



SUBMERSIBLE PUMPS

RESIDENTIAL & LIGHT COMMERCIAL





SUBMERSIBLE PUMPS

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For the most up-to-date product information, visit franklinwater.com.

MODEL NUMBER NOMENCLATURE

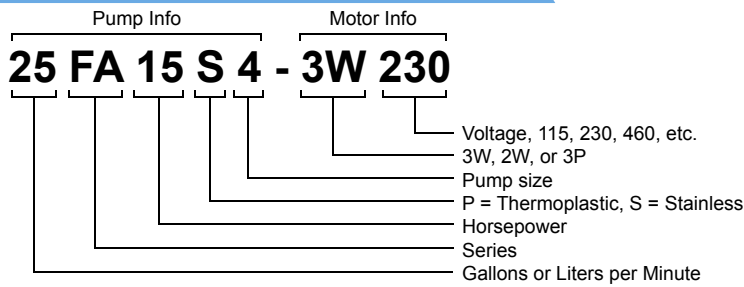
PUMP AND MOTOR BRAND/SERIES CODES

- FR = FPS 3200 Series
- FA = FPS Tri-Seal
- FV = FPS Series V
- FE = FPS Effluent
- FH = Tri-Seal High Capacity

HORSEPOWER CODES

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

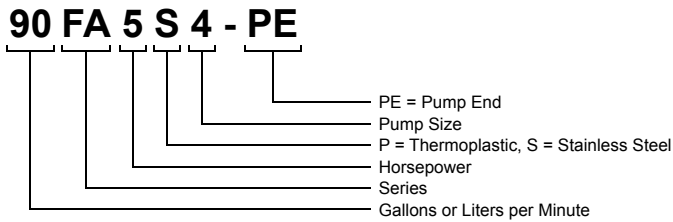
4" & 6" SUBMERSIBLE PUMPS/MOTORS



Examples:

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

PUMP END



Examples:

- 45FA3S4-PE = 45 gpm, FPS Tri-Seal, 3 hp, Stainless Steel, Pump End
- 25FE1P4-PE = 25 lpm, FPS E Series, 1 hp, Thermoplastic, Pump End

YOUR SUBMERSIBLE PUMP TEAM

Franklin's technical service hotline is made up of real people, offering real answers, in real time. Serving professional water systems distributors and contractors, our hotline boasts decades of collective industry experience. For answers to your water systems questions, contact our hotline by phone or email.

CUSTOMER RELATIONS

Please contact us at:
 Toll Free: 800-269-0063
 Fax: 260-827-5800
 Email: cleanwater@fele.com

TECHNICAL SERVICE HOTLINE

Please contact us at:
 Toll Free: 800-348-2420
 Email: hotline@fele.com

ON THE WEB

Franklin Electric Website: www.franklinwater.com
 FE DIRECT: <https://next.fe-direct.com/>
 Connect with Us!



EXPERIENCE
 SERVICE


4" 3200 SERIES PUMPS

The 3200 Series submersible pumps are designed so that all parts of the pump end, including the cable guard, fall within the diameter of Franklin Electric's industry leading submersible 4" motor. This reduced diameter pump end makes it ideal for installations where the well is considered encrusted or tight in comparison to a standard 4" well. The 3200 Series also offers a hydraulic stage design optimized for greater water and pressure output when installed at deeper well depths. For details on how to become a registered dealer and receive a 5-year warranty, contact your local distributor.

FEATURES

- Pump diameter is smaller than a standard 4" submersible for easier installation in reduced diameter 4" wells
- Hex rubber bearing and ceramic shaft sleeve allows sand and abrasives to pass through, virtually eliminating shaft wear and upper bearing failures
- Improved hydraulic performance for deeper set depths at all horsepower and flow ratings
 - Floating stage design allows for maximum efficiency while minimizing the downthrust load that is transferred to the motor
 - Advanced thermoplastic diffuser and disc with 300 Series stainless steel thrust and eye seal protection for durability and abrasion resistance
 - Scalloped impellers provide high performance to increase pressure output while reducing system losses from friction
- Removable spring-loaded check valve
- Stainless steel pump intake screen and stainless steel cable guard
- Maximum water temperature: 120 °F/49 °C
- Powered by corrosion-resistant Franklin Electric submersible 4" motor with lightning protection




 UL 778
 CSA 108
 NSF/ANSI 372
 NSF/ANSI 61 (Pump end only)

4" 3200 SERIES PUMPS - ORDERING INFORMATION

THERMOPLASTIC ORDERING INFORMATION

GPM	HP	Stages	Volts	2-Wire		3-Wire		
				Model	Order No.	Model	Order No.	Control Box
5	1/2	13	115	5FR05P4-2W115	96210505	5FR05P4-3W115	96210530	2801044915
	1/2	13	230	5FR05P4-2W230	96210510	5FR05P4-3W230	96210535	2801054915
	3/4	18	230	5FR07P4-2W230	96210515	5FR07P4-3W230	96210540	2801074915
7	1	22	230	5FR1P4-2W230	96210520	5FR1P4-3W230	96210545	2801084915
	1/2	10	115	7FR05P4-2W115	96210705	7FR05P4-3W115	96210730	2801044915
	1/2	10	230	7FR05P4-2W230	96210710	7FR05P4-3W230	96210735	2801054915
	3/4	13	230	7FR07P4-2W230	96210715	7FR07P4-3W230	96210740	2801074915
10	1	18	230	7FR1P4-2W230	96210720	7FR1P4-3W230	96210745	2801084915
	1/2	11	115	10FRD05P4-2W115	96211005	10FRD05P4-3W115	96211030	2801044915
	1/2	11	230	10FRD05P4-2W230	96211010	10FRD05P4-3W230	96211035	2801054915
	3/4	14	230	10FRD07P4-2W230	96211015	10FRD07P4-3W230	96211040	2801074915
	1	19	230	10FRD1P4-2W230	96211020	10FRD1P4-3W230	96211045	2801084915

NOTES: Discharge is 1-1/4" NPT. Maximum diameter across cable guard on all models is 3.75".

STAINLESS STEEL ORDERING INFORMATION

GPM	HP	Stages	Volts	2-Wire		3-Wire		
				Model	Order No.	Model	Order No.	Control Box
5	1/2	13	115	5FR05S4-2W115	96310505	5FR05S4-3W115	96310530	2801044915
	1/2	13	230	5FR05S4-2W230	96310510	5FR05S4-3W230	96310535	2801054915
	3/4	18	230	5FR07S4-2W230	96310515	5FR07S4-3W230	96310540	2801074915
	1	22	230	5FR1S4-2W230	96310520	5FR1S4-3W230	96310545	2801084915
	1.5	30	230	5FR15S4-2W230	96310525	5FR15S4-3W230	96310550	2823008610
7	1/2	10	115	7FR05S4-2W115	96310705	7FR05S4-3W115	96310730	2801044915
	1/2	10	230	7FR05S4-2W230	96310710	7FR05S4-3W230	96310735	2801054915
	3/4	13	230	7FR07S4-2W230	96310715	7FR07S4-3W230	96310740	2801074915
	1	18	230	7FR1S4-2W230	96310720	7FR1S4-3W230	96310745	2801084915
	1.5	23	230	7FR15S4-2W230	96310725	7FR15S4-3W230	96310750	2823008610
10	1/2	11	115	10FRD05S4-2W115	96311005	10FRD05S4-3W115	96311030	2801044915
	1/2	11	230	10FRD05S4-2W230	96311010	10FRD05S4-3W230	96311035	2801054915
	3/4	14	230	10FRD07S4-2W230	96311015	10FRD07S4-3W230	96311040	2801074915
	1	19	230	10FRD1S4-2W230	96311020	10FRD1S4-3W230	96311045	2801084915
	1.5	24	230	10FRD15S4-2W230	96311025	10FRD15S4-3W230	96311050	2823008610

NOTES: Discharge is 1-1/4" NPT. Maximum diameter across cable guard on all models is 3.75".

THERMOPLASTIC PUMP ENDS

GPM	HP	Stages	Model	Order No.
5	1/2	13	5FR05P4-PE	96220500
	3/4	18	5FR07P4-PE	96220501
	1	22	5FR1P4-PE	96220502
7	1/2	10	7FR05P4-PE	96220700
	3/4	13	7FR07P4-PE	96220701
	1	18	7FR1P4-PE	96220702
10	1/2	11	10FRD05P4-PE	96221000
	3/4	14	10FRD07P4-PE	96221001
	1	19	10FRD1P4-PE	96221002

NOTES: Discharge is 1-1/4" NPT. Maximum diameter across cable guard on all models is 3.75".

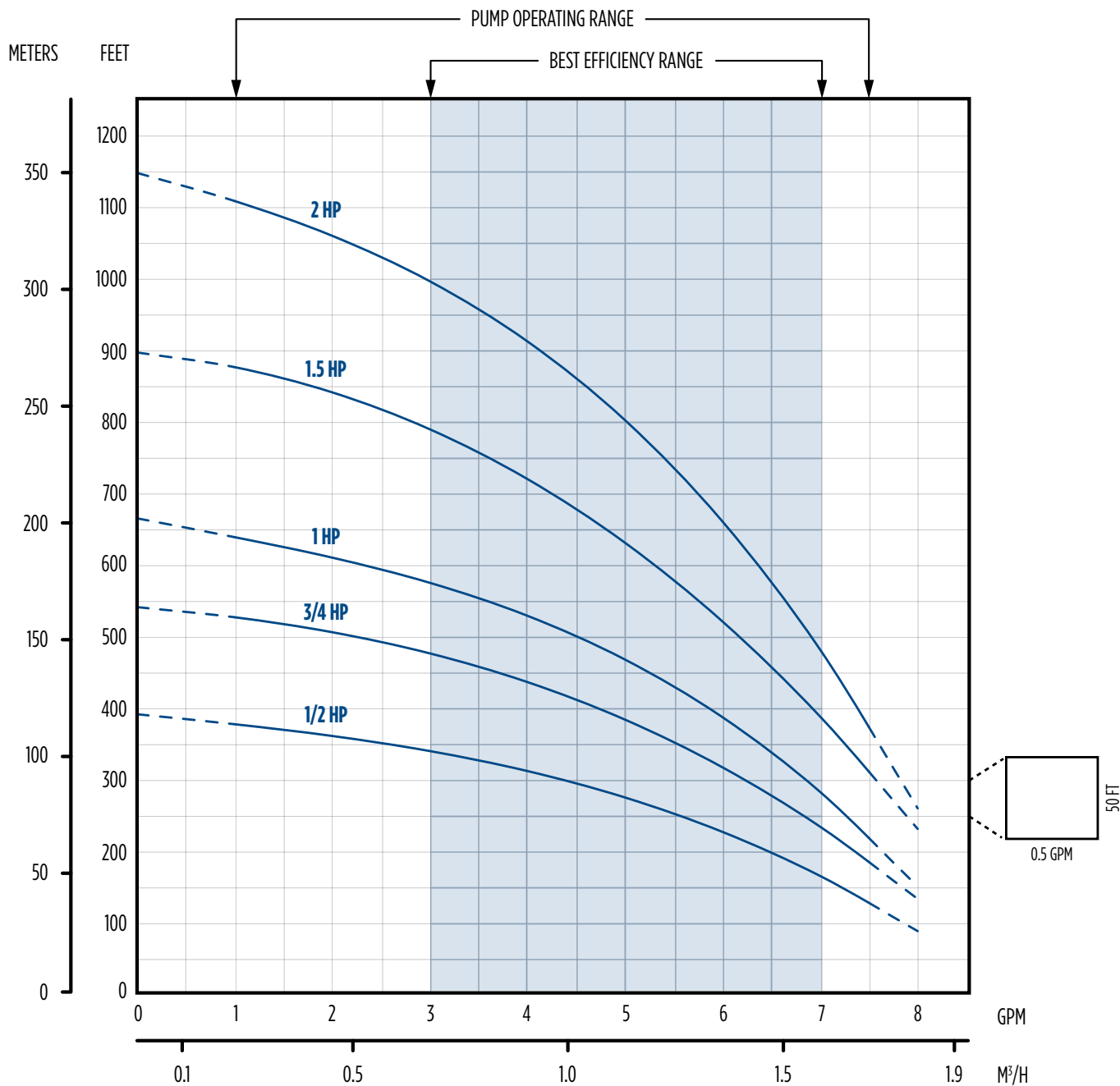
STAINLESS STEEL PUMP ENDS

GPM	HP	Stages	Model	Order No.
5	1/2	13	5FR05S4-PE	96320500
	3/4	18	5FR07S4-PE	96320501
	1	22	5FR1S4-PE	96320502
	1.5	30	5FR15S4-PE	96320503
	2	38	5FR2S4-PE	96320504
7	1/2	10	7FR05S4-PE	96320700
	3/4	13	7FR07S4-PE	96320701
	1	18	7FR1S4-PE	96320702
	1.5	23	7FR15S4-PE	96320703
	2	30	7FR2S4-PE	96320704
10	3	38	7FR3S4-PE	96320705
	1/2	11	10FRD05S4-PE	96321000
	3/4	14	10FRD07S4-PE	96321001
	1	19	10FRD1S4-PE	96321002
	1.5	24	10FRD15S4-PE	96321003

NOTES: Discharge is 1-1/4" NPT. Maximum diameter across cable guard on all models is 3.75".

4" 3200 SERIES PUMPS - 5 GPM

PERFORMANCE



4" 3200 SERIES PUMPS - 5 GPM

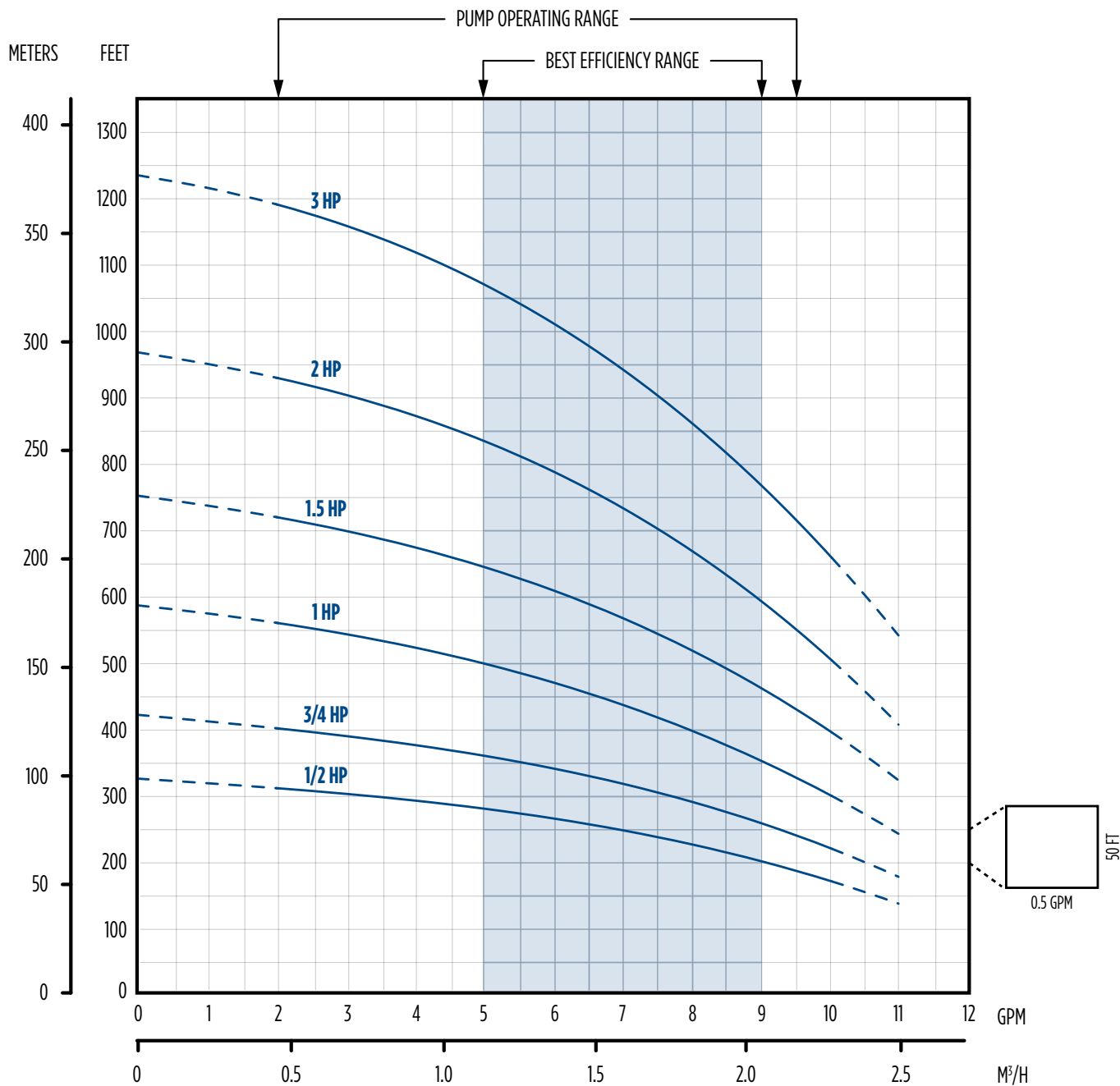
PERFORMANCE

HP	PSI	Depth To Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance																				Shut-Off (ft)		
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	600	700	800	900		1000	
1/2	0				8	8	8	7	7	7	6	5	4	3									390	
	20		8	8	8	7	7	7	6	6	6	4	3											
	30	8	8	7	7	7	7	6	6	6	5	4	1											
	40	8	7	7	7	7	6	6	6	5	5	3												
	50	7	7	7	7	6	6	5	5	4	4	2												
	60	7	7	6	6	6	5	5	4	4	3													
Shut-off PSI		161	152	143	135	126	117	109	100	91	83	61	39	18										
3/4	0					8	8	8	8	7	7	6	6	5	4	2							541	
	20				8	8	8	7	7	7	7	6	6	5	4	2								
	30			8	8	8	7	7	7	7	7	6	5	4	3	1								
	40		8	8	8	7	7	7	7	7	6	6	5	4	3									
	50	8	8	8	7	7	7	7	7	6	6	5	4	3	2									
	60	8	8	7	7	7	7	6	6	6	6	5	4	3										
Shut-off PSI		226	217	209	200	191	183	174	165	157	148	126	105	83	61	39	18							
1	0							8	8	8	8	7	7	6	6	5	5	2					666	
	20					8	8	8	8	7	7	7	6	6	5	5	4	1						
	30				8	8	8	8	7	7	7	7	6	6	5	4	3							
	40			8	8	8	8	7	7	7	7	6	6	5	5	4	3							
	50		8	8	8	8	8	7	7	7	7	6	6	5	4	3	2							
	60	8	8	8	7	7	7	7	7	7	6	6	5	5	4	3	1							
Shut-off PSI		280	271	263	254	245	237	228	219	211	202	180	159	137	115	94	72	29						
1.5	0										8	8	8	7	7	7	6	5	4	3			899	
	20										8	8	8	7	7	7	6	6	5	4	2			
	30									8	8	8	7	7	7	6	6	6	5	3	1			
	40								8	8	8	8	7	7	7	6	6	5	4	3				
	50						8	8	8	8	7	7	7	6	6	6	5	4	3					
	60				8	8	8	8	8	7	7	7	7	6	6	5	5	4	2					
Shut-off PSI		381	372	364	355	346	338	329	320	312	303	281	260	238	216	195	173	130	86	43				
2	0											8	8	8	7	7	7	6	6	5	4	3	1152	
	20											8	8	8	7	7	7	6	5	5	4	2		
	30										8	8	8	8	7	7	7	6	5	4	3	2		
	40									8	8	8	8	7	7	7	7	6	6	5	4	3		1
	50								8	8	8	8	8	7	7	7	7	6	6	5	4	3		1
	60							8	8	8	8	8	7	7	7	7	6	6	5	5	4	2		
Shut-off PSI		491	482	473	465	456	447	439	430	421	413	391	369	348	326	304	282	239	195	152	109	66		

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

4" 3200 SERIES PUMPS - 7 GPM

PERFORMANCE



4" 3200 SERIES PUMPS - 7 GPM

PERFORMANCE

HP	PSI	Depth To Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance																			Shut-Off (ft)				
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	600	700	800		900	1000		
1/2	0				12	12	11	11	10	10	9	7	3											324	
	20		12	12	11	11	10	9	9	8	7	4													
	30	12	12	11	11	10	9	9	8	7	6	1													
	40	12	11	11	10	10	9	9	8	7	5	4													
	50	11	10	10	9	8	8	7	5	4	1														
	60	10	10	9	8	7	6	5	3	1															
80	9	8	7	6	5	3																			
Shut-off PSI		132	123	115	106	97	89	80	71	63	54	32	10												
3/4	0					12	12	11	11	10	9	8	5	2									421		
	20				12	12	11	11	10	10	9	8	6	2											
	30			12	12	11	11	10	10	9	9	7	4												
	40		12	11	11	11	10	10	9	9	8	6	3												
	50	12	11	11	11	10	10	9	8	8	7	5	1												
	60	11	11	10	10	10	9	8	8	7	6	3													
80	10	10	9	9	8	7	7	6	5	3															
Shut-off PSI		174	165	156	148	139	130	122	113	104	96	74	52	31	9										
1	0						12	12	11	11	11	10	9	8	7	5							586		
	20					12	12	11	11	11	10	9	8	7	5	3									
	30					12	12	11	11	11	10	9	7	6	4	1									
	40				12	12	11	11	11	10	10	9	8	7	5	3									
	50			12	12	11	11	11	10	10	10	9	8	6	5	2									
	60		12	12	11	11	11	10	10	10	9	8	7	5	3										
80	12	11	11	11	10	10	10	9	9	8	7	6	3												
Shut-off PSI		245	237	228	219	211	202	193	185	176	167	146	124	102	81	59	37								
1.5	0									12	12	11	11	10	9	8	6	3					752		
	20									12	12	11	11	10	9	8	7	5							
	30									12	12	12	11	10	10	9	8	7	4						
	40									12	12	12	11	11	10	9	8	8	6	3					
	50						12	12	11	11	11	10	10	9	8	7	6	2							
	60					12	12	11	11	11	11	10	9	9	8	7	5	1							
80		12	12	12	11	11	11	11	10	10	9	9	8	7	5	4									
Shut-off PSI		317	309	300	291	283	274	265	257	248	139	218	196	174	153	131	109	66	23						
2	0												12	11	11	10	9	8	6	3			969		
	20												12	12	11	11	10	10	8	7	5	1			
	30												12	12	11	11	10	10	9	8	6	4			
	40										12	12	12	11	11	10	10	9	8	6	3				
	50										12	12	12	11	11	10	10	9	9	7	5	3			
	60										12	12	12	11	11	10	10	9	8	7	5	2			
80						12	12	12	12	11	11	11	10	10	9	8	8	6	4						
Shut-off PSI		411	403	394	385	376	368	359	350	342	333	312	290	268	247	225	203	160	117	73	30				

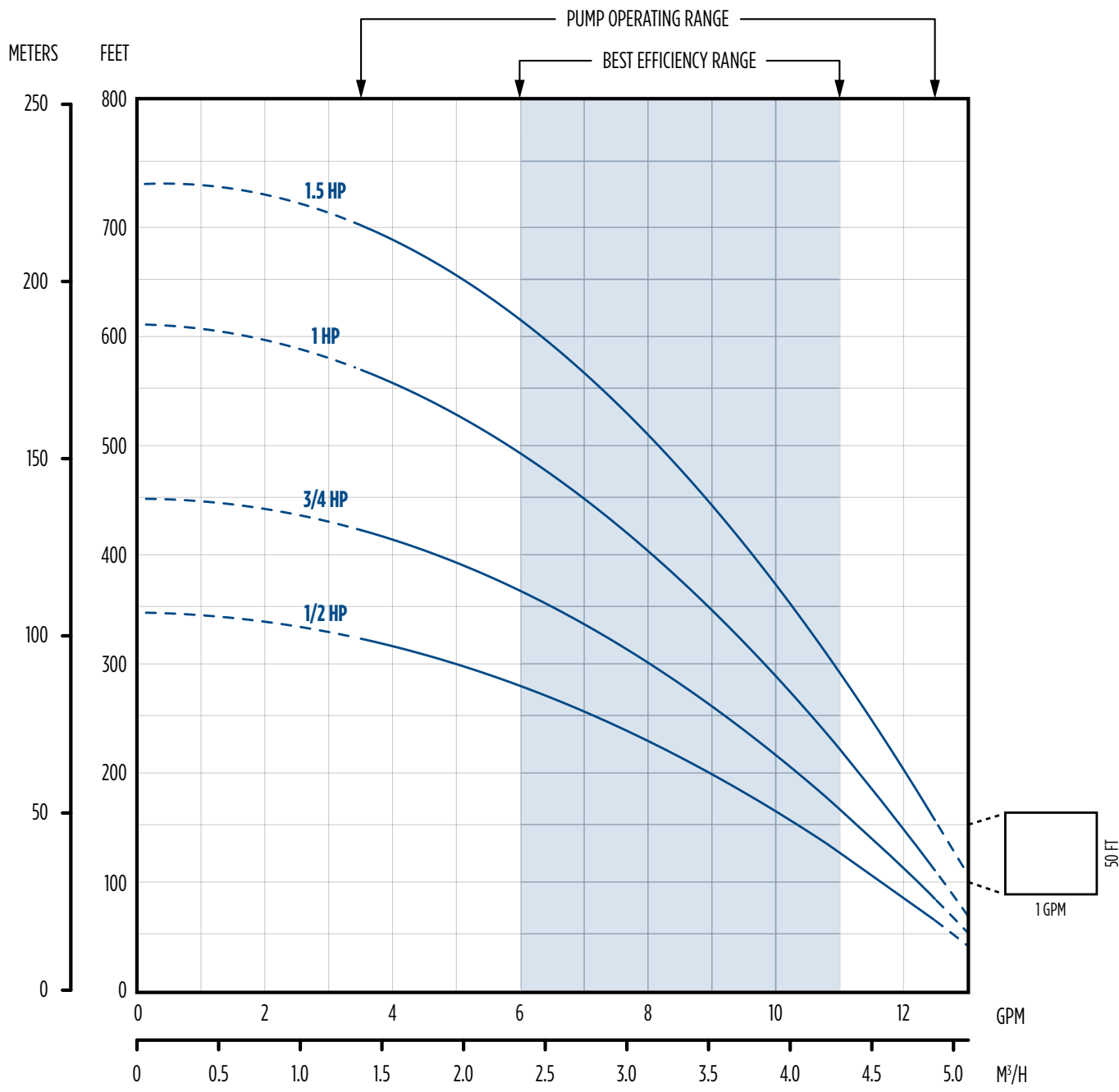
NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

HP	PSI	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	Shut-Off (ft)
3	0				12	11	11	10	9	8	6	4	2			1237
	20				12	11	10	9	8	7	5	3				
	30			12	12	11	10	9	8	7	5	3				
	40			12	11	11	10	9	8	6	5	2				
	50			12	11	10	10	9	7	6	4	1				
	60			12	11	10	9	8	7	6	4					
80		12	11	11	10	9	8	6	5	2						
Shut-off PSI		493	450	406	363	319	276	233	189	146	103	59	16			

