



RESIDENTIAL WATER SYSTEMS



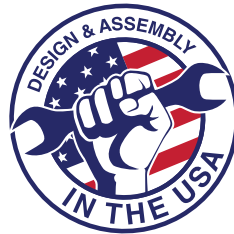


For 85 years and counting, Pentair® Berkeley® Pumps Continue to Deliver Better Performance!

Since 1937, when Berkeley Pumps were first used to irrigate the fertile fields of the San Joaquin Valley of Central California, the Berkeley name has stood for uncompromising reliability and superior performance.

We've remained true to our tradition by adding the superior technology of Pentair® Pentek® Motors and Controls to our MS and JP Series 4" submersible pumps. Pentek engineering raises the performance bar, making our submersible well product lines an even smarter choice for efficiency and quiet, dependable operation.

We never relax in our dedication to finding better ways to serve our customers.



MS Series 4" Submersibles feature the exceptional reliability of Pentek XE Series motors and draw up to 22% fewer amps!

3-wire XE Series motors installed with a Pentek SMC-CR Control Box draw up to 22% fewer amps!

Pentek XE Series motors feature patented toroidal capacitors to reduce vibration and noise.

Pumps fitted with XE Series motors are factory tested to meet or exceed CSA/CUS safety certifications.



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IMPORTANT NOTES

Specifications and/or materials are subject to change without notice.
Dimensions are for estimating purposes only.
Products are tested and rated in accordance with
Water Systems Council Standards.

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Product Selection Guide



PENTEK[®] MOTORS AND CONTROLS

PRODUCT TYPE	4" SUBMERSIBLE MOTORS	SUBMERSIBLE MOTOR CONTROLS	6" SUBMERSIBLE MOTORS	CONSTANT PRESSURE CONTROLLER	SINGLE-PHASE MOTOR PROTECTