18	22.77	15.10	37.87	11	42
10	1/2	6	13.13	9.51	22.64	7	25
	3/4	8	14.95	10.64	25.59	8	29
	1	11	17.88	11.73	29.61	9	33
	1.5	15	21.52	15.10	36.62	10	41
15	1/2	4	11.51	9.51	21.02	6	24
	3/4	6	13.13	10.64	23.77	7	28
	1	8	14.95	11.73	26.68	8	32
	1.5	11	17.68	15.10	32.78	9	40
20	3/4	5	13.79	10.64	24.43	6	28
	1	7	16.23	11.73	27.96	7	31
	1.5	10	19.91	15.10	35.01	8	39
25	1	6	15.01	11.73	26.74	7	31
	1.5	8	17.46	15.10	32.56	8	39

#### Plastic with 3-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	14.29	9.51	23.80	8	27
	3/4	12	17.80	10.64	28.44	9	30
	1	15	20.28	11.73	32.01	10	34
	1.5	21	25.23	13.60	38.83	12	40
7	1/2	7	13.47	9.51	22.98	7	26
	3/4	10	15.95	10.64	26.59	8	29
	1	13	18.62	11.73	30.35	10	34
	1.5	18	22.77	13.60	36.37	11	39
10	1/2	6	13.13	9.51	22.64	7	26
	3/4	8	14.95	10.64	25.59	8	29
	1	11	17.88	11.73	29.61	9	33
	1.5	15	21.52	13.60	35.12	10	38
15	1/2	4	11.51	9.51	21.02	6	25
	3/4	6	13.13	10.64	23.77	7	28
	1	8	14.95	11.73	26.68	8	32
	1.5	11	17.68	13.60	31.28	9	37
20	3/4	5	13.79	10.64	24.43	6	28
	1	7	16.23	11.73	27.96	7	31
	1.5	10	19.91	13.60	33.51	8	36
25	1	6	15.01	11.73	26.74	7	31
	1.5	8	17.46	13.60	31.06	8	36

Notes: PE - Pump end only PMA - Pump and motor assembly

# Submersible Pumps

## 4" Series V Pumps Dimensions

### Stainless Steel with 2-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	14.31	9.51	23.82	10	28
	3/4	12	17.62	10.64	28.26	12	33
	1	15	20.10	11.73	31.83	14	38
	1.5	21	25.06	15.10	40.16	17	48
7	1/2	7	13.49	9.51	23.00	9	27
	3/4	10	15.97	10.64	26.61	11	32
	1	13	18.45	11.73	30.18	13	37
	1.5	18	22.59	15.10	37.69	15	46
10	1/2	6	13.15	9.51	22.66	9	27
	3/4	8	14.97	10.64	25.61	10	31
	1	11	17.70	11.73	29.43	11	35
	1.5	15	21.34	15.10	36.44	14	45
15	1/2	4	11.33	9.51	20.84	7	25
	3/4	6	13.15	10.64	23.79	9	30
	1	8	14.97	11.73	26.70	10	34
	1.5	11	17.70	15.10	32.80	11	42
20	3/4	5	13.84	10.64	24.48	8	29
	1	7	16.30	11.73	28.03	9	33
	1.5	10	19.98	15.10	33.85	11	42
25	1	6	15.07	11.73	26.80	9	33
	1.5	8	17.52	15.10	32.62	10	41

Notes: PE - Pump end only

PMA - Pump and motor assembly

### Stainless Steel with 3-Wire Motors

GPM	HP	Stages	A	B	C	PE Wt.	PMA Wt.
5	1/2	8	14.31	9.51	23.82	10	29
	3/4	12	17.62	10.64	28.26	12	33
	1	15	20.10	11.73	31.83	14	38
	1.5	21	25.06	13.60	38.66	17	45
7	2	26	31.48	15.10	46.58	20	N/A
	1/2	7	13.49	9.51	23.00	9	28
	3/4	10	15.97	10.64	26.61	11	32
	1	13	18.45	11.73	30.18	13	37
7	1.5	18	22.59	13.60	36.19	15	43
	2	24	27.74	15.10	42.84	19	N/A
	3	32	36.44	19.04	55.48	23	N/A
	10	1/2	6	13.15	9.51	22.66	9
3/4		8	14.97	10.64	25.61	10	31
1		11	17.70	11.73	29.43	11	35
1.5		15	21.34	13.60	34.94	14	42
2		18	26.15	15.10	41.25	15	N/A
3		24	31.81	19.04	50.85	19	N/A
10	5	39	45.45	28.19	74.64	27	N/A
	1/2	4	11.33	9.51	20.84	7	26
	3/4	6	13.15	10.64	23.79	9	30
	1	8	14.97	11.73	26.70	10	34
	1.5	11	17.70	13.60	31.30	11	39
	2	14	20.43	15.10	35.53	13	N/A
15	3	19	27.09	19.04	46.13	16	N/A
	5	31	38.30	29.19	67.49	23	N/A
	3/4	5	13.84	10.64	24.48	8	29
	1	7	16.30	11.73	28.03	9	33
	1.5	10	19.98	13.60	32.35	11	39
	2	12	22.45	15.10	37.55	12	N/A
20	3	16	27.56	19.04	46.60	14	N/A
	5	26	41.92	29.19	71.11	20	N/A
	1	6	15.07	11.73	26.80	9	33
	1.5	8	17.52	13.60	31.12	10	38
25	2	10	19.98	15.10	35.08	11	N/A
	3	14	24.90	19.04	43.94	13	N/A
	5	23	38.24	29.19	67.43	18	N/A



## Submersible Pumps

### 4" High Capacity Pumps

#### Features



## **FPS 4400**

#### **Features:**

- 4 performance ranges - 35, 45, 60 and 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 78.

Noryl® is a registered trademark of G.E.

# Submersible Pumps

## 4" High Capacity Pumps

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

1 - 10 HP 4" Pump Ends						
GPM	HP	Stages	Ordering Info.		Dimensions	Wt.
			Model No.	Order No.	Pump End Only	
35	1	6	35FA1S4-PE	93613506	15.00	9
	1.5	8	35FA15S4-PE	93613508	17.50	10
	2	10	35FA2S4-PE	93613510	20.00	11
	3	14	35FA3S4-PE	93613514	25.00	13
	5	22	35FA5S4-PE	93613522	35.00	17
	7.5	34	35FA7S4-PE	93613534	52.17	25
	10	42	35FA10S4-PE	93613542	62.23	31
45	1.5	6	45FA15S4-PE	93614506	21.00	15
	2	8	45FA2S4-PE	93614508	25.50	16
	3	11	45FA3S4-PE	93614511	32.25	19
	5	18	45FA5S4-PE	93614518	47.75	25
	7.5	26	45FA7S4-PE	93614526	65.25	33
	10	31	45FA10S4-PE	93614531	78.30	38
60	2	6	60FA2S4-PE	93616006	21.00	15
	3	8	60FA3S4-PE	93616008	25.50	17
	5	13	60FA5S4-PE	93616013	36.75	21
	7.5	17	60FA7S4-PE	93616017	45.25	25
	10	24	60FA10S4-PE	93616024	61.00	31
90	2	5	90FA2S4-PE	93619005	22.56	15
	3	7	90FA3S4-PE	93619007	28.56	17
	5	12	90FA5S4-PE	93619012	43.56	21
	7.5	19	90FA7S4-PE	93619019	64.50	27
	10	24	90FA10S4-PE	93619020	79.25	31

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

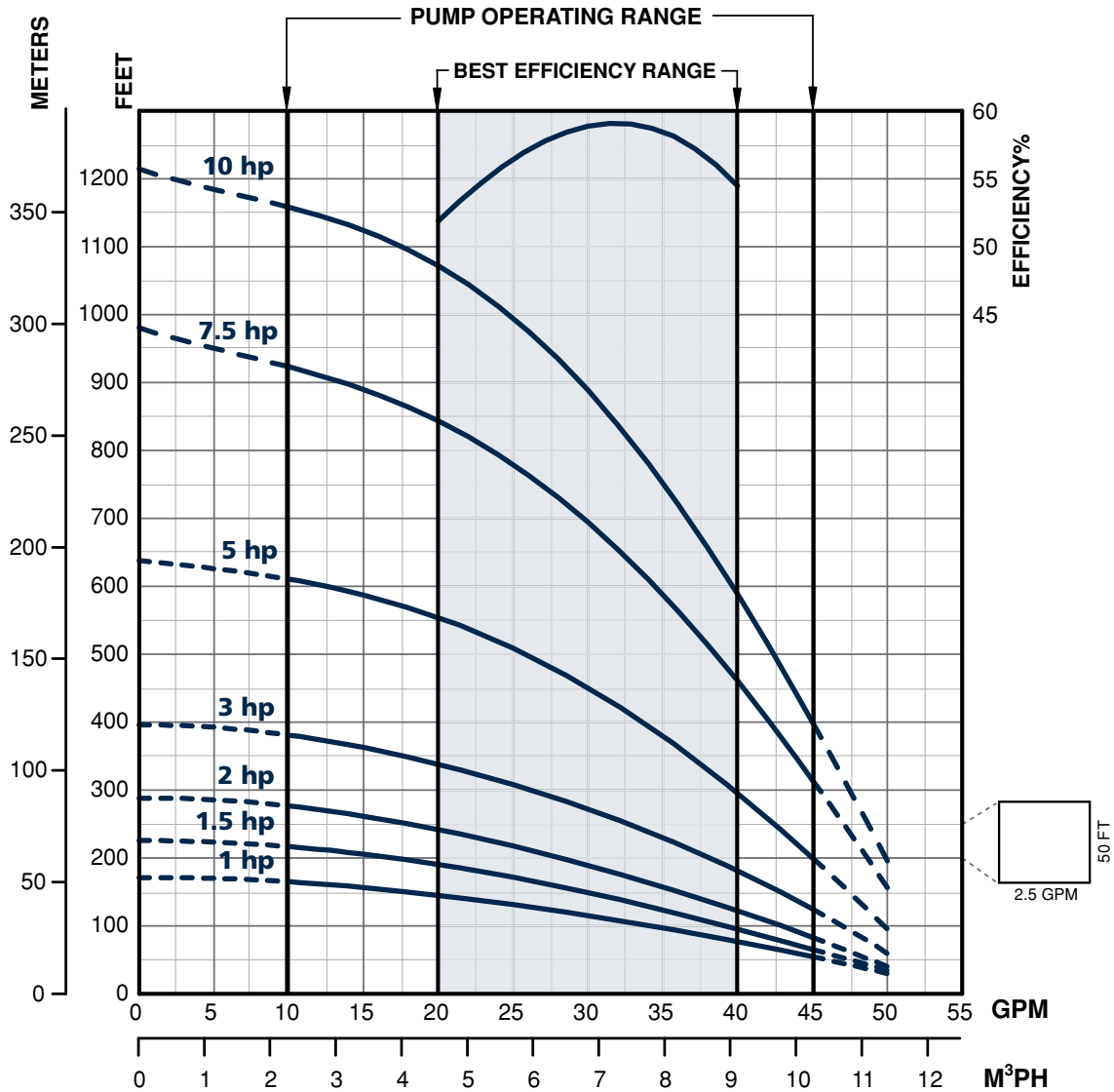
1 - 1.5 HP Single-Phase Units									
GPM	HP	Stages	Volts	2-Wire			3-Wire		
				Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
35	1	6	230	35FA1S4-2W230	93613606	33	35FA1S4-3W230	93613706	33
	1.5	8	230	35FA15S4-2W230	93613608	41	35FA15S4-3W230	93613708	39
45	1.5	6	230	45FA15S4-2W230	93614606	46	45FA15S4-3W230	93614706	44

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

# Submersible Pumps

## 4" High Capacity Pumps

### 35 GPM Performance Curves



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

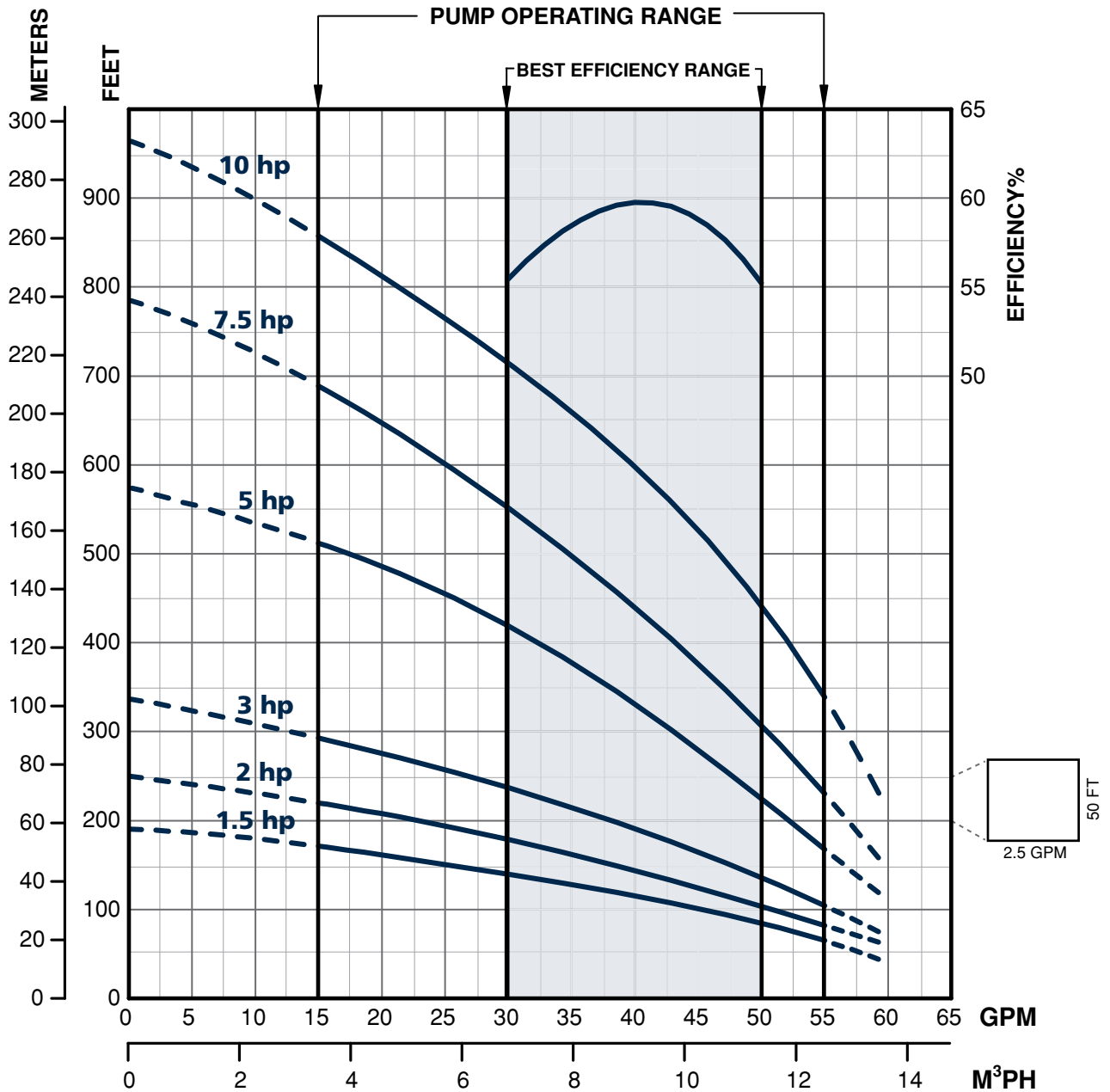
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																		
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	
1	0			44	40	34	28	22	13											
	10		43	39	33	27	21	11												
	20	43	38	32	26	20														
	30	37	31	26	19															
	40	30	25	18																
	50	24	16																	
	60	14																		
	70																			
	80																			
Shut-off PSI		65	57	48	39	31	22	13	5											



# Submersible Pumps

## 4" High Capacity Pumps

### 45 GPM Performance Curves



# Submersible Pumps

## 4" High Capacity Pumps

### 45 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	120	140	160	180	200	250	300	350	400	450	500	550		600	650
1.5	0																				Shut-off 190 ft
	10			55	51	45	37	26	20												
	20	54	50	43	35	27	18														
	30	49	42	34	26	16															
	40	41	33	24	15																
	50	32	23																		
	60	22																			
Shut-off PSI		74	65	56	48	39	30	22	13												
2	0				55	51	46	41	36	30	23										Shut-off 250 ft
	10				55	50	45	40	35	29	22										
	20			54	49	44	39	34	28	21											
	30	53	49	44	38	33	27	19													
	40	48	43	38	32	26	18														
	50	42	37	31	24	17															
	60	36	30	23	16																
Shut-off PSI		99	91	82	74	65	56	48	39	30	22										
3	0							53	49	46	42	38	27								Shut-off 337 ft
	10				55	52	49	45	41	37	33	21									
	20				55	52	48	45	41	37	32	26									
	30			54	51	48	44	40	36	32	27	22									
	40	54	51	47	44	40	35	31	26	21	15										
	50	50	47	43	39	35	30	25	20												
	60	46	42	38	34	30	25	19													
	70	42	38	33	29	24	18														
	80	37	33	28	23	17															
	90	32	27	22	16																
	100	27	21	16																	
Shut-off PSI		137	129	120	111	103	94	85	77	68	60	38									
5	0									54	52	48	43	38	32	26	17				Shut-off 575 ft
	10									55	54	52	50	46	41	36	30	22			
	20									55	53	52	50	48	43	38	33	26	18		
	30									55	53	51	50	48	46	41	36	30	23		
	40					55	53	51	49	47	46	44	44	39	33	27	19				
	50				54	53	51	49	47	45	43	42	36	31	23						
	60			54	52	51	49	47	45	43	41	39	34	27	19						
	70	54	52	50	48	47	45	43	41	39	37	31	24	15							
	80	52	50	48	46	44	43	41	39	36	34	28	20								
	90	50	48	46	44	42	40	38	36	34	31	25	16								
	100	48	46	44	42	40	38	36	34	31	28	21									
	110	45	44	42	40	38	35	33	31	28	25	17									
	120	43	41	39	37	35	33	30	28	25	21										
	130	41	39	37	35	32	30	27	24	21	17										
	140	39	37	34	32	29	27	24	20	17											
	150	36	34	32	29	26	23	20	16												
	160	28	25	22	18																
Shut-off PSI		240	232	223	214	206	197	188	180	171	162	141	119	97	76	54	32				

- 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. Performances for former XP models are the same as 45 gpm models.

Continued on next page...

# Submersible Pumps

## 4" High Capacity Pumps

### 45 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	120	140	160	180	200	250	300	350	400	450	500	550	600	650
7.5	0																			
	10																			
	20																			
	30																			
	40																			
	50																			
	60																			
	70																			
	80																			
	90																			
	100																			
	110																			
	120																			
	130																			
	140																			
	150																			
	160																			
Shut-off PSI		331	323	314	305	297	288	279	271	262	254	232	210	189	167	145	124	102	80	59

Shut-off 786 ft

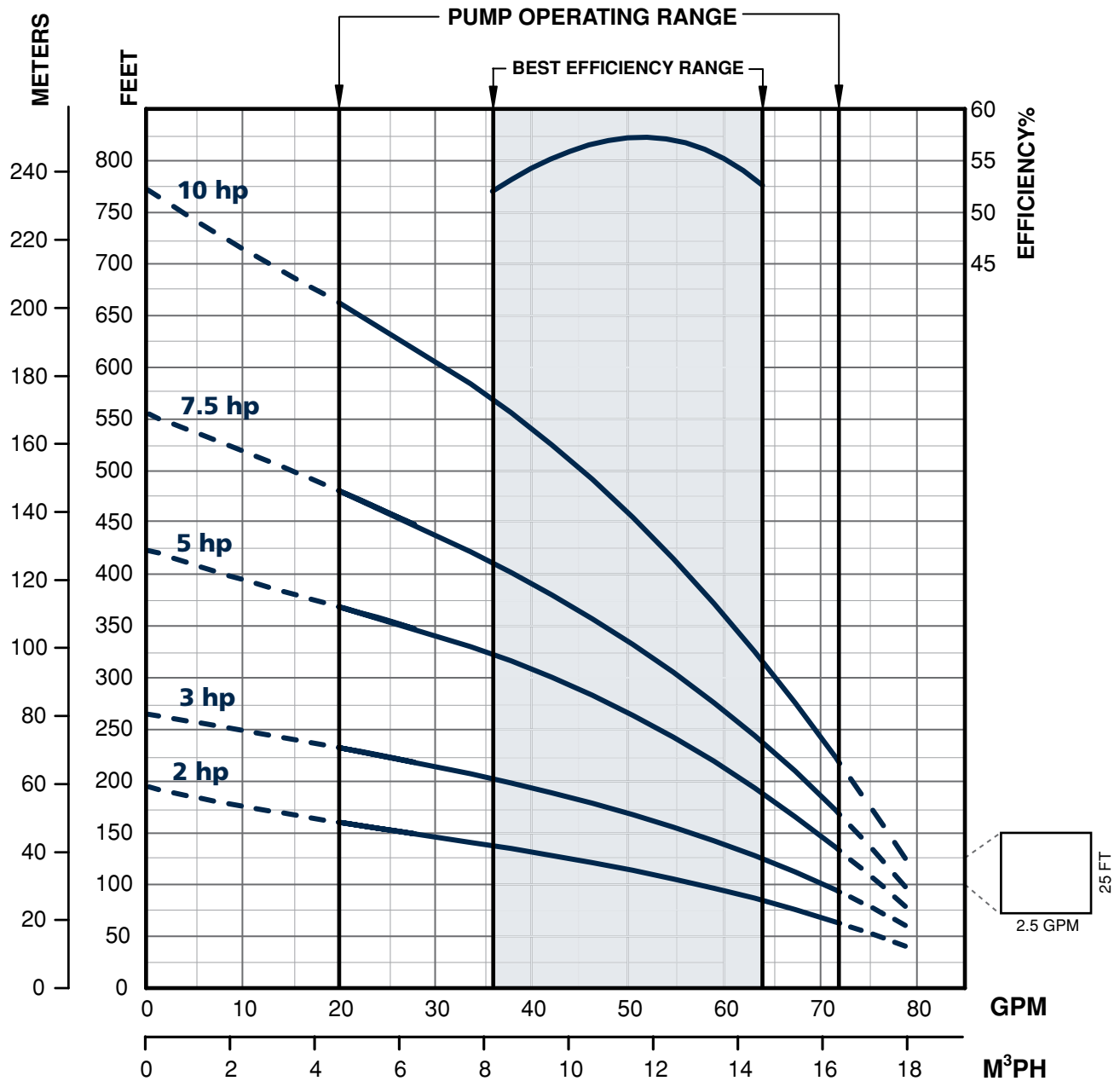
HP	PSI	20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750	800	850
		10	0																					
10																								
20																								
30																								
40																								
50																								
60																								
70																								
80																								
90																								
100																								
110																								
120																								
130																								
140																								
150																								
160																								
Shut-off PSI		410	402	393	385	376	367	359	350	341	333	311	289	268	246	224	201	179	158	136	115	93	71	50

Shut-off 965 ft

- 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. Performances for former XP models are the same as 45 gpm models.

## 4" High Capacity Pumps

### 60 GPM Performance Curves





# Submersible Pumps

## 4" High Capacity Pumps

### 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	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	
<b>2</b>	0				66	57	47	35	21										Shut-off 195 ft
	10			65	56	45	33	18											
	20	71	63	54	43	30													
	30	62	52	41	28														
	40	51	40	26															
	50	38	24																
	60	22																	
Shut-off PSI		76	67	58	50	41	32	24	15										
<b>3</b>	0					70	66	60	53	46	37								Shut-off 265 ft
	10				69	65	59	62	44	35	25								
	20		73	69	64	56	51	43	34	24									
	30	72	68	63	57	50	42	32	22										
	40	67	62	56	49	40	31	20											
	50	61	55	48	39	29													
	60	54	46	37	28														
Shut-off PSI		106	97	89	80	71	63	54	45	37	28								
<b>5</b>	0							71	68	65	62	54	42	27					Shut-off 425 ft
	10							70	68	65	62	59	49	36					
	20						70	67	64	61	58	54	43	28					
	30				72	69	67	64	61	57	54	50	37	20					
	40		72	69	68	63	60	57	53	49	44	29							
	50	71	69	66	63	60	56	53	48	43	38	21							
	60	68	65	62	59	56	52	48	43	37	31								
	70	65	62	59	55	51	47	42	36	30	23								
	80	61	58	55	51	46	41	35	28	21									
	90	58	54	50	45	40	34	27	20										
	100	54	49	45	39	33	26												
Shut-off PSI		175	167	158	149	141	132	123	115	106	97	76	54	32					

- 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. Performances for former XP models are the same as 60 gpm models.

## 4" High Capacity Pumps

### 60 GPM Performance Charts

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

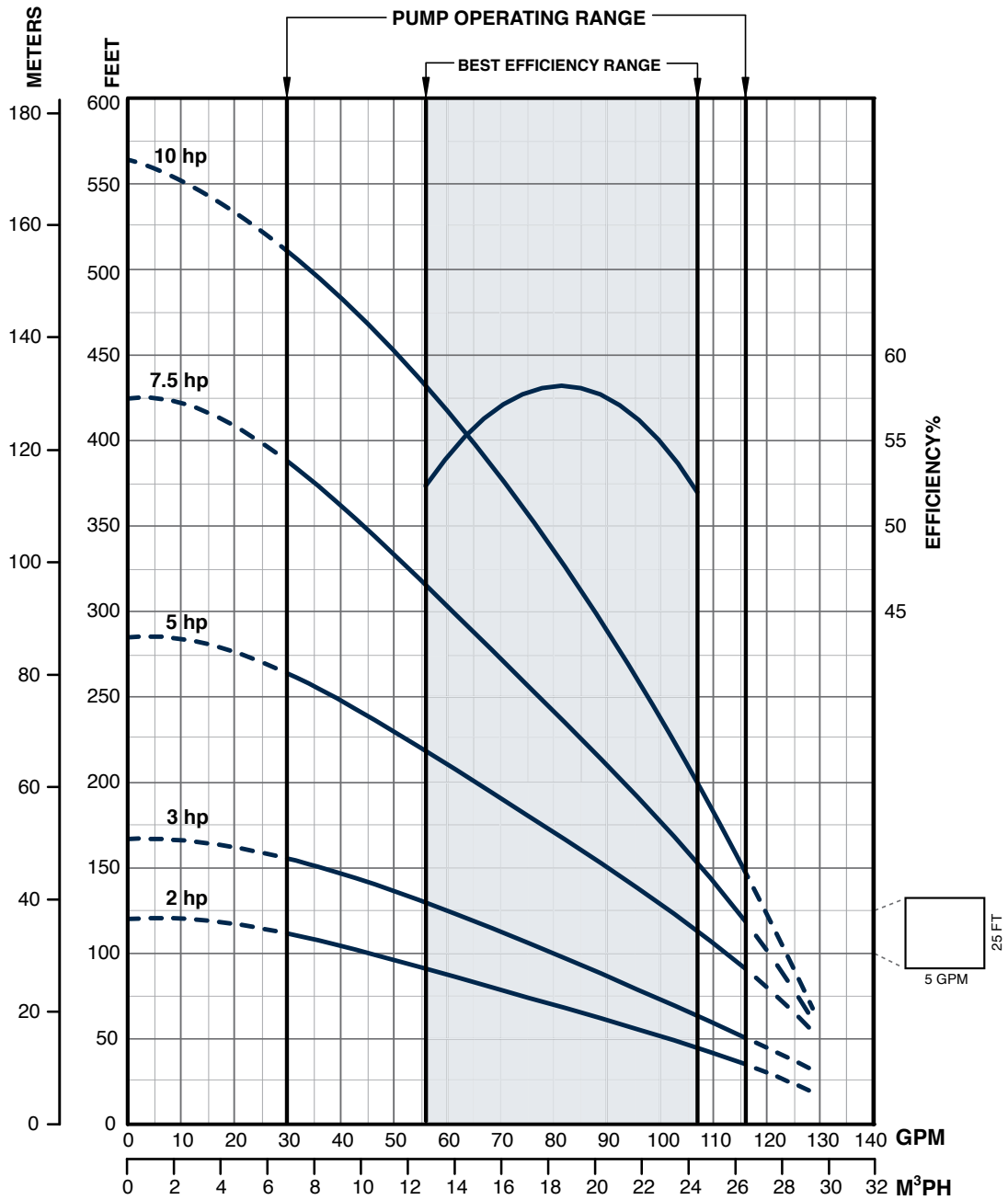
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																				
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650		
7.5	0																					
	10								72	70	68	66	59	52	43	33	22					
	20							72	70	68	65	63	56	48	39	28						
	30						72	70	67	65	63	60	53	44	34	23						
	40					71	69	67	65	62	60	57	49	40	29							
	50				71	69	67	64	62	59	56	53	45	35	24							
	60			71	69	66	64	61	59	56	53	49	40	30								
	70	70	68	66	64	61	58	55	52	48	45	36	25									
	80	68	66	63	61	58	55	52	48	45	41	31										
	90	65	63	60	57	54	51	48	44	41	37	26										
	100	62	60	57	54	51	47	44	40	36	32	20										
	110	59	57	53	50	47	43	39	35	31	26											
	120	56	53	50	46	43	39	35	30	26	21											
	130	52	49	46	42	38	34	30	25	20												
	140	49	45	41	37	33	29	24	19													
	150	45	41	37	33	28	24															
	160	31	26	21																		
Shut-off PSI		232	223	214	206	197	188	180	171	162	154	132	110	89	67	45						
10	0												69	65	61	57	51	45	39	31	22	
	10												71	67	63	59	54	49	42	35	27	
	20									72	71	69	66	61	57	52	46	39	31	23		
	30									72	71	69	68	64	59	55	49	43	36	28		
	40									72	70	69	67	66	62	57	52	46	40	32	24	
	50									72	70	69	67	66	64	60	55	50	43	36	28	
	60									72	70	68	67	65	64	62	58	53	47	40	33	24
	70																					
	80				71	70	68	66	65	63	62	60	58	53	47	41	33	25				
	90	71	69	68	66	65	63	61	60	58	56	51	44	37	29	21						
	100	69	68	66	64	63	61	59	57	56	53	48	41	34	26							
	110	67	66	64	62	61	59	57	55	53	51	45	38	30	22							
	120	65	64	62	61	59	57	55	53	51	48	42	34	26								
	130	64	62	60	58	57	55	52	51	48	45	39	31	22								
	140	62	60	58	56	54	52	50	48	45	42	35	27									
	150	60	58	56	54	52	50	47	45	42	39	31	23									
	160	53	51	48	46	43	41	38	35	31	28											
Shut-off PSI		326	317	308	300	291	282	274	265	256	248	226	204	183	161	139	118	96	74	53		

- 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. Performances for former XP models are the same as 60 gpm models.

# Submersible Pumps

## 4" High Capacity Pumps

### 90 GPM Performance Curves



# Submersible Pumps

## 4" High Capacity Pumps

### 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	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550				
2	0		113	92	67	48														Shut-off 120 ft		
	10	110	88	64	45																	
	20	84	61	40																		
	30	58	35																			
	40																					
	50																					
	60																					
Shut-off PSI		43	35	26	17	9																
3	0			110	96	79	64	49												Shut-off 167 ft		
	10		108	93	76	61	46															
	20	106	90	74	59	43																
	30	88	71	57	39																	
	40	69	55	35																		
	50	53	30																			
	60																					
Shut-off PSI		64	55	46	38	29	20	12														
5	0					113	106	96	85	74	64	41								Shut-off 285 ft		
	10				112	104	94	83	72	63	55											
	20			111	103	92	81	71	62	53	44											
	30		110	101	91	80	69	60	52	42												
	40	100	100	89	78	68	59	51	40													
	50	98	87	76	66	58	49	38														
	60	85	75	65	56	48	35															
	70	73	63	55	46	33																
	80	62	54	45	30																	
	90	53	43																			
	100	41																				
Shut-off PSI		115	106	97	89	80	71	63	54	45	37	15										
7.5	0					116	112	107	101	94	76	60	46							Shut-off 425 ft		
	10					115	111	108	100	93	86	68	54	38								
	20				115	110	105	99	92	85	77	61	47									
	30			114	109	104	98	91	83	76	70	55	40									
	40		113	109	103	96	90	82	75	69	62	49										
	50	113	108	102	95	88	81	74	68	61	56	41										
	60	107	101	94	87	80	73	67	61	55	50	31										
	70	100	93	86	79	72	66	60	54	49	42											
	80	92	85	78	71	65	59	53	48	41	33											
	90	84	77	70	64	58	53	47	40	31												
	100	76	69	63	57	52	46	39														
	110	68	62	56	51	45	38															
	120	61	55	50	44	36																
	130	55	49	43	35																	
	140	48	42	33																		
	150	41	32																			
	160																					
Shut-off PSI		175	167	158	149	141	132	123	115	106	97	76	54	32								
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																				
		20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480	500		550	600
10	0					122	119	116	113	109	106	99	91	83	75	65	54	42	35	11		Shut-off 565 ft
	10				122	119	116	112	109	106	102	95	87	78	69	59	48	34	25			
	20			121	118	115	112	108	105	101	98	90	82	73	64	53	40	24	13			
	30		121	118	115	111	108	104	101	97	94	86	77	68	57	46	31	11				
	40	120	117	114	111	107	104	100	97	93	89	81	72	62	51	38	21					
	50	117	114	110	107	103	100	96	92	88	84	76	66	56	44	29	7					
	60	113	110	106	103	99	96	92	88	84	79	70	60	49	35	18						
	70	109	106	102	99	95	91	87	83	79	74	65	54	41	26	2						
	80	105	102	98	94	91	87	82	78	74	69	59	47	33	14							
Shut-off PSI		236	227	219	210	201	193	184	175	167	158	141	123	106	89	71	54	37	28	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.

## Submersible Pumps

### 6" High Capacity Pumps

#### Features



## **FPS**4400

### 6" High Capacity Pumps

Ideal for farm, home, irrigation, industry, municipal and commercial applications, equipped with the power, performance and reliability you expect from Franklin Electric.

Flow ratings of 50, 75, 100 and 125 gpm with TDH up to 1200 ft.

Horsepower ranges from 1-1/2 to 40 hp.

#### Features:

- Heavy-duty stainless steel discharge head and motor bracket.
- Stainless steel shaft, shell, intake screen and cable guard provides corrosion resistance and longer pump life.
- Glass-filled Noryl® impeller stage assemblies provide exceptional strength and durability.
- Ceramic shaft sleeve and rubber discharge bearing minimizes bearing wear and shaft misalignment.
- 3" NPT heavy-duty stainless steel discharge head.
- Modular motor bracket enabling 4" or 6" motor mount for 5-10 hp units.
- One year unconditional warranty against failure from sand locking in abrasive well conditions.

Noryl® is a registered trademark of G.E.

# Submersible Pumps

## 6" High Capacity Pumps

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

### Stainless Steel Ordering Information

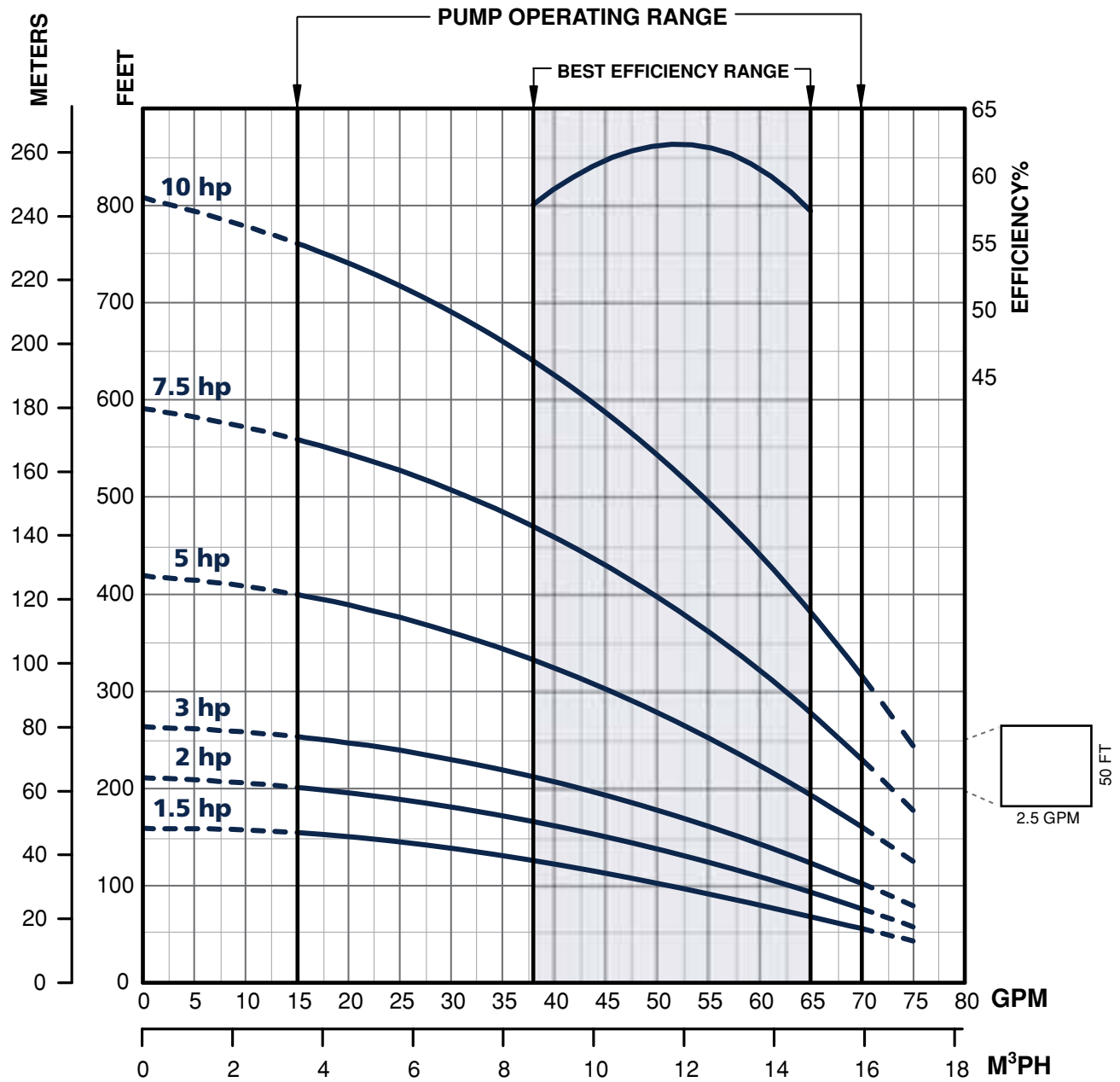
6" Pump Ends							
GPM	HP	Stages	Motor Fit	Ordering Info.		Dimensions	Wt.
				Model No.	Order No.	Pump End Only	
50	1.5	3	4"	50FA15S6-PE	94825003	13.51	30
	2	4	4"	50FA2S6-PE	94825004	15.13	31
	3	5	4"	50FA3S6-PE	94825005	16.76	32
	5	8	4" & 6"	50FA5S6-PE	94825008	21.63	36
	7.5	11	4" & 6"	50FA7S6-PE	94825011	26.51	40
	10	15	4" & 6"	50FA10S6-PE	94825015	32.94	46
75	3	3	4"	75FA3S6-PE	94827503	13.51	30
	5	5	4" & 6"	75FA5S6-PE	94827505	16.76	32
	7.5	7	4" & 6"	75FA7S6-PE	94827507	20.01	35
	10	9	4" & 6"	75FA10S6-PE	94827509	23.26	38
	15	13	6"	75FA15S6-PE	94827513	29.76	43
	20	17	6"	75FA20S6-PE	94827517	36.19	48
	25	23	6"	75FA25S6-PE	94827523	46.00	54
100	5	3	4" & 6"	100FA5S6-PE	94820003	14.62	30
	7.5	5	4" & 6"	100FA7S6-PE	94820005	18.51	32
	10	6	4" & 6"	100FA10S6-PE	94820006	20.49	34
	15	9	6"	100FA15S6-PE	94820009	26.31	38
	20	13	6"	100FA20S6-PE	94820013	34.07	43
	25	16	6"	100FA25S6-PE	94820016	39.94	47
125	5	2	4" & 6"	125FA5S6-PE	94822502	12.94	29
	7.5	3	4" & 6"	125FA7S6-PE	94822503	15.05	30
	10	4	4" & 6"	125FA10S6-PE	94822504	17.13	31
	15	7	6"	125FA15S6-PE	94822507	23.37	35
	20	9	6"	125FA20S6-PE	94822509	27.54	38
	25	11	6"	125FA25S6-PE	94822511	31.70	40
	30	13	6"	125FA30S6-PE	94822513	35.87	43
	40	18	6"	125FA40S6-PE	94822518	46.27	48

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

# Submersible Pumps

## 6" High Capacity Pumps

### 50 GPM Performance Curves



# Submersible Pumps

## 6" High Capacity Pumps

### 50 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	120	140	160	180	200	250	300	350	400	450	500	550				
1.5	0			68	61	51	41	30											Shut-off 156 ft			
	20	66	58	47	38	25																
	30	56	46	37	21																	
	40	44	35	16																		
	50	33																				
Shut-off PSI		60	51	43	34	25	17	8														
2	0				69	63	57	49	41	31	16							Shut-off 211 ft				
	20		67	62	54	46	38	27														
	30	67	60	53	45	37	25															
	40	59	52	44	35	23																
	50	51	42	34	20																	
60	41	32	17																			
Shut-off PSI		83	74	65	57	48	39	31	22	13	5											
3	0					70	66	61	55	49	42	17						Shut-off 263 ft				
	20			69	65	60	53	47	40	33	21											
	30		68	64	59	52	46	39	31	18												
	40	68	63	58	51	45	38	30	15													
	50	63	57	50	44	37	28															
Shut-off PSI		105	97	88	79	71	62	53	45	36	27	6										
5	0								70	67	64	55	45	34				Shut-off 418 ft				
	20							69	66	63	60	56	46	35	16							
	30					69	66	63	59	56	51	41	28									
	40				68	66	62	59	55	51	47	36	18									
	50		70	68	65	62	58	54	50	46	42	29										
60	70	67	65	61	58	54	50	45	41	37	20											
Shut-off PSI		173	164	155	147	138	129	121	112	103	95	73	51	30								
7.5	0												68	63	57	49	42	32	18	Shut-off 591 ft		
	20												70	68	63	57	50	42	33		19	
	30												70	68	66	60	54	47	38		27	
	40												70	68	66	64	58	51	43		34	21
	50												69	67	65	63	61	54	47		39	28
Shut-off PSI		247	239	230	221	213	204	195	187	178	169	148	126	104	83	61	39	18				
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																				
		100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700		750			
10	0												68	64	59	54	49	43	37	28	18	Shut-off 808 ft
	20												68	64	60	55	50	44	37	29	19	
	30												70	66	62	57	52	47	41	34	25	
	40												68	64	60	55	50	44	38	30	20	
	50												70	66	62	58	53	47	41	34	26	
60												70	68	65	60	56	50	45	38	31	21	
Shut-off PSI		306	298	289	281	272	263	242	220	198	177	155	133	112	90	68	47	25				

Discharge 3" NPT.

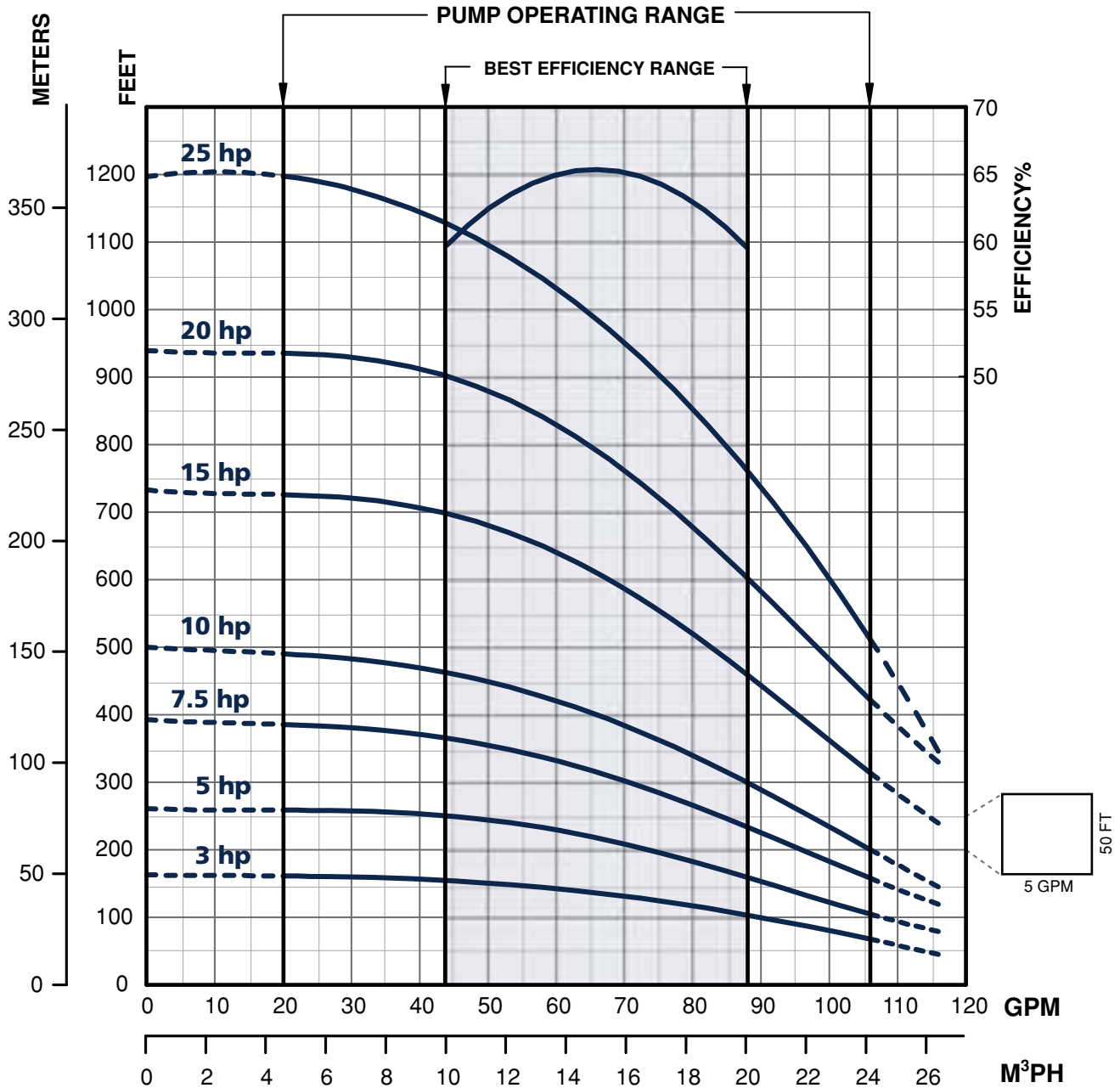
- Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.



# Submersible Pumps

## 6" High Capacity Pumps

### 75 GPM Performance Curves



# Submersible Pumps

## 6" High Capacity Pumps

### 75 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	120	140	160	180	200	250	300	350	400	450	500	550			
3	0			108	101	89	77	64	26												
	20	106		85	73	57															
	30	96	83	72	53																
	40	81	70	47																	
	50	68	40																		
Shut-off PSI		61	53	44	35	27	18	9	1												
5	0				116	106	102	96	88	79	73	41									
	20		112	105	100	93	85	77	71	64	47										
	30	110	104	99	92	84	76	70	63	43											
	40	103	98	91	82	75	69	61	37												
	50	97	89	81	74	68	58	31													
	60	88	80	73	67	56	24														
Shut-off PSI		103	95	86	77	69	60	51	43	34	25	4									
7.5	0				114	108	104	100	96	90	85	71	56								
	20				112	107	103	99	95	89	84	78	65	40							
	30			111	106	103	99	94	88	83	77	72	57								
	40	111	106	102	98	93	88	82	76	71	66	43									
	50	105	102	97	92	87	81	76	71	65	59										
	60	105	102	97	92	87	81	76	71	65	59										
Shut-off PSI		159	150	142	133	124	116	107	98	90	81	59	38	16							
10	0					116	111	108	105	102	99	89	78	67	52						
	20					115	111	107	104	101	98	94	84	73	61	39					
	30				114	110	107	104	101	98	94	89	78	68	54	18					
	40			114	109	106	104	100	97	93	89	84	74	63	42						
	50	113	109	106	103	100	96	92	88	84	79	69	55	22							
	60	113	109	106	103	100	96	92	88	84	79	69	55	22							
Shut-off PSI		205	196	187	179	170	161	153	144	135	127	105	84	62	40	19					
15	0							114	107	102	97	89	81	74	68	60	41				
	20						115	107	103	97	90	82	75	69	61	43					
	30				114	110	105	100	94	86	78	72	66	55	28						
	40			113	110	107	103	98	90	82	75	69	62	45							
	50		113	109	107	105	101	95	87	79	73	66	56	31							
	60	112	109	107	105	103	98	91	83	76	70	63	47								
Shut-off PSI		263	254	245	237	228	206	185	163	142	120	98	77	55	33	12					
20	0								113	107	103	100	94	88	82	76	71	66	58	43	
	20								113	107	104	100	95	89	82	76	72	67	59	44	
	30								110	106	102	98	92	86	79	74	69	64	54	33	
	40								114	108	104	100	95	89	83	77	72	67	60	46	
	50								110	106	102	98	93	86	80	74	70	64	55	35	
	60						115	108	104	101	96	90	83	77	72	67	61	47			
Shut-off PSI		353	345	336	327	319	297	275	254	232	210	189	167	145	124	102	80	59	37	15	
25	0			116	112	109	107	104	101	97	93	89	84	79	75	70	65	59	50	38	19
	20			116	112	109	107	104	101	98	93	89	84	80	75	70	65	59	51	39	21
	30			114	111	108	106	103	100	96	91	87	82	78	73	68	63	56	46	31	
	40			112	109	107	104	101	98	94	89	85	80	75	71	66	60	51	40	23	
	50	114	111	108	106	103	100	96	92	87	83	78	73	69	63	56	47	33			
	60	113	110	107	105	102	98	94	90	85	80	76	71	66	60	52	41	24			
Shut-off PSI		412	391	369	347	326	304	283	261	239	218	196	174	153	131	109	88	66	44	23	1

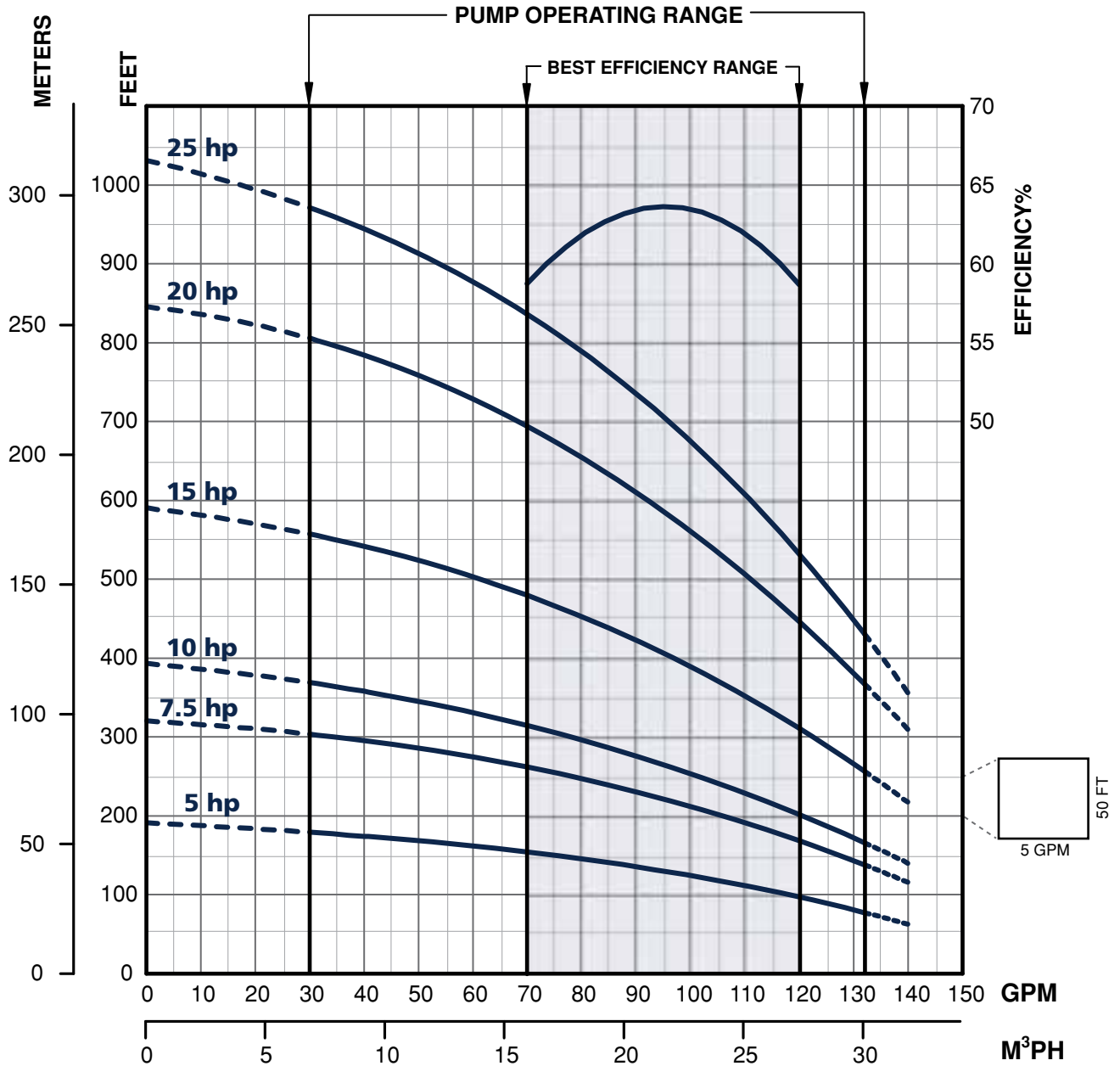
Discharge 3" NPT.

- 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 Pumps

## 6" High Capacity Pumps

### 100 GPM Performance Curves



# Submersible Pumps

## 6" High Capacity Pumps

### 100 GPM Performance Charts

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

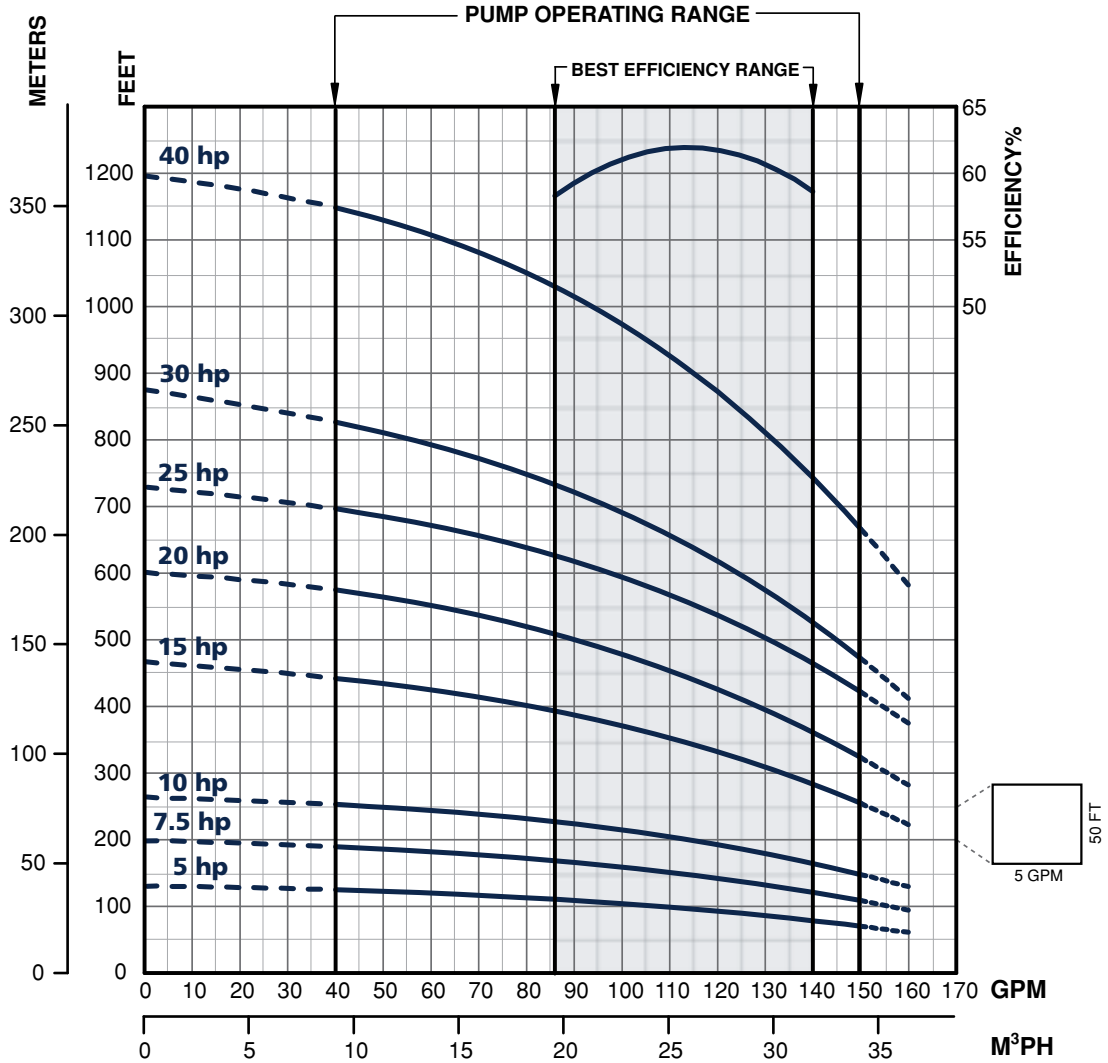
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550
5	0				130	119	104	85	62									
	20		127	115	98	78	54											
	30	125	112	95	75	49												
	40	110	92	71	44													
	50	89	68	38														
	60	64	32															
	70																	
Shut-off PSI		74	65	57	48	39	31	22	13									
7.5	0							131	123	115	107	79	32					
	20					129	121	113	104	93	82	37						
	30				127	120	111	102	92	79	64							
	40			126	118	110	101	90	77	62	42							
	50		125	117	109	99	88	75	59	38								
	60	124	116	107	97	86	73	56	34									
	70	115	106	96	84	71	53	30										
Shut-off PSI		130	121	113	104	95	87	78	69	61	52	30	9					
10	0									127	121	102	79	45				
	20							132	125	118	111	104	81	48				
	30					131	124	117	110	102	94	67	28					
	40				130	123	116	109	101	92	83	51						
	50			129	122	115	108	100	91	81	70	31						
	60		128	121	114	107	99	90	79	68	54							
	70	127	120	113	105	97	88	78	66	52	35							
Shut-off PSI		161	153	144	135	127	118	110	101	92	84	62	40	19				
15	0												123	111	98	82	61	32
	20												123	112	99	83	62	34
	30											129	118	107	93	74	51	
	40								132	128	124	113	101	85	64	37		
	50							132	128	124	119	108	94	76	53			
	60					131	127	123	119	114	102	86	66	39				
	70				130	126	122	118	113	109	95	78	55					
Shut-off PSI		247	238	229	221	212	204	195	186	178	169	147	126	104	82	61	39	17
20	0					127	119	111	103	94	82	69	52					
	20				127	120	112	104	94	83	70	53	31					
	30			131	124	116	108	99	89	78	63	44						
	40			128	120	112	104	95	84	71	55	33						
	50		132	124	117	109	100	90	79	64	45							
	60		128	121	113	105	96	85	72	56	35							
	70	132	125	117	109	101	91	80	65	47								
Shut-off PSI		280	258	236	215	193	172	150	128	107	85	63	42					
25	0					130	124	118	111	104	96	87	78	67	53	37		
	20					130	124	118	112	105	97	88	79	68	55	39		
	30					128	122	116	109	101	93	84	74	62	48	30		
	40				130	125	119	112	105	97	89	79	68	56	40			
	50				128	122	116	109	102	94	85	75	63	49	31			
	60			131	125	119	113	106	98	90	80	69	57	41				
	70			128	123	117	110	102	94	85	75	64	50	33				
Shut-off PSI		359	338	316	294	273	251	229	208	186	164	143	121	99				

#### Discharge 3" NPT.

- 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 Pumps

## 6" High Capacity Pumps 125 GPM Performance Curves



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

HP	PSI	20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	
5	0				140	106	62														
	20		131	94																	
	30	126	88																		
	40	82																			
	Shut-off PSI	48	39	30	22	13	4														
7.5	0					141	122	99	64												
	20				135	116	90	48													
	30		150	133	112	85															
	40	147	130	109	79																
	50	127	105	73																	
	60	101	67																		
	70	60																			
Shut-off PSI	77	69	60	51	43	34	25	17	8												Shut-off 198 ft

# Submersible Pumps

## 6" High Capacity Pumps 125 GPM Performance Charts

HP	PSI	20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650			
10	0								143	129	114	45										Shut-off 263 ft	
	20						139	125	109	88	54												
	30				149	137	122	106	84	47													
	40			148	135	120	103	79															
	50		146	132	118	100	74																
	60	144	130	115	97	69																	
	70	128	112	93	63																		
Shut-off PSI		105	97	88	79	71	62	53	45	36	27	6											
15	0												134	112	81							Shut-off 467 ft	
	20											135	114	84									
	30										145	126	101	65									
	40								144	137	116	87											
	50						149	143	136	128	104	68											
	60					148	142	134	126	117	89	44											
	70					147	141	133	125	116	106	72											
Shut-off PSI			185	176	168	159	150	142	133	124	116	94	72	51	29								
20	0												143	129	113	91	59					Shut-off 601 ft	
	20											144	130	114	93	62							
	30											138	123	105	81	41							
	40										145	131	115	95	65								
	50										139	124	107	83	45								
	60									146	132	117	97	68									
	70							150	145	140	125	108	85	49									
Shut-off PSI		252	243	234	226	217	208	200	191	182	174	152	130	109	87	65	44	22					
25	0														143	133	119	99	71			Shut-off 734 ft	
	20														144	134	120	101	74				
	30													149	140	128	112	90	57				
	40													145	135	121	103	76					
	50											150	140	129	114	92	60						
	60											146	135	123	104	78	42						
	70											141	130	115	94	63							
Shut-off PSI				292	283	275	266	257	249	240	231	210	188	166	145	123	101	80	58	37			
30	0									143	134	125	113	99	79	54						Shut-off 873 ft	
	20						144	135	126	114	100	81	56										
	30				149	140	131	121	108	92	70	43											
	40				145	136	126	115	101	83	58												
	50				149	141	132	122	109	93	72	45											
	60				145	136	127	116	102	84	60												
	70			150	141	132	122	110	95	74	47												
Shut-off PSI		270	248	226	205	183	161	140	118	96	75	53	31										
40	0										150	144	138	132	125	117	107	95	80			Shut-off 1194 ft	
	20									150	145	139	132	126	118	1108	96	82	62				
	30									148	142	136	129	122	114	103	90	73	52				
	40									145	139	133	126	118	109	97	83	64	40				
	50								148	142	136	130	123	114	104	91	75	53					
	60								145	139	133	127	119	110	98	84	66	42					
	70							149	143	137	130	123	115	105	92	76	55						
Shut-off PSI		409	387	365	344	322	300	279	257	235	214	192	170										

**Discharge 3" NPT.**

- 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 Pumps

# E-Series Environmental Pumps

## Features



### Applications:

- Filtered effluent service
- Aeration
- Ornamental fountains/waterfalls

### Features:

- Ideal for effluent pumping applications.
- Stainless steel or thermoplastic discharge and motor bracket are tough and non-corrosive. Both materials are highly resistant to damage by minerals, metals and other substances typically found in water.
- Heavy duty, 300 V, 10' SJOOW 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 particles away from bearing surfaces.
- Proven hydraulic staging allows close tolerances and increased performance.
- Carbon phenolic up thrust washer prevents excessive wear in severe applications.
- Removable built in check valve on 10-20 gpm pumps. No built in check valves on high capacity pumps.
- Powered by a Franklin Electric submersible motor.

# Submersible Pumps

## E-Series Environmental Pumps

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

### Thermoplastic Ordering Information

1/2 - 1.5 HP Single-Phase Units						
GPM	HP	Volt	Wire	Order No.	Model	Wt.
10	1/2	115	2	94741005	10FE05P4-2W115	25
	1/2	230	2	94741010	10FE05P4-2W230	25
	3/4	230	2	94741015	10FE07P4-2W230	29
	1	230	2	94741020	10FE1P4-2W230	33
	1.5	230	2	94741025	10FE15P4-2W230	41

20	1/2	115	2	94742005	20FE05P4-2W115	24
	1/2	230	2	94742010	20FE05P4-2W230	24
	3/4	230	2	94742015	20FE07P4-2W230	28
	1	230	2	94742020	20FE1P4-2W230	31
	1.5	230	2	94742025	20FE15P4-2W230	39

1/2 - 2 HP Pump Ends						
GPM	HP	Volt	Wire	Order No.	Model	Wt.
10	1/2	N/A	2	94751005	10FE05P4-PE	7
	3/4	N/A	N/A	94751010	10FE07P4-PE	8
	1	N/A	N/A	94751015	10FE1P4-PE	9
	1.5	N/A	N/A	94751020	10FE15P4-PE	10
20	1/2	N/A	N/A	94752005	20FE05P4-PE	6
	3/4	N/A	N/A	94752010	20FE07P4-PE	6
	1	N/A	N/A	94752015	20FE1P4-PE	7
	1.5	N/A	N/A	94752020	20FE15P4-PE	8
	2	N/A	N/A	94752025	20FE2P4-PE	9

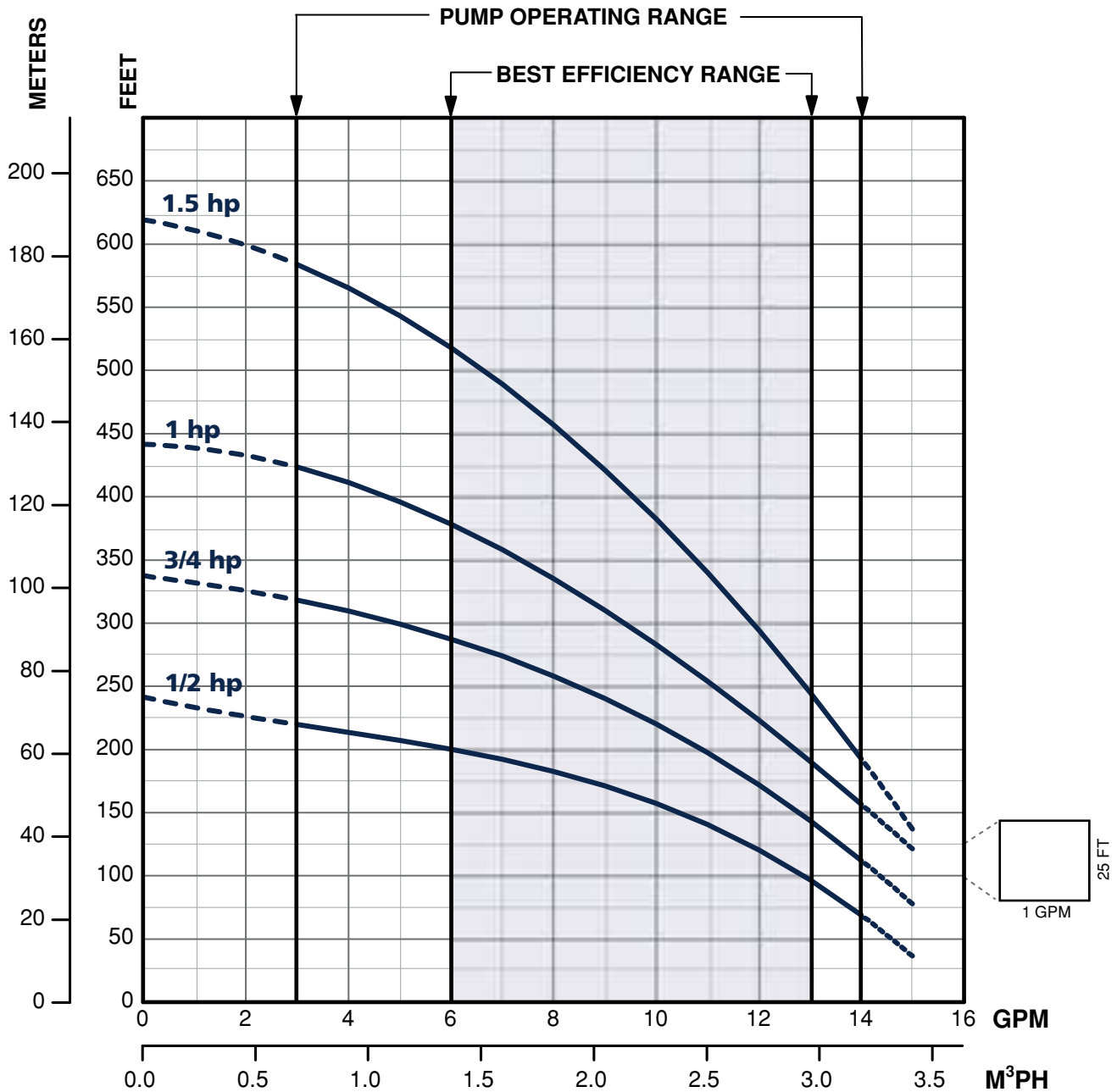
Notes: Discharge is 1-1/4" NPT. Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.



# Submersible Pumps

## E-Series Environmental Pumps

Thermoplastic - 10 GPM Performance Curves



# Submersible Pumps

## E-Series Environmental Pumps

### Thermoplastic - 10 GPM Performance Charts

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

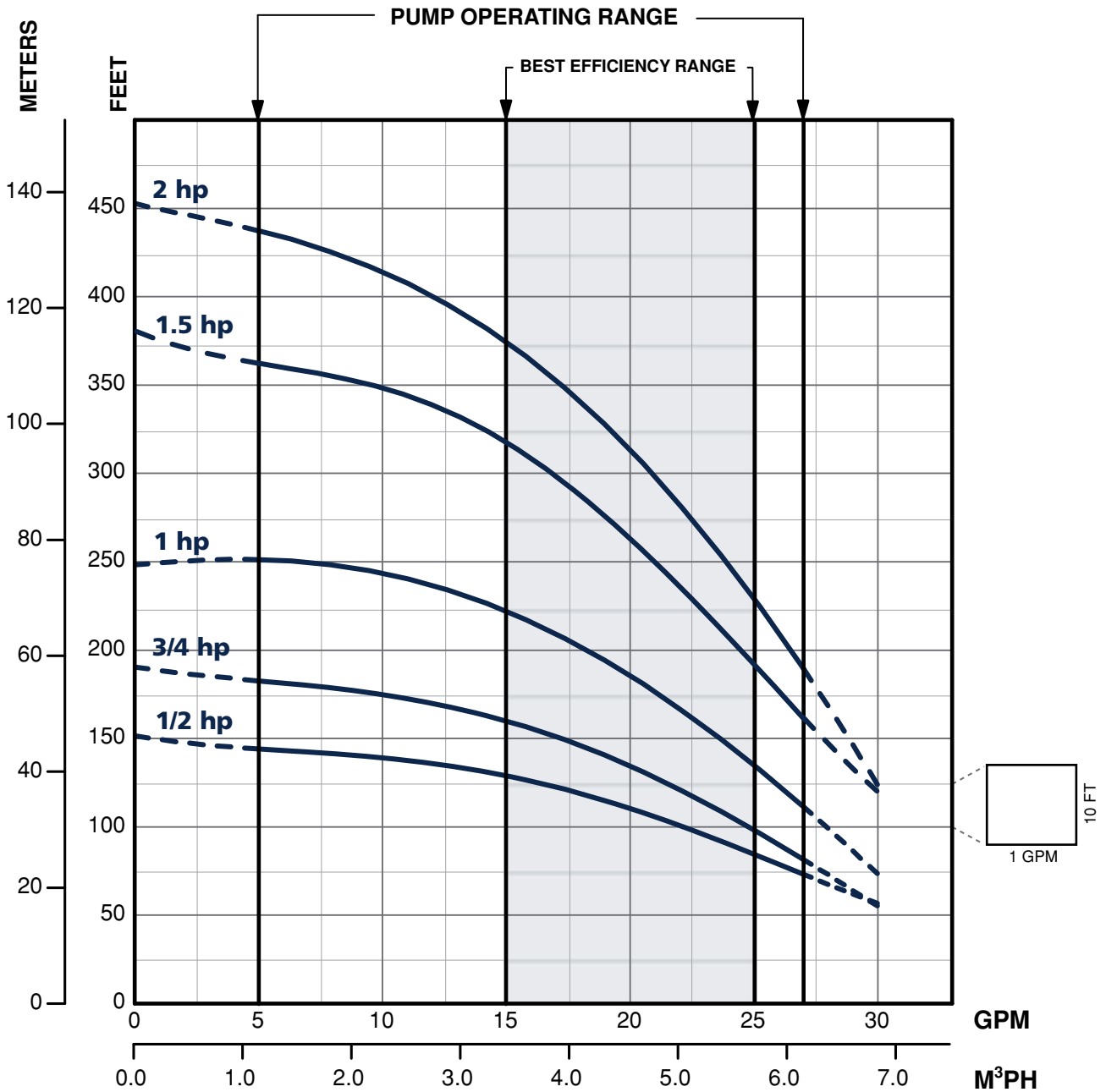
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																	
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600
1/2	0			14	14	13	12	11	10	8	6								
	20	14	13	13	12	11	9	8	5										
	30	13	12	12	11	9	7	5											
	40	12	11	10	9	7	4												
	50	11	10	9	6	4													
	60	10	8	6	3														
	70	8	6	3															
	80	5																	
Shut-off PSI		96	87	79	70	61	53	44	35	27	18								
3/4	0					14	14	13	12	12	11	8	5						
	20			14	14	13	12	11	11	10	9	5							
	30		14	13	13	12	11	10	10	9	7	3							
	40	14	13	13	12	11	10	9	8	7	6								
	50	13	13	12	11	10	9	8	7	5	3								
	60	13	12	11	10	9	8	7	5	3									
	70	12	11	10	9	8	6	5											
	80	11	10	9	8	6	4												
Shut-off PSI		137	129	120	111	103	94	85	77	68	59	38	16						
1	0							14	14	13	13	11	9	7	5				
	20					14	14	13	13	12	11	9	8	5					
	30				14	14	13	13	12	11	10	9	7	3					
	40			14	13	13	12	12	11	10	10	8	5						
	50	14	14	13	13	12	12	11	10	9	9	7	4						
	60	14	13	13	12	12	11	10	9	9	8	6							
	70	13	13	12	11	11	10	9	8	8	7	4							
	80	13	12	11	11	10	9	8	8	7	6								
Shut-off PSI		182	174	165	156	148	139	130	122	113	105	83	61	40	18				
1.5	0									14	14	13	12	11	9	8	7	5	
	20						14	14	14	13	13	12	11	10	8	7	5		
	30						14	14	14	13	13	13	12	10	9	8	6	4	
	40				14	14	14	13	13	13	12	11	10	8	7	5			
	50			14	14	14	13	13	12	12	12	10	9	8	6	4			
	60		14	14	14	13	13	12	12	12	11	10	8	7	5	3			
	70	14	14	13	13	13	12	12	11	11	10	9	8	6	4				
	80	14	13	13	13	12	12	11	11	10	10	9	7	5	3				
Shut-off PSI		259	251	242	233	225	216	207	199	190	181	160	138	117	95	73	52	30	8

- 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 Pumps

## E-Series Environmental Pumps

Thermoplastic - 20 GPM Performance Curves



# Submersible Pumps

## E-Series Environmental Pumps

### Thermoplastic - 20 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	120	140	160	180	200	250	300	350	400	450	500	550
1/2	0				26	22	18	9										
	20		24	21	16													
	30	24	21	15														
	40	20	13															
	50	12																
	60																	
	70																	
	80																	
Shut-off PSI		57	48	40	31	22	14	5										
3/4	0				27	25	22	19	15	7								
	20		26	24	21	18	13											
	30	26	24	21	18	12												
	40	23	20	17	11													
	50	20	16	9														
	60	15	8															
	70	6																
	80																	
Shut-off PSI		74	65	57	48	39	31	22	13	5								
1	0					26	25	23	20	18	6							
	20			27	26	24	22	20	18	15	8							
	30		27	26	24	22	19	17	14	7								
	40	27	25	23	21	19	17	13										
	50	25	23	21	19	16	12											
	60	23	21	18	16	11												
	70	20	18	15	10													
	80	18	15	9														
Shut-off PSI		100	91	83	74	65	57	48	40	31	22	1						
1.5	0							27	26	24	21	17	9					
	20						27	25	24	23	21	17	10					
	30					26	25	24	22	21	20	15						
	40				26	25	23	22	21	19	18	11						
	50		27	26	25	23	22	21	19	17	15							
	60	27	26	24	23	22	20	19	17	15	11							
	70	26	24	23	21	20	19	17	14	11	5							
	80	24	23	21	20	18	16	14	10									
Shut-off PSI		156	147	138	130	121	112	104	95	86	78	56	34	13				
2	0								27	27	24	21	17	12				
	20							27	26	25	24	21	18	13				
	30						27	26	25	24	23	19	16	9				
	40					27	26	25	24	23	21	18	13					
	50				27	26	25	24	22	21	20	16	10					
	60		27	27	26	25	23	22	21	19	18	14	5					
	70	27	27	26	24	23	22	21	19	18	16	10						
	80	26	25	24	23	22	20	19	18	16	14	6						
Shut-off PSI		187	178	170	161	153	144	135	127	118	109	88	66	44	23			

- 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 Pumps

## E-Series Environmental Pumps

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

### Stainless Steel Ordering Information

1/2 - 1.5 HP Single-Phase Units						
GPM	HP	Volt	Wire	Order No.	Model	Wt.
35	1/2	115	2	94743505	35FE05S4-2W115	25
	1/2	230	2	94743510	35FE05S4-2W230	25
	3/4	230	2	94743515	35FE07S4-2W230	29
	1	230	2	94743520	35FE1S4-2W230	33
	1.5	230	2	94743525	35FE15S4-2W230	39
45	1/2	115	2	94744505	45FE05S4-2W115	28
	1/2	230	2	94744510	45FE05S4-2W230	28
	3/4	230	2	94744515	45FE07S4-2W230	33
	1	230	2	94744520	45FE1S4-2W230	36
	1.5	230	2	94744525	45FE15S4-2W230	44
60	1/2	115	2	94746005	60FE05S4-2W115	29
	1/2	230	2	94746010	60FE05S4-2W230	29
	3/4	230	2	94746015	60FE07S4-2W230	33
	1	230	2	94746020	60FE1S4-2W230	37
	1.5	230	2	94746025	60FE15S4-2W230	45
90	1.5	230	2	94749025	90FE15S4-2W230	44

**Notes:** Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.  
Discharge is 2" NPT with no built in check valve.

## E-Series Environmental Pumps

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

### Stainless Steel Ordering Information

1/2 - 3 HP Pump Ends				
GPM	HP	Order No.	Model	Wt.
35	1/2	94753505	35FE05S4-PE	7
	3/4	94753510	35FE07S4-PE	8
	1	94753515	35FE1S4-PE	9
	1.5	94753520	35FE15S4-PE	10
	2	94753525	35FE2S4-PE	11
	3	94753530	35FE3S4-PE	12
45	1/2	94754505	45FE05S4-PE	10
	3/4	94754510	45FE07S4-PE	11
	1	94754515	45FE1S4-PE	12
	1.5	94754520	45FE15S4-PE	15
	2	94754525	45FE2S4-PE	16
	3	94754530	45FE3S4-PE	19
60	1/2	94756005	60FE05S4-PE	11
	3/4	94756010	60FE07S4-PE	12
	1	94756015	60FE1S4-PE	13
	1.5	94756020	60FE15S4-PE	14
	2	94756025	60FE2S4-PE	15
	3	94756030	60FE3S4-PE	17
90	1.5	94759020	90FE15S4-PE	15
	2	94759025	90FE2S4-PE	15
	3	94759030	90FE3S4-PE	17

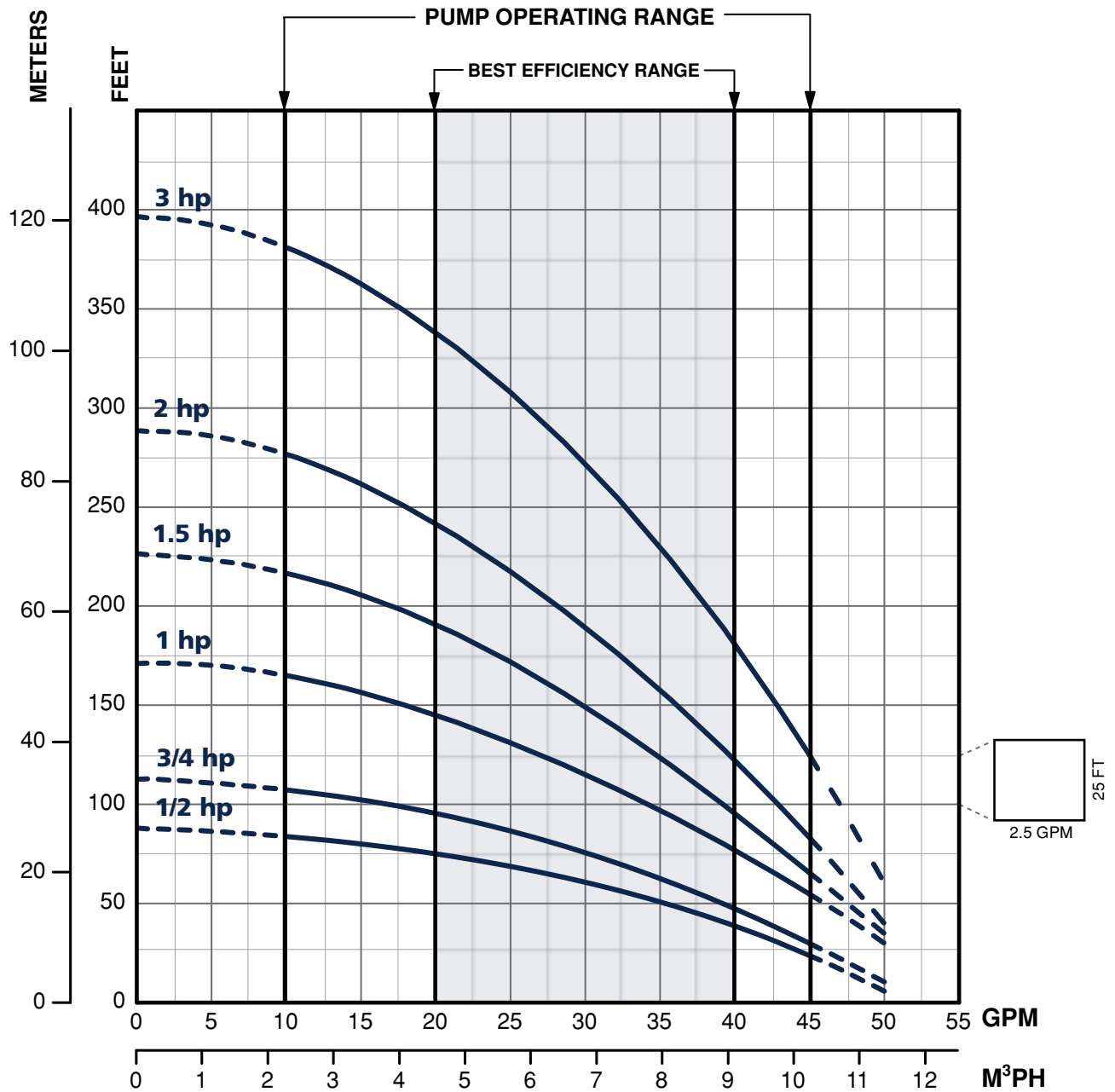
**Notes:** Maximum diameter across cable guard is 3.90" on all models. Weight in pounds.

Discharge is 2" NPT with no built in check valve.

# Submersible Pumps

## E-Series Environmental Pumps

Stainless Steel - 35 GPM Performance Curves



# Submersible Pumps

## E-Series Environmental Pumps

### Stainless Steel - 35 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	120	140	160	180	200	250	300	350	400	450	500	550			
1/2	0		40	30	15															Shut-off 88 ft	
	10	38	29	11																	
	20	27																			
	30																				
	40																				
	50																				
Shut-off PSI		29	21	12	3																
3/4	0		42	36	28	17														Shut-off 113 ft	
	10	42	35	27	14																
	20	33	25	11																	
	30	24																			
	40																				
	50																				
Shut-off PSI		40	32	23	14	6															
1	0			44	40	34	28	22	13											Shut-off 171 ft	
	10		43	39	33	27	21	11													
	20	43	38	32	26	20															
	30	37	31	26	19																
	40	30	25	17																	
	50	24	16																		
	60	14																			
Shut-off PSI		65	57	48	39	31	22	13	5												
1.5	0				43	40	36	31	27	23	18									Shut-off 226 ft	
	10		45	42	39	35	31	27	23	16											
	20	45	42	38	34	30	26	22	15												
	30	41	38	34	30	26	21	13													
	40	37	33	29	25	20	12														
	50	32	28	24	19	10															
	60	28	24	18																	
	70	23	17																		
80	16																				
Shut-off PSI		89	81	72	63	55	46	37	29	20	11										
2	0				45	43	41	38	34	31	28	19								Shut-off 288 ft	
	10			45	43	40	37	34	31	27	24	11									
	20		45	42	40	37	33	30	27	24	20										
	30	44	42	39	36	33	30	26	23	19	12										
	40	42	39	36	32	29	26	22	18	11											
	50	38	35	32	29	25	22	17	10												
	60	35	31	28	25	21	16														
	70	31	28	24	21	15															
80	27	24	20	14																	
Shut-off PSI		116	107	99	90	81	73	64	55	47	38	16									
3	0					45	44	42	40	38	32	26	18							Shut-off 396 ft	
	10					45	44	42	40	38	36	29	23	12							
	20				45	44	42	40	38	35	33	27	19								
	30			45	43	42	39	37	35	32	30	24	13								
	40		45	43	41	39	37	34	32	30	27	20									
	50	44	43	41	39	36	34	32	29	27	24	14									
	60	43	41	38	36	34	31	29	26	24	21										
	70	40	38	36	33	31	28	26	23	20	15										
80	38	35	33	30	28	26	23	19	15												
Shut-off PSI		163	154	145	137	128	119	111	102	94	85	63	42	20							

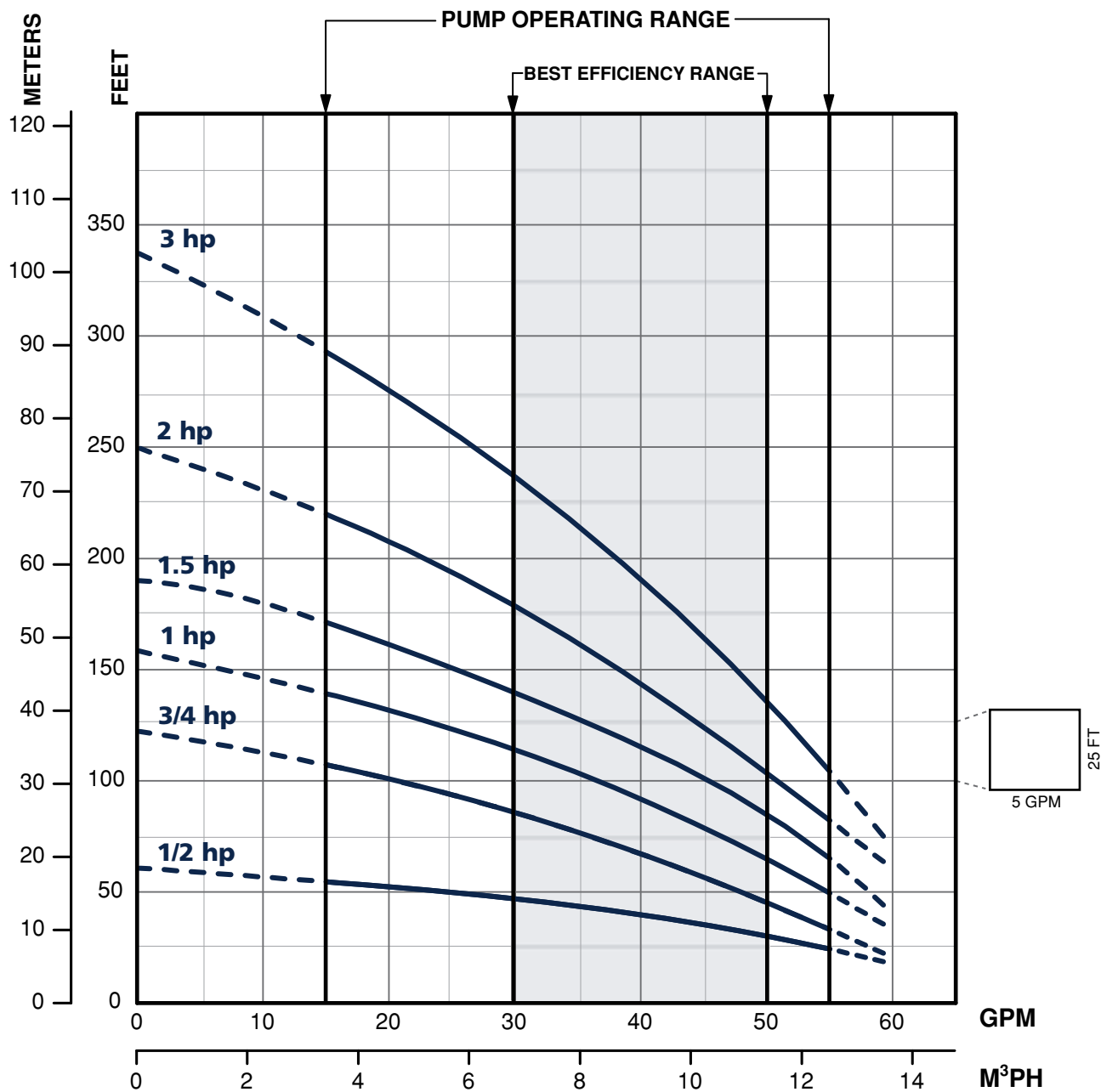
- Notes: 1. Performance shown does not include friction loss in the drop pipe.  
 2. All performance data is based on rated motor nameplate voltage.



# Submersible Pumps

## E-Series Environmental Pumps

Stainless Steel - 45 GPM Performance Curves



# Submersible Pumps

## E-Series Environmental Pumps

### Stainless Steel - 45 GPM Performance Charts

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

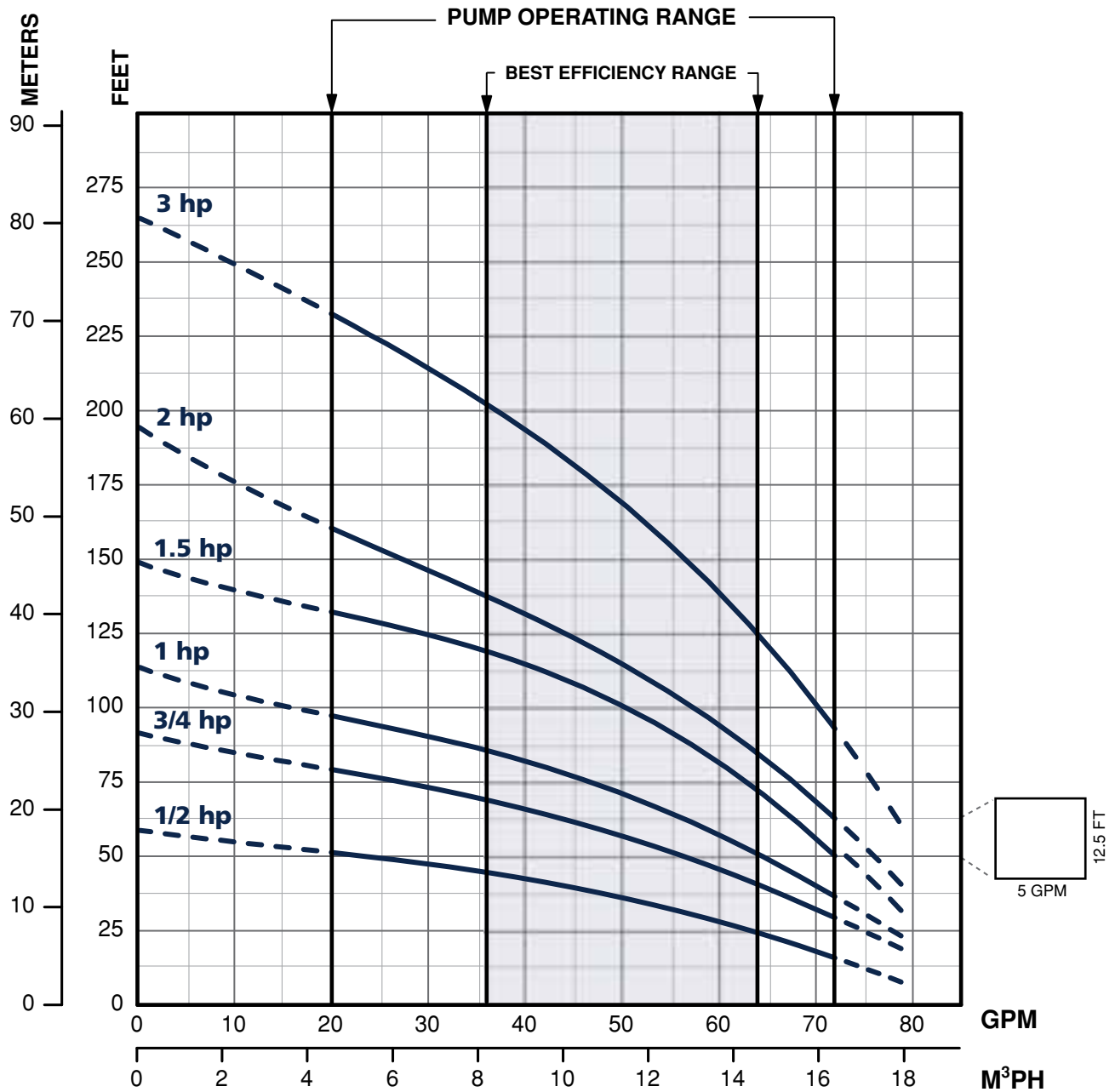
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																		
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550		
1/2	0		40																	Shut-off 61 ft
	10	36																		
	20																			
	30																			
	40																			
	50																			
Shut-off PSI		18	9																	
3/4	0		52	43	33	21														Shut-off 122 ft
	10	51	42	32	18															
	20	40	30	16																
	30	28																		
	40																			
	50																			
Shut-off PSI		44	36	27	18	10														
1	0			52	45	37	27													Shut-off 158 ft
	10		51	43	35	25														
	20	49	42	34	23															
	30	41	32	21																
	40	31	20																	
	50	17																		
Shut-off PSI		60	51	43	34	25	17													
1.5	0				52	46	38	30	21											Shut-off 190 ft
	10		55	51	44	37	28	19												
	20	55	50	43	35	27	18													
	30	49	42	34	26	16														
	40	41	33	24																
	50	32	23																	
Shut-off PSI		74	65	56	48	39	30	22	13											
2	0				55	51	46	41	36	30	23									Shut-off 250 ft
	10			55	50	45	40	35	29	22										
	20		54	49	44	39	34	28	21											
	30	53	49	44	38	33	27	19												
	40	48	43	38	32	26	18													
	50	42	37	31	24	17														
Shut-off PSI		99	91	82	73	65	56	48	39	30	22									
3	0					56	53	49	46	42	38	27								Shut-off 337 ft
	10				55	52	49	45	41	37	33	21								
	20			55	52	48	45	41	37	32	28									
	30		54	51	48	44	40	36	32	27	22									
	40	54	51	47	44	40	35	31	26	21	15									
	50	50	47	43	39	35	30	25	20											
	60	46	42	38	34	30	25	19												
	70	42	38	33	29	24	18													
	80	37	33	28	23	17														
	90	32	27	22	16															
	100	27	21	16																
Shut-off PSI		137	129	120	111	103	94	85	77	68	59	38								

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 Pumps

## E-Series Environmental Pumps

Stainless Steel - 60 GPM Performance Curves



# Submersible Pumps

## E-Series Environmental Pumps

### Stainless Steel - 60 GPM Performance Charts

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

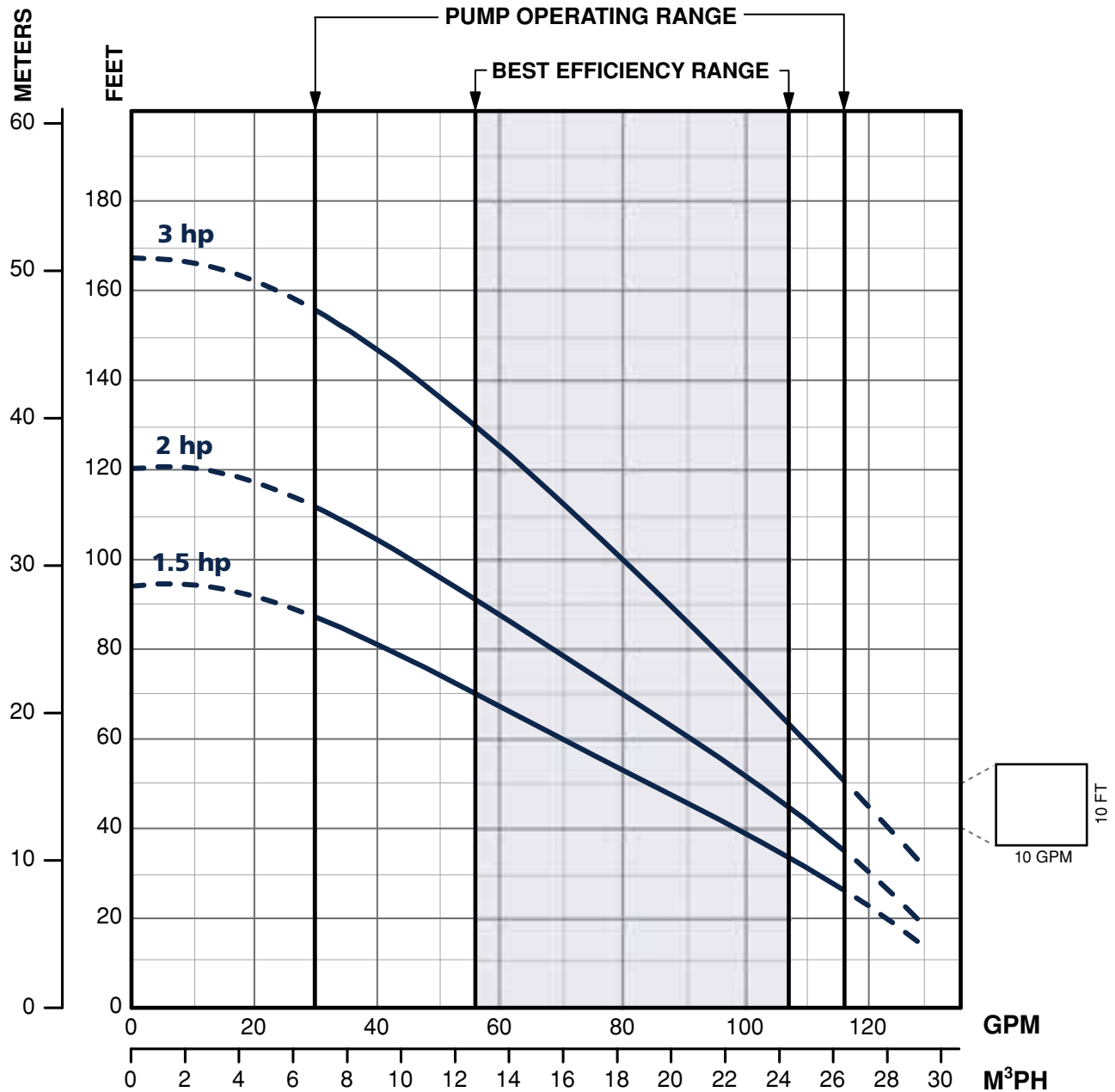
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																	
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	
1/2	0	68	44																
	10	39																	
	20																		
	30																		
	40																		
	50																		
Shut-off PSI		17	8																
3/4	0		64	47															
	10	62	43																
	20	40																	
	30																		
	40																		
	50																		
Shut-off PSI		31	22	14															
1	0		70	58	42														
	10	68	56	39															
	20	54	35																
	30	31																	
	40																		
	50																		
Shut-off PSI		41	32	23	15														
1.5	0			69	61	51	34												
	10		67	59	49	31													
	20	66	58	47	27														
	30	57	44	24															
	40	42	20																
	50																		
Shut-off PSI		56	47	39	30	21	13												
2	0				66	57	47	34	21										
	10		72	65	56	45	32												
	20	71	64	54	43	30													
	30	62	53	41	28														
	40	51	39	26															
	50	37	24																
Shut-off PSI		76	67	58	50	41	32	24	15										
3	0					70	65	60	53	46	37								
	10				70	64	59	52	45	36	25								
	20			69	64	58	51	43	34	24									
	30		68	63	57	50	42	33	22										
	40	67	62	56	49	41	31	20											
	50	61	55	48	39	29													
Shut-off PSI		106	98	89	80	72	63	54	46	37	28								

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 Pumps

## E-Series Environmental Pumps

Stainless Steel - 90 GPM Performance Curves



# Submersible Pumps

## E-Series Environmental Pumps

### Stainless Steel - 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	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550		
1.5	0		99	69	43															
	10	94	65	38																
	20	61	32																	
	30																			
	40																			
	50																			
Shut-off PSI		32	24	15	6															
2	0		112	91	68	47														
	10	109	88	65	43															
	20	84	61	39																
	30	58	34																	
	40																			
	50																			
Shut-off PSI		44	35	26	18	9														
3	0			110	96	79	64	48												
	10		108	93	77	61	45													
	20	106	91	74	59	42														
	30	88	72	57	38															
	40	69	54	34																
	50	52	30																	
Shut-off PSI		64	55	46	38	29	20	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.

# Submersible Pumps

## 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.

## Jet Pumps - Shallow Well

### VersaJet Pro



#### Features:

- Impeller with corrosion-resistant stainless steel insert, diffuser, jet nozzle and venturi are all molded with Noryl®. Noryl® thermoplastic is a highly efficient, dependable material known for its exceptional performance when used to produce hydraulic components for water systems.
- Heavy-duty cast iron case ensures optimum durability and long life.
- Floating stainless steel eye seal for maximum performance and efficiency.
- Powered by high quality, industry proven, UL778 approved indoor/outdoor motors from A.O. Smith.
- Revolutionary "Quick-Change" jet nozzle replacement system allows easy customization of the pump. Performance can be changed quickly from a high pressure to a high flow set-up without removing the plumbing or opening the case.
- Easily adjustable dual voltage motor can be set to run at either 115 V or 230 V.
- Professional grade 30/50 pressure switch with copper hose is adjustable in both the differential and the range.
- Built-in drain plug for easy winterizing and servicing.
- Handles water temperatures up to 120 °F/49 °C and shut-off pressures up to 90 psi.
- 1" NPT discharge, 1-1/4" NPT suction.
- UL778 certified for indoor or outdoor use.

Noryl® is a registered trademark of G.E.



*Revolutionary  
"Quick Change" Jet Nozzle*

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

Model	HP	Discharge x Suction	Voltage	Pump Unit	
				Order No.	Wt.
FVJ05CI-P	1/2	1" x 1-1/4"	115/230	91181005	34
FVJ07CI-P	3/4	1" x 1-1/4"	115/230	91181007	51
FVJ1CI-P	1	1" x 1-1/4"	115/230	91181010	56



# Non-Submersible Pumps

## Jet Pumps - Shallow Well

### VersaJet Pro

#### Performance Chart

VJ 1" Discharge x 1-1/4" Suction			Discharge Pressure - PSI						Shut-Off Pressure PSI
Model	Nozzle	Total Suction Lift Ft.	10	20	30	40	50	60	
			Gallons per Minute						
FVJ05CI-P	Nozzle C (Standard)	5	16.3	15.6	15.1	14.1	9.0	3.8	70
		10	14.2	13.6	13.1	12.5	7.8	2.9	
		15	12.1	11.6	11.2	10.8	6.5	2.0	
		20	9.5	9.1	8.9	8.7	5.0	1.0	
	Nozzle D (High Pressure)	5	15.8	15.2	14.7	14.1	9.6	4.8	73
		10	13.9	13.2	12.8	12.4	8.5	3.9	
		15	11.9	11.1	10.8	10.6	7.5	3.0	
		20	9.2	8.8	8.6	8.5	6.2	1.8	
	Nozzle A (High Flow)	5	18.9	18.7	18.4	11.6	-	-	47
		10	16.8	16.6	16.3	8.0	-	-	
		15	14.8	14.5	14.2	4.4	-	-	
		20	11.8	11.6	11.2	2.2	-	-	
FVJ07CI-P	Nozzle B (Standard)	5	21.5	21.0	20.7	20.4	12.8	3.9	64
		10	19.2	18.8	18.5	18.2	11.3	2.0	
		15	16.9	16.6	16.3	16.0	9.7	-	
		20	13.6	13.4	13.2	13.0	7.4	-	
	Nozzle C (High Pressure)	5	20.4	19.8	19.4	19.1	14.6	7.7	71
		10	18.1	17.6	17.3	17.1	13.6	6.5	
		15	15.9	15.4	15.2	15.0	12.6	5.2	
		20	12.7	12.4	12.2	12.1	10.8	3.3	
	Nozzle A (High Flow)	5	23.3	23.0	22.7	20.2	7.6	-	54
		10	20.7	20.3	20.0	17.4	3.8	-	
		15	18.1	17.7	17.3	14.6	-	-	
		20	14.8	14.5	14.2	10.8	-	-	
FVJ1CI-P	Nozzle B (Standard)	5	29.0	28.6	28.2	27.8	24.0	11.6	66
		10	25.5	25.0	24.8	24.5	21.2	7.7	
		15	21.9	21.5	21.3	21.1	18.5	3.8	
		20	17.6	17.2	16.9	16.7	13.8	1.9	
	Nozzle C (High Pressure)	5	28.7	28.2	27.9	27.6	26.8	15.5	72
		10	25.3	24.8	24.4	24.0	23.4	13.3	
		15	21.9	21.4	20.9	20.5	20.1	11.2	
		20	17.4	17.1	16.8	16.6	16.3	7.0	
	Nozzle A (High Flow)	5	30.3	29.9	29.5	29.2	19.5	-	59
		10	26.9	26.6	26.2	25.9	15.9	-	
		15	23.6	23.3	22.9	22.6	12.4	-	
		20	19.0	18.8	18.5	17.9	6.2	-	
		25	14.5	14.3	14.1	13.2	-	-	

## Jet Pumps - Shallow Well

### VersaJet



#### Features:

- Impeller with stainless steel insert, diffuser, jet nozzle and venturi are all molded with Noryl®. Noryl® thermoplastic is a proven dependable material known for its properties to increase efficiency and hydraulic performance.
- Heavy-duty cast iron case ensures optimum durability and long life.
- Floating stainless steel eye seal for maximum performance and efficiency.
- Powered by high quality, industry proven, UL778 approved indoor/outdoor motors from A.O. Smith.
- Revolutionary “Quick-Change” jet nozzle replacement system allows easy customization of the pump. Performance can be changed quickly from a high pressure to a high flow set-up without removing the plumbing or opening the case.
- Dual voltage motor can be set to run at either 115 V or 230 V.
- Pressure switch is installed and set at 30/50 PSI.
- Built-in drain plug for easy winterizing and servicing.
- Handles water temperatures up to 120 °F/49 °C and shut-off pressures up to 90 psi.
- 1” NPT discharge, 1-1/4” NPT suction.
- UL778 approved for indoor or outdoor use.



*Revolutionary  
“Quick Change” Jet Nozzle*

Noryl® is a registered trademark of G.E.

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

Model	HP	Discharge x Suction	Voltage	Pump Unit	
				Order No.	Wt.
FVJ05CI	1/2	1" x 1-1/4"	115/230	91180005	31
FVJ07CI	3/4	1" x 1-1/4"	115/230	91180007	34
FVJ1CI	1	1" x 1-1/4"	115/230	91180010	51
FVJ15CI	1.5	1" x 1-1/4"	115/230	91180015	56

# Non-Submersible Pumps

## Jet Pumps - Shallow Well

VersaJet

### Performance Chart

VJ 1" Discharge x 1-1/4" Suction			Discharge Pressure - PSI						Shut-Off Pressure PSI
Model	Nozzle	Total Suction Lift ft	10	20	30	40	50	60	
			Gallons per Minute						
FVJ05CI	Nozzle B (Standard)	5	10.8	10.5	10.1	8.5	4.9	2.1	70
		10	9.4	9.1	8.7	7.5	4.1	1.6	
		15	8.0	7.7	7.4	6.5	3.4	1.1	
		20	6.2	6.0	5.7	5.3	2.6	0.5	
		25	4.4	4.3	4.1	4.0	1.8	-	
	Nozzle C (High Pressure)	5	9.8	8.9	8.3	7.6	6.3	4.0	86
		10	8.3	7.5	7.1	6.6	5.7	3.5	
		15	6.8	6.2	5.9	5.7	5.1	3.0	
		20	5.3	5.0	4.8	4.6	4.3	2.6	
	Nozzle A (High Flow)	5	12.8	12.5	12.1	5.2	-	-	47
		10	11.4	11.1	10.8	3.6	-	-	
		15	10.0	9.8	9.6	1.9	-	-	
20		8.0	7.7	6.8	1.0	-	-		
		25	6.0	5.7	4.1	-	-		
FVJ07CI	Nozzle C (Standard)	5	16.3	15.6	15.1	14.1	9.0	3.8	70
		10	14.2	13.6	13.1	12.5	7.8	2.9	
		15	12.1	11.6	11.2	10.8	6.5	2.0	
		20	9.5	9.1	8.9	8.7	5.0	1.0	
	Nozzle D (High Pressure)	5	15.8	15.2	14.7	14.1	9.6	4.8	73
		10	13.9	13.2	12.8	12.4	8.5	3.9	
		15	11.9	11.1	10.8	10.6	7.5	3.0	
		20	9.2	8.8	8.6	8.5	6.2	1.8	
	Nozzle A (High Flow)	5	18.9	18.7	18.4	11.6	-	-	47
		10	16.8	16.6	16.3	8.0	-	-	
		15	14.8	14.5	14.2	4.4	-	-	
		20	11.8	11.6	11.2	2.2	-	-	
		25	8.8	8.7	8.1	-	-		
FVJ1CI	Nozzle B (Standard)	5	21.5	21.0	20.7	20.4	12.8	3.9	64
		10	19.2	18.8	18.5	18.2	11.3	2.0	
		15	16.9	16.6	16.3	16.0	9.7	-	
		20	13.6	13.4	13.2	13.0	7.4	-	
	Nozzle C (High Pressure)	5	20.4	19.8	19.4	19.1	14.6	7.7	71
		10	18.1	17.6	17.3	17.1	13.6	6.5	
		15	15.9	15.4	15.2	15.0	12.6	5.2	
		20	12.7	12.4	12.2	12.1	10.8	3.3	
	Nozzle A (High Flow)	5	23.3	23.0	22.7	20.2	7.6	-	54
		10	20.7	20.3	20.0	17.4	3.8	-	
		15	18.1	17.7	17.3	14.6	-	-	
		20	14.8	14.5	14.2	10.8	-	-	
		25	11.5	11.3	11.1	7.0	-		
FVJ15CI	Nozzle B (Standard)	5	29.0	28.6	28.2	27.8	24.0	11.6	66
		10	25.5	25.0	24.8	24.5	21.2	7.7	
		15	21.9	21.5	21.3	21.1	18.5	3.8	
		20	17.6	17.2	16.9	16.7	13.8	1.9	
	Nozzle C (High Pressure)	5	28.7	28.2	27.9	27.6	26.8	15.5	72
		10	25.3	24.8	24.4	24.0	23.4	13.3	
		15	21.9	21.4	20.9	20.5	20.1	11.2	
		20	17.4	17.1	16.8	16.6	16.3	7.0	
	Nozzle A (High Flow)	5	30.3	29.9	29.5	29.2	19.5	-	59
		10	26.9	26.6	26.2	25.9	15.9	-	
		15	23.6	23.3	22.9	22.6	12.4	-	
		20	19.0	18.8	18.5	17.9	6.2	-	
		25	14.5	14.3	14.1	13.2	-		

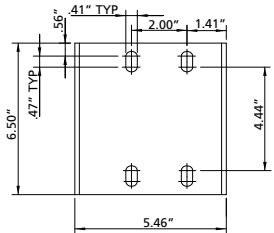
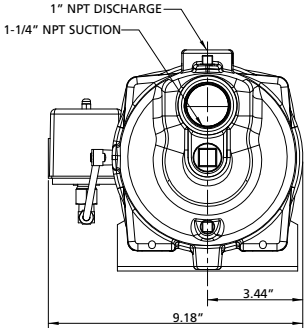
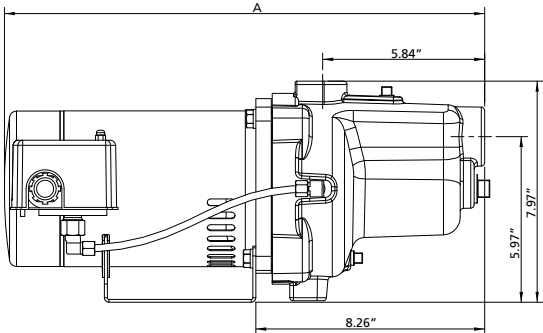
# Non-Submersible Pumps

## Jet Pumps - Shallow Well

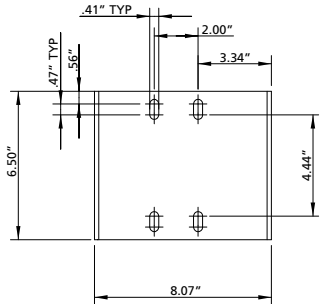
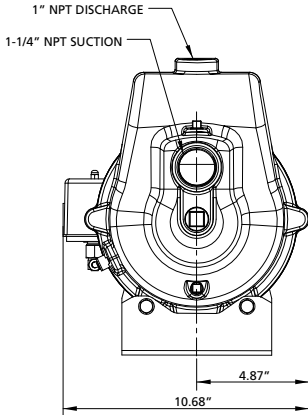
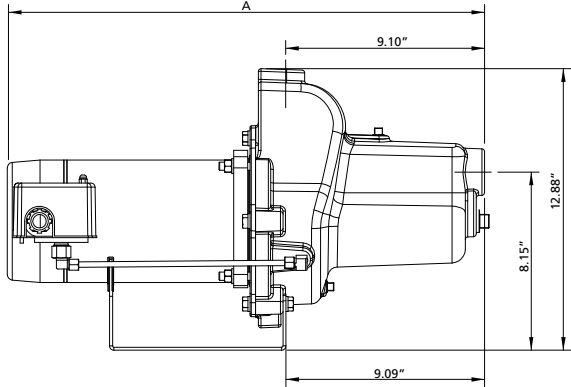
### VersaJet Series

#### Dimensional Data

#### 1/2 and 3/4 Hp VersaJet AND 1/2 Hp VersaJet Pro



#### 1 and 1.5 Hp VersaJet AND 3/4 and 1 Hp VersaJet Pro



VersaJet Dimensions	
HP	A
1/2	17.25"
3/4	18.00"
1	21.78"
1.5	22.66"

VersaJet Pro Dimensions	
HP	A
1/2	18.00"
3/4	21.78"
1	22.66"

Note: Dimensions will vary according to motor manufacturer.

## Non-Submersible Pumps

# Jet Pumps - Shallow Well

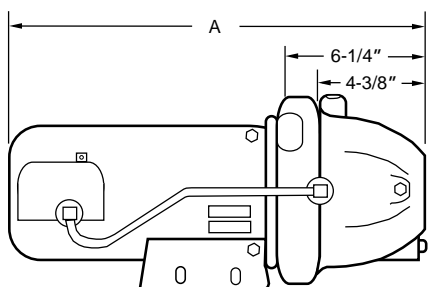
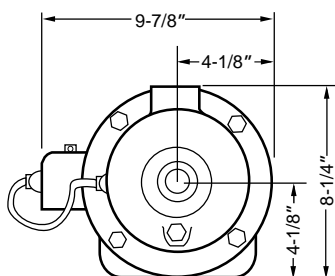
## SWJ Series



# SWJ Series

### Features:

- Non-corrosive thermoplastic construction.
- 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 30/50 psi.
- Handles water temperatures up to 120 °F/49 °C and working pressure up to 75 psi.
- Connections:  
1-1/4" NPT suction  
1" NPT discharge



Dimensions		
Series	HP	A
<b>FSWJ05P</b>	1/2	17-5/8"
<b>FSWJ07P</b>	3/4	18-1/4"

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

# Non-Submersible Pumps

## Jet Pumps - Shallow Well

SWJ Series Ordering Information (See pgs. 2-3 for model number explanation)

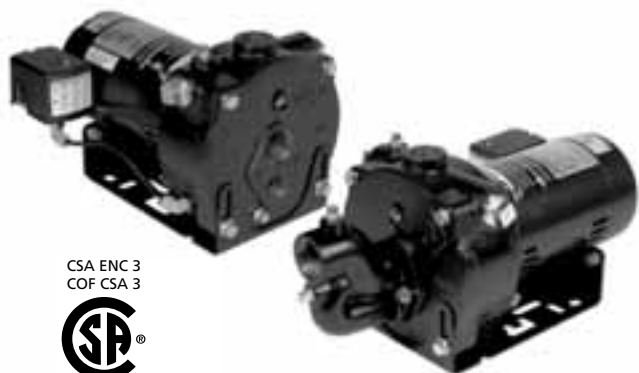
Plastic Pump Body					
Model	HP	Discharge x Suction	Voltage	Pump Unit	
				Order No.	Wt.
<b>FSWJ05P</b>	1/2	1" x 1-1/4"	115/230	91090005	23
<b>FSWJ07P</b>	3/4	1" x 1-1/4"	115/230	91090007	31

Note: Weight in pounds.

HP	Total Suction Lift Ft	Discharge Pressure - PSI								Shut-off Pressure PSI
		30	35	40	45	50	55	60	65	
		Gallons per Minute								
<b>1/2</b>	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
<b>3/4</b>	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

# Non-Submersible Pumps

## Jet Pumps - Convertible Convertible VersaJet Pro Series



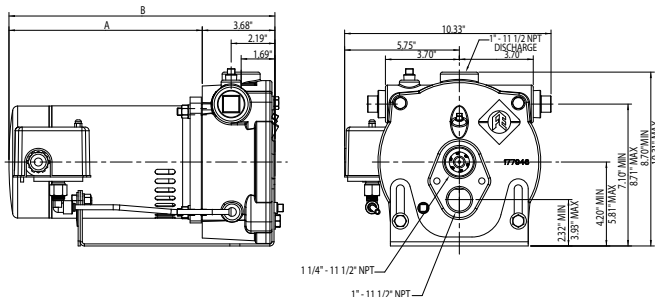
CSA ENC 3  
COF CSA 3



Although no single pump can meet all applications, the Convertible VersaJet from Franklin Electric comes close. Each model can be configured with a variety of pressure and flow choices in both shallow and deep set installations. In addition, four different suction flange options make this pump the contractor's choice for those tough replacement jobs.

### Features:

- Heavy-duty cast iron case ensures optimum durability and long life.
- Modular suction flange system to retrofit current installations without disturbing the existing plumbing.
- Thermoplastic impeller and diffuser precision molded for high efficiency and dependability.
- Thermoplastic impeller and diffuser ensure increased hydraulic performance.
- Phenolic/Ceramic mechanical shaft seal ensures leakproof fit and maximum pressure handling capability
- Adjustable pressure switch is factory set at 30/50 psi.
- Powered by high quality, industry proven, UL778 approved indoor/outdoor motor from A.O. Smith.
- Dual voltage motor can be set to run at either 115 V or 230 V.
- Built in drain plug for easy winterization and servicing.
- Pressure gauge supplied for easy monitoring of system pressure.
- Connections:  
1-1/4" FNPT Suction  
1" FNPT Discharge  
1" FNPT Drive Line



Dimensional illustration shown with K1-S flange installed.

### Dimensions:

HP	A	B
1/2	10.38	14.06
3/4	11.00	13.68
1	11.88	15.56

### Ordering Information:

Model No.	HP	Discharge x Suction	Voltage	Pump (without flange kit)	
				Order No.	Wt.
FCVJ05CI-P	1/2	1" x 1-1/4"	115/230	96131005	39.3
FCVJ07CI-P	3/4	1" x 1-1/4"	115/230	96131007	41.6
FCVJ10CI-P	1	1" x 1-1/4"	115/230	96131010	46.0

- Notes:**
1. Order suction flange kit A, or shallow well kit B, or deep well kit C depending upon application.
  2. Minimum inside well diameter requirement of 4" for deep well injectors.
  3. Control valve required for deep well installations.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Pro Series

#### Shallow Well Performance

CVJ Pro Series			Discharge Pressure - PSI						Shut-off Pressure PSI
HP	Injector Kit	Suction Lift Ft	30	40	50	60	70	80	
			Gallons per Minute						
1/2	SW5 96151005	5							
		10	16.7	14.0	8.2	2.8			65
		15		12.7	6.8	1.6			63
		20		11.3	5.7				61
		25		8.8	4.6				59
	SW6 96151006	5	11.8	11.8	8.6	5.3	2.9	0.8	85
		10		10.2	7.8	4.7	2.5		83
		15		8.7	7.0	4.2	2.2		81
		20		7.1	6.2	3.8	1.7		79
		25			5.5	3.4	1.2		77
	SW7 96151007	5		8.2	7.9	5.7	3.8	2.4	101
		10		7.1	6.9	5.3	3.6	2.2	99
		15			6.1	4.8	3.3	1.9	97
		20			5.1	4.4	3.1	1.7	95
		25			4.1	4.0	2.7	1.4	93

- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.



# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Pro Series

#### Shallow Well Performance

CVJ Pro Series			Discharge Pressure - PSI						Shut-off Pressure PSI
HP	Injector Kit	Suction Lift Ft	30	40	50	60	70	80	
			Gallons per Minute						
3/4	SW4 96151004	5	21.4	18.6	11.8	5.2			68
		10	18.8	17.1	10.4	3.8			66
		15	16.2	15.4	8.9	2.4			64
		20	13.4	13.4	7.5	0.8			61
		25	10.5	10.5	6.2				59
	SW5 96151005	5	18.7	18.5	13.0	7.7	2.8		76
		10		16.4	11.8	6.6	1.6		73
		15		14.2	10.7	5.4			71
		20		11.6	9.5	4.5			69
		25		9.0	8.4	3.6			67
	SW6 96151006	5		11.7	11.1	7.8	5.2	3.1	98
		10		10.3	10.2	7.2	4.8	2.8	96
		15			8.8	6.7	4.4	2.5	94
		20			7.3	6.2	4.0	2.1	92
		25			5.7	5.6	3.6	1.7	90
1	SW4 96151004	5		21.3	20.5	13.5	6.6		81
		10		18.7	18.3	11.8	5.2		78
		15		16.0	15.9	10.1	3.8		76
		20		13.3	13.3	8.6	2.0		73
		25		10.5	10.5				71
	SW5 96151005	5			18.3	15.2	9.5	4.4	89
		10			16.1	13.8	8.5	3.4	87
		15			13.9	12.4	7.4	2.3	85
		20			11.4	10.9	6.0	1.1	82
		25			8.8	8.8	4.7		80
	SW6 96151006	5			11.4	11.3	9.3	6.7	118
		10				10.1	8.6	6.2	116
		15				8.7	8.0	5.7	113
		20				7.2	7.1	5.3	111
		25					5.7	4.8	108

- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Pro Series

#### Deep Well Performance

CVJ Pro Series			Discharge Pressure - PSI						Shut-off Pressure PSI	
HP	Injector Kit	Suction Lift Ft	30	35	40	45	50	55		
			Gallons per Minute							
1/2	DW2 96152002	30	11.1	7.2	4.0	1.3			65	
		40	9.3	5.7	2.7				60	
		50	7.4	4.2	1.5				55	
		60	5.6	2.7					51	
		70	4.1	1.3					45	
		80	2.7						40	
		90	1.2						35	
	DW1 96152001	30		6.6	5.0	3.4	2.2	1.3	97	
		40		6.6	6.0	4.2	2.8	1.7	0.9	92
		50		6.6	5.1	3.5	2.3	1.3		86
		60		5.9	4.1	2.7	1.7	0.8		81
		70		5.0	3.4	2.2	1.2			76
		80		4.1	2.7	1.6	0.8			70
		90		3.1	2.0	1.1				65

- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Pro Series

#### Deep Well Performance

CVJ Pro Series			Discharge Pressure - PSI						Shut-off Pressure PSI
HP	Injector Kit	Suction Lift Ft	30	35	40	45	50	55	
			Gallons per Minute						
3/4	DW2 96152002	30	12.2	9.9	6.3	3.5	0.8		74
		40	11.4	8.2	4.9	2.2			69
		50	9.7	6.5	3.5	0.8			64
		60	7.9	4.8	2.1				59
		70	6.1	3.4	0.8				53
		80	4.3	2.0					48
		90	2.5	0.6					43
	DW4 96152004	30		7.9	5.9	4.1	2.7	1.4	94
		40	7.9	6.9	5.0	3.4	2.1	0.9	88
		50	7.5	5.8	4.1	2.6	1.4		83
		60	6.6	4.7	3.2	1.9	0.8		77
		70	5.5	3.9	2.5	1.3			71
		80	4.4	3.1	1.7	0.6			66
		90	3.3	2.3	1.0				60
1	DW3 96152003	30		16.5	9.8	3.5			67
		40		13.0	6.9	1.0			62
		50		9.4	4.1				57
		60		5.9	1.2				52
	DW2 96152002	30		12.2	10.3	7.0	4.1	1.5	87
		40		11.4	8.6	5.5	2.8		82
		50		9.7	6.9	4.0	1.4		76
		60		8.2	5.2	2.5			71
		70		6.6	3.8	1.3			66
		80		4.9	2.5				60
	DW4 96152004	90		3.3	1.1				55
		30		7.9	7.8	6.3	4.8	3.3	111
		40		7.9	7.3	5.4	4.0	2.6	105
		50		7.8	6.3	4.6	3.2	2.0	99
		60		7.0	5.2	3.7	2.4	1.3	93
		70		6.0	4.4	3.0	1.8	0.7	87
		80		5.1	3.6	2.3	1.2		82
		90		4.1	2.8	1.6	0.6		76

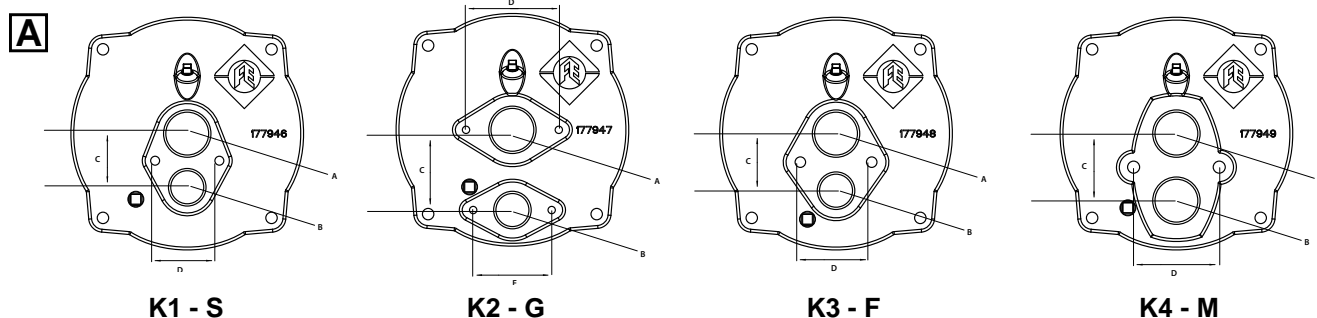
- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Pro Series

#### Suction Flange Kits (Modular Face Plates):



Contact Franklin Electric customer service for competitive replacement identification.

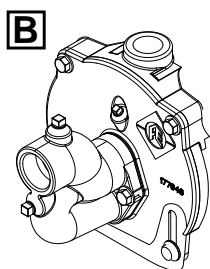
Model No.	Order No.	Wt.
<b>K1 - S</b>	96150946	7.8
<b>K2 - G</b>	96150947	8.1
<b>K3 - F</b>	96150948	8.0
<b>K4 - M</b>	96150949	8.4

Model No.	A	B	C	D	E
<b>K1-S</b>	1.25"	1.25"	2.35"	3.0"	-
<b>K2-G</b>	1.25"	1"	2.81"	3.25"	2.75"
<b>K3-F</b>	1.25"	1"	2.0"	2.5"	-
<b>K4-M</b>	1.25"	1.25"	2.35"	3.0"	-

Flange kits are designed for use in deep set retrofit applications where pump is being replaced but injector assembly is staying in the well.

#### Shallow Well Injector Kits:

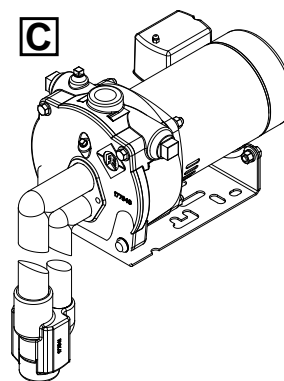
Model No.	Order No.	Wt.
<b>SW1</b>	96151001	11.7
<b>SW2</b>	96151002	11.7
<b>SW3</b>	96151003	11.7
<b>SW4</b>	96151004	11.7
<b>SW5</b>	96151005	11.7
<b>SW6</b>	96151006	11.7
<b>SW7</b>	96151007	11.7



Shallow well kit includes shallow well injector assembly, K1-S suction flange and hardware.

#### Deep Well Injector Kits:

Model No.	Order No.	Wt.
<b>DW1</b>	96152001	12.6
<b>DW2</b>	96152002	12.6
<b>DW3</b>	96152003	12.6
<b>DW4</b>	96152004	12.6
<b>DW5</b>	96152005	12.6



Deep well kit includes deep well injector assembly, K1-S suction flange and hardware.

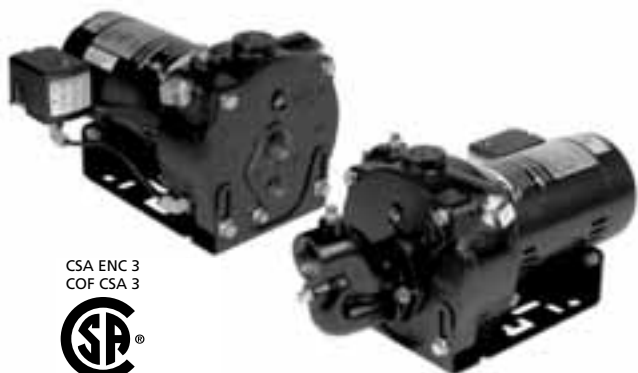
Control valve required for deep well installations.

#### Control Valve:

Model No.	Order No.	Wt.
<b>DW-CV</b>	96150951	1.9

# Non-Submersible Pumps

## Jet Pumps - Convertible Convertible VersaJet Series



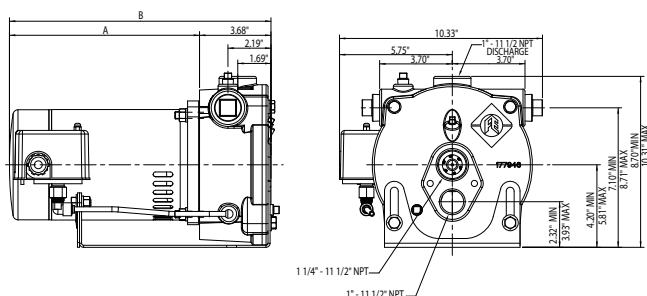
CSA ENC 3  
COF CSA 3



Although no single pump can meet all applications, the Convertible VersaJet from Franklin Electric comes close. Each model can be configured with a variety of pressure and flow choices in both shallow and deep set installations. In addition, four different suction flange options make this pump the contractor's choice for those tough replacement jobs.

### Features:

- Heavy-duty cast iron case ensures optimum durability and long life.
- Modular suction flange system to retrofit current installations without disturbing the existing plumbing.
- Thermoplastic impeller and diffuser precision molded for high efficiency and dependability.
- Thermoplastic impeller and diffuser ensure increased hydraulic performance.
- Phenolic/Ceramic mechanical shaft seal ensures leakproof fit and maximum pressure handling capability
- Adjustable pressure switch is factory set at 30/50 psi.
- Powered by high quality, industry proven, UL778 approved indoor/outdoor motor from A.O. Smith.
- Dual voltage motor can be set to run at either 115 V or 230 V.
- Built in drain plug for easy winterization and servicing.
- Pressure switch is installed and set at 30/50 psi.
- Connections:  
1-1/4" FNPT Suction  
1" FNPT Discharge  
1" FNPT Drive Line



Dimensional illustration shown with K1-S flange installed.

### Dimensions:

HP	A	B
1/2	9.63	13.31
3/4	10.38	14.06
1	11.00	13.68
1.5	11.88	15.56

### Ordering Information:

Model No.	HP	Discharge x Suction	Voltage	Pump (without flange kit)	
				Order No.	Wt.
FCVJ05CI	1/2	1" x 1-1/4"	115/230	96130005	36.1
FCVJ07CI	3/4	1" x 1-1/4"	115/230	96130007	39.3
FCVJ10CI	1	1" x 1-1/4"	115/230	96130010	41.6
FCVJ15CI	1.5	1" x 1-1/4"	115/230	96130015	46.0

- Notes:**
1. Order suction flange kit A, or shallow well kit B, or deep well kit C depending upon application.
  2. Minimum inside well diameter requirement of 4" for deep well injectors.
  3. Control valve required for deep well installations.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Series

### Shallow Well Performance

CVJ Series			Discharge Pressure - PSI						Shut-off Pressure PSI
HP	Injector Kit	Suction Lift Ft	30	40	50	60	70	80	
			Gallons per Minute						
1/2	SW1 96151001	5	11.5	7.0	3.9				61
		10	10.2	6.4	3.2				59
		15	9.1	5.8	2.4				57
		20	8.0	5.1	1.7				55
		25	6.5	4.4	0.8				53
	SW2 96151002	5	10.6	6.6	4.6	2.4			71
		10	9.3	6.2	4.1	1.9			69
		15	8.2	5.7	3.7	1.4			67
		20	6.8	5.2	3.1	1.0			65
		25	5.2	4.8	2.6	0.6			63
	SW3 96151003	5	8.0	5.8	4.6	3.2	1.9	0.8	88
		10	6.9	5.5	4.3	2.9	1.7	0.6	86
		15	5.9	5.2	4.0	2.7	1.4		84
		20		4.7	3.6	2.4	1.2		82
		25		3.7	3.3	2.1	1.0		80
3/4	SW5 96151005	5							
		10	16.7	14.0	8.2	2.8			65
		15		12.7	6.8	1.6			63
		20		11.3	5.7				61
		25		8.8	4.6				59
	SW6 96151006	5	11.8	11.8	8.6	5.3	2.9	0.8	85
		10		10.2	7.8	4.7	2.5		83
		15		8.7	7.0	4.2	2.2		81
		20		7.1	6.2	3.8	1.7		79
		25			5.5	3.4	1.2		77
	SW7 96151007	5		8.2	7.9	5.7	3.8	2.4	101
		10		7.1	6.9	5.3	3.6	2.2	99
		15			6.1	4.8	3.3	1.9	97
		20			5.1	4.4	3.1	1.7	95
		25			4.1	4.0	2.7	1.4	93

- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Series

### Shallow Well Performance

CVJ Series			Discharge Pressure - PSI						Shut-off Pressure PSI
HP	Injector Kit	Suction Lift Ft	30	40	50	60	70	80	
			Gallons per Minute						
1	SW4 96151004	5	21.4	18.6	11.8	5.2			68
		10	18.8	17.1	10.4	3.8			66
		15	16.2	15.4	8.9	2.4			64
		20	13.4	13.4	7.5	0.8			61
		25	10.5	10.5	6.2				59
	SW5 96151005	5	18.7	18.5	13.0	7.7	2.8		76
		10		16.4	11.8	6.6	1.6		73
		15		14.2	10.7	5.4			71
		20		11.6	9.5	4.5			69
		25		9.0	8.4	3.6			67
	SW6 96151006	5		11.7	11.1	7.8	5.2	3.1	98
		10		10.3	10.2	7.2	4.8	2.8	96
		15			8.8	6.7	4.4	2.5	94
		20			7.3	6.2	4.0	2.1	92
		25			5.7	5.6	3.6	1.7	90
1.5	SW4 96151004	5		21.3	20.5	13.5	6.6		81
		10		18.7	18.3	11.8	5.2		78
		15		16.0	15.9	10.1	3.8		76
		20		13.3	13.3	8.6	2.0		73
		25		10.5	10.5				71
	SW5 96151005	5			18.3	15.2	9.5	4.4	89
		10			16.1	13.8	8.5	3.4	87
		15			13.9	12.4	7.4	2.3	85
		20			11.4	10.9	6.0	1.1	82
		25			8.8	8.8	4.7		80
	SW6 96151006	5			11.4	11.3	9.3	6.7	118
		10				10.1	8.6	6.2	116
		15				8.7	8.0	5.7	113
		20				7.2	7.1	5.3	111
		25					5.7	4.8	108

- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Series

#### Deep Well Performance

CVJ Series			Discharge Pressure - PSI						Shut-off Pressure PSI		
HP	Injector Kit	Suction Lift Ft	30	35	40	45	50	55			
			Gallons per Minute								
1/2	DW2 96152002	30	8.0	4.4	1.5				56		
		40	6.3	3.0					51		
		50	4.6	1.6					46		
		60	2.9						41		
		70	1.6						36		
	DW5 96152005	30	6.0	4.5	3.0	2.0	1.2		87		
		40	5.3	3.8	2.5	1.6	0.8		81		
		50	4.4	3.1	2.0	1.1			76		
		60	3.6	2.4	1.5	0.7			70		
		70	3.0	1.9	1.0				64		
		80	2.3	1.3	0.6				58		
		90	1.7	0.8					51		
		3/4	DW2 96152002	30	11.1	7.2	4.0	1.3			65
				40	9.3	5.7	2.7				60
50	7.4			4.2	1.5				55		
60	5.6			2.7					51		
70	4.1			1.3					45		
80	2.7								40		
90	1.2								35		
DW1 96152001	30			6.6	5.0	3.4	2.2	1.3	97		
	40		6.6	6.0	4.2	2.8	1.7	0.9	92		
	50		6.6	5.1	3.5	2.3	1.3		86		
	60		5.9	4.1	2.7	1.7	0.8		81		
	70		5.0	3.4	2.2	1.2			76		
	80		4.1	2.7	1.6	0.8			70		
	90		3.1	2.0	1.1				65		

- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.



# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Series

#### Deep Well Performance

CVJ Series		Discharge Pressure - PSI						Shut-off Pressure PSI		
HP	Injector Kit	Suction Lift Ft	30	35	40	45	50		55	
			Gallons per Minute							
1	DW2 96152002	30	12.2	9.9	6.3	3.5	0.8		74	
		40	11.4	8.2	4.9	2.2			69	
		50	9.7	6.5	3.5	0.8			64	
		60	7.9	4.8	2.1				59	
		70	6.1	3.4	0.8				53	
		80	4.3	2.0					48	
		90	2.5	0.6					43	
	DW4 96152004	30		7.9	5.9	4.1	2.7	1.4	94	
		40		7.9	6.9	5.0	3.4	2.1	0.9	88
		50		7.5	5.8	4.1	2.6	1.4		83
		60		6.6	4.7	3.2	1.9	0.8		77
		70		5.5	3.9	2.5	1.3			71
		80		4.4	3.1	1.7	0.6			66
		90		3.3	2.3	1.0				60
1.5	DW3 96152003	30		16.5	9.8	3.5			67	
		40		13.0	6.9	1.0			62	
		50		9.4	4.1				57	
		60		5.9	1.2				52	
	DW2 96152002	30		12.2	10.3	7.0	4.1	1.5	87	
		40		11.4	8.6	5.5	2.8		82	
		50		9.7	6.9	4.0	1.4		76	
		60		8.2	5.2	2.5			71	
		70		6.6	3.8	1.3			66	
		80		4.9	2.5				60	
	DW4 96152004	90		3.3	1.1				55	
		30		7.9	7.8	6.3	4.8	3.3	111	
		40		7.9	7.3	5.4	4.0	2.6	105	
		50		7.8	6.3	4.6	3.2	2.0	99	
		60		7.0	5.2	3.7	2.4	1.3	93	
		70		6.0	4.4	3.0	1.8	0.7	87	
		80		5.1	3.6	2.3	1.2		82	
		90		4.1	2.8	1.6	0.6		76	

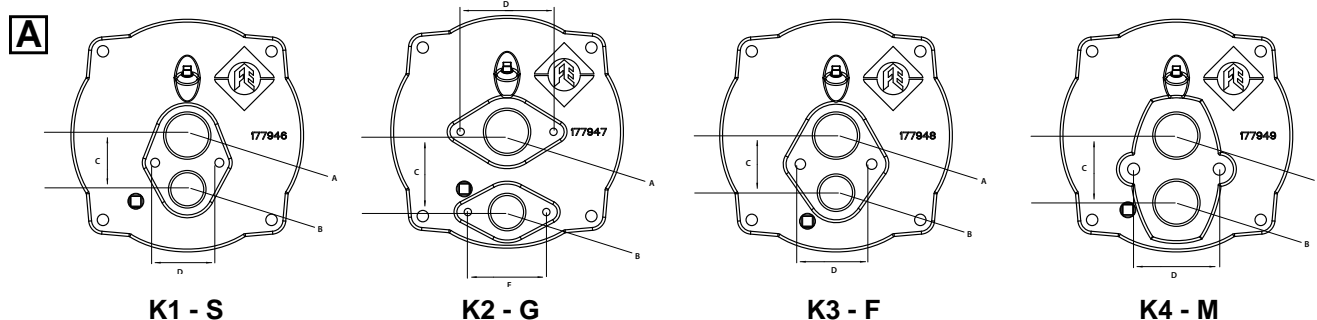
- Notes:**
1. Pressure switch preset to 30-50 psi.
  2. Injector kits are purchased separately.
  3. Maximum pump working pressure is 150 psi.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Convertible VersaJet Series

#### Suction Flange Kits (Modular Face Plates):



Contact Franklin Electric customer service for competitive replacement identification.

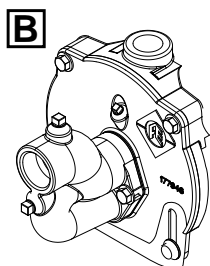
Model No.	Order No.	Wt.
<b>K1 - S</b>	96150946	7.8
<b>K2 - G</b>	96150947	8.1
<b>K3 - F</b>	96150948	8.0
<b>K4 - M</b>	96150949	8.4

Model No.	A	B	C	D	E
<b>K1-S</b>	1.25"	1.25"	2.35"	3.0"	-
<b>K2-G</b>	1.25"	1"	2.81"	3.25"	2.75"
<b>K3-F</b>	1.25"	1"	2.0"	2.5"	-
<b>K4-M</b>	1.25"	1.25"	2.35"	3.0"	-

Flange kits are designed for use in deep set retrofit application where pump is being replaced but injector assembly is staying in the well.

#### Shallow Well Injector Kits:

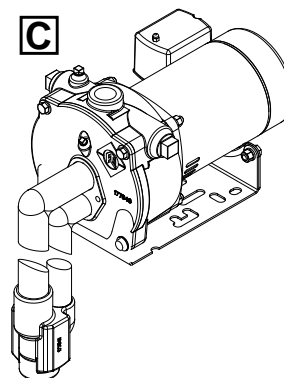
Model No.	Order No.	Wt.
<b>SW1</b>	96151001	11.7
<b>SW2</b>	96151002	11.7
<b>SW3</b>	96151003	11.7
<b>SW4</b>	96151004	11.7
<b>SW5</b>	96151005	11.7
<b>SW6</b>	96151006	11.7
<b>SW7</b>	96151007	11.7



Shallow well kit includes shallow well injector assembly, K1-S suction flange and hardware.

#### Deep Well Injector Kits:

Model No.	Order No.	Wt.
<b>DW1</b>	96152001	12.6
<b>DW2</b>	96152002	12.6
<b>DW3</b>	96152003	12.6
<b>DW4</b>	96152004	12.6
<b>DW5</b>	96152005	12.6



Deep well kit includes deep well injector assembly, K1-S suction flange and hardware.

Control valve required for deep well installations.

#### Control Valve:

Model No.	Order No.	Wt.
<b>DW-CV</b>	96150951	1.9

# Non-Submersible Pumps

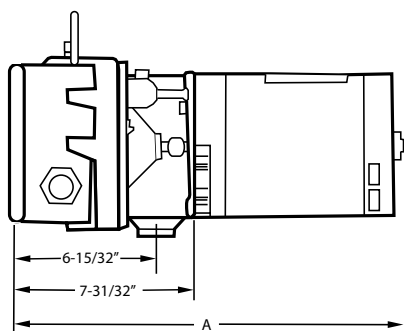
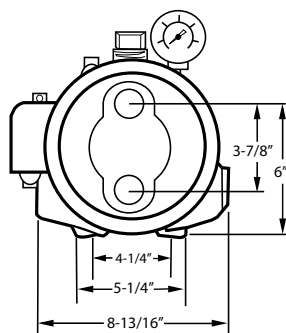
## Jet Pumps - Convertible Pro Series



# Pro Series

### Features:

- Heavy-duty cast iron case and stainless steel 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" NPT suction  
1" NPT discharge  
1" NPT drive line
- Maximum temperature of 140 °F/60 °C



Dimensions		
Model	HP	A
FP05CI-C	1/2	18.65"
FP07CI-C	3/4	19.15"
FP1CI-C	1	19.65"

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

# Non-Submersible Pumps

## Jet Pumps - Convertible

Pro Series Ordering Information (See pgs. 2-3 for model number explanation)

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

Optional Injector for High Head Performance		
Injector Ordering No.	Model	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

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Pro Series

#### Shallow Well Performance

Pro 1" Discharge x 1-1/4" Suction			Discharge Pressure - PSI									Shut-off Pressure PSI
Series	Injector Order No.	Total Suction Lift Ft	30	35	40	45	50	55	60	65	70	
			Gallons per Minute									
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
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
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
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 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 1.25" PVC suction pipe and 1.25" foot valve.

# Non-Submersible Pumps

## Jet Pumps - Convertible

### Pro Series

#### Deep Well Performance

Pro 1" Discharge x 1-1/4" Suction 1" Drive Pipe			Discharge Pressure - PSI									Shut-off Pressure PSI	Inj. Min. Operating Pressure
Series	Injector Order No.	Total Suction Lift Ft	30	35	40	45	50	55	60	65	70		
			Gallons per Minute										
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	
	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	
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	
	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	
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	
	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 1.25" PVC suction pipe and 1.25" foot valve and 1" drive pipe.

## Non-Submersible Pumps

### Jet Pumps - 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	
FP07CI-C	50 - 100 ft	147E1118	
FP05CI-C	30 - 60 ft	147E1120	
FP1CI-C	50 - 100 ft	147E1120	
FP1CI-C	30 - 60 ft	147E1125	



**Parallel Pipe Injector**



**4-in-1 Foot Valve**



**Horizontal Check Valve**

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

Accessory Description	Order No.	Wt.
4-in-1 Foot Valve, 3/4" - 1.5"	21339	1
Cast Iron Horizontal Check Valve, Poppet Type Bronze, 1-1/4" F x 1-1/4" M	305466002	4

**Notes:** 1. For touch-up paint, see your local Sherwin Williams paint store for part #1415066.  
2. Weight in pounds.

# Non-Submersible Pumps

## Jet Pumps - Accessories

### Ordering Information

Screw-In Shallow Well Injectors			
Pump Model	Injector Code	Order No.	Wt.
FP05CI-C, FP1CI-C	1024	18127803R	0.5
FP07CI-C	1027	18127902R	
FP1CI-C	1028	18128009R	

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
--	-----------	---

External Control Valve	9198-2538	2
------------------------	-----------	---

Note: Weight in pounds.



Shallow Well Injector



Furnas Pressure Switch



Global Pressure Switch



Pressure Gauge



# Non-Submersible Pumps

## Jet Pumps - Accessories

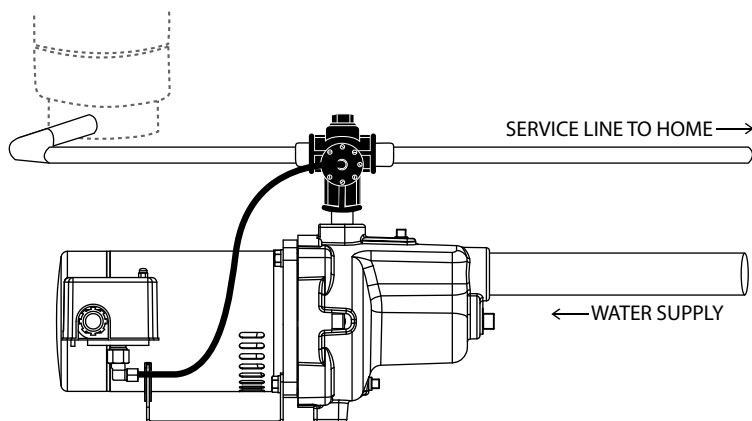
Ordering Information (See pgs. 2-3 for model number explanation)



# 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, AQ80 may be connected in parallel to handle each 20 gpm increment.
- Retrofit to any existing pump and pressure tank system.



### Components of Jet Pump Installation

Left 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 AQ80 from excessive pressure.)

### Ordering Information

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

Note: Weight in pounds.

### Jet Pumps - Accessories

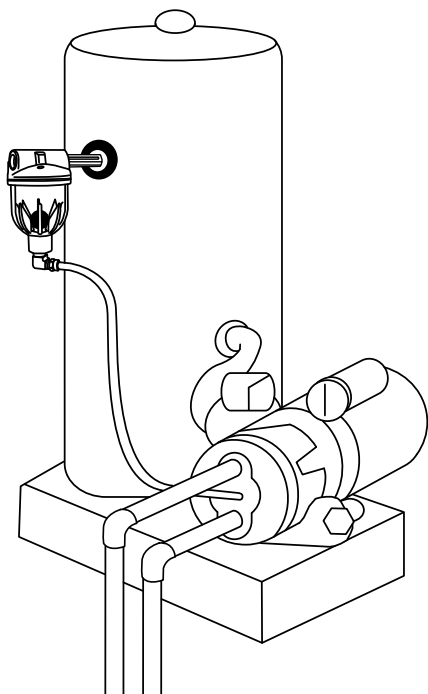
#### Ordering Information



## Air Charger Kit

### 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 water-logged tanks.
- Eliminates need for other costly equipment.
- Unit consists of air charger, reducer bushing, adapter nut, 1/4" polyethylene tubing and male connector.



### Ordering Information

Model	Ordering No.	Wt.
Air Charger	106594901	2


Note: Weight in pounds.

# Non-Submersible Pumps

## Self-Priming Centrifugal Pumps

### Turf Boss



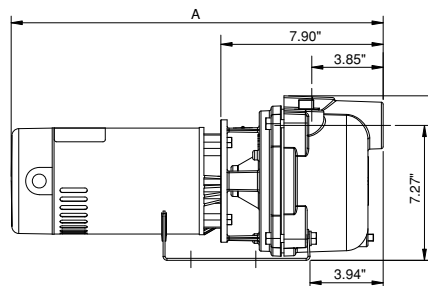
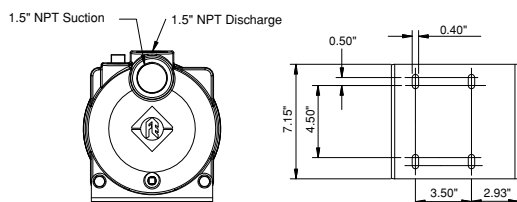
CSA ENC 3  
COF CSA 3  
  
C US  
LR 80980



**TURFBOSS**

#### Features:

- Self-priming design, with the ability to lift water from a depth of 25'
- Easily serviced through a back pull-out design, which leaves the plumbing and both the pump's base and case undisturbed in their original location
- Rugged pump case constructed with heavy-duty cast iron ensures optimum durability, quiet operation and long life
- Hydraulic components molded with Noryl® thermoplastic, when coupled with the floating stainless steel impeller eye-seal, ensures dependable and efficient operation
- Available with a 304 stainless steel impeller for maximum durability
- Industry proven indoor and outdoor 56J motors from A.O. Smith
- Single-phase: 1 and 1.5 hp motors are dual voltage, set to run with either 115 or 230 V incoming power (2 hp is 230 V only)
- Available in all horsepower with a three-phase A.O. Smith Motor
- Mechanical shaft seal allows positive protection against leaking
- Built-in drain plug for easy winterizing and servicing
- Shut-off pressures up to 130 feet, and flow rates to 70 gpm
- Handles water temperatures up to 120 °F
- Integral 1" NPT priming plug
- 1.5" FNPT suction, 1.5" FNPT discharge



Dimensions		
HP	Single-Phase	Three-Phase
	A	A
1	20.0"	23.4"
1.5	21.6"	25.0"
2	21.6"	25.0"

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

Noryl® is a registered trademark of G.E.

# Non-Submersible Pumps

## Self-Priming Centrifugal Pumps

Turf Boss Ordering Information (See pgs. 2-3 for model number explanation)

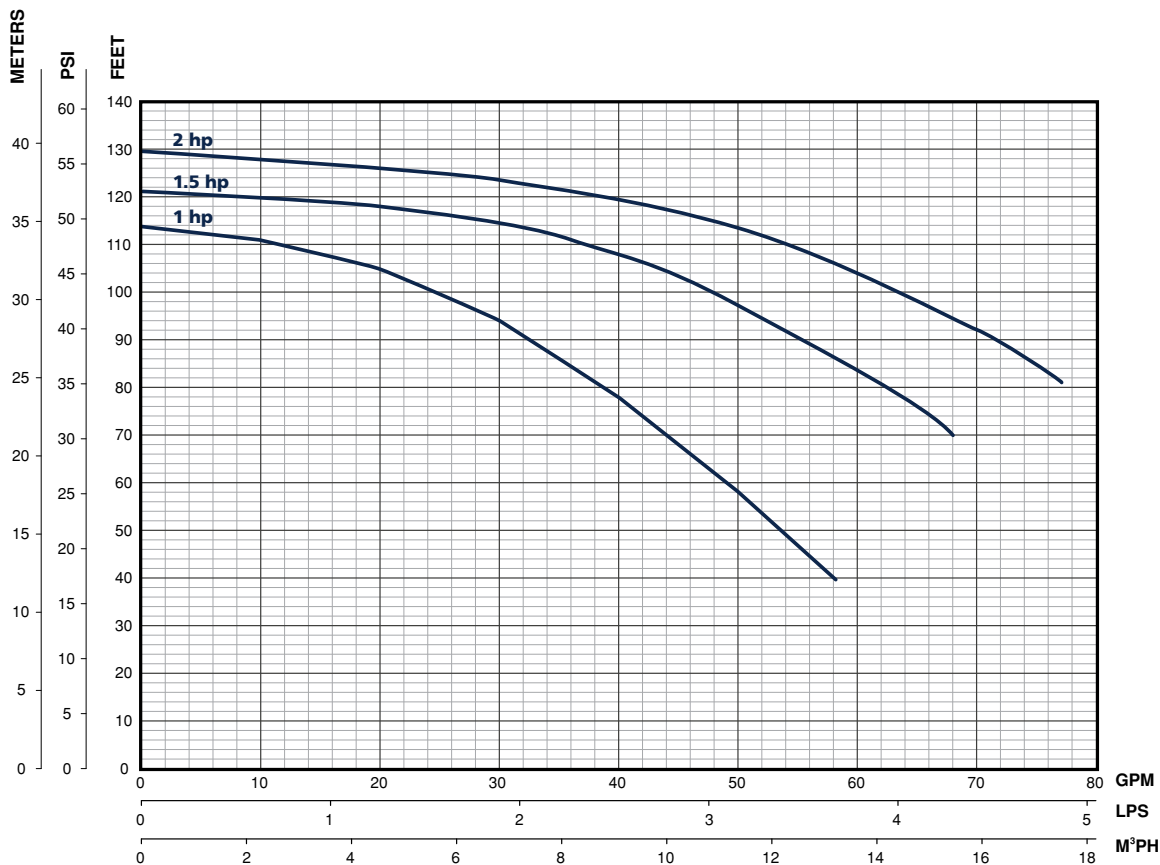
Model	HP	Phase	Discharge x Suction	Voltage	Pump Unit	
					Order No.	Wt.
FTB1CI	1	1	1.5" x 1.5"	115/230	92980010	50
FTB15CI	1.5	1	1.5" x 1.5"	115/230	92980015	57
FTB2CI	2	1	1.5" x 1.5"	230	92980020	58
FTB1CI-SSI	1	1	1.5" x 1.5"	115/230	92981010	52
FTB15CI-SSI	1.5	1	1.5" x 1.5"	115/230	92981015	59
FTB2CI-SSI	2	1	1.5" x 1.5"	230	92981020	60
FTB1CI-SSI-T	1	3	1.5" x 1.5"	208-230/460	92983010	51
FTB15CI-SSI-T	1.5	3	1.5" x 1.5"	208-230/460	92983015	55
FTB2CI-SSI-T	2	3	1.5" x 1.5"	208-230/460	92983020	57
FTB1CI-PE	1	-	1.5" x 1.5"	-	92940010	28
FTB15CI-PE	1.5	-	1.5" x 1.5"	-	92940015	28
FTB2CI-PE	2	-	1.5" x 1.5"	-	92940020	28
FTB1CI-SSI-PE	1	-	1.5" x 1.5"	-	92941010	30
FTB15CI-SSI-PE	1.5	-	1.5" x 1.5"	-	92941015	30
FTB2CI-SSI-PE	2	-	1.5" x 1.5"	-	92941020	30

Note: Weight in pounds.

# Non-Submersible Pumps

## Self-Priming Centrifugal Pumps

### Turf Boss Performance



Model	Suction Lift Ft	Discharge Pressure - PSI							Shut-Off Pressure PSI
		20	25	30	35	40	45	50	
Gallons per Minute									
FTB1CI	5	53	47	42	36	27	13	-	46
	10	49	45	38	32	23	-	-	44
	15	45	43	37	28	17	-	-	42
	20	38	37	33	24	-	-	-	40
	25	28	27	27	18	-	-	-	38
FTB15CI	5	65	64	63	58	48	37	-	50
	10	58	58	57	55	45	26	-	48
	15	50	49	48	48	40	-	-	46
	20	41	40	39	38	32	-	-	44
	25	29	28	28	27	17	-	-	42
FTB2CI	5	70	69	69	68	65	53	35	52
	10	61	60	60	59	58	47	-	50
	15	52	51	50	49	48	37	-	49
	20	41	40	39	38	35	-	-	47
	25	29	28	27	25	22	-	-	45

## End Suction Centrifugal Pumps

### DDS Series



CSA ENC 3  
COF CSA 3



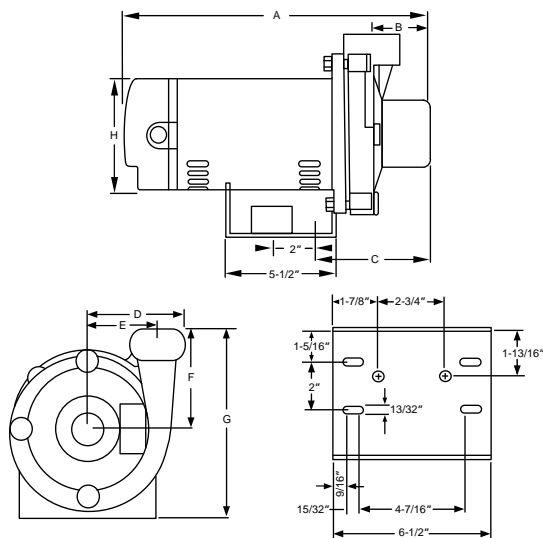
CSA 108  
UL 778



#### Features:

- Stainless steel construction on all models.
- Back pull-out design provides access to internal parts without disturbing the plumbing.
- Mechanical shaft seal ensures a leakproof fit and continuous water lubrication.
- Maximum temperature limit of 140 °F/60 °C 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.
- Viton® mechanical shaft seal for added chemical resistance.
- 304SS case and seal plate.

Viton® is a registered trademark of Dupont Dow Elastomers.



#### Dimensions

HP	Disch. (NPT)	Suct. (NPT)	A	B	C	D	E	F	G	H
1/2	1"	1-1/4"	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"	1-1/4"	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"	1-1/4"	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"	1-1/4"	15-3/16"	2-3/8"	5-5/16"	4-7/16"	3-1/2"	4-5/8"	8-3/4"	5-1/2"

# Non-Submersible Pumps

## End Suction Centrifugal Pumps

DDS Series Ordering Information (See pgs. 2-3 for model number explanation)

### DDS Series - Stainless Steel

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

### Pump End Kits

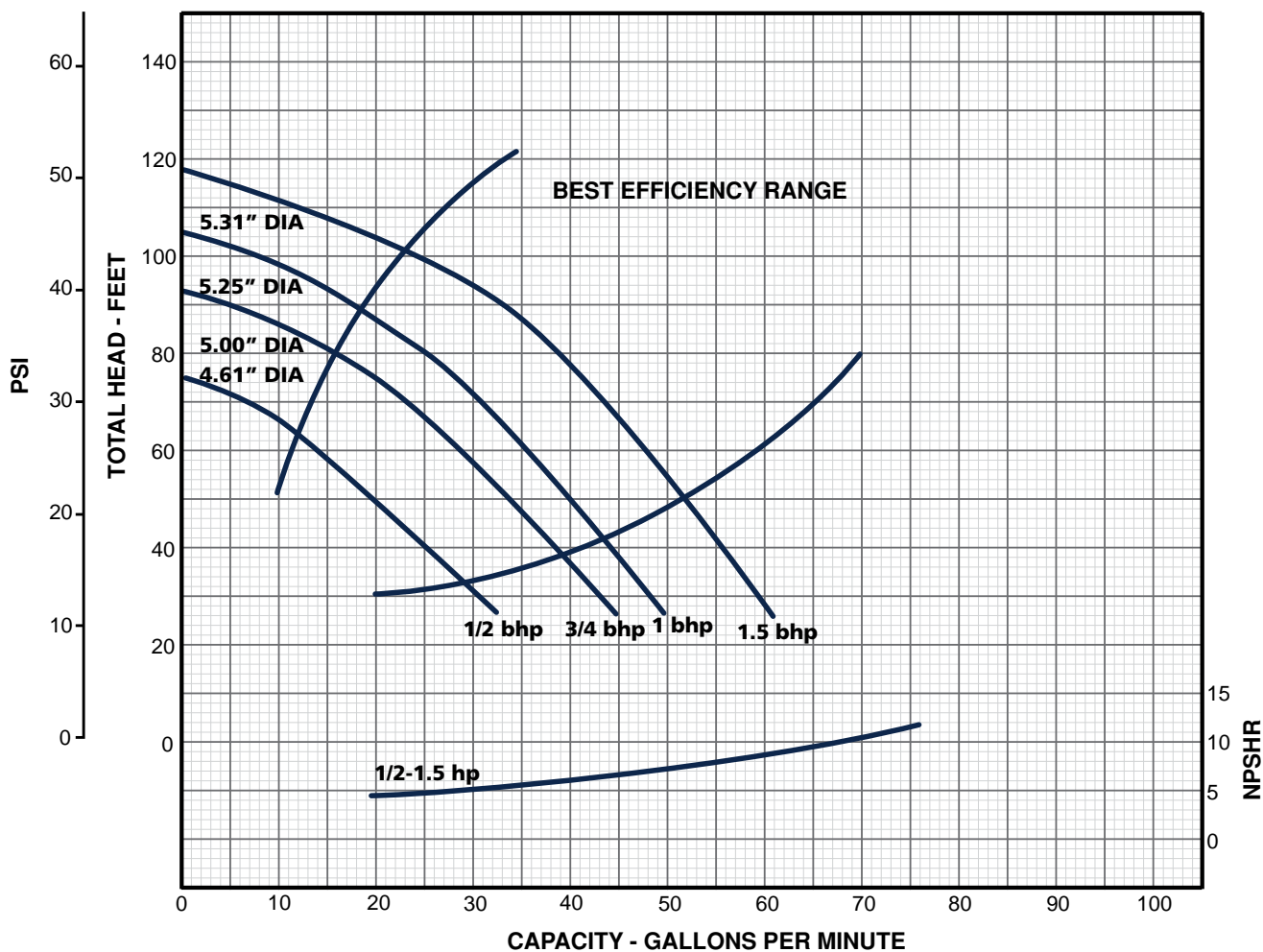
DDS Series Centrifugal Pump End Kits for 3500 R.P.M. - O.D.P. Motors							
Discharge x Suction	HP Range	Phase	Motor Frame Size	Max. Imp. Diameter	Pump End Kit		
					Model	Order No.	Wt.
1" x 1-1/4"	1/2 - 1.5	1 or 3	56Z	5.315"	FPDDS1-K1	93174137R378	12

Note: Weight in pounds.

# Non-Submersible Pumps

## End Suction Centrifugal Pumps

### DDS Series Performance



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

Note: All performance data based on rated nameplate voltage.



# Non-Submersible Pumps

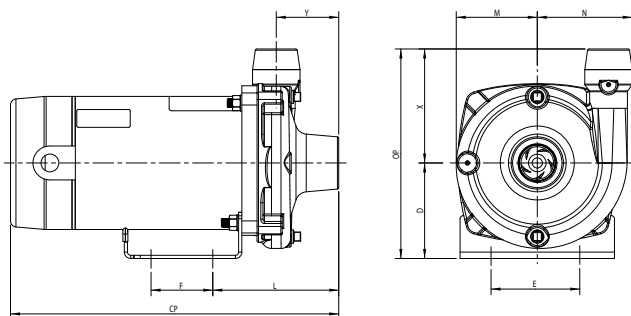
## Close-Coupled Centrifugal Pumps

### FCE Series



#### Features:

- Cast iron volute can be rotated for ease of installation
- Impeller with a stainless steel hub is molded with Noryl®. Noryl® thermoplastic is a proven dependable material known for its properties to increase efficiency and hydraulic performance
- Powered by high quality, industry proven, UL778 approved indoor/outdoor motors from A.O. Smith
- Single-phase: 1 and 1.5 hp motors are dual voltage, set to run with either 115 or 230 V incoming power (2 hp is 230 V only)
- All horsepowers are available with A.O. Smith three-phase motors.
- Built-in drain plug for easy winterizing and servicing
- Can be mounted in a vertical or horizontal position
- Shut-off pressures up to 125 feet
- Flow capacities up to 85 gpm
- Handles water temperatures up to 160 °F / 71 °C
- UL778 approved for indoor or outdoor use



#### Dimensions:

HP	Disch. (NPT)	Suct. (NPT)	CP	D	E	F	L	M	N	OP	X	Y
1/2	1"	1-1/4"	13.75"	4.00"	4.88"	3.00"	5.53"	3.69"	4.00"	8.90"	4.90"	2.63"
3/4	1"	1-1/4"	14.07"	4.00"	4.88"	3.00"	5.53"	3.69"	4.00"	8.90"	4.90"	2.63"
1	1"	1-1/4"	15.57"	4.00"	4.88"	3.00"	5.53"	3.69"	4.00"	8.90"	4.90"	2.63"
1.5	1"	1-1/4"	15.90"	4.00"	4.88"	3.00"	5.53"	3.69"	4.00"	8.90"	4.90"	2.63"
2	1-1/4"	1-1/2"	15.82"	4.46"	4.88"	3.00"	5.88"	4.12"	4.72"	10.78"	6.31"	2.88"

Notes: Dimensions are for estimating purposes only. All dimensions in inches.

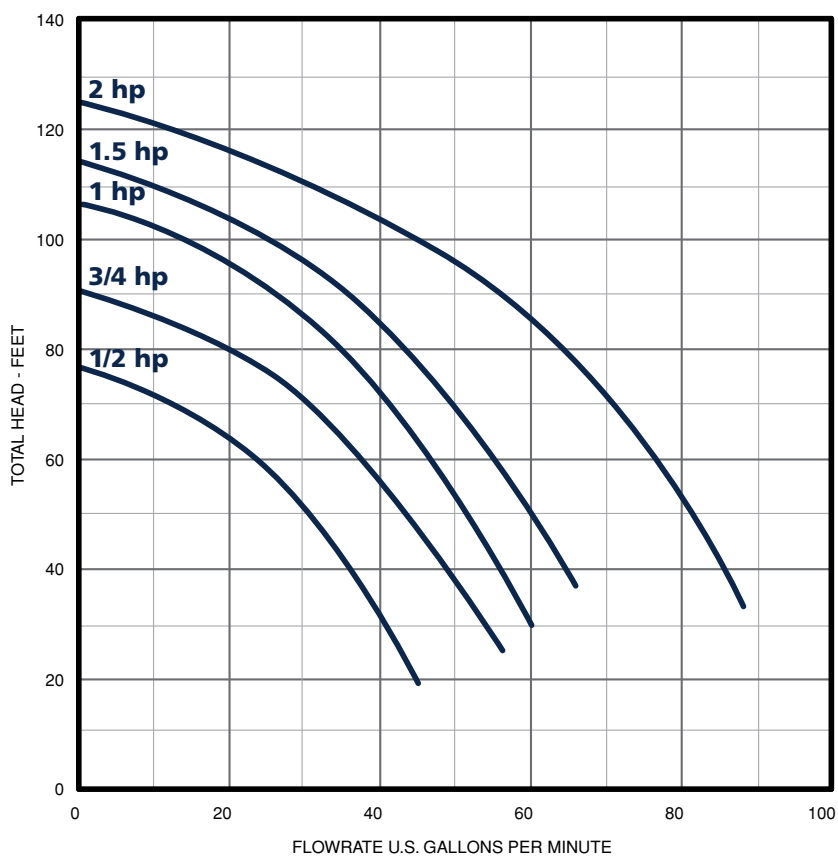
#### Ordering Information:

HP	Discharge x Suction	Single-Phase				Three-Phase			
		Voltage	Model No.	Order No.	Wt.	Voltage	Model No.	Order No.	Wt.
1/2	1" x 1-1/4"	115/230	FCE05CI	90200005	31	208-230/460	FCE05CI-T	90203005	29
3/4	1" x 1-1/4"	115/230	FCE07CI	90200007	32	208-230/460	FCE07CI-T	90203007	31
1	1" x 1-1/4"	115/230	FCE1CI	90200010	37	208-230/460	FCE1CI-T	90203010	34
1.5	1" x 1-1/4"	115/230	FCE15CI	90200015	42	208-230/460	FCE15CI-T	90203015	39
2	1-1/2" x 1-1/4"	230	FCE2CI	90200020	46	208-230/460	FCE2CI-T	90203020	42

Notes: All dimensions in inches. All weight in pounds.

## Close-Coupled Centrifugal Pumps

### FCE Series Performance



HP	Discharge x Suction	Capacities GPM											Shut Off Head (ft)
		Total Head in Ft											
		10	20	25	30	35	40	45	50	60	70	80	
1/2	1" x 1-1/4"	71	63	58	50	41	30	18	-	-	-	-	76
3/4	1" x 1-1/4"	85	78	74	69	62	54	46	36	-	-	-	90
1	1" x 1-1/4"	102	95	90	85	78	71	62	52	29	-	-	106
1.5	1" x 1-1/4"	109	103	99	95	90	83	76	68	50	-	-	113
2	1-1/2" x 1-1/4"	120	115	113	110	107	103	99	94	84	71	53	124

Note: All lengths are in inches.

## Non-Submersible Pumps

# Non-Corrosive Centrifugal Pumps

## A Series



Flooded suction centrifugal pump suitable for use with saltwater, chemical transfer and other pumping applications that deal with corrosive substances.

### Features:

- High tech, non-corrosive plastic construction. All metal components that have contact with liquid are stainless steel.
- Motor shaft is completely insulated from any contact with pumping liquid.
- 2" union connections ensure easy service and optimum water flow. Unions must be ordered separately.
- Discharge port easily rotates to 90 degree increments without removing motor.
- Lightweight design.

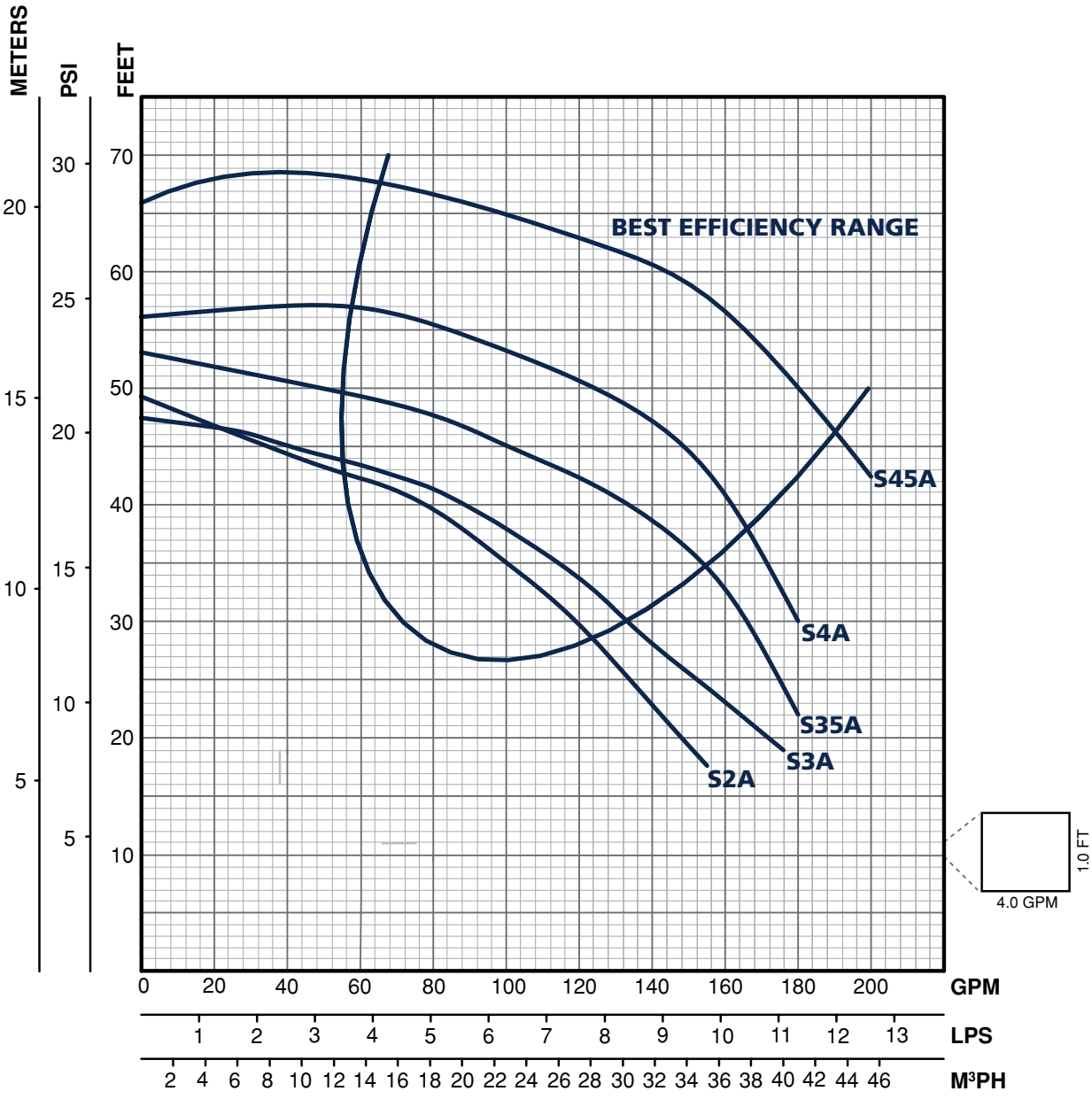
## Ordering Information

A Series Thermoplastic Centrifugal Pumps					
Model	HP	Discharge x Suction	Voltage	Pump Unit	
				Order No.	Wt.
S2A	2	2" MNPT x 2"	115/230	94216151	27
S3A	3	2" MNPT x 2"	230	94216191	29
S35A	3.5	2" MNPT x 2"	230	94216201	31
S4A	4	2" MNPT x 2"	230	94216301	35
S45A	4.5	2" MNPT x 2"	230	94216401	39
Fittings kit contains (2) 2" slip x threaded connection union halves				31150109	2

**Note:** Set of union halves must be purchased separately. Weight in pounds.

## Non-Corrosive Centrifugal Pumps

### A Series Performance



## Non-Submersible Pumps

# Non-Corrosive Centrifugal Pumps

## S Series



This flooded suction centrifugal pump is suitable for use with saltwater, chemical transfer (please consult factory for specific chemical compatibility) and other pumping applications that deal with corrosive substances.