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

4" 3200 SERIES PUMPS - 10 GPM

PERFORMANCE



4" 3200 SERIES PUMPS - 10 GPM

PERFORMANCE

HP	PSI	Depth To Pumping Water Level, Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																								Shut-Off (ft)		
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480	500	550	600	650	700	750		800	
1/2	0					12	12	11	11	10	10	9	8	6	4	0												
	10				12	12	11	11	10	9	9	8	7	5	1	0												
	20		12	12	12	11	11	10	10	9	9	8	7	6	3	0												
	30	12	12	11	11	10	10	9	9	8	7	6	4	0														
	40	12	11	11	10	10	9	9	8	7	6	5	3	0														
	50	11	11	10	10	9	8	8	7	6	5	4	0															
	60	11	10	10	9	8	8	7	6	5	4	2	0															
	70	10	10	9	8	8	7	6	5	4	2	0																
80	9	9	8	7	7	6	5	3	1	0																		
Shut-off PSI		153	144	135	127	118	110	101	92	84	75	66	49	32	14	0												
3/4	0					13	12	12	12	11	11	10	9	9	7	6	5	2	0									
	10				13	12	12	11	11	10	10	9	8	7	5	3	0											
	20		13	12	12	12	11	11	11	10	10	9	8	7	6	4	1	0										
	30	13	12	12	12	11	11	11	10	10	9	9	8	7	5	3	0											
	40	12	12	12	11	11	10	10	10	9	9	8	7	6	4	0												
	50	12	12	11	11	10	10	10	9	9	8	8	6	5	3	0												
	60	12	11	11	10	10	10	9	9	8	8	7	6	4	0													
	70	11	11	10	10	9	9	8	8	7	7	6	5	2	0													
80	11	10	10	9	9	8	8	7	7	6	5	3	0															
Shut-off PSI		197	188	180	171	162	154	145	136	128	119	110	93	76	58	41	24	6	0									
1	0					13	12	12	12	12	11	11	10	10	9	9	8	7	6	6	4	2	0					
	10					13	12	12	12	12	11	11	10	10	9	8	8	7	6	5	3	0						
	20					13	12	12	12	12	11	11	11	10	9	9	8	7	6	5	4	2	0					
	30		13	13	12	12	12	11	11	11	11	10	10	9	8	7	7	6	4	4	0							
	40	13	12	12	12	12	11	11	11	11	10	10	9	9	8	7	6	5	3	2	0							
	50	12	12	12	12	11	11	11	11	10	10	10	9	8	7	6	5	4	2	0								
	60	12	12	12	11	11	11	10	10	10	10	9	8	8	7	6	5	3	0									
	70	12	12	11	11	11	10	10	10	9	9	9	8	7	6	5	4	2	0									
80	12	11	11	11	10	10	10	9	9	9	8	8	7	6	4	3	0											
Shut-off PSI		268	259	250	242	233	224	216	207	198	190	181	164	146	129	112	94	77	60	51	29	8	0					
1.5	0									13	12	12	11	11	11	10	9	9	9	8	7	6	4	2	0			
	10								13	13	12	12	12	11	11	10	10	9	9	8	7	6	5	4	0			
	20								13	12	12	12	12	11	11	10	10	9	9	8	8	7	6	5	3	0		
	30						13	12	12	12	12	12	11	11	10	10	10	9	8	8	7	7	5	4	0			
	40					13	12	12	12	12	12	11	11	11	10	10	9	9	8	7	7	6	5	3	0			
	50					13	12	12	12	12	12	11	11	11	10	10	9	8	8	7	7	5	4	0				
	60				13	12	12	12	12	12	11	11	11	10	10	9	9	8	7	7	6	5	3	0				
	70	13	13	12	12	12	12	11	11	11	11	11	10	10	9	9	8	8	7	6	6	4	0					
80	12	12	12	12	12	11	11	11	11	10	10	10	9	9	8	7	6	5	5	3	0							
Shut-off PSI		331	323	314	305	297	288	279	271	262	253	245	227	210	193	175	158	141	123	115	93	71	50	28	6	0		

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

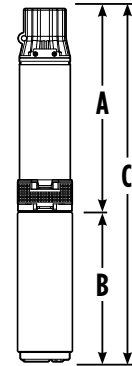
4" 3200 SERIES PUMPS - DIMENSIONS

THERMOPLASTIC

GPM	HP	Stages	2-Wire						3-Wire					
			Dimensions (in)			Wt. (lbs)			Dimensions (in)			Wt. (lbs)		
			A	B	C	PE	PMA	A	B	C	PE	PMA		
5	1/2	13	18.4	9.5	27.9	8	27	18.4	9.5	27.9	8	27		
	3/4	18	22.6	10.6	33.3	10	31	22.6	10.6	33.3	10	31		
	1	22	26.0	11.7	37.7	11	35	26.0	11.7	37.7	11	35		
7	1/2	10	15.9	9.5	25.4	7	26	15.9	9.5	25.4	7	26		
	3/4	13	18.4	10.6	29.0	9	30	18.4	10.6	29.0	9	30		
	1	18	22.6	11.7	34.3	11	35	22.6	11.7	34.3	11	35		
10	1/2	11	16.7	9.5	26.2	8	27	16.7	9.5	26.2	8	27		
	1/2	11	16.7	9.5	26.2	8	27	16.7	9.5	26.2	8	27		
	3/4	14	19.2	10.6	29.8	10	31	19.2	10.6	29.8	10	31		
		1	19	23.5	11.7	35.2	12	36	23.5	11.7	35.2	12	36	

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Diameter with cable guard is 3.75"

Thermoplastic

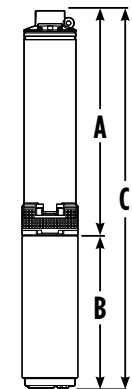


STAINLESS STEEL

GPM	HP	Stages	2-Wire						3-Wire					
			Dimensions (in)			Wt. (lbs)			Dimensions (in)			Wt. (lbs)		
			A	B	C	PE	PMA	A	B	C	PE	PMA		
5	1/2	13	17	9.5	28.5	10	29	17	9.5	26.5	10	29		
	3/4	18	21.2	10.6	31.9	12	33	21.2	10.6	31.9	12	33		
	1	22	24.6	11.7	36.3	13	27	24.6	11.7	36.3	13	27		
	1.5	30	32.7	15.1	47.8	19	50	32.7	13.6	46.3	19	50		
	2	38	-	-	-	-	-	39.5	15.1	54.6	23	-		
7	1/2	10	14.5	9.5	24.0	9	28	14.5	9.5	24.0	9	28		
	3/4	13	17	10.6	27.6	11	32	17	10.6	27.6	11	32		
	1	18	21.2	11.7	32.9	13	37	21.2	11.7	32.9	13	37		
	1.5	23	25.4	15.1	40.5	17	48	25.4	13.6	39.0	17	48		
	2	30	-	-	-	-	-	32.7	15.1	38.8	20	-		
	3	38	-	-	-	-	-	39.5	19.04	58.5	23	-		
10	1/2	11	15.3	9.5	25.8	10	29	15.3	9.5	24.8	10	29		
	1/2	11	15.3	9.5	25.8	10	29	15.3	9.5	24.8	10	29		
	3/4	14	17.8	10.6	28.5	12	33	17.8	10.6	28.4	12	33		
	1	19	22.1	11.7	33.8	14	38	22.1	11.7	33.8	14	38		
	1.5	24	26.3	15.1	41.4	18	49	26.3	13.6	39.9	18	49		

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Diameter with cable guard is 3.75"

Stainless Steel



4" TRI-SEAL PUMPS

The Tri-Seal 4" submersible pump features the Tri-Seal floating stage system. This stage system further improves efficiency and protects against wear when pumping abrasives. 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
- Scalloped impellers provide high efficiency performance and abrasion resistance
- Advanced thermoplastic 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
- Patented impeller hub seal system seals radially and axially to prevent fluid recirculation, providing high performance in the harshest conditions

Tri-Seal™ Floating Stage System

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



UL 778
CSA 108
NSF/ANSI 372
NSF/ANSI 61 (Pump end only)

4" TRI-SEAL PUMPS - ORDERING INFORMATION

THERMOPLASTIC ORDERING INFORMATION

GPM	HP	Stages	Volts	2-Wire			3-Wire			
				Model	Order No.	Motor	Model	Order No.	Motor	Control Box
10	1/2	6	115	10FA05P4-2W115	93781005	2445049004GS	10FA05P4-3W115	93781030	2145049004GS	2801044915
	1/2	6	230	10FA05P4-2W230	93781010	2445059004GS	10FA05P4-3W230	93781035	2145059004GS	2801054915
	3/4	8	230	10FA07P4-2W230	93781015	2445079004GS	10FA07P4-3W230	93781040	2145079004GS	2801074915
	1	11	230	10FA1P4-2W230	93781020	2445089003GS	10FA1P4-3W230	93781045	2145089003GS	2801084915
	1.5	15	230	10FA15P4-2W230	93781025	2443099004GS	10FA15P4-3W230	93781050	2243009203GS	2823008110
15	1/2	4	115	15FA05P4-2W115	93781505	2445049004GS	15FA05P4-3W115	93781530	2145049004GS	2801044915
	1/2	4	230	15FA05P4-2W230	93781510	2445059004GS	15FA05P4-3W230	93781535	2145059004GS	2801054915
	3/4	6	230	15FA07P4-2W230	93781515	2445079004GS	15FA07P4-3W230	93781540	2145079004GS	2801074915
	1	9	230	15FA1P4-2W230	93781520	2445089003GS	15FA1P4-3W230	93781545	2145089003GS	2801084915
	1.5	11	230	15FA15P4-2W230	93781525	2443099004GS	15FA15P4-3W230	93781550	2243009203GS	2823008110
20	3/4	5	230	20FA07P4-2W230	93782015	2445079004GS	20FA07P4-3W230	93782040	2145079004GS	2801074915
	1	7	230	20FA1P4-2W230	93782020	2445089003GS	20FA1P4-3W230	93782045	2145089003GS	2801084915
	1.5	10	230	20FA15P4-2W230	93782025	2443099004GS	20FA15P4-3W230	93782050	2243009203GS	2823008110
25	1	6	230	25FA1P4-2W230	93782520	2445089003GS	25FA1P4-3W230	93782545	2145089003GS	2801084915
	1.5	8	230	25FA15P4-2W230	93782525	2443099004GS	25FA15P4-3W230	93782550	2243009203GS	2823008110

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

STAINLESS STEEL ORDERING INFORMATION

GPM	HP	Stages	Volts	2-Wire			3-Wire			
				Model	Order No.	Motor	Model	Order No.	Motor	Control Box
10	1/2	6	115	10FA05S4-2W115	93811005	2445049004GS	10FA05S4-3W115	93811030	2145049004GS	2801044915
	1/2	6	230	10FA05S4-2W230	93811010	2445059004GS	10FA05S4-3W230	93811035	2145059004GS	2801054915
	3/4	8	230	10FA07S4-2W230	93811015	2445079004GS	10FA07S4-3W230	93811040	2145079004GS	2801074915
	1	11	230	10FA1S4-2W230	93811020	2445089003GS	10FA1S4-3W230	93811045	2145089003GS	2801084915
	1.5	15	230	10FA15S4-2W230	93811025	2443099004GS	10FA15S4-3W230	93811050	2243009203GS	2823008110
15	1/2	4	115	15FA05S4-2W115	93811505	2445049004GS	15FA05S4-3W115	93811530	2145049004GS	2801044915
	1/2	4	230	15FA05S4-2W230	93811510	2445059004GS	15FA05S4-3W230	93811535	2145059004GS	2801054915
	3/4	6	230	15FA07S4-2W230	93811515	2445079004GS	15FA07S4-3W230	93811540	2145079004GS	2801074915
	1	9	230	15FA1S4-2W230	93811520	2445089003GS	15FA1S4-3W230	93811545	2145089003GS	2801084915
	1.5	11	230	15FA15S4-2W230	93811525	2443099004GS	15FA15S4-3W230	93811550	2243009203GS	2823008110
20	3/4	5	230	20FA07S4-2W230	93812015	2445079004GS	20FA07S4-3W230	93812040	2145079004GS	2801074915
	1	7	230	20FA1S4-2W230	93812020	2445089003GS	20FA1S4-3W230	93812045	2145089003GS	2801084915
	1.5	10	230	20FA15S4-2W230	93812025	2443099004GS	20FA15S4-3W230	93812050	2243009203GS	2823008110
25	1	6	230	25FA1S4-2W230	93812520	2445089003GS	25FA1S4-3W230	93812545	2145089003GS	2801084915
	1.5	8	230	25FA15S4-2W230	93812525	2443099004GS	25FA15S4-3W230	93812550	2243009203GS	2823008110

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

4" TRI-SEAL PUMPS - ORDERING INFORMATION

THERMOPLASTIC PUMP ENDS

GPM	HP	Stages	Model	Order No.
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	9	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.

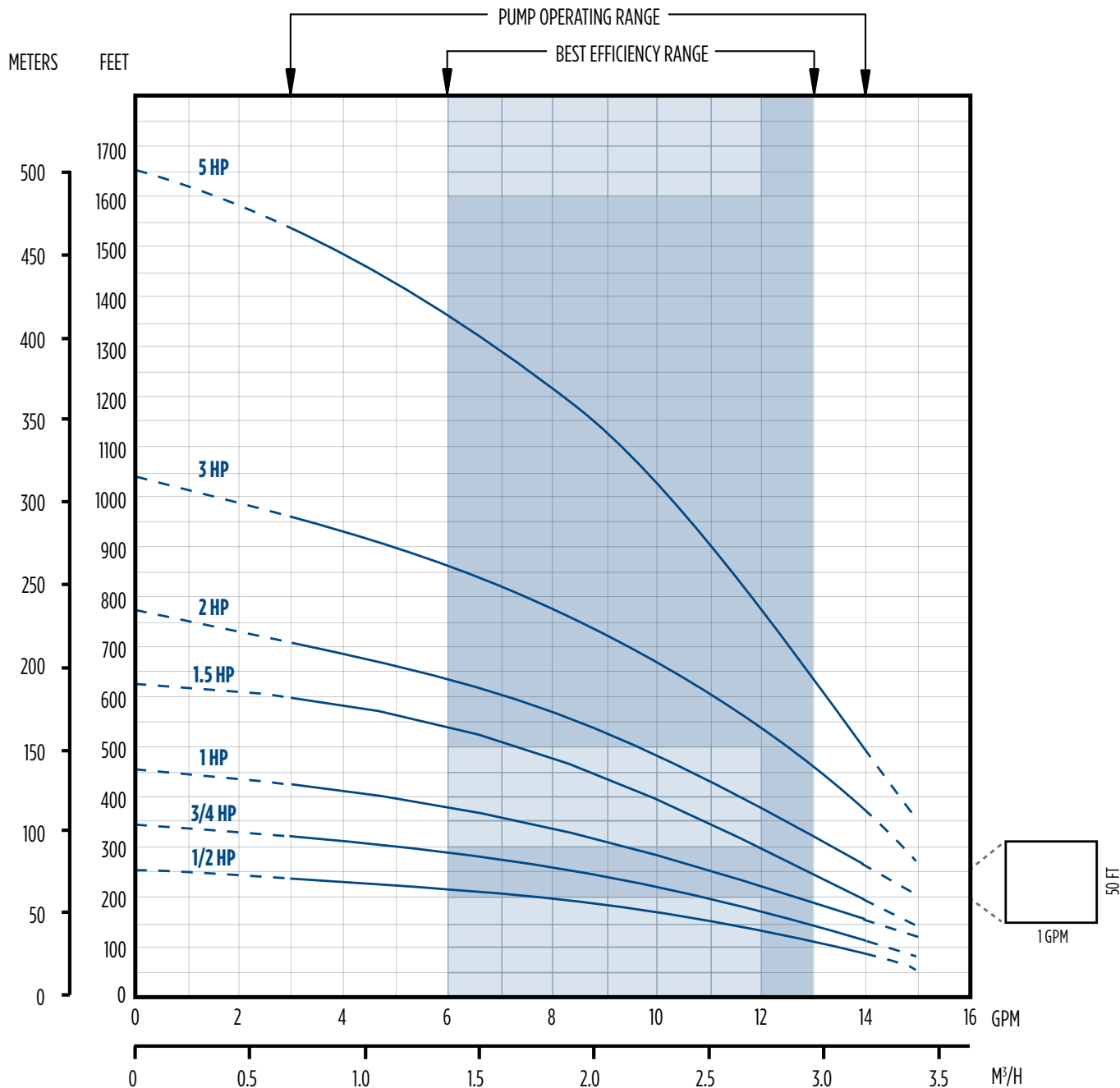
STAINLESS STEEL PUMP ENDS

GPM	HP	Stages	Model	Order No.
10	1/2	6	10FA05S4-PE	93821005
	3/4	8	10FA07S4-PE	93821010
	1	11	10FA1S4-PE	93821015
	1.5	15	10FA15S4-PE	93821020
	2	18	10FA2S4-PE	93821025
	3	24	10FA3S4-PE	93821030
15	5	39	10FA5S4-PE	93821035
	1/2	4	15FA05S4-PE	93821505
	3/4	6	15FA07S4-PE	93821510
	1	9	15FA1S4-PE	93821515
	1.5	11	15FA15S4-PE	93821520
	2	14	15FA2S4-PE	93821525
20	3	19	15FA3S4-PE	93821530
	5	31	15FA5S4-PE	93821535
	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
25	7.5	39	20FA7S4-PE	93822040
	10	52	20FA10S4-PE	93822045
	1	6	25FA1S4-PE	93822515
	1.5	8	25FA15S4-PE	93822520
25	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.

4" TRI-SEAL PUMPS - 10 GPM

PERFORMANCE



4" TRI-SEAL PUMPS - 10 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)				
		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	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	11	11	10	9	9	8	7						
	20							14	13	13	12	12	11	11	10	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	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	12	11	10	10	9	9	8	6			
	20											14	13	13	12	12	11	10	9	9	8	5				
	30											14	13	13	12	12	11	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	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	12	10	8	6	3	
	30															14	14	13	13	12	12	11	10	8	5	
	40													14	14	13	13	12	12	11	11	9	7	4		
	50													14	14	13	12	12	12	11	11	10	9	6	3	
	60													14	14	13	12	12	11	11	10	9	7	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			

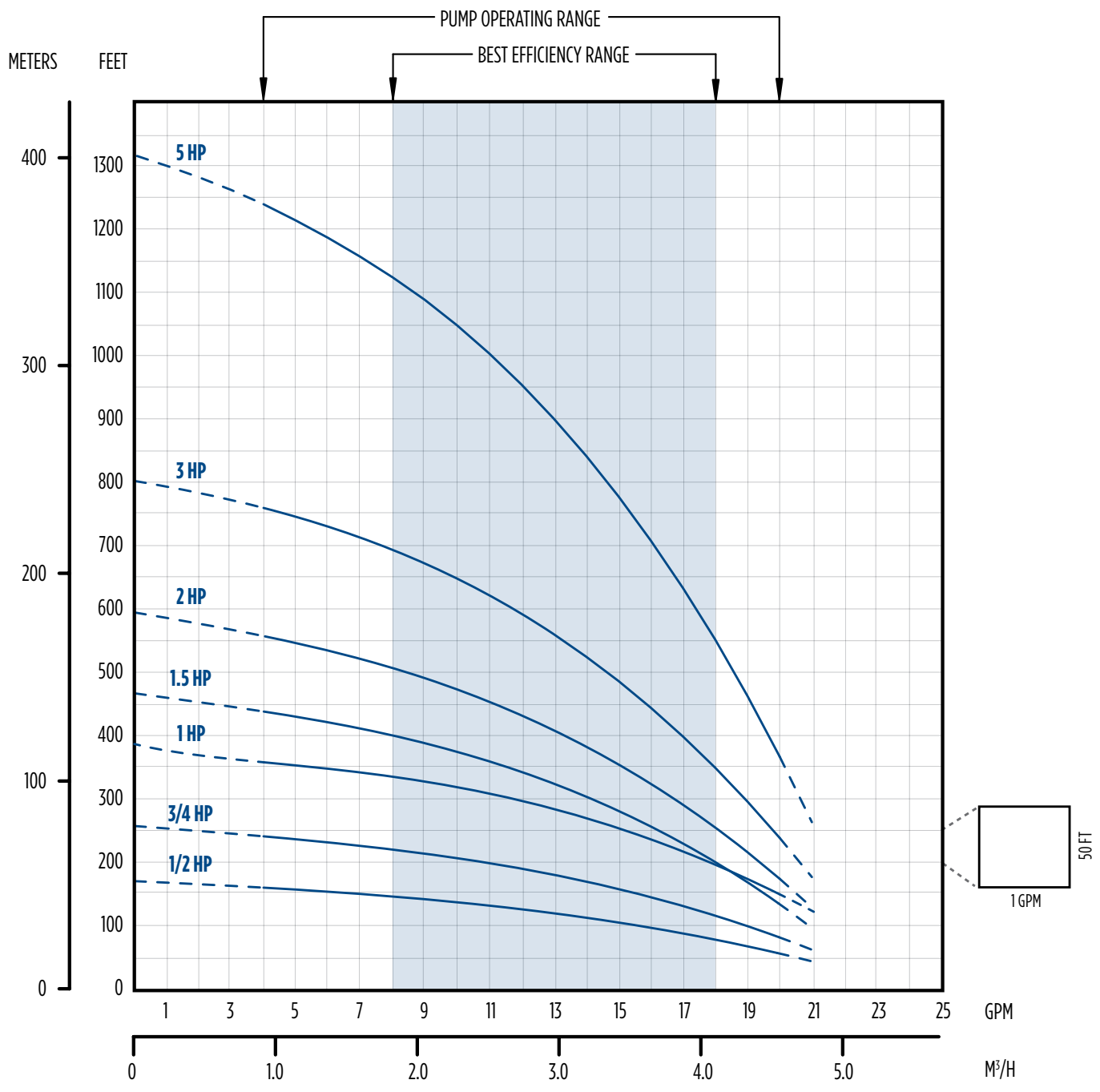
NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

HP	PSI	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	Shut-Off (ft)
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	10	9	8	7	5	3		
Shut-off PSI		670	626	583	540	497	453	410	367	324	280	237	194	151	107	

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

4" TRI-SEAL PUMPS - 15 GPM

PERFORMANCE



4" TRI-SEAL PUMPS - 20 GPM

PERFORMANCE

The chart displays the performance of 4" tri-seal pumps with a 20 GPM flow rate. The y-axis represents head in meters and feet, and the x-axis represents flow in GPM and M³/H. A shaded region indicates the best efficiency range, and a larger region indicates the pump operating range.

HP	Flow (GPM)	Head (Feet)	Head (Meters)
10 HP	0	1900	600
	5	1850	580
	10	1750	540
	15	1600	490
	20	1350	410
	25	1000	300
7.5 HP	0	1450	440
	5	1400	430
	10	1300	400
	15	1150	350
	20	900	270
	25	600	180
5 HP	0	1000	300
	5	950	290
	10	850	260
	15	750	230
	20	550	170
	25	350	110
3 HP	0	600	180
	5	550	170
	10	480	150
	15	400	120
	20	300	90
	25	200	60
2 HP	0	450	135
	5	420	128
	10	380	116
	15	320	98
	20	250	76
	25	180	54
1.5 HP	0	400	120
	5	380	116
	10	350	107
	15	300	91
	20	240	73
	25	180	54
1 HP	0	300	90
	5	290	88
	10	270	82
	15	240	73
	20	200	61
	25	150	46
3/4 HP	0	250	76
	5	240	73
	10	230	70
	15	210	64
	20	180	54
	25	140	43

20

4" TRI-SEAL PUMPS - 20 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)		
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700		800	900
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															
1	0						26	25	23	20	18	11												
	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									
	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									
	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											
70			24	23	21	20	19	18	16	14														
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	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		

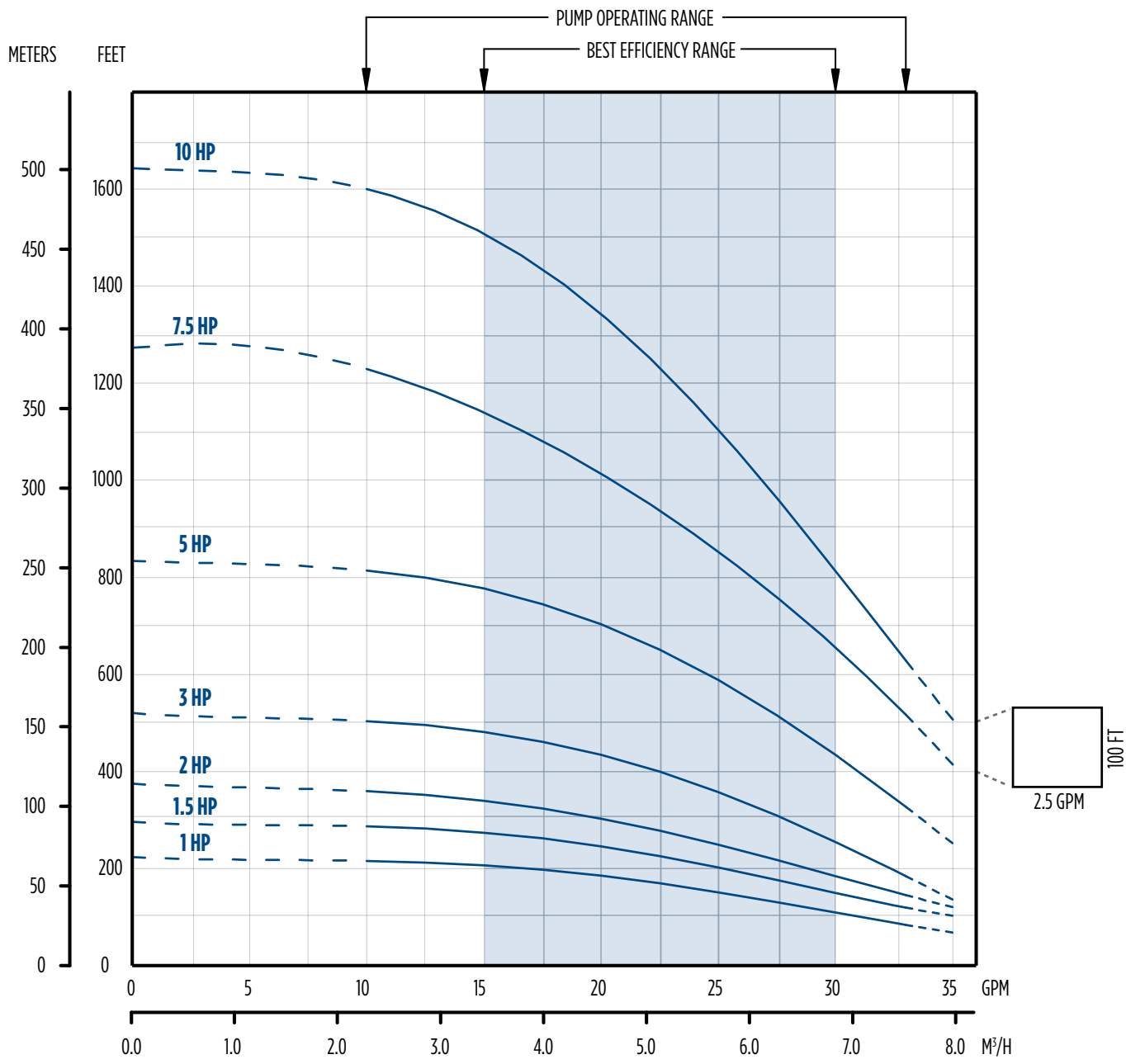
NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

HP	PSI	440	480	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	Shut-Off (ft)			
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				27	26	24	22	20	18	15	11										
	60		27	27	25	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: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

4" TRI-SEAL PUMPS - 25 GPM

PERFORMANCE



4" TRI-SEAL PUMPS - 25 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)				
		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															222
	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												297	
	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											375	
	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							519	
	20						33	32	32	31	30	28	27	25	22	19										
	30					33	32	32	31	30	29	28	26	25	22	18										
	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			833	
	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	31	30	28	27	25	24	23	19				
	60								33	33	32	31	31	30	28	26	25	23	23	22	18					
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						

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

HP	PSI	300	360	400	440	480	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	Shut-Off (ft)	
7.5	0						33	33	31	29	26	23	20	17	12						1281
	20					33	32	32	31	28	25	22	19	15							
	30				33	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	31	29	26	23	20	17								
	60			33	32	32	31	31	28	25	22	19	16								
80	33	32	32	31	30	30	27	24	21	18	13										
Shut-off PSI		425	399	382	364	347	338	295	252	208	165	122	78	35							
10	0									33	32	30	29	27	25	23	21	19	15	10	1642
	20									33	31	30	28	26	24	22	20	17	13		
	30									32	31	29	27	26	24	22	19	17	12		
	40								33	32	30	29	27	25	23	21	19	16	10		
	50						33	33	32	30	28	27	25	23	21	18	15				
	60						33	33	31	30	28	26	24	22	20	18	14				
80					33	32	32	31	29	27	25	23	21	19	16	11					
Shut-off PSI		581	555	538	520	503	494	451	408	365	321	278	235	191	148	105	61	18			

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

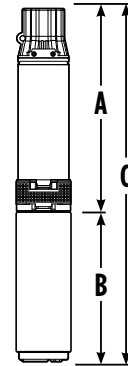
4" TRI-SEAL PUMPS - DIMENSIONS

THERMOPLASTIC

GPM	HP	Stages	2-Wire					3-Wire				
			Dimensions (in)			Wt. (lbs)		Dimensions (in)			Wt. (lbs)	
			A	B	C	PE	PMA	A	B	C	PE	PMA
5	1/2	8	14.12	9.51	23.63	8	26	14.12	9.51	23.63	8	26
	3/4	12	17.41	10.64	28.05	9	30	17.41	10.64	28.05	9	30
	1	15	19.87	11.73	31.60	10	34	19.87	11.73	31.60	10	34
	1.5	21	24.81	15.10	39.91	12	43	24.81	13.60	38.41	12	40
7	1/2	7	13.30	9.51	22.81	7	25	13.30	9.51	22.81	7	26
	3/4	10	15.76	10.64	26.40	8	29	15.76	10.64	26.40	8	29
	1	13	18.23	11.73	29.96	10	34	18.23	11.73	29.96	10	34
	1.5	18	22.34	15.10	37.44	11	42	22.34	13.60	35.94	11	39
10	1/2	6	12.97	9.51	22.48	7	25	12.97	9.51	22.48	7	26
	3/4	8	14.69	10.64	25.33	8	29	14.69	10.64	25.33	8	29
	1	11	17.44	11.73	29.17	9	33	17.44	11.73	29.17	9	33
	1.5	15	21.06	15.10	36.16	10	41	21.06	13.60	34.66	10	38
15	1/2	4	11.45	9.51	20.96	6	24	11.45	9.51	20.96	6	25
	3/4	6	12.97	10.64	23.61	7	28	12.97	10.64	23.61	7	28
	1	8	14.69	11.73	26.42	8	32	14.69	11.73	26.42	8	32
	1.5	11	17.44	15.10	32.54	9	40	17.44	13.60	31.04	9	37
20	3/4	5	13.65	10.64	24.29	6	28	13.65	10.64	24.29	6	28
	1	7	16.10	11.73	26.42	8	32	16.10	11.73	27.83	7	31
	1.5	10	19.77	15.10	34.87	8	39	19.77	13.60	33.37	8	36
25	1	6	14.88	11.73	26.61	7	31	14.88	11.73	26.61	7	31
	1.5	8	17.32	15.10	32.42	8	39	17.32	15.10	30.92	8	36

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

Thermoplastic

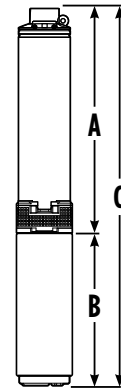


4" TRI-SEAL PUMPS - DIMENSIONS

STAINLESS STEEL

GPM	HP	Stages	2-Wire						3-Wire					
			Dimensions (in)			Wt. (lbs)			Dimensions (in)			Wt. (lbs)		
			A	B	C	PE	PMA	A	B	C	PE	PMA		
5	1/2	8	13.57	9.51	23.08	10	28	13.57	9.51	23.08	10	29		
	3/4	12	16.86	10.64	27.50	12	33	16.86	10.64	27.50	12	33		
	1	15	19.33	11.73	31.06	14	38	19.33	11.73	31.06	14	38		
	1.5	21	24.26	15.10	39.36	17	48	24.26	13.60	37.86	17	45		
	2	26	-	-	-	-	-	30.46	15.10	45.56	20	-		
7	1/2	7	12.75	9.51	22.26	9	27	12.75	9.51	22.26	9	28		
	3/4	10	15.22	10.64	25.86	11	32	15.22	10.64	25.86	11	32		
	1	13	17.68	11.73	29.41	13	37	17.68	11.73	29.41	13	37		
	1.5	18	21.80	15.10	36.90	15	46	21.80	13.60	35.40	15	43		
	2	24	-	-	-	-	-	26.73	15.10	41.83	19	-		
	3	32	-	-	-	-	-	35.39	19.04	54.43	23	-		
10	1/2	6	12.39	9.51	21.90	7	25	12.39	9.51	21.90	9	28		
	3/4	8	14.14	10.64	24.78	10	31	14.14	10.64	24.78	10	31		
	1	11	16.85	11.73	28.58	11	35	16.85	11.73	28.58	11	35		
	1.5	15	20.48	15.10	35.58	14	45	20.48	13.60	34.08	14	42		
	2	18	-	-	-	-	-	25.26	15.10	40.36	15	-		
	3	19	-	-	-	-	-	26.17	19.04	45.21	16	-		
	5	31	-	-	-	-	-	37.00	29.19	66.19	23	-		
15	1/2	4	10.64	9.51	20.15	7	25	10.64	9.51	20.15	7	26		
	3/4	6	12.39	10.64	23.03	9	30	12.39	10.64	23.03	9	30		
	1	8	14.14	11.73	25.87	10	34	14.14	11.73	25.87	10	34		
	1.5	11	16.85	15.10	31.95	11	42	16.85	13.60	30.45	11	39		
	2	14	-	-	-	-	-	19.57	15.10	34.67	13	-		
	3	19	-	-	-	-	-	26.17	19.04	45.21	16	-		
	5	31	-	-	-	-	-	37.00	29.19	66.19	23	-		
20	3/4	5	13.10	10.64	23.74	8	29	13.10	10.64	23.74	8	29		
	1	7	15.55	11.73	27.28	9	33	15.55	11.73	27.28	9	33		
	1.5	10	19.22	15.10	34.32	11	42	19.22	13.60	32.82	11	39		
	2	12	-	-	-	-	-	21.66	15.10	36.76	12	-		
	3	16	-	-	-	-	-	26.55	19.04	45.59	14	-		
	5	26	-	-	-	-	-	40.86	29.19	70.05	20	-		
	7.5	39	-	-	-	-	-	60.77	29.60	90.37	27	-		
	10	52	-	-	-	-	-	76.66	32.60	109.26	35	-		
25	1	6	14.33	11.73	26.06	9	33	14.33	11.73	26.06	9	33		
	1.5	8	16.77	15.10	31.87	10	41	16.77	13.60	30.37	10	38		
	2	10	-	-	-	-	-	19.22	15.10	34.32	11	-		
	3	14	-	-	-	-	-	24.11	19.04	43.15	13	-		
	5	23	-	-	-	-	-	37.19	28.19	66.38	18	-		
	7.5	35	-	-	-	-	-	55.88	29.60	85.48	25	-		
	10	44	-	-	-	-	-	66.88	32.60	99.48	30	-		

Stainless Steel



NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

4" SERIES V PUMPS

The standard 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

- Six 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



UL 778
 CSA 108
 NSF/ANSI 372
 NSF/ANSI 61 (Pump end only)

4" SERIES V PUMPS - ORDERING INFORMATION

THERMOPLASTIC ORDERING INFORMATION

GPM	HP	Stages	Volts	2-Wire			3-Wire			
				Model	Order No.	Motor	Model	Order No.	Motor	Control Box
5	1/2	8	115	5FV05P4-2W115	95400505	2445049004GS	5FV05P4-3W115	95400530	2145049004GS	2801044915
	1/2	8	230	5FV05P4-2W230	95400510	2445059004GS	5FV05P4-3W230	95400535	2145059004GS	2801054915
	3/4	12	230	5FV07P4-2W230	95400515	2445079004GS	5FV07P4-3W230	95400540	2145079004GS	2801074915
	1	15	230	5FV1P4-2W230	95400520	2445089003GS	5FV1P4-3W230	95400545	2145089003GS	2801084915
7	1.5	21	230	5FV15P4-2W230	95400525	2443099004GS	5FV15P4-3W230	95400550	2243009203GS	2823008110
	1/2	7	115	7FV05P4-2W115	95400705	2445049004GS	7FV05P4-3W115	95400730	2145049004GS	2801044915
	1/2	7	230	7FV05P4-2W230	95400710	2445059004GS	7FV05P4-3W230	95400735	2145059004GS	2801054915
	3/4	10	230	7FV07P4-2W230	95400715	2445079004GS	7FV07P4-3W230	95400740	2145079004GS	2801074915
10	1	13	230	7FV1P4-2W230	95400720	2445089003GS	7FV1P4-3W230	95400745	2145089003GS	2801084915
	1.5	18	230	7FV15P4-2W230	95400725	2443099004GS	7FV15P4-3W230	95400750	2243009203GS	2823008110
	1/2	6	115	10FV05P4-2W115	95401005	2445049004GS	10FV05P4-3W115	95401030	2145049004GS	2801044915
	1/2	6	230	10FV05P4-2W230	95401010	2445059004GS	10FV05P4-3W230	95401035	2145059004GS	2801054915
15	3/4	8	230	10FV07P4-2W230	95401015	2445079004GS	10FV07P4-3W230	95401040	2145079004GS	2801074915
	1	11	230	10FV1P4-2W230	95401020	2445089003GS	10FV1P4-3W230	95401045	2145089003GS	2801084915
	1.5	15	230	10FV15P4-2W230	95401025	2443099004GS	10FV15P4-3W230	95401050	2243009203GS	2823008110
	1/2	4	115	15FV05P4-2W115	95401505	2445049004GS	15FV05P4-3W115	95401530	2145049004GS	2801044915
20	1/2	4	230	15FV05P4-2W230	95401510	2445059004GS	15FV05P4-3W230	95401535	2145059004GS	2801054915
	3/4	6	230	15FV07P4-2W230	95401515	2445079004GS	15FV07P4-3W230	95401540	2145079004GS	2801074915
	1	8	230	15FV1P4-2W230	95401520	2445089003GS	15FV1P4-3W230	95401545	2145089003GS	2801084915
	1.5	11	230	15FV15P4-2W230	95401525	2443099004GS	15FV15P4-3W230	95401550	2243009203GS	2823008110
25	3/4	5	230	20FV07P4-2W230	95402015	2445079004GS	20FV07P4-3W230	95402040	2145079004GS	2801074915
	1	7	230	20FV1P4-2W230	95402020	2445089003GS	20FV1P4-3W230	95402045	2145089003GS	2801084915
	1.5	10	230	20FV15P4-2W230	95402025	2443099004GS	20FV15P4-3W230	95402050	2243009203GS	2823008110
25	1	6	230	25FV1P4-2W230	95402520	2445089003GS	25FV1P4-3W230	95402545	2145089003GS	2801084915
	1.5	8	230	25FV15P4-2W230	95402525	2443099004GS	25FV15P4-3W230	95402550	2243009203GS	2823008110

STAINLESS STEEL ORDERING INFORMATION

GPM	HP	Stages	Volts	2-Wire			3-Wire			
				Model	Order No.	Motor	Model	Order No.	Motor	Control Box
5	1/2	8	115	5FV05S4-2W115	95420505	2445049004GS	5FV05S4-3W115	95420530	2145049004GS	2801044915
	1/2	8	230	5FV05S4-2W230	95420510	2445059004GS	5FV05S4-3W230	95420535	2145059004GS	2801054915
	3/4	12	230	5FV07S4-2W230	95420515	2445079004GS	5FV07S4-3W230	95420540	2145079004GS	2801074915
	1	15	230	5FV1S4-2W230	95420520	2445089003GS	5FV1S4-3W230	95420545	2145089003GS	2801084915
7	1.5	21	230	5FV15S4-2W230	95420525	2443099004GS	5FV15S4-3W230	95420550	2243009203GS	2823008110
	1/2	7	115	7FV05S4-2W115	95420705	2445049004GS	7FV05S4-3W115	95420730	2145049004GS	2801044915
	1/2	7	230	7FV05S4-2W230	95420710	2445059004GS	7FV05S4-3W230	95420735	2145059004GS	2801054915
	3/4	10	230	7FV07S4-2W230	95420715	2445079004GS	7FV07S4-3W230	95420740	2145079004GS	2801074915
10	1	13	230	7FV1S4-2W230	95420720	2445089003GS	7FV1S4-3W230	95420745	2145089003GS	2801084915
	1.5	18	230	7FV15S4-2W230	95420725	2443099004GS	7FV15S4-3W230	95420750	2243009203GS	2823008110
	1/2	6	115	10FV05S4-2W115	95421005	2445049004GS	10FV05S4-3W115	95421030	2145049004GS	2801044915
	1/2	6	230	10FV05S4-2W230	95421010	2445059004GS	10FV05S4-3W230	95421035	2145059004GS	2801054915
15	3/4	8	230	10FV07S4-2W230	95421015	2445079004GS	10FV07S4-3W230	95421040	2145079004GS	2801074915
	1	11	230	10FV1S4-2W230	95421020	2445089003GS	10FV1S4-3W230	95421045	2145089003GS	2801084915
	1.5	15	230	10FV15S4-2W230	95421025	2443099004GS	10FV15S4-3W230	95421050	2243009203GS	2823008110
	1/2	4	115	15FV05S4-2W115	95421505	2445049004GS	15FV05S4-3W115	95421530	2145049004GS	2801044915
20	1/2	4	230	15FV05S4-2W230	95421510	2445059004GS	15FV05S4-3W230	95421535	2145059004GS	2801054915
	3/4	6	230	15FV07S4-2W230	95421515	2445079004GS	15FV07S4-3W230	95421540	2145079004GS	2801074915
	1	8	230	15FV1S4-2W230	95421520	2445089003GS	15FV1S4-3W230	95421545	2145089003GS	2801084915
	1.5	11	230	15FV15S4-2W230	95421525	2443099004GS	15FV15S4-3W230	95421550	2243009203GS	2823008110
25	3/4	5	230	20FV07S4-2W230	95422015	2445079004GS	20FV07S4-3W230	95422040	2145079004GS	2801074915
	1	7	230	20FV1S4-2W230	95422020	2445089003GS	20FV1S4-3W230	95422045	2145089003GS	2801084915
	1.5	10	230	20FV15S4-2W230	95422025	2443099004GS	20FV15S4-3W230	95422050	2243009203GS	2823008110
25	1	6	230	25FV1S4-2W230	95422520	2445089003GS	25FV1S4-3W230	95422545	2145089003GS	2801084915
	1.5	8	230	25FV15S4-2W230	95422525	2443099004GS	25FV15S4-3W230	95422550	2243009203GS	2823008110

4" SERIES V PUMPS - ORDERING INFORMATION

THERMOPLASTIC PUMP ENDS

GPM	HP	Stages	Model	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	9	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.

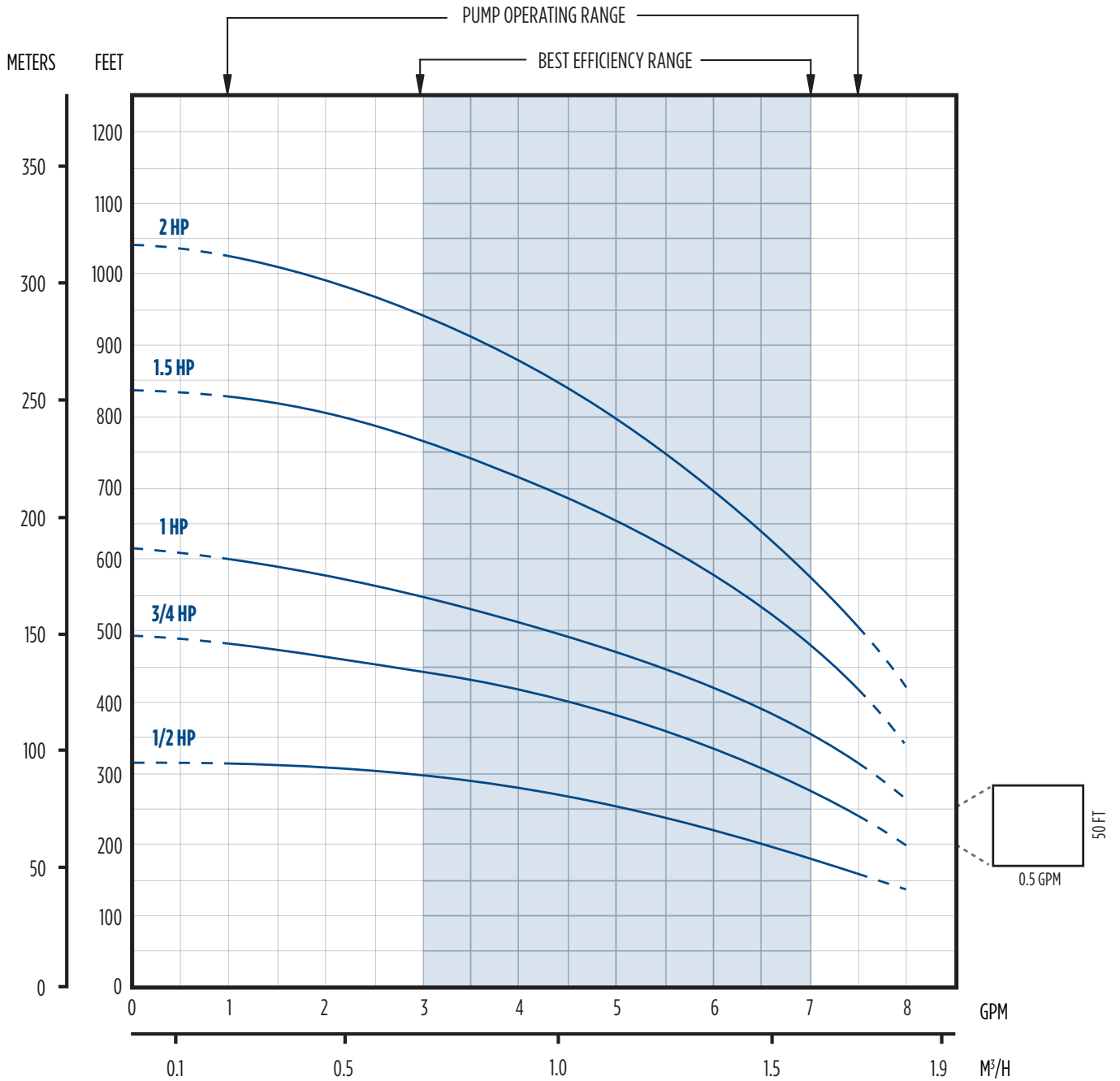
STAINLESS STEEL PUMP ENDS

GPM	HP	Stages	Model	Order No.
5	1/2	8	5FV05S4-PE	95430500
	3/4	12	5FV07S4-PE	95430501
	1	15	5FVIS4-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	7FVIS4-PE	95430702
	1.5	18	7FV15S4-PE	95430703
	2	24	7FV2S4-PE	95430704
	3	32	7FV3S4-PE	95430705
	10	6	10FV05S4-PE	95431000
10	3/4	8	10FV07S4-PE	95431001
	1	11	10FVIS4-PE	95431002
	1.5	15	10FV15S4-PE	95431003
	2	18	10FV2S4-PE	95431004
	3	24	10FV3S4-PE	95431005
	5	39	10FV5S4-PE	95431006
	15	4	15FV05S4-PE	95431500
	3/4	6	15FV07S4-PE	95431501
	1	9	15FVIS4-PE	95431502
	1.5	11	15FV15S4-PE	95431503
15	2	14	15FV2S4-PE	95431504
	3	19	15FV3S4-PE	95431505
	5	31	15FV5S4-PE	95431506
	3/4	5	20FV07S4-PE	95432001
	1	7	20FVIS4-PE	95432002
	1.5	10	20FV15S4-PE	95432003
	2	12	20FV2S4-PE	95432004
20	3	16	20FV3S4-PE	95432005
	5	26	20FV5S4-PE	95432006
	1	6	25FVIS4-PE	95432501
	1.5	8	25FV15S4-PE	95432502
	2	10	25FV2S4-PE	95432503
25	3	14	25FV3S4-PE	95432504
	5	23	25FV5S4-PE	95432505

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

4" SERIES V PUMPS - 5 GPM

PERFORMANCE



4" SERIES V PUMPS - 5 GPM

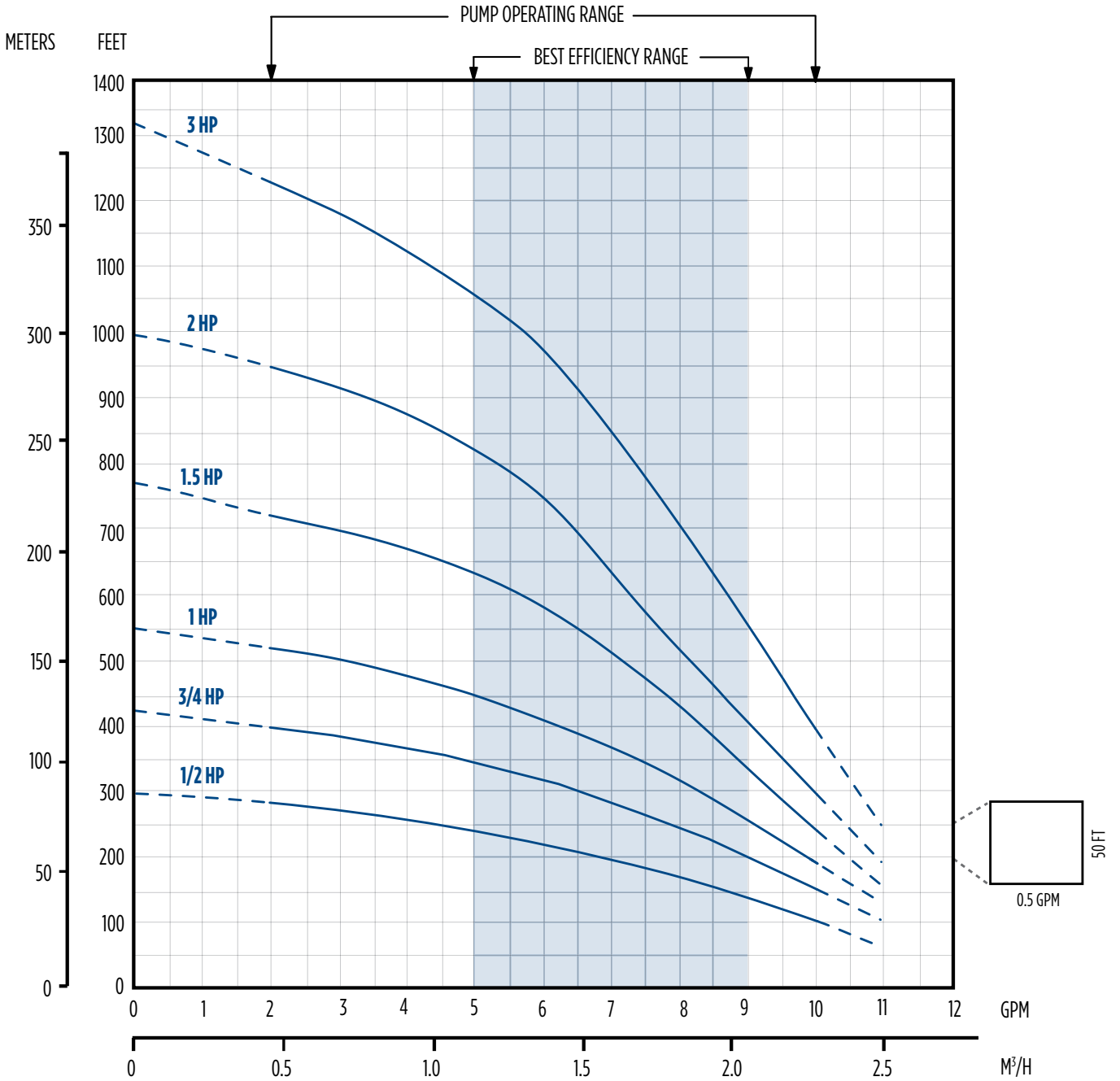
PERFORMANCE

HP	PSI	Depth To Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance																				Shut-Off (ft)				
		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													
	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									
	20								7	7	7	6	6	5	4	3										
	30								7	7	7	6	6	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						
	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	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		
	20																	7	7	7	6	6	5	3		
	30																	7	7	7	6	6	4	3		
	40																	7	7	7	6	6	5	4	2	
	50																	7	7	7	6	6	5	3		
	60																	7	7	7	6	6	5	3		
	80																	7	7	7	6	6	5	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	
	20																		7	7	7	7	6	5	4	2
	30																		7	7	7	7	6	5	3	
	40																		7	7	7	6	6	5	3	
	50																		7	7	7	7	6	5	4	3
	60																		7	7	7	6	6	5	4	3
	80																		7	7	7	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: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

4" SERIES V PUMPS - 7 GPM

PERFORMANCE



4" SERIES V PUMPS - 7 GPM

PERFORMANCE

HP	PSI	Depth To Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance																				Shut-Off (ft)			
		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	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		421	412	404	395	386	378	369	360	352	343	326	317	300	274	257	239	222	213	170	127	84	40		
1	0					10	10	10	9	9	9	8	8	7	6	5	3	3							
	20					10	10	10	9	9	9	8	8	7	6	5	3								
	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	10	9	9	9	8	8	7	7	6	5	2					
	20						10	10	10	10	9	9	9	8	8	7	7	6	6	4					
	30				10	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	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	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	10	10	9	9	9	8	8	7	5	3				
	20							10	10	10	10	10	10	9	9	9	8	8	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	4			
	50				10	10	10	10	10	10	9	9	9	9	8	8	7	7	7	6	5	3			
	60			10	10	10	10	10	10	9	9	9	9	8	8	7	7	7	7	6	4				
	80	10	10	10	10	10	9	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		

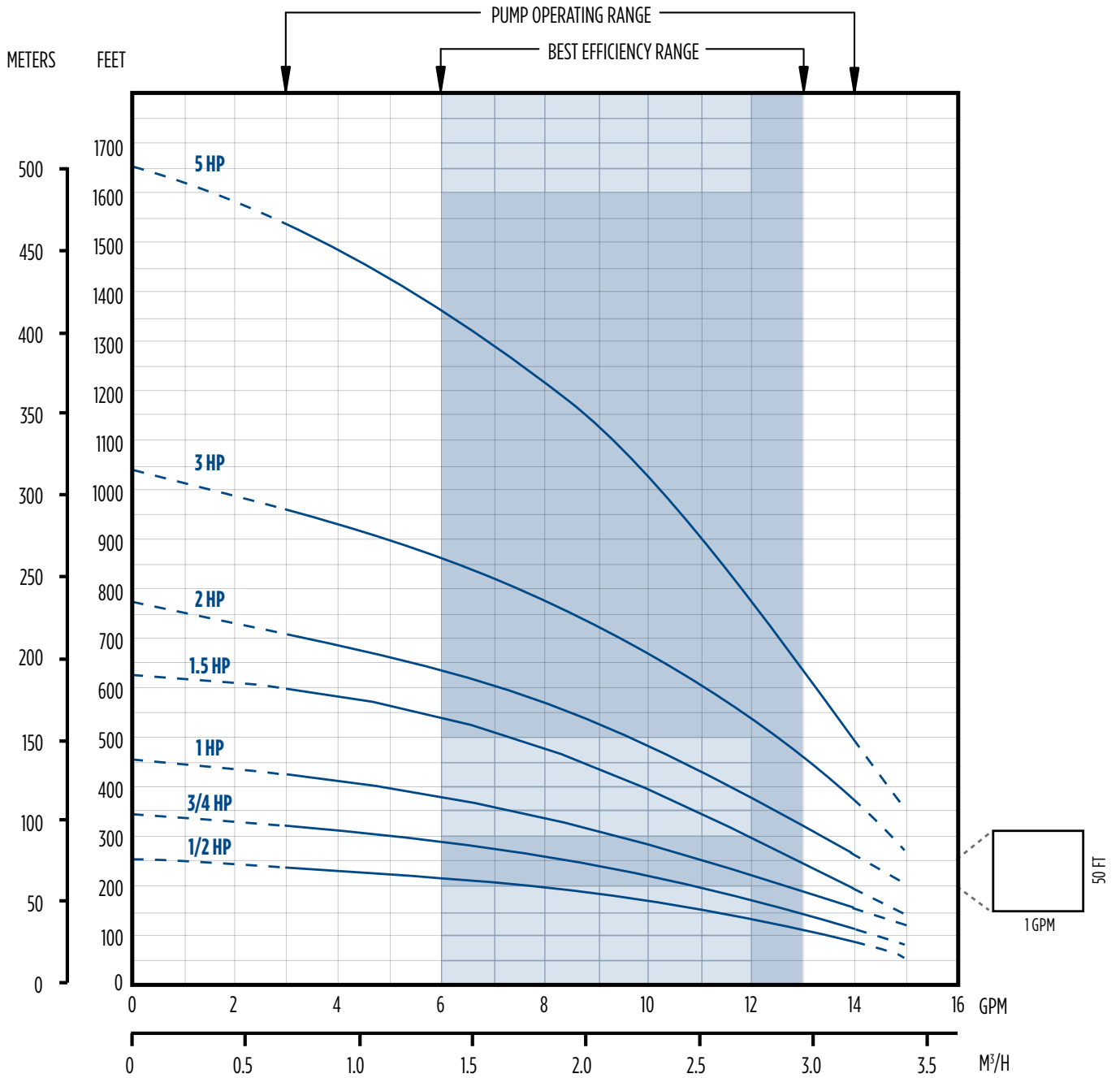
NOTES: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

HP	PSI	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	Shut-Off (ft)
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: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

4" SERIES V PUMPS - 10 GPM

PERFORMANCE



4" SERIES V PUMPS - 10 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (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	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	11	9	9	7	3	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	11	11	10	9	9	8	7						
	20						14	13	13	12	12	11	11	10	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	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	12	11	10	10	9	6				
	20										14	13	13	12	12	11	10	9	9	8	5			
	30										14	13	13	12	12	11	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	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	12	10	8	6	3	
	30													14	14	13	13	12	12	11	10	8	5	
	40												14	14	13	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	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	

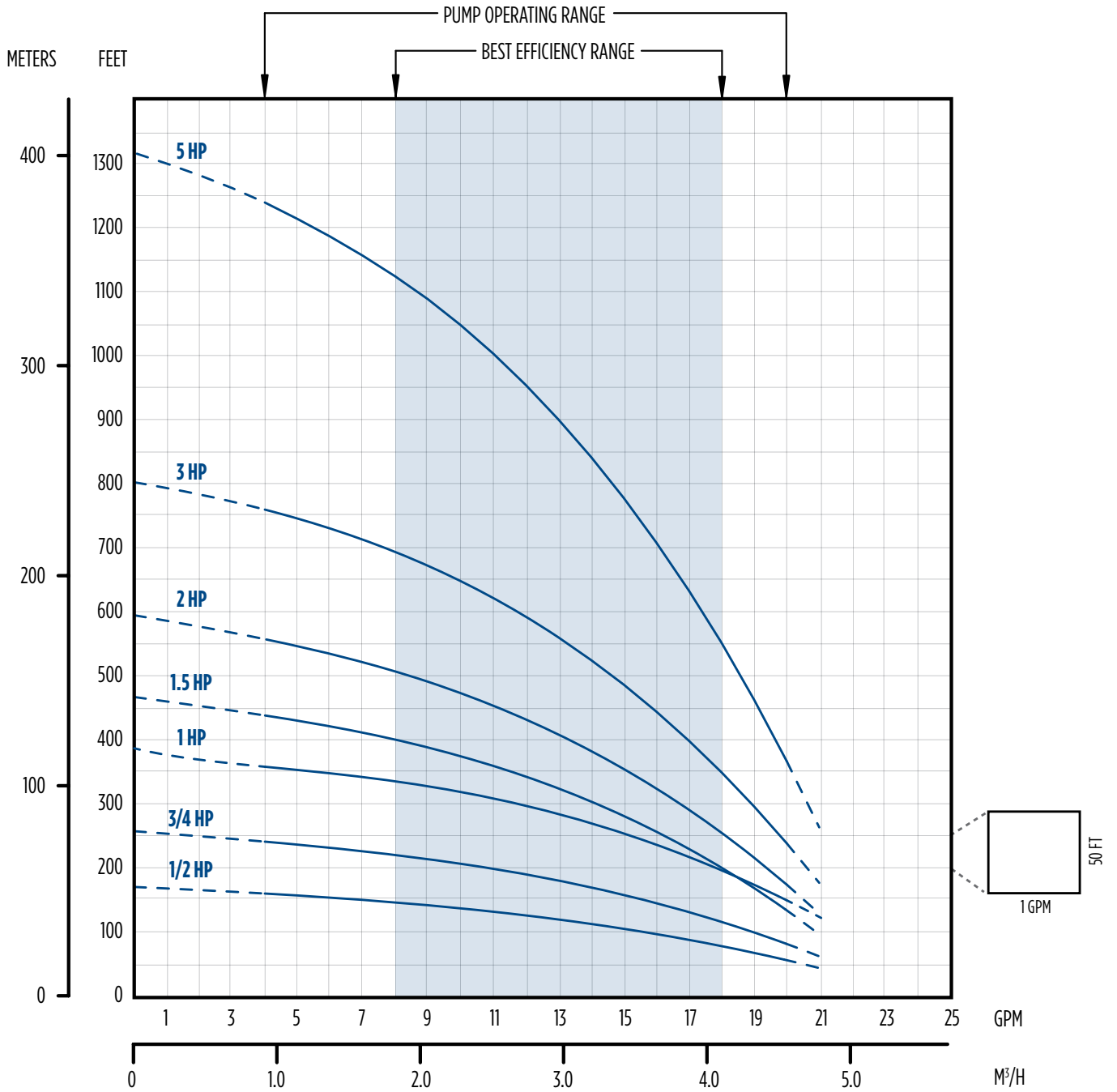
NOTES: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

HP	PSI	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	Shut-Off (ft)	
5	0				14	13	13	12	11	11	10	9	8	6	5	1310	
	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	10	9	8	7	5	3			
Shut-off PSI		670	626	583	540	497	453	410	367	324	280	237	194	151	107		

NOTES: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

4" SERIES V PUMPS - 15 GPM

PERFORMANCE



4" SERIES V PUMPS - 15 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)				
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700		800	900	1000	1100
1/2	0				20	18	16	13	9	4																170
	20				17	15	12	8																		
	30				14	11	7																			
	40				11	6																				
	50				8	5																				
	80				5																					
Shut-off PSI		65	56	48	39	30	22	13	4																	
3/4	0				20	19	18	16	15	13	11														257	
	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																	
	80			10	7																					
Shut-off PSI		103	94	85	77	68	59	51	42	33	25															

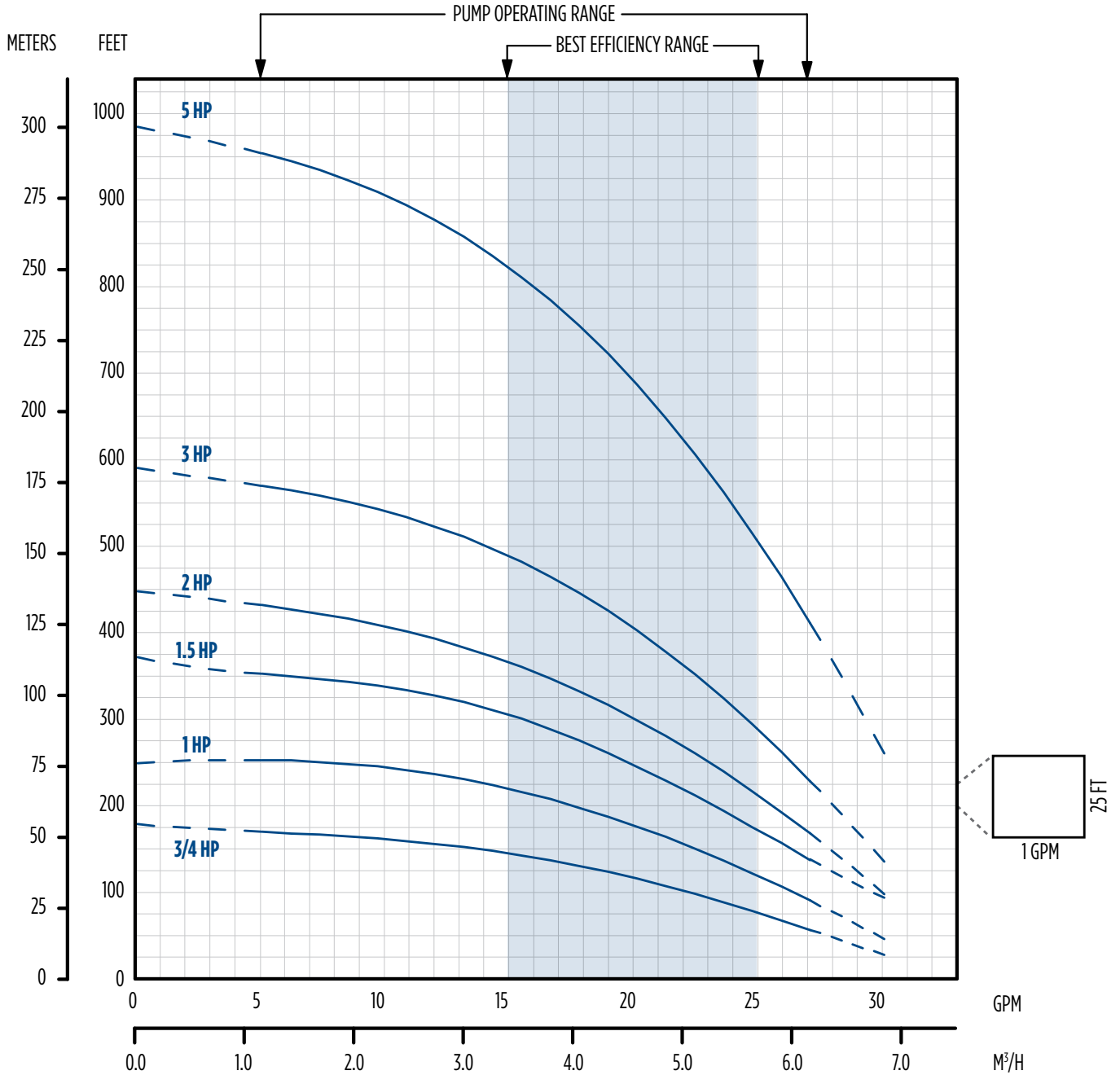
HP	PSI	Depth to Pumping Water Level, or Lift, in Feet Shaded Areas Indicate Most Efficient Performance																				Shut-Off (ft)		
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	600	700	800	900		1000	1100
1	0									19	19	18	16	12	6									392
	10									19	18	17	14	9	2									
	20					20	19	18	18	17	16	12	6											
	30				20	19	18	18	17	16	14	10	3											
	40			20	19	18	17	17	15	14	12	7												
	50		20	19	18	17	16	15	14	12	10	3												
	60	20	19	18	17	16	15	14	12	10	7													
	70	19	18	17	16	15	13	11	9	7	4													
	80	18	17	16	15	13	11	9	6	4	1													
	90	17	16	14	13	11	9	6	3															
	100	15	14	13	11	8	6	3																
	110	14	12	10	8	5	2																	
	120	12	10	7	5	2																		
	130	9	7	4	1																			
140	7	4	1																					
150	3																							
Shut-off psi		153	144	135	127	118	109	101	92	83	62	40	18											

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)				
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700		800	900	1000	1100
1.5	0						20	20	19	19	18	17	16	14	11	8	4							467		
	20				20	20	19	18	18	17	16	15	14	12	7											
	30			20	20	19	18	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												
	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										14	13	13	12	11	10	10	9	6				770			
	20										14	13	13	12	11	10	9	8	5							
	30										14	13	13	12	11	10	9	8	4							
	40								14	13	13	12	12	11	10	9	8	7	3							
	50							14	13	13	12	12	11	11	10	9	8	7	6							
	80				14	13	13	13	12	12	11	11	10	9	8	7	6	5								
Shut-off PSI		324	316	307	298	290	281	272	264	255	246	229	220	203	177	160	143	125	117	73						
3	0										20	20	19	18	17	16	15	15	12	8			170			
	20							20	20	20	19	19	18	17	16	15	14	13	10	5						
	30							20	20	20	19	19	18	18	17	16	15	14	13	9						
	40							20	20	20	19	19	18	18	17	16	15	14	13	8						
	50						20	20	20	19	19	19	18	18	17	15	14	13	12	11	7					
	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	257
	20													20	20	19	19	18	18	17	15	14	12	10	7	
	30													20	20	19	19	18	18	17	15	14	12	9		
	40													20	20	19	19	18	18	16	15	13	11	9		
	50													20	20	19	19	18	18	17	16	14	13	11		
	80													20	20	19	19	18	18	17	16	14	12	10		
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		

NOTES: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

4" SERIES V PUMPS - 20 GPM

PERFORMANCE



4" SERIES V PUMPS - 20 GPM

PERFORMANCE

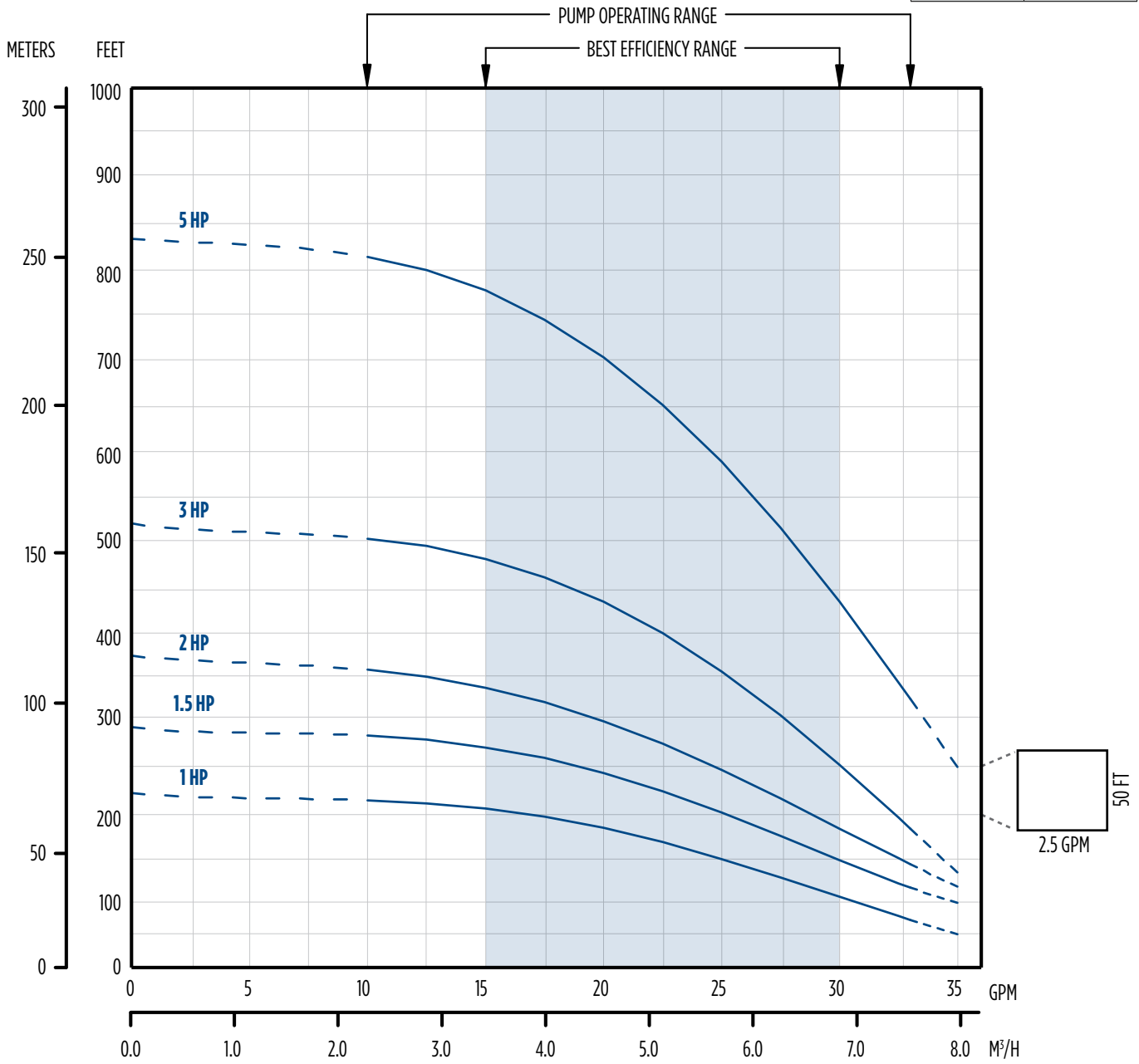
HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)			
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700		800	900	1000
3/4	0				24	22	21	18	14																190
	20		23	21	19	17	12																		
	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												251	
	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									379	
	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									453	
	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						601	
	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				770	
	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			

NOTES: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

4" SERIES V PUMPS - 25 GPM

PERFORMANCE

Basic Model	PEI _{CL} Number
25S4	0.76



4" SERIES V PUMPS - 25 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)				
		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															222
	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				32	30	28	26	24	22	19														297	
	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				34	33	31	29	28	26	25	24	20												375	
	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	32	31	30	29	28	24	22	19	15								519	
	20						33	32	32	31	30	28	27	25	22	19										
	30					33	32	32	31	30	29	28	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					833	
	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	23	22	18					
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						

NOTES: Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

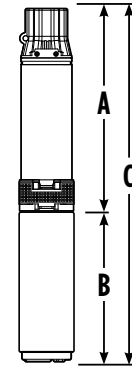
4" SERIES V PUMPS - DIMENSIONS

THERMOPLASTIC

GPM	HP	Stages	2-Wire					3-Wire				
			Dimensions (in)			Wt. (lbs)		Dimensions (in)			Wt. (lbs)	
			A	B	C	PE	PMA	A	B	C	PE	PMA
5	1/2	8	14.12	9.51	23.63	8	26	14.12	9.51	23.63	8	26
	3/4	12	17.41	10.64	28.05	9	30	17.41	10.64	28.05	9	30
	1	15	19.87	11.73	31.60	10	34	19.87	11.73	31.60	10	34
	1.5	21	24.81	15.10	39.91	12	43	24.81	13.60	38.41	12	40
7	1/2	7	13.30	9.51	22.81	7	25	13.30	9.51	22.81	7	26
	3/4	10	15.76	10.64	26.40	8	29	15.76	10.64	26.40	8	29
	1	13	18.23	11.73	29.96	10	34	18.23	11.73	29.96	10	34
	1.5	18	22.34	15.10	37.44	11	42	22.34	13.60	35.94	11	39
10	1/2	6	12.97	9.51	22.48	7	25	12.97	9.51	22.48	7	26
	3/4	8	14.69	10.64	25.33	8	29	14.69	10.64	25.33	8	29
	1	11	17.44	11.73	29.17	9	33	17.44	11.73	29.17	9	33
	1.5	15	21.06	15.10	36.16	10	41	21.06	13.60	34.66	10	38
15	1/2	4	11.45	9.51	20.96	6	24	11.45	9.51	20.96	6	25
	3/4	6	12.97	10.64	23.61	7	28	12.97	10.64	23.61	7	28
	1	8	14.69	11.73	26.42	8	32	14.69	11.73	26.42	8	32
	1.5	11	17.44	15.10	32.54	9	40	17.44	13.60	31.04	9	37
20	3/4	5	13.65	10.64	24.29	6	28	13.65	10.64	24.29	6	28
	1	7	16.10	11.73	26.42	8	32	16.10	11.73	27.83	7	31
	1.5	10	19.77	15.10	34.87	8	39	19.77	13.60	33.37	8	36
25	1	6	14.88	11.73	26.61	7	31	14.88	11.73	26.61	7	31
	1.5	8	17.32	15.10	32.42	8	39	17.32	15.10	30.92	8	36

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

Thermoplastic

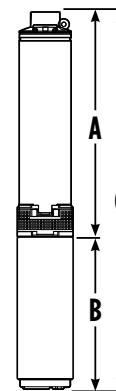


STAINLESS STEEL

GPM	HP	Stages	2-Wire					3-Wire				
			Dimensions (in)			Wt. (lbs)		Dimensions (in)			Wt. (lbs)	
			A	B	C	PE	PMA	A	B	C	PE	PMA
5	1/2	8	13.57	9.51	23.08	10	28	13.57	9.51	23.08	10	29
	3/4	12	16.86	10.64	27.50	12	33	16.86	10.64	27.50	12	33
	1	15	19.33	11.73	31.06	14	38	19.33	11.73	31.06	14	38
	1.5	21	24.26	15.10	39.36	17	48	24.26	13.60	37.86	17	45
	2	26	-	-	-	-	-	30.46	15.10	45.56	20	-
7	1/2	7	12.75	9.51	22.26	9	27	12.75	9.51	22.26	9	28
	3/4	10	15.22	10.64	25.86	11	32	15.22	10.64	25.86	11	32
	1	13	17.68	11.73	29.41	13	37	17.68	11.73	29.41	13	37
	1.5	18	21.80	15.10	36.90	15	46	21.80	13.60	35.40	15	43
	2	24	-	-	-	-	-	26.73	15.10	41.83	19	-
10	3/4	6	12.39	9.51	21.90	7	25	12.39	9.51	21.90	7	26
	1	8	14.14	10.64	24.78	10	31	14.14	10.64	24.78	10	31
	1.5	11	16.85	11.73	28.58	11	35	16.85	11.73	28.58	11	35
	2	15	20.48	15.10	35.58	14	45	20.48	13.60	34.08	14	42
	3	19	-	-	-	-	-	25.26	15.10	40.36	15	-
	5	31	-	-	-	-	-	26.17	19.04	45.21	16	-
	5	31	-	-	-	-	-	37.00	29.19	66.19	23	-
15	1/2	4	10.64	9.51	20.15	7	25	10.64	9.51	20.15	7	26
	3/4	6	12.39	10.64	23.03	9	30	12.39	10.64	23.03	9	30
	1	8	14.14	11.73	25.87	10	34	14.14	11.73	25.87	10	34
	1.5	11	16.85	15.10	31.95	11	42	16.85	13.60	30.45	11	39
	2	14	-	-	-	-	-	19.57	15.10	34.67	13	-
20	3/4	5	13.10	10.64	23.74	8	29	13.10	10.64	23.74	8	29
	1	7	15.55	11.73	27.28	9	33	15.55	11.73	27.28	9	33
	1.5	10	19.22	15.10	34.32	11	42	19.22	13.60	32.82	11	39
	2	12	-	-	-	-	-	21.66	15.10	36.76	12	-
	3	16	-	-	-	-	-	26.55	19.04	45.59	14	-
	5	26	-	-	-	-	-	40.86	29.19	70.05	20	-
	7.5	39	-	-	-	-	-	60.77	29.60	90.37	27	-
25	1	6	14.33	11.73	26.06	9	33	14.33	11.73	26.06	9	33
	1.5	8	16.77	15.10	31.87	10	41	16.77	13.60	30.37	10	38
	2	10	-	-	-	-	-	19.22	15.10	34.32	11	-
	3	14	-	-	-	-	-	24.11	19.04	43.15	13	-
	5	23	-	-	-	-	-	37.19	28.19	66.38	18	-
	7.5	35	-	-	-	-	-	55.88	29.60	85.48	25	-

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

Stainless Steel



4" TRI-SEAL HIGH CAPACITY PUMPS

FEATURES

- Four performance ranges: 35, 45, 60, and 90 gpm
- 2" NPT discharge, with and without an internal stainless steel wafer-style check valve
- Stainless steel discharge head and motor bracket
- High flow hydraulic staging allows for maximum pump output, exceeds all energy efficiency standards, and provides increased product longevity
- Ceramic shaft sleeve and rubber discharge bearing eliminates sand wear
- Intermediate bearing for increased shaft stability when pump lengths dictate on high horse, high performance constructions
- Impeller 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 (35, 45, 60, and 90 gpm models)
- Designed for optimal performance when powered by Franklin's corrosion-resistant 4" submersible motors

MODEL NO. EXPLANATION

Example: 60FH10S4-PE

- 60 = gpm
- FH = Franklin Electric Brand
- 10 = 10 hp
- S = Stainless
- 4 = 4" Submersible
- PE = Pump End



CSA CERTIFIED
PUMP END ONLY

 151236
 C US
 NSF/ANSI 61
 Drinking Water

4" TRI-SEAL HIGH CAPACITY PUMPS - ORDERING INFORMATION

PUMP ENDS ORDERING INFORMATION

1 - 10 HP 4" High Capacity Pump Ends												
GPM	HP	Stages	Model	Order No.	Check Valve in 2" NPT Discharge	Dimensions (in) Pump End Only	Wt. (lbs)	Basic Model	PEI _{CL} Number			
35	1	5	35FHIS4-PE	93653505	No	11.9	8	35S4	0.83			
	1.5	7	35FH15S4-PE	93653507		14.5	9					
	2	9	35FH2S4-PE	93653509		17	10					
	3	12	35FH3S4-PE	93653512		20.9	11					
	5	20	35FH5S4-PE	93653520		33.3	16					
	7.5	29	35FH7S4-PE	93653529		44.5	23					
	10	38	35FH10S4-PE	93653538		58.5	29					
	1	5	35FHIS4-PECV	93663505		14.1	9					
	1.5	7	35FH15S4-PECV	93663507		16.7	10					
	2	9	35FH2S4-PECV	93663509		19.2	11					
45	3	12	35FH3S4-PECV	93663512	Yes	23	12	45S4	0.89			
	5	20	35FH5S4-PECV	93663520		35.5	17					
	7.5	29	35FH7S4-PECV	93663529		47	24					
	10	38	35FH10S4-PECV	93663538		60.7	30					
	1.5	5	45FH15S4-PE	93654505		No	14.2			8	45S4	0.89
	2	7	45FH2S4-PE	93654507			17.6			9		
	3	10	45FH3S4-PE	93654510			22.8			10		
	5	16	45FH5S4-PE	93654516			35.3			14		
	7.5	23	45FH7S4-PE	93654523			47.4			22		
	10	31	45FH10S4-PE	93654531			63.3			28		
1.5	5	45FH15S4-PECV	93664505	16.3	9							
2	7	45FH2S4-PECV	93664507	19.8	10							
3	10	45FH3S4-PECV	93664510	25	11							
60	5	16	45FH5S4-PECV	93664516	Yes		37.4	15	60S4	0.94		
	7.5	23	45FH7S4-PECV	93664523		49.5	23					
	10	31	45FH10S4-PECV	93664531		65.5	29					
	2	7	60FH2S4-PE	93656007		No	23.5	10			60S4	0.94
	3	10	60FH3S4-PE	93656010			33.3	12				
	5	16	60FH5S4-PE	93656016			48.8	18				
	7.5	23	60FH7S4-PE	93656023			68.8	25				
	10	30	60FH10S4-PE	93656030			86.9	31				
	2	7	60FH2S4-PECV	93666007			25.7	11				
	3	10	60FH3S4-PECV	93666010			35.4	13				
5	16	60FH5S4-PECV	93666016	50.9	19							
7.5	23	60FH7S4-PECV	93666023	71	26							
90	10	30	60FH10S4-PECV	93666030	Yes		89	32	90S4	0.92		
	2	6	90FH2S4-PE	93659006		23.4	10					
	3	8	90FH3S4-PE	93659008		31.4	12					
	5	13	90FH5S4-PE	93659013		46.3	17					
	7.5	19	90FH7S4-PE	93659019		66.2	23					
	10	25	90FH10S4-PE	93659025		84.2	29					
	2	6	90FH2S4-PECV	93669006		25.6	11					
	3	8	90FH3S4-PECV	93669008		33.6	13					
	5	13	90FH5S4-PECV	93669013		48.5	18					
	7.5	19	90FH7S4-PECV	93669019		68.4	24					
10	25	90FH10S4-PECV	93669025	86.3	30							

NOTES: Maximum diameter across cable guard is 3.90" on all models.

PUMP & MOTOR ORDERING INFORMATION

1 - 1.5 HP Single-Phase Units (2-Wire PMA)										
GPM	HP	Stages	Volts	Model	Order No.	Check Valve in 2" NPT Discharge	Wt. (lbs)	Basic Model	PEI _{CL} Number	
35	1	5	230	35FHIS4-2W230	93673505	No	32	35S4	0.83	
	1.5	7		35FH15S4-2W230	93673507		40			
	1	5		35FHIS4-2W230-CV	93693505		Yes			33
	1.5	7		35FH15S4-2W230-CV	93693507					41
45	1.5	5	230	45FH15S4-2W230	93674505	No	40	45S4	0.89	
	1.5	5		45FH15S4-2W230-CV	93694505	Yes	41			

1 - 1.5 HP Single-Phase Units (3-Wire PMA)										
GPM	HP	Stages	Volts	Model	Order No.	Check Valve in 2" NPT Discharge	Wt. (lbs)	Basic Model	PEI _{CL} Number	
35	1	5	230	35FHIS4-3W230	93703505	No	32	35S4	0.83	
	1.5	7		35FH15S4-3W230	93703507		40			
	1	5		35FHIS4-3W230-CV	93713505		Yes			33
	1.5	7		35FH15S4-3W230-CV	93713507					41
45	1.5	5	230	45FH15S4-3W230	93704505	No	40	45S4	0.89	
	1.5	5		45FH15S4-3W230-CV	93714505	Yes	41			

4" TRI-SEAL HIGH CAPACITY PUMPS - MODEL CROSS REFERENCE

DOE COMPLIANT VS ORIGINAL FPS PUMP ENDS

1 - 10 HP 4" High Capacity Pump Ends					
GPM	Check Valve in 2" NPT Discharge	Tri-Seal High Capacity, DOE PEI _{CL} Rated		Original FPS (Discontinued, replaced by Tri-Seal High Capacity)	
		Model	Order No.	Model	Order No.
35	No	35FH1S4-PE	93653505	35FA1S4-PE	93613506
		35FH1S4-PE	93653507	35FA1S4-PE	93613508
		35FH2S4-PE	93653509	35FA2S4-PE	93613510
		35FH3S4-PE	93653512	35FA3S4-PE	93613514
		35FH5S4-PE	93653520	35FA5S4-PE	93613522
		35FH7S4-PE	93653529	35FA7S4-PE	93613534
		35FH10S4-PE	93653538	35FA10S4-PE	93613542
		35FH1S4-PECV	93663505	35FA1S4-PE W/ Check Valve	90653506
	Yes	35FH1S4-PECV	93663507	35FA1S4-PE W/ Check Valve	90653508
		35FH2S4-PECV	93663509	35FA2S4-PE W/ Check Valve	90653510
		35FH3S4-PECV	93663512	35FA3S4-PE W/ Check Valve	90653514
		35FH5S4-PECV	93663520	35FA5S4-PE W/ Check Valve	90653522
		35FH7S4-PECV	93663529	35FA7S4-PE W/ Check Valve	90653534
		35FH10S4-PECV	93663538	35FA10S4-PE W/ Check Valve	90653542
		45FH1S4-PE	93654505	45FA1S4-PE	93614506
		45FH2S4-PE	93654507	45FA2S4-PE	93614508
45	No	45FH3S4-PE	93654510	45FA3S4-PE	93614511
		45FH5S4-PE	93654516	45FA5S4-PE	93614518
		45FH7S4-PE	93654523	45FA7S4-PE	93614526
		45FH10S4-PE	93654531	45FA10S4-PE	93614531
		45FH1S4-PECV	93664505	45FA1S4-PE W/ Check Valve	90654506
		45FH2S4-PECV	93664507	45FA2S4-PE W/ Check Valve	90654508
		45FH3S4-PECV	93664510	45FA3S4-PE W/ Check Valve	90654511
		45FH5S4-PECV	93664516	45FA5S4-PE W/ Check Valve	90654518
	Yes	45FH7S4-PECV	93664523	45FA7S4-PE W/ Check Valve	90654526
		45FH10S4-PECV	93664531	45FA10S4-PE W/ Check Valve	90654531
		60FH2S4-PE	93656007	60FA2S4-PE	93616006
		60FH3S4-PE	93656010	60FA3S4-PE	93616008
		60FH5S4-PE	93656016	60FA5S4-PE	93616013
		60FH7S4-PE	93656023	60FA7S4-PE	93616017
		60FH10S4-PE	93656030	60FA10S4-PE	93616024
		60FH2S4-PECV	93666007	60FA2S4-PE W/ Check Valve	90656006
60	No	60FH3S4-PECV	93666010	60FA3S4-PE W/ Check Valve	90656008
		60FH5S4-PECV	93666016	60FA5S4-PE W/ Check Valve	90656013
		60FH7S4-PECV	93666023	60FA7S4-PE W/ Check Valve	90656017
		60FH10S4-PECV	93666030	60FA10S4-PE W/ Check Valve	90656024
		90FH2S4-PE	93659006	90FA2S4-PE	93619005
		90FH3S4-PE	93659008	90FA3S4-PE	93619007
		90FH5S4-PE	93659013	90FA5S4-PE	93619012
		90FH7S4-PE	93659019	90FA7S4-PE	93619019
	Yes	90FH10S4-PE	93659025	90FA10S4-PE	93619020
		90FH2S4-PECV	93669006	90FA2S4-PE W/ Check Valve	90659005
		90FH3S4-PECV	93669008	90FA3S4-PE W/ Check Valve	90659007
		90FH5S4-PECV	93669013	90FA5S4-PE W/ Check Valve	90659012
		90FH7S4-PECV	93669019	90FA7S4-PE W/ Check Valve	90659019
		90FH10S4-PECV	93669025	90FA10S4-PE W/ Check Valve	90659020

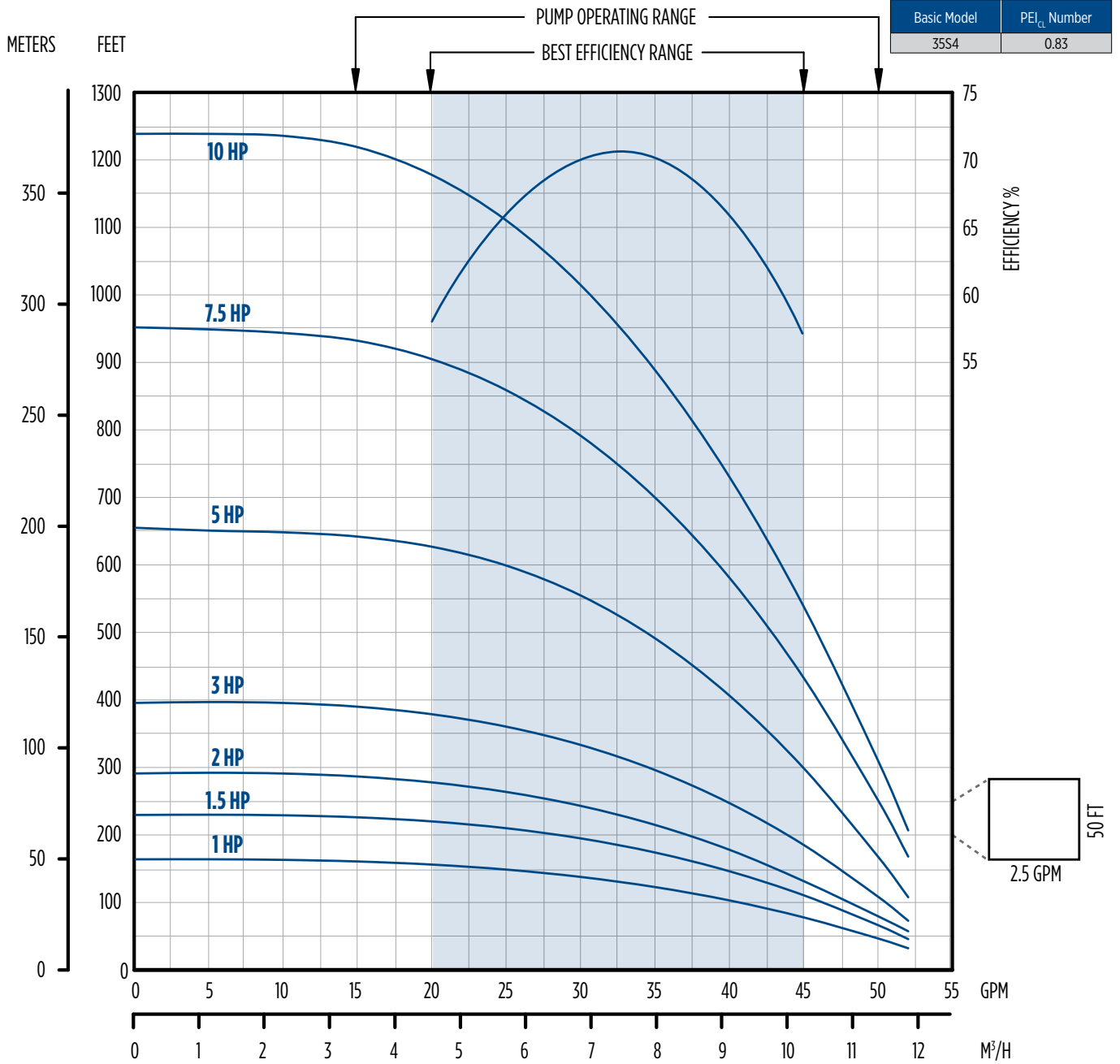
DOE COMPLIANT VS ORIGINAL FPS PUMP & MOTOR

1 - 1.5 HP Single-Phase Units (2-Wire PMA)					
GPM	Check Valve in 2" NPT Discharge	Tri-Seal High Capacity, DOE PEI _{CL} Rated		Original FPS (Discontinued, replaced by Tri-Seal High Capacity)	
		Model	Order No.	Model	Order No.
35	No	35FH1S4-2W230	93673505	35FA1S4-2W230	93613606
		35FH1S4-2W230	93673507	35FA1S4-2W230	93613608
	Yes	35FH1S4-2W230-CV	93693505	35FA1S4-2W230 W/ CV	90653606
		35FH1S4-2W230-CV	93693507	35FA1S4-2W230 W/ CV	90653608
45	No	45FH1S4-2W230	93674505	45FA1S4-2W230	93614606
	Yes	45FH1S4-2W230-CV	93694505	45FA1S4-2W230 W/ CV	90654606

1 - 1.5 HP Single-Phase Units (3-Wire PMA)					
GPM	Check Valve in 2" NPT Discharge	Tri-Seal High Capacity, DOE PEI _{CL} Rated		Original FPS (Discontinued, replaced by Tri-Seal High Capacity)	
		Model	Order No.	Model	Order No.
35	No	35FH1S4-3W230	93703505	35FA1S4-3W230	93613706
		35FH1S4-3W230	93703507	35FA1S4-3W230	93613708
	Yes	35FH1S4-3W230-CV	93713505	35FA1S4-3W230 W/ CV	90653706
		35FH1S4-3W230-CV	93713507	35FA1S4-3W230 W/ CV	90653708
45	No	45FH1S4-3W230	93704505	45FA1S4-3W230	93614706
	Yes	45FH1S4-3W230-CV	93714505	45FA1S4-3W230 W/ CV	90654706

4" TRI-SEAL HIGH CAPACITY PUMPS - 35 GPM

PERFORMANCE



4" TRI-SEAL HIGH CAPACITY PUMPS - 35 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		Shut-Off (ft)
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480	
1	0					44	40	35	28											
	10				44	39	34	27												
	20			43	39	33	25													
	30		42	38	32	23														
	40	42	37	31																
	50	36	30																	
	60	29																		
	70																			
	80																			
Shut-off PSI		70	61	52	44	35	26	18	9											
1.5	0					46	43	40	37	32	27									
	10				45	43	40	36	32	26										
	20			45	42	39	35	31	24											
	30		44	42	39	35	30	23												
	40	44	41	38	34	29	21													
	50	41	37	33	28															
	60	37	33	27																
	70	32	26																	
	80																			
Shut-off PSI		100	91	82	74	65	56	48	39	30	22	13								
2	0					46	43	41	39	36	33	29								
	10				45	43	41	38	35	32	28	23								
	20			45	42	40	37	34	31	27	20									
	30		45	42	40	37	34	31	27	20										
	40	44	42	40	37	34	30	26												
	50	42	39	37	33	30	25													
	60	39	36	33	29	24														
	70	32	26																	
	80																			
Shut-off PSI		130	121	113	104	95	87	78	69	61	52	43	26							
3	0					45	43	42	40	37	35	32	28	25						
	10					44	43	41	39	36	33	29	23							
	20					44	43	41	39	37	35	30	26							
	30					44	43	41	39	37	35	32	26							
	40			45	44	42	41	39	37	34	32	29								
	50		45	44	42	40	38	36	34	31	28	24								
	60	45	44	42	40	38	36	34	31	28	24									
	70	45	44	42	40	38	36	34	31	28	24									
	80	45	43	42	40	38	36	34	31	28	23									
Shut-off PSI		173	165	156	147	139	130	121	113	104	95	87	69	52	35	17				

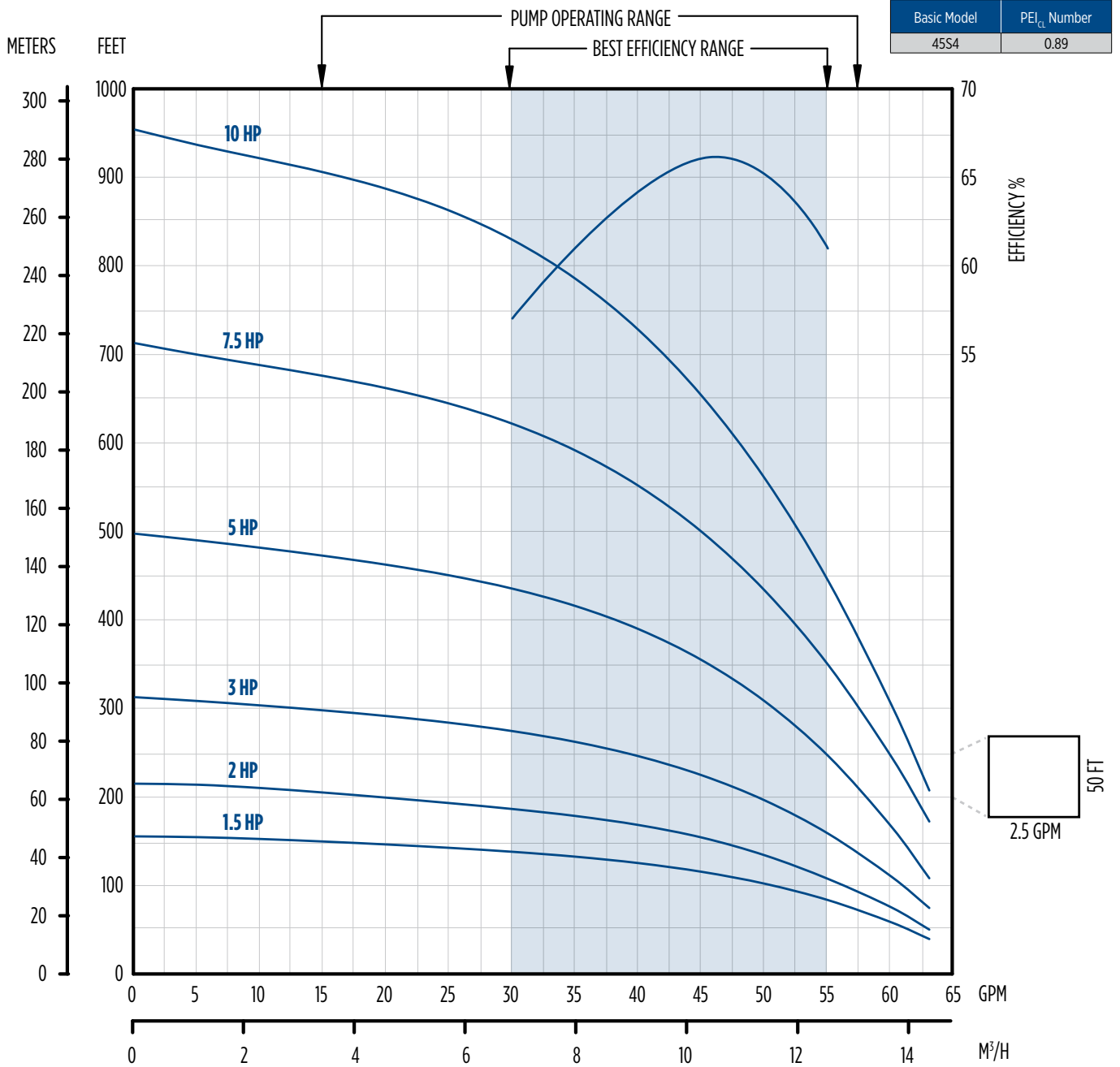
HP	PSI	120	140	160	180	200	240	280	320	360	400	440	480	500	550	600	650	700	750	800	Shut-Off (ft)
5	0								44	42	40	38	36	34	30	24					
	10							45	43	41	39	37	34	32	28	20					
	20							44	42	40	38	35	32	30	25						
	30						45	43	41	39	36	33	30	28	21						
	40					45	44	42	40	37	35	32	28	25							
	50				45	44	42	41	38	36	33	29	25	22							
	60			45	44	43	41	39	37	34	31	27	21								
	70		45	44	43	42	40	38	35	32	29	24									
	80	45	44	43	42	41	39	37	34	30	26										
Shut-off PSI		229	221	212	203	195	177	160	143	126	108	91	74	65	43	22					

HP	PSI	240	280	320	360	400	440	480	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	Shut-Off (ft)
7.5	0						45	43	43	41	39	37	35	32	29	25	20						
	10						44	43	42	40	38	36	34	31	28	23							
	20					45	43	42	41	39	37	35	33	30	26	21							
	30				45	44	43	41	40	38	36	34	31	28	24								
	40			46	44	43	42	40	40	38	35	33	30	26	21								
	50			46	44	42	41	39	39	37	34	31	28	24									
	60		45	44	43	42	40	39	38	35	33	30	26	22									
	70		45	43	42	41	39	38	37	34	32	28	24										
	80	45	44	43	41	40	38	37	36	33	30	27	22										
Shut-off PSI		307	290	273	255	238	221	203	195	173	152	130	108	87	65	43	22						
10	0								45	43	42	41	39	38	36	35	33	31	28	25	22		
	10								45	44	43	42	40	39	37	35	34	32	29	27	24	20	
	20								45	45	44	42	41	40	38	36	35	33	31	28	26	22	
	30								45	44	43	42	40	39	37	36	34	32	30	27	24	20	
	40						45	44	44	42	41	40	38	37	35	33	31	28	26	22			
	50					46	45	44	43	42	40	39	37	36	34	32	30	27	24	21			
	60				46	45	44	43	42	41	40	38	37	35	33	31	29	26	23				
	70				45	44	43	42	42	41	39	38	36	34	32	30	28	25	21				
	80			46	45	44	43	42	41	40	38	37	35	33	31	29	26	23					
Shut-off PSI				403	385	368	351	333	325	303	281	260	238	216	195	173	152	130	108	87	65	43	

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage. Performance shown is based on a pump without check valve.

4" TRI-SEAL HIGH CAPACITY PUMPS - 45 GPM

PERFORMANCE



4" TRI-SEAL HIGH CAPACITY PUMPS - 45 GPM

PERFORMANCE

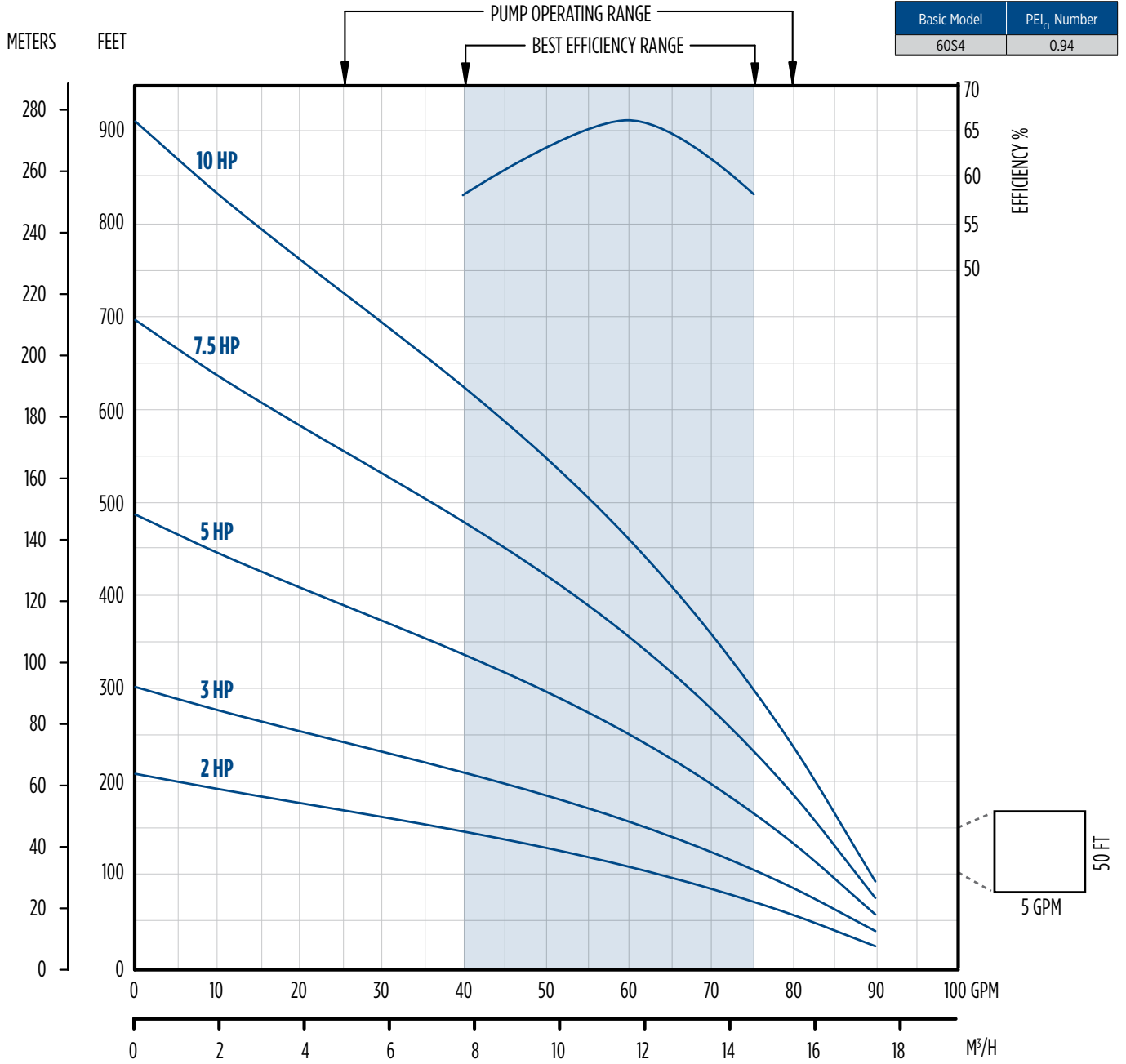
HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		Shut-Off (ft)	
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480		500
1.5	0					55	50	43													
	10				54	49	41														
	20			54	48	39															
	30		53	47	38																
	40	52	46	36																	
	50	44	33																		
	60	30																			
Shut-off PSI		68	59	50	42	33	24	16													
2	0							52	48	43	35										
	10							52	47	42	33										
	20				55	51	47	41	31												
	30			54	51	46	39	29													
	40	54	50	45	38																
	50	53	49	44	37																
	60	48	43	35																	
	70	42	34																		
	80	32																			
Shut-off PSI		94	85	76	68	59	50	42	33	24	16										
3	0								54	52	49	41									
	10								54	51	48	45	35								
	20								54	51	48	44	40								
	30						53	50	47	44	39	32									
	40				55	53	50	47	43	38	31										
	50			55	52	50	46	42	37												
	60		55	52	49	46	42	36													
	70	54	52	49	45	41	35														
	80	51	48	44	40	34															
Shut-off PSI		135	126	118	109	100	92	83	74	66	57	48	31								
5	0											55	52	48	44	38					
	10											53	50	46	41	33					
	20											55	51	48	43	37					
	30										56	54	53	49	45	40	32				
	40									56	54	53	51	47	42	36					
	50							55	54	52	51	49	45	41	39	30					
	60						55	54	52	50	49	46	42	34							
	70					55	53	52	50	48	46	44	38								
	80					53	52	50	48	46	43	41	33								
Shut-off PSI						182	173	165	156	147	139	130	113	95	78	61	43				

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		Shut-Off (ft)	
		160	180	200	240	280	320	360	400	440	480	500	550	600	650	700	750	800	850		900
7.5	0							54	52	49	46	45	40	34							
	10							55	53	50	48	44	43	37	30						
	20							54	52	49	46	42	40	34							
	30						55	53	50	47	44	40	38	30							
	40				56	54	51	48	45	42	37	35									
	50				54	52	50	47	43	39	34	31									
	60			55	53	51	48	45	41	37	30										
	70		55	54	52	49	46	43	39	33											
	80	55	54	53	50	48	44	41	36												
Shut-off PSI		237	228	219	202	185	168	150	133	116	98	90	68	46							
10	0									55	53	50	48	45	42	38	33				
	10									56	54	52	52	49	47	44	40	36	31		
	20									55	53	51	51	48	45	42	38	34			
	30								56	54	52	50	49	47	44	40	36	31			
	40								55	53	51	49	48	46	42	39	34				
	50						55	54	52	50	48	47	44	41	37	31					
	60					56	54	53	51	49	47	46	43	39	34						
	70					55	53	52	50	48	46	44	41	37	32						
	80				56	54	52	51	49	47	44	43	39	35							
Shut-off PSI				307	290	273	255	238	221	203	195	173	152	130	108	87	65				

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage. Performances for former XP models are the same as 45 gpm models. Performance shown is based on a pump without check valve.

4" TRI-SEAL HIGH CAPACITY PUMPS - 60 GPM

PERFORMANCE



4" TRI-SEAL HIGH CAPACITY PUMPS - 60 GPM

PERFORMANCE

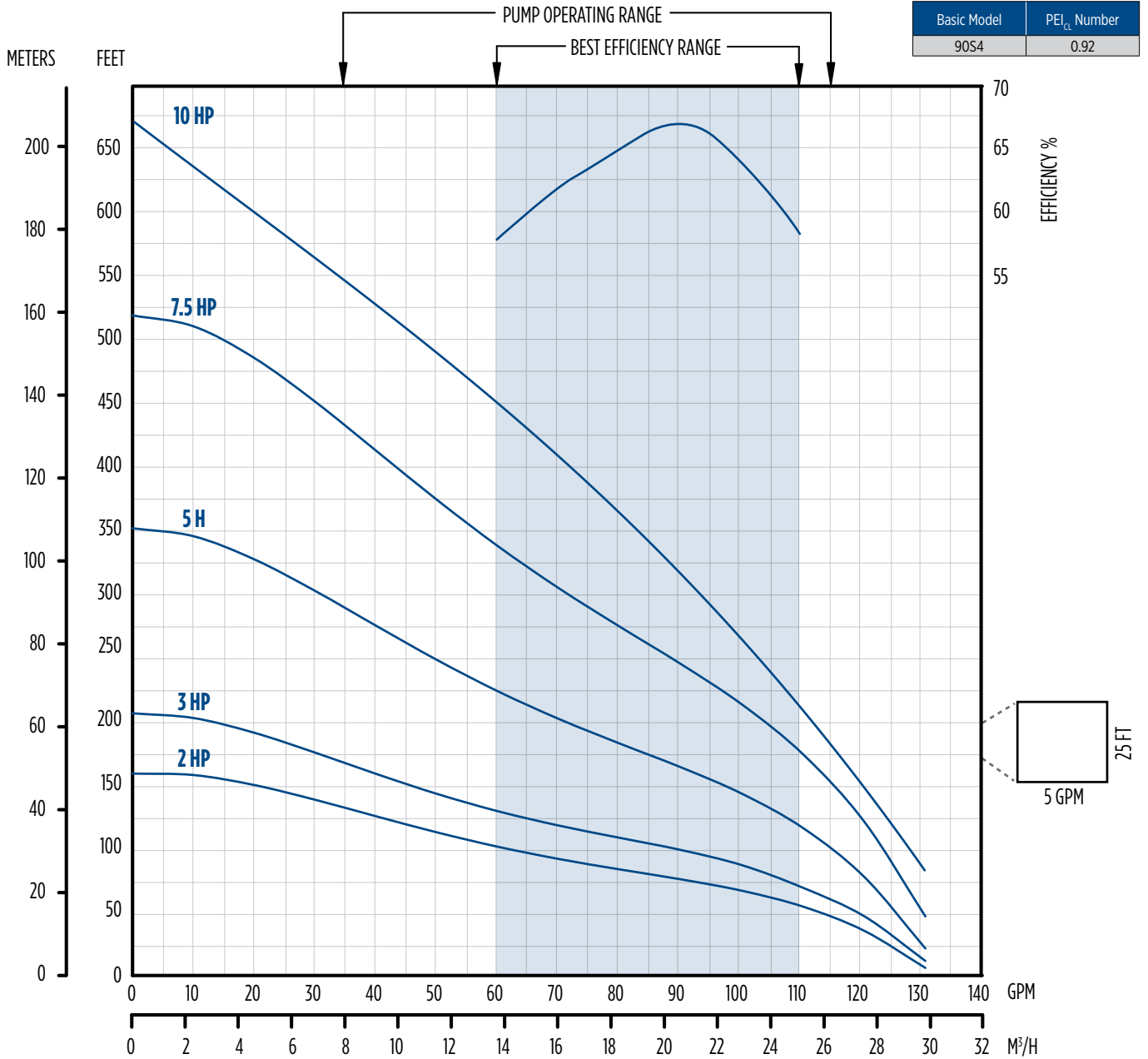
HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480	Shut-Off (ft)
2	0				79	72	64	55	45											
	10				78	71	63	54	43											
	20			77	70	62	52	41												
	30	76	69	60	51															
	40	68	59	49																
	50	57	47																	
	60	45																		
Shut-off PSI		89	81	72	63	55	46	37	29											
3	0					82	77	71	66	59	52	44								
	10				81	76	71	65	58	51	43									
	20			80	75	70	64	57	50	42										
	30		79	74	69	63	56	49	40											
	40	79	74	68	62	55	47	39												
	50	73	67	61	54	46	38	29												
	60	66	60	53	45															
	70	59	52	44																
	80	50	42																	
Shut-off PSI		130	121	113	104	95	87	78	69	61	52	43								
5	0							82	79	76	73	70	62	54	44					
	10							82	79	76	73	69	66	58	49					
	20					81	78	75	72	69	65	61	53	43						
	30				81	78	75	72	68	64	60	56	47							
	40			80	77	74	71	68	64	60	56	51	41							
	50		80	77	74	71	67	63	59	55	50	45								
	60	79	76	73	70	66	63	59	54	50	45	40								
	70	76	73	69	66	62	58	54	49	44	39									
	80	72	69	65	61	57	53	48	43											
Shut-off PSI		210	201	193	184	175	167	158	149	141	132	123	106	89	71					
7.5	0									81	79	75	70	65	60	54	47	40		
	10									80	78	76	72	67	62	56	50	43		
	20									80	78	76	74	69	64	59	53	46		
	30								80	78	76	74	71	66	61	55	49	42		
	40							80	78	75	73	71	69	63	58	52	45			
	50				81	79	77	75	73	71	68	66	60	54	48	41				
	60			81	79	77	75	72	70	68	65	63	57	51	44					
	70		81	79	77	74	72	70	67	65	62	59	53	47	40					
	80	80	78	76	74	72	69	67	64	62	59	56	50	43						
Shut-off PSI		303	294	286	277	268	260	251	242	234	225	216	199	182	165	147	130	113	95	

HP	PSI	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480	500	550	600	Shut-Off (ft)
10	0										80	77	74	70	66	62	58	56	50	43	
	10									81	78	75	72	68	64	60	55	53	47	40	
	20								81	79	76	73	69	66	62	57	53	50	44		
	30							81	79	77	76	74	71	67	63	59	55	50	47	41	
	40						81	79	77	76	74	72	69	65	61	57	52	47	44		
	50					80	79	77	76	74	70	67	63	58	54	49	44	41			
	60				80	79	77	75	74	72	68	64	60	56	51	46	41				
	70		81	80	78	77	75	73	72	70	66	62	58	53	48	43					
80	81	80	78	76	75	73	71	70	68	64	60	55	50	45	40						
Shut-off PSI		374	366	357	348	340	331	323	314	305	288	271	253	236	219	201	184	175	154	132	

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage. Performances for former XP models are the same as 45 gpm models. Performance shown is based on a pump without check valve.

4" TRI-SEAL HIGH CAPACITY PUMPS - 90 GPM

PERFORMANCE



4" TRI-SEAL HIGH CAPACITY PUMPS - 90 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)	
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440		
2	0				104	89													170	
	10			102	86	67														
	20		100	83	64															
	30	97	80	60																
	40	77																		
Shut-off PSI		74	65	56	48	39														
3	0					103	90	76											220	
	10				101	88	73													
	20		110	99	86	71														
	30	109	97	84	68															
	40	95	81	65																
	50	79	63																	
	60	60																		
Shut-off PSI		95	87	78	69	61	52	43												
5	0							106	99	92	84	76							365	
	10							105	98	91	83	74	65							
	20				110	104	97	90	82	73	64									
	30			109	103	96	88	80	72	62										
	40		108	102	95	87	79	70	61											
	50	107	101	94	86	78	69	60												
	60	100	92	85	76	67														
	70	91	83	75	66															
	80	82	74	65																
Shut-off PSI		158	149	141	132	123	115	106	97	89	80	71								
7.5	0									111	106	101	91	81	69				535	
	10									110	105	101	96	85	74	62				
	20								109	105	100	95	90	79	68					
	30							108	104	99	94	89	84	73	60					
	40					108	103	98	93	88	83	77	66							
	50				107	102	98	93	87	82	76	71								
	60		111	106	102	97	92	87	81	76	70	64								
	70	110	106	101	96	91	86	80	75	69	63									
	80	105	100	95	90	85	79	74	68	62										
Shut-off PSI		232	223	214	206	197	188	180	171	162	154	145	128	110	93					
10	0											112	105	98	90	82	74	65	680	
	10											112	108	101	93	86	77	69		60
	20											111	108	104	97	89	81	73		64
	30								114	111	107	104	100	92	84	76	68	59		
	40							114	110	107	103	99	95	88	80	71	62			
	50					113	110	106	102	99	95	91	83	75	66					
	60				113	109	106	102	98	94	90	86	78	70	61					
	70			112	109	105	101	98	94	90	86	82	73	65						
	80		112	108	104	101	97	93	89	85	81	77	69	60						
Shut-off PSI		294	286	277	268	260	251	242	234	225	216	208	190	173	156	139	121	104		

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage. Performance shown is based on a pump without check valve.

6" TRI-SEAL 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.

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
- High flow hydraulic staging allows for maximum pump output, exceeds all energy efficiency standards, and provides increased product longevity
- Glass-filled modified PPO 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
- Flow ratings of 50, 75, 100, and 125 gpm with TDH up to 1400 ft
- Horsepower ranges from 1-1/2 to 40 hp

MODEL NO. EXPLANATION

Example: 50FH2S6-PE

- 50 = gpm
- FH = Franklin Electric Brand
- 2 = 2 hp
- S = Stainless
- 6 = 6" Submersible
- PE = Pump End



6" TRI-SEAL HIGH CAPACITY PUMPS - ORDERING INFORMATION

ORDERING INFORMATION

6" Tri-Seal High Capacity Pump Ends								
GPM	HP	Stages	Weight (lbs)	Length (in)	Model	Order No.	Basic Model	PEI _{cc} Number
50	1.5	3	30	13.5	50FH15S6-PE	93655003	50S6	1.00
	2	4	31	15.1	50FH2S6-PE	93655004		
	3	5	32	16.8	50FH3S6-PE	93655005		
	5	8	36	21.6	50FH5S6-PE	93655008		
	7.5	11	40	26.5	50FH7S6-PE	93655011		
	10	15	46	32.9	50FH10S6-PE	93655015		
75	15	22	46	47.6	50FH015S6-PE	93655022	75S6	0.99
	3	3	30	13.5	75FH3S6-PE	93657503		
	5	5	32	16.8	75FH5S6-PE	93657505		
	7.5	7	35	20.0	75FH7S6-PE	93657507		
	10	9	38	23.3	75FH10S6-PE	93657509		
	15	13	43	29.8	75FH15S6-PE	93657513		
100	20	17	48	36.2	75FH20S6-PE	93657517	100S6	N/A
	25	23	52	46.0	75FH25S6-PE	93657523		
	5	3	30	15.1	100FH5S6-PE	93650003		
	7.5	5	33	19.2	100FH7S6-PE	93650005		
	10	6	34	21.3	100FH10S6-PE	93650006		
125	15	10	39	29.6	100FH15S6-PE	93650010	125S6	N/A
	20	12	41	33.8	100FH20S6-PE	93650012		
	25	16	47	42.1	100FH25S6-PE	93650016		
	5	2	29	12.9	125FH5S6-PE	93652502		
	7.5	4	31	17.1	125FH7S6-PE	93652504		
	10	5	33	19.2	125FH10S6-PE	93652505		
	15	8	36	25.4	125FH15S6-PE	93652508		
	20	10	39	29.6	125FH20S6-PE	93652510		
25	13	43	35.9	125FH25S6-PE	93652513			
	30	16	46	42.1	125FH30S6-PE	93652516		
	40	20	51	50.4	125FH40S6-PE	93652520		

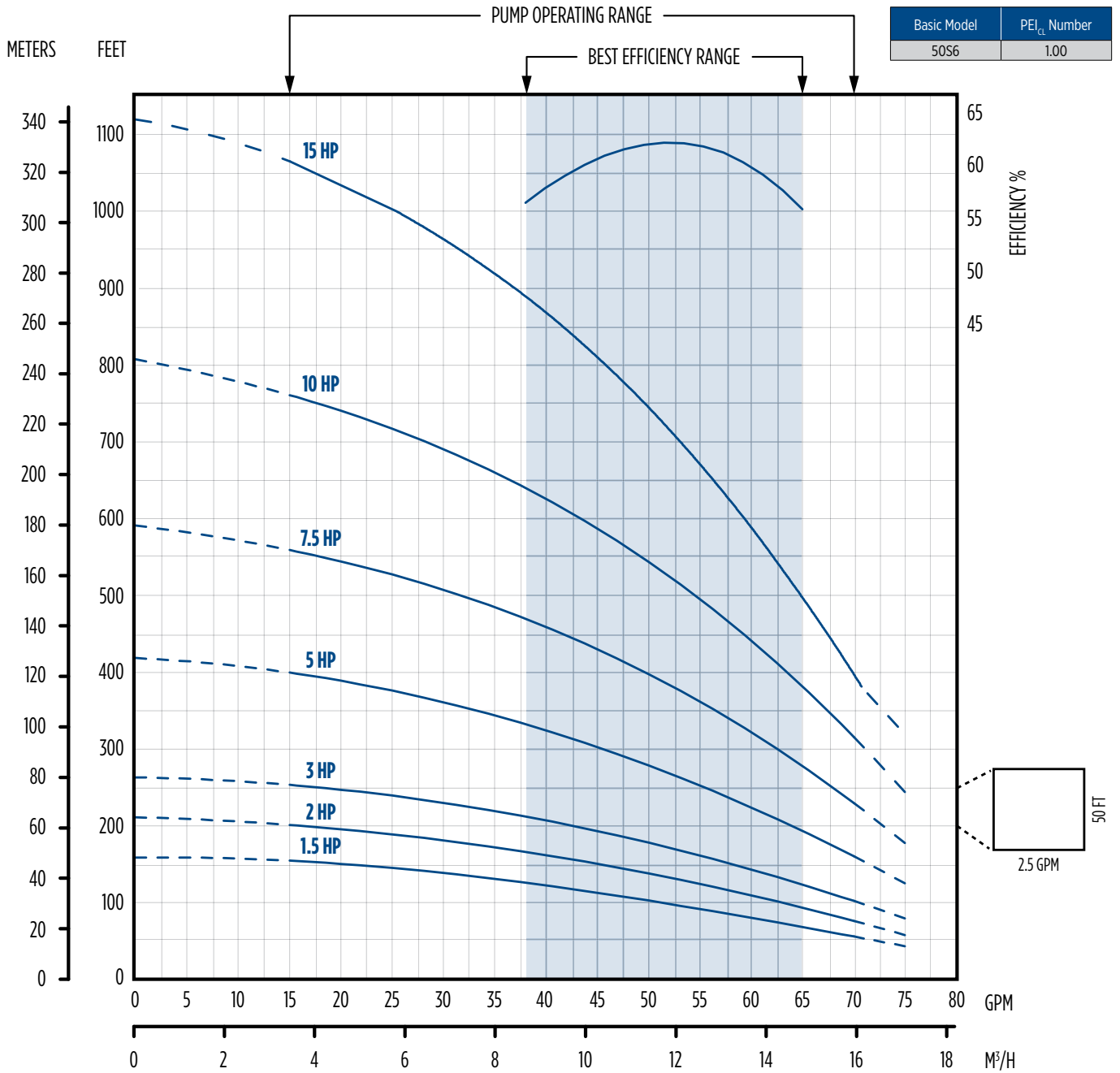
NOTES: Discharge is 3" NPT. Maximum diameter across cable guard is 5.50" on all models.
100 and 125 GPM models are outside the scope of the Department of Energy Pump Efficiency Standards. As such, a Pump Energy Index (PEI) is not required or published.

CROSS REFERENCE

GPM	NEW DOE PEI _{cc} Rated		Original FPS 6" Pump Ends	
	Model	Order No.	Model	Order No.
50	50FH15S6-PE	93655003	50FA15S6-PE	94825003
	50FH2S6-PE	93655004	50FA2S6-PE	94825004
	50FH3S6-PE	93655005	50FA3S6-PE	94825005
	50FH5S6-PE	93655008	50FA5S6-PE	94825008
	50FH7S6-PE	93655011	50FA7S6-PE	94825011
	50FH10S6-PE	93655015	50FA10S6-PE	94825015
75	50FH015S6-PE	93655022	-	-
	75FH3S6-PE	93657503	75FA3S6-PE	94827503
	75FH5S6-PE	93657505	75FA5S6-PE	94827505
	75FH7S6-PE	93657507	75FA7S6-PE	94827507
	75FH10S6-PE	93657509	75FA10S6-PE	94827509
	75FH15S6-PE	93657513	75FA15S6-PE	94827513
	75FH20S6-PE	93657517	75FA20S6-PE	94827517
	75FH25S6-PE	93657523	75FA25S6-PE	94827523
100	100FH5S6-PE	93650003	100FA5S6-PE	94820003
	100FH7S6-PE	93650005	100FA7S6-PE	94820005
	100FH10S6-PE	93650006	100FA10S6-PE	94820006
	100FH15S6-PE	93650010	100FA15S6-PE	94820009
	100FH20S6-PE	93650012	100FA20S6-PE	94820013
	100FH25S6-PE	93650016	100FA25S6-PE	94820016
125	125FH5S6-PE	93652502	125FA5S6-PE	94822502
	125FH7S6-PE	93652504	125FA7S6-PE	94822503
	125FH10S6-PE	93652505	125FA10S6-PE	94822504
	125FH15S6-PE	93652508	125FA15S6-PE	94822507
	125FH20S6-PE	93652510	125FA20S6-PE	94822509
	125FH25S6-PE	93652513	125FA25S6-PE	94822511
	125FH30S6-PE	93652516	125FA30S6-PE	94822513
	125FH40S6-PE	93652520	125FA40S6-PE	94822518

6" TRI-SEAL HIGH CAPACITY PUMPS - 50 GPM

PERFORMANCE



6" TRI-SEAL HIGH CAPACITY PUMPS - 50 GPM

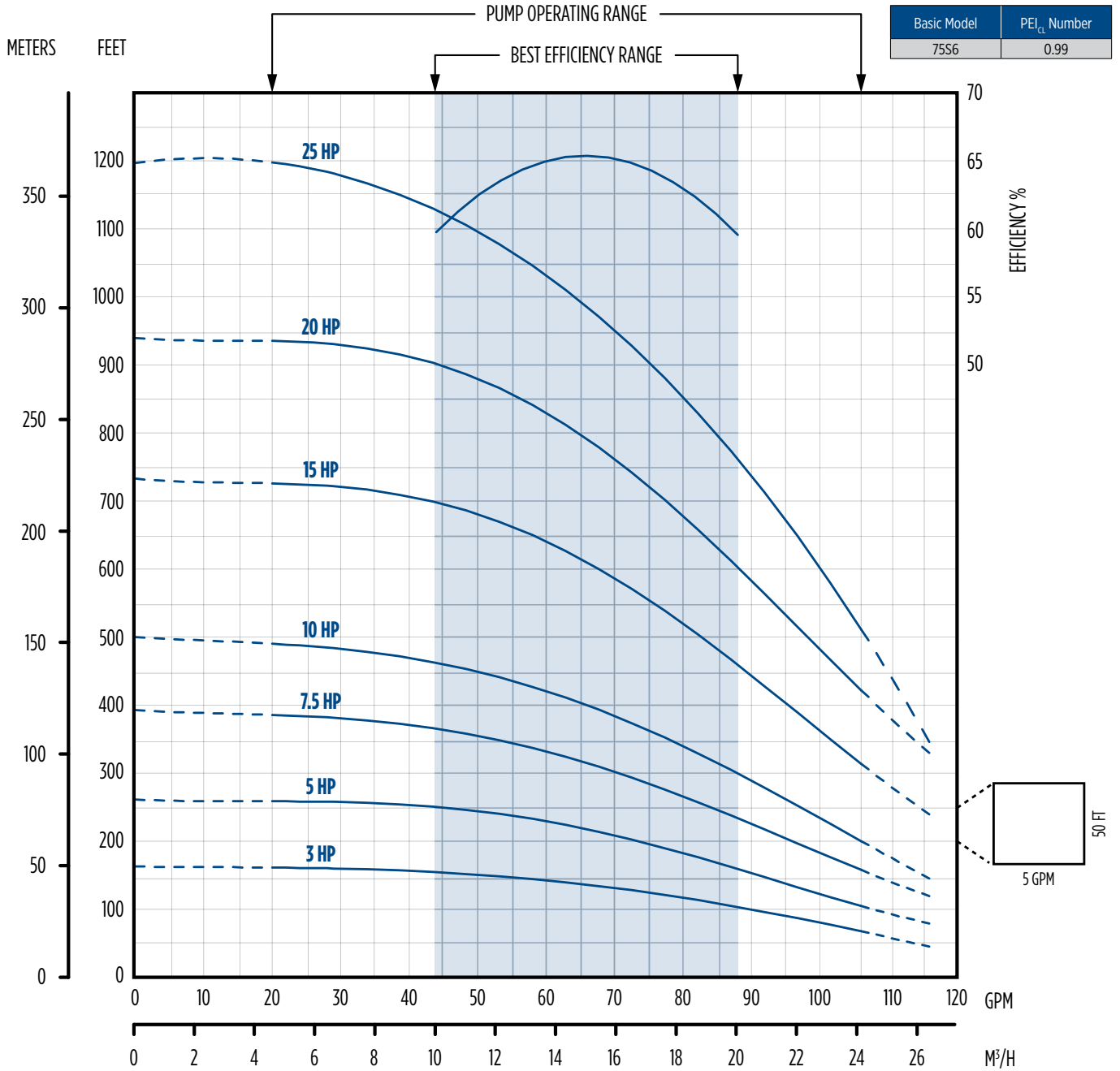
PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)			
		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														
	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											
	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																	
Shut-off PSI		83	74	65	57	48	39	31	22	13	5											
3	0					70	66	61	55	49	42	17										
	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								
	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										
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				
	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				
10	0											68	64	59	54	49	43	37	28	18		
	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							
Shut-off PSI		306	298	289	281	272	263	242	220	198	177	155	133	112	90	68	47	25				
15	0								80	78	76	74	72	70	68	65	62	59	56	53	49	46
	20						79	78	77	76	74	72	70	68	65	62	59	56	53	50	46	42
	40			80	79	78	77	76	75	74	72	70	68	65	63	60	57	53	50	46	43	38
	60	80	78	77	76	75	74	73	72	71	70	68	66	63	60	57	54	50	47	43	39	34
	80	77	76	75	75	74	73	72	71	71	68	66	63	60	57	54	50	47	43	39	34	29
	100	75	74	73	73	72	71	70	69	68	66	63	60	57	54	51	47	43	39	35	29	22
	120	73	72	72	71	70	69	68	67	66	64	61	58	54	51	47	44	40	35	30	23	14
	140	71	71	70	69	68	67	66	65	64	61	58	55	51	48	44	40	36	30	23	14	3
Shut-off PSI		67	66	65	64	62	62	61	59	58	55	52	48	45	41	36	31	24	16	5		
Shut-off PSI								411	402	380	359	337	315	294	272	250	229	207	186	164	142	

NOTES: Discharge 3" NPT; Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

6" TRI-SEAL HIGH CAPACITY PUMPS - 75 GPM

PERFORMANCE



6" TRI-SEAL HIGH CAPACITY PUMPS - 75 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		Shut-Off (ft)
		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	98	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												
Shut-off PSI		103	95	86	77	69	60	51	43	34	25	4								
7.5	0						116	109	105	101	97	83	70	54						
	20				114	108	104	100	96	90	85	71	56							
	30			112	107	103	99	95	89	84	78	65	40							
	40		111	106	103	99	94	88	83	77	72	57								
	50	111	106	102	98	93	88	82	76	71	66	43								
Shut-off PSI		159	150	142	133	124	116	107	98	90	81	59	38	16						
10	0								112	109	106	98	88	77	66	50				
	20					116	111	108	105	102	99	89	78	67	52					
	30				115	111	107	104	101	98	94	84	73	61	39					
	40			114	110	107	104	101	98	94	89	78	68	54	18					
	50		114	109	106	104	100	97	93	89	84	74	63	42						
Shut-off PSI		205	196	187	179	170	161	153	144	135	127	105	84	62	40	19				

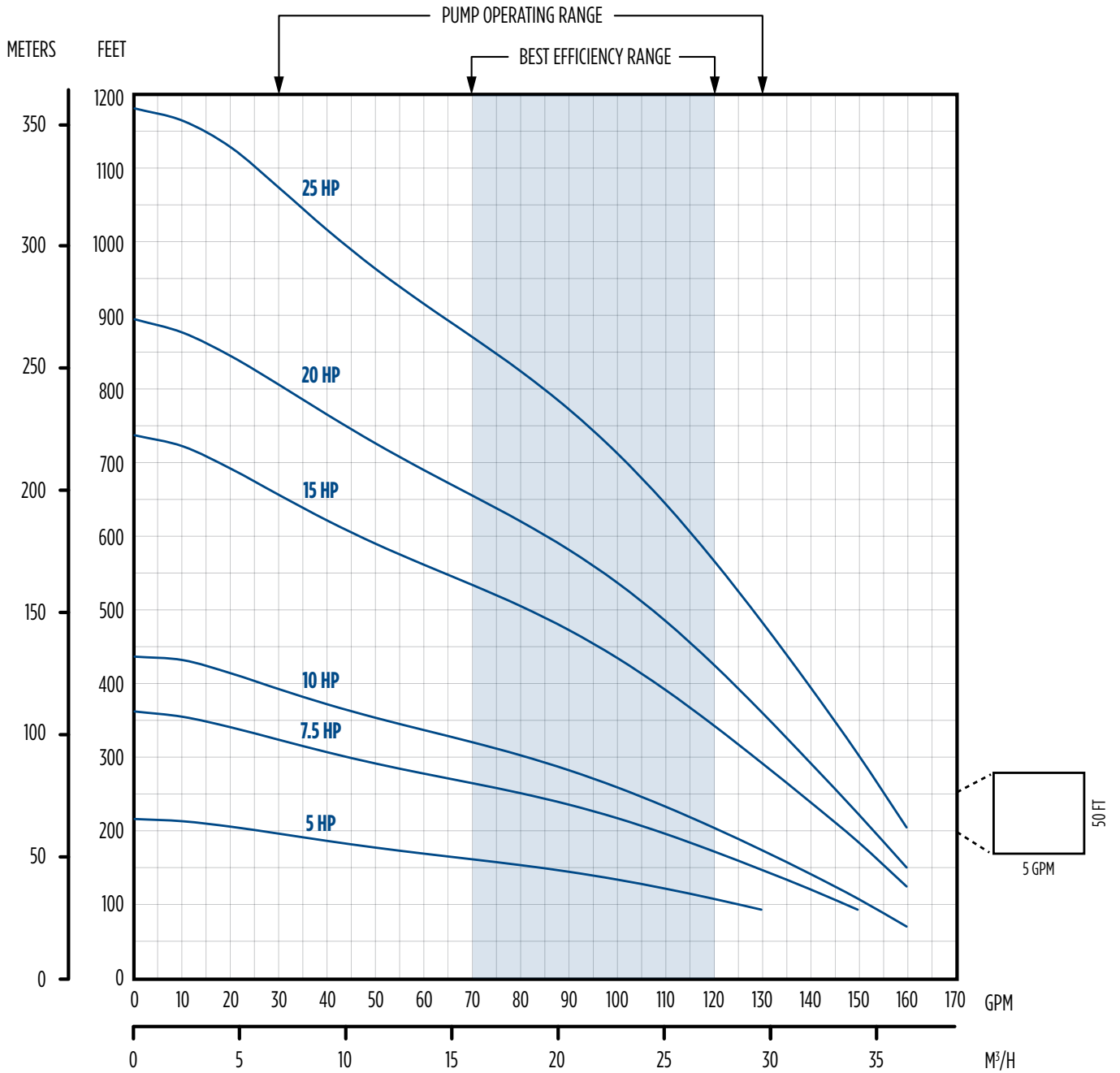
HP	PSI	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	Shut-Off (ft)
15	0						114	107	102	97	89	81	74	68	60	41						
	20					115	107	103	97	90	82	75	69	61	43							
	30				114	110	105	100	94	86	78	72	66	55	28							
	40			113	110	107	103	98	90	82	75	69	62	45								
	50		113	109	107	105	101	95	87	79	73	66	56	31								
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		
Shut-off PSI		353	345	336	327	319	297	275	254	232	210	189	167	145	124	102	80	59	37	15		

HP	PSI	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	Shut-Off (ft)
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				
Shut-off PSI		412	391	369	347	326	304	283	261	239	218	196	174	153	131	109	88	66	44	23	1	

NOTES: Discharge 3" NPT; Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

6" TRI-SEAL HIGH CAPACITY PUMPS - 100 GPM

PERFORMANCE



6" TRI-SEAL HIGH CAPACITY PUMPS - 100 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																Shut-Off (ft)
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	
5	0						125	110	92	72	48							
	10					123	107	89	68	44								
	20				120	105	86	64	40									
	30		132	118	102	83	61	36										
	40	130	116	99	80	57	32											
	50	113	96	76	53													
	60	93	73	50														
	70	70	46															
	80	42																
Shut-off PSI		94	85	76	68	59	50	42	33	24	16							
7.5	0										117	107	85	59	30			
	10									115	106	95	71	42				
	20							123	114	104	93	82	55					
	30						121	112	102	92	80	66	38					
	40					120	111	101	90	78	64	50						
	50				119	109	99	88	76	62	48	33						
	60			117	108	98	86	74	60	46	31							
	70		116	106	96	84	72	58	43									
	80	114	105	94	82	69	56	41										
Shut-off PSI		156	147	139	130	121	113	104	95	87	78	69	52	35	17			
10	0										128	121	106	89	69	47		
	10									127	120	113	96	78	56	33		
	20								126	119	111	103	86	66	43			
	30						131	125	118	110	102	94	74	53				
	40					130	124	117	109	101	92	83	62	39				
	50				129	123	115	108	100	91	81	71	49					
	60			128	121	114	106	98	89	80	70	59	36					
	70		127	120	113	105	97	88	78	68	57	46						
	80	126	119	112	104	95	86	77	66	55	44	32						
Shut-off PSI		187	179	170	161	153	144	135	127	118	110	101	84	66	49	32		

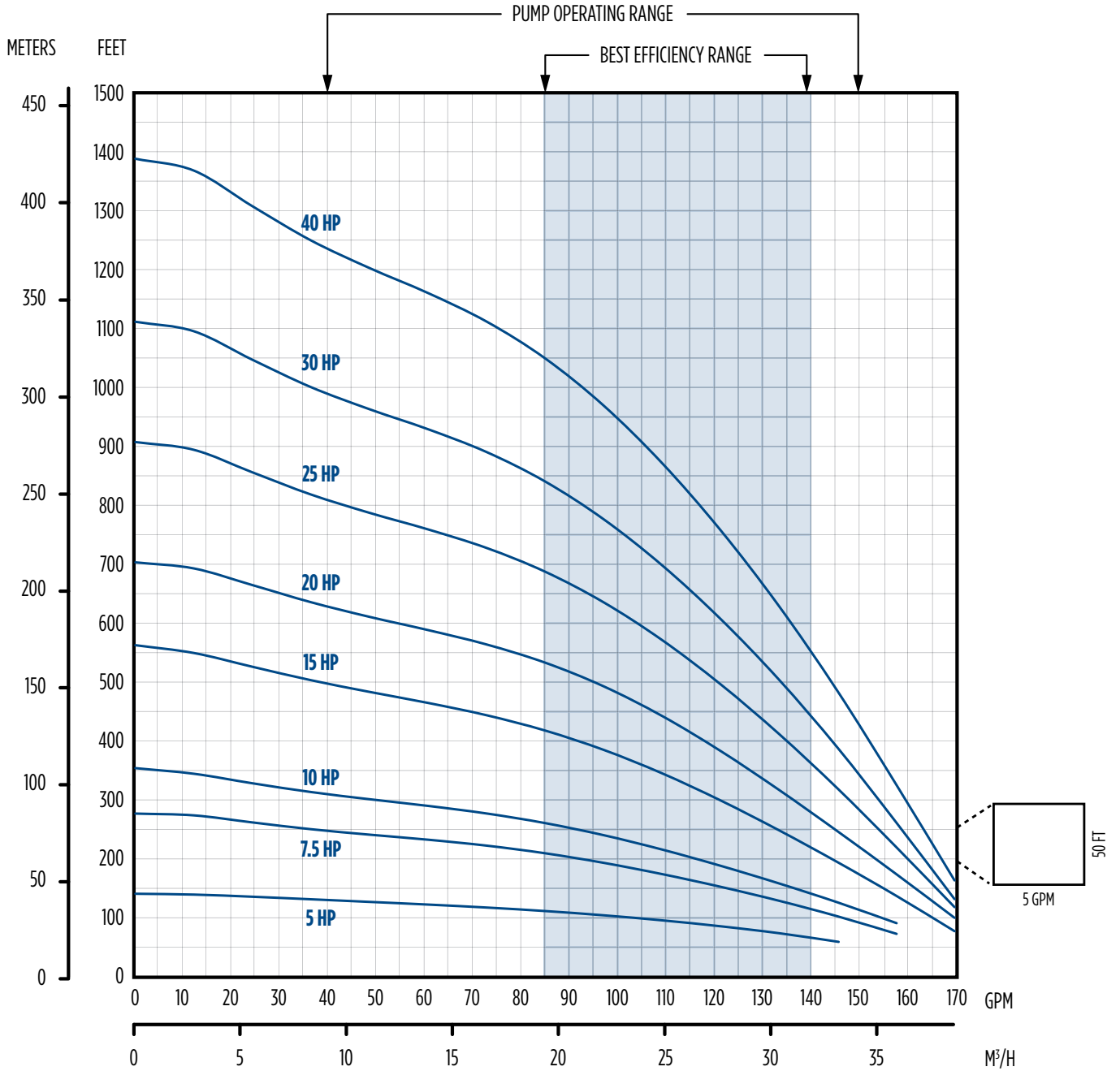
HP	PSI	100	120	140	160	180	200	240	280	320	360	400	440	480	500	550	600	650	Shut-Off (ft)
15	0									124	116	106	96	85	79	64	47	29	
	10								128	120	110	101	90	78	72	56	39		
	20							131	123	114	105	95	83	71	65	48	31		
	30							127	118	109	99	88	76	64	57	40			
	40						130	122	113	103	93	82	69	56	49	32			
	50					129	125	117	107	97	86	75	62	48	41				
	60				129	125	121	112	102	91	80	67	54	40	33				
	70		132	128	124	120	115	106	96	85	73	60	46	32					
	80	132	128	123	119	115	110	100	89	78	65	52	38						
Shut-off PSI		273	264	255	247	238	229	212	195	177	160	143	126	108	100	78	56	35	

HP	PSI	160	180	200	240	280	320	360	400	440	480	500	550	600	650	700	750	800	Shut-Off (ft)
20	0							130	123	117	109	105	95	83	71	57	43		
	10						133	126	120	112	105	100	90	78	65	51	36		
	20						129	122	115	108	100	96	84	72	58	44	29		
	30					132	125	118	111	103	95	90	79	66	52	37			
	40					128	121	114	107	98	90	85	73	59	45	30			
	50				131	124	117	110	102	93	84	80	67	53	38				
	60				127	120	113	105	97	88	79	74	61	46	32				
	70			130	123	116	109	101	92	83	73	68	54	40					
	80	132	129	126	119	112	104	96	87	77	67	62	47	33					
Shut-off PSI		314	306	297	280	262	245	228	210	193	176	167	145	124	102	81	59		

HP	PSI	320	360	400	440	480	500	550	600	650	700	750	800	850	900	950	1000	1050	Shut-Off (ft)
25	0					130	128	121	115	107	100	92	83	74	64	53	42	31	
	10				132	127	125	118	111	104	96	88	79	69	59	48	37	26	
	20				129	124	122	115	108	100	92	84	74	65	54	43	32	21	
	30			131	127	121	119	112	104	97	88	79	70	60	49	38			
	40			129	124	118	116	108	101	93	84	75	65	55	44	33			
	50			131	126	121	115	112	105	97	89	80	71	61	50	39			
	60	133	128	123	117	112	109	102	93	85	76	66	56	45	34				
	70	130	125	120	114	109	106	98	90	81	71	61	51	40					
	80	127	122	117	111	105	102	94	86	77	67	57	46	35					
Shut-off PSI		368	351	333	316	299	290	268	247	225	203	182	160	139	117	95	74	52	

6" TRI-SEAL HIGH CAPACITY PUMPS - 125 GPM

PERFORMANCE



6" TRI-SEAL HIGH CAPACITY PUMPS - 125 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		Shut-Off (ft)	
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	480		500
5	0				145	125	99	60													
	10			135	122	94	51														
	20		139	118	89	42															
	30	136	114	83																	
	40	110	77																		
	50	71																			
Shut-off PSI		60	51	42	34	25	16	8													
7.5	0						149	140	130	119	106	90	49								
	10					148	139	128	117	103	88	69									
	20				146	137	127	115	101	85	65	41									
	30			145	136	125	113	99	82	62											
	40		144	134	123	111	97	79	58												
	50	142	132	121	109	94	76	55													
	60	131	120	107	92	73	51														
	70	118	104	89	70	47															
80	102	86	67	43																	
Shut-off PSI		118	110	101	92	84	75	66	58	49	40	32	14								
10	0							150	143	135	127	118	96	67							
	10						149	142	134	126	116	106	80	47							
	20					148	141	133	124	115	104	92	62								
	30				147	140	132	123	113	102	90	76	41								
	40			146	138	130	121	112	100	88	73	56									
	50		145	137	129	120	110	99	86	71	54										
	60	144	136	128	118	108	97	83	68	51											
	70	135	126	117	107	95	81	66	48												
80	125	115	105	93	79	63	45														
Shut-off PSI		152	143	135	126	117	109	100	91	83	74	65	48	31							
15	0											149	139	129	118	105	90	73	52	40	
	10											148	143	134	123	111	97	81	62		
	20										152	147	143	138	127	116	103	88	70	49	
	30									151	146	142	137	132	121	109	95	78	58		
	40						150	146	141	136	131	126	114	101	85	67	45				
	50					150	145	140	135	130	125	119	107	92	75	55					
	60				149	144	140	135	130	124	118	112	99	83	64	41					
	70			148	144	139	134	129	123	117	111	105	90	72	51						
80	152	147	143	138	133	128	122	116	110	103	96	80	61								
Shut-off PSI		242	233	225	216	207	199	190	181	173	164	155	138	121	103	86	69	52	34	26	
20	0											145	137	129	121	111	100	94	78	58	
	10											148	141	133	124	115	105	93	87	69	46
	20										151	144	136	128	119	109	98	86	79	59	
	30									150	147	140	132	123	114	103	91	78	70	48	
	40						150	146	143	135	127	118	108	97	84	69	61				
	50					149	146	142	138	130	122	112	102	90	76	60	50				
	60				149	145	142	138	134	125	116	106	95	82	67	49					
	70		152	148	145	141	137	133	129	120	111	100	88	73	57						
80	151	148	144	140	137	133	128	124	115	104	93	80	64	46							
Shut-off PSI		277	268	260	251	242	234	225	216	199	182	165	147	130	113	95	87	65	43		

6" TRI-SEAL HIGH CAPACITY PUMPS - 125 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)		
		120	140	160	180	200	240	280	320	360	400	440	480	500	550	600	650	700	750	800	850		900	
25	0								150	145	139	134	127	124	115	105	94	81	66	48	27	4	906	
	10							147	142	136	130	123	120	110	100	88	74	58	39	16	0	0		
	20							149	144	139	133	126	119	116	106	95	82	67	49	29	6	0		
	30							146	141	135	129	122	115	111	101	89	75	59	40	18	0	0		
	40						149	143	138	132	125	118	111	107	96	83	68	51	30	7	0	0		
	50					151	146	140	134	128	121	114	106	102	90	77	61	42	20	0				
	60				150	148	142	137	131	124	117	109	101	96	84	70	52	32	9	0				
	70		153	150	147	145	139	133	127	120	113	105	96	91	78	62	43	22	0					
80	152	150	147	144	142	136	130	123	116	108	100	90	85	71	54	34	11	0						
Shut-off PSI		340	332	323	314	306	288	271	254	236	219	202	184	176	154	132	111	89	68	46	24	3		

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																		Shut-Off (ft)			
		200	240	280	320	360	400	440	480	500	550	600	650	700	750	800	850	900	950		1000	1050	
30	0						149	145	141	138	132	126	119	111	103	93	83	71	57	41		1112	
	10						147	143	138	136	129	123	115	107	99	89	78	65	50	33			
	20					149	144	140	135	133	126	119	112	103	94	84	72	58	43				
	30				150	146	142	137	132	130	123	116	108	99	90	78	66	51					
	40			152	148	144	139	134	129	127	120	112	104	95	85	73	59	44					
	50			150	146	141	136	132	126	124	116	109	100	90	79	67	52						
	60		151	147	143	138	134	129	123	120	113	105	96	85	74	60	45						
	70		149	145	140	136	131	126	120	117	109	101	91	80	68	54							
80	151	147	142	138	133	128	122	117	114	105	96	86	75	62	46								
Shut-off PSI		395	377	360	343	326	308	291	274	265	243	222	200	178	157	135	113	92	70	48			

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																				Shut-Off (ft)		
		280	320	360	400	440	480	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150		1200	1250
40	0						151	149	145	141	136	131	126	120	114	108	101	93	85	76	66	54	41	1390
	10						149	147	143	138	134	129	123	118	111	105	98	90	81	71	61	48	0	
	20					150	147	145	141	136	131	126	121	115	108	102	94	86	77	66	55	42	0	
	30					149	145	143	139	134	129	124	118	112	105	98	90	82	72	61	49	0	0	
	40				150	147	143	141	137	132	127	121	115	109	102	95	86	77	67	56	43	0	0	
	50			151	148	145	141	139	134	129	124	118	112	106	99	91	82	73	62	50	0	0	0	
	60			149	146	143	139	137	132	127	122	116	109	103	95	87	78	68	57	44	0	0	0	
	70		151	147	144	140	137	135	130	125	119	113	106	99	92	83	74	63	51	0	0	0	0	
80	152	149	146	142	138	135	133	127	122	116	110	103	96	88	79	69	58	45	0	0	0	0		
Shut-off PSI		481	463	446	429	411	394	385	364	342	320	299	277	255	234	212	190	169	147	126	104	82	61	

NOTES: Discharge 3" NPT; Performance shown does not include friction loss in the drop pipe; All performance data is based on rated motor nameplate voltage

E SERIES EFFLUENT PUMPS

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' SJ00W motor leads
- Designed to provide years of reliable service:
 - 10 and 20 gpm units are equipped with a highly-engineered shaft bearing with built in dry-run protection
 - High-flow 35 to 90 gpm units are built with a proven and durable ceramic sleeve bearing
- Water flow path through the discharge of the pump is designed to pass particulate to allow for efficient and continuous operation
- Proven hydraulic staging allows close tolerances and increased performance
- Carbon phenolic upthrust 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

APPLICATIONS

- Filtered effluent service
- Aeration
- Ornamental fountains/waterfalls



E SERIES EFFLUENT PUMPS - ORDERING INFORMATION

THERMOPLASTIC ORDERING INFORMATION

1/2 - 1.5 HP Single-Phase Units					
GPM	HP	Volt	Wire	Model	Order No.
10	1/2	115	2	10FE05P4-2W115	94741005
	1/2	230	2	10FE05P4-2W230	94741010
	3/4	230	2	10FE07P4-2W230	94741015
	1	230	2	10FE1P4-2W230	94741020
	1.5	230	2	10FE15P4-2W230	94741025
20	1/2	115	2	20FE05P4-2W115	94742005
	1/2	230	2	20FE05P4-2W230	94742010
	3/4	230	2	20FE07P4-2W230	94742015
	1	230	2	20FE1P4-2W230	94742020
	1.5	230	2	20FE15P4-2W230	94742025

THERMOPLASTIC PUMP ENDS

1/2 - 2 HP Pump Ends				
GPM	HP	Stages	Model	Order No.
10	1/2	6	10FE05P4-PE	94751005
	3/4	8	10FE07P4-PE	94751010
	1	11	10FE1P4-PE	94751015
	1.5	15	10FE15P4-PE	94751020
20	1/2	4	20FE05P4-PE	94752005
	3/4	5	20FE07P4-PE	94752010
	1	7	20FE1P4-PE	94752015
	1.5	10	20FE15P4-PE	94752020
	2	12	20FE2P4-PE	94752025

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

STAINLESS STEEL ORDERING INFORMATION

1/2 - 1.5 HP Single-Phase Units (2-Wire)					
GPM	HP	Stages	Volts	Model	Order No.
35	1/2	2	115	35HE05S4-2W115	93933505
	1/2	2	230	35HE05S4-2W230	93933510
	3/4	3	230	35HE07S4-2W230	93933515
	1	5	230	35HE1S4-2W230	93933520
	1.5	7	230	35HE15S4-2W230	93933525
45	1/2	2	115	45HE05S4-2W115	93934505
	1/2	2	230	45HE05S4-2W230	93934510
	3/4	3	230	45HE07S4-2W230	93934515
	1	4	230	45HE1S4-2W230	93934520
	1.5	5	230	45HE15S4-2W230	93934525
60	1/2	2	115	60HE05S4-2W115	93936005
	1/2	2	230	60HE05S4-2W230	93936010
	3/4	3	230	60HE07S4-2W230	93936015
	1	4	230	60HE1S4-2W230	93936020
	1.5	5	230	60HE15S4-2W230	93936025
90	1.5	4	230	90HE15S4-2W230	93939025

STAINLESS STEEL PUMP ENDS

1 - 10 HP 4" High Capacity Pump Ends				
GPM	HP	Stages	Model	Order No.
35	1/2	2	35HE05S4-PE	93923502
	3/4	3	35HE07S4-PE	93923503
	1	5	35HE1S4-PE	93923505
	1.5	7	35HE15S4-PE	93923507
	2	9	35HE2S4-PE	93923509
	3	12	35HE3S4-PE	93923512
45	1/2	2	45HE05S4-PE	93924502
	3/4	3	45HE07S4-PE	93924503
	1	4	45HE1S4-PE	93924504
	1.5	5	45HE15S4-PE	93924505
	2	7	45HE2S4-PE	93924507
	3	10	45HE3S4-PE	93924510
60	1/2	2	60HE05S4-PE	93926002
	3/4	3	60HE07S4-PE	93926003
	1	4	60HE1S4-PE	93926004
	1.5	5	60HE15S4-PE	93926005
	2	7	60HE2S4-PE	93926007
	3	10	60HE3S4-PE	93666010
90	1.5	4	90HE15S4-PE	93929004
	2	6	90HE2S4-PE	93929006
	3	8	90HE3S4-PE	93929008

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

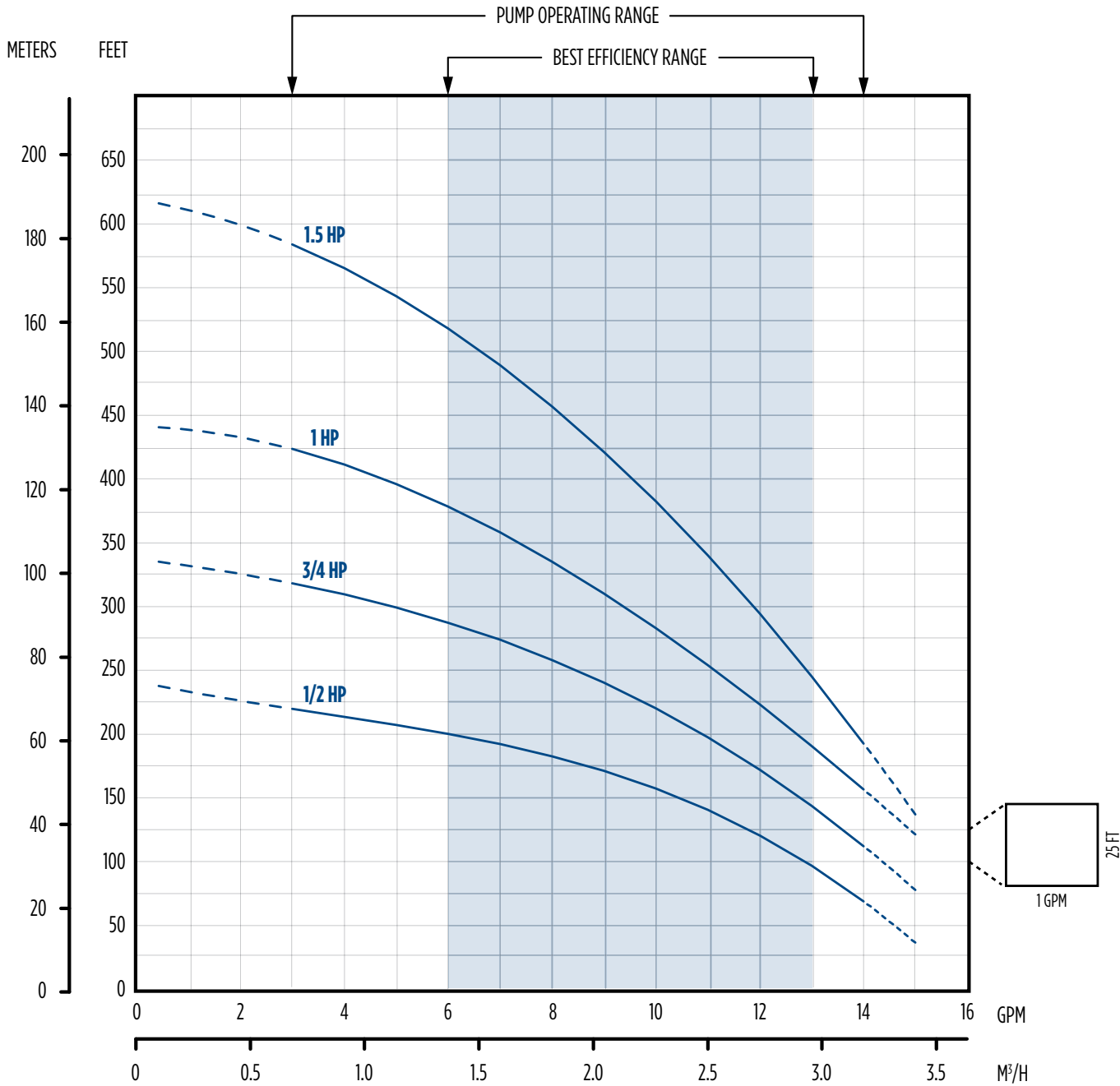
CROSS REFERENCE

GPM	NEW Franklin High Cap E-Series		Original FPS Pump Ends	
	Model	Order No.	Model	Order No.
35	35HE05S4-PE	93923502	35FE05S4-PE	94753505
	35HE07S4-PE	93923503	35FE07S4-PE	94753510
	35HE1S4-PE	93923505	35FE1S4-PE	94753515
	35HE15S4-PE	93923507	35FE15S4-PE	94753520
	35HE2S4-PE	93923509	35FE2S4-PE	94753525
	35HE3S4-PE	93923512	35FE3S4-PE	94753530
45	45HE05S4-PE	93924502	45FE05S4-PE	94754505
	45HE07S4-PE	93924503	45FE07S4-PE	94754510
	45HE1S4-PE	93924504	45FE1S4-PE	94754515
	45HE15S4-PE	93924505	45FE15S4-PE	94754520
	45HE2S4-PE	93924507	45FE2S4-PE	94754525
	45HE3S4-PE	93924510	45FE3S4-PE	94754530

GPM	NEW Franklin High Cap E-Series		Original FPS Pump Ends	
	Model	Order No.	Model	Order No.
60	60HE05S4-PE	93926002	60FE05S4-PE	94756005
	60HE07S4-PE	93926003	60FE07S4-PE	94756010
	60HE1S4-PE	93926004	60FE1S4-PE	94756015
	60HE15S4-PE	93926005	60FE15S4-PE	94756020
	60HE2S4-PE	93926007	60FE2S4-PE	94756025
	60HE3S4-PE	93926010	60FE3S4-PE	94756030
90	90HE15S4-PE	93929004	90FE15S4-PE	94759020
	90HE2S4-PE	93929006	90FE2S4-PE	94759025
	90HE3S4-PE	93929008	90FE3S4-PE	94759030

E SERIES EFFLUENT PUMPS - 10 GPM

PERFORMANCE



E SERIES EFFLUENT PUMPS - 10 GPM

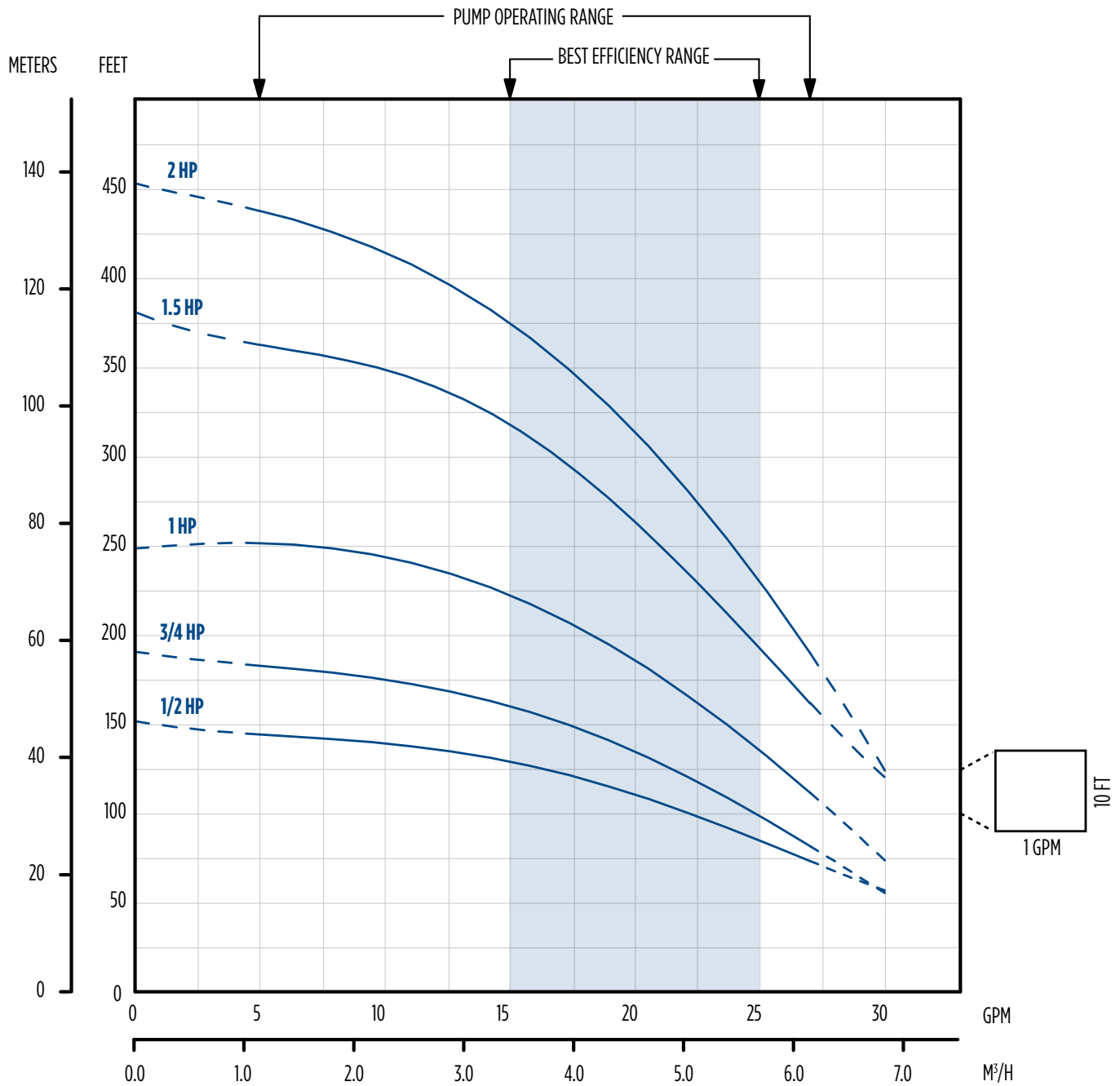
PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																			Shut-Off (ft)
		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										242
	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								337
	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						441
	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				619
	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: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

E SERIES EFFLUENT PUMPS - 20 GPM

PERFORMANCE



E SERIES EFFLUENT PUMPS - 20 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)
		20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	
1/2	0				26	22	18	9											152
	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									191
	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							251
	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	25	24	23	21	17	10					379
	20						26	25	24	22	21	20	15						
	30					26	25	23	22	21	19	18	11						
	40				26	25	23	22	21	19	18	11							
	50		27	26	25	23	22	21	19	17	15	11							
	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					452
	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: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

MENU

E SERIES EFFLUENT PUMPS - 35 GPM

PERFORMANCE

The chart displays the performance of six different horsepower models of the E Series Effluent Pumps. The y-axis represents head in meters and feet, and the x-axis represents flow in GPM and M³/H. A shaded region indicates the best efficiency range, and a larger bracketed region indicates the pump operating range. A callout box shows a 2.5 GPM flow rate at a 25-foot head.

Flow (GPM)	Flow (M ³ /H)	3 HP Head (FT)	2 HP Head (FT)	1.5 HP Head (FT)	1 HP Head (FT)	3/4 HP Head (FT)	1/2 HP Head (FT)
0	0	380	280	220	150	100	50
5	1.2	390	290	230	155	105	55
10	2.4	400	295	235	160	110	60
15	3.6	390	285	225	155	105	55
20	4.8	360	260	200	140	95	50
25	6.0	310	220	160	110	80	45
30	7.2	240	170	120	85	65	40
35	8.4	160	110	75	60	50	35
40	9.6	80	50	40	35	30	30
45	10.8	30	20	15	15	15	15
50	12.0	0	0	0	0	0	0

70

E SERIES EFFLUENT PUMPS - 35 GPM

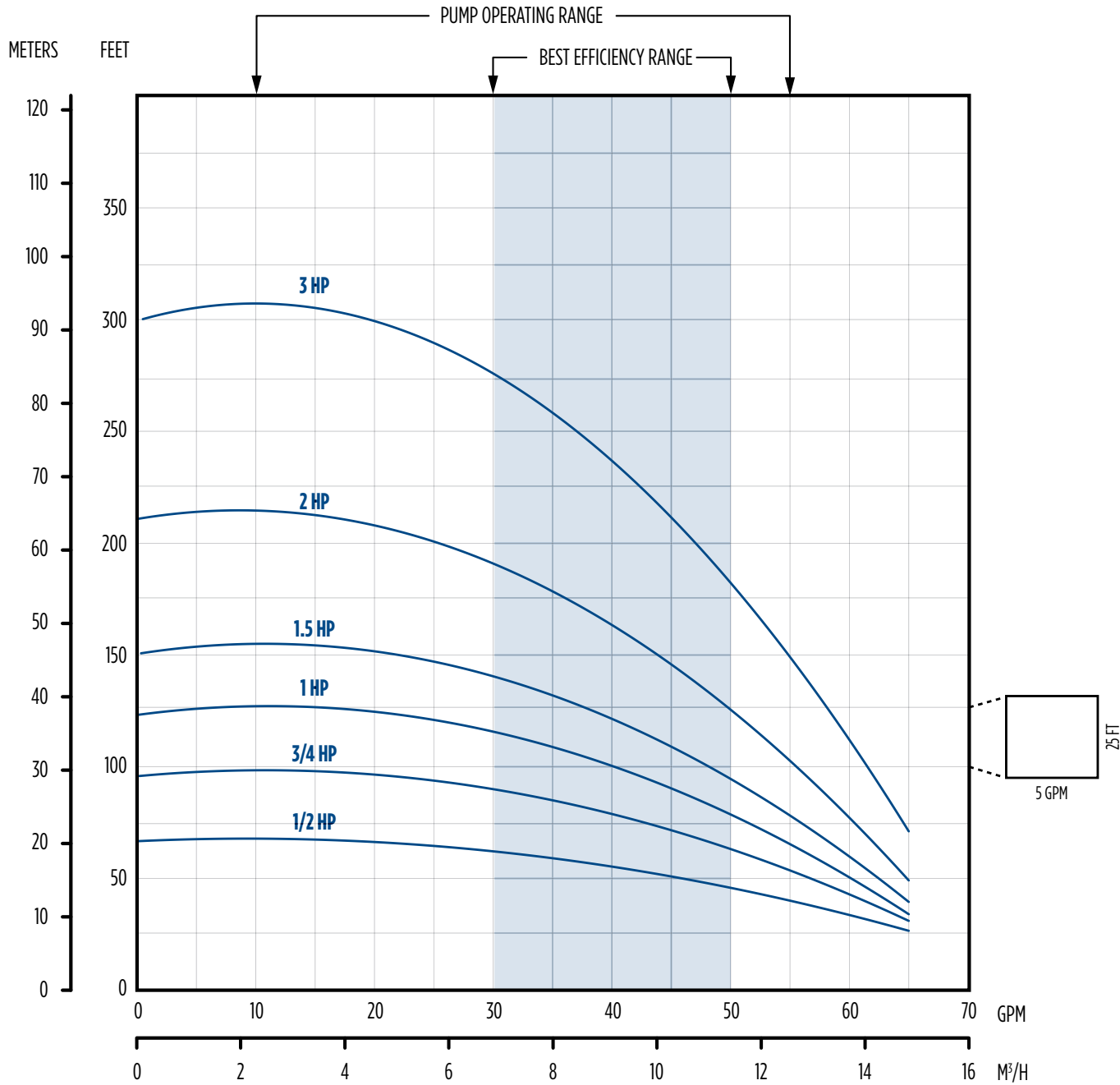
PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440	
1/2	0			44	31														70
	10		42	28															
	20	40	24																
	30	19																	
	40																		
	50																		
Shut-off PSI		30	22	13	4	-4													
3/4	0				43	35	22												103
	10			42	33														
	20		40	32															
	30	39	30																
	40	28																	
	50																		
Shut-off PSI		45	36	27	19	10	1												
1	0					44	39	34	28										162
	10				43	39	33	27											
	20			42	38	32	25												
	30		42	37	31	24													
	40	41	36	30	22														
	50	35	29	20															
60	28																		
Shut-off PSI		70	61	53	44	35	27	18	10										
1.5	0							43	40	36	32	27							228
	10						42	39	36	32	27								
	20					42	39	35	31	26									
	30				41	38	34	30	25										
	40			41	38	34	29	24											
	50		40	37	33	29	22												
	60	40	37	33	28	21													
	70	36	32	27	20														
80	31	26																	
Shut-off PSI		99	90	81	73	64	55	47	38	29	21	12							
2	0								44	41	39	36	30	20					290
	10							43	41	39	36	33	25						
	20						43	41	38	35	32	29							
	30					43	40	38	35	32	28	23							
	40				42	40	37	34	31	27	22								
	50			42	40	37	34	31	27	21									
	60		42	39	36	33	30	26	20										
	70	41	39	36	33	29	25	19											
80	38	36	32	29	24	18													
Shut-off PSI		126	117	108	100	91	82	74	65	56	48	39	22	4					
3	0										43	40	36	31	25				394
	10										43	41	37	33	28	20			
	20											43	41	39	35	30	24		
	30									42	41	39	37	32	27				
	40							42	40	38	36	34	29	22					
	50						42	40	38	36	34	32	26						
	60					42	40	38	36	34	31	28	21						
	70				41	39	38	35	33	31	28	25							
80			41	39	37	35	33	30	27	24									
Shut-off PSI				153	145	136	127	119	110	101	93	84	67	49	32	15			

