

SUBMERSIBLE PUMPS

4" HIGH CAPACITY

FPS

FEATURES

- Four performance ranges (35, 45, 60 and 90 gpm)
- Stainless steel discharge head and motor bracket
- High flow impellers and stages are modified PPO for maximum efficiency
- Ceramic shaft sleeve and rubber discharge bearing eliminates sand wear
- Intermediate bearing for increased shaft stability
- Floating eye and hub seals for improved performance and efficiency
- Stainless steel hex pump shaft, shell, and shaft coupling
- High capacity upthrust assembly for protection during start-up and operation (45, 60, and 90 gpm models)
- Powered by Franklin's corrosion-resistant 4" submersible motors
- 2" NPT discharge

MODEL NO. EXPLANATION

Example: 60FA10S4-PE

- 60 = gpm
- FA = FPS Series
- 10 = 10 hp
- S = Stainless
- 4 = 4" Submersible
- PE = Pump End



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ORDER INFORMATION

35-90 GPM

1 - 10 HP 4" Pump Ends

GPM	HP	Stages	Model	Order No.		Dimensions (in) Pump End Only	Wt. (lbs)
				With Check Valve	Without Check Valve		
35	1	6	35FA1S4-PE	90653506	93613506	15.00	9
	1.5	8	35FA1S4-PE	90653508	93613508	17.50	10
	2	10	35FA2S4-PE	90653510	93613510	20.00	11
	3	14	35FA3S4-PE	90653514	93613514	25.00	13
	5	22	35FA5S4-PE	90653522	93613522	35.00	17
	7.5	34	35FA7S4-PE	90653534	93613534	52.17	25
	10	42	35FA10S4-PE	90653542	93613542	62.23	31
45	1.5	6	45FA1S4-PE	90654506	93614506	21.00	15
	2	8	45FA2S4-PE	90654508	93614508	25.50	16
	3	11	45FA3S4-PE	90644511	93614511	32.25	19
	5	18	45FA5S4-PE	90654518	93614518	47.75	25
	7.5	26	45FA7S4-PE	90654526	93614526	65.25	33
	10	31	45FA10S4-PE	90654531	93614531	78.30	38
60	2	6	60FA2S4-PE	90656006	93616006	21.00	15
	3	8	60FA3S4-PE	90656008	93616008	25.50	17
	5	13	60FA5S4-PE	90656013	93616013	36.75	21
	7.5	17	60FA7S4-PE	90656017	93616017	45.25	25
	10	24	60FA10S4-PE	90656024	93616024	61.00	31
90	2	5	90FA2S4-PE	90659005	93619005	22.56	15
	3	7	90FA3S4-PE	90659007	93619007	28.56	17
	5	12	90FA5S4-PE	90659012	93619012	43.56	21
	7.5	19	90FA7S4-PE	90659019	93619019	64.50	27
	10	24	90FA10S4-PE	90659020	93619020	79.25	31

NOTES: All models listed above have a 2" NPT discharge. Maximum diameter across cable guard is 3.90" on all models.

1 - 1.5 HP Single-Phase Units (2-Wire)

GPM	HP	Stages	Volts	Model	Order No.		Wt. (lbs)
					With Check Valve	Without Check Valve	
35	1	6	230	35FA1S4-2W230	90653606	93613606	33
	1.5	8		35FA1S4-2W230	90653608	93613608	41
45	1.5	6		45FA1S4-2W230	90654606	93614606	46

NOTES: All models listed above have a 2" NPT discharge. Maximum diameter across cable guard is 3.90" on all models.

1 - 1.5 HP Single-Phase Units (3-Wire)

GPM	HP	Stages	Volts	Model	Order No.		Wt. (lbs)
					With Check Valve	Without Check Valve	
35	1	6	230	35FA1S4-3W230	90653706	93613706	33
	1.5	8		35FA1S4-3W230	90653608	93613708	39
45	1.5	6		45FA1S4-3W230	90654706	93614706	44

NOTES: All models listed above have a 2" NPT discharge. Maximum diameter across cable guard is 3.90" on all models.

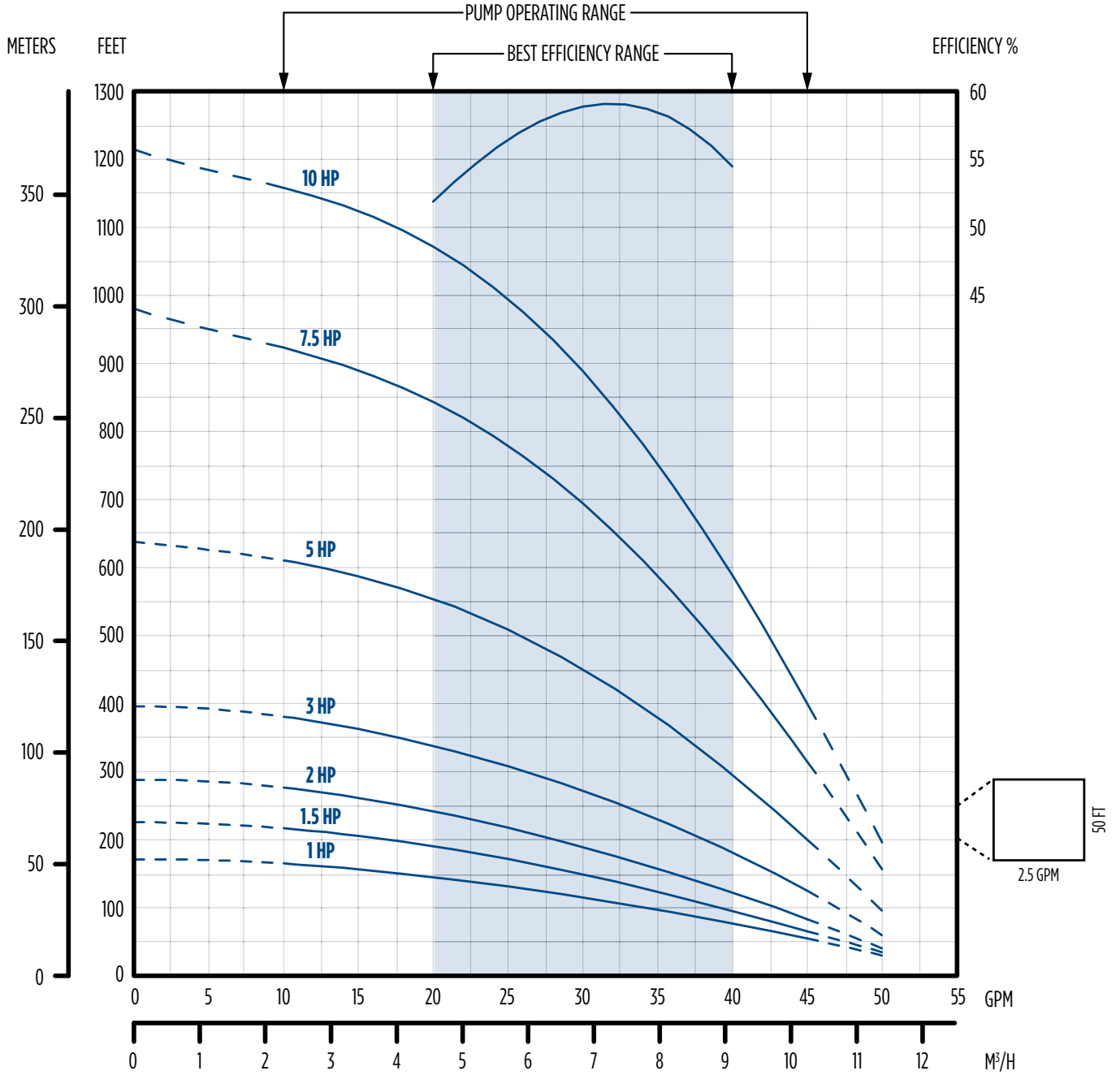
SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

35 GPM



SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

35 GPM

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	550	600		
1	0			44	40	34	28	22	13												171
	10		43	39	33	27	21	11													
	20	43	38	32	26	20															
	30	37	31	26	19																
	40	30	25	18																	
	50	24	16																		
	60	14																			
	70																				
80																					
Shut-off PSI		65	57	48	39	31	22	13	5												
1.5	0			45	43	40	36	31	27	23	18										226
	10		45	42	39	35	31	27	23	16											
	20	45	42	38	34	30	26	22	15												
	30	41	38	34	30	26	21	14													
	40	37	33	29	25	20	12														
	50	32	29	24	19	10															
	60	28	24	18																	
	70	23	17																		
80	16																				
Shut-off PSI		89	81	72	63	55	46	37	29	20	11										
2	0			45	43	41	38	34	31	28	19										288
	10		45	43	40	37	34	31	27	24	11										
	20	44	42	39	36	33	30	27	24	20											
	30	44	42	39	36	33	30	26	23	19	12										
	40	42	39	36	32	29	26	22	18	11											
	50	39	35	32	29	25	22	17	10												
	60	35	31	28	25	21	16														
	70	31	28	24	21	15															
80	27	24	20	14																	
Shut-off PSI		116	107	99	90	81	73	64	55	47	38	16									
3	0				45	44	42	41	38	32	28	18									396
	10				45	44	42	40	38	36	29	23	12								
	20			45	44	42	40	38	35	33	27	19									
	30		44	43	41	39	37	34	32	29	27	20	13								
	40	44	43	41	39	37	34	32	29	27	24	14									
	50	44	43	41	39	37	34	32	29	27	24	14									
	60	43	41	39	36	34	31	29	26	24	21										
	70	40	38	36	33	31	28	26	23	20	15										
80	38	35	33	30	28	25	23	19	15												
Shut-off PSI		163	154	145	137	128	120	111	102	94	85	63	42	20							
5	0									45	43	40	37	33	30	26	21	12			638
	10									45	44	42	39	35	32	28	24	18			
	20							45	45	44	43	40	37	34	30	26	21	13			
	30						45	45	44	43	42	39	35	32	28	24	18				
	40					45	44	44	43	42	41	37	34	30	27	22	14				
	50				45	44	44	43	42	40	39	36	32	29	25	19					
	60			45	44	43	42	41	40	39	38	34	31	27	22	15					
	70		45	44	43	42	41	40	39	37	36	32	29	25	19						
80	45	44	43	42	41	40	38	37	36	34	31	27	23	15							
Shut-off PSI		268	259	250	242	233	224	216	207	198	190	168	146	125	103	81	60	38	16		

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

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PERFORMANCE

35 GPM

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																			Shut-Off (ft)
		120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	
7.5	0								44	42	40	38	36	34	32	30	27	24	19	13	980
	10							45	43	41	39	38	36	33	31	29	26	22	17	10	
	20							44	42	40	39	37	35	32	30	27	24	20	14		
	30						45	43	41	40	38	36	34	31	29	26	22	17	11		
	40						44	42	41	39	37	35	33	30	27	24	20	14			
	50					45	43	42	40	38	36	34	32	29	25	22	18	11			
	60				45	44	43	41	39	37	35	33	30	28	24	20	15				
	70		45	45	44	43	42	40	38	36	34	32	29	26	23	18	12				
80	45	45	44	43	43	41	39	37	35	33	31	28	25	21	15						
Shut-off PSI		373	364	355	347	338	316	295	274	251	230	208	186	165	143	121	100	78	56	35	

HP	PSI	Depth to Pumping Water Level, or Lift, in Feet. Shaded Areas Indicate Most Efficient Performance																			Shut-Off (ft)	
		200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100		1150
10	0					45	44	43	41	40	38	36	35	33	31	30	28	25	22	17	11	1215
	10					45	43	42	41	39	37	36	34	32	31	29	26	24	20	15		
	20				45	44	43	41	40	38	37	35	33	32	30	28	25	22	18	12		
	30				45	43	42	41	39	38	36	34	32	31	29	27	24	20	15			
	40			45	44	43	41	40	38	37	35	33	32	30	28	25	22	18	12			
	50			45	44	42	41	39	38	36	34	33	31	29	27	24	20	16				
	60		45	44	43	42	40	39	37	35	34	32	30	28	26	23	18	13				
	70		45	44	42	41	39	38	36	34	33	31	29	27	24	21	16					
80	45	44	43	42	40	38	37	35	34	32	30	28	26	23	19	13						
Shut-off PSI		439	418	396	374	353	331	309	288	266	245	223	201	180	158	136	115	93	71	50	28	

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

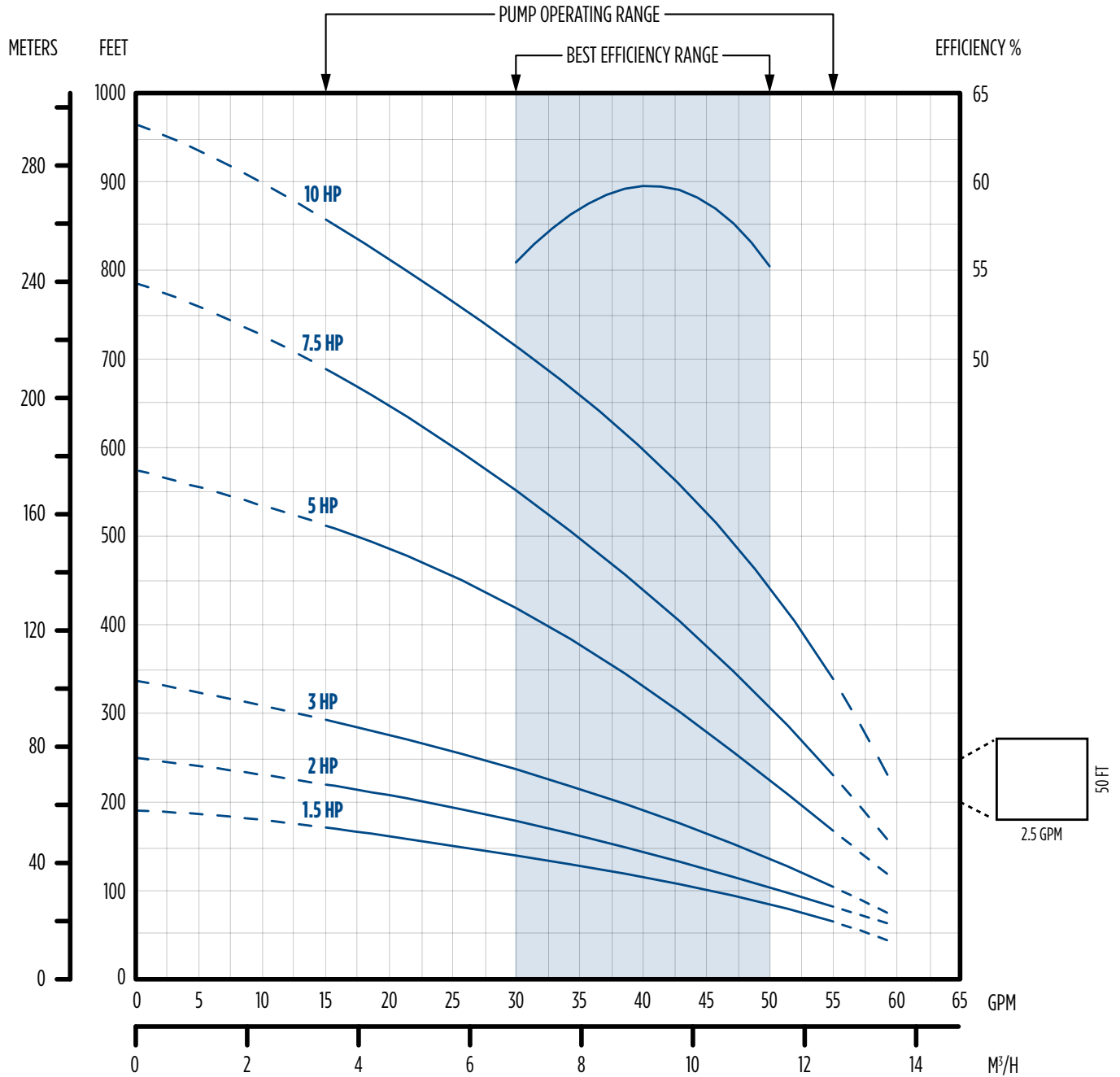
SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

45 GPM



SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

45 GPM

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

NOTES: Performance shown is based on a pump without a check valve and 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.

SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

45 GPM

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	550	600	650	
7.5	0											54	51	47	43	39	35	30	25	20	786
	10										55	52	49	45	41	37	33	28	23	17	
	20									55	54	51	47	44	39	35	30	26	20		
	30								55	54	53	49	46	42	37	33	28	23	17		
	40							55	54	52	51	48	44	40	35	31	26	21	15		
	50						55	53	52	51	49	46	42	38	33	29	24	18			
	60					54	53	52	51	49	48	44	40	36	31	26	21	15			
	70			55	54	53	52	50	49	48	46	42	38	34	29	24	18				
	80		55	54	53	52	50	49	47	46	44	40	36	32	27	21	16				
	90	55	54	53	51	50	49	47	46	44	43	38	34	29	24	19					
	100	54	52	51	50	48	47	45	44	42	41	36	32	27	22	16					
	110	52	51	50	48	47	45	44	42	40	39	34	30	25	19						
	120	51	49	48	47	45	43	42	40	39	37	32	27	22	17						
	130	49	48	46	45	43	42	40	38	37	35	30	25	20							
	140	48	46	45	43	41	40	38	36	34	33	28	23	17							
	150	46	44	43	41	39	38	38	34	32	30	26	20								
	160	40	39	37	35	33	31	30	28	26	24	18									
Shut-off PSI		331	323	314	305	297	288	279	271	262	254	232	210	189	167	145	124	102	80	59	

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.

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	550	600	650		700	750	800
10	0											55	53	50	48	45	42	39	35	31	27	22	16	965
	10											54	52	49	47	44	41	37	33	29	24	19		
	20											53	51	48	45	42	39	36	32	27	22	16		
	30										54	52	49	47	44	41	37	34	30	25	19			
	40										53	51	48	45	43	39	36	32	27	22	17			
	50									55	52	50	47	44	41	38	34	30	25	20				
	60							55	55	54	51	48	46	43	40	36	32	28	23	17				
	70						55	54	53	52	50	47	44	41	38	34	30	26	20	14				
	80					55	54	53	52	51	49	46	43	40	36	32	28	23	18					
	90					55	54	53	52	51	50	47	45	42	38	35	31	26	21	15				
	100				55	54	53	52	51	50	49	46	43	40	37	33	28	24	18					
	110			55	54	53	52	51	50	49	48	45	42	39	35	31	26	21	15					
	120		55	54	53	52	51	50	49	47	46	43	40	37	33	29	24	19						
	130	54	53	52	51	50	49	48	47	46	45	42	39	35	31	27	22	16						
	140	53	52	51	50	49	48	47	46	45	44	41	37	33	29	24	19							
	150	52	51	50	49	48	47	46	45	44	42	39	36	32	27	22	16							
	160	49	48	46	45	44	43	42	40	39	38	34	30	25	20									
Shut-off PSI		410	402	393	385	376	367	359	350	341	333	311	289	268	246	224	201	179	158	136	115	93	71	50

NOTES: Performance shown is based on a pump without a check valve and 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.

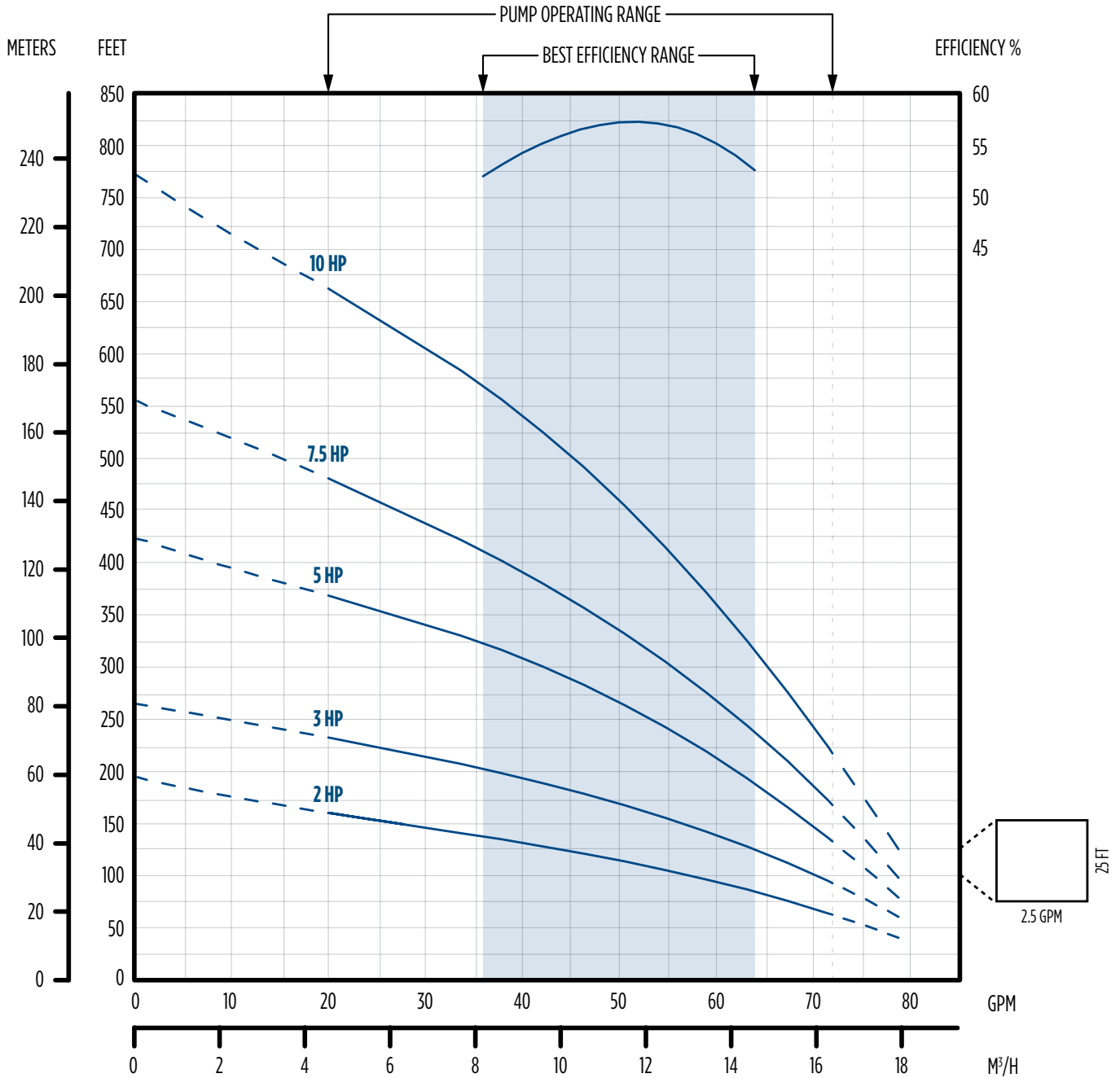
SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

60 GPM



SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

60 GPM

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

NOTES: Performance shown is based on a pump without a check valve and 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 60 gpm models.

SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

60 GPM

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

NOTES: Performance shown is based on a pump without a check valve and 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 60 gpm models.

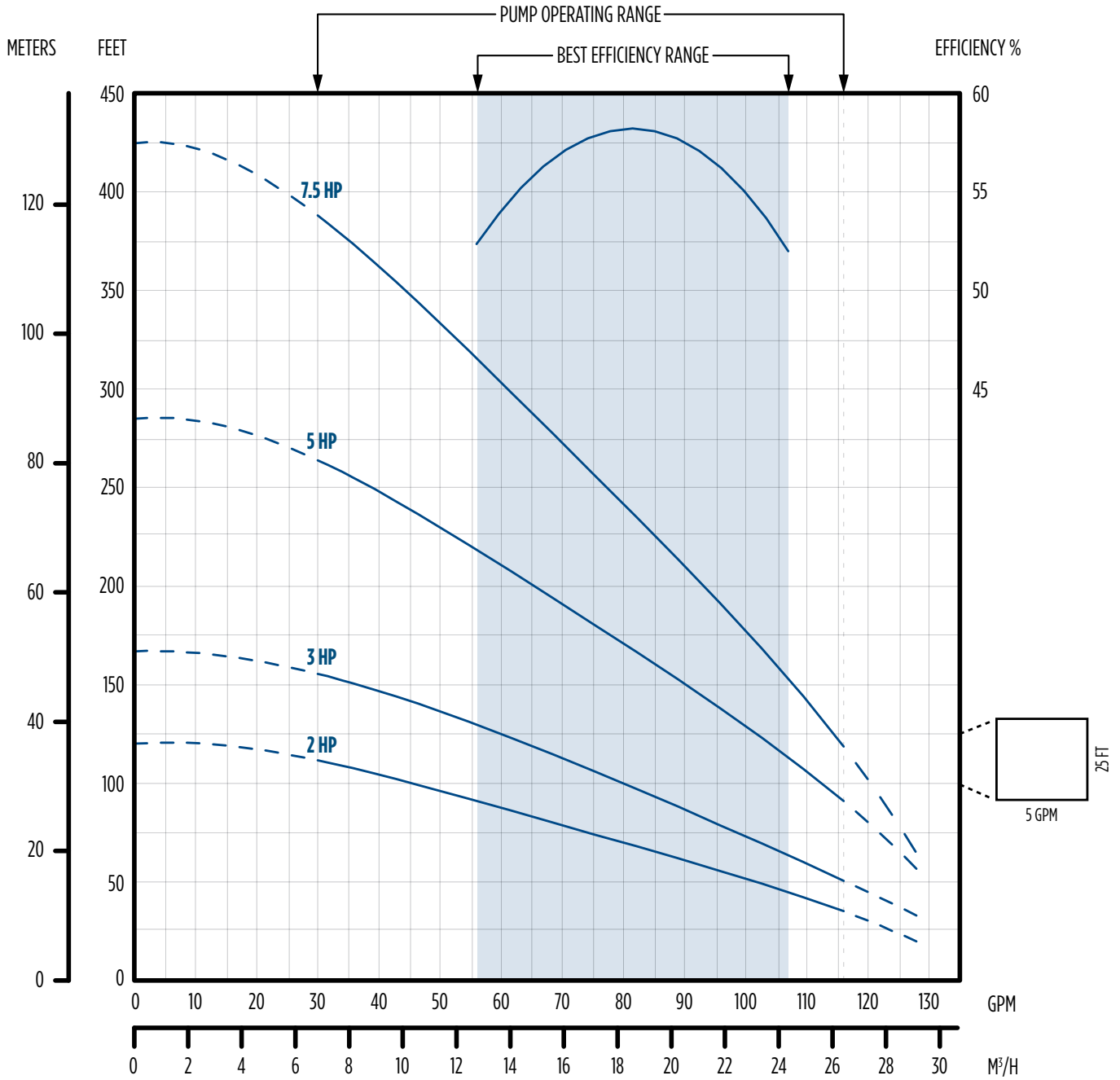
SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

90 GPM



SUBMERSIBLE PUMPS

4" HIGH CAPACITY



PERFORMANCE

90 GPM

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	550			
2	0		113	92	67	48														120	
	10	110	88	64	45																
	20	84	61	40																	
	30	58	35																		
	40																				
	50																				
	60																				
Shut-off PSI		43	35	26	17	9															
3	0			110	96	79	64	49												167	
	10		108	93	76	61	46														
	20	106	90	74	59	43															
	30	88	71	57	39																
	40	69	55	35																	
	50	53	30																		
	60																				
Shut-off PSI		64	55	46	38	29	20	12													
5	0					113	106	96	85	74	64	41								285	
	10				112	104	94	83	72	63	55										
	20			111	103	92	81	71	62	53	44										
	30		110	101	91	80	69	60	52	42											
	40	100	100	89	78	68	59	51	40												
	50	98	87	76	66	58	49	38													
	60	85	75	65	56	48	35														
	70	73	63	55	46	33															
	80	62	54	45	30																
	90	53	43																		
	100	41																			
Shut-off PSI		115	106	97	89	80	71	63	54	45	37	15									
7.5	0						116	112	107	101	94	76	60	46						425	
	10					115	111	108	100	93	86	68	54	38							
	20				115	110	105	99	92	85	77	61	47								
	30			114	109	104	98	91	83	76	70	55	40								
	40		113	109	103	96	90	82	75	69	62	49									
	50	113	108	102	95	88	81	74	68	61	56	41									
	60	107	101	94	87	80	73	67	61	55	50	31									
	70	100	93	86	79	72	66	60	54	49	42										
	80	92	85	78	71	65	59	53	48	41	33										
	90	84	77	70	64	58	53	47	40	31											
	100	76	69	63	57	52	46	39													
	110	68	62	56	51	45	38														
	120	61	55	50	44	36															
	130	55	49	43	35																
	140	48	42	33																	
	150	41	32																		
160																					
Shut-off PSI		175	167	158	149	141	132	123	115	106	97	76	54	32							

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