### Features:

- High tech, non-corrosive plastic construction. All metal components that have contact with liquid are stainless steel.
- Motor shaft is completely insulated from any contact with pumping liquid.
- Mechanical seal has ceramic and carbon faces. All other parts are buna-n-rubber and stainless steel.
- Patented air cooled heat sink allows pump to run dry or in loss-of-prime conditions without damage to the shaft seal. Unconditional two year warranty against seal failure.
- Floating eye seal on the impeller maximizes pump efficiency for best flow and pressure.
- Will accept either a standard 1.5" union or a male 1.5" pipe thread. Unions must be ordered separately.
- UL and CSA agency listing do not apply to any application other than water applications.

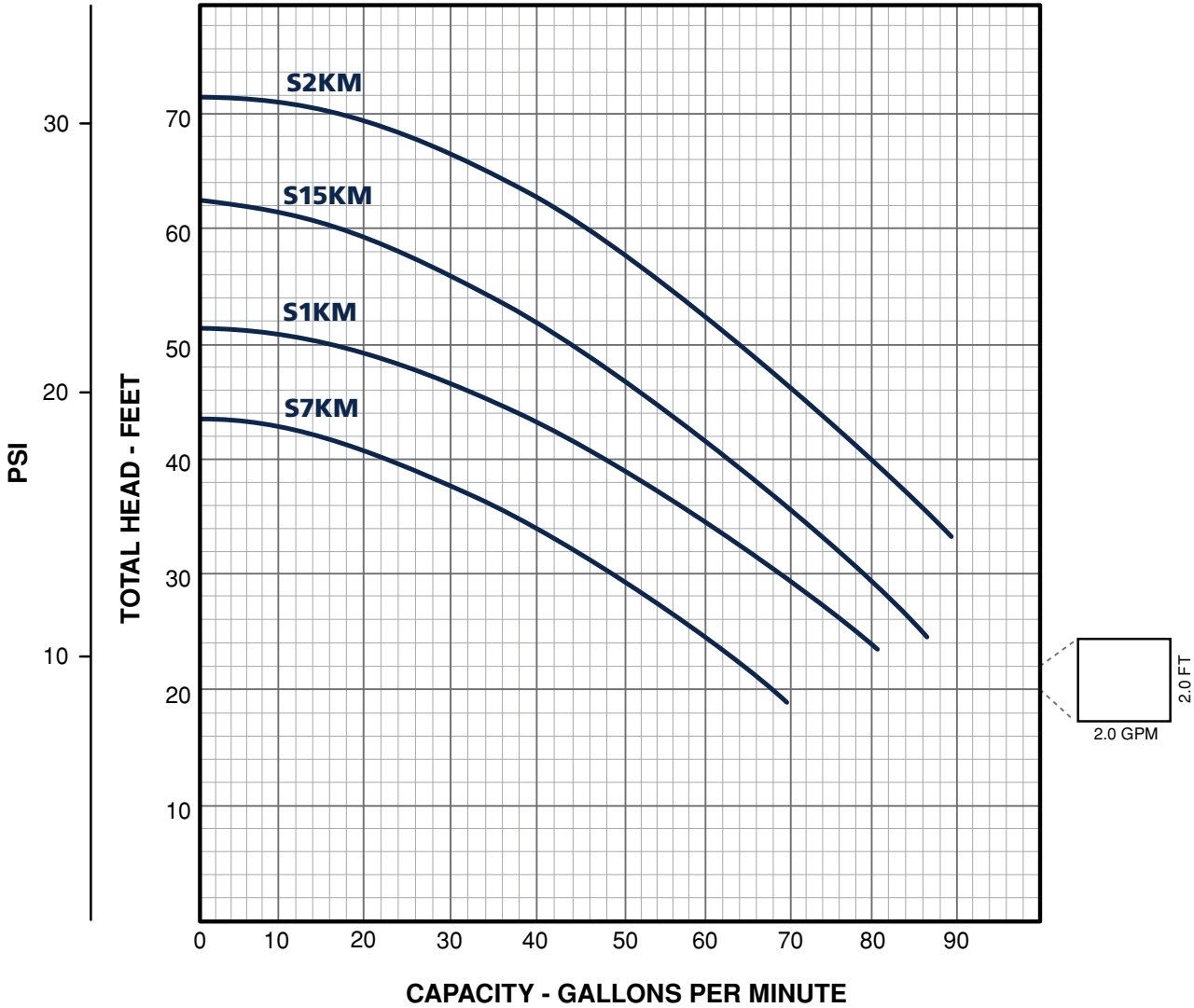
## Ordering Information

S Series Thermoplastic Centrifugal Pumps					
Model	HP	Discharge x Suction	Voltage	Pump Unit	
				Order No.	Wt.
S7KM	3/4	1-1/2" MNPT x 1-1/2"	115	94028263	22
S1KM	1	1-1/2" MNPT x 1-1/2"	115	94028271	24
S15KM	1.5	1-1/2" MNPT x 1-1/2"	115	94028289	26
S2M	2	1-1/2" MNPT x 1-1/2"	115/230	94028297	35
Fittings kit contains (2) 1-1/2" slip x threaded connection union halves				31175608	1

**Note:** Set of union halves must be purchased separately. Weight in pounds.

**Non-Corrosive Centrifugal Pumps**

**S Series Performance**



## Non-Submersible Pumps

# Non-Corrosive Centrifugal Pumps

## JCM Series



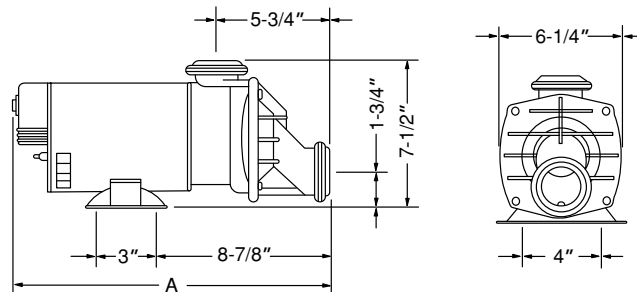
### Features:

- Air-cooled heat sink allows pump to run dry without damage to the shaft seal.
- Floating eye seal between the closed impeller and the pump case maximizes pump efficiency for best flow and pressure.
- Accepts a 1.5" standard union. Union adapter kits must be ordered separately.
- UL and CSA Agency listings do not apply to any application other than water applications.



Dimensions	
HP	A
3/4	16-5/8"
1	16-5/8"
1.5	17-1/16"
2	17-1/16"

Note: Dimensions will vary according to motor manufacturer.



## Ordering Information

JCM Series with Straight Union Fit - Single Speed							
Model	HP	Order No.	Discharge x Suction	Voltage	Full Load Amps	Svc. Factor	Weight
S7JCM	3/4	94215696	1-1/2" MNPT x 1-1/2"	115	9.8	1	22
S1JCM	1	94215704	1-1/2" MNPT x 1-1/2"	115	9.8	1	24
S15JCM	1.5	94216587	1-1/2" MNPT x 1-1/2"	115	12.4	1	26
S2JCM	2	94215522	1-1/2" MNPT x 1-1/2"	115/230	16.8/8.4	1	35

JCM Series with Straight Union Fit - Single Speed with Built-In Air Switch & 3' Cord with Standard 3 Prong Plug							
Model	HP	Order No.	Discharge x Suction	Voltage	Full Load Amps	Svc. Factor	Weight
S7JCM-A3	3/4	94216405	1-1/2" MNPT x 1-1/2"	115	10.5	1	22
S1JCM-A3	1	94216421	1-1/2" MNPT x 1-1/2"	115	10.5	1	24
S15JCM-A3	1.5	94216603	1-1/2" MNPT x 1-1/2"	115	12.4	1	26
S2JCM-A3	2	94216447	1-1/2" MNPT x 1-1/2"	115	16.0	1	35

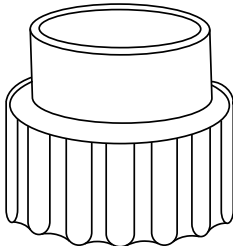
Note: Weight in pounds.

# Non-Submersible Pumps

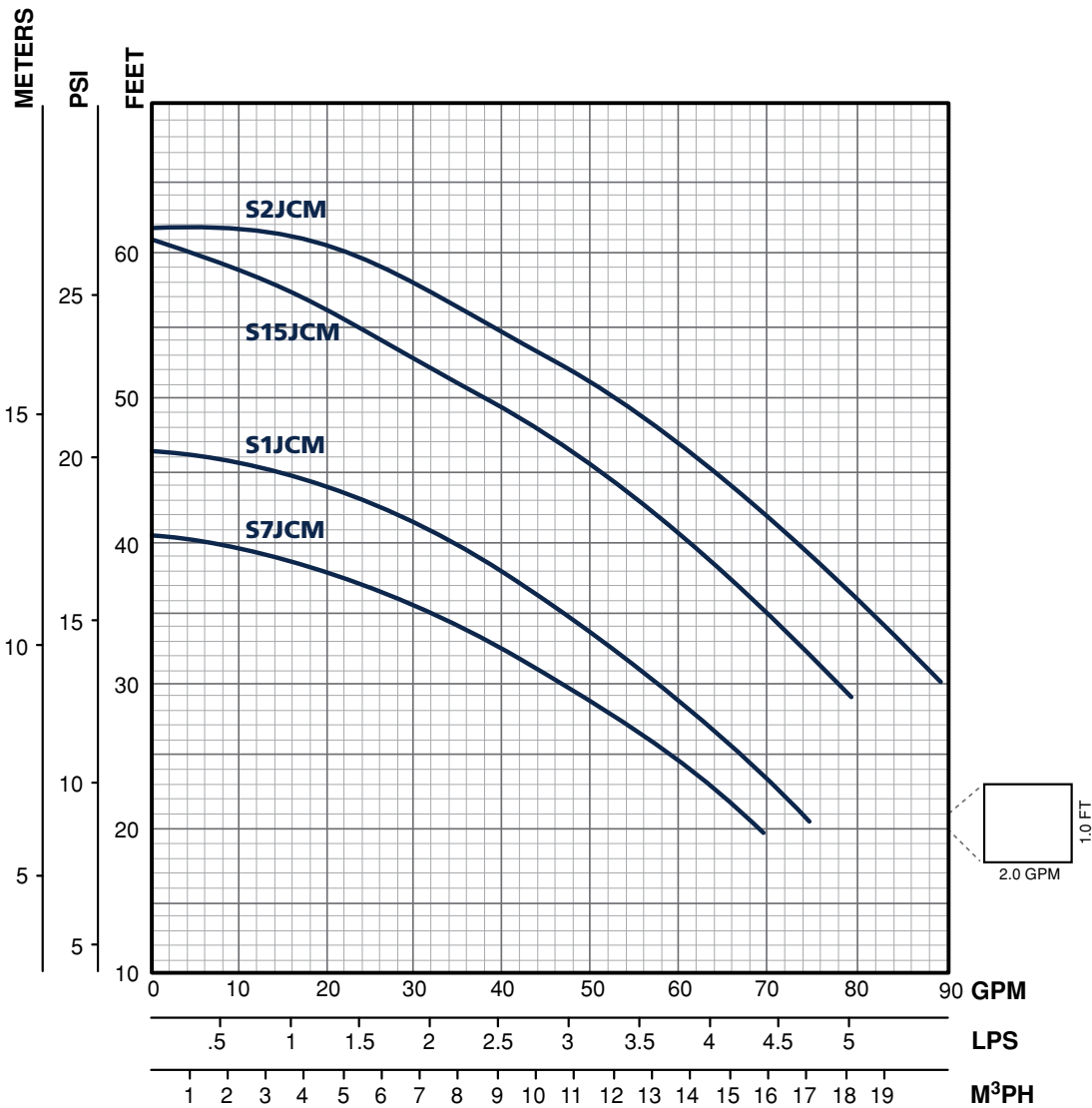
## Non-Corrosive Centrifugal Pumps

### JCM Series Performance

Straight Union	
Model	Order No.
(2) S15UNS Halves	31175608



Note: Must be ordered separately.





# Non-Submersible Pumps

## Horizontal Multi-Stage Centrifugal Pumps MH Series



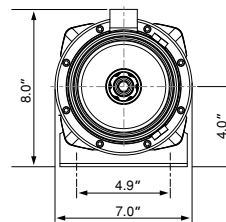
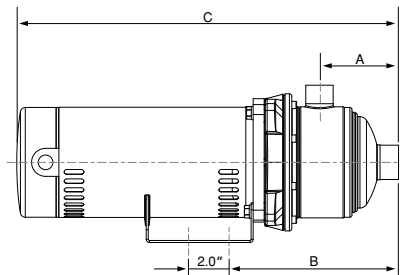
The new FPS MH Series, multi-stage booster pump is designed to meet your pressure boosting needs. The stainless steel construction offers high performance in a wide variety of applications. The MH Series is offered in three flow rates and five different horsepower sizes in 1-phase or 3-phase to make sure you have the right pump to fit your application.

### Applications:

- Pressure Boosting
- Water Transfer
- Turf Irrigation
- Residential Lawn Sprinkler Systems
- Wash Down Applications
- Commercial Water Features
- Fountains
- Cisterns
- Reverse Osmosis
- Aeration

### Features:

- All 300 series stainless steel wetted components
- Powered by high quality, industry proven, UL778 approved indoor/outdoor motor from A.O. Smith
- Available in 3 flow rates: 15, 30 and 45 gpm
- 5 motor hp size options in 1-phase or 3-phase
- High pressure capabilities – 140 psi
- Able to pump fluids at temperatures up to 225 °F
- Can operate in suction lift installation up to 10 feet



Single-Phase Dimensions				
GPM	Stage	A	B	C
15	2	4.06	8.75	16.75
	3	4.06	8.75	17.50
	4	5.00	9.69	19.07
	5	5.94	10.64	20.81
	6	6.89	11.58	22.59
30	2	4.06	8.75	17.50
	3	4.06	8.75	19.00
	4	5.00	9.69	20.70
	5	5.94	10.64	21.64
45	2	4.65	9.34	19.67
	3	4.65	9.34	20.50

Three-Phase Dimensions				
GPM	Stage	A	B	C
15	2	4.06	8.75	16.97
	3	4.06	8.75	17.62
	4	5.00	9.69	18.92
	5	5.94	10.64	20.78
	6	6.89	11.58	22.56
30	2	4.06	8.75	17.62
	3	4.06	8.75	18.85
	4	5.00	9.69	20.67
	5	5.94	10.64	21.61
45	2	4.65	9.34	19.64
	3	4.65	9.34	20.47

Note: Dimensions will vary according to motor manufacturer.

# Non-Submersible Pumps

## Horizontal Multi-Stage Centrifugal Pumps

MH Series Ordering Information (See pgs. 2-3 for model number explanation)

### Single-Phase

GPM	Discharge x Suction	HP	Stage	Voltage	Model No.	Order No.	Wt.
15	1" x 1-1/4"	0.5	2	115/230	15FMH05S2	96061500	22
		0.75	3	115/230	15FMH07S3	96061501	25
		1	4	115/230	15FMH1S4	96061502	29
		1.5	5	115/230	15FMH15S5	96061503	35
		2	6	115/230	15FMH2S6	96061504	40
30	1" x 1-1/4"	0.75	2	115/230	30FMH07S2	96063000	25
		1	3	115/230	30FMH1S3	96063001	33
		1.5	4	115/230	30FMH15S4	96063002	37
		2	5	115/230	30FMH2S5	96063003	41
45	1-1/4" x 1-1/2"	1.5	2	115/230	45FMH15S2	96064500	33
		2	3	115/230	45FMH2S3	96064501	39

### Three-Phase

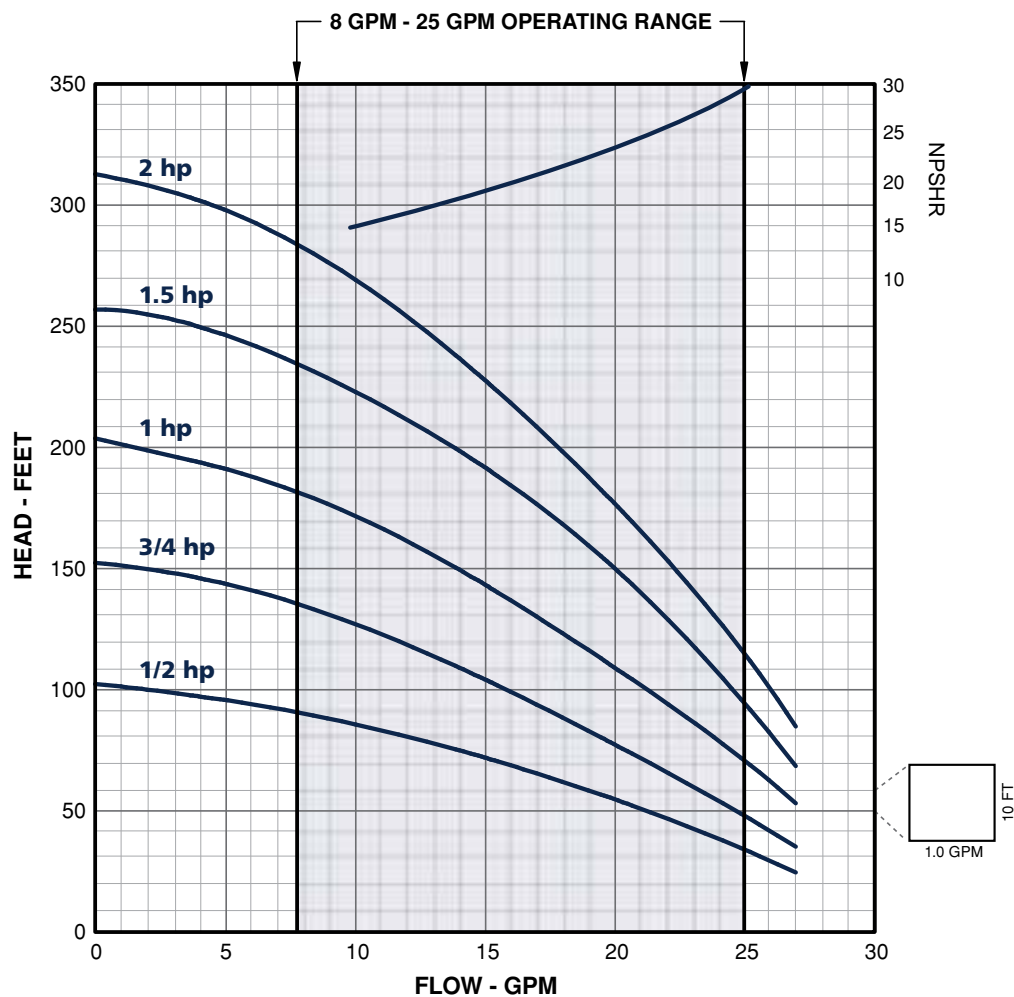
GPM	Discharge x Suction	HP	Stage	Voltage	Model No.	Order No.	Wt.
15	1" x 1-1/4"	0.5	2	208-230/460	15FMH05S2-T	96061510	24
		0.75	3	208-230/460	15FMH07S3-T	96061511	24
		1	4	208-230/460	15FMH1S4-T	96061512	29
		1.5	5	208-230/460	15FMH15S5-T	96061513	34
		2	6	208-230/460	15FMH2S6-T	96061514	42
30	1" x 1-1/4"	0.75	2	208-230/460	30FMH07S2-T	96063010	24
		1	3	208-230/460	30FMH1S3-T	96063011	33
		1.5	4	208-230/460	30FMH15S4-T	96063012	36
		2	5	208-230/460	30FMH2S5-T	96063013	43
45	1-1/4" x 1-1/2"	1.5	2	208-230/460	45FMH15S2-T	96064510	32
		2	3	208-230/460	45FMH2S3-T	96064511	41

Note: Weight in pounds.

# Non-Submersible Pumps

## Horizontal Multi-Stage Centrifugal Pumps

### MH Series 15 GPM Performance

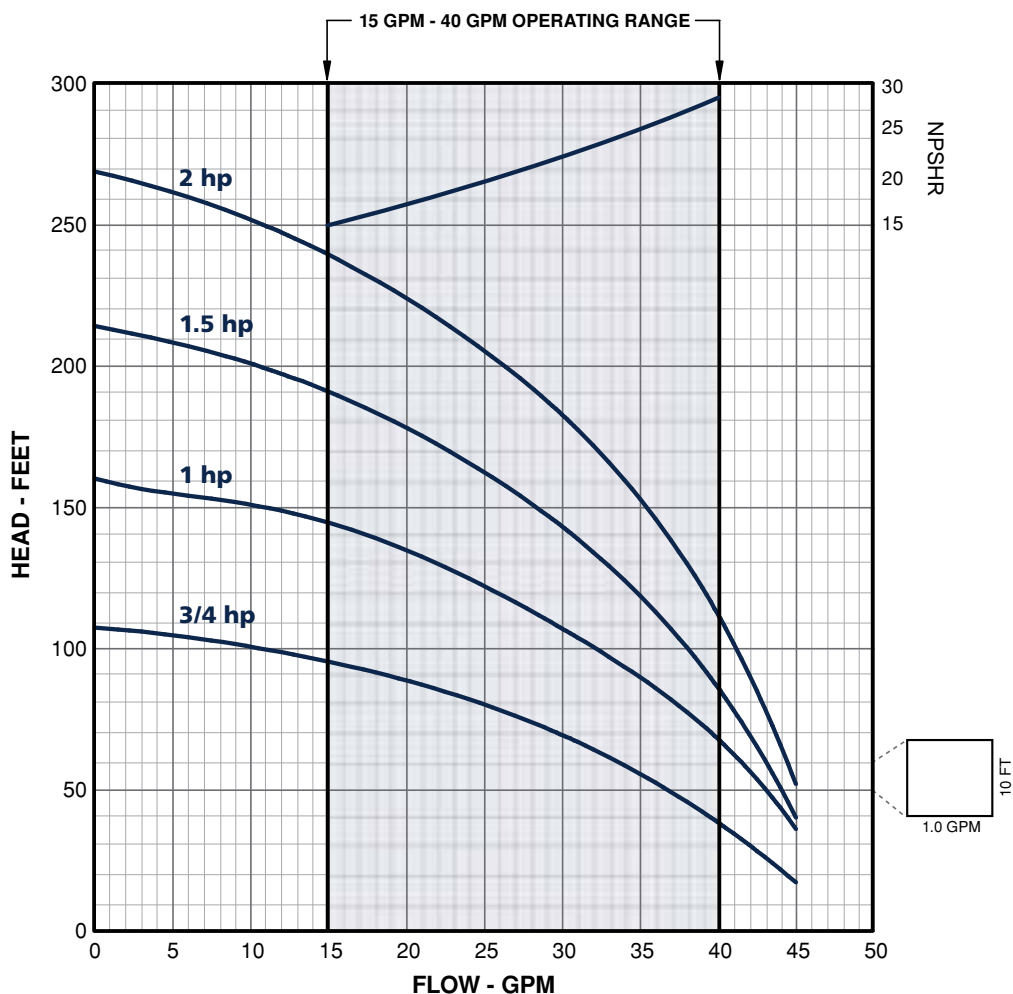


HP	Capacities - GPM																				Shut Off Head (PSI)				
	Total Head - Feet																								
	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240		250	260	270	
1/2	21	18	15	12	8	1																			44
3/4	25	23	21	19	18	16	14	12	9	6	1														66
1		26	25	24	23	21	20	18	17	15	14	12	10	8	5	1									88
1.5			27	26	25	25	24	23	22	21	20	19	18	16	15	14	12	10	9	6	4				111
2					27	26	25	25	24	23	22	21	21	20	19	18	17	16	15	14	12	11	10		135

# Non-Submersible Pumps

## Horizontal Multi-Stage Centrifugal Pumps

### MH Series 30 GPM Performance

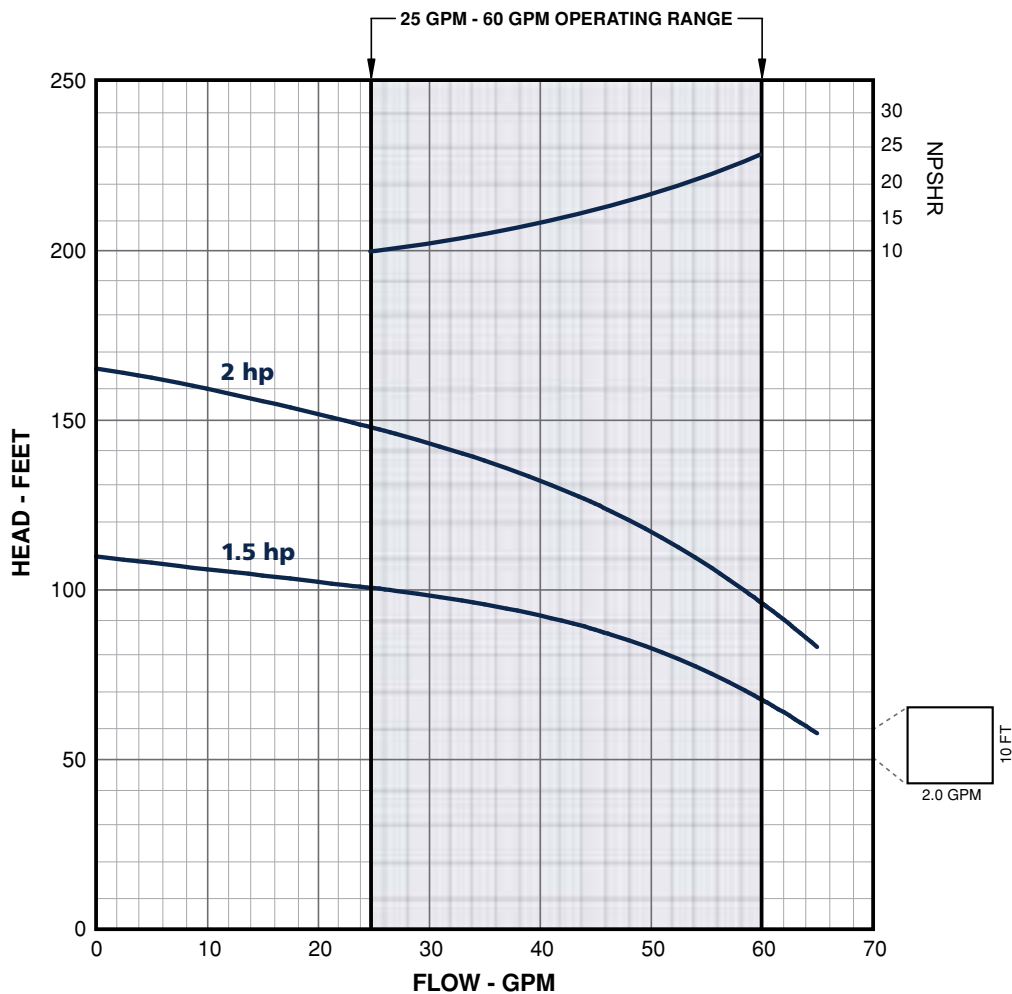


HP	Capacities - GPM																			Shut Off Head (PSI)	
	Total Head - Feet																				
	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230		240
<b>3/4</b>	37	33	30	25	19	10															47
<b>1</b>	43	41	40	37	35	32	29	26	22	17	11										69
<b>1.5</b>	44	43	42	41	39	38	36	35	33	31	28	26	23	19	15	10	3				93
<b>2</b>		44	44	43	42	41	40	39	38	37	35	34	32	30	28	26	24	21	18	15	116

# Non-Submersible Pumps

## Horizontal Multi-Stage Centrifugal Pumps

### MH Series 45 GPM Performance



HP	Capacities - GPM											Shut Off Head (PSI)
	Total Head - Feet											
	60	70	80	90	100	110	120	130	140	150	160	
1.5	64	59	52	43	26							47
2				62	58	54	48	42	33	22	9	71

## Booster Pumps

### BT4 Series



CSA ENC 3  
COF CSA 3



C SA 108  
UL 778

### 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 BT4.
- Filtration - stainless steel BT4.

**Note:** 3 hp BT4 pumps are for indoor installations only. They are not rated for outdoor installations.

# FPS

## BT4 series

### Cast Iron Features:

- Designed for boosting water pressure from a variety of sources including municipal and private water systems.
- Stainless steel discharge head on all models.
- Cast iron motor bracket with a rugged support foot for horizontal or vertical mounting and a handle for portability of the unit.
- 1" suction and 1" discharge are the same across the entire line, simplifying installation and maintenance.
- The booster pump is built by Franklin Electric's patented (U.S.) Patent 7,290,984) Tri-Seal floating stage system, for maximum efficiency, longevity and performance.
- Assembled with the highest quality materials of construction, such as Celcon® for impellers, Noryl® for the diffusers and 300 series stainless steel for the hub, eye seals, shaft and shell.
- Easily serviced through a back pull-out design, which leaves all plumbing and the pump undisturbed in their original location.
- Industry proven square flange motors from A.O. Smith.
- Single-phase: 1/3 through 2 hp motors are dual voltage, set to run with either 115 V or 230 V incoming power, while 3 hp are 230 V only. Motors are high service factor A.O. Smith.
- Shut-off pressures up to 270 psi, flow rates from 5 to 25 gpm, and temperatures up to 120 °F / 49 °C.

### Stainless Steel Features:

Includes all of the Cast Iron features above plus:

- Stainless steel models:
  - Viton® mechanical seal for corrosive fluids
  - Three-phase also available: 1/2 through 3 hp motors are dual voltage set to run with either 208-230 V or 460 V incoming power.
- Stainless steel motor bracket with a rugged support foot for horizontal or vertical mounting, and a handle for portability of the unit.
- Designed for industrial applications.

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Noryl® is a Registered Trademark of G.E.

Viton® is a Registered Trademark of Dupont Dow Elastomers.

# Non-Submersible Pumps

## Booster Pumps

BT4 Series Ordering Information (See pgs. 2-3 for model number explanation)

### Single-Phase Stainless Steel (With Viton® mechanical seal)

GPM	HP	Discharge x Suction	Voltage	Model No.	Order No.	Wt.
5	1/3	1" x 1"	115/230	5FBT03S4	95830505	33
	1/2	1" x 1"	115/230	5FBT05S4	95830510	37
	3/4	1" x 1"	115/230	5FBT07S4	95830515	41
	1	1" x 1"	115/230	5FBT1S4	95830520	46
7	1/2	1" x 1"	115/230	7FBT05S4	95830710	37
	3/4	1" x 1"	115/230	7FBT07S4	95830715	40
	1	1" x 1"	115/230	7FBT1S4	95830720	46
	1.5	1" x 1"	115/230	7FBT15S4	95830725	53
10	1/2	1" x 1"	115/230	10FBT05S4	95831010	37
	3/4	1" x 1"	115/230	10FBT07S4	95831015	39
	1	1" x 1"	115/230	10FBT1S4	95831020	45
	1.5	1" x 1"	115/230	10FBT15S4	95831025	52
	2	1" x 1"	115/230	10FBT2S4	95831030	56
15	3/4	1" x 1"	115/230	15FBT07S4	95831515	39
	1	1" x 1"	115/230	15FBT1S4	95831520	44
	1.5	1" x 1"	115/230	15FBT15S4	95831525	49
	2	1" x 1"	115/230	15FBT2S4	95831530	55
20	3/4	1" x 1"	115/230	20FBT07S4	95832015	39
	1	1" x 1"	115/230	20FBT1S4	95832020	44
	1.5	1" x 1"	115/230	20FBT15S4	95832025	51
	2	1" x 1"	115/230	20FBT2S4	95832030	55
	3	1" x 1"	230	20FBT3S4	95832035	67
25	1	1" x 1"	115/230	25FBT1S4	95832520	44
	1.5	1" x 1"	115/230	25FBT15S4	95832525	48
	2	1" x 1"	115/230	25FBT2S4	95832530	54
	3	1" x 1"	230	25FBT3S4	95832535	66

Viton® is a registered trademark of Dupont Dow Elastomers.

### Single-Phase Cast Iron

GPM	HP	Discharge x Suction	Voltage	Model No.	Order No.	Wt.
5	1/3	1" x 1"	115/230	5FBT03C4	95870501	36
	1/2	1" x 1"	115/230	5FBT05C4	95880505	40
	3/4	1" x 1"	115/230	5FBT07C4	95880510	43
	1	1" x 1"	115/230	5FBT1C4	95880515	49
7	1/2	1" x 1"	115/230	7FBT05C4	95880705	40
	3/4	1" x 1"	115/230	7FBT07C4	95880710	43
	1	1" x 1"	115/230	7FBT1C4	95880715	48
	1.5	1" x 1"	115/230	7FBT15C4	95880720	56
10	1/2	1" x 1"	115/230	10FBT05C4	95881005	39
	3/4	1" x 1"	115/230	10FBT07C4	95881010	42
	1	1" x 1"	115/230	10FBT1C4	95881015	48
	1.5	1" x 1"	115/230	10FBT15C4	95881020	55
	2	1" x 1"	115/230	10FBT2C4	95881025	59
15	3/4	1" x 1"	115/230	15FBT07C4	95881510	41
	1	1" x 1"	115/230	15FBT1C4	95881515	47
	1.5	1" x 1"	115/230	15FBT15C4	95881520	52
	2	1" x 1"	115/230	15FBT2C4	95881525	58
20	3/4	1" x 1"	115/230	20FBT07C4	95882010	41
	1	1" x 1"	115/230	20FBT1C4	95882015	47
	1.5	1" x 1"	115/230	20FBT15C4	95882020	54
	2	1" x 1"	115/230	20FBT2C4	95882025	58
	3	1" x 1"	230	20FBT3C4	95882035	70
25	1	1" x 1"	115/230	25FBT1C4	95882515	46
	1.5	1" x 1"	115/230	25FBT15C4	95882520	51
	2	1" x 1"	115/230	25FBT2C4	95882525	57
	3	1" x 1"	230	25FBT3C4	95882535	69

Note: Weight in pounds.

# Non-Submersible Pumps

## Booster Pumps

BT4 Series Ordering Information (See pgs. 2-3 for model number explanation)

### Three-Phase Stainless Steel

GPM	HP	Discharge x Suction	Voltage	Model No.	Order No.	Wt.
5	1/2	1" x 1"	208-230/460	5FBT05S4-T	95830555	37
	3/4	1" x 1"	208-230/460	5FBT07S4-T	95830560	41
	1	1" x 1"	208-230/460	5FBT1S4-T	95830565	46
7	1/2	1" x 1"	208-230/460	7FBT05S4-T	95830755	37
	3/4	1" x 1"	208-230/460	7FBT07S4-T	95830760	40
	1	1" x 1"	208-230/460	7FBT1S4-T	95830765	46
	1.5	1" x 1"	208-230/460	7FBT15S4-T	95830770	53
10	1/2	1" x 1"	208-230/460	10FBT05S4-T	95831055	37
	3/4	1" x 1"	208-230/460	10FBT07S4-T	95831060	39
	1	1" x 1"	208-230/460	10FBT1S4-T	95831065	45
	1.5	1" x 1"	208-230/460	10FBT15S4-T	95831070	52
	2	1" x 1"	208-230/460	10FBT2S4-T	95831075	56
15	3/4	1" x 1"	208-230/460	15FBT07S4-T	95831560	39
	1	1" x 1"	208-230/460	15FBT1S4-T	95831565	44
	1.5	1" x 1"	208-230/460	15FBT15S4-T	95831570	49
	2	1" x 1"	208-230/460	15FBT2S4-T	95831575	55
20	3/4	1" x 1"	208-230/460	20FBT07S4-T	95832060	39
	1	1" x 1"	208-230/460	20FBT1S4-T	95832065	44
	1.5	1" x 1"	208-230/460	20FBT15S4-T	95832070	51
	2	1" x 1"	208-230/460	20FBT2S4-T	95832075	55
	3	1" x 1"	208-230/460	20FBT3S4-T	95832080	67
25	1	1" x 1"	208-230/460	25FBT1S4-T	95832565	44
	1.5	1" x 1"	208-230/460	25FBT15S4-T	95832570	48
	2	1" x 1"	208-230/460	25FBT2S4-T	95832575	54
	3	1" x 1"	208-230/460	25FBT3S4-T	95832580	66

Note: All weights in pounds.

### BT4 Pump End:

GPM	HP	Discharge x Suction	Model No.	Order No.	Wt.
5	1/3	1" x 1"	5BT03S4-PE	95920507	18
	1/2	1" x 1"	5BT05S4-PE	95920509	19
	3/4	1" x 1"	5BT07S4-PE	95920512	20
	1	1" x 1"	5BT1S4-PE	95920515	21
7	1/2	1" x 1"	7BT05S4-PE	95920708	18
	3/4	1" x 1"	7BT07S4-PE	95920710	19
	1	1" x 1"	7BT1S4-PE	95920714	20
	1.5	1" x 1"	7BT15S4-PE	95920719	24
10	1/2	1" x 1"	10BT05S4-PE	95921007	18
	3/4	1" x 1"	10BT07S4-PE	95921008	19
	1	1" x 1"	10BT1S4-PE	95921011	20
	1.5	1" x 1"	10BT15S4-PE	95921015	23
	2	1" x 1"	10BT2S4-PE	95921018	24
15	3/4	1" x 1"	15BT07S4-PE	95921506	18
	1	1" x 1"	15BT1S4-PE	95921508	19
	1.5	1" x 1"	15BT15S4-PE	95921512	20
	2	1" x 1"	15BT2S4-PE	95921515	23
20	3/4	1" x 1"	20BT07S4-PE	95922005	18
	1	1" x 1"	20BT1S4-PE	95922007	19
	1.5	1" x 1"	20BT15S4-PE	95922010	20
	2	1" x 1"	20BT2S4-PE	95922012	23
	3	1" x 1"	20BT3S4-PE	95922015	24
25	1	1" x 1"	25BT1S4-PE	95922506	18
	1.5	1" x 1"	25BT15S4-PE	95922508	19
	2	1" x 1"	25BT2S4-PE	95922510	20
	3	1" x 1"	25BT3S4-PE	95922513	24

Notes: All weights in pounds.

56Z motor size frame.

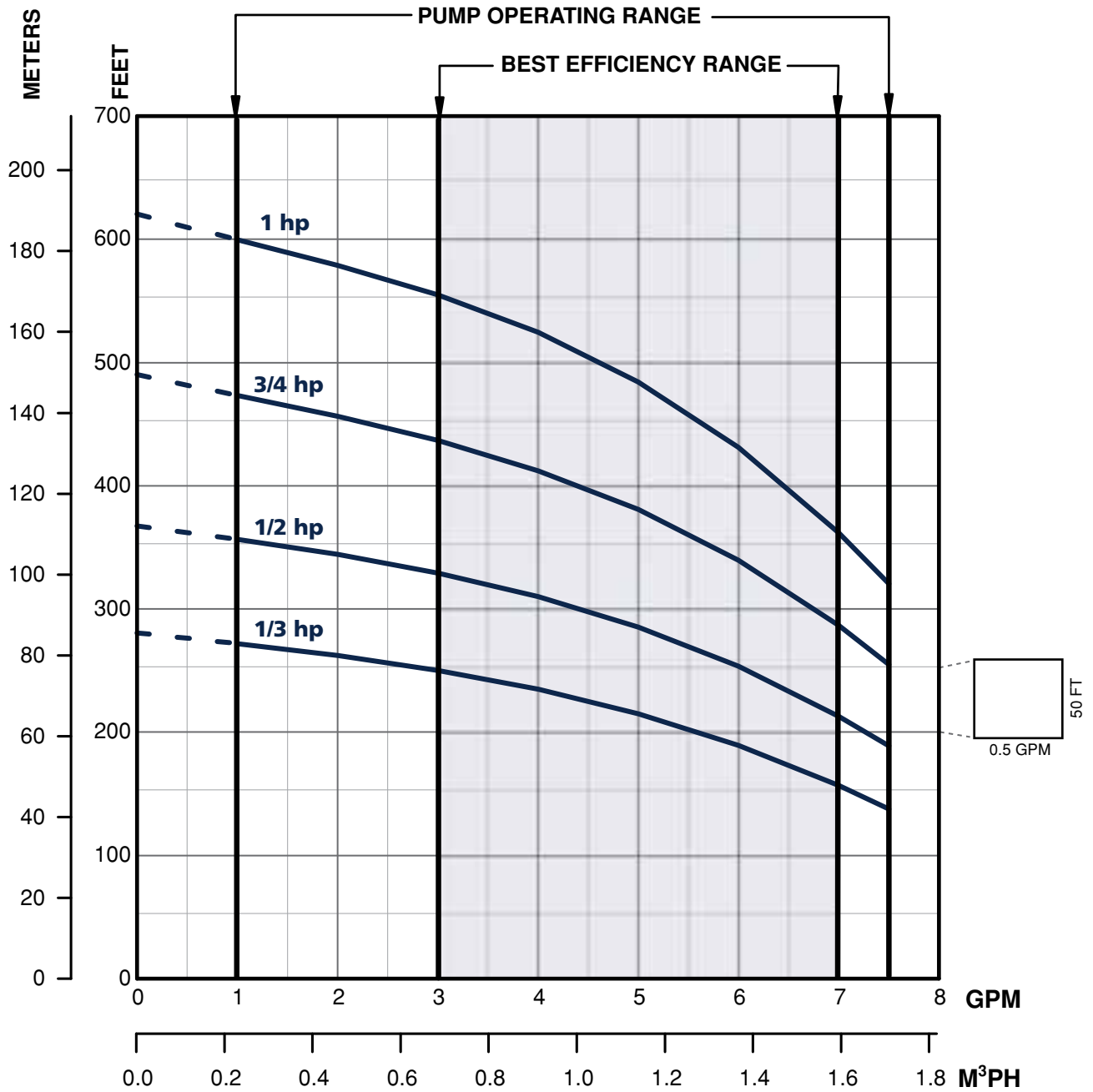
BT4 pump ends are stainless steel construction.



# Non-Submersible Pumps

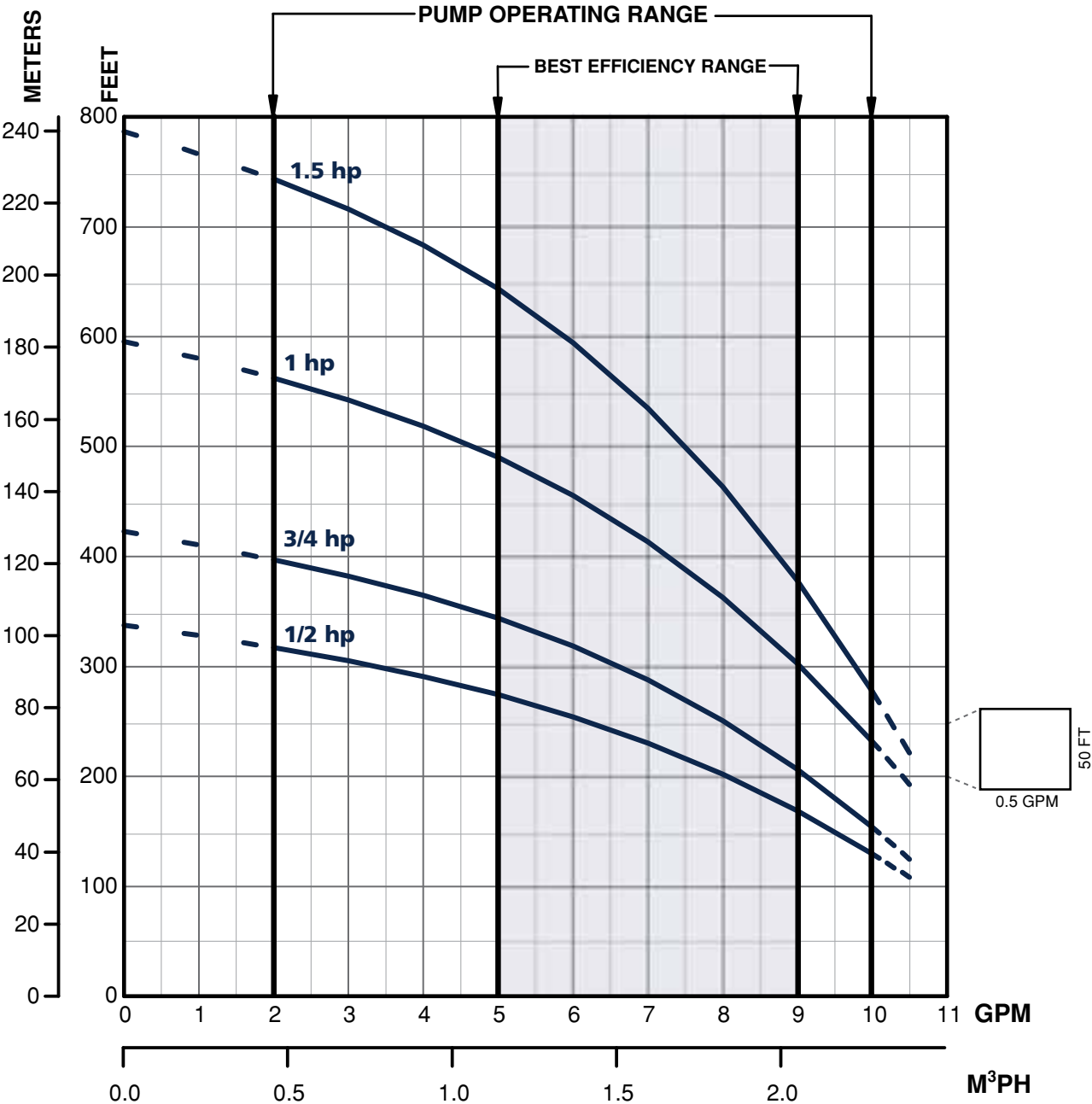
## Booster Pumps

### BT4 Series - 5 GPM Performance Curves



Booster Pumps

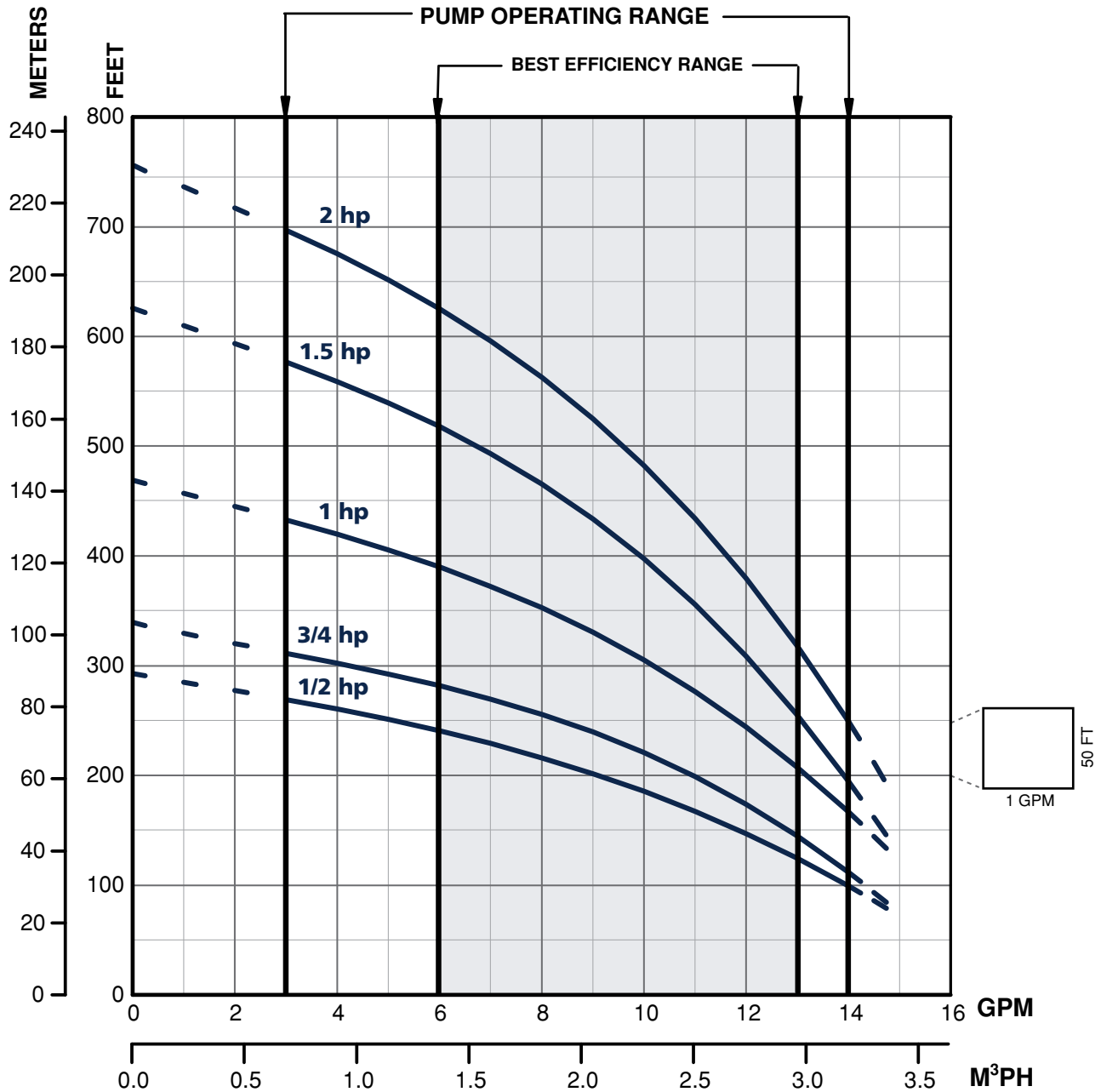
BT4 Series - 7 GPM Performance Curves



# Non-Submersible Pumps

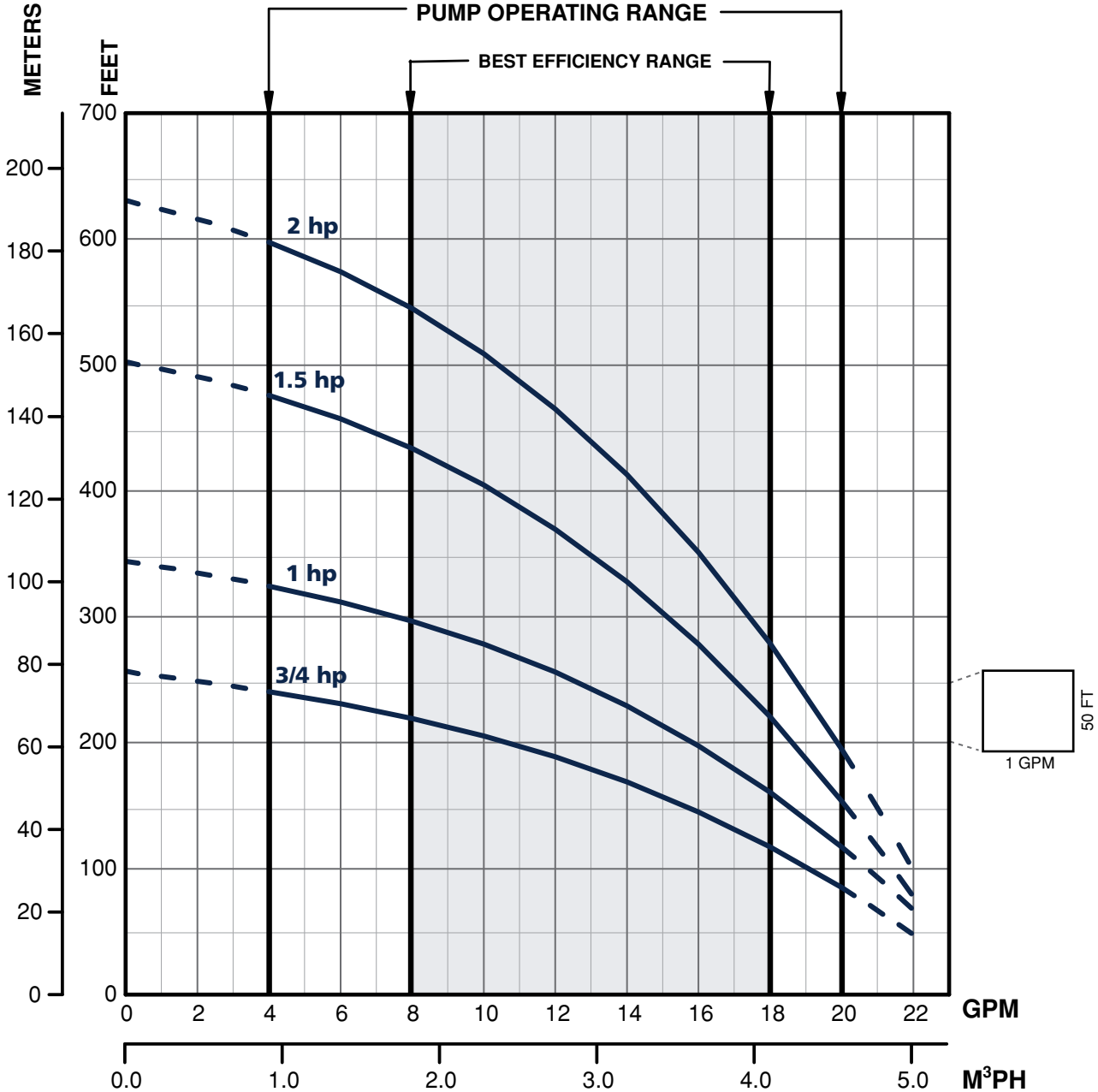
## Booster Pumps

### BT4 Series - 10 GPM Performance Curves



Booster Pumps

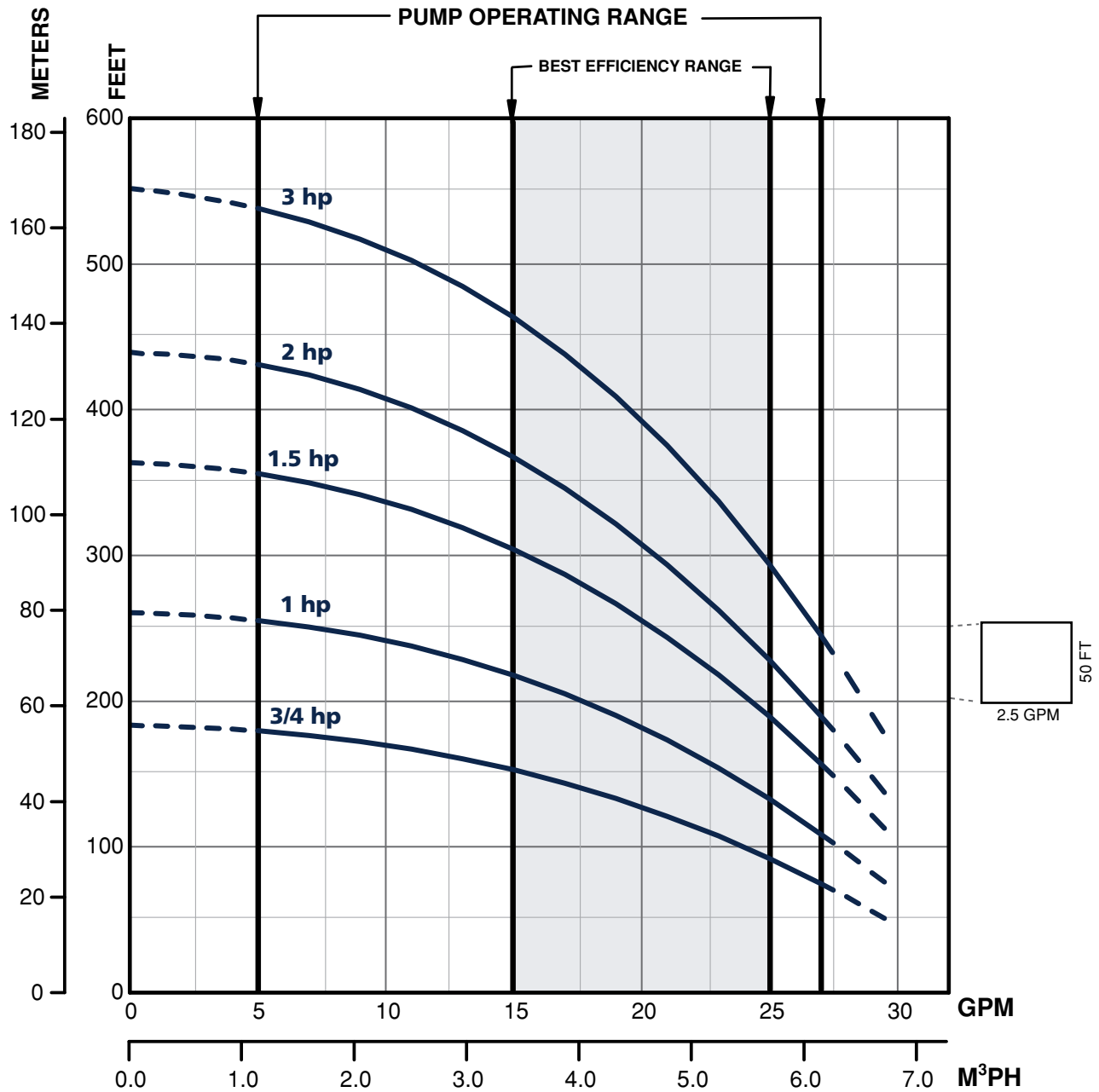
BT4 Series - 15 GPM Performance Curves



# Non-Submersible Pumps

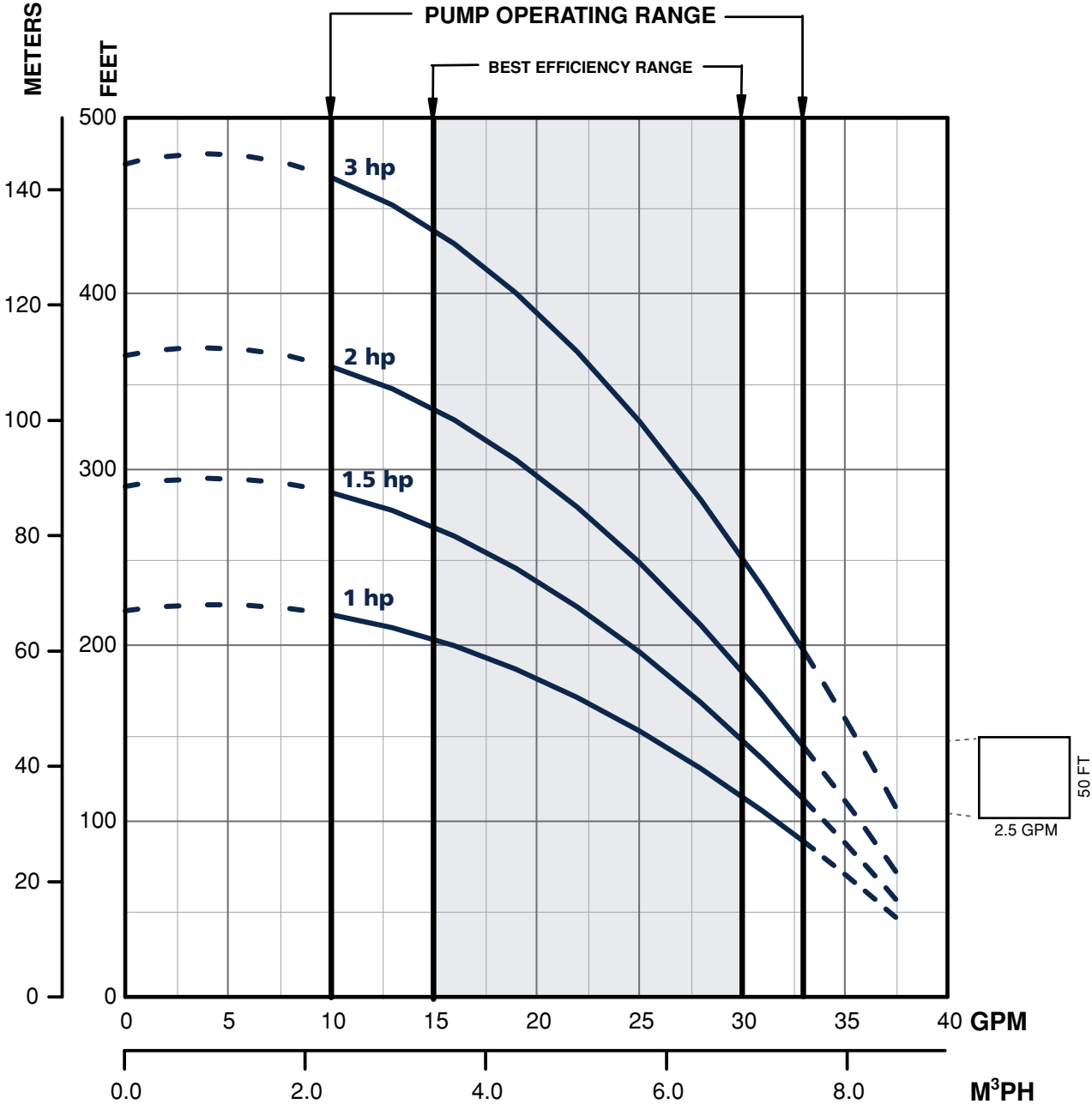
## Booster Pumps

### BT4 Series - 20 GPM Performance Curves



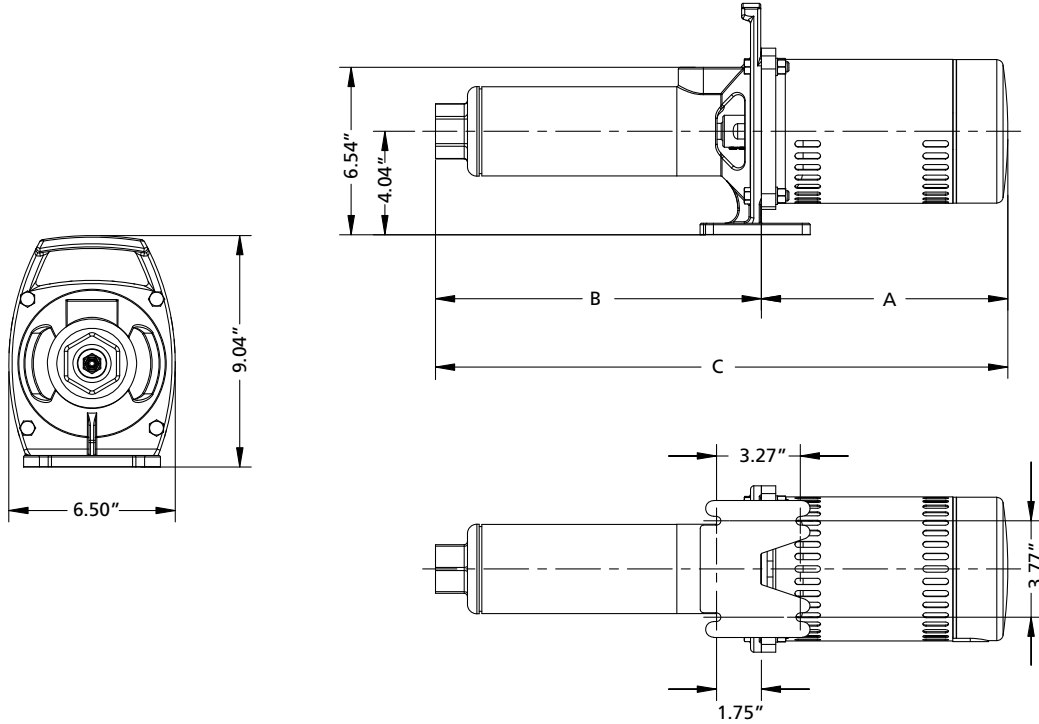
Booster Pumps

BT4 Series - 25 GPM Performance Curves



# Non-Submersible Pumps

## BT4 Series Dimensional Data



### Single-Phase Stainless Steel & Cast Iron:

GPM	HP	Stage	A	B	C
5	1/3	7	9.63"	13.49"	23.12"
	1/2	9	10.38"	15.14"	25.52"
	3/4	12	11.00"	17.60"	28.60"
	1	15	11.88"	20.06"	31.94"
7	1/2	8	10.38"	14.31"	24.69"
	3/4	10	11.00"	15.96"	26.69"
	1	14	11.88"	19.24"	31.12"
	1.5	19	12.63"	23.35"	35.98"
10	1/2	7	10.38"	14.07"	24.45"
	3/4	8	11.00"	14.98"	25.98"
	1	11	11.88"	17.69"	29.57"
	1.5	15	12.63"	21.31"	33.94"
	2	18	12.63"	24.02"	36.65"
15	3/4	6	11.00"	13.17"	24.17"
	1	8	11.88"	14.98"	26.86"
	1.5	12	12.63"	18.59"	31.22"
	2	15	12.63"	21.31"	23.94"
20	3/4	5	11.00"	13.87"	24.87"
	1	7	11.88"	16.31"	28.19"
	1.5	10	12.63"	19.99"	32.62"
	2	12	12.63"	22.43"	35.06"
	3	15	13.18"	26.11"	39.29"
25	1	6	11.88"	15.09"	26.97"
	1.5	8	12.63"	17.54"	30.17"
	2	10	12.63"	19.99"	32.62"
	3	13	13.18"	23.66"	36.84"

### Three-Phase Stainless Steel:

GPM	HP	Stage	A	B	C
5	1/2	9	9.85"	15.14"	24.99"
	3/4	12	10.50"	17.60"	28.10"
	1	15	10.85"	20.03"	30.88"
7	1/2	8	9.85"	14.00"	23.85"
	3/4	10	10.50"	14.31"	24.81"
	1	14	10.85"	15.96"	26.81"
	1.5	19	11.85"	23.35"	35.20"
10	1/2	7	9.85"	14.07"	23.92"
	3/4	8	10.50"	14.98"	25.48"
	1	11	10.85"	17.69"	28.54"
	1.5	15	11.85"	21.31"	33.16"
	2.0	18	12.60"	24.02"	36.62"
15	3/4	6	10.50"	13.17"	23.67"
	1	8	10.85"	14.98"	25.83"
	1.5	12	11.85"	18.59"	30.44"
	2	15	12.60"	21.31"	33.91"
20	3/4	5	10.50"	13.87"	24.37"
	1	7	10.85"	16.31"	27.16"
	1.5	10	11.85"	19.99"	31.84"
	2	12	12.60"	22.43"	35.03"
	3	15	12.69"	26.11"	38.80"
25	1	6	10.85"	15.09"	25.94"
	1.5	8	11.85"	17.54"	29.39"
	2	10	12.60"	19.99"	32.59"
	3	13	12.69"	23.66"	36.35"

## Booster Pumps

### V6 Series

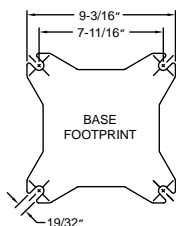
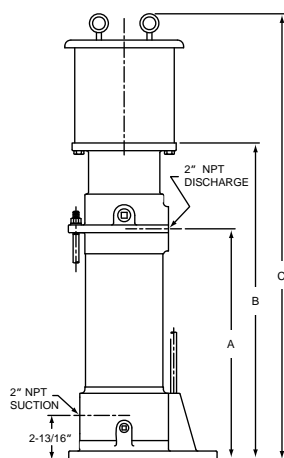


The V6 Booster Pump is ideal for industrial/commercial applications where water pressure boosting is required. Designed with premium hydraulics for reliability and excellent performance. The V650 is available in 1.5 hp through 7.5 hp models. The V675 is available in 3 hp through 7.5 hp models.

#### 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/49 °C.
- Maximum operating pressure is 150 psi.
- 2" NPT suction x 2" NPT discharge.

Noryl® is a Registered Trademark of G.E.



#### 50 GPM

HP	A		B		C	
	1-Phase	3-Phase	1-Phase	3-Phase	1-Phase	3-Phase
1.5	10.94"	10.94"	16.51"	16.51"	27.04"	26.44"
2	12.56"	12.56"	18.13"	18.13"	28.66"	28.06"
3	14.18"	14.18"	19.75"	19.75"	30.95"	30.20"
5	19.05"	19.05"	25.43"	25.43"	38.32"	38.32"
7.5	N/A	23.92"	N/A	30.30"	N/A	46.24"

#### 75 GPM

HP	A		B		C	
	1-Phase	3-Phase	1-Phase	3-Phase	1-Phase	3-Phase
3	10.94"	10.94"	14.88"	14.88"	27.70"	26.95"
5	14.18"	14.18"	19.75"	19.75"	32.64"	32.64"
7.5	N/A	17.43"	N/A	23.81"	N/A	39.75"

**Note:** Shaft turns counterclockwise if viewed from above motor.



# Non-Submersible Pumps

## Booster Pumps

### V6 Series Ordering Information (See pgs. 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.

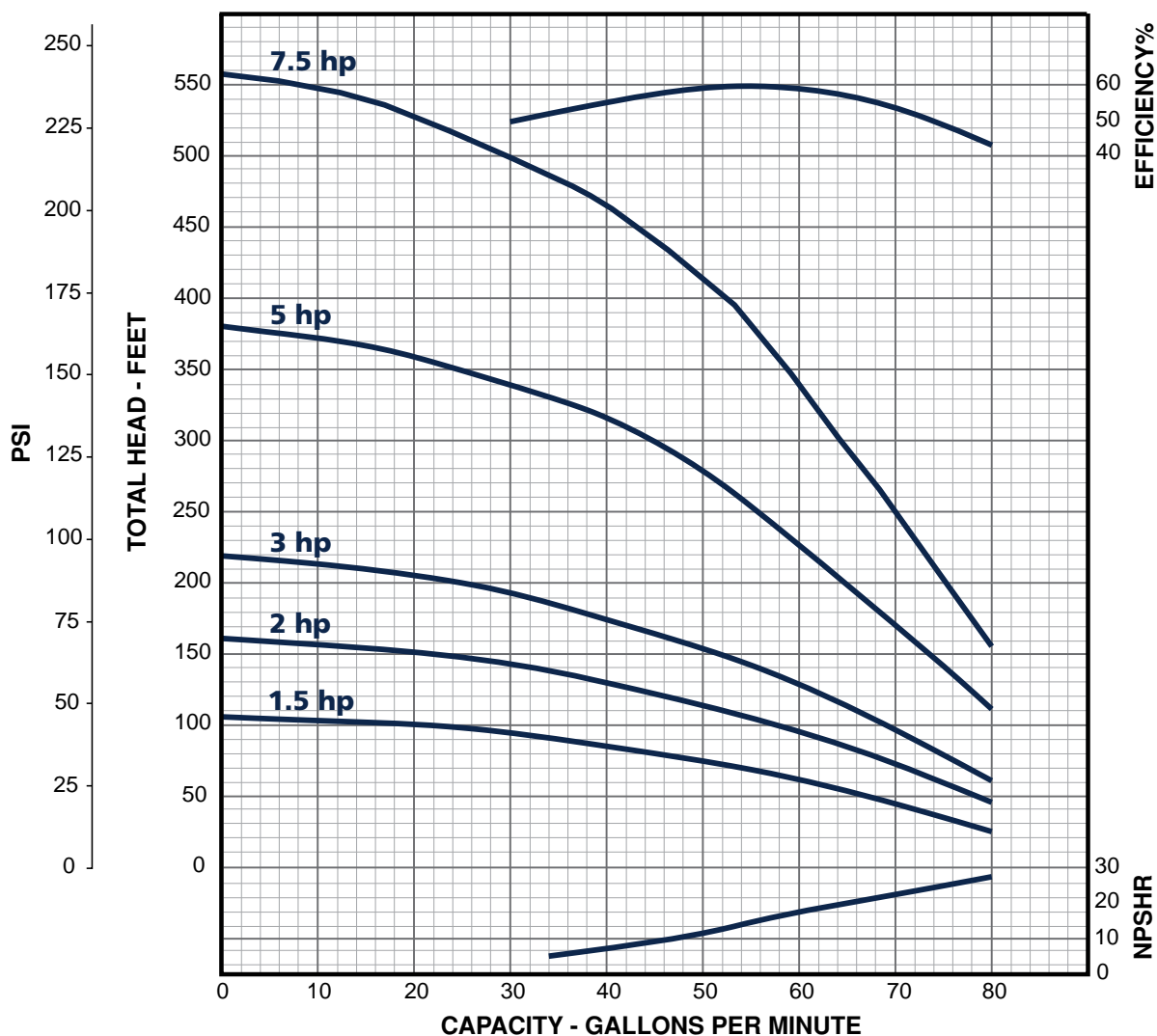
1.5 - 7.5 HP V6 Series Booster Pump Ends					V6 Booster Pump - 575 V		
GPM	HP	Pump Ends Only			Three-phase - 575 V		
		Model No.	Order No.	Wt.	Model No.	Order No.	Wt.
50	1.5	15FVB6P50-2	91304053	65	15FVB6P50-2-T5	91309019	103
	2	2FVB6P50-3	91304061	72	2FVB6P50-3-T5	91309020	108
	3	3FVB6P50-4	91304079	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

**Note:** Weight in pounds.

# Non-Submersible Pumps

## Booster Pumps

### V6 Series - 50 GPM Performance



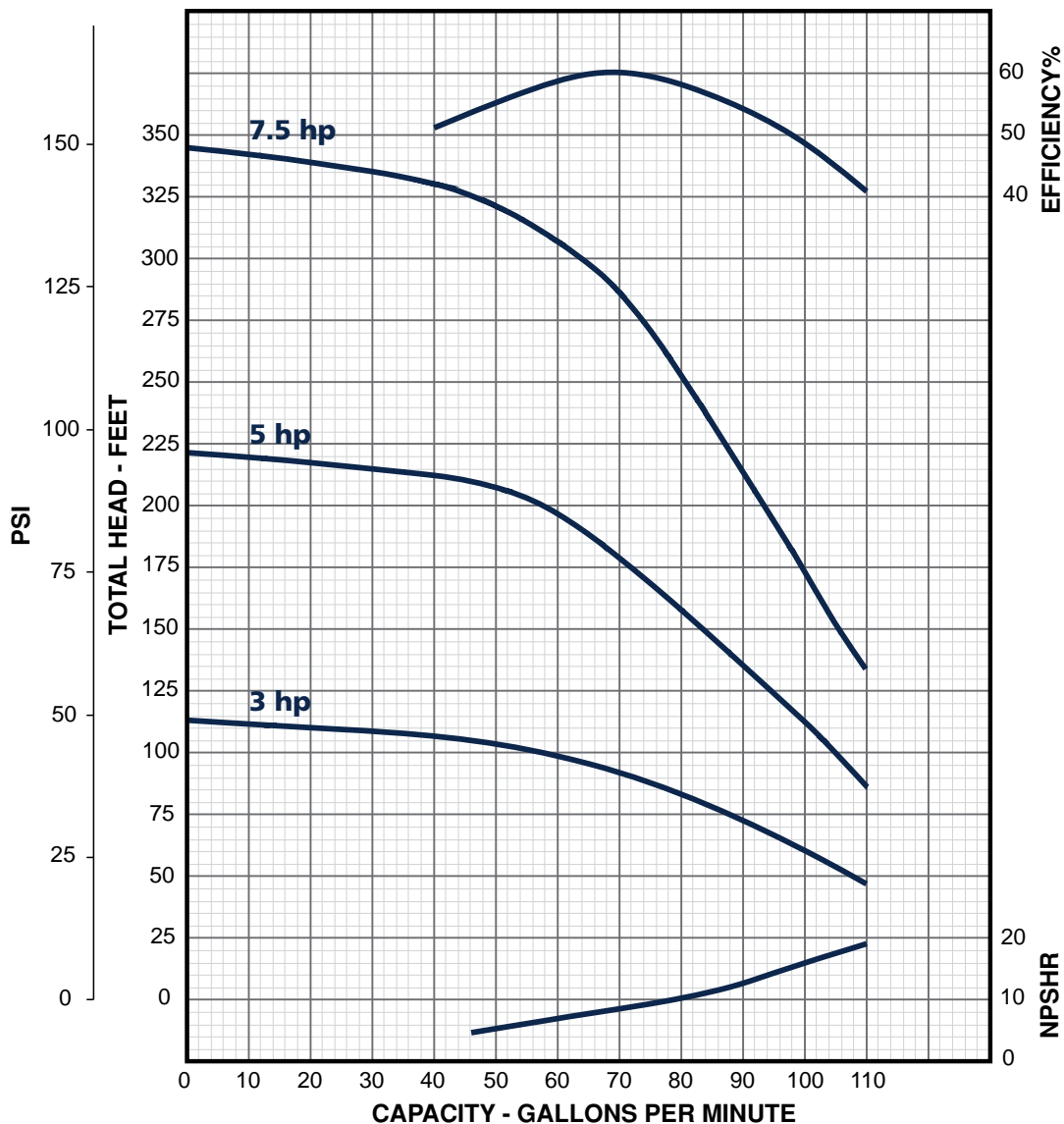
HP	Discharge Pressure at Pump with No Lift (Capacities in Gallons per Minute)																							Max Pres. (PSI)
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	
1.5	82	70	56	34																				46
2		80	72	62	50	35																		69
3			78	72	65	57	47	35	18															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.

# Non-Submersible Pumps

## Booster Pumps

### V6 Series - 75 GPM Performance



HP	Discharge Pressure at Pump with No Lift (Capacities in Gallons per Minute)														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.

## Constant Pressure Systems

### SubDrive Inline 1100



## SubDrive Inline 1100

Franklin Electric's SubDrive Inline 1100 provides constant pressure for both private wells and municipal/city water systems.

### Features:

- A complete and packaged system
  - Pump, motor, drive and pressure switch in one box
- Small and compact design
  - Fits into small areas, even between floor joists
- Stainless steel construction
  - Made for years of operation
- Simple and easy installation
  - Step-by-step illustrated instructions
- Quiet and cool operation
  - Integrated motor design allows water to flow around it
- NEMA 4 electronics enclosure
- Multiple mounting configurations
  - Lets you install the unit where you need it: horizontal, vertical & even upside down
- Product power rating: 1.2 hp, 0.9 kW
- Shipping weight: 50 lbs, 22.7 kg
- Built in system protections guard the Inline unit from many common failure modes including: surge protection, voltage underload, locked pump, open circuit, short circuit and overheated controller.

### Applications:

- Boosted and consistent water pressure from water storage/cistern systems
- Homes - both in private and municipal applications
- General pressure boosting
- Sprinkler systems
- Farming and commercial wash down systems

### Ordering Information

Model Description	Order No.	Input Voltage	Input Phase
25SDIL1100N4 <sup>1</sup>	90401101	230	Single
Drive Assembly	305707901	230	Single
Pump Motor Assembly	305707902	230	Single
Mounting Feet	305707903	N/A	N/A
Pressure Switch	305707906	N/A	N/A
Pressure Tank (2-gallon)	305707910	N/A	N/A
Fastener Kit	305707904	N/A	N/A
Pressure Switch Cable	305707905	N/A	N/A
Overpressure Switch <sup>2</sup>	305707909	N/A	N/A
Overpressure Switch Cable <sup>2</sup>	305707908	N/A	N/A
Overpressure Switch & Cable Combo <sup>2</sup>	305707912	N/A	N/A

<sup>1</sup> Includes pump, motor, drive, pressure switch and all cables.

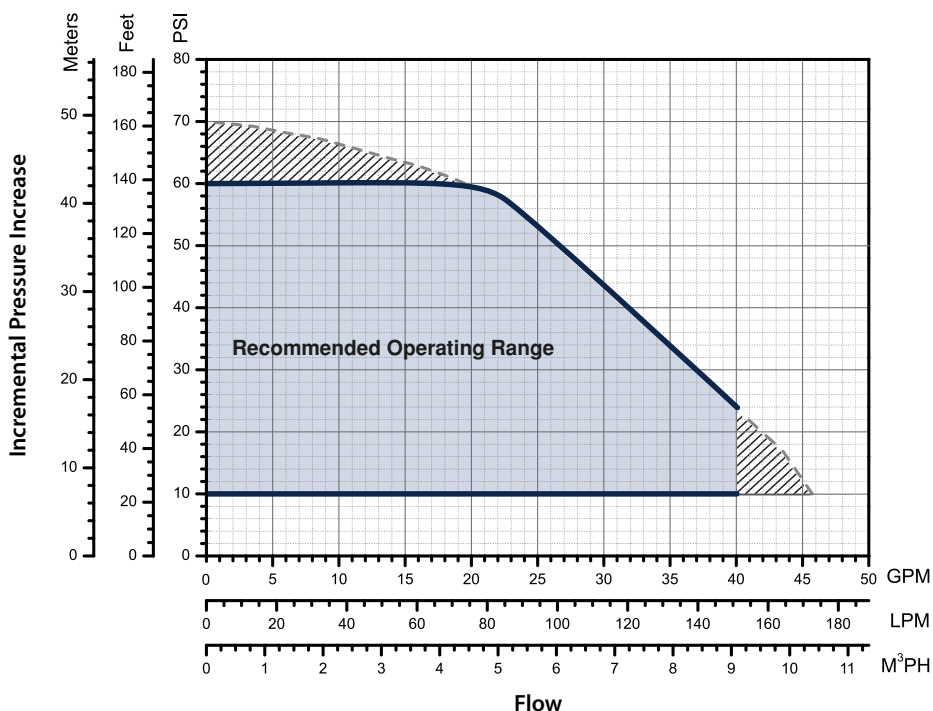
<sup>2</sup> Overpressure switch is sold as an accessory and is not required for normal operation.

# Non-Submersible Pumps

## Constant Pressure Systems

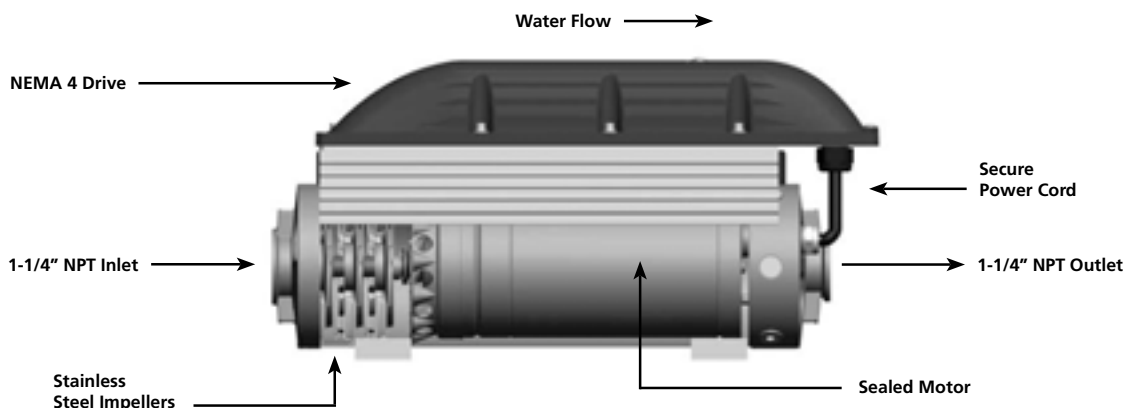
### SubDrive Inline 1100

#### Performance Curve



**Note:** Running outside of 'Recommended Operating Range' for short periods of time is permissible.

#### System Components

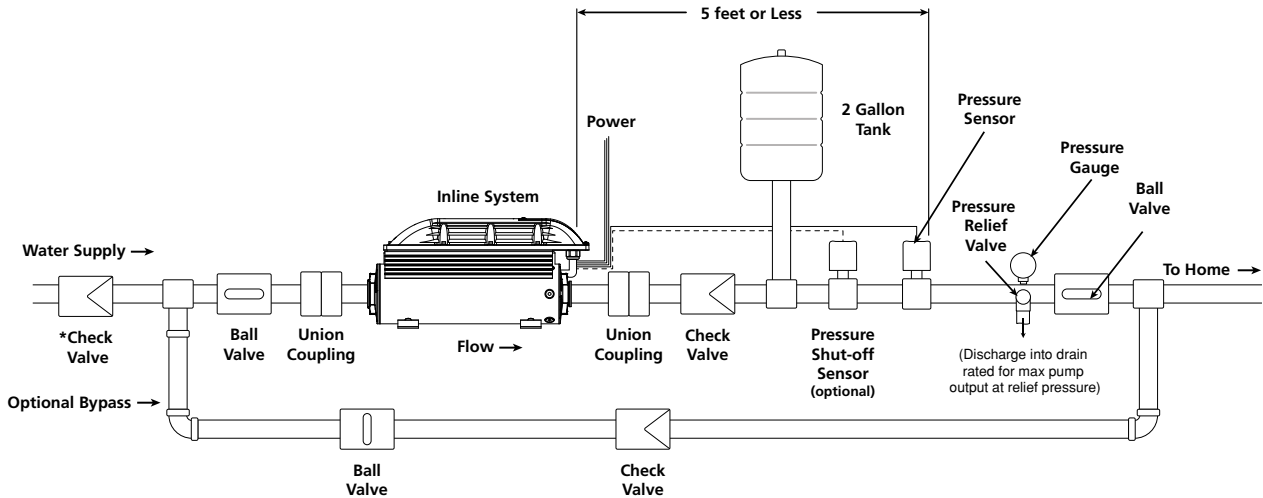


# Non-Submersible Pumps

## Constant Pressure Systems

### SubDrive Inline 1100

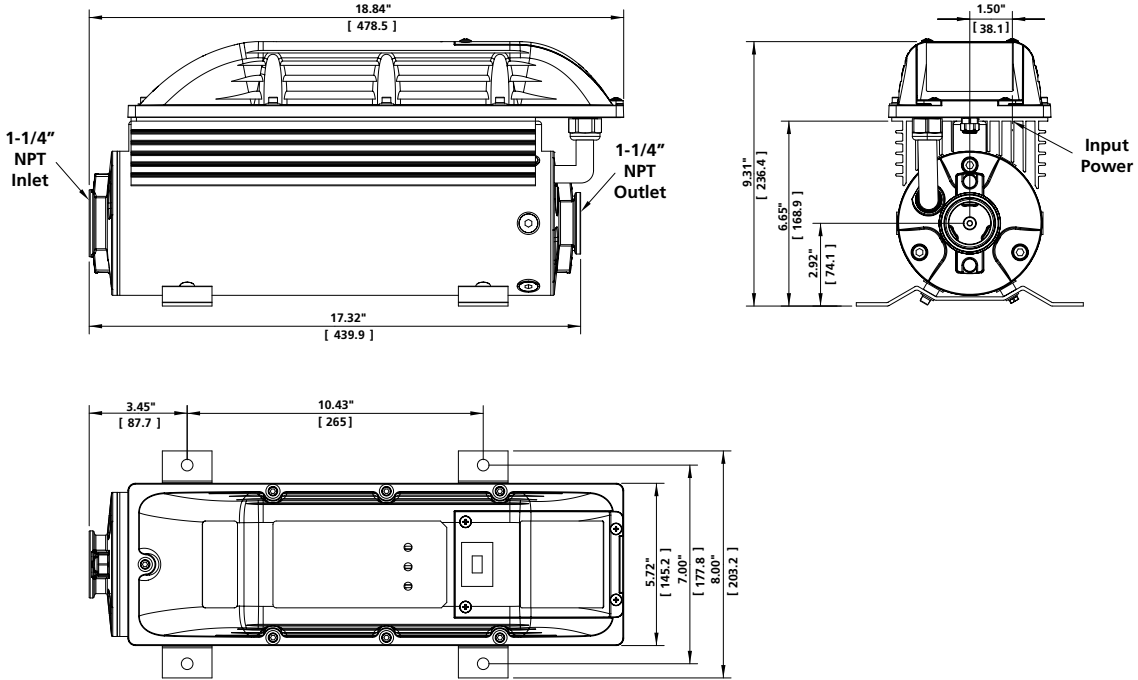
### Typical Installation



**\*NOTICE:** If system plumbing does not have a backflow prevention device, a check valve is required on the incoming water supply line.

**Note:** These optional components are shown in a typical installation diagram. They should be used at the installer's discretion as required for particular applications.

### Dimensions



# Motors, Drives, Controls & Protection

## 4" Submersible Motors

### 2-Wire Models

HP (kW)	Description						Motor Model	Stock Status	Downward Thrust Rating
	W/PH	Construction	Volts	HZ	S.F.	Lead in motor			
<b>1/3 hp</b> <b>0.25 kW</b>	2-WIRE	WATER WELL	115	60	1.75		244 502 01--S		300 LBS (1500 N)
			115	60	1.75	YES	244 502 90--S	YES	
			230	60	1.75		244 503 01--S		
			230	60	1.75	YES	244 503 90--S	YES	
		POLLUTION RECOVERY	115	60	1.75		244 502 09--S		
			230	60	1.75		244 503 09--S		
<b>1/2 hp</b> <b>0.37 kW</b>	2-WIRE	WATER WELL	115	60	1.60		244 504 01--S		300 LBS (1500 N)
			115	60	1.60	YES	244 504 90--S	YES	
			220	50	1.00		244 555 01--S		
			230	60	1.60		244 505 01--S		
			230	60	1.60	YES	244 505 90--S	YES	
		POLLUTION RECOVERY	115	60	1.60		244 504 09--S		
230	60		1.60		244 505 09--S				
<b>3/4 hp</b> <b>0.55 kW</b>	2-WIRE	WATER WELL	220	50	1.00		244 557 01--S		300 LBS (1500 N)
			230	60	1.50		244 507 01--S		
			230	60	1.50	YES	244 507 90--S	YES	
		POLLUTION RECOVERY	230	60	1.50		244 507 09--S		
<b>1 hp</b> <b>0.75 kW</b>	2-WIRE	WATER WELL	220	50	1.00		244 558 12--S		650 LBS (3000 N)
			230	60	1.40		244 508 12--S		
			230	60	1.40	YES	244 508 90--S	YES	
		POLLUTION RECOVERY	230	60	1.40		244 508 23--S		
<b>1.5 hp</b> <b>1.1 kW</b>	2-WIRE	WATER WELL	220	50	1.00		244 359 12--S		650 LBS (3000 N)
			230	60	1.30		244 309 12--S		
			230	60	1.30	YES	244 309 90--S	YES	
		POLLUTION RECOVERY	230	60	1.30		244 309 23--S		

**Notes:**

1. Pack Designation: --S = Single Pack, available in any quantity. All 3 hp motors are single-packed.
2. Contact factory for lead time for non-stocked items.
3. Pallet packs available but not shown. Please contact customer service for availability.

# Motors, Drives, Controls & Protection

## 4" Submersible Motors

### 3-Wire Models

HP (KW)	Description						Motor Model	Control Box Model	Stock Status	Downward Thrust Rating
	W/PH	Construction	Volts	HZ	S.F.	Lead in motor				
1/3 hp 0.25 kW	3-WIRE	WATER WELL	115	60	1.75		214 502 44--S	280 102 49		300 LBS (1500 N)
			115	60	1.75	YES	214 502 90--S	280 102 49	YES	
			220	50	1.00		214 553 41--S	280 353 01		
			230	60	1.75		214 503 44--S	280 103 49		
			230	60	1.75	YES	214 503 90--S	280 103 49	YES	
		POLLUTION RECOVERY	115	60	1.75		214 502 49--S	280 102 49		
			230	60	1.75		214 503 49--S	280 103 49		
1/2 hp 0.37 kW	3-WIRE	WATER WELL	115	60	1.60		214 504 44--S	280 104 49		300 LBS (1500 N)
			115	60	1.60	YES	214 504 90--S	280 104 49	YES	
			220	50	1.00		214 555 41--S	280 355 01	YES	
			230	60	1.60		214 505 44--S	280 105 49		
			230	60	1.60	YES	214 505 90--S	280 105 49	YES	
		POLLUTION RECOVERY	115	60	1.60		214 504 49--S	280 104 49		
			230	60	1.60		214 505 49--S	280 105 49		
3/4 hp 0.55 kW	3-WIRE	WATER WELL	220	50	1.00		214 557 41--S	280 357 01	YES	300 LBS (1500 N)
			230	60	1.50		214 507 44--S	280 107 49		
			230	60	1.50	YES	214 507 90--S	280 107 49	YES	
		POLLUTION RECOVERY	230	60	1.50		214 507 49--S	280 107 49		
		SERIES 600M	230	60	1.50	YES	214 507 0600--S		YES	
1 hp 0.75 kW	3-WIRE	WATER WELL	220	50	1.00		214 558 19--S	280 358 01	YES	650 LBS (3000 N)
			230	60	1.40		214 508 12--S	280 108 49		
			230	60	1.40	YES	214 508 90--S	280 108 49	YES	
		POLLUTION RECOVERY	230	60	1.40		214 508 23--S	280 108 49		
		SERIES 600M	230	60	1.40	YES	214 508 0610--S		YES	
1.5 hp 1.1 kW	3-WIRE	WATER WELL	220	50	1.00		224 350 19--S	282 350 81	YES	650 LBS (3000 N)
			230	60	1.30		224 300 19--S	282 300 81	YES	
			230	60	1.30	YES	224 300 92--S	282 300 81	YES	
		POLLUTION RECOVERY	230	60	1.30		224 300 23--S	282 300 81		
		SERIES 600M	230	60	1.30	YES	224 300 0610--S		YES	
2 hp 1.5 kW	3-WIRE	WATER WELL	220	50	1.00		224 351 19--S	282 351 81	YES	650 LBS (3000 N)
			230	60	1.25		224 301 19--S	282 301 81	YES	
			230	60	1.25	YES	224 301 92--S	282 301 81	YES	
		POLLUTION RECOVERY	230	60	1.25		224 301 23--S	282 301 81		
		SERIES 600M	230	60	1.25	YES	224 301 0610--S		YES	
3 hp 2.2 kW	3-WIRE	WATER WELL	220	50	1.00		224 352 25	282 352 81	YES	900 LBS (4000 N)
			230	60	1.15		224 302 25	282 302 81		
			230	60	1.15	YES	224 302 26	282 302 81	YES	
		SERIES 600M	230	60	1.15	YES	224 302 0620		YES	

**Notes:**

1. Pack Designation: --S = Single Pack, available in any quantity. All 3 hp motors are single-packed.
2. Contact factory for lead time for non-stocked items.
3. Pallet packs available but not shown. Please contact customer service for availability.



# Motors, Drives, Controls & Protection

## 4" Submersible Motors

### Three-Phase Models

HP (KW)	Description						Model	Stock Status	Downward Thrust Rating
	W/PH	Construction	Volts	HZ	S.F.	Lead in Motor			
1/2 hp 0.37 kW	3-PHASE	WATER WELL	200	60	1.60		234 501 41--S		300 LBS (1500 N)
			200	60	1.60	YES	234 501 92--S		
			220	50	1.00		234 551 41--S		
			230	60	1.60		234 511 41--S		
			230	60	1.60	YES	234 511 92--S		
			380/415	50	1.00		234 561 31--S	YES	
			460	60	1.60		234 521 31--S		
			460	60	1.60	YES	234 521 94--S		
		POLLUTION RECOVERY	200	60	1.60		234 501 49--S		
			230	60	1.60		234 511 49--S		
			460	60	1.60		234 521 49--S		
3/4 hp 0.55 kW	3-PHASE	WATER WELL	200	60	1.50		234 502 41--S		300 LBS (1500 N)
			200	60	1.50	YES	234 502 92--S		
			220	50	1.00		234 552 41--S		
			230	60	1.50		234 512 41--S		
			230	60	1.50	YES	234 512 92--S		
			380/415	50	1.00		234 562 31--S	YES	
			460	60	1.50		234 522 31--S		
			460	60	1.50	YES	234 522 94--S		
		POLLUTION RECOVERY	200	60	1.50		234 502 49--S		
			230	60	1.50		234 512 49--S		
			460	60	1.50		234 522 49--S		
		SERIES 600M	230	60	1.50	YES	234 512 0600--S	YES	
			460	60	1.50	YES	234 522 0600--S		
1 hp 0.75 kW	3-PHASE	WATER WELL	200	60	1.40		234 503 19--S		650 LBS (3000 N)
			200	60	1.40	YES	234 503 92--S		
			220	50	1.00		234 553 41--S		
			230	60	1.40		234 513 19--S		
			230	60	1.40	YES	234 513 92--S	YES	
			380/415	50	1.00		234 563 31--S	YES	
			460	60	1.40		234 523 16--S		
			460	60	1.40	YES	234 523 94--S	YES	
		POLLUTION RECOVERY	200	60	1.40		234 503 23--S		
			230	60	1.40		234 513 23--S		
			460	60	1.40		234 523 23--S		
		SERIES 600M	230	60	1.40	YES	234 513 0610--S	YES	
			460	60	1.40	YES	234 523 0610--S		

**Notes:**

1. Pack Designation: --S = Single Pack, available in any quantity. All 3 hp motors are single-packed.
2. Contact factory for lead time for non-stocked items.
3. Pallet packs available but not shown. Please contact customer service for availability.

# Motors, Drives, Controls & Protection

## 4" Submersible Motors

### Three-Phase Models

HP (KW)	Description						Model	Stock Status	Downward Thrust Rating
	W/PH	Construction	Volts	HZ	S.F.	Lead in Motor			
1.5 hp 1.1 kW	3-PHASE	WATER WELL	200	60	1.30		234 504 19--S		650 LBS (3000 N)
			200	60	1.30	YES	234 504 92--S	YES	
			220	50	1.00		234 554 19--S		
			230	60	1.30		234 514 19--S		
			230	60	1.30	YES	234 514 92--S	YES	
			460/380	60/50	1.30/1.00		234 524 16--S		
			460/380	60/50	1.30/1.00	YES	234 524 94--S	YES	
			575	60	1.30		234 534 16--S		
		575	60	1.30	YES	234 534 94--S	YES		
		POLLUTION RECOVERY	200	60	1.30		234 504 23--S		
			230	60	1.30		234 514 23--S		
			460/380	60/50	1.30/1.00		234 524 23--S		
		SERIES 600M	230	60	1.30	YES	234 514 0610--S	YES	
			460/380	60	1.30/1.00	YES	234 524 0610--S		
2 hp 1.5 kW	3-PHASE	WATER WELL	200	60	1.25		234 305 16--S		650 LBS (3000 N)
			200	60	1.25	YES	234 305 92--S	YES	
			220	50	1.00		234 355 19--S		
			230	60	1.25		234 315 16--S	YES	
			230	60	1.25	YES	234 315 92--S	YES	
			460/380	60/50	1.25/1.00		234 325 16--S	YES	
			460/380	60/50	1.25/1.00	YES	234 325 94--S	YES	
			575	60	1.25		234 335 16--S		
		575	60	1.25	YES	234 335 94--S	YES		
		POLLUTION RECOVERY	200	60	1.25		234 305 23--S		
			230	60	1.25		234 315 23--S		
			460/380	60/50	1.25/1.00		234 325 23--S		
		SERIES 600M	230	60	1.25	YES	234 315 0610--S	YES	
			460/380	60	1.25/1.00	YES	234 325 0610--S		
3 hp 2.2 kW	3-PHASE	WATER WELL	200	60	1.15		234 306 25		900 LBS (4000 N)
			200	60	1.15	YES	234 306 26	YES	
			220	50	1.00		234 356 25		
			230	60	1.15		234 316 25		
			230	60	1.15	YES	234 316 26	YES	
			380	60	1.15		234 346 25		
			380	60	1.15	YES	234 346 26	YES	
			460/380	60/50	1.15/1.00		234 326 25		
			460/380	60/50	1.15/1.00	YES	234 326 26	YES	
			575	60	1.15		234 336 25		
			575	60	1.15	YES	234 336 26	YES	
		SERIES 600M	230	60	1.15	YES	234 316 0620		
			460/380	60	1.15/1.00	YES	234 326 0620		

# Motors, Drives, Controls & Protection

## 4" Submersible Motors Super Stainless Models

### 4-Inch Super Stainless Motor Specifications

Hz	Ph	Hp Range	kW Range	Poles	RPM	Max. Ambient Temp.	Duty Rating
60	2-Wire	1/3 - 1.5	0.25 - 1.1	2	3450	86 °F / 30 °C	Continuous
50	2-Wire	1/2 - 1.5	0.37 - 1.1	2	2875	86 °F / 30 °C	Continuous
60	3-Wire	1/3 - 3	0.25 - 2.2	2	3450	86 °F / 30 °C	Continuous*
50	3-Wire	1/3 - 3	0.25 - 2.2	2	2875	86 °F / 30 °C	Continuous*
60	Three-Phase	1/3 - 3	0.37 - 2.2	2	3450	86 °F / 30 °C	Continuous*
50	Three-Phase	1/3 - 3	0.37 - 2.2	2	2875	86 °F / 30 °C	Continuous*

### 4-Inch Pollution Recovery Motor Specifications

Hz	Ph	Hp Range	kW Range	Poles	RPM	Max. Ambient Temp.	Duty Rating
60	2-Wire	1/3 - 1.5	0.25 - 1.1	2	3450	86 °F / 30 °C	Continuous
50	2-Wire	1/2 - 1.5	0.37 - 1.1	2	2875	86 °F / 30 °C	Continuous
60	3-Wire	1/3 - 2	0.25 - 1.5	2	3450	86 °F / 30 °C	Continuous*
50	3-Wire	1/3 - 2	0.25 - 1.5	2	2875	86 °F / 30 °C	Continuous*
60	Three-Phase	1/2 - 2	0.37 - 1.5	2	3450	86 °F / 30 °C	Continuous*
50	Three-Phase	1/2 - 2	0.37 - 1.5	2	2875	86 °F / 30 °C	Continuous*

\* 3 hp motors require 0.25 ft/sec flow past motor.

### 4-Inch Construction Materials

Component	Construction Type	
	Standard Water Well	Pollution Recovery
Castings	304 SS over Iron	304 SS over Iron
Stator Shell	301 SS	301 SS
Shaft Extension	17-4 SS or 303 SS	303 SS
Fasteners	305 SS or 302 SS	316 SS
Seal Cover	Acetal	Tefzel®
Seal	Nitrile Rubber Lip	Viton®
Diaphragm	Nitrile Rubber	Viton®
Slinger	Nitrile Rubber	Viton®
Lead Wire (or Cable)	XLPE	Lead not furnished with motor
Lead Potting	Epoxy	Lead not furnished with motor
Lead Jam Nut	303 SS	Lead not furnished with motor

Specifications subject to change without notice. Contact Franklin Electric if current material types are required for bid specifications.

Viton® is a registered trademark of DuPont Dow Elastomers.

Tefzel® is a registered trademark of E.I. du Pont Nemours and Company.

# Motors, Drives, Controls & Protection

## 4" Submersible Motors High Thrust Models

HP (KW)	Description						Model	Stock Status	Downward Thrust Rating
	Construction	PH	Volts	HZ	S.F.	Lead in Motor			
<b>1.5 hp 1.1 kW</b>	WATER WELL	1	230	60	1.30		224 300 8600		1500 LBS (6500 N)
		3	200	60	1.30		234 504 8600		
		3	230	60	1.30		234 514 8600		
		3	460/380	60/50	1.30/1.00		234 524 8600		
		3	575	60	1.30		234 534 8600		
	316 SS	1	230	60	1.30	YES	224 300 8502		
		3	200	60	1.30	YES	234 504 8502		
		3	230	60	1.30	YES	234 514 8502		
		3	460/380	60/50	1.30/1.00	YES	234 524 8502		
		3	575	60	1.30	YES	234 534 8502		
<b>2 hp 1.5 kW</b>	WATER WELL	1	230	60	1.25	YES	224 301 8602		1500 LBS (6500 N)
		3	200	60	1.25		234 305 8600		
		3	230	60	1.25		234 315 8600		
		3	460/380	60/50	1.25/1.00		234 325 8600		
		3	575	60	1.25		234 335 8600		
	SAND FIGHTER	1	230	60	1.15	YES	224 301 8802		
	316 SS	1	230	60	1.25	YES	224 301 8502		
		3	200	60	1.25	YES	234 305 8502		
		3	230	60	1.25	YES	234 315 8502		
		3	460/380	60/50	1.25/1.00	YES	234 325 8502		
		3	575	60	1.25	YES	234 335 8502		
	OIL STRIPPER	1	230	60	1.25	YES	224 301 8702		
		3	230	60	1.25	YES	234 315 8702		
		3	460/380	60/50	1.25/1.00	YES	234 325 8702		

# Motors, Drives, Controls & Protection

## 4" Submersible Motors High Thrust Models

HP (KW)	Description						Model	Stock Status	Downward Thrust Rating
	Construction	PH	Volts	HZ	S.F.	Lead in Motor			
<b>3 hp 2.2 kW</b>	WATER WELL	1	220	50	1.00		224 352 8600		1500 LBS (6500 N)
		1	230	60	1.15		224 302 8600		
		1	230	60	1.15	YES	224 302 8602		
		3	200	60	1.15		234 306 8600		
		3	200	60	1.15	YES	234 306 8602		
		3	220	50	1.00		234 356 8600		
		3	230	60	1.15		234 316 8600		
		3	230	60	1.15	YES	234 316 8602		
		3	380	60	1.15		234 346 8600		
		3	380	60	1.15	YES	234 346 8602		
		3	460/380	60/50	1.15/1.00		234 326 8600		
		3	460/380	60/50	1.15/1.00	YES	234 326 8602		
		3	575	60	1.15		234 336 8600		
	3	575	60	1.15	YES	234 336 8602			
	COALBEAD METHANE	3	200	60	1.15	YES	234 306 8902		
		3	230	60	1.15	YES	234 316 8902		
		3	460/380	60/50	1.15/1.00	YES	234 326 8902	YES	
		3	575	60	1.15	YES	234 336 8902		
		3	380	60	1.15	YES	234 346 8902		
	SAND FIGHTER	1	230	60	1.15	YES	224 302 8802	YES	
		3	200	60	1.15	YES	234 306 8802		
		3	230	60	1.15	YES	234 316 8802	YES	
		3	460/380	60/50	1.15/1.00	YES	234 326 8802	YES	
		3	575	60	1.15	YES	234 336 8802		
	SERIES 600M	1	230	60	1.15	YES	224 302 0630	YES	
		3	230	60	1.15	YES	234 316 0630	YES	
		3	460/380	60	1.15/1.00	YES	234 326 0630		
	316 SS	1	230	60	1.15	YES	224 302 8502		
		3	200	60	1.15	YES	234 306 8502		
		3	230	60	1.15	YES	234 316 8502		
		3	460/380	60/50	1.15/1.00	YES	234 326 8502		
		3	575	60	1.15	YES	234 336 8502		
	OIL STRIPPER	1	230	60	1.15	YES	224 302 8702		
3		230	60	1.15	YES	234 316 8702			
3		460/380	60/50	1.15/1.00	YES	234 326 8702			
<b>4 hp 3 kW</b>	WATER WELL	3	460/415-380	60/50	1.15/1.00		234 395 8600		
		3	460/415-380	60/50	1.15/1.00	YES	234 395 8602		

# Motors, Drives, Controls & Protection

## 4" Submersible Motors High Thrust Models

HP (KW)	Description						Model	Stock Status	Downward Thrust Rating
	Construction	PH	Volts	HZ	S.F.	Lead in Motor			
5 hp 3.7 kW	WATER WELL	1	220	50	1.00		224 353 8600	YES	1500 LBS (6500 N)
		1	230	60	1.15		224 303 8600		
		1	230	60	1.15	YES	224 303 8602	YES	
		3	200	60	1.15		234 307 8600		
		3	200	60	1.15	YES	234 307 8602	YES	
		3	220	50	1.00		234 357 8600		
		3	230	60	1.15		234 317 8600		
		3	230	60	1.15	YES	234 317 8602	YES	
		3	380	60	1.15		234 347 8600		
		3	380	60	1.15	YES	234 347 8602		
		3	460/380	60/50	1.15/1.00		234 327 8600	YES	
		3	460/380	60/50	1.15/1.00	YES	234 327 8602	YES	
		3	575	60	1.15		234 337 8600		
	3	575	60	1.15	YES	234 337 8602	YES		
	COALBED METHANE	3	200	60	1.15	YES	234 307 8902		
		3	230	60	1.15	YES	234 317 8902		
		3	460/380	60/50	1.15/1.00	YES	234 327 8902	YES	
		3	575	60	1.15	YES	234 337 8902		
		3	380	60	1.15	YES	234 347 8902		
	SAND FIGHTER	1	230	60	1.15	YES	224 303 8802	YES	
		3	200	60	1.15	YES	234 307 8802		
		3	230	60	1.15	YES	234 317 8802	YES	
		3	460/380	60/50	1.15/1.00	YES	234 327 8802	YES	
		3	575	60	1.15	YES	234 337 8802		
		3	380	60	1.15	YES	234 347 8802		
	SERIES 600M	1	230	60	1.15	YES	224 303 0630	YES	
		3	230	60	1.15	YES	234 317 0630	YES	
		3	460/380	60	1.15/1.00	YES	234 327 0630		
	316 SS	1	230	60	1.15	YES	224 303 8502		
		3	200	60	1.15	YES	234 307 8502		
		3	230	60	1.15	YES	234 317 8502		
		3	460/380	60/50	1.15/1.00	YES	234 327 8502		
3		575	60	1.15	YES	234 337 8502			
OIL STRIPPER	1	230	60	1.15	YES	224 303 8702			
	3	230	60	1.15	YES	234 317 8702			
	3	460/380	60/50	1.15/1.00	YES	234 327 8702			
5.5 hp 4 kW	WATER WELL	3	460/380	60/50	1.15/1.00		234 397 8600		
		3	460/380	60/50	1.15/1.00	YES	234 397 8602		

# Motors, Drives, Controls & Protection

## 4" Submersible Motors

### High Thrust Models

HP (KW)	Description						Model	Stock Status	Downward Thrust Rating
	Construction	PH	Volts	HZ	S.F.	Lead in Motor			
<b>7.5 hp 5.5 kW</b>	WATER WELL	3	200	60	1.15		234 308 8600		1500 LBS (6500 N)
		3	200	60	1.15	YES	234 308 8602	YES	
		3	220	50	1.00		234 358 8600		
		3	230	60	1.15		234 318 8600		
		3	230	60	1.15	YES	234 318 8602	YES	
		3	380	60	1.15		234 348 8600		
		3	380	60	1.15	YES	234 348 8602	YES	
		3	460/380	60/50	1.15/1.00		234 328 8600	YES	
		3	460/380	60/50	1.15/1.00	YES	234 328 8602	YES	
		3	575	60	1.15		234 338 8600		
	3	575	60	1.15	YES	234 338 8602	YES		
	COALBED METHANE	3	200	60	1.15	YES	234 308 8904		
		3	230	60	1.15	YES	234 318 8904		
		3	460/380	60/50	1.15/1.00	YES	234 328 8904	YES	
		3	575	60	1.15	YES	234 338 8904		
		3	380	60	1.15	YES	234 348 8904		
	SAND FIGHTER	3	200	60	1.15	YES	234 308 8802		
		3	230	60	1.15	YES	234 318 8802	YES	
		3	460/380	60/50	1.15/1.00	YES	234 328 8802	YES	
		3	575	60	1.15	YES	234 338 8802		
		3	380	60	1.15	YES	234 348 8802		
	316 SS	3	200	60	1.15	YES	234 308 8502		
		3	230	60	1.15	YES	234 318 8502		
		3	460/380	60/50	1.15/1.00	YES	234 328 8502		
		3	575	60	1.15	YES	234 338 8502		
	OIL STRIPPER	3	230	60	1.15	YES	234 318 8702		
		3	460/380	60/50	1.15/1.00	YES	234 328 8702		
	<b>10 hp 7.5 kW</b>	WATER WELL	3	380	60	1.15	YES	234 549 8602	
3			460/380	60/50	1.15/1.00	YES	234 595 8602	YES	
3			575	60	1.15	YES	234 598 8602	YES	
COALBED METHANE		3	380	60	1.15	YES	234 549 8904		
		3	460/380	60/50	1.15/1.00	YES	234 595 8904	YES	
		3	575	60	1.15	YES	234 598 8904		
SAND FIGHTER		3	380	60	1.15	YES	234 549 8802		
		3	460/380	60/50	1.15/1.00	YES	234 595 8802	YES	
		3	575	60	1.15	YES	234 598 8802		

## 4" Submersible Motors High Thrust Models

### 4-Inch High Thrust Motor Specifications

Hz	Ph	Hp Range	kW Range	Poles	RPM	Max. Ambient Temp.	Duty Rating
60	1	1.5 - 5	1.1 - 3.7	2	3450	86 °F / 30 °C	Continuous at 0.25 ft/sec flow past motor
50	1	1.5 - 5	1.1 - 3.7	2	2875	86 °F / 30 °C	Continuous at 0.25 ft/sec flow past motor
60	3	1.5 - 10	1.1 - 7.5	2	3450	86 °F / 30 °C	Continuous at 0.25 ft/sec flow past motor
50	3	1.5 - 10	1.1 - 7.5	2	2875	86 °F / 30 °C	Continuous at 0.25 ft/sec flow past motor

**NOTE:** Not all ratings available in all construction options.

### 4-Inch High Thrust Construction Materials

Component	Construction Type		
	Standard Water Well	Coalbed Methane	Sand Fighter™
Top Castings	303 SS	303 SS	303 SS
Bottom Castings	303 SS Over Painted Cast Iron	303 SS Over Painted Cast Iron	303 SS Over Painted Cast Iron
Stator Shell	301 SS	301 SS	301 SS
Stator Ends	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel
Shaft Extension	17-4 SS	17-4 SS	17-4 SS
Fasteners	300 Series SS	300 Series SS	300 Series SS
Seal Cover	Acetal	Sintered Bronze	Sintered Bronze
Seal	Nitrile Rubber Lip	Sand Fighter™ SiC/ SiC Mech Seal	Sand Fighter SiC/ SiC Mech Seal
Diaphragm	Nitrile Rubber	Nitrile Rubber	Nitrile Rubber
Diaphragm Cup	316 SS	316 SS	316 SS
Diaphragm Spring	316 SS	316 SS	316 SS
Diaphragm Cover	Gray Iron	Gray Iron	304 SS
Slinger	Nitrile Rubber	Nitrile Rubber	Nitrile Rubber
Lead Wire (or Cable)	XLPE*	XLPE*	XLPE*
Lead Potting	Epoxy	Epoxy	Epoxy
Lead Screws / Clamp	316 SS	316 SS	316 SS
Filter	Delrin & Polyester	Delrin & Polyester	Delrin & Polyester

Component	Construction Type	
	Chemical (316 STNLS)	Oil Stripper
Top Casting	316 SS	316 SS
Bottom Casting	316 SS	316 SS
Stator Shell	316 SS	316 SS
Stator Ends	316 SS	316 SS
Shaft Extension	17-4 SS	17-4 SS
Fasteners	316 SS	316 SS
Seal Cover	316 SS	316 SS
Seal	Sand Fighter SiC Mech Seal	Sand Fighter Viton®
Diaphragm	Nitrile Rubber	Viton®
Diaphragm Cup	316 SS	316 SS
Diaphragm Spring	316 SS	316 SS
Diaphragm Cover	316 SS	316 SS
Slinger	Nitrile Rubber	Viton®
Lead Wire (or Cable)	XLPE*	XLPE*
Lead Potting	Epoxy	Epoxy
Lead Screws / Clamp	316 SS	316 SS
Filter	316 SS Plug	316 SS Plug

\* Removable type, factory-installed in 60 Hz and dual frequency rated water well motors. Consult catalog for additional leads.

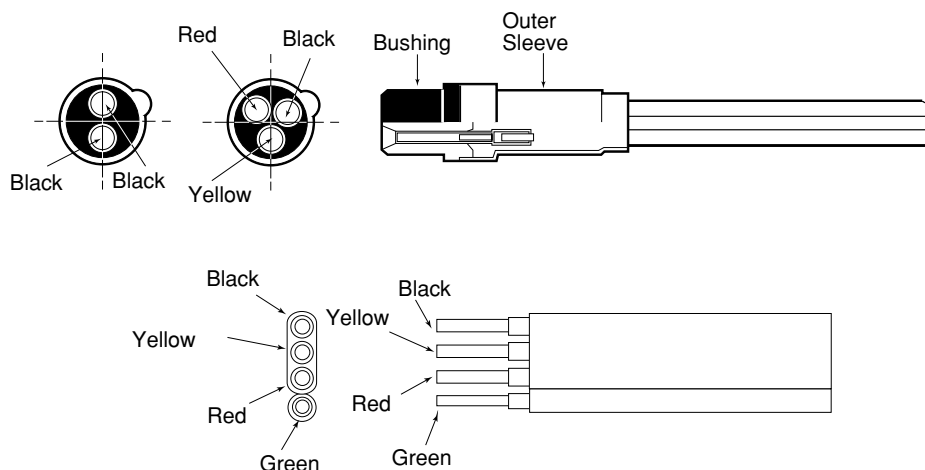
Specifications subject to change without notice. Contact Franklin Electric if current material types are required for bid specifications.

Viton® is a registered trademark of DuPont Dow Elastomers.



## 4" Submersible Motors

### Leads & Cables



Wire	Construction	Material	Lead Length		Wire Size	Grounded	Jam Nut Model	Clamp Style Model
			IN / FT	M				
<b>2W</b>	Individual	Nitrile*	48 in	1.2	AWG 14	No	152 328 905	N/A
	Individual	Nitrile*	100 in	2.5	AWG 14	No	152 328 906	N/A
	Individual	XLPE	48 in	1.2	AWG 14	Yes	152 552 905	N/A
	Individual	XLPE	100 in	2.5	AWG 14	Yes	152 552 906	N/A
<b>3W</b>	Individual	XLPE	48 in	1.2	AWG 14	Yes	152 553 905	152 735 911
	Individual	XLPE	100 in	2.5	AWG 14	Yes	152 553 906	152 735 941
	Individual	Nitrile*	48 in	1.2	AWG 14	No	152 255 901	N/A
	Individual	Nitrile*	100 in	2.5	AWG 14	No	152 255 902	152 744 902
	Individual	Nitrile*	160 in	4.0	AWG 14	No	152 255 904	152 744 904
	Individual	Nitrile*	30 ft	9.1	AWG 14	No	152 255 906	152 744 906
	Individual	Nitrile*	50 ft	15.2	AWG 14	No	152 255 907	152 744 907
	Individual	Nitrile*	100 ft	30.5	AWG 14	No	152 255 910	152 744 910
	Individual	Nitrile*	150 ft	45.7	AWG 14	No	152 255 912	N/A
	Individual / Dbl Conn	XLPE	48 in	1.2	AWG 14	Yes	152 570 901	N/A
	Individual / Dbl Conn	XLPE	100 in	2.5	AWG 14	Yes	152 570 902	N/A

\* Nitrile material not for use in potable water.

**NOTES:**

1. Refer to Franklin Application Installation Maintenance (AIM) manual for accurate cable sizing.
2. MOTOR WARRANTY IS VOID if Franklin-supplied leads are not used.

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
5 hp 3.7 kW	WATER WELL	1	230	60	Not Available	1.15	3	#10 w/GND	226 110 90	Yes
		3	200-208	60	Not Available	1.15	3	#10 w/GND	236 650 90	Yes
		3	220	50	Not Available	1.00	3	#10 w/GND	236 680 90	
		3	220	50	Not Available	1.00	6-90 °	#10 w/GND	236 670 90	
		3	230	60	Not Available	1.15	3	#10 w/GND	236 600 90	Yes
		3	230	60	Not Available	1.15	6-90 °	#10 w/GND	236 720 90	
		3	380	60	Not Available	1.15	3	#10 w/GND	236 660 90	
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 780 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 690 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 610 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 710 90	
	3	575	60	Not Available	1.15	3	#10 w/GND	236 620 90		
	SAND FIGHTER	1	230	60	Not Available	1.15	3	#10 w/GND	226 110 80	Yes
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 650 81	Yes
		3	220	50	Yes	1.00	3	#10 w/GND	236 680 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 670 81	
		3	230	60	Yes	1.15	3	#10 w/GND	236 600 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 720 81	
		3	380	60	Yes	1.15	3	#10 w/GND	236 660 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 780 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 690 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 610 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 710 81	
	3	575	60	Yes	1.15	3	#10 w/GND	236 620 81	Yes	
	316 SS	1	230	60	Not Available	1.15	3	#10 w/GND	226 110 39	
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 650 40	
		3	220	50	Yes	1.00	3	#10 w/GND	236 680 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 670 40	
		3	230	60	Yes	1.15	3	#10 w/GND	236 600 40	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 720 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 660 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 780 40	
		3	415	50	Yes	1.15	3	#10 w/GND	236 690 40	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 610 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 710 40		
3	575	60	Yes	1.15	3	#10 w/GND	236 620 40			

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
7.5 hp 5.5 kW	WATER WELL	1	230	60	Not Available	1.15	3	#10 w/GND	226 111 90	Yes
		3	200-208	60	Not Available	1.15	3	#10 w/GND	236 651 90	Yes
		3	220	50	Not Available	1.00	3	#10 w/GND	236 681 90	
		3	220	50	Not Available	1.00	6-90 °	#10 w/GND	236 671 90	
		3	230	60	Not Available	1.15	3	#10 w/GND	236 601 90	Yes
		3	230	60	Not Available	1.15	6-90 °	#10 w/GND	236 721 90	
		3	380	60	Not Available	1.15	3	#10 w/GND	236 661 90	Yes
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 781 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 691 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 611 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 711 90	Yes
	3	575	60	Not Available	1.15	3	#10 w/GND	236 621 90		
	SAND FIGHTER	1	230	60	Not Available	1.15	3	#10 w/GND	226 111 80	Yes
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 651 81	Yes
		3	220	50	Yes	1.00	3	#10 w/GND	236 681 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 671 81	
		3	230	60	Yes	1.15	3	#10 w/GND	236 601 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 721 81	
		3	380	60	Yes	1.15	3	#10 w/GND	236 661 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 781 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 691 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 611 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 711 81	
	3	575	60	Yes	1.15	3	#10 w/GND	236 621 81	Yes	
	316 SS	1	230	60	Not Available	1.15	3	#10 w/GND	226 111 39	
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 651 40	
		3	220	50	Yes	1.00	3	#10 w/GND	236 681 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 671 40	
		3	230	60	Yes	1.15	3	#10 w/GND	236 601 40	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 721 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 661 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 781 40	
		3	415	50	Yes	1.00	3	#10 w/GND	236 691 81	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 611 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 711 40		
3	575	60	Yes	1.15	3	#10 w/GND	236 621 40			

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
10 hp 7.5 kW	WATER WELL	1	230	60	Not Available	1.15	3	#10 w/GND	226 112 90	Yes
		3	200-208	60	Not Available	1.15	3	#10 w/GND	236 652 90	Yes
		3	220	50	Not Available	1.00	3	#10 w/GND	236 682 90	
		3	220	50	Not Available	1.00	6-90 °	#10 w/GND	236 672 90	
		3	230	60	Not Available	1.15	3	#10 w/GND	236 602 90	Yes
		3	230	60	Not Available	1.15	6-90°	#10 w/GND	236 722 90	
		3	380	60	Not Available	1.15	3	#10 w/GND	236 662 90	Yes
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 782 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 692 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 612 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 712 90	Yes
	3	575	60	Not Available	1.15	3	#10 w/GND	236 622 90		
	SAND FIGHTER	1	230	60	Not Available	1.15	3	#10 w/GND	226 112 80	Yes
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 652 81	Yes
		3	220	50	Yes	1.00	3	#10 w/GND	236 682 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 672 81	
		3	230	60	Yes	1.15	3	#10 w/GND	236 602 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 722 81	
		3	380	60	Yes	1.15	3	#10 w/GND	236 662 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 782 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 692 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 612 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 712 81	
	3	575	60	Yes	1.15	3	#10 w/GND	236 622 81	Yes	
	316 SS	1	230	60	Not Available	1.15	3	#10 w/GND	226 112 39	
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 652 40	
		3	220	50	Yes	1.00	3	#10 w/GND	236 682 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 672 40	
		3	230	60	Yes	1.15	3	#10 w/GND	236 602 40	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 722 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 662 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 782 40	
		3	415	50	Yes	1.00	3	#10 w/GND	236 692 40	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 612 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 712 40		
3	575	60	Yes	1.15	3	#10 w/GND	236 622 40			

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
15 hp 11 kW	WATER WELL	1	230	60	Not Available	1.15	3	#10 w/GND	226 113 90	Yes
		3	200-208	60	Not Available	1.15	3	#10 w/GND	236 653 90	Yes
		3	220	50	Not Available	1.00	3	#10 w/GND	236 683 90	
		3	220	50	Not Available	1.00	6-90 °	#10 w/GND	236 673 90	
		3	230	60	Not Available	1.15	3	#10 w/GND	236 603 90	Yes
		3	230	60	Not Available	1.15	6-90 °	#10 w/GND	236 723 90	Yes
		3	380	60	Not Available	1.15	3	#10 w/GND	236 663 90	Yes
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 783 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 693 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 613 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 713 90	Yes
	3	575	60	Not Available	1.15	3	#10 w/GND	236 623 90		
	SAND FIGHTER	1	230	60	Not Available	1.15	3	#10 w/GND	226 113 80	Yes
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 653 81	Yes
		3	220	50	Yes	1.00	3	#10 w/GND	236 683 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 673 81	
		3	230	60	Yes	1.15	3	#10 w/GND	236 603 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 723 81	
		3	380	60	Yes	1.15	3	#10 w/GND	236 663 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 783 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 693 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 613 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 713 81	
	3	575	60	Yes	1.15	3	#10 w/GND	236 623 81	Yes	
	316 SS	1	230	60	Not Available	1.15	3	#10 w/GND	226 113 39	
		3	200-208	60	Yes	1.15	3	#10 w/GND	236 653 40	
		3	220	50	Yes	1.00	3	#10 w/GND	236 683 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 673 40	
		3	230	60	Yes	1.15	3	#10 w/GND	236 603 40	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 723 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 663 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 783 40	
		3	415	50	Yes	1.00	3	#10 w/GND	236 693 40	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 613 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 713 40		
3	575	60	Yes	1.15	3	#10 w/GND	236 623 40			

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
20 hp 15 kW	WATER WELL	3	200-208	60	Not Available	1.15	3	#8 w/GND	236 654 90	Yes
		3	220	50	Not Available	1.00	3	#8 w/GND	236 684 90	
		3	220	60	Not Available	1.15	6-90 °	#10 w/GND	236 674 90	
		3	230	60	Not Available	1.15	3	#8 w/GND	236 604 90	Yes
		3	230	60	Not Available	1.15	6-90 °	#10 w/GND	236 724 90	
		3	380	60	Not Available	1.15	3	#10 w/GND	236 664 90	Yes
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 784 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 694 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 614 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 714 90	Yes
		3	575	60	Not Available	1.15	3	#10 w/GND	236 624 90	
	SAND FIGHTER	3	200-208	60	Yes	1.15	3	#8 w/GND	236 654 81	Yes
		3	220	50	Yes	1.00	3	#8 w/GND	236 684 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 674 81	
		3	230	60	Yes	1.15	3	#8 w/GND	236 604 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 724 81	Yes
		3	380	60	Yes	1.15	3	#10 w/GND	236 664 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 784 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 694 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 614 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 714 81	
		3	575	60	Yes	1.15	3	#10 w/GND	236 624 81	Yes
	316 SS	3	200-208	60	Yes	1.15	3	#8 w/GND	236 654 40	
		3	220	50	Yes	1.00	3	#8 w/GND	236 684 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 674 40	
		3	230	60	Yes	1.15	3	#8 w/GND	236 604 40	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 724 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 664 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 784 40	
		3	415	50	Yes	1.00	3	#10 w/GND	236 694 40	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 614 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 714 40		
3		575	60	Yes	1.15	3	#10 w/GND	236 624 40		

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
25 hp 18.5 kW	WATER WELL	3	200-208	60	Not Available	1.15	3	#8 w/GND	236 655 90	Yes
		3	220	50	Not Available	1.00	3	#8 w/GND	236 685 90	
		3	220	50	Not Available	1.00	6-90 °	#10 w/GND	236 675 90	
		3	230	60	Not Available	1.15	3	#8 w/GND	236 605 90	Yes
		3	230	60	Not Available	1.15	6-90 °	#10 w/GND	236 725 90	
		3	380	60	Not Available	1.15	3	#10 w/GND	236 665 90	Yes
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 785 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 695 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 615 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 715 90	Yes
	3	575	60	Not Available	1.15	3	#10 w/GND	236 625 90		
	SAND FIGHTER	3	200-208	60	Yes	1.15	3	#8 w/GND	236 655 81	Yes
		3	220	50	Yes	1.00	3	#8 w/GND	236 685 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 675 81	
		3	230	60	Yes	1.15	3	#8 w/GND	236 605 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 725 81	Yes
		3	380	60	Yes	1.15	3	#10 w/GND	236 665 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 785 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 695 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 615 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 715 81	
	3	575	60	Yes	1.15	3	#10 w/GND	236 625 81	Yes	
	316 SS	3	200-208	60	Yes	1.15	3	#8 w/GND	236 655 40	
		3	220	50	Yes	1.00	3	#8 w/GND	236 685 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 675 40	
		3	230	60	Yes	1.15	3	#8 w/GND	236 605 40	
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 725 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 665 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 785 40	
		3	415	50	Yes	1.00	3	#10 w/GND	236 695 40	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 615 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 715 40		
3	575	60	Yes	1.15	3	#10 w/GND	236 625 40			

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
30 hp 22 kW	WATER WELL	3	200-208	60	Not Available	1.15	3	#8 w/GND	236 656 90	Yes
		3	220	50	Not Available	1.00	3	#8 w/GND	236 686 90	
		3	220	50	Not Available	1.00	6-90 °	#10 w/GND	236 676 90	
		3	230	60	Not Available	1.15	3	#8 w/GND	236 606 90	Yes
		3	230	60	Not Available	1.15	6-90 °	#10 w/GND	236 726 90	
		3	380	60	Not Available	1.15	3	#10 w/GND	236 666 90	Yes
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 786 90	
		3	415	50	Not Available	1.00	3	#10 w/GND	236 696 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#10 w/GND	236 616 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 716 90	Yes
	3	575	60	Not Available	1.15	3	#10 w/GND	236 626 90		
	SAND FIGHTER	3	200-208	60	Yes	1.15	3	#8 w/GND	236 656 81	Yes
		3	220	50	Yes	1.00	3	#8 w/GND	236 686 81	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 676 81	
		3	230	60	Yes	1.15	3	#8 w/GND	236 606 81	Yes
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 726 81	Yes
		3	380	60	Yes	1.15	3	#10 w/GND	236 666 81	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 786 81	
		3	415	50	Yes	1.00	3	#10 w/GND	236 696 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 616 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 716 81	
	3	575	60	Yes	1.15	3	#10 w/GND	236 626 81	Yes	
	316 SS	3	200-208	60	Yes	1.15	3	#8 w/GND	236 656 40	
		3	220	50	Yes	1.00	3	#8 w/GND	236 686 40	
		3	220	50	Yes	1.00	6-90 °	#10 w/GND	236 676 40	
		3	230	60	Yes	1.15	3	#8 w/GND	236 606 40	
		3	230	60	Yes	1.15	6-90 °	#10 w/GND	236 726 40	
		3	380	60	Yes	1.15	3	#10 w/GND	236 666 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 786 40	
		3	415	50	Yes	1.00	3	#10 w/GND	236 696 40	
3		460/380-415	60/50	Yes	1.15/1.00	3	#10 w/GND	236 616 40	Yes	
3		460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 716 40		
3	575	60	Yes	1.15	3	#10 w/GND	236 626 40			



# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

HP (KW)	Construction	Description							Model	Stock Status
		PH	Volts	HZ	Subtrol Heat Sensor	S.F.	# Leads	Wire Size (AWG)		
40 hp 30 kW	WATER WELL	3	380	60	Not Available	1.15	3	#8 w/GND	236 667 90	
		3	380	60	Not Available	1.15	6-90 °	#10 w/GND	236 787 90	
		3	415	50	Not Available	1.00	3	#8 w/GND	236 697 90	
		3	460/380-415	60/50	Not Available	1.15/1.00	3	#8 w/GND	236 617 90	Yes
		3	460/380-415	60/50	Not Available	1.15/1.00	6-90 °	#10 w/GND	236 717 90	
		3	575	60	Not Available	1.15	3	#8 w/GND	236 627 90	
	SAND FIGHTER	3	380	60	Yes	1.15	3	#8 w/GND	236 667 81	Yes
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 787 81	
		3	415	50	Yes	1.00	3	#8 w/GND	236 697 81	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#8 w/GND	236 617 81	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 717 81	Yes
		3	575	60	Yes	1.15	3	#8 w/GND	236 627 81	Yes
	316 SS	3	380	60	Yes	1.15	3	#8 w/GND	236 667 40	
		3	380	60	Yes	1.15	6-90 °	#10 w/GND	236 787 40	
		3	415	50	Yes	1.00	3	#8 w/GND	236 697 40	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#8 w/GND	236 617 40	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#10 w/GND	236 717 40	
		3	575	60	Yes	1.15	3	#8 w/GND	236 627 40	
50 hp 30 kW	WATER WELL	3	380	60	Yes	1.15	3	#8 w/GND	276 668 60	Yes
		3	380	60	Yes	1.15	6-90 °	#8 w/GND	276 788 60	
		3	415	50	Yes	1.00	3	#8 w/GND	276 698 60	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#8 w/GND	276 618 60	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#8 w/GND	276 718 60	Yes
		3	575	60	Yes	1.15	3	#8 w/GND	276 628 60	Yes
	316 SS	3	380	60	Yes	1.15	3	#8 w/GND	276 668 40	
		3	380	60	Yes	1.15	6-90 °	#8 w/GND	276 788 40	
		3	415	50	Yes	1.00	3	#8 w/GND	276 698 40	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#8 w/GND	276 618 40	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#8 w/GND	276 718 40	
		3	575	60	Yes	1.15	3	#8 w/GND	276 628 40	
60 hp 45 kW	WATER WELL	3	380	60	Yes	1.15	3	#8 w/GND	276 669 60	Yes
		3	380	60	Yes	1.15	6-90 °	#8 w/GND	276 789 60	
		3	415	50	Yes	1.00	3	#8 w/GND	276 699 60	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#8 w/GND	276 619 60	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#8 w/GND	276 719 60	Yes
		3	575	60	Yes	1.15	3	#8 w/GND	276 629 60	Yes
	316 SS	3	380	60	Yes	1.15	3	#8 w/GND	276 669 40	
		3	380	60	Yes	1.15	6-90 °	#8 w/GND	276 789 40	
		3	415	50	Yes	1.00	3	#8 w/GND	276 699 40	
		3	460/380-415	60/50	Yes	1.15/1.00	3	#8 w/GND	276 619 40	Yes
		3	460/380-415	60/50	Yes	1.15/1.00	6-90 °	#8 w/GND	276 719 40	
		3	575	60	Yes	1.15	3	#8 w/GND	276 629 40	

#### Notes:

1. Models designated above as Sand Fighter™ are water well construction.
2. All 316 SS and Ni-Resist models are equipped with Sand Fighter sealing system.
3. All models listed above include factory-installed leads (13 ft).

# Motors, Drives, Controls & Protection

## 6" Submersible Motors

### Standard Models

#### Standard 6-Inch Motor Specifications

Hz	PH	Hp Range	kW Range	Poles	RPM	Max. Ambient Temp.	Duty Rating
60	1	5 - 15	3.7 - 11	2	3450	86 °F / 30 °C	Continuous at 0.5 ft/sec flow past motor
60	3	5 - 40	3.7 - 30	2	3450	86 °F / 30 °C	Continuous at 0.5 ft/sec flow past motor
60	3	50 - 60	37 - 45	2	3450	122 °F / 50 °C	Continuous at 0.5 ft/sec flow past motor
50	1	5 - 15	3.7 - 11	2	2875	86 °F / 30 °C	Continuous at 0.5 ft/sec flow past motor
50	3	5 - 40	3.7 - 30	2	2875	86 °F / 30 °C	Continuous at 0.5 ft/sec flow past motor
50	3	50 - 60	37 - 45	2	2875	122 °F / 50 °C	Continuous at 0.5 ft/sec flow past motor

#### 6-Inch Construction Materials

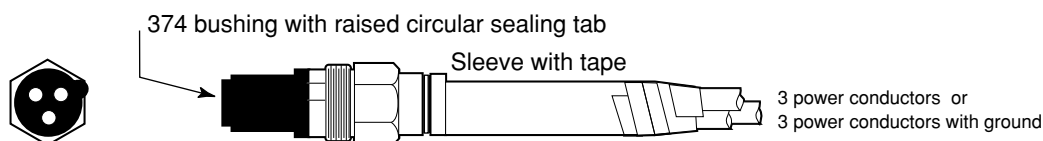
Component	Construction Type		
	Standard Water Well	Sand Fighter™	Corrosion Resistant (316 SS)
UL Insulation Class Rating	Class F	Per Standard Water Well	Per Standard Water Well
Motor Ambient Temperature Rating	86 °F / 30 °C (5-40 hp) 122 °F / 50 °C (50-60 hp)	Per Standard Water Well	Per Standard Water Well
Stator Resin Type	FE Standard (5-40 hp) FE Hi-Temp (50-60 hp)	Per Standard Water Well	Per Standard Water Well
Motor Fill Solution (Water Soluble/Non-Toxic)	FES91	Per Standard Water Well	Per Standard Water Well
Top End Bell & Thrust Housing	Epoxy Coated Gray Iron	Per Standard Water Well	316 SS
On Winding SubTrol™ heat sensor	No (5-40 hp) Yes (50-60 hp)	Yes	Yes
Stator Shell	300 SS Series	Per Standard Water Well	316 SS
Stator Ends	Carbon Steel	Per Standard Water Well	316 SS
Shaft Extension	300 SS Series (5-30 hp) 17-4 SS (40-60 hp)	Per Standard Water Well	17-4 SS
Bushing	Bronze	Per Standard Water Well	316 SS
Bushing Retainer	300 SS Series	Per Standard Water Well	316 SS
Shaft Mechanical Seal	Carbon Ceramic Seal (5-40 hp) Sand Fighter™ Seal System (50-60 hp)	Sand Fighter Seal System	Sand Fighter Seal System
Mechanical Seal Rubber Components	Nitrile (5-40 hp) Viton® (50-60 hp)	Per Standard Water Well	Per Standard Water Well
Diaphragm Material	Nitrile (5-40 hp) Viton® (50-60 hp)	Per Standard Water Well	Per Standard Water Well
Diaphragm Plate	300 SS Series	Per Standard Water Well	316 SS
Diaphragm Spring	300 SS Series	Per Standard Water Well	25-6 MO SS
Shaft Slinger	Nitrile (5-40 hp) Viton® (50-60 hp)	Per Standard Water Well	Nitrile
Lead Wire	XLPE	Per Standard Water Well	Per Standard Water Well
Lead Potting	Epoxy	Per Standard Water Well	Per Standard Water Well
Lead Jam Nut	Brass	Per Standard Water Well	316 SS
Thrust Bearing Rating (86 °F / 30 °C)	3500 lbs (5-30 hp) 6000 lbs (40-60 hp)	Per Standard Water Well	Per Standard Water Well
Method Of Connecting System Ground To Motor	Ground Wire In Power Lead Connector	Per Standard Water Well	Per Standard Water Well

Specifications subject to change without notice. Contact Franklin Electric if current material types are required for bid specifications.

Viton® is a registered trademark of DuPont Dow Elastomers.

## 6" Submersible Motors

### Leads



### 6" Lead Construction Material

Component	Material
Wire	XLPE 125 °C
Sleeve	Brass or 316 SS
Potting	Epoxy
Jam Nut	Brass or 316 SS

Specifications subject to change without notice. Contact Franklin Electric if current material types are required for bid specifications.

### Standard XLPE 125 °C Lead

Excellent resistance to ozone, abrasion, heat, and oxidizing chemicals.

Fits FE Motor Rating (460 V or 575 V 60 Hz)	Jam Nut Material	Lead Length		Wire Size (AWG)	Power Wires	FE Part Number	Replacement Kit Number
		FT	M				
<b>All 6" Ratings</b>	Brass	13	4	#8	3 w/GND	152 671 901	305 517 901
	Brass	26	8	#8	3 w/GND	152 671 902	305 517 902
	316 SS	13	4	#8	3 w/GND	152 671 951	305 517 951
	316 SS	26	8	#8	3 w/GND	152 671 952	305 517 952
<b>5-30 hp 3.7-22 kW</b>	316 SS	50	15	#10	3 w/GND	152 672 955	305 518 955
	316 SS	75	23	#10	3 w/GND	152 672 957	305 518 957
	316 SS	100	30	#10	3 w/GND	152 672 960	305 518 960
	316 SS	125	38	#10	3 w/GND	152 672 962	305 518 962
	316 SS	150	45	#10	3 w/GND	152 672 965	305 518 965
<b>5-40 hp 3.7-30 kW</b>	316 SS	50	15	#8	3 w/GND	152 671 955	305 517 955
	316 SS	75	23	#8	3 w/GND	152 671 957	305 517 957
	316 SS	100	30	#8	3 w/GND	152 671 960	305 517 960
	316 SS	125	38	#8	3 w/GND	152 671 962	305 517 962
	316 SS	150	45	#8	3 w/GND	152 671 965	305 517 965

#### Notes:

1. Refer to Franklin Application Installation Maintenance (AIM) manual for accurate cable sizing.
2. Nitrile cable uses lead sleeve 1" longer than standard.
3. MOTOR WARRANTY IS VOID if Franklin-supplied leads are not used.
4. Replacement leads are available in 25 ft. increments up to 150 ft. Special-cut lengths may be available at an additional charge. Consult factory for price and availability.

## Submersible Motor Control Boxes

QD, Standard & Deluxe Control Boxes



### Applications

**QUICK DISCONNECT (QD) & CAPACITOR RUN CONTROL (CRC)** – These control boxes are designed for use with Franklin 3-wire single-phase submersible motors through 1 hp.

**STANDARD & DELUXE** – These control boxes are designed for use with Franklin 3-wire single-phase submersible motors from 1 through 15 hp. Recommended for water systems that use pressure switches, level switches, or other pilot devices. Deluxe boxes (only) contain magnetic line contactors carefully matched to the motor rating, eliminating the need for external line contactors.

### Basic Features – All Boxes

- Suitable for outdoor mounting
- Capacitor Start / Capacitor Run design (except QD boxes)
- UL Listed for US and Canada (60 Hz models)

### Basic Features – Standard & Deluxe Boxes

- Heavy duty box-type terminals accept up to AWG #2 wire
- External access to overload resets
- Multiple-size knockouts
- User-friendly connection diagrams
- Easy access to grounding lugs

### Single-Phase Control Box Specifications

Box Type	HZ	HP Range	KW Range	Enclosure	Terminal Block		Mag Contactor	Agency Approvals
					Terminals	Max Wire		
Quick Disconnect (QD)	60	1/3 - 1	0.25 - 0.75	NEMA 3R, IP23	5	AWG 10	No	UL listed for US and Canada
Quick Disconnect (QD)	50	1/3 - 1	0.25 - 0.75	NEMA 3R, IP23	5	AWG 10	No	CSA Certified
Capacitor Run Control (CRC)	60	1/2 - 1	0.37 - 0.75	NEMA 3R, IP23	5	AWG 10	No	UL listed for US and Canada
Standard (S)	60	1 - 10	0.75 - 7.5	NEMA 3R, IP23	5	AWG 2	No	UL listed for US and Canada
Standard (S)	50	1.5 - 5	0.75 - 3.7	NEMA 3R, IP23	5	AWG 2	No	CSA Certified
Deluxe (D)	60	2 - 15	1.5 - 11	NEMA 3R, IP23	6	AWG 2	Yes	UL listed for US and Canada
Extra Large Deluxe (D-XL)	60	15	11	NEMA 3R, IP23	5	AWG 00	Yes	UL listed for US and Canada

# Motors, Drives, Controls & Protection

## Submersible Motor Control Boxes

QD, Standard & Deluxe Control Boxes

HP (KW)	Description				Model	Stock Status
	PH	Volts	HZ	Type		
<b>1/3 hp (0.25 kW)</b>	1	115	60	Q	280 102 4915	Yes
	1	220	50	Q	280 353 0115	Yes
	1	230	60	Q	280 103 4915	Yes
<b>1/2 hp (0.37 kW)</b>	1	115	60	Q	280 104 4915	Yes
	1	220	50	Q	280 355 0115	Yes
	1	230	60	Q	280 105 4915	Yes
	1	230	60	CRC	282 405 5015	Yes
<b>3/4 hp (0.55 kW)</b>	1	220	50	Q	280 357 0115	Yes
	1	230	60	Q	280 107 4915	Yes
	1	230	60	CRC	282 407 5015	Yes
<b>1 hp (0.75 kW)</b>	1	220	50	Q	280 358 0115	Yes
	1	230	60	Q	280 108 4915	Yes
	1	230	60	CRC	282 408 5015	Yes
<b>1.5 hp (1.1 kW)</b>	1	220	50	S	282 350 8110	Yes
	1	230	60	S	282 300 8110	Yes
<b>2 hp (1.5 kW)</b>	1	220	50	S	282 351 8110	Yes
	1	230	60	S	282 301 8110	Yes
	1	230	60	D	282 301 8310	Yes
<b>3 hp (2.2 kW)</b>	1	220	50	S	282 352 8110	Yes
	1	230	60	S	282 302 8110	Yes
	1	230	60	D	282 302 8310	Yes
<b>5 hp (3.7 kW)</b>	1	220	50	S	282 253 9010	Yes
	1	230	60	S	282 113 8110	Yes
	1	230	60	D	282 113 9310	Yes
<b>7.5 hp (5.5 kW)</b>	1	230	60	S	282 201 9210	Yes
	1	230	60	D	282 201 9310	Yes
<b>10 hp (7.5 kW)</b>	1	230	60	S	282 202 9230	Yes
	1	230	60	D	282 202 9330	Yes
<b>15 hp (11 kW)</b>	1	230	60	D	282 203 9330	Yes
	1	230	60	D-XL	282 203 9621	Yes

**Notes:**

Q = Quick Disconnect Control Box

CRC = Capacitor Run Control Box

S = Standard Control Box

D = Deluxe Control Box

D-XL = Extra Large Deluxe Control Box

## Submersible Motor Protection Pumptec Family

### Pumptec Single-Phase Protection Devices

#### Applications

These protection devices are designed to protect Franklin Electric single-phase motors from the various conditions listed below.



QD Pumptec is designed to easily plug into any Franklin QD Relay Control Box.

	QD Pumptec	Pumptec IR	Pumptec-Plus
Air or Gas Locked Pump (Cavitation)	■	■	■
Broken Shaft or Coupling	■	■	■
Clogged Well Screen	■	■	■
Drop in Water Level	■	■	■
Faulty Check Valve		■	■
High Voltage	■	■	■
Low Voltage	■	■	■
Low Yield Wells	■	■	■
Rapid Cycling		■	■
Water Logged Tank		■	■
Worn Pump Parts	■	■	■

#### QD Pumptec

Exclusively designed for Franklin QD Relay Control Boxes, QD Pumptec is a solid state sensing device that monitors motor load and incoming power to automatically shut off a Franklin single-phase, 3-wire motor when related fault conditions are detected. QD Pumptec easily plugs into 3-wire Franklin QD Control Boxes with no additional wiring or tools required.

#### Pumptec IR

Pumptec is a microcomputer-based device that monitors motor load and power line conditions to provide protection against dry well conditions, waterlogged tanks, and abnormal line voltage conditions. Pumptec interrupts power to the motor whenever the load drops quickly or below a preset level. Indicator lights provide complete system status.

#### Pumptec-Plus

The Pumptec-Plus solid state pump protection system is designed for 1/2 to 5 hp single-phase submersible pump motors. Pumptec-Plus protects against a variety of fault conditions. Run and fault lights make diagnosis quick and easy. Push button Snap Shot™ calibration makes Pumptec-Plus simple to install and an effective troubleshooting tool.

# Motors, Drives, Controls & Protection

## Submersible Motor Protection Pumptec Family

### Single-Phase Electronic Protection Device Specifications

Product	HP Range	KW Range	Volts	HZ	Reset Time	Agency Approvals
Pumptec w/IR Control	1/3 - 1.5	0.25 - 1.1	115/230	60/50	Adjustable (2-120 Minutes)	UL/cUL Listed
Pumptec-Plus	1/2 - 5.0	0.37 - 3.7	230	60	Adjustable (1-240 Minutes or Manual)	UL/cUL Listed
Pumptec-Plus	1/2 - 5.0	0.37 - 3.7	220	50	Adjustable (1-240 Minutes or Manual)	UL/cUL Listed
QD Pumptec	1/3 - 1.0	0.25 - 0.75	230	60	Adjustable (2-240 Minutes)	UL/cUL Listed

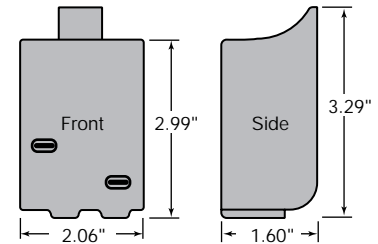
### Models

Product	Description				Model	Stock Status
	PH	HP	Volts	HZ		
Pumptec w/IR Control	1	1/3 - 1.5	115/230	60/50	580 002 0600	Yes
Pumptec-Plus	1	1/2 - 5.0	230	60	580 006 0100	Yes
	1	1/2 - 5.0	220	50	580 006 0500	Yes
QD Pumptec	1	1/3 - 1.0	230	60	580 007 0600	Yes

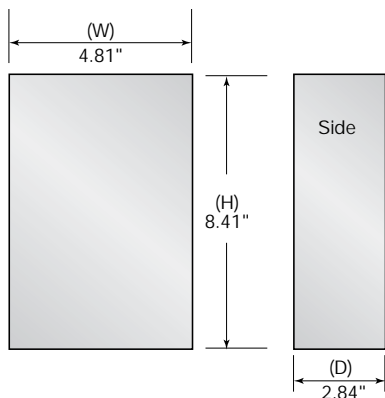
### Single-Phase Protection Devices

Product	Shipping Weight		Motor Carton Size (in inches)
	LBS	KG	
Pumptec w/IR Control	3	1.3	5.25 x 8.875 x 3.25
Pumptec-Plus	7	3.1	8.25 x 11.25 x 6.25
QD Pumptec	<1	<0.05	4.25 x 2.375 x 2.25

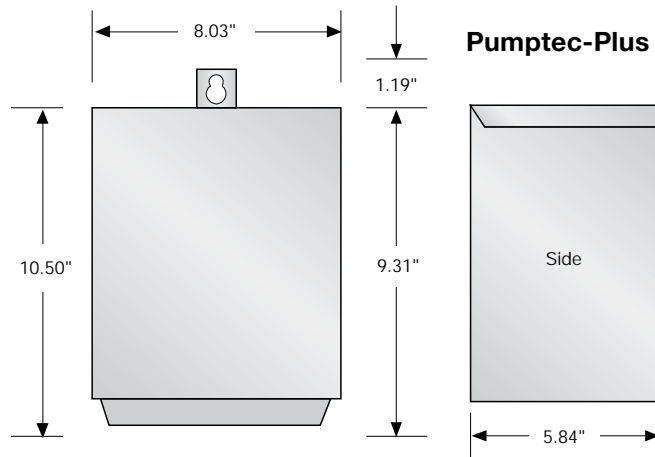
QD Pumptec



Pumptec IR



Pumptec-Plus



## Submersible Motor Protection

### Three-Phase Control Panel



## Three-Phase Control Panel

### Applications:

Franklin's heavy duty three-phase panels are optimized for water and irrigation applications. The spacious layout makes installation and maintenance simple and easy, so there's no need to spend time wrestling with wires, and adding components is easy. With a Franklin three-phase control panel, you can be sure that your system is set-up according to Franklin's recommendations.

Franklin Electric three-phase control panels are available from 3 to 200 hp, in ratings from 200 to 575 Volts.

### Basic Features:

- UL approved, heavy-duty NEMA 3R enclosure
- Class R fusible disconnect
- Service entrance rated
- Lightning arrestor
- Motor logic or Franklin SubMonitor® protected
- NEMA contactor
- Door wind hinge
- Pilot device and alarm terminal block
- H-O-A switch
- Manual push-to-start switch
- Easy hook-up

**Note:** For three-phase panel accessories, see the Franklin Electric Motors, Drives & Controls Catalog.



# Motors, Drives, Controls & Protection

## Submersible Motor Protection

### Three-Phase Control Panel

HP	Description	Volts	HZ	Amps	Model	WT
3	MOTOR LOGIC	200	60	6-18	281 101 2203	56
		230	60	6-18	281 101 3303	56
		460	60	3-9	281 101 4402	56
		575	60	3-9	281 101 5502	56
	SUB-MONITOR	200	60	ALL	281 101 2200	59
		230	60	ALL	281 101 3300	59
		460	60	ALL	281 101 4400	59
		575	60	ALL	281 101 5500	59
5	MOTOR LOGIC	200	60	9-27	281 101 2204	56
		230	60	9-27	281 104 3304	56
		460	60	3-9	281 101 4402	56
		575	60	3-9	281 101 5502	56
	SUB-MONITOR	200	60	ALL	281 101 2200	59
		230	60	ALL	281 101 3300	59
		460	60	ALL	281 101 4400	59
		575	60	ALL	281 101 5500	59
7.5	MOTOR LOGIC	200	60	15-45	281 104 2206	60
		230	60	15-45	281 104 3306	60
		460	60	6-18	281 101 4403	56
		575	60	6-18	281 101 5503	56
	SUB-MONITOR	200	60	ALL	281 104 2200	63
		230	60	ALL	281 104 3300	63
		460	60	ALL	281 101 4400	59
		575	60	ALL	281 101 5500	59
10	MOTOR LOGIC	200	60	15-45	281 104 2206	60
		230	60	15-45	281 104 3306	60
		460	60	9-27	281 101 4404	56
		575	60	6-18	281 101 5503	56
	SUB-MONITOR	200	60	ALL	281 104 2200	63
		230	60	ALL	281 104 3300	63
		460	60	ALL	281 101 4400	59
		575	60	ALL	281 101 5500	59
15	MOTOR LOGIC	200	60	45-135	281 204 2208	145
		230	60	30-90	281 204 3308	145
		460	60	15-45	281 104 4406	60
		575	60	15-45	281 104 5506	60
	SUB-MONITOR	200	60	ALL	281 204 2200	150
		230	60	ALL	281 204 3300	148
		460	60	ALL	281 103 4400	63
		575	60	ALL	281 104 5500	59
20	MOTOR LOGIC	200	60	30-90	281 205 2208	145
		230	60	30-90	281 205 3308	145
		460	60	15-45	281 104 4406	60
		575	60	15-45	281 104 5506	60
	SUB-MONITOR	200	60	ALL	281 205 2200	148
		230	60	ALL	281 205 3300	148
		460	60	ALL	281 103 4400	63
		575	60	ALL	281 104 5500	59
25	MOTOR LOGIC	200	60	30-90	281 206 2208	145
		230	60	30-90	281 206 3308	145
		460	60	15-45	281 104 4406	60
		575	60	15-45	281 104 5506	60
	SUB-MONITOR	200	60	ALL	281 206 2200	148
		230	60	ALL	281 206 3300	148
		460	60	ALL	281 104 4400	63
		575	60	ALL	281 104 5500	63
30	MOTOR LOGIC	200	60	45-135	281 207 2209	147
		230	60	45-135	281 207 3309	147
		460	60	30-90	281 104 4407	145
		575	60	30-90	281 204 5507	145
	SUB-MONITOR	200	60	ALL	281 207 2200	151
		230	60	ALL	281 207 3300	151
		460	60	ALL	281 106 4400	148
		575	60	ALL	281 204 5500	148
40	MOTOR LOGIC	460	60	30-90	281 205 4408	145
		575	60	30-90	281 204 5507	145
	SUB-MONITOR	460	60	ALL	281 205 4400	148
		575	60	ALL	281 204 5500	148
50	MOTOR LOGIC	460	60	30-90	281 206 4408	145
		575	60	30-90	281 205 5508	145
	SUB-MONITOR	460	60	ALL	281 206 4400	148
		575	60	ALL	281 205 5500	148
60	MOTOR LOGIC	460	60	45-135	281 207 4409	147
		575	60	45-135	281 307 5510	147
	SUB-MONITOR	460	60	ALL	281 207 4400	150
		575	60	ALL	281 307 5500	150
75	MOTOR LOGIC	460	60	45-135	281 207 4409	147
		575	60	45-135	281 307 5510	147
	SUB-MONITOR	460	60	ALL	281 207 4400	150
		575	60	ALL	281 307 5500	150
100	MOTOR LOGIC	460	60	90-270	281 308 4411	390
		575	60	45-135	281 307 5510	147
	SUB-MONITOR	460	60	ALL	281 308 4400	393
		575	60	ALL	281 307 5500	150
125	MOTOR LOGIC	460	60	90-270	281 309 4411	390
		575	60	90-270	281 309 5511	390
	SUB-MONITOR	460	60	ALL	281 309 4400	393
		575	60	ALL	281 309 5500	393
150	MOTOR LOGIC	460	60	90-270	281 310 4412	390
		575	60	90-270	281 309 5511	390
	SUB-MONITOR	460	60	ALL	281 310 4400	393
		575	60	ALL	281 309 5500	393
175	MOTOR LOGIC	460	60	90-270	2813104412	390
		575	60	90-270	2813105512	390
	SUB-MONITOR	460	60	ALL	2813104400	393
		575	60	ALL	2813105500	393
200	MOTOR LOGIC	460	60	18-540	2813114413	660
		575	60	90-270	2813105512	390
	SUB-MONITOR	460	60	ALL	2813114400	663
		575	60	ALL	2813105500	393

## Submersible Motor Protection

### SubMonitor® - Three-Phase Motor Protection



#### 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

#### Applications:

SubMonitor® is designed to protect three-phase pumps by monitoring current, voltage and motor temperature\* using three integrated current transformers. A face mounted digital display provides real-time current and voltage readings for all three legs and allows the user to set up the SubMonitor® quickly and easily.

#### Protects Against:

- Under/Overload
  - Under/Overtoltage
  - Current unbalance
  - Overheated motor (Subtrol-equipped)
  - False start (chattering)
  - Phase reversal
- 
- 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
  - UL and cUL listed

#### Three-Phase Electronic Protection Device Specifications

<b>Input Voltage</b> .....	190 – 600 VAC	<b>Signal Circuit Rating</b> .....	1 Amp AC, up to 250 V
<b>Frequency</b> .....	60/50 Hz	<b>Wiring Terminals</b>	
<b>Motor Service Factor Amps</b> .....	5 to 350 Amps	Wire Gauge .....	#12 to #18 AWG
<b>Maximum Conductor Size Through Sensors</b>		Tighten to .....	4.5 in-lbs
Max Diameter.....	0.920 in. (23 mm)	<b>Weight (SubMonitor)</b> .....	3.3 lbs/1.5 kg
<b>Trip Response</b>		<b>Carton Size (Std. Unit)</b> .....	7.75 in x 11.5 in x 6.75 in (19.7 cm x 29.2 cm x 17.1 cm)
Motor Under/Overload, Under/Overtoltage, Overheat, Unbalance .....	3 seconds	<b>Shipping Weight (Std. Unit)</b> .....	3.5 lbs/1.5 kg
<b>Control Circuit Rating</b> .....	1.5 Amp AC, up to 600 V	<b>Agency Approval</b> .....	UL and cUL listed

\* For motors equipped with a Subtrol® heat sensor

# Motors, Drives, Controls & Protection

## Submersible Motor Protection

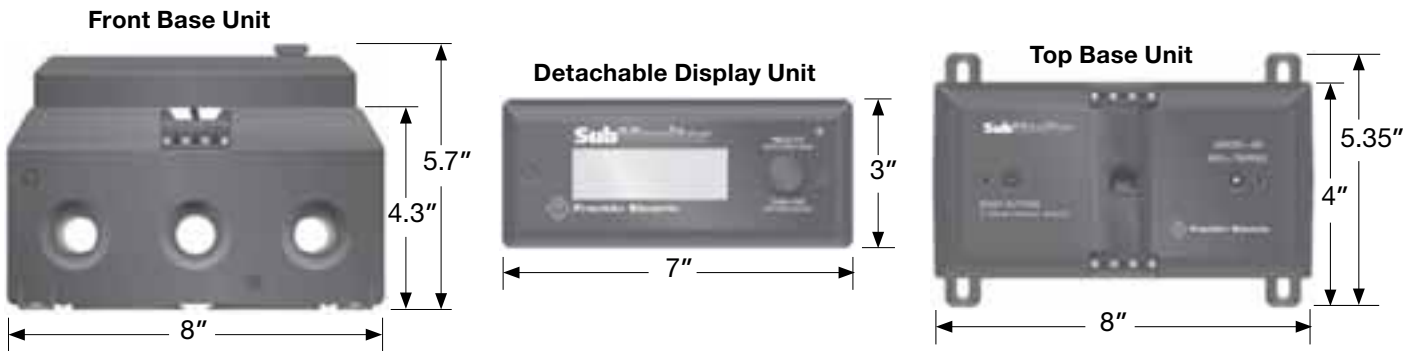
### Three-Phase Control Panel - Accessories

#### Models

Product	Description				Model	Stock Status
	PH	Max Amps Range	Volts	HZ		
SubMonitor Standard	3	5 - 350	190 - 600	60/50	586 000 5000	YES
SubMonitor Premium	3	5 - 350	190 - 600	60/50	586 000 5100	YES
Display Only	N/A	N/A	N/A	N/A	225 190 902	YES
Base Only	N/A	N/A	N/A	N/A	225 210 902	YES

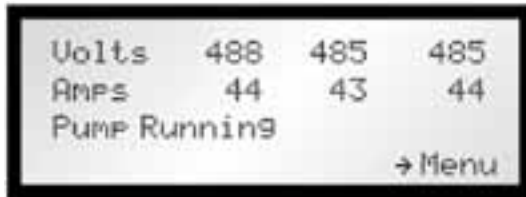
#### Dimensions and Weights

Shipping Weight		Motor Carton Size (in inches)
LBS	KG	
3.3	1.5	7.75 x 11.5 x 6.75



#### Display

- Real-time display of voltage and current for each leg.
- Easy menu-driven setup and adjustment of monitoring parameters.



#### SubMonitor® Accessory



585 001 1100

#### D3 Data Download Tool

D3 is a service tool that provides the capability to download data from SubMonitor® and transfer that data to a PC.

Includes:

- D3 unit
- Transfer software
- USB cable

## Constant Pressure Drives SubDrive / MonoDrive



### Applications:

Franklin Electric's constant pressure controllers use state-of-the-art technology to provide constant water pressure through variable speed control of submersible water well pumps.

### Features—All Controllers:

- Constant water pressure with a wide range of settings (25 to 80 psi)
- NEMA 3R (Outdoor), NEMA 4 (Outdoor) and NEMA 1 (indoor) and NEMA 0 Enclosures
- Easy installation
- Soft start feature prevents water hammer and increases motor life
- Works with small pressure tanks or existing larger tanks
- Smart Reset® technology allows well recovery before restarting the pump
- Single-phase input power with three-phase motor performance (SubDrive models)
- Excellent radio frequency interference shielding
- UL and cUL listed
- Built-in diagnostics and protection
  - Surge protection
  - Underload
  - Undervoltage
  - Locked pump
  - Open circuit
  - Short circuit
  - Overheated controller

## Constant Pressure Drives

### SubDrive / MonoDrive

#### Features — MonoDrive & MonoDriveXT:

- Selectable hp rating: MonoDrive (½, ¾ and 1 hp), MonoDriveXT (1.5 and 2 hp)
- Easy installation – remove the 3-wire control box and install the MonoDrive
- Can retrofit existing systems – no need to pull the pump
- NEMA 4 & NEMA 1 enclosure
- Single-phase, 3-wire Franklin Electric motor

#### Features — SubDrive2W:

- Selectable hp rating: (½, ¾ and 1 hp)
- Easy retrofit installation – remove the pressure switch and install the SubDrive2W
- Can retrofit existing systems – no need to pull the pump or motor
- NEMA 3R enclosure
- Single-phase, 2-wire Franklin Electric motor

#### Constant Pressure Controls Specifications

		MonoDrive	MonoDriveXT
Model No.	(N1)	587 020 3110	587 020 4110
(Enclosure*)	(N4)	587 020 3114	587 020 4114

##### Input (From Power Source)

Voltage	190-260 V 1-phase	190-260 V 1-phase
Frequency	60/50 Hz	60/50 Hz
Max Amps (RMS)	5.7 A (½ hp), 8.7 A (¾ hp), 11 A (1 hp)	13 A (1.5 hp), 16 A (2 hp)
Power Factor	1 (Constant)	1 (Constant)

##### Output (To Motor)

Voltage	Variable/1-phase	Variable/1-phase
Frequency	Variable (30-60 Hz)	Variable (30-60 Hz)
Max Amps (RMS)	4.0 A (½ hp), 6.6 A (¾ hp), 9.0 A (1 hp)	10 A (1.5 hp), 12 A (2 hp)

##### For Use With

Pump Rating	½, ¾ or 1 hp (Selectable)	1.5 or 2 hp (Selectable)
Motor Rating	½, ¾ or 1 hp, 230 VAC (1-phase)	1.5 or 2 hp, 230 VAC (1-phase)
Pressure Sensor (Included)	External	External
Controller Weight	(N1)	15 lbs (7 kg)
	(N4)	24 lbs (11 kg)
Carton Size (H x W x D)	(N1)	16½ x 12¾ x 9" 41.9 x 31.4 x 22.9 cm
	(N4)	17½ x 16¾ x 11⅝" 44.5 x 41.6 x 28.9 cm
Shipping Weight	(N1)	19 lbs (9 kg)
	(N4)	30 lbs (14 kg)

\*N1 = NEMA 1 (Indoors), N4 = NEMA 4 (Outdoors), N3R = NEMA 3R (Outdoors)

		SubDrive2W
Model No.	(N3R)	587 020 3223
(Enclosure*)		

##### Input (From Power Source)

Voltage	230 V (+/- 10%) 1-phase
Frequency	60/50 Hz
Max Amps (RMS)	<14A
Power Factor	N/A

##### Output (To Motor)

Voltage	Variable/1-phase/FE Motor
Frequency	Variable (30-60 Hz)
Max Amps (RMS)	6.0 A (½ hp), 8.0 A (¾ hp), 9.8 A (1 hp)

##### For Use With:

Pump Rating	½, ¾ or 1 hp (Selectable)
Motor Rating	½, ¾ or 1 hp, 230 VAC (1-phase), 60 Hz
Pressure Sensor (Included)	External
Controller Weight	15 lbs (7 kg)
Carton Size (H x W x D)	12¼ x 16½ x 9" 31.1 x 41.9 x 22.9 cm
Shipping Weight	18 lbs (8 kg)

## Constant Pressure Drives

### SubDrive / MonoDrive

#### Features — SubDrive75, SubDrive100, SubDrive150 & SubDrive300:

- Works with a standard three-phase Franklin Electric submersible motor
- NEMA 4 & NEMA 1 enclosure
- Three-phase performance with single-phase input
  - High starting torque
  - More efficient
  - Smooth running

#### Constant Pressure Controls Specifications

		SubDrive75	SubDrive100	SubDrive150	SubDrive300
Model No.	(N1)	587 020 3380	587 020 4100	587 020 4150	N/A
(Enclosure*)	(N4)	587 020 3384	587 020 4104	587 020 4154	587 020 6300

#### Input (From Power Source)

Voltage	190-260 V 1-Phase	190-260 V 1-Phase	190-260 V 1-Phase	220-260 V 1-Phase
Frequency	60/50 Hz	60/50 Hz	60/50 Hz	60/50 Hz
Max Amps (RMS)	11 A	19 A	23 A	36 A
Power Factor	1 (Constant)	1 (Constant)	1 (Constant)	1 (Constant)

#### Output (To Motor)

Voltage	Variable/3-Phase	Variable/3-Phase	Variable/3-Phase	Variable/3-Phase
Frequency	Variable (30-80 Hz)	Variable (30-80 Hz)	Variable (30-80 Hz)	Variable (30-80 Hz)
Max Amps (RMS)	5.9 A	8.1 A	10.9 A	17.8 A

#### For Use With

Pump Rating		¾, 1 or 1.5 hp (Selectable)	1, 1.5 or 2 hp (Selectable)	1.5, 2 or 3 hp (Selectable)	3 or 5 hp (Selectable)
Motor Rating		1.5 hp, 230 VAC (3-Phase)	2 hp, 230 VAC (3-Phase)	3 hp, 230 VAC (3-Phase)	5 hp, 230 VAC (3-Phase)
Pressure Sensor (Included)		External	External	External	External
Controller Weight	(N1)	15 lbs (7 kg)	18 lbs (8 kg)	18 lbs (8 kg)	N/A
	(N4)	24 lbs (11 kg)	28 lbs (13 kg)	28 lbs (13 kg)	35 lbs (16 kg)
Carton Size (H x W x D)	(N1)	16½ x 12¾ x 9" 41.9 x 31.4 x 22.9 cm	16½ x 12¾ x 9" 41.9 x 31.4 x 22.9 cm	16½ x 12¾ x 9" 41.9 x 31.4 x 22.9 cm	N/A
	(N4)	17½ x 16¾ x 11¾" 44.5 x 41.6 x 28.9 cm	17½ x 16¾ x 11¾" 44.5 x 41.6 x 28.9 cm	17½ x 16¾ x 11¾" 44.5 x 41.6 x 28.9 cm	19¾ x 17½ x 14¼" 50.5 x 44.5 x 36.2 cm
Shipping Weight	(N1)	19 lbs (9 kg)	21 lbs (10 kg)	21 lbs (10 kg)	N/A
	(N4)	31 lbs (14 kg)	35 lbs (16 kg)	35 lbs (16 kg)	41 lbs (19 kg)

\*N1 = NEMA 1 (Indoors), N4 = NEMA 4 (Outdoors)

## Constant Pressure Drives

SubDrive / MonoDrive

### SubDrive300



#### NEMA 4 Dimensions (approximate)

NEMA 4	A	B	C	D	E	F	G	H	I	J
Dimension	8.75" (22.23 cm)	12" (30.48 cm)	6" (15.24 cm)	15.34" (38.96 cm)	14" (35.56 cm)	14.75" (37.47 cm)	1.37" (3.48 cm)	0.885" (2.25 cm)	1.71" (4.34 cm)	4.75" (12.07 cm)
Conduit Size	-	-	-	-	-	-	1	½	1½	-

### SubDrive2W



#### NEMA 3R Dimensions (approximate)

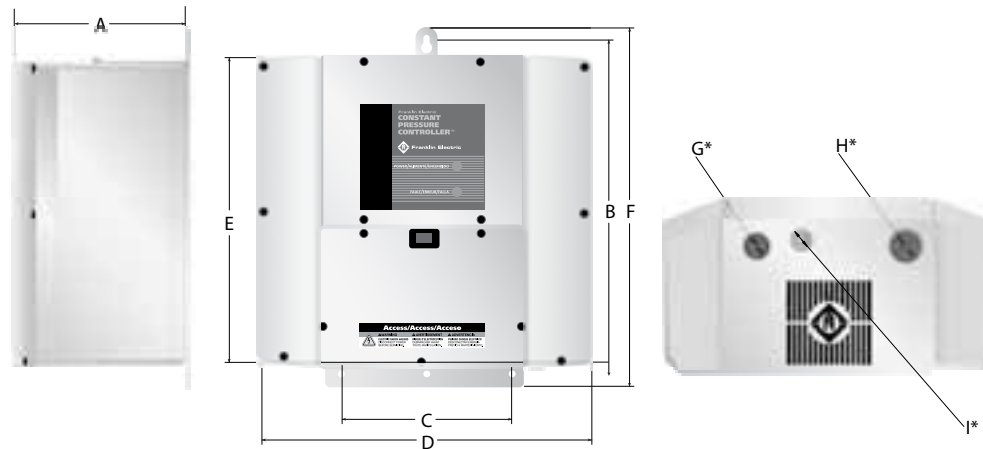
NEMA 3R	A	B	C	D	E	F	G
Dimension	6.20" (15.75 cm)	14.27" (36.25 cm)	9.91" (25.71 cm)	.44" (1.12 cm)	11.87" (30.15 cm)	5.5" (13.97 cm)	.88" / 1.13" (2.24 cm) / (2.87 cm)
Conduit Size	-	-	-	-	-	-	½ / ¾

\* Use knock-outs as required.

## Constant Pressure Drives

SubDrive / MonoDrive

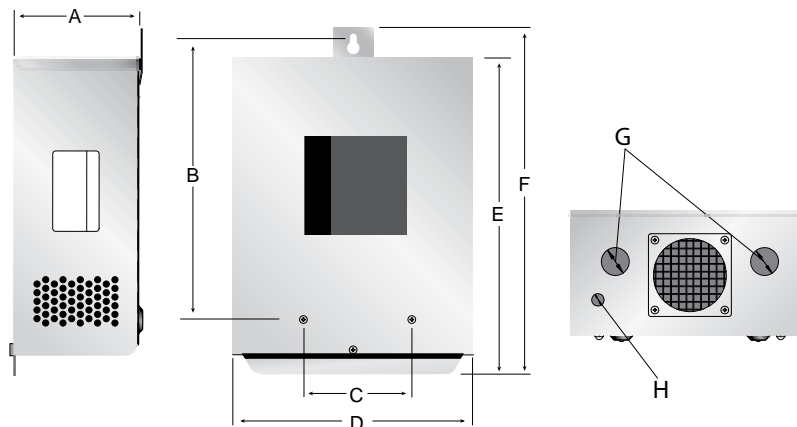
### SubDrive75/100/150/MonoDrive/MonoDriveXT



#### NEMA 4 Dimensions (approximate)

NEMA 4	A	B	C	D	E	F	G	H	I
Dimension	7.25" (18.42 cm)	12.6" (32.0 cm)	7" (17.78 cm)	13.6" (34.5 cm)	12.5" (31.75 cm)	14.8" (37.6 cm)	0.875" / 1.100" (0.22 cm) / (2.80 cm)	1.100" / 1.375" (2.8 cm) / (3.50 cm)	closed / 0.473" / 0.875" closed / (1.20 cm) / (2.22 cm)
Conduit Size	-	-	-	-	-	-	1/2 / 3/4	3/4 / 1	1/2

### SubDrive75/100/150/MonoDrive/MonoDriveXT



#### NEMA 1 Dimensions (approximate)

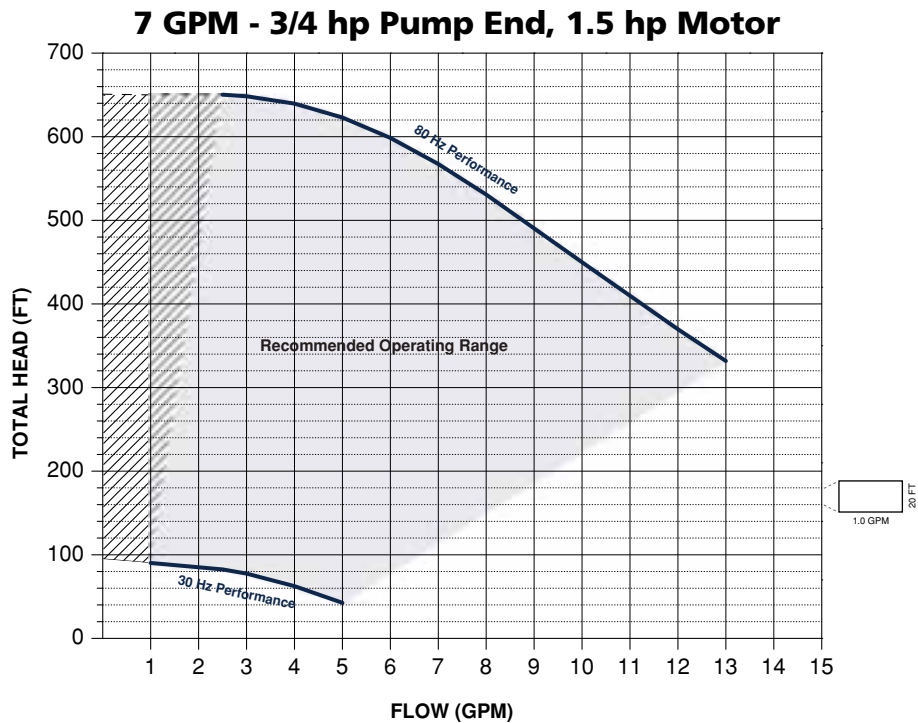
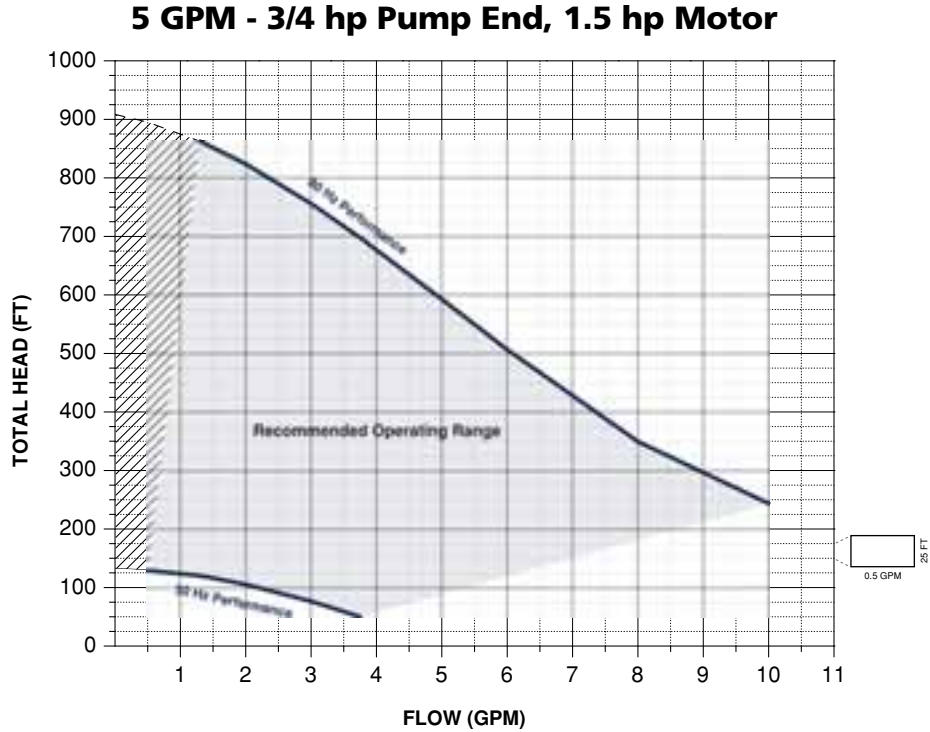
NEMA 1	A	B	C	D	E	F	G	H
Dimension	5.25" (13.34 cm)	11.5" (29.21 cm)	5.5" (13.97 cm)	9.75" (24.77 cm)	12.8" (32.51 cm)	14" (35.56 cm)	1.12" (2.84 cm)	0.5" (1.27 cm)
Conduit Size	-	-	-	-	-	-	3/4	-

\* Use knock-outs as required.



## Constant Pressure Drives

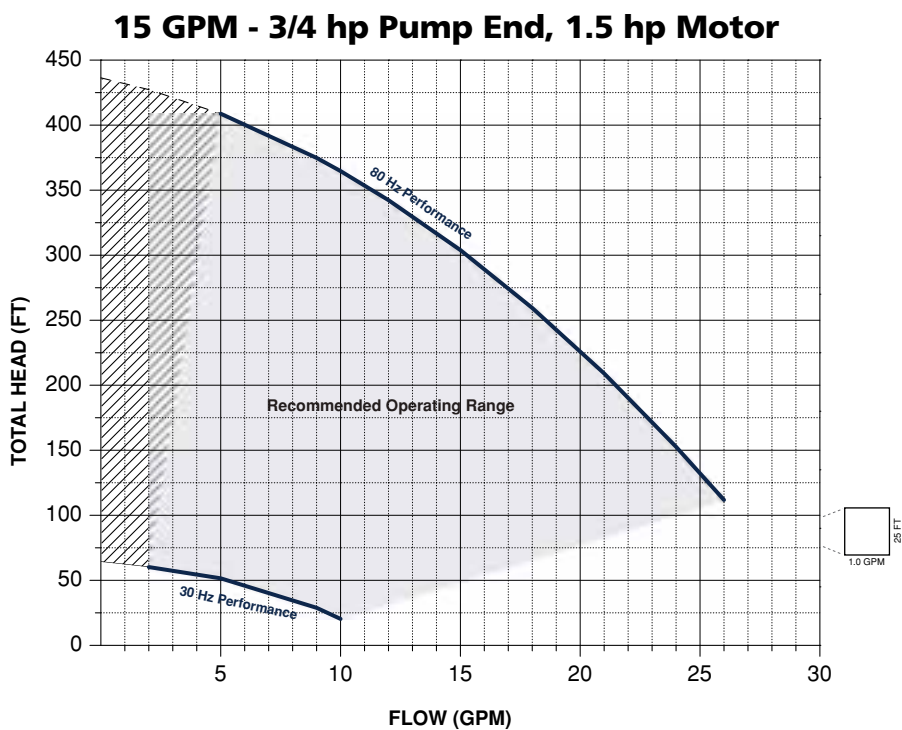
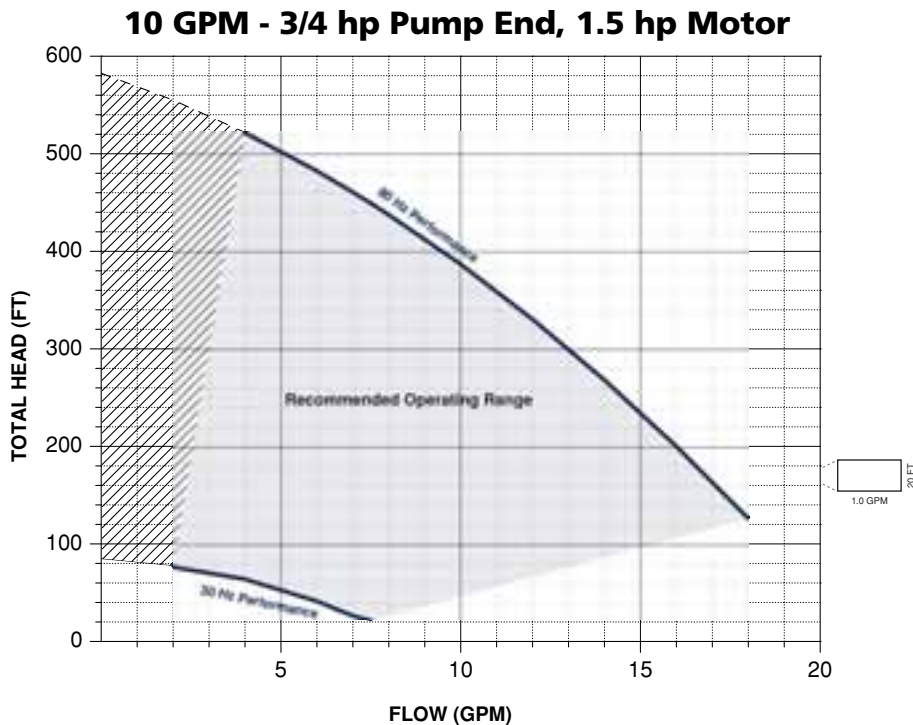
### SubDrive75 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

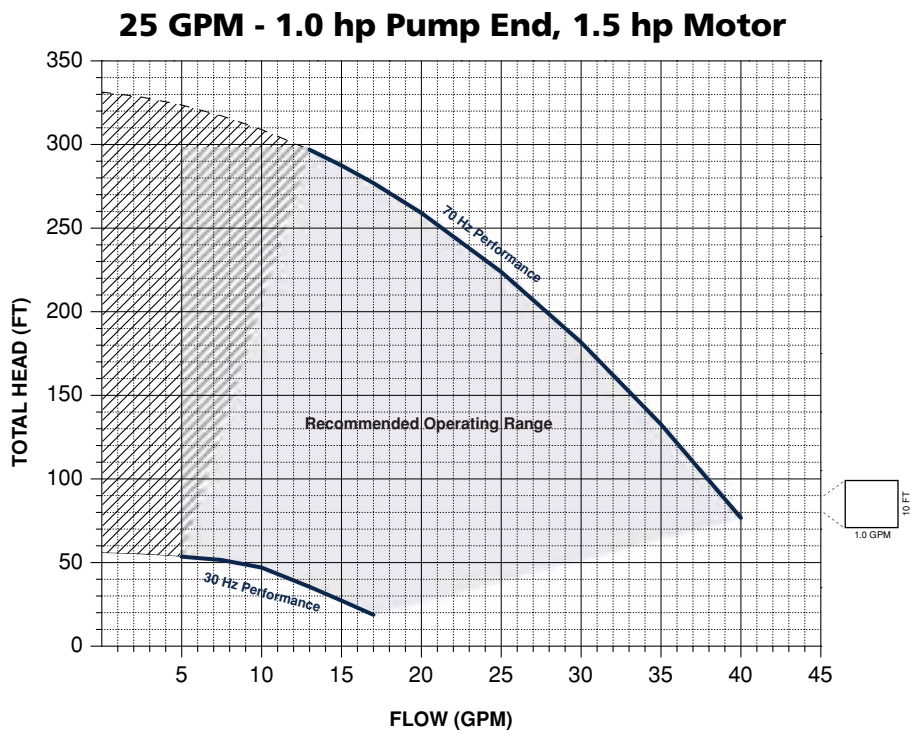
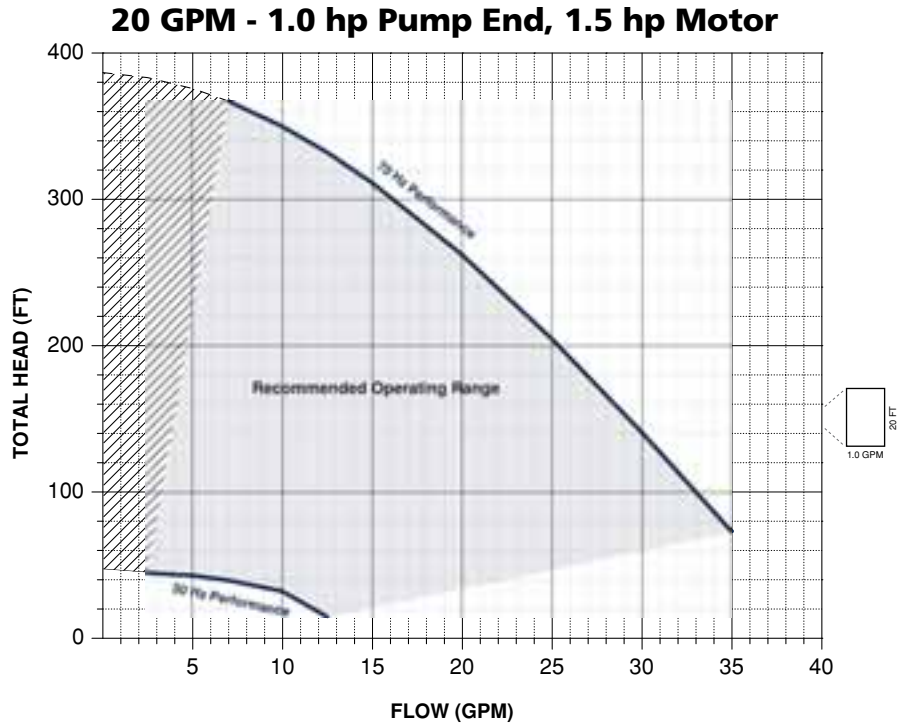
### SubDrive75 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

### SubDrive75 Performance

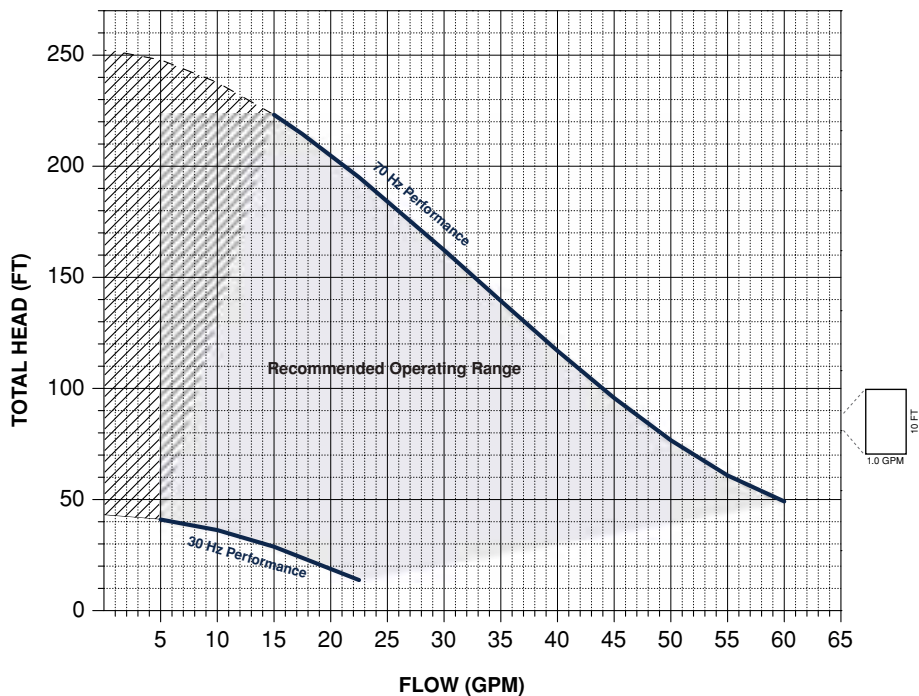


**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

### SubDrive75 Performance

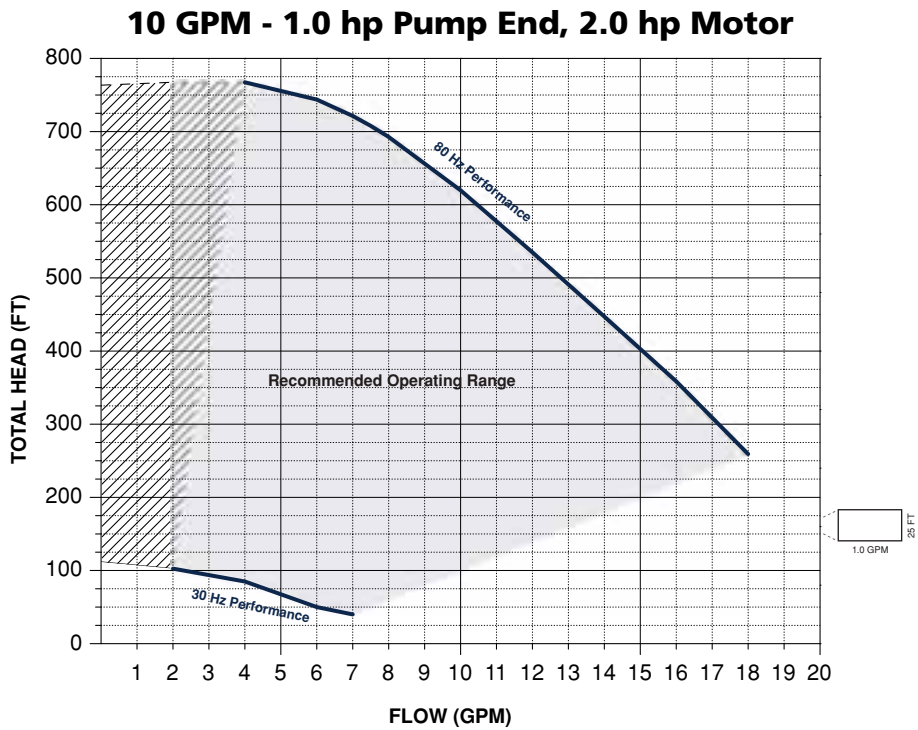
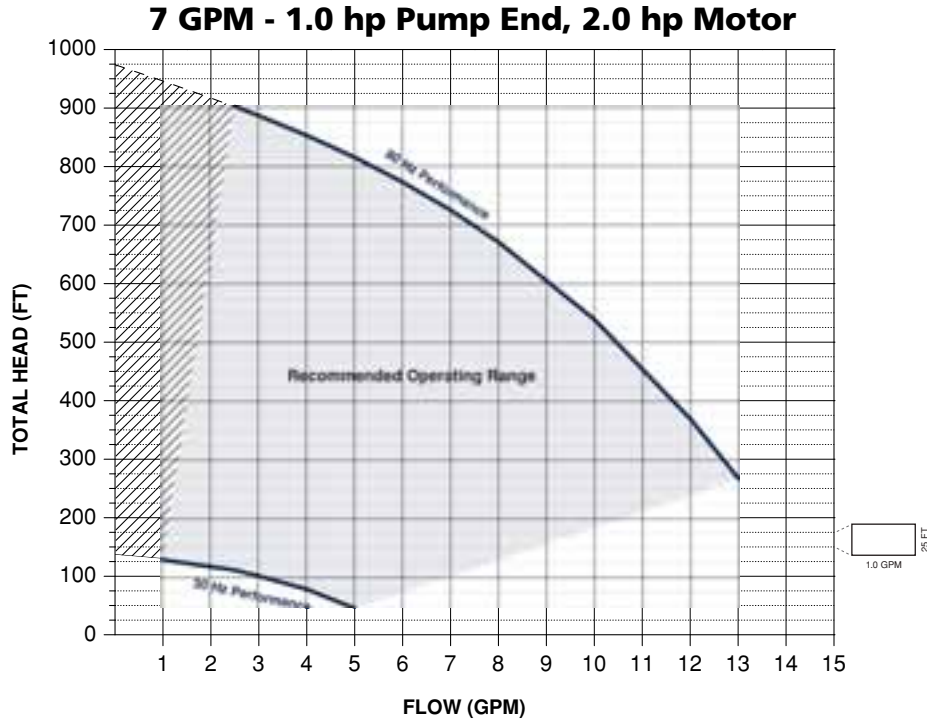
35 GPM - 1.0 hp Pump End, 1.5 hp Motor



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

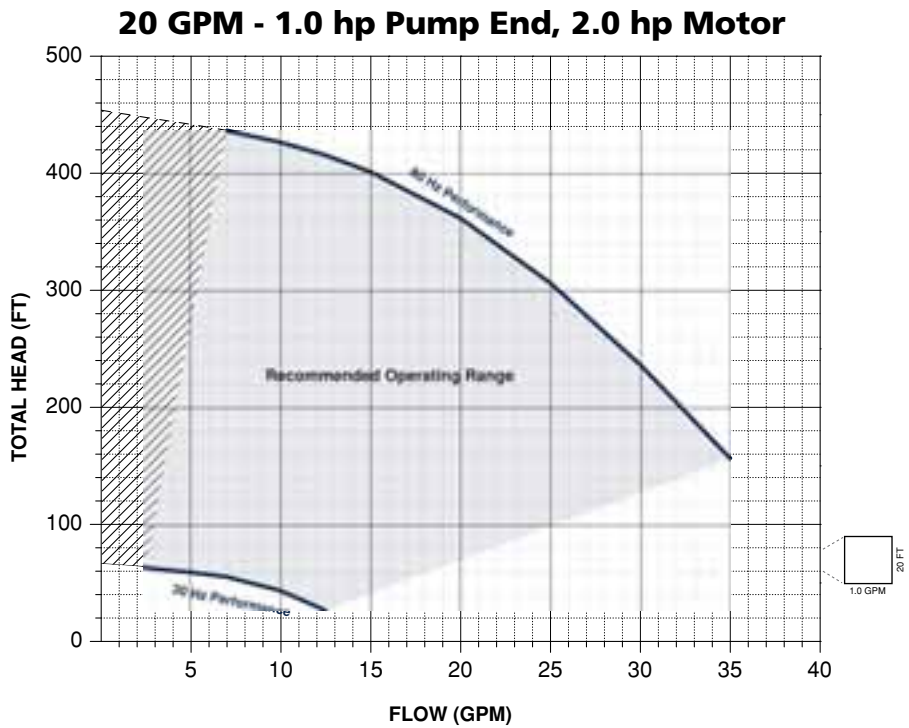
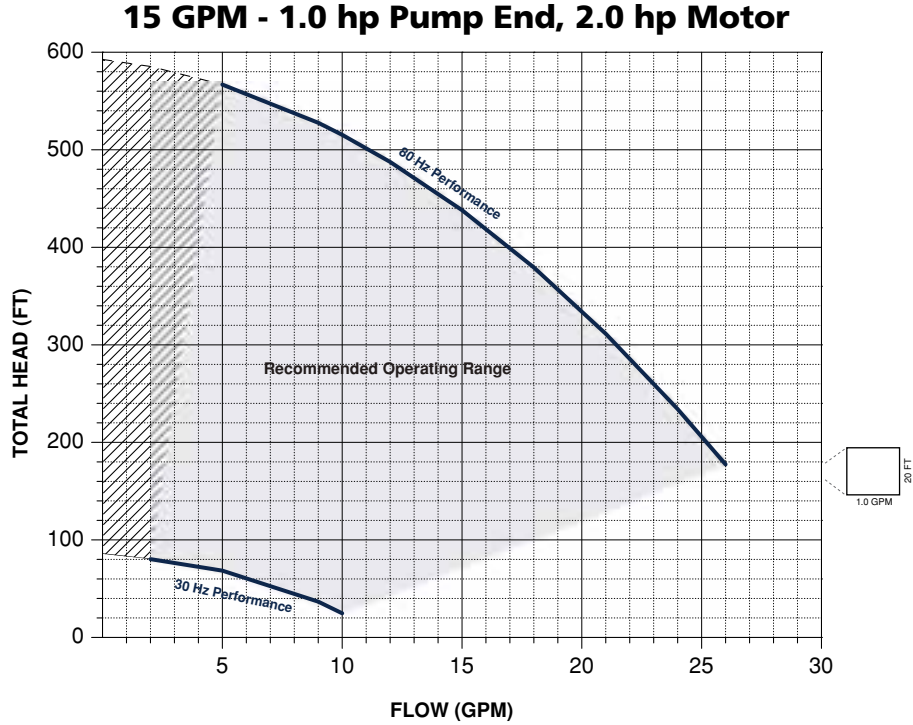
### SubDrive100 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

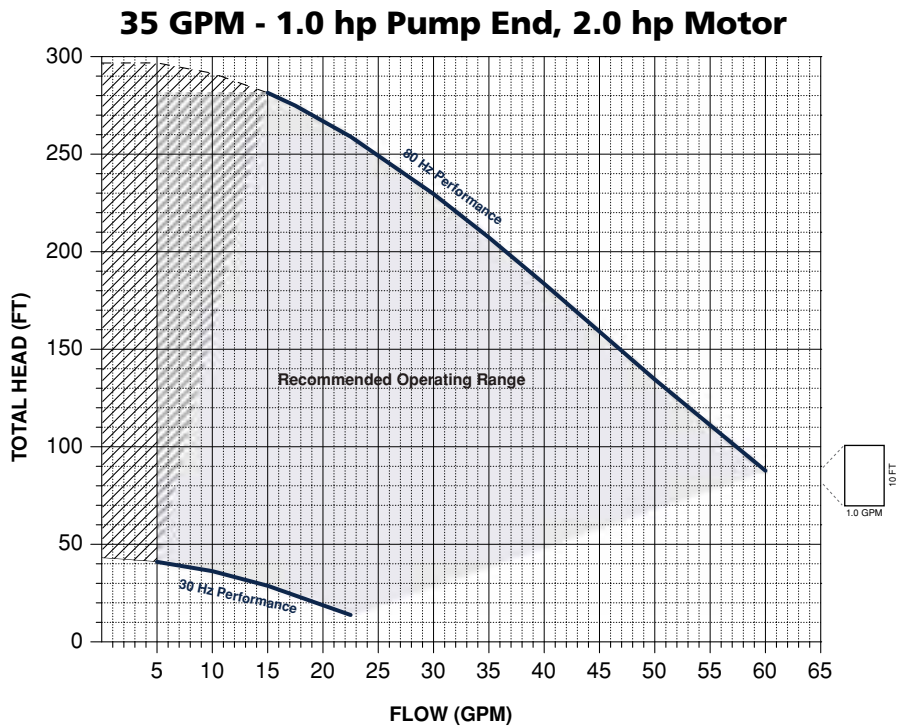
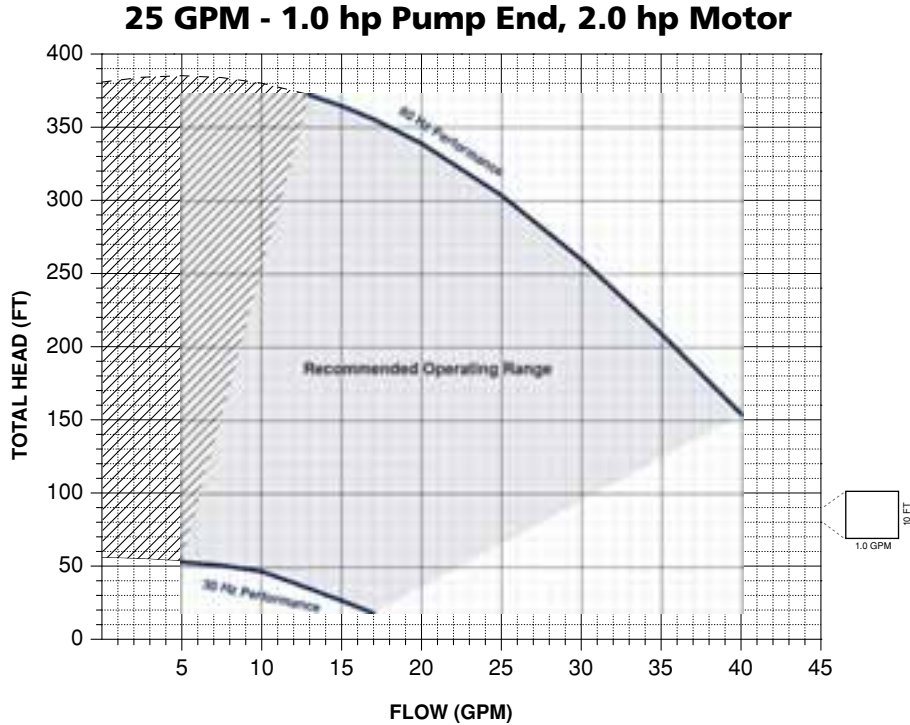
### SubDrive100 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

### SubDrive100 Performance

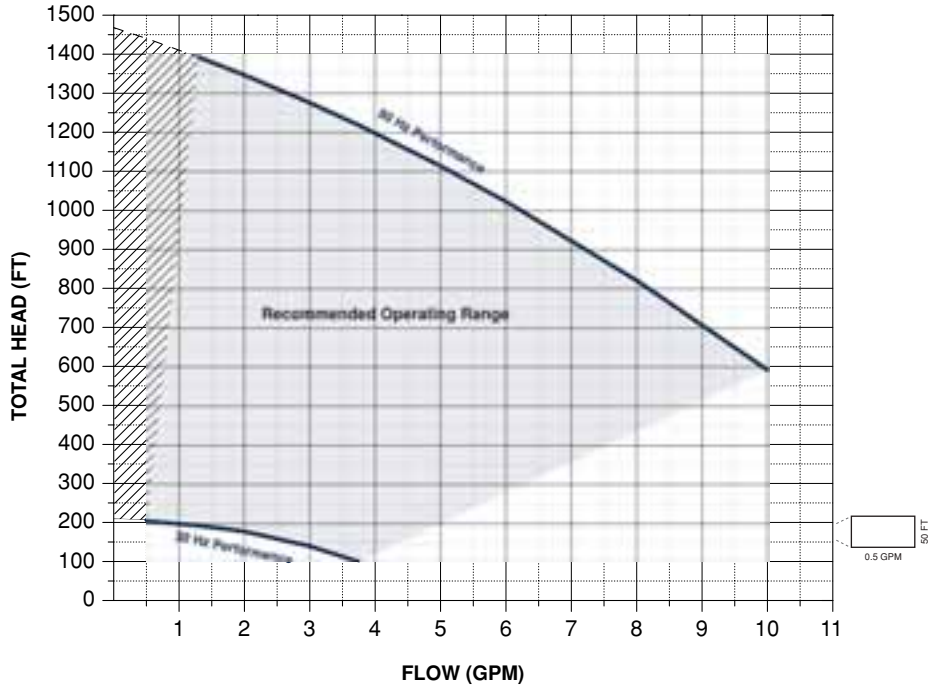


**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

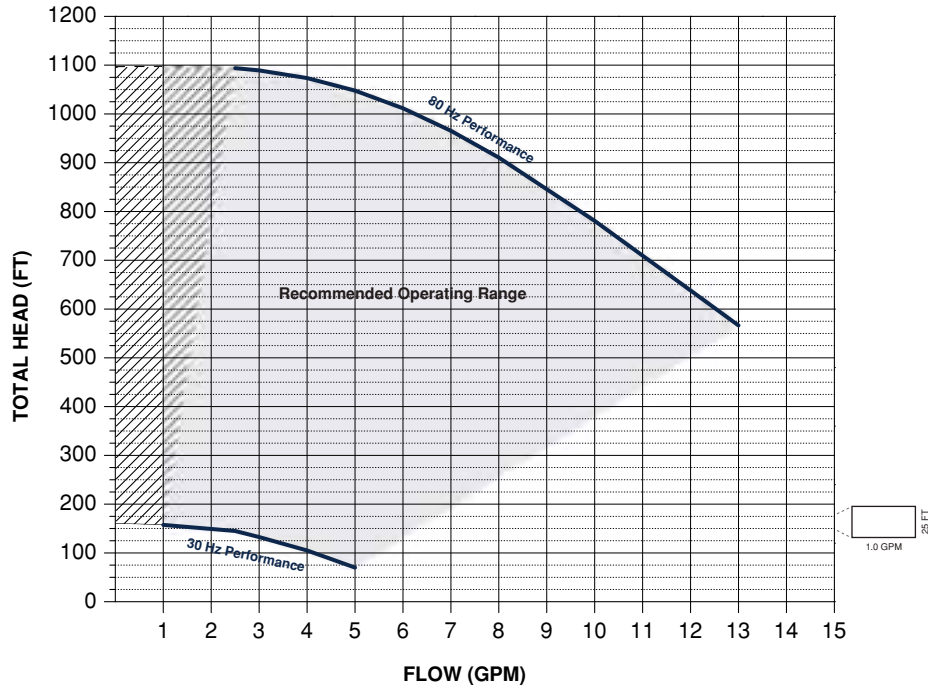
## Constant Pressure Drives

### SubDrive150 Performance

**5 GPM - 1.5 hp Pump End, 3.0 hp Motor**



**7 GPM - 1.5 hp Pump End, 3.0 hp Motor**

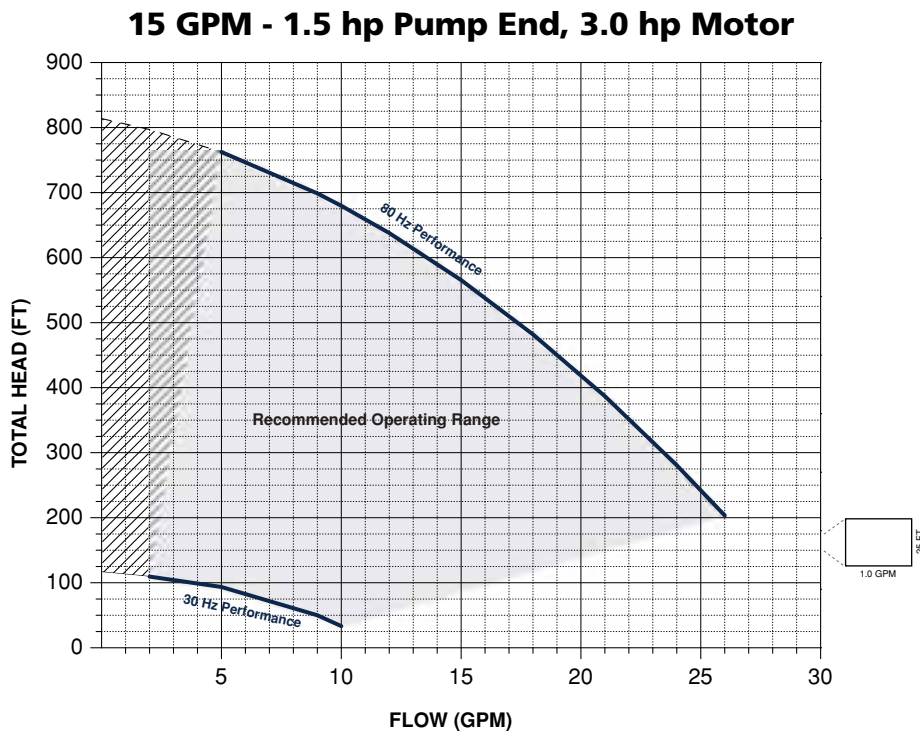
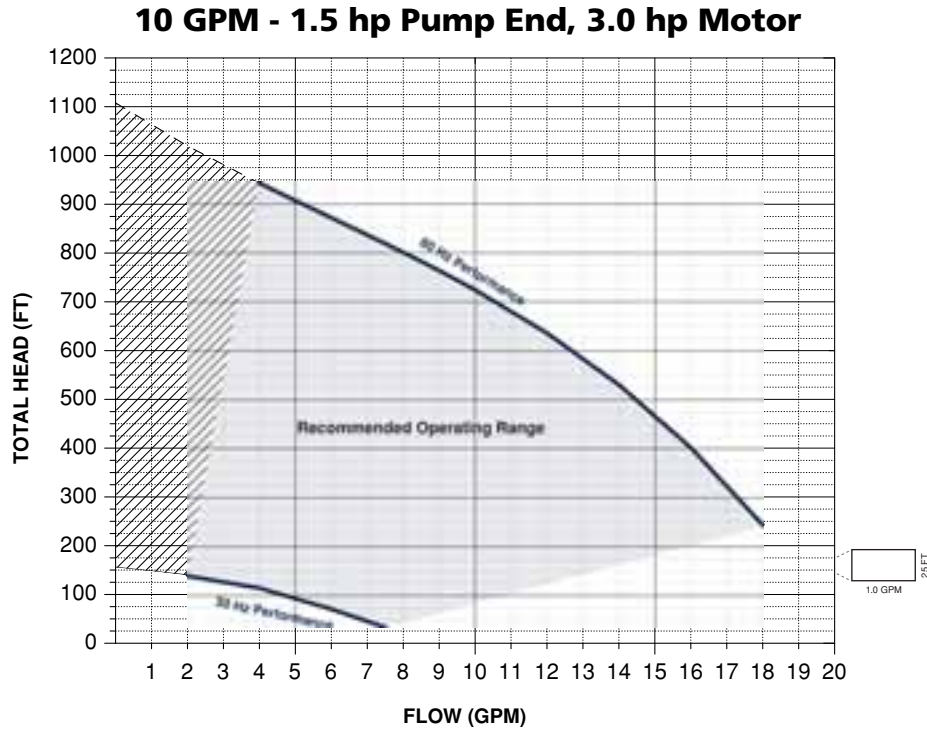


**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.



## Constant Pressure Drives

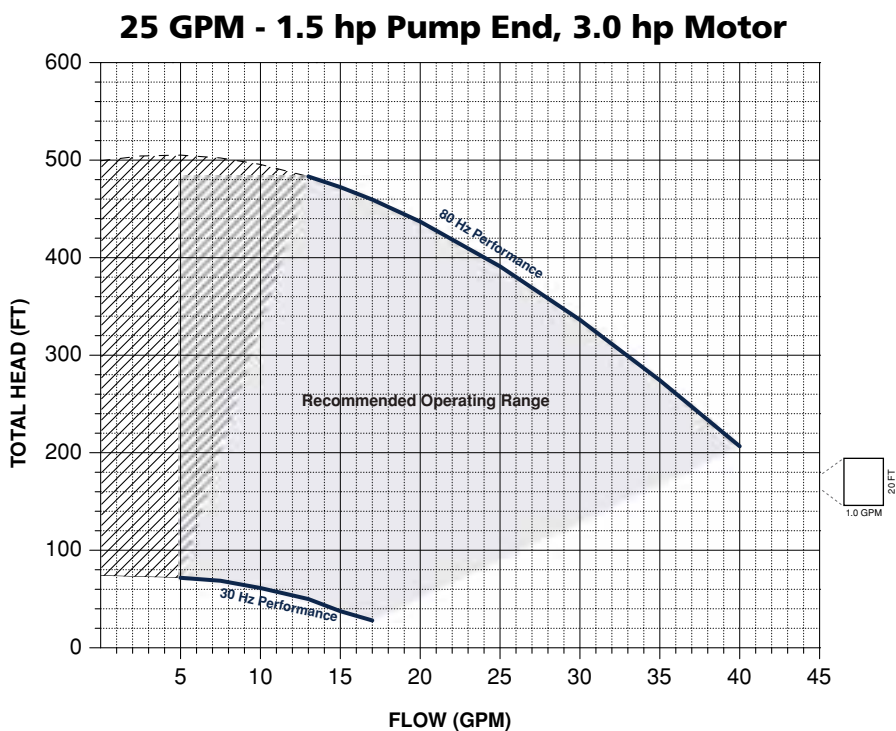
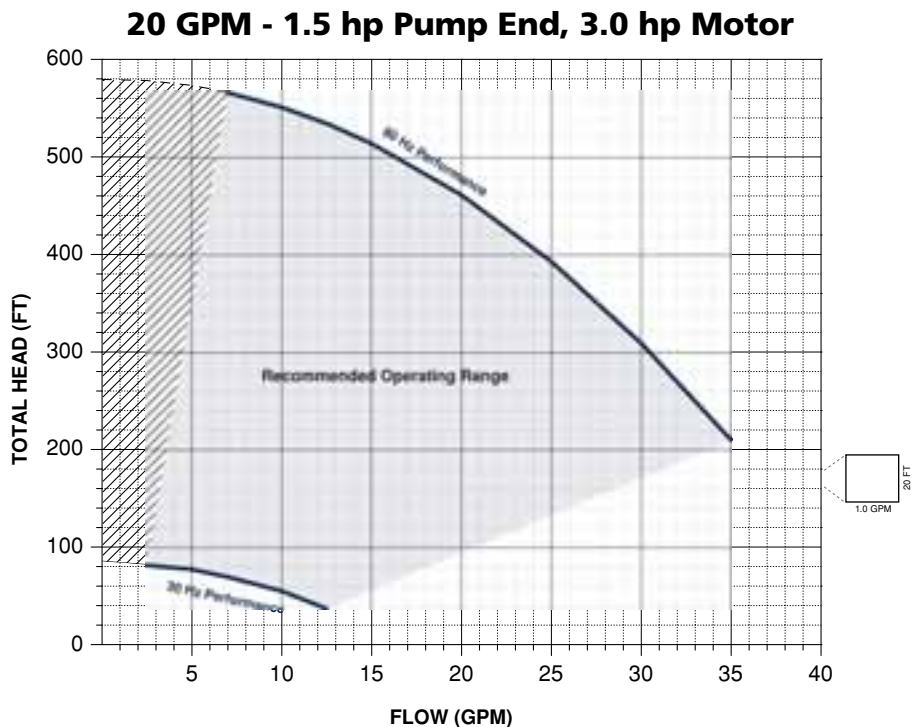
### SubDrive150 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

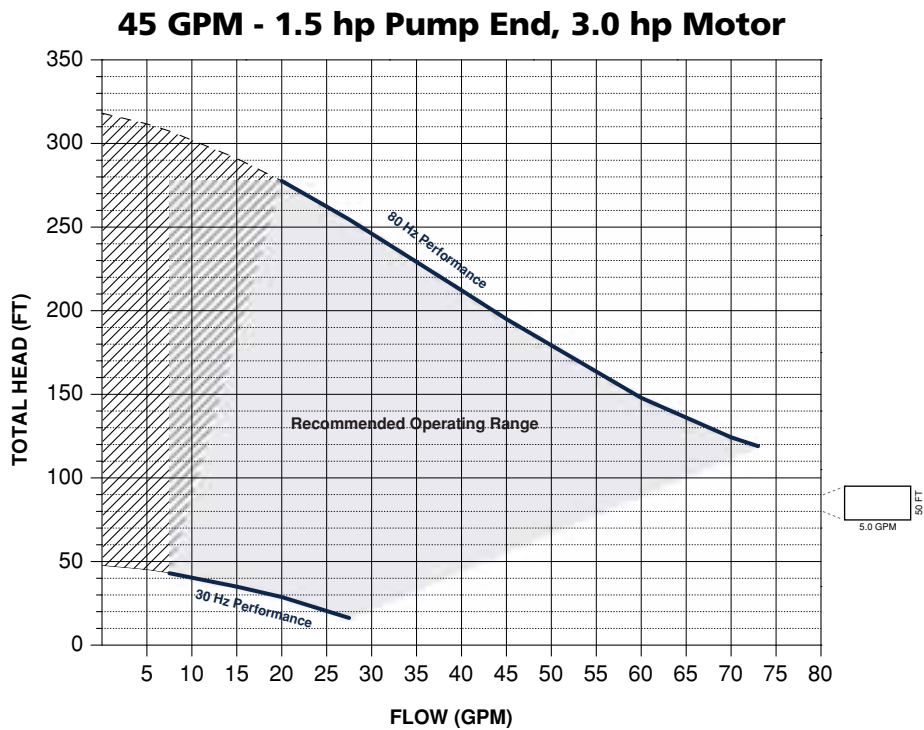
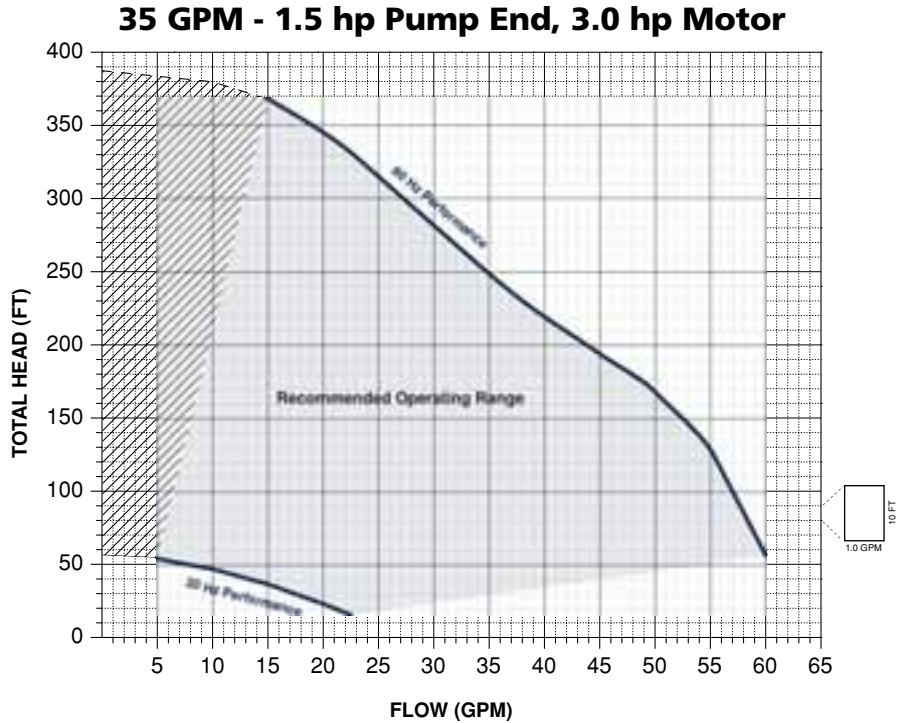
### SubDrive150 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

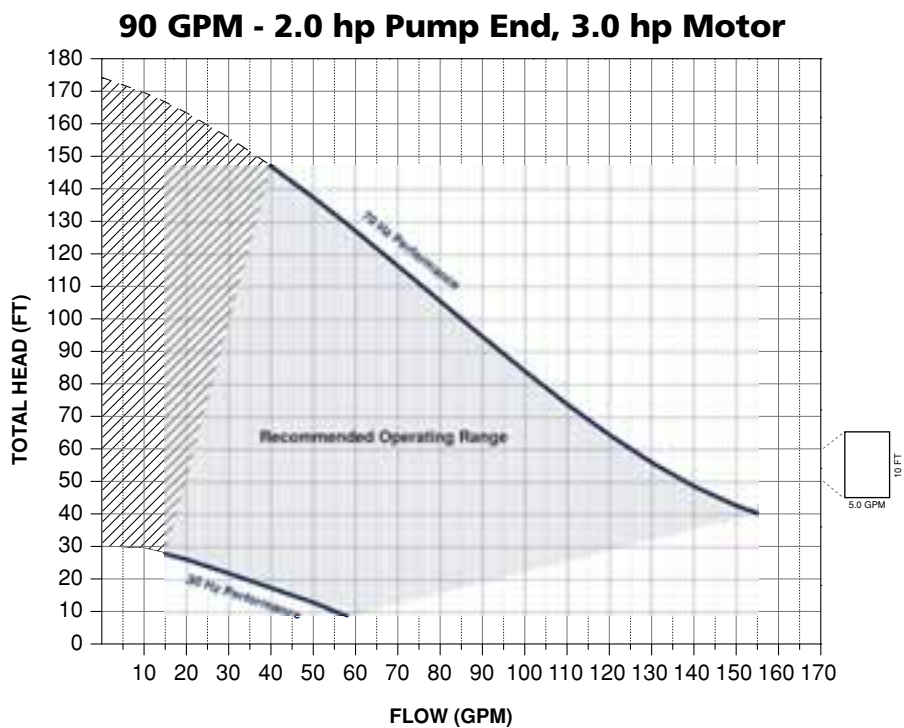
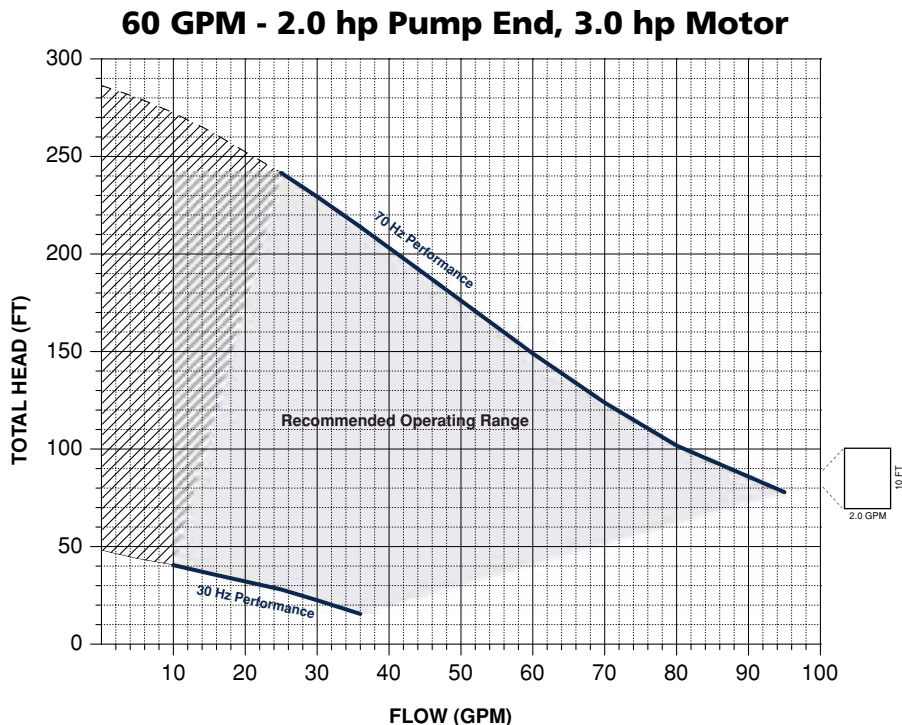
### SubDrive150 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

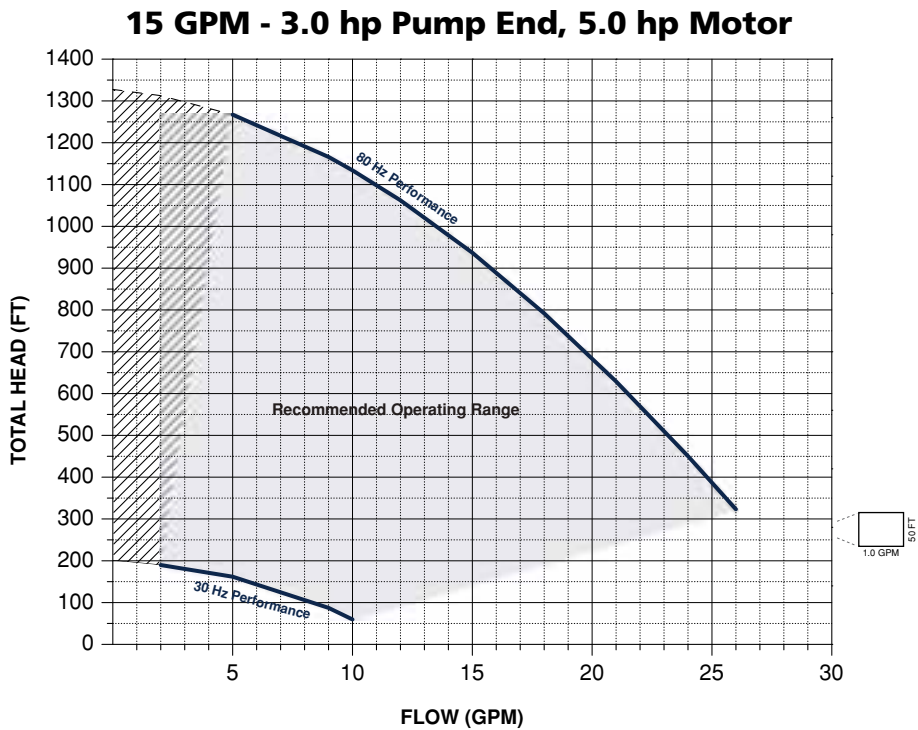
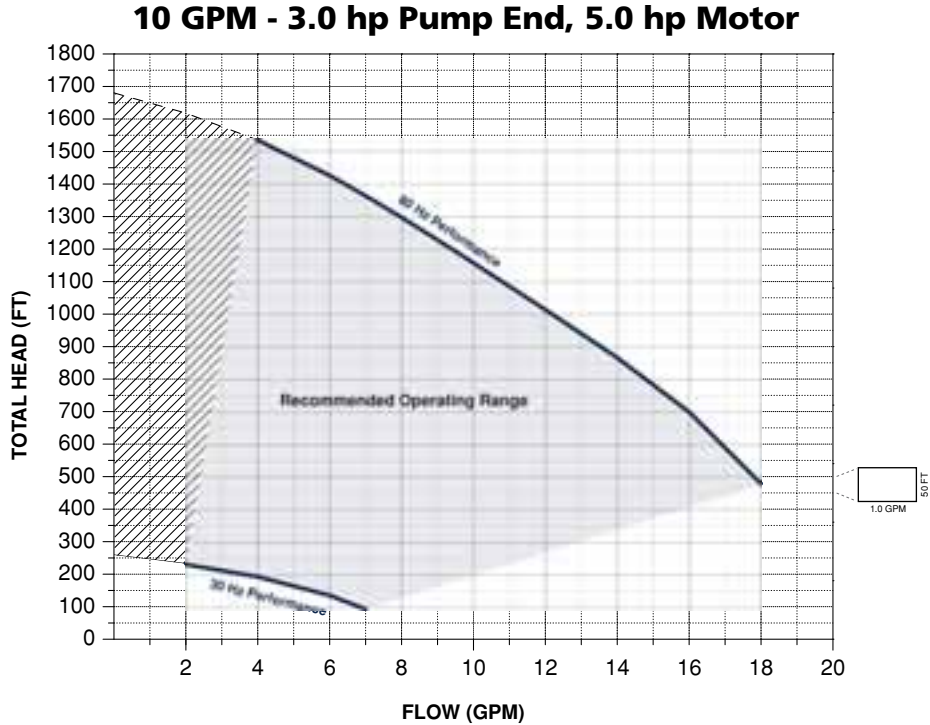
### SubDrive150 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

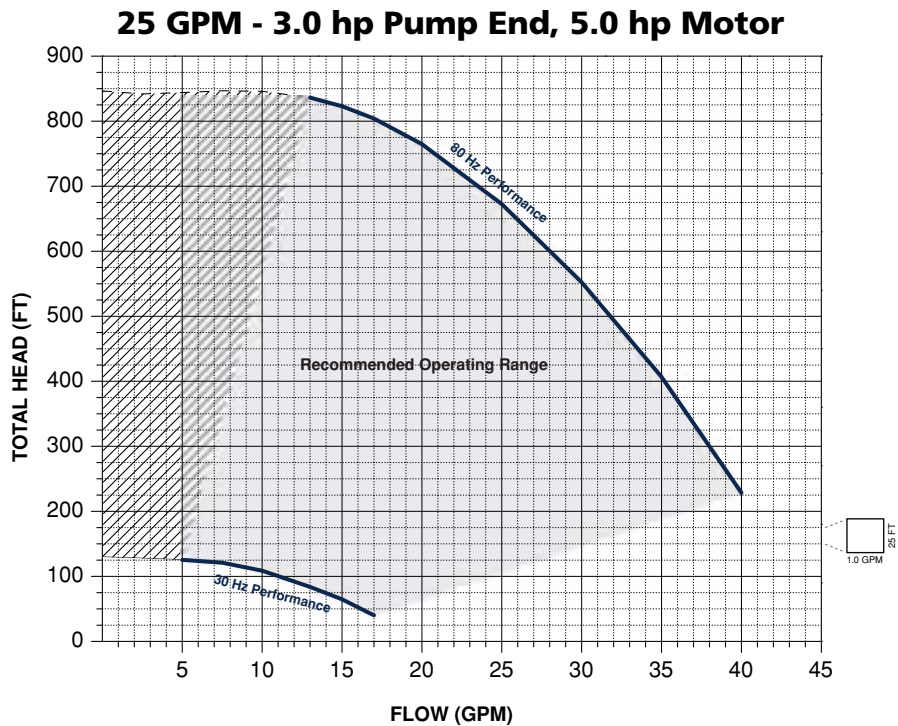
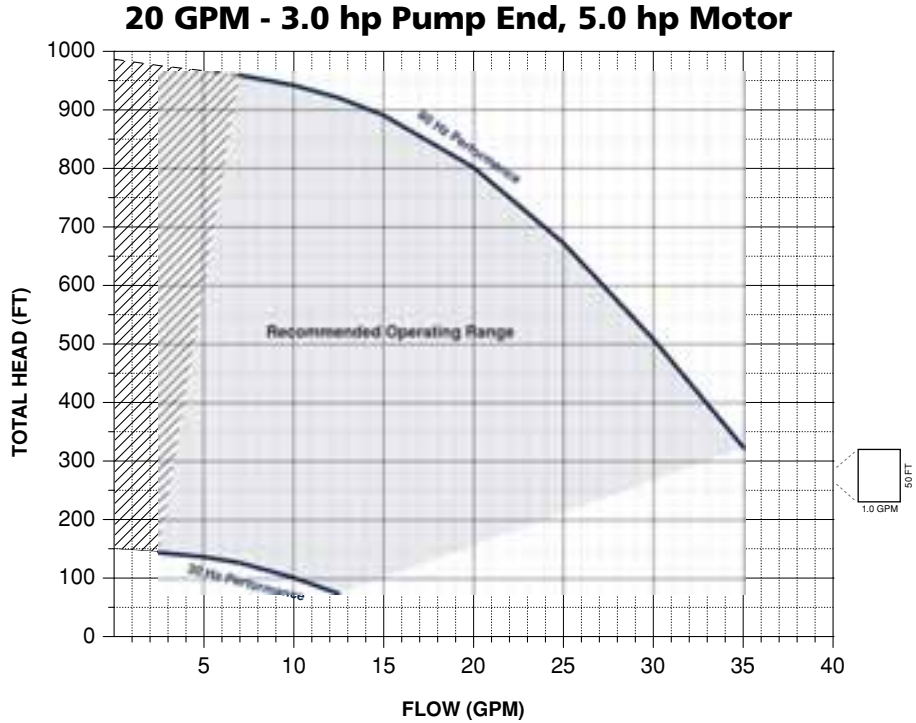
### SubDrive300 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

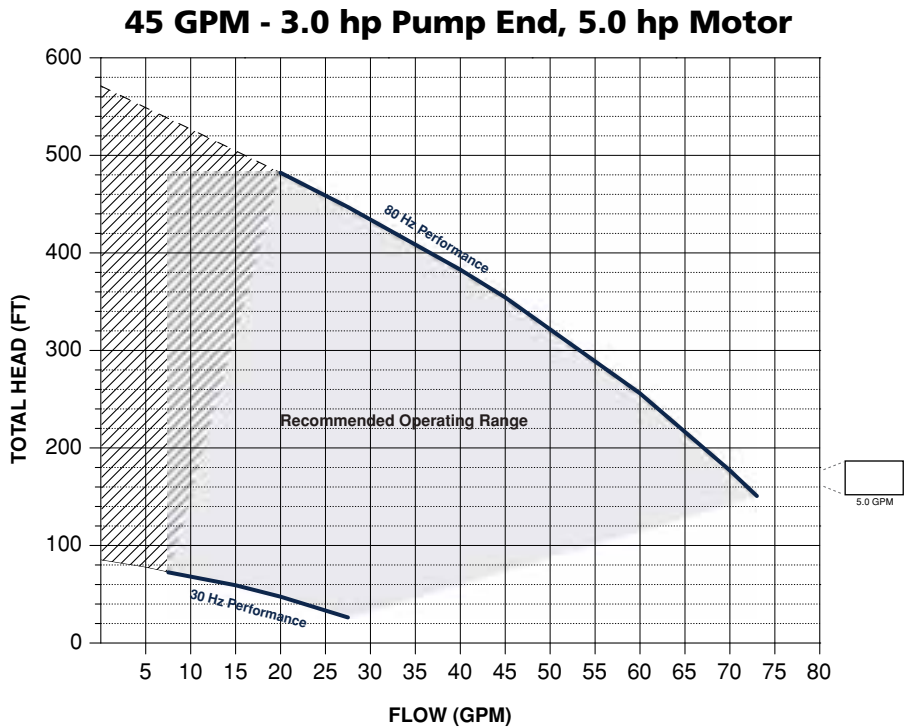
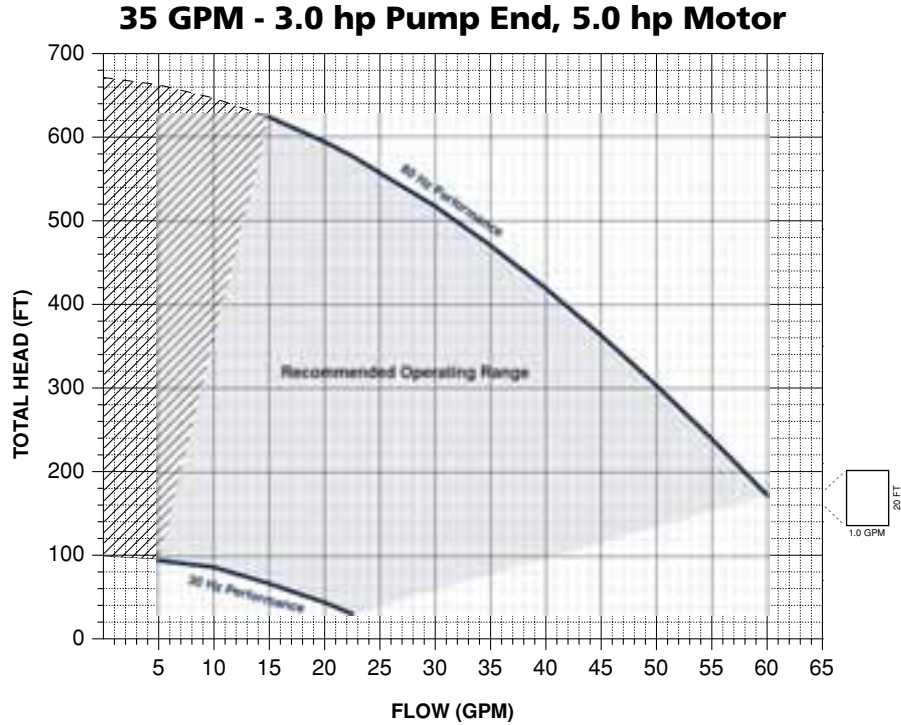
### SubDrive300 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

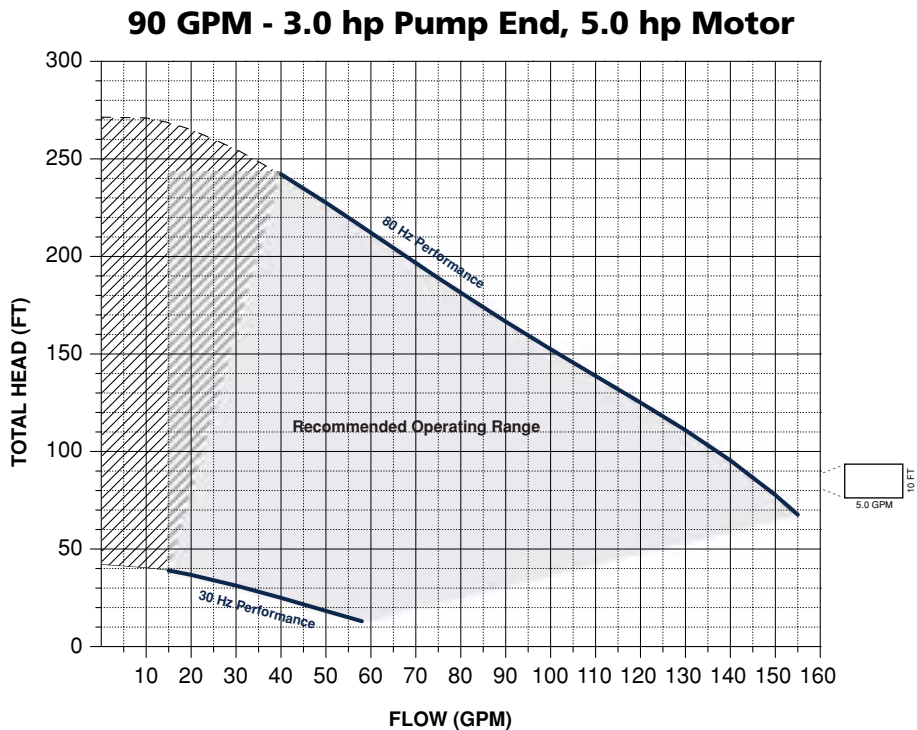
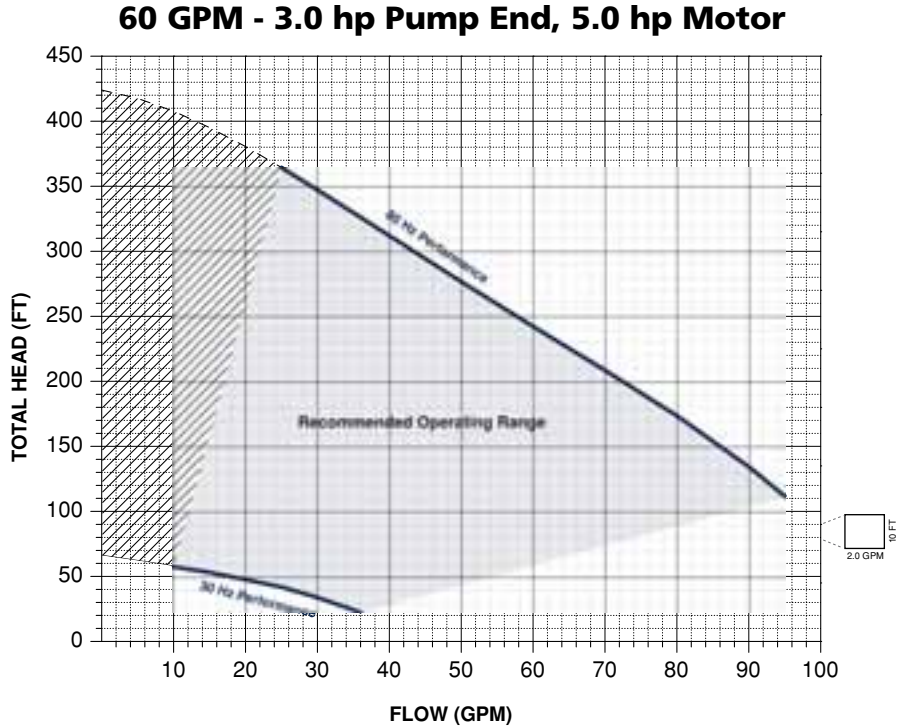
### SubDrive300 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.