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

E SERIES EFFLUENT PUMPS - 45 GPM

PERFORMANCE



E SERIES EFFLUENT PUMPS - 45 GPM

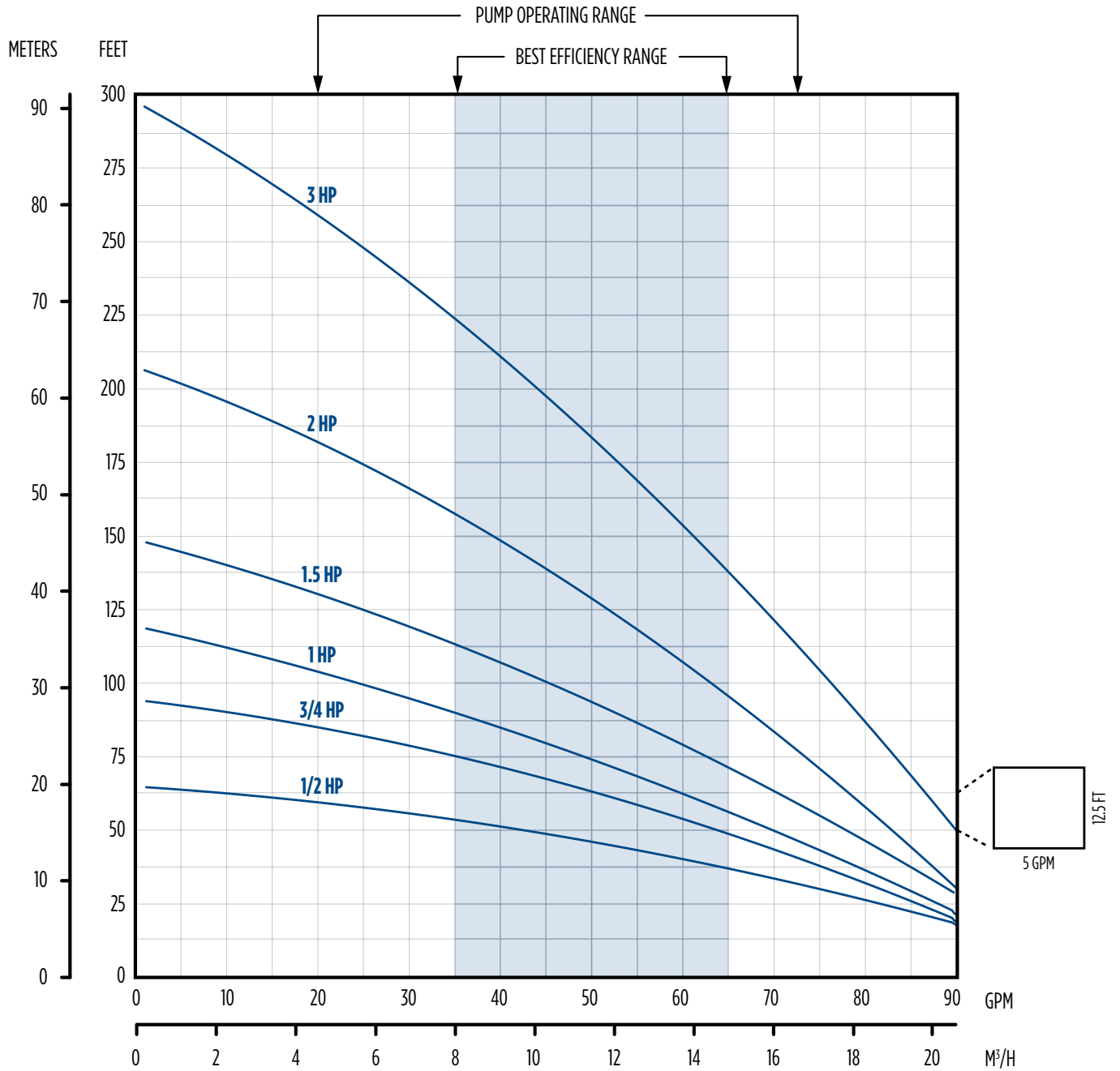
PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)		
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440			
1/2	0			55	32															68	
	10		52																		
	20	49																			
	30																				
	40																				
Shut-off PSI		29	21	12	3																
3/4	0				52	39														98	
	10			50	36																
	20		48	33																	
	30	46	30																		
	40																				
Shut-off PSI		42	34	25	16	8															
1	0					50	41													129	
	10				48	39															
	20			47	37																
	30	54	46	35																	
	40	44	33																		
	50	31																			
Shut-off PSI		56	47	39	30	21	13	4													
1.5	0					52	48	40	30											155	
	10				53	47	39														
	20			52	46	38															
	30		52	45	36																
	40	51	44	34																	
	50	42	33																		
Shut-off PSI		67	58	50	41	32	24	15	6												
2	0							51	46	41	34									215	
	10						50	46	40	33											
	20					50	45	39	31												
	30				49	44	38	30													
	40			48	43	37															
	50		47	42	36																
	60	47	41	34																	
	70	40	33																		
Shut-off PSI		93	84	76	67	58	50	41	32	24	15										
3	0								53	50	47	39								311	
	10								53	50	47	43	34								
	20							53	49	46	42	38									
	30					52	49	45	42	37	32										
	40				52	48	45	41	37	31											
	50			51	48	44	40	36	30												
	60			51	47	44	40	35													
	70		50	47	43	39	34														
Shut-off PSI		135	126	117	109	100	91	83	74	65	57	48	31								

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

E SERIES EFFLUENT PUMPS - 60 GPM

PERFORMANCE



E SERIES EFFLUENT PUMPS - 60 GPM

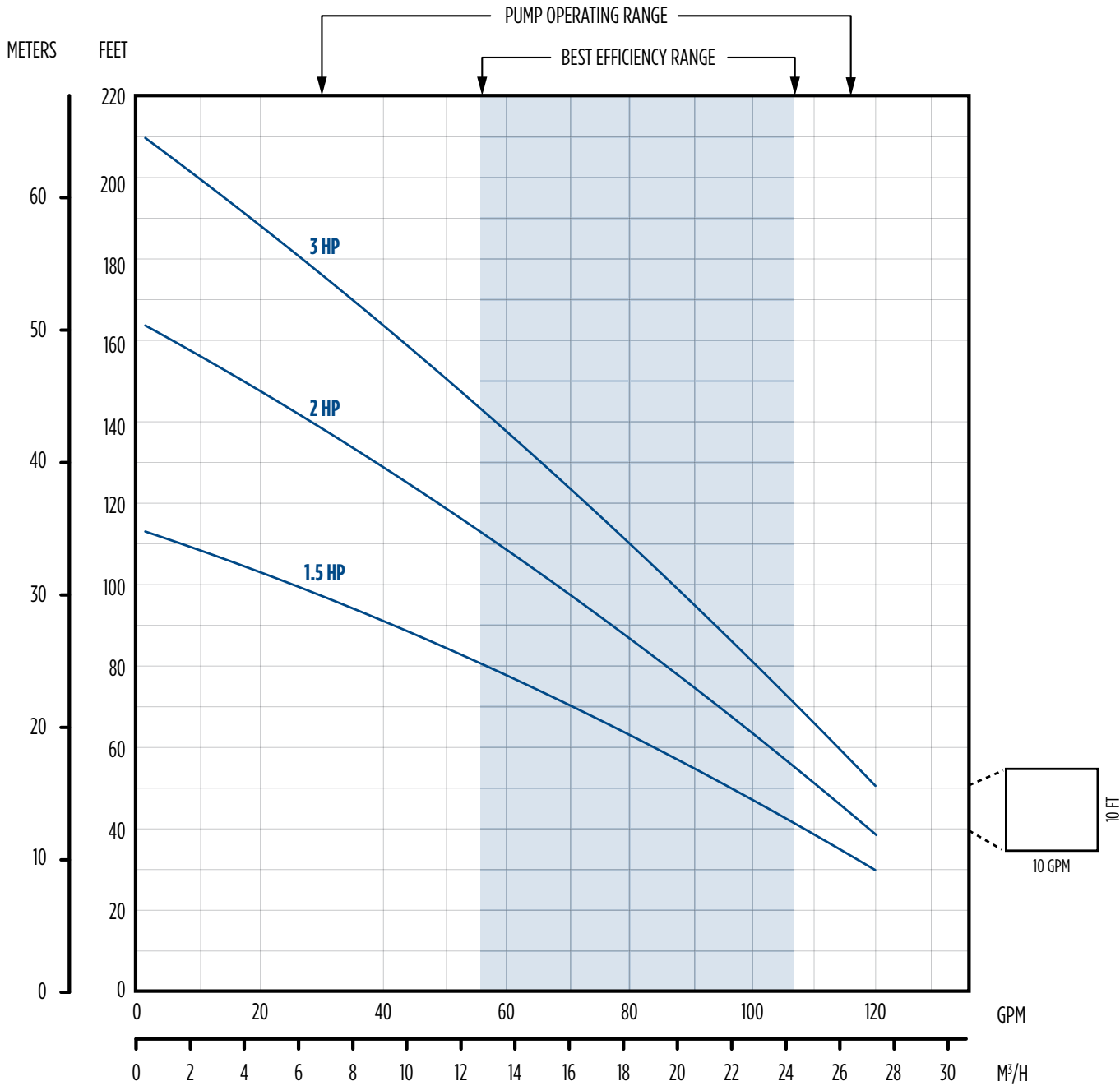
PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)		
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440			
1/2	0			60																65	
	10		55																		
	20	49																			
	30																				
	40																				
Shut-off PSI		28	19	11																	
3/4	0				53															96	
	10			50																	
	20		46																		
	30	42																			
	40																				
Shut-off PSI		42	33	24	16																
1	0				62	44														121	
	10			59	42																
	20		57	39																	
	30	54	35																		
	40																				
Shut-off PSI		52	44	35	26	18															
1.5	0					59	45													151	
	10					57	43														
	20			55	41																
	30		53	38																	
	40	51	36																		
Shut-off PSI		65	57	48	39	31	22														
2	0						63	54	44											210	
	10						62	53	43	32											
	20						61	51	41	30											
	30				59	50	40														
	40		58	48	38																
Shut-off PSI		91	82	74	65	56	48	39	30												
3	0									58	51	44								302	
	10								63	57	50	43	35								
	20								62	56	49	42	34								
	30								62	55	48	41									
	40								61	54	47	39									
	50		66	60	53	46	38														
	60	65	58	52	45	37															
	70	57	51	44	36																
Shut-off PSI		131	122	113	105	96	87	79	70	61	53	44									

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

E SERIES EFFLUENT PUMPS - 90 GPM

PERFORMANCE



E SERIES EFFLUENT PUMPS - 90 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance.																	Shut-Off (ft)	
		0	20	40	60	80	100	120	140	160	180	200	240	280	320	360	400	440		
1.5	0				65	57														112
	10		105	81	75															
	20	102	76																	
	30	72	44																	
Shut-off PSI		48	40	31	23	14														
2	0				103	86	69													162
	10			101	84	66														
	20		98	81	63															
	30	95	78	60																
	40	76	57																	
Shut-off PSI		70	61	53	44	35	27													
3	0					101	87	73	59											210
	10				99	85	71	57												
	20			97	83	69														
	30	108	95	81	67															
	40	93	79	64																
	50	77	62																	
	60	60																		
Shut-off PSI		91	82	74	65	56	48	39	30											

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

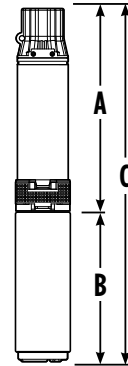
E SERIES EFFLUENT PUMPS - DIMENSIONS

THERMOPLASTIC

GPM	HP	Stages	Dimensions (in)			Wt. (lbs)	
			A	B	C	PE	PMA
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
20	1/2	4	12.97	9.51	22.48	7	25
	3/4	5	13.65	10.64	24.29	6	28
	1	7	16.10	11.73	26.42	8	32
	1.5	10	19.77	15.10	34.87	8	39

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

Thermoplastic

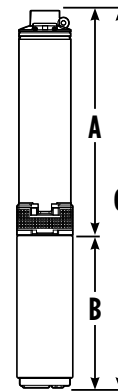


STAINLESS STEEL

GPM	HP	Stages	2-Wire Dimensions (in)			Wt. (lbs)	
			A	B	C	PE	PMA
35	1/2	2	9.1	9.5	18.6	6	24
	1/2	2	9.1	9.5	18.6	6	24
	3/4	3	10.3	10.7	21.0	7	28
	1	5	12.9	11.7	24.6	8	32
	1.5	7	15.4	15.1	30.5	9	38
	2	9	17.1	15.1	32.2	11	44
45	3	12	20.9	19.0	40.0	12	53
	1/2	2	9.9	9.5	19.4	9	27
	1/2	2	9.9	9.5	19.4	9	27
	3/4	3	14.3	10.6	24.9	10	32
	1	4	16.5	11.7	28.2	11	35
	1.5	5	18.8	15.1	33.9	14	43
60	2	7	17.6	15.1	32.7	10	43
	3	10	22.9	19.0	41.8	11	52
	1/2	2	9.9	9.5	19.4	10	28
	1/2	2	9.9	9.5	19.4	10	28
	3/4	3	12.1	10.6	22.7	11	32
	1	4	14.3	11.7	26.0	12	35
90	1.5	5	16.5	15.1	31.6	13	44
	2	7	23.5	15.1	38.6	11	44
	3	10	33.3	19.0	52.3	13	54
	1.5	4	17.3	15.1	32.4	14	43
90	2	6	23.4	15.1	38.5	11	44
	3	8	31.4	19.0	50.4	13	54

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

Stainless Steel



C1 SERIES CISTERN PUMPS

Designed for use in gray water/filtered effluent service applications, the C1 Series cistern pump provides high performance and long life in less than ideal water conditions. The C1 Series pump is able to pass solids up to 1/8" without having a negative effect on the internal hydraulic components.

The pump's unique bottom suction design allows for maximum fluid drawdown without compromising durability or overall life, and it does not require the use of a flow induction sleeve. Intended specifically for use in a cistern or tank, C1 Series pumps are suitable for use in agricultural, residential, and commercial installations.

FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Standard backflow prevention through a built-in, but removable, check valve
- Single-shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, 1/2 hp motor
- Fluid flows of 10, 20, and 30 gpm, with a maximum shut-off pressure of 100 psi
- Heavy-duty 300 V 10 foot SJ00W jacketed lead

APPLICATIONS

- Gray water pumping
- Filtered effluent service water pumping
- Water reclamation projects such as pumping from rain catchment basins
- Aeration and other fountain or pond applications
- Agriculture and livestock water pumping



C1 SERIES CISTERN PUMPS - ORDERING INFORMATION

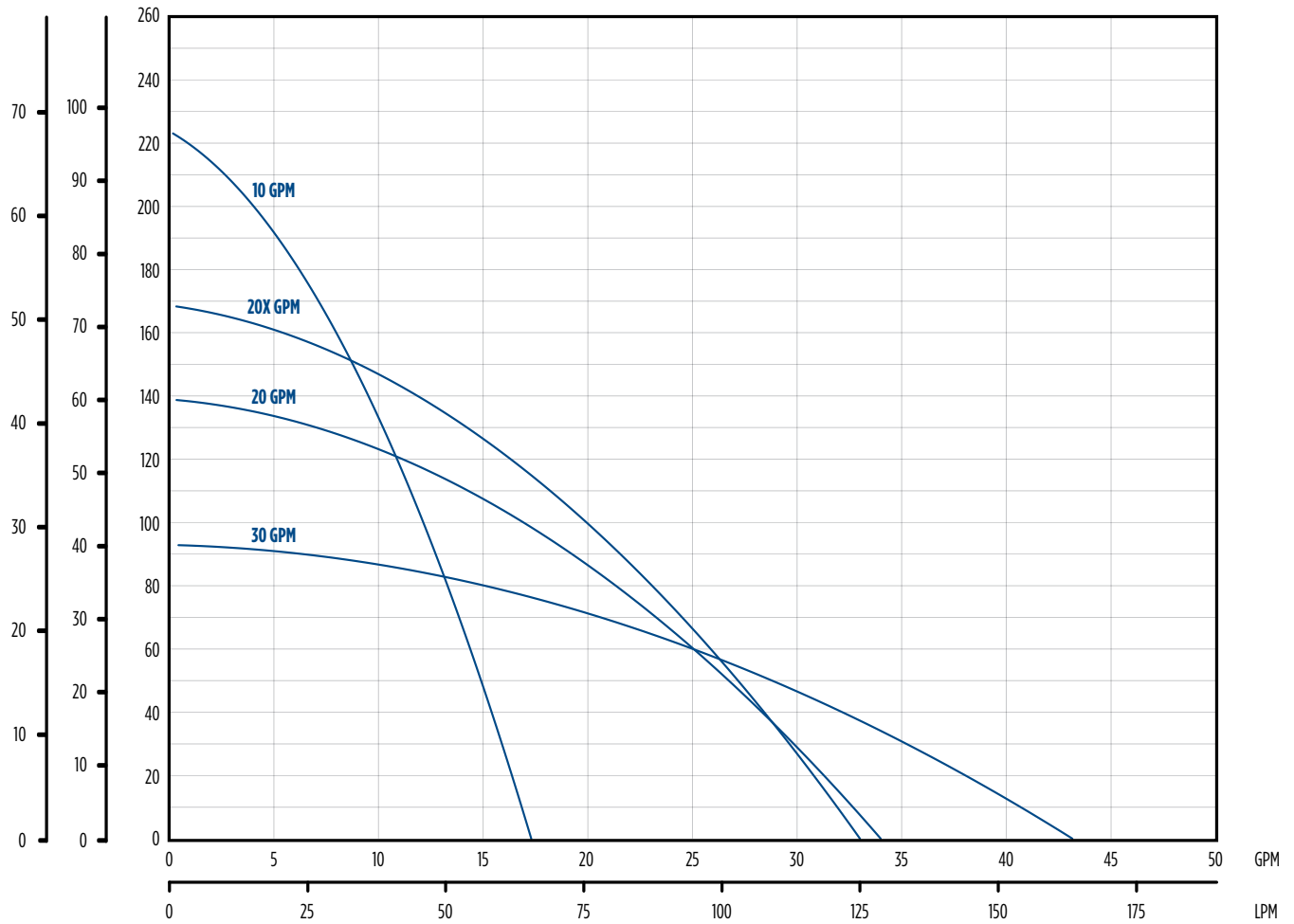
ORDERING INFORMATION

FPS C1 Series Pumps							
GPM	HP	Volts	Stages	Model	Order No.	Length (in)	Weight (lbs)
10	1/2	115	6	10C1-05P4-2W115	90301005	26	17
		230	6	10C1-05P4-2W230	90301010	26	17
20		115	4	20C1-05P4-2W115	90302005	25	16
		230	4	20C1-05P4-2W230	90302010	25	16
20X		115	5	20XC1-05P4-2W115	90302015	26	17
		230	5	20XC1-05P4-2W230	90302020	26	17
30		115	3	30C1-05P4-2W115	90303005	25	16
		230	3	30C1-05P4-2W230	90303010	25	16

NOTES: All units have 10 foot long SJ00W leads.

PERFORMANCE

METERS PSI FEET



SUBMERSIBLE PUMP ACCESSORIES

ORDERING INFORMATION

Check Valves - Silicone Bronze

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

Check Valves - Stainless Steel

Description	Inlet	Outlet	Case Qty.	Order No.	Wt. (lbs)
Flomatic™ 4221LSS2	1-1/4" MNPT	1" FNPT	49	91985317	1.4
Flomatic™ 4242SS2	1-1/4" MNPT	1-1/4" FNPT	49	91985309	1.5

Check Valves - Ductile Iron

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

Flomatic™ Poppet with Removable Ring (Patent Pending)

Description	Order No.	Wt. (lbs)
Flomatic™ Poppet with Removable Ring	305614000	0.1
T-Handle Poppet Wrench	305710008	1

Flomatic™ VFD Check Valve with Removable Ring (Patent Pending)

Description	Order No.	Wt. (lbs)
Flomatic™ VFD Check Valve with Removable Ring	305614000	0.1
T-Handle Wrench for VFD Check Valve	101218901	1

Reducer Bushing

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

NOTES: Flomatic™ is a trademark of the Danfoss Corporation.



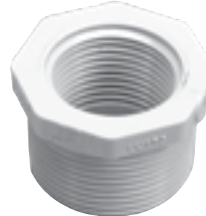
Check Valves



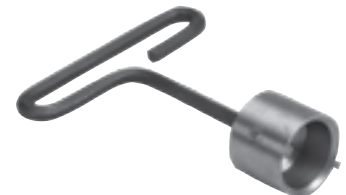
VFD-style Check Valve



Poppet



Reducer Bushing



T-Handle Poppet Wrench

REFERENCES - FRICTION LOSS

PVC SCHEDULE 80 IPS PLASTIC IN 100' OF PIPE

Pipe Size	1/2"		3/4"		1"		1-1/4"		1-1/2"		2"		2-1/2"		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		6" Pipe					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

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

REFERENCES - FRICTION LOSS

WATER IN 100' OF STEEL PIPE

GPM	Pipe Size 1/2" - Actual Size 0.622			Pipe Size 3/4" - Actual Size 0.824			Pipe Size 1" - Actual Size 1.049			Pipe Size 1-1/4" - Actual Size 1.38			Pipe Size 1-1/2" - 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	45.352	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										262.281	23.595	8.653	123.890	17.335	4.671
120										308.142	25.740	10.298	145.553	18.911	5.559
130										357.380	27.885	12.086	168.811	20.487	6.524
140										409.955	30.030	14.016	193.645	22.063	7.566
150										465.831	32.175	16.090	220.039	23.639	8.685

NOTES: Suction Velocities should not exceed 8 feet per second.

REFERENCES - FRICTION LOSS

WATER IN 100' OF STEEL PIPE

GPM	Pipe Size 2" - Actual Size 2.067			Pipe Size 2-1/2" - Actual Size 2.469			Pipe Size 3" - Actual Size 3.068			Pipe Size 3-1/2" - 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

NOTES: Suction Velocities should not exceed 8 feet per second.

REFERENCES - PIPE FITTINGS

CONNECTIONS

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
1-1/2"	4.3	2.8	2	9	10
2"	5.5	3.5	2.5	11	13
2-1/2"	6.5	4.2	3	14	15
3"	8.1	5.1	3.8	17	18
3-1/2"	9.5	6	4.4	19	21
4"	11	7	5	22	24
4-1/2"	12	7.9	5.6	24	27
5"	14	8.9	6.1	27	31
6"	16	11	7.7	33	37

VALVES

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
1-1/2"	0.95	44	22	11
2"	1.2	57	28	13
2-1/2"	1.4	66	33	16
3"	1.7	85	42	20
3-1/2"	2	99	50	24
4"	2.3	110	58	26
4-1/2"	2.6	130	61	31
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"	1-1/2"	2"	2-1/2"	3"
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		
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"	1-1/2"	2"	2-1/2"	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

REFERENCES - PRESSURE LOSS

WATER METERS AWWA STANDARD

Flow GPM	Pressure Loss (Normal Size)						
	5/8"	3/4"	1"	1-1/2"	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

PROPER SYSTEM LIFE MINIMUM TANK VOLUMES

Pump Capacity		Minimum Drawdown Gallons	Total Tank Volume (Gallons)								
			Switch Setting (PSI)								
			20-40			30-50			40-60		
GPH	GPM		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

NOTES: A = Bladder or Diaphragm Tank Design; B = Floating Wafer Tank Design; C = Plain Steel Tank Design

REFERENCES - 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

Water Temperature (°F)	Water Pressure (ft)
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
Liter 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

NOTES: 1,000,000 US gal./day = 695 US gal./minute

HORSEPOWER

To Convert From	To	Multiply By
hp	Kilowatts	0.746
hp	Ft lbs per minute	33000
hp	Ft lbs per second	550
Kilowatts	hp	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	$5/9 \times (°F - 32)$
Celsius	Fahrenheit	$9/5 \times (°C + 32)$

REFERENCES - 2- OR 3-WIRE CABLE, 60 HZ

SERVICE ENTRANCE TO MOTOR MAXIMUM LENGTH

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

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

1 Foot = .3048 Meter

Lengths in **BOLD** only meet the US National Electrical Code ampacity requirements for individual conductors 60 °C or 75 °C in free air or water, not in magnetic enclosures, conduit or direct buried. Lengths NOT in bold meet the NEC ampacity requirements for either individual conductors or jacketed 60 °C or 75 °C cable and can be in conduit or direct-buried. Flat molded and web/ribbon cable are considered jacketed cable. If any other cable is used, the NEC and local codes should be observed.

Cable lengths allow for a 5% voltage drop running at maximum nameplate amperes. If 3% voltage drop is desired, multiply lengths by 0.6 to get maximum cable length. The portion of the total cable length, which is between the supply and single-phase control box with a line contactor, should not exceed 25% of total maximum allowable to ensure reliable contactor operation. Single-phase control boxes without line contactors may be connected at any point in the total cable length.

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

EXAMPLE: #12 copper wire = #10 aluminum wire. Contact Franklin Electric for 90 °C cable lengths.

WARRANTY INFORMATION

LIMITED WARRANTY*

Except as set forth in an Extended Warranty, for twelve (12) months from the date of installation, but in no event more than twenty-four (24) months from the date of manufacture, Franklin hereby warrants to the purchaser (“Purchaser”) of Franklin’s products that, for the applicable warranty period, the products purchased will (i) be free from defects in workmanship and material at the time of shipment, (ii) perform consistently with samples previously supplied and (iii) conform to the specifications published or agreed to in writing between the purchaser and Franklin. This limited warranty extends only to products purchased directly from Franklin. If a product is purchased other than from a distributor or directly from Franklin, such product must be installed by a Franklin Certified Installer for this limited warranty to apply. This limited warranty is not assignable or transferable to any subsequent purchaser or user.

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- e. Unless otherwise specified in an Extended Warranty authorized by Franklin for a specific product or product line, this limited warranty does not apply to performance caused by abrasive materials, corrosion due to aggressive conditions or improper voltage supply.
- f. With respect to motors and pumps, the following conditions automatically void this limited warranty:
 1. Mud or sand deposits which indicate that the motor has been submerged in mud or sand.
 2. Physical damage as evidenced by bent shaft, broken or chipped castings, or broken or bent thrust parts.
 3. Sand damage as indicated by abrasive wear of motor seals or splines.
 4. Lightning damage (often referred to as high voltage surge damage).
 5. Electrical failures due to the use of non-approved overload protection.
 6. Unauthorized disassembly.

WARRANTY INFORMATION

LOST OR DAMAGED GOODS

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

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

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

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