## Constant Pressure Drives

### SubDrive300 Performance



**Note:** Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is in some installations an 80 Hz speed may not be attained.



## Constant Pressure Drives

### SubDrive HPX



#### Applications:

SubDrive HPX facilitates constant pressure, pressure cycling, flow control, switch control and tank level control.

The SubDrive HPX offers a complete system for single-phase applications requiring 5 to 30 hp and three-phase applications requiring 5 to 200 hp, coupled with a Franklin Electric pump and motor. The graphic display terminal allows installers to easily transition through menus, minimizing programming time. The Franklin Electric SubDrive HPX is ideal for a variety of surface and submersible pump applications.

#### Features:

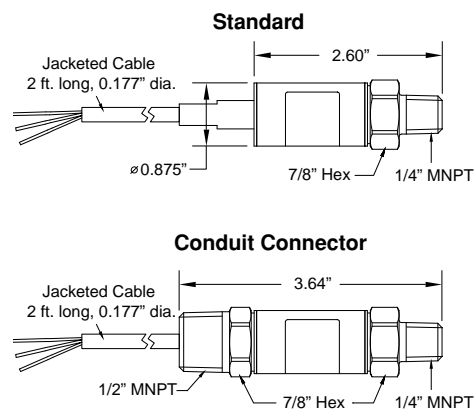
- UL, CE and CUL listed, C-TICK
- Easy installation
- Quick setup
- Push and turn selector
- Available in NEMA 0 and NEMA 1
- Graphic display terminal
- Optional surge arrestor on input power
- Pressure transducer
- Optional conduit kit
- Easy access terminals
- Optional replacement fan kit
- Optional output load reactors
- Optional input line reactors
- Can be placed in enclosure

#### Drive Specifications

Drive Specifications	
<b>Input From Power Source</b>	
Voltage	200 V - 575 V 3-phase; 230 V 1-phase
Frequency	50/60 Hz
Max Amps (RMS)	SubDrive HPX Specific
<b>Output To Motor</b>	
Voltage	Adjusts with frequency
Frequency	Variable (up to 60 Hz)
Max Amps (RMS)	SubDrive HPX Specific
<b>Pressure Setting</b>	
Factory Preset	Application Specific/SubDrive HPX Settings
<b>Operating Conditions</b>	
Operating Temperature	+14 °F to +122 °F (-10 °C to +50 °C)
Storage Temperature	-13 °F to +158 °F (-25 °C to +70 °C)
Relative Humidity	5% - 95% Noncondensating
<b>Controller Size</b>	
NEMA 0	Refer to operator manual
NEMA 1	Refer to operator manual
<b>For Use With</b>	
Pump Rating	Match to motor rated hp
FE Motor Rating	3-phase motor

Surge Arrestors		
Motor Type	Required per Motor	Part Number
Three-phase	1	155 440 902

Three-phase surge arrestor number 155 440 902 can be used on supply voltage systems up to 650 Volts to ground.



Available for 60 Hz only.

Pressure Transducer		
Figure	PSI	Part Number
Standard	100	225653901
	150	225653902
	200	225653903
	250	225653904
Conduit Connector (60 Hz only)	100	225653905
	150	225653906
	200	225653907
	250	225653908

Please contact your local distributor for availability of transducers.

**CAUTION:** Adhere to the safety guidelines (maximum pressure rating) of the pressure tanks in the system, while making sure to install the tank and sensor per applicable codes and also including a pressure relief valve.

## Constant Pressure Drives

### SubDrive HPX

#### Ordering Information

Volt (Hz)	Output Amps	Model Number	Conduit Kit	Controller Dimensions (in/cm)	Shipping Weight
200 (60 Hz)	27.5	588 102 0275	225937903	6.9 x 8.3 x 11.6 in / 17.5 x 21 x 29.5 cm	12 lbs / 5 kgs
	33	588 102 0330	225937904	11.6 x 8.3 x 8.4 in / 29.5 x 21 x 21 cm	15 lbs / 7 kgs
	54	588 102 0540	225937905	11.6 x 8.3 x 8.4 in / 29.5 x 21 x 21 cm	15 lbs / 7 kgs
	66	588 102 0660	225937905	15.8 x 9.1 x 9.3 in / 40 x 23 x 23.6 cm	19 lbs / 9 kgs
	75	588 102 0750	225937906	16.5 x 9.5 x 10.2 in / 42 x 24 x 25.9 cm	42 lbs / 19 kgs
	88	588 102 1200	225937917	21.7 x 12.6 x 11.4 in / 55 x 32 x 26.9 cm	86 lbs / 39 kgs
	120	588 102 1200	225937917	21.7 x 12.6 x 11.4 in / 55 x 32 x 26.9 cm	86 lbs / 39 kgs
220 (50 Hz)	17.5	588 102 0175	225937902	26 x 13.8 x 21 cm	6 kg / 12 lbs
	27.5	588 102 0275	225937903	17.5 x 21 x 29.5 cm	5 kg / 12 lbs
	33	588 102 0330	225937904	29.5 x 21 x 21 cm	7 kg / 15 lbs
	54	588 102 0540	225937905	40 x 23 x 23.6 cm	9 kg / 20 lbs
	66	588 102 0660	225937905	40 x 23 x 23.6 cm	9 kg / 20 lbs
	75	588 102 0750	225937906	42 x 24 x 25.9 cm	19 kg / 42 lbs
	88	588 102 0880	225937906	42 x 24 x 25.9 cm	19 kg / 42 lbs
230 (60 Hz)	27.5	588 102 0275	225937903	6.9 x 8.3 x 11.6 in / 17.5 x 21 x 29.5 cm	12 lbs / 5 kgs
	33	588 102 0330	225937904	11.6 x 8.3 x 8.4 in / 29.5 x 21 x 21 cm	16 lbs / 7 kgs
	54	588 102 0540	225937905	11.6 x 8.3 x 8.4 in / 29.5 x 21 x 21 cm	20 lbs / 9 kgs
	66	588 102 0660	225937905	15.8 x 9.1 x 9.3 in / 40 x 23 x 23.6 cm	20 lbs / 9 kgs
	75	588 102 0750	225937906	16.5 x 9.5 x 10.2 in / 42 x 24 x 25.9 cm	42 lbs / 19 kgs
	120	588 102 1200	225937917	21.7 x 12.6 x 11.4 in / 55 x 32 x 26.9 cm	86 lbs / 39 kgs
	380 (50 Hz)	10.5	588 104 0105	225937902	26 x 13.8 x 21 cm
14.3		588 104 0143	225937903	17.5 x 21 x 29.5 cm	5 kg / 12 lbs
17.6		588 104 0176	225937903	17.5 x 21 x 29.5 cm	5 kg / 12 lbs
27.7		588 104 0277	225937904	29.5 x 21 x 21 cm	7 kg / 15 lbs
33		588 104 0330	225937905	40 x 23 x 23.6 cm	9 kg / 20 lbs
41		588 104 0410	225937905	40 x 23 x 23.6 cm	9 kg / 20 lbs
48		588 104 0480	225937906	42 x 24 x 25.9 cm	19 kg / 42 lbs
66		588 104 0660	225937907	55 x 32 x 26.9 cm	39 kg / 86 lbs
79		588 104 0790	225937907	63.3 x 32 x 31.3 cm	44 kg / 97 lbs
94		588 104 0940	225937908	63.3 x 32 x 31.3 cm	44 kg / 97 lbs
116		588 104 1160	225937908	63.3 x 32 x 31.3 cm	44 kg / 97 lbs
160		588 104 1600	225937908	63.3 x 32 x 31.3 cm	44 kg / 97 lbs
215		588 104 2150	225937909	91.9 x 32 x 24.9 cm	74 kg / 163 lbs
259		588 104 2590	225937910	102.1 x 35.9 x 29.7 cm	80 kg / 176 lbs
314		588 104 3140	225937911	118.4 x 34 x 28.4 cm	110 kg / 243 lbs
460	7.6	588 104 0105	225937902	10.2 x 5.4 x 8.3 in / 26 x 13.8 x 21 cm	12 lbs / 6 kgs
	11	588 104 0143	225937903	6.9 x 8.3 x 11.6 in / 17.5 x 21 x 29.5 cm	12 lbs / 5 kgs
	14	588 104 0176	225937903	6.9 x 8.3 x 11.6 in / 17.5 x 21 x 29.5 cm	12 lbs / 5 kgs
	21	588 104 0277	225937904	11.6 x 8.3 x 8.4 in / 29.5 x 21 x 21 cm	15 lbs / 7 kgs
	27	588 104 0330	225937905	15.8 x 9.1 x 9.3 in / 40 x 23 x 23.6 cm	20 lbs / 9 kgs
	34	588 104 0410	225937905	15.8 x 9.1 x 9.3 in / 40 x 23 x 23.6 cm	20 lbs / 9 kgs
	40	588 104 0480	225937906	16.5 x 9.5 x 10.2 in / 42 x 24 x 25.9 cm	42 lbs / 19 kgs
	52	588 104 0660	225937907	21.7 x 12.6 x 11.4 in / 55 x 32 x 26.9 cm	86 lbs / 39 kgs
	65	588 104 0790	225937907	21.7 x 12.6 x 11.4 in / 55 x 32 x 26.9 cm	86 lbs / 39 kgs
	77	588 104 0940	225937908	24.9 x 12.6 x 12.3 in / 63.3 x 32 x 31.3 cm	97 lbs / 44 kgs
	96	588 104 1160	225937908	24.9 x 12.6 x 12.3 in / 63.3 x 32 x 31.3 cm	97 lbs / 44 kgs
	124	588 104 1600	225937908	24.9 x 12.6 x 12.3 in / 63.3 x 32 x 31.3 cm	97 lbs / 44 kgs
	179	588 104 1790	225937909	24.9 x 12.6 x 12.3 in / 63.3 x 32 x 31.3 cm	132 lbs / 60 kgs
	215	588 104 2150	225937909	36.2 x 12.6 x 9.8 in / 91.9 x 32 x 24.9 cm	163 lbs / 74 kgs
	259	588 104 2590	225937910	40.2 x 14.2 x 11.7 in / 102.1 x 35.9 x 29.7 cm	176 lbs / 80 kgs
	314	588 104 3140	225937911	46.6 x 13.4 x 11.2 in / 118.4 x 34 x 28.4 cm	243 lbs / 110 kgs

Continued on next page...

# Motors, Drives, Controls & Protection

## Constant Pressure Drives

### SubDrive HPX

#### Ordering Information

Volt (Hz)	Output Amps	Model Number	Conduit Kit	Controller Dimensions (in/cm)	Shipping Weight
575 (60 Hz)	9	588 105 0090	225937906	9.5 x 16.5 x 10.2 in / 24 x 42 x 23.6 cm	66 lbs / 30 kgs
	11	588 105 0110	225937906	9.5 x 16.5 x 10.2 in / 24 x 42 x 23.6 cm	66 lbs / 30 kgs
	17	588 105 0170	225937906	9.5 x 16.5 x 10.2 in / 24 x 42 x 23.6 cm	66 lbs / 30 kgs
	22	588 105 0220	225937906	9.5 x 16.5 x 10.2 in / 24 x 42 x 23.6 cm	66 lbs / 30 kgs
	27	588 105 0270	225937906	9.5 x 16.5 x 10.2 in / 24 x 42 x 23.6 cm	66 lbs / 30 kgs
	32	588 105 0320	225937906	9.5 x 16.5 x 10.2 in / 24 x 42 x 23.6 cm	66 lbs / 30 kgs
	41	588 105 0410	225937908	12.6 x 24.8 x 12.32 in / 32 x 63 x 31.3 cm	99 lbs / 45 kgs
	52	588 105 0520	225937908	12.6 x 24.8 x 12.32 in / 32 x 63 x 31.3 cm	99 lbs / 45 kgs
	62	588 105 0620	225937908	12.6 x 24.8 x 12.32 in / 32 x 63 x 31.3 cm	99 lbs / 45 kgs
	77	588 105 0770	225937908	12.6 x 24.8 x 12.32 in / 32 x 63 x 31.3 cm	99 lbs / 45 kgs
	99	588 105 0990	225937908	12.6 x 24.8 x 12.32 in / 32 x 63 x 31.3 cm	99 lbs / 45 kgs
	125	588 105 1250	225937911	13.4 x 46.6 x 11.2 in / 34 x 119 x 28.5 cm	242 lbs / 110 kgs
	150	588 105 1500	225937911	13.4 x 46.6 x 11.2 in / 34 x 119 x 28.5 cm	242 lbs / 110 kgs
	220	588 105 2200	225937911	13.4 x 46.6 x 11.2 in / 34 x 119 x 28.5 cm	242 lbs / 110 kgs
	290	588 105 2900	225937913	23.4 x 46.6 x 21.3 in / 59.5 x 119 x 54 cm	418 lbs / 190 kgs

#### Input Line Reactors

Model Number	Dimensions (L x W x D)	Weight
225930939	24 x 16.9 x 18.4 in / 60.96 x 42.88 x 46.69 cm	64 lbs / 29 kg
225930942	24 x 16.9 x 18.4 in / 60.96 x 42.88 x 46.69 cm	72 lbs / 33 kg
225930945	24 x 16.9 x 18.4 in / 60.96 x 42.88 x 46.69 cm	100 lbs / 45 kg
225930948	31 x 14.3 x 17.8 in / 78.74 x 36.35 x 45.09 cm	143 lbs / 65 kg

**Note:** Drive manufacturer mandates an input line reactor for all 125 - 200 HP 575 V submersibles.  
An input line reactor is required for all 60 Hz single-phase applications.

#### Output Load Reactors

Model Number	Dimensions (L x W x D)	Weight
225930901	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	4 lbs / 2 kg
225930902	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	4 lbs / 2 kg
225930903	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	4 lbs / 2 kg
225930904	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	3 lbs / 1 kg
225930905	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	4 lbs / 2 kg
225930906	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	4 lbs / 2 kg
225930907	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	5 lbs / 2 kg
225930908	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	4 lbs / 2 kg
225930909	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	7 lbs / 3 kg
225930910	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	8 lbs / 4 kg
225930911	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	11 lbs / 5 kg
225930912	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	13 lbs / 6 kg
225930913	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	9 lbs / 4 kg
225930914	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	10 lbs / 5 kg
225930915	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	18 lbs / 8 kg
225930916	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	9 lbs / 4 kg
225930917	8 x 8 x 6 in / 20.32 x 20.32 x 15.24 cm	12 lbs / 5 kg

## Constant Pressure Drives

### SubDrive HPX

#### Output Load Reactors Cont'd

Model Number	Dimensions (L x W x D)	Weight
225930918	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	16 lbs / 7 kg
225930919	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	11 lbs / 5 kg
225930920	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	14 lbs / 6 kg
225930921	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	20 lbs / 9 kg
225930922	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	14 lbs / 6 kg
225930923	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	16 lbs / 7 kg
225930924	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	30 lbs / 14 kg
225930925	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	23 lbs / 10 kg
225930926	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	28 lbs / 13 kg
225930927	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	39 lbs / 18 kg
225930928	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	24 lbs / 11 kg
225930929	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	27 lbs / 12 kg
225930930	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	41 lbs / 19 kg
225930931	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	43 lbs / 20 kg
225930932	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	51 lbs / 23 kg
225930933	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	61 lbs / 28 kg
225930934	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	47 lbs / 21 kg
225930935	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	51 lbs / 23 kg
225930936	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	74 LS / 34 kg
225930937	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	29 lbs / 13 kg
225930938	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	62 lbs / 28 kg
225930939	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	64 lbs / 29 kg
225930940	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	42 lbs / 19 kg
225930941	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	51 lbs / 23 kg
225930942	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	72 lbs / 33 kg
225930943	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	49 lbs / 22 kg
225930944	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	67 lbs / 31 kg
225930945	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	100 lbs / 45 kg
225930946	24 x 16.88 x 18.38 in / 60.96 x 42.88 x 46.69 cm	68 lbs / 31 kg
225930947	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	106 lbs / 48 kg
225930948	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	143 lbs / 65 kg
225930949	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	110 lbs / 50 kg
225930950	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	125 lbs / 57 kg
225930951	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	190 lbs / 86 kg
225930952	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	100 lbs / 45 kg
225930953	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	155 lbs / 70 kg
225930954	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	200 lbs / 91 kg
225930955	31 x 14.31 x 17.75 in / 78.74 x 36.35 x 45.09 cm	120 lbs / 55 kg
225930956	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	180 lbs / 82 kg
225930957	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	290 lbs / 132 kg
225930958	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	160 lbs / 73 kg
225930959	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	250 lbs / 114 kg
225930960	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	290 lbs / 132 kg
225930961	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	200 lbs / 91 kg
225930962	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	310 lbs / 141 kg
225930963	40 x 23.31 x 21.75 in / 101.6 x 59.21 x 55.25 cm	430 lbs / 195 kg

## Constant Pressure Controllers

### SubDrive Accessories



#### SubDrive Duplex Alternator

The SubDrive Alternator allows a water system to alternate between two parallel pumps controlled by separate SubDrives or MonoDrives. The user-selected switching interval balances the run time of each pump system to evenly disperse the workload. In addition, when demand exceeds the capacity of one pumping system, the other system comes online to supplement production. The SubDrive Alternator can be used with any SubDrive or MonoDrive controller.

**Franklin Part Number: 585 001 2000**

Input (From Power Source)	Voltage	115 VAC
	Frequency	60 Hz
Pressure Setting*	Factory Preset	50 psi
	Adjustment Range	25-80 psi
Approximate Controller Size (NEMA 4)	Outer Dimensions	5.8 x 5.8 x 3.6" (14.7 x 14.7 x 9.1 cm)
	Weight	1.3 lbs (0.59 kg)

\* Pressure sensors must be set at least 3 psi apart.



#### SubDrive/MonoDrive/HPX Fan Kits

Installers can remove the fan and make an attempt to clean the fan by removing any particles that may restrict movement. In applications where the fan cannot be cleaned or freed from particles, or is damaged or malfunctioning, the fan replacement kit is an easy and inexpensive fix.

#### NEMA 4

Controller	Kit Part Number
MonoDrive SubDrive75	225 635 901
MonoDriveXT SubDrive100 SubDrive150	225 635 902
SubDrive300	External cooling fans 225 635 903
	Internal stirring fan 225 635 904

#### NEMA 3R

Controller	Kit Part Number
SubDrive2W	225 635 910

#### HPX NEMA 0 and NEMA 1

Controller	Kit Part Number
SubDrive HPX	225935904
	225935905
	225935906
	225935907
	225935908
	225935909
	225935910
	225935911
	225935912
	225935913
225935915	
225935919	

#### NEMA 1

Controller	Size	Kit Part Number
SubDrive75 and MonoDrive	3.15 in. (80 mm)*	225 635 905
SubDrive75 and MonoDrive	3.62 in. (92 mm)*	225 635 908
SubDrive100/150 and MonoDriveXT	3.15 in. (80 mm)*	225 635 907
SubDrive100/150 and MonoDriveXT	3.62 in. (92 mm)*	225 635 909

\* Outside measurement of fan

## Constant Pressure Controllers

### SubDrive Accessories



#### Auxiliary Relay Communications Board

The auxiliary relay communications board is available for use with the SubDrive/MonoDrive NEMA 4 (excluding SubDrive300) constant pressure controllers. The auxiliary relay board provides run-indication relay contacts. The relays can be used to communicate the state of the drive (running or idle) to auxiliary equipment (water treatment) or to utilize multiple sensors (Tank Drawdown Kit).

**Franklin Part Number: 225755901**

#### Tank Drawdown Kit

The tank drawdown kit is available for use with the SubDrive/MonoDrive NEMA 4 and the SubDrive300 with an auxiliary relay board installed utilizing the relay contacts. The kit is intended to allow the SubDrive system to utilize water from a tank during low flow applications.

**Franklin Part Number: 22577901**

#### Heatsink Cover Kit

The heatsink cover kit is available for use with the SubDrive/MonoDrive NEMA 4 constant pressure controllers. The kit is a grill to protect the top of the unit's heat sink from intrusion from animals or debris when mounted outside.

**Franklin Part Number: 225805901**

#### Direct Burial Cable

The direct burial cable kits are for use with the SubDrive/MonoDrive constant pressure controllers as a connection to the pressure sensors. The direct burial cable can be used for applications that require the sensor cable to be buried and extends the allowable length of the pressure sensor connection from 100 ft (30.5 m) to 300 ft (91.5 m).

Description	Franklin Part Number
Direct Burial Kit - 10 ft (3 m)	225800901
Direct Burial Kit - 30 ft (9 m)	225800902
Direct Burial Kit - 100 ft (30.5 m)	225800903

#### SD2W Air Filter Kit

The Air Filter Kit is available for use with the SubDrive2W NEMA 3R. The kit is designed to allow the SubDrive2W system enclosure to be equipped with air filters that prevent contaminants or debris from entering the electronics.

# References

## Friction Loss

PVC Schedule 80 IPS Plastic Pipe in Feet per 100 feet of pipe

Pipe Size	1/2"		3/4"		1"		1-1/4"		1.5"		2"		2.5"		3"		4"	
	GPM	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	Head Loss	Vel (ft/s)	
1	1.87	1.37	0.42	0.74	0.12	0.45	0.03	0.25	0.01	0.18								
2	6.74	2.74	1.52	1.48	0.44	0.89	0.11	0.50	0.05	0.36	0.01	0.22						
3	14.29	4.11	3.21	2.23	0.93	1.34	0.23	0.75	0.10	0.54	0.03	0.33	0.01	0.23				
4	24.34	5.48	5.47	2.97	1.59	1.78	0.39	1.00	0.18	0.73	0.05	0.43	0.02	0.30				
5	36.79	6.85	8.27	3.71	2.40	2.23	0.59	1.25	0.27	0.91	0.08	0.54	0.03	0.38	0.01	0.24		
6	51.57	8.22	11.59	4.45	3.36	2.68	0.82	1.50	0.38	1.09	0.11	0.65	0.04	0.45	0.02	0.29		
7	68.61	9.59	15.43	5.19	4.47	3.12	1.09	1.75	0.50	1.27	0.14	0.76	0.06	0.53	0.02	0.34		
8	87.86	10.96	19.75	5.94	5.73	3.57	1.40	2.00	0.64	1.45	0.18	0.87	0.08	0.61	0.03	0.39		
9	109.27	12.33	24.57	6.68	7.12	4.01	1.74	2.25	0.80	1.63	0.23	0.98	0.01	0.68	0.03	0.44		
10	132.82	13.70	29.86	7.42	8.66	4.46	2.12	2.50	0.97	1.82	0.28	1.09	0.12	0.76	0.04	0.49		
11			35.63	8.16	10.33	4.91	2.53	2.75	1.16	2.00	0.33	1.20	0.14	0.83	0.05	0.53		
12			41.86	8.90	12.14	5.35	2.97	3.00	1.36	2.18	0.39	1.30	0.16	0.91	0.06	0.58		
14			55.69	10.39	16.15	6.24	3.95	3.50	1.81	2.54	0.52	1.52	0.22	1.06	0.07	0.68		
16			71.31	11.87	20.68	7.14	5.06	4.00	2.32	2.90	0.67	1.74	0.28	1.21	0.09	0.78		
18			88.69	13.36	25.72	8.03	6.30	4.50	2.89	3.27	0.83	1.96	0.34	1.36	0.12	0.87		
20			107.80	14.84	31.26	8.92	7.65	5.00	3.51	3.63	1.01	2.17	0.42	1.51	0.14	0.97	0.04	0.56
22					37.29	9.81	9.13	5.50	4.19	3.99	1.20	2.39	0.50	1.67	0.17	1.07	0.04	0.61
24					43.81	10.70	10.72	6.00	4.92	4.36	1.41	2.61	0.59	1.82	0.20	1.17	0.05	0.67
26					50.81	11.60	12.44	6.50	5.71	4.72	1.64	2.83	0.68	1.97	0.23	1.26	0.06	0.73
28					58.29	12.49	14.27	7.00	6.55	5.08	1.88	3.04	0.78	2.12	0.26	1.36	0.07	0.78
30					66.23	13.38	16.21	7.50	7.44	5.45	2.13	3.26	0.89	2.27	0.30	1.46	0.08	0.84
35							21.57	8.75	9.89	6.35	2.84	3.80	1.18	2.65	0.40	1.70	0.10	0.98
40							27.62	10.00	12.67	7.26	3.63	4.35	1.51	3.03	0.51	1.94	0.13	1.12
45							34.36	11.25	15.76	8.17	4.52	4.89	1.88	3.41	0.64	2.19	0.17	1.26
50	0.03	0.62					41.76	12.51	19.16	9.08	5.49	5.44	2.28	3.78	0.77	2.43	0.20	1.40
55	0.03	0.68					49.82	13.76	22.85	9.99	6.55	5.98	2.72	4.16	0.92	2.67	0.24	1.53
60	0.04	0.74					58.53	15.01	26.85	10.89	7.70	6.52	3.20	4.54	1.09	2.91	0.28	1.67
65	0.04	0.80							31.14	11.80	8.93	7.07	3.71	4.92	1.26	3.16	0.33	1.81
70	0.05	0.86							35.72	12.71	10.24	7.61	4.25	5.30	1.45	3.40	0.38	1.95
75	0.06	0.92							40.59	13.62	11.64	8.15	4.83	5.68	1.64	3.64	0.43	2.09
80	0.07	0.98							45.74	14.52	13.12	8.70	5.45	6.06	1.85	3.89	0.48	2.23
85	0.07	1.05							51.18	15.43	14.68	9.24	6.09	6.43	2.07	4.13	0.54	2.37
90	0.08	1.11							56.89	16.34	16.32	9.78	6.77	6.81	2.30	4.37	0.60	2.51
95	0.09	1.17							62.88	17.25	18.03	10.33	7.49	7.19	2.54	4.61	0.66	2.65
100	0.01	1.23							69.15	18.16	19.83	10.87	8.23	7.57	2.80	4.86	0.73	2.79
125	0.15	1.54									29.98	13.59	12.45	9.46	4.23	6.07	1.01	3.49
150	0.21	1.85									42.02	16.31	17.45	11.35	5.93	7.29	1.54	4.19
175	0.28	2.15											23.21	13.25	7.89	8.50	2.05	4.88

Note: Suction velocities should not exceed 8 feet per second. Calculated using Williams and Hazen formula using C = 150.

# Friction Loss

## Water in Feet per 100 feet of Steel Pipe

GPM	Pipe Size 1/2"			Pipe Size 3/4"			Pipe Size 1"			Pipe Size 1-1/4"			Pipe Size 1-1/2"		
	Actual size 0.622			Actual size 0.824			Actual size 1.049			Actual size 1.38			Actual size 1.61		
	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)
1	2.099	1.056	0.017	0.534	0.602	0.006	0.165	0.371	0.002	0.043	0.215	0.001	0.021	0.158	0.000
2	7.577	2.112	0.069	1.929	1.203	0.023	0.596	0.742	0.009	0.157	0.429	0.003	0.074	0.315	0.002
3	16.056	3.168	0.156	4.087	1.805	0.051	1.263	1.114	0.019	0.332	0.644	0.006	0.157	0.473	0.003
4	27.354	4.223	0.277	6.962	2.407	0.090	2.151	1.485	0.034	0.566	0.858	0.011	0.268	0.630	0.006
5	41.352	5.279	0.433	10.525	3.008	0.141	3.252	1.856	0.054	0.856	1.073	0.018	0.404	0.788	0.001
6	57.961	6.335	0.624	14.753	3.610	0.203	4.558	2.227	0.077	1.200	1.287	0.026	0.567	0.946	0.014
7	77.112	7.391	0.849	19.628	4.211	0.276	6.064	2.599	0.105	1.597	1.502	0.035	0.754	1.103	0.019
8	98.747	8.447	1.109	25.134	4.813	0.360	7.765	2.970	0.137	2.045	1.716	0.046	0.966	1.261	0.025
9	122.817	9.503	1.404	31.261	5.415	0.456	9.657	3.341	0.173	2.543	1.931	0.058	1.201	1.418	0.031
10	149.280	10.559	1.733	37.997	6.016	0.563	11.738	3.712	0.214	3.091	2.145	0.072	1.460	1.576	0.039
11	178.099	11.615	2.097	45.332	6.618	0.681	14.004	4.083	0.259	3.688	2.360	0.087	1.742	1.734	0.047
12	209.241	12.670	2.495	53.259	7.220	0.810	16.453	4.455	0.308	4.333	2.574	0.103	2.047	1.891	0.056
13	242.675	13.726	2.928	61.769	7.821	0.951	19.082	4.826	0.362	5.025	2.789	0.121	2.374	2.049	0.065
14	278.376	14.782	3.396	70.856	8.423	1.103	21.889	5.197	0.420	5.764	3.003	0.140	2.723	2.206	0.076
15	316.317	15.838	3.899	80.513	9.025	1.266	24.873	5.568	0.482	6.550	3.218	0.161	3.094	2.364	0.087
16				90.735	9.626	1.440	28.031	5.940	0.548	7.381	3.432	0.183	3.487	2.521	0.099
17				101.517	10.228	1.626	31.362	6.311	0.619	8.258	3.647	0.207	3.901	2.679	0.112
18				112.852	10.829	1.823	34.863	6.682	0.694	9.181	3.861	0.232	4.337	2.837	0.125
19				124.738	11.431	2.031	38.535	7.053	0.773	10.148	4.076	0.258	4.793	2.994	0.139
20				137.168	12.033	2.250	42.375	7.425	0.857	11.159	4.290	0.286	5.271	3.152	0.154
21				150.140	12.634	2.481	46.383	7.796	0.945	12.214	4.505	0.315	5.769	3.309	0.170
22				163.649	13.236	2.723	50.556	8.167	1.037	13.313	4.719	0.346	6.288	3.467	0.187
23				177.691	13.838	2.976	54.894	8.538	1.133	14.455	4.934	0.378	6.828	3.625	0.204
24				192.263	14.439	3.241	59.396	8.909	1.234	15.641	5.148	0.412	7.388	3.782	0.222
25				207.363	15.041	3.516	64.061	9.281	1.339	16.869	5.363	0.447	7.968	3.940	0.241
26				222.985	15.643	3.803	68.887	9.652	1.448	18.140	5.577	0.483	8.569	4.097	0.261
27				239.128	16.244	4.101	73.874	10.023	1.561	19.453	5.792	0.521	9.189	4.255	0.281
28				255.789	16.846	4.411	79.021	10.394	1.679	20.809	6.006	0.561	9.829	4.413	0.303
29				272.965	17.448	4.731	84.327	10.766	1.801	22.206	6.221	0.601	10.489	4.570	0.325
30				290.652	18.049	5.063	89.791	11.137	1.928	23.645	6.435	0.644	11.169	4.728	0.347
32							101.191	11.879	2.193	26.647	6.864	0.732	12.587	5.043	0.395
34							113.215	12.622	2.476	29.813	7.293	0.827	14.082	5.358	0.446
36							125.857	13.364	2.776	33.142	7.722	0.927	15.655	5.673	0.500
38							139.112	14.107	3.093	36.633	8.151	1.033	17.304	5.989	0.557
40							152.975	14.849	3.427	40.283	8.580	1.144	19.028	6.304	0.618
42							167.442	15.592	3.778	44.093	9.009	1.261	20.827	6.619	0.681
44							182.507	16.334	4.147	48.060	9.438	1.384	22.701	6.934	0.747
46							198.168	17.076	4.532	52.184	9.867	1.513	24.649	7.249	0.817
48							214.420	17.819	4.935	56.463	10.296	1.648	26.671	7.564	0.889
50							231.259	18.561	5.355	60.898	10.725	1.788	28.765	7.880	0.965
55							275.904	20.417	6.479	72.654	11.798	2.163	34.319	8.668	1.168
60							324.147	22.274	7.711	85.358	12.870	2.574	40.319	9.456	1.390
65							375.943	24.130	9.049	98.997	13.943	3.021	46.762	10.244	1.631
70							431.249	25.986	10.495	113.561	15.015	3.504	53.641	11.032	1.891
75							490.027	27.842	12.048	129.039	16.088	4.023	60.952	11.820	2.171
80							552.241	29.698	13.708	145.422	17.160	4.577	68.691	12.607	2.470
85							617.860	31.554	15.475	162.701	18.233	5.167	76.853	13.395	2.789
90							686.852	33.410	17.349	180.869	19.305	5.793	85.435	14.183	3.127
95							759.190	35.267	19.331	199.918	20.378	6.454	94.433	14.971	3.484
100							834.846	37.123	21.419	219.840	21.450	7.151	103.843	15.759	3.860
110													123.890	17.335	4.671
120													145.553	18.911	5.559
130													168.811	20.487	6.524
140													193.645	22.063	7.566
150													220.039	23.639	8.685

Note: Suction velocities should not exceed 8 feet per second.



# References

## Friction Loss

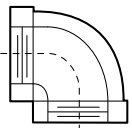
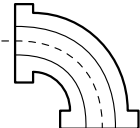
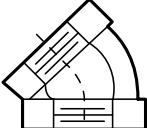
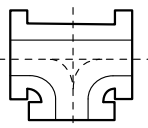

### Water in Feet per 100 feet of Steel Pipe

GPM	Pipe Size 2"			Pipe Size 2.5"			Pipe Size 3"			Pipe Size 3.5"		
	Actual size 2.067			Actual size 2.469			Actual size 3.068			Actual size 3.548		
	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)	Friction	Vel (ft/sec)	Vel Head (ft)
2	0.022	0.191	0.001									
3	0.047	0.287	0.001	0.020	0.201	0.001						
4	0.079	0.383	0.002	0.033	0.268	0.001						
5	0.120	0.478	0.004	0.051	0.335	0.002	0.018	0.217	0.001	0.009	0.162	0.000
6	0.168	0.574	0.005	0.071	0.402	0.003	0.025	0.260	0.001	0.012	0.195	0.001
7	0.224	0.670	0.007	0.094	0.469	0.003	0.033	0.304	0.001	0.016	0.227	0.001
8	0.286	0.765	0.009	0.121	0.536	0.004	0.042	0.347	0.002	0.021	0.260	0.001
9	0.356	0.861	0.012	0.150	0.603	0.006	0.052	0.391	0.002	0.026	0.292	0.001
10	0.433	0.957	0.014	0.182	0.670	0.007	0.063	0.434	0.003	0.031	0.325	0.002
11	0.516	1.052	0.017	0.218	0.737	0.008	0.076	0.477	0.004	0.037	0.357	0.002
12	0.607	1.148	0.020	0.256	0.804	0.010	0.089	0.521	0.004	0.044	0.389	0.002
13	0.704	1.244	0.024	0.296	0.871	0.012	0.103	0.564	0.005	0.051	0.422	0.003
14	0.807	1.339	0.028	0.340	0.938	0.014	0.118	0.608	0.006	0.058	0.454	0.003
15	0.917	1.435	0.032	0.386	1.005	0.016	0.134	0.651	0.007	0.066	0.487	0.004
16	1.034	1.531	0.036	0.435	1.072	0.018	0.151	0.694	0.007	0.075	0.519	0.004
17	1.157	1.626	0.041	0.487	1.139	0.020	0.169	0.738	0.008	0.083	0.552	0.005
18	1.286	1.722	0.046	0.542	1.206	0.023	0.188	0.781	0.009	0.093	0.584	0.005
19	1.421	1.818	0.051	0.599	1.273	0.025	0.208	0.825	0.011	0.103	0.617	0.006
20	1.563	1.913	0.057	0.658	1.340	0.028	0.229	0.868	0.012	0.113	0.649	0.007
21	1.711	2.009	0.063	0.720	1.407	0.031	0.250	0.911	0.013	0.123	0.681	0.007
22	1.865	2.105	0.069	0.785	1.474	0.034	0.273	0.955	0.014	0.135	0.714	0.008
23	2.025	2.200	0.075	0.853	1.541	0.037	0.296	0.998	0.015	0.146	0.746	0.009
24	2.191	2.296	0.082	0.923	1.608	0.040	0.321	1.042	0.017	0.158	0.779	0.009
25	2.363	2.391	0.089	0.995	1.675	0.044	0.346	1.085	0.018	0.171	0.811	0.010
26	2.541	2.487	0.096	1.070	1.742	0.047	0.372	1.128	0.020	0.183	0.844	0.011
27	2.724	2.583	0.104	1.148	1.809	0.051	0.399	1.172	0.021	0.197	0.876	0.012
28	2.914	2.678	0.112	1.227	1.876	0.055	0.427	1.215	0.023	0.210	0.909	0.013
29	3.110	2.774	0.120	1.310	1.943	0.059	0.455	1.259	0.025	0.224	0.941	0.014
30	3.312	2.870	0.128	1.395	2.010	0.063	0.485	1.302	0.026	0.239	0.974	0.015
32	3.732	3.061	0.146	1.572	2.144	0.071	0.546	1.389	0.030	0.269	1.038	0.017
34	4.175	3.252	0.164	1.759	2.278	0.081	0.611	1.476	0.034	0.301	1.103	0.019
36	4.642	3.444	0.184	1.955	2.412	0.090	0.679	1.562	0.038	0.335	1.168	0.021
38	5.130	3.635	0.205	2.161	2.546	0.101	0.751	1.649	0.042	0.370	1.233	0.024
40	5.642	3.826	0.228	2.376	2.680	0.112	0.826	1.736	0.047	0.407	1.298	0.026
42	6.175	4.018	0.251	2.601	2.814	0.123	0.904	1.823	0.052	0.446	1.363	0.029
44	6.731	4.209	0.275	2.835	2.948	0.135	0.985	1.910	0.057	0.486	1.428	0.032
46	7.308	4.400	0.301	3.078	3.083	0.148	1.070	1.996	0.062	0.527	1.493	0.035
48	7.908	4.592	0.328	3.331	3.217	0.161	1.158	2.083	0.067	0.571	1.558	0.038
50	8.529	4.783	0.356	3.592	3.351	0.174	1.248	2.170	0.073	0.616	1.623	0.041
55	10.175	5.261	0.430	4.286	3.686	0.211	1.490	2.387	0.089	0.734	1.785	0.050
60	11.955	5.740	0.512	5.035	4.021	0.251	1.750	2.604	0.105	0.863	1.947	0.059
65	13.865	6.218	0.601	5.840	4.356	0.295	2.030	2.821	0.124	1.001	2.109	0.069
70	15.905	6.696	0.697	6.699	4.691	0.342	2.328	3.038	0.143	1.148	2.272	0.080
75	18.072	7.174	0.800	7.612	5.026	0.393	2.646	3.255	0.165	1.304	2.434	0.092
80	20.367	7.653	0.910	8.578	5.361	0.447	2.981	3.472	0.187	1.470	2.596	0.105
85	22.787	8.131	1.028	9.598	5.696	0.504	3.336	3.689	0.212	1.644	2.758	0.118
90	25.331	8.609	1.152	10.669	6.031	0.565	3.708	3.906	0.237	1.828	2.921	0.133
95	27.999	9.088	1.284	11.793	6.366	0.630	4.099	4.123	0.264	2.021	3.083	0.148
100	30.789	9.566	1.422	12.968	6.701	0.698	4.507	4.340	0.293	2.222	3.245	0.164
110	36.733	10.523	1.721	15.472	7.371	0.845	5.377	4.774	0.354	2.651	3.570	0.198
120	43.156	11.479	2.048	18.177	8.041	1.005	6.317	5.208	0.422	3.114	3.894	0.236
130	50.052	12.436	2.404	21.081	8.711	1.180	7.327	5.642	0.495	3.612	4.219	0.277
140	57.416	13.392	2.788	24.183	9.382	1.368	8.405	6.076	0.574	4.144	4.543	0.321
150	65.241	14.349	3.200	27.479	10.052	1.570	9.550	6.510	0.659	4.708	4.868	0.368

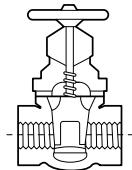
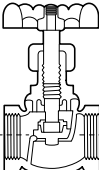
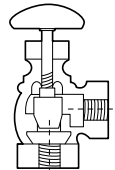
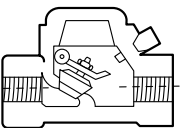
Note: Suction velocities should not exceed 8 feet per second.

## Pipe Fittings

Friction Losses in Terms of Equivalent Lengths of Standard Pipe

Pipe Size	Standard 90 ° Elbow	Long Radius Elbow	45 ° Elbow	Tee	Return Bend
					
1/2"	1.5	1.1	0.77	3.4	3.8
3/4"	2.2	1.4	1	4.5	5
1"	2.7	1.7	1.3	5.8	6.1
1-1/4"	3.7	2.4	1.6	7.8	8.5
1.5"	4.3	2.8	2	9	10
2"	5.5	3.5	2.5	11	13
2.5"	6.5	4.2	3	14	15
3"	8.1	5.1	3.8	17	18
3.5"	9.5	6	4.4	19	21
4"	11	7	5	22	24
4.5"	12	7.9	5.6	24	27
5"	14	8.9	6.1	27	31
6"	16	11	7.7	33	37

Friction Losses in Terms of Equivalent Lengths of Standard Pipe

Pipe Size	Gate Valve Open	Globe Valve Open	Angle Valve Open	Swing Check Valve
				
1/2"	0.35	16	8.4	4
3/4"	0.47	22	12	5
1"	0.6	27	15	7
1-1/4"	0.8	37	18	9
1.5"	0.95	44	22	11
2"	1.2	57	28	13
2.5"	1.4	66	33	16
3"	1.7	85	42	20
3.5"	2	99	50	
4"	2.3	110	58	26
4.5"	2.6	130	61	
5"	2.9	140	70	33
6"	3.5	160	83	39

# References

## Pressure Loss

### Swing Check Valves

Flow GPM	Pressure Loss (PSI)					
	Valve Size					
	1/2"	3/4"	1"	1-1/4"	1.5"	2"
2	0.2					
3	.05					
6	1.0	0.3				
8	1.7	0.5				
10	2.6	0.8	0.3			
12	3.6	1.1	0.5			
14	4.8	1.5	0.6			
16		2.0	0.9			
18		2.4	1.0			
20		3.0	1.2	0.4		
22		3.5	1.4	0.5		
24		4.1	1.7	0.6		
26		4.8	2.0	0.7	0.4	
28			2.2	0.8	0.5	
30			2.5	0.9	0.5	
32			2.9	1.1	0.6	
34			3.2	1.2	0.6	
36			3.6	1.3	0.7	
38			3.9	1.5	0.8	
40			4.3	1.6	0.8	0.3
42			4.7	1.7	0.9	0.3
44				1.9	1.0	0.4

Flow GPM	Pressure Loss (PSI)					
	Valve Size					
	1-1/4"	1.5"	2"	2.5"	3"	4"
46	2.1	1.1	0.4			
48	2.2	1.2	0.5			
50	2.4	1.3	0.5			
55	2.9	1.5	0.6			
60	3.4	1.8	0.7			
65	3.9	2.0	0.8			
70	4.5	2.4	0.9	0.4		
75		2.7	1.0	0.5		
80		3.0	1.2	0.6		
90		3.7	1.5	0.7		
100		4.6	1.8	0.9	0.4	
120			2.5	1.2	0.5	
140			3.3	1.6	0.7	

### Bronze Gate Valves

Flow GPM	Pressure Loss (PSI)								
	Valve Size								
	1/2"	3/4"	1"	1-1/4"	1.5"	2"	2.5"	3"	4"
1									
2	.01								
5	.06	.02							
8	.16	.05	.02						
10	.24	.08	.03	.01					
15		.17	.06	.02	.01				
20		.31	.11	.03	.02				
30			.24	.07	.04	.01			
40			.43	.13	.07	.02	.01		
50			.67	.21	.11	.04	.02		
60				.30	.15	.05	.03	.01	
80				.54	.28	.10	.05	.02	
100					.43	.15	.07	.03	
120					.62	.22	.10	.04	.02
140					.85	.30	.14	.06	
160						.40	.18	.07	.03

## Pressure Loss

### Water Meters - AWWA Standard

Flow GPM	Pressure Loss						
	Normal Size						
	5/8"	3/4"	1"	1.5"	2"	3"	4"
1	0.2	0.1					
2	0.3	0.2					
3	0.4	0.3					
4	0.6	0.5	0.1				
5	0.9	0.6	0.2				
6	1.3	0.7	0.3				
7	1.8	0.8	0.4				
8	2.3	1.0	0.5				
9	3.0	1.3	0.6				
10	3.7	1.6	0.7				
11	4.4	1.9	0.8				
12	5.1	2.2	0.9				
13	6.1	2.6	1.0				
14	7.2	3.1	1.1				
15	8.3	3.6	1.2				
16	9.4	4.1	1.4	0.4			
17	10.7	4.6	1.6	0.5			
18	12.0	5.2	1.8	0.6			
19	13.4	5.8	2.0	0.7			
20	15.0	6.5	2.2	0.8			
22		7.9	2.8	1.0			
24		9.5	3.4	1.2			
26		11.2	4.0	1.4			
28		13.0	4.6	1.6			
30		15.0	5.3	1.8	0.7		
32			6.0	2.1	0.8		
34			6.9	2.4	0.9		
36			7.8	2.7	1.0		
38			8.7	3.0	1.2		
40			9.6	3.3	1.3		
42			10.6	3.6	1.4		
44			11.7	3.9	1.5		
46			12.8	4.2	1.6		
48			13.9	4.5	1.7		
50			15.0	4.9	1.9		
52				5.3	2.1		
54				5.7	2.2		
56				6.2	2.3		
58				6.7	2.5		
60				7.2	2.7	1.0	
65				8.3	3.2	1.1	
70				9.8	3.7	1.3	
75				11.3	4.3	1.5	
80				12.8	4.9	1.6	0.7
90				16.1	6.2	2.0	0.8
100				20.0	7.8	2.5	0.9
110					9.5	2.9	1.0
120					11.3	3.4	1.2
130					13.0	3.9	1.4
140					15.1	4.5	1.6
150					17.3	5.1	1.8

# References

## Pressure Tank Sizing

### Pressure Tank Selection Chart - Minimum tank volumes for proper system life

Pump Capacity		Minimum Drawdown Gallons	Total Tank Volume (Gallons)								
			Switch Setting (PSI)								
GPH	GPM		20-40			30-50			40-60		
		A	B	C	A	B	C	A	B	C	
240	4	4	10	15	25	15	15	40	15	15	55
300	5	5	15	15	30	15	20	50	20	20	70
360	6	6	15	20	40	20	20	60	20	25	85
420	7	7	20	20	45	35	25	70	25	30	100
480	8	8	20	25	50	35	25	80	30	30	110
540	9	9	25	25	60	30	30	90	35	35	125
600	10	10	30	30	65	30	35	100	40	40	140
660	11	12	35	35	80	40	40	120	45	45	165
720	12	13	35	40	85	40	45	130	50	50	180
780	13	15	40	45	100	50	50	150	55	60	210
840	14	17	45	50	110	55	55	170	65	65	235
900	15	19	50	55	125	60	65	190	70	75	265
960	16	20	55	55	160	65	65	200	75	75	280
1020	17	23	6	65	150	75	75	230	85	90	320
1080	18	25	70	70	160	80	85	250	95	95	350
1140	19	27	75	75	175	85	90	270	100	105	375
1200	20	30	80	85	195	95	100	300	110	115	415
1260	21	33	90	90	215	105	110	330	125	125	460
1320	22	36	100	100	235	115	120	360	135	135	500
1380	23	38	105	105	345	125	125	380	140	145	530
1440	24	41	110	115	365	135	135	410	155	155	570
1500	25	44	120	120	385	140	145	440	165	165	610
1560	26	47	130	130	305	150	155	470	175	180	655
1620	27	50	135	140	325	160	165	500	185	190	700
1680	28	53	145	145	345	170	175	530	200	200	735
1740	29	57	155	160	370	185	185	570	215	215	790
1800	30	60	165	165	390	195	195	600	225	225	835

**Note:** A - Bladder or Diaphragm Tank Design  
 B - Floating Wafer Tank Design  
 C - Plain Steel Tank Design

## Reference Tables

### Equivalent Values of Pressure

Inches of Mercury	Feet of Water	PSI
1	1.13	0.49
2	2.26	0.98
3	3.39	1.47
4	4.52	1.95
5	5.65	2.44
6	6.78	2.93
7	7.91	3.42
8	9.04	3.91
9	10.17	4.4
10	11.3	4.89
11	12.45	5.39
12	13.57	5.87
13	14.7	6.37
14	15.82	6.86
15	16.96	7.35
16	18.09	7.84
17	19.22	8.33
18	20.35	8.82
19	21.75	9.31
20	22.6	9.8
21	23.78	10.3
22	24.88	10.8
23	26	11.28
24	27.15	11.75
25	26.26	12.25
26	29.4	12.73
27	30.52	13.23
28	31.65	13.73
29	32.8	14.22
29.929	33.947	14.697

### Properties of Water

Temp. of Water (° F)	Pressure (ft Water)
60	0.59
70	0.84
80	1.17
90	1.61
100	2.19
110	2.94
120	3.91
130	5.14
140	6.67
150	8.58
160	10.9
170	13.8
180	17.3
190	21.6
200	26.6
210	32.6
212	34

### Atmospheric Pressure at Various Elevations

Altitude Feet Above Sea Level	Atmospheric Pressure		
	Pounds per Square Inch (PSI)	Feet of Water	Inches of Mercury
Sea Level	14.7	33.8	29.9
500	14.4	33.3	29.4
1000	14.2	32.6	28.8
2000	13.7	31.4	27.8
3000	13.2	30.3	26.8
4000	12.7	29.2	25.8
5000	12.2	28.2	24.9
6000	11.8	27.1	24
7000	11.3	26.1	23.1
8000	10.9	25.1	22.2
9000	10.5	24.2	21.4
10000	10.1	23.2	20.6

# References

## Conversions

Head		
To Convert From	To	Multiply By
PSI	Feet	2.31
PSI	Inches of Mercury	2.04
Feet	PSI	0.433
Feet	Meters	0.305
Feet	Inches of Mercury	0.885
Inches of Mercury	Feet of Water	1.132
Meters	Feet	3.28
Kilograms per sq. in.	PSI	14.22
ATM	PSI	14.7
ATM	Feet of Water	34
ATM	Meters of Water	10.35

Volume		
To Convert From	To	Multiply By
Gallons	Liters	3.785
Gallons	Cubic Inches	231
Gallons	Cubic Feet	0.137
Gallons	Cubic Meters	0.004
Liters	Gallons	0.264
Barrel (Oil)	Gallons	42
Cubic Feet	Gallons	7.48
Cubic Feet	Cubic Meters	0.028
Acre Foot	Cubic Feet	43560
Acre Foot	Gallons	325829
Acre Inch	Cubic Feet	3630
Acre Inch	Gallons	27100

Capacity		
To Convert From	To	Multiply By
Gallons Per Minute	Liters/Sec.	0.063
Gallons Per Minute	Liters/Hr.	227.1
Gallons Per Minute	Cubic Meters/Hr.	0.227
Gallons Per Minute	Cubic Feet/Sec.	0.002
Gallons Per Minute	Pounds Per Hour	500
Cubic Meters/Hr.	Gallons Per Minute	4.402
Cubic Meters/Hr.	Liters/Sec.	0.278
Cubic Feet/Sec.	Gallons Per Minute	448.831
Acre Foot	Gallons	325.85
Acre Foot per Day	Gallons Per Minute	227
Acre Inch per Hour	Gallons Per Minute	454
Litre per Second	Gallons Per Minute	15.85
Miner's Inch ID,KS,NE, NM,ND,SD,UT,WA)	Gallons Per Minute	9
Miner's Inch (AZ,CA,MT,NV,OR)	Gallons Per Minute	11.22

Horsepower		
To Convert From	To	Multiply By
Hp	Kilowatts	0.746
Hp	Ft. lbs. per minute	33000
Hp	Ft. lbs. per second	550
Kilowatts	H.P.	1.341

Length		
To Convert From	To	Multiply By
Inches	Centimeters	2.54
Meters	Feet	3.28
Miles	Feet	5280
Rods	Feet	16.5

Weight		
To Convert From	To	Multiply By
Gallons	Pounds	8.33
Cubic Feet of Water	Pounds	62.35
Kilograms	Pounds	2.2

Temperature		
To Convert From	To	Multiply By
Fahrenheit	Celsius	$5/9 \times (^{\circ}\text{F} - 32)$
Celsius	Fahrenheit	$9/5 \times (^{\circ}\text{C} + 32)$

**1,000,000 US gal. / day = 695 US gal. / minute**

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For information or assistance contact:



**Franklin Electric**

Customer Service Department

800.269.0063

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## Limited Warranty

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3. Product was not installed by a Franklin Certified Contractor or Franklin Key Dealer; or
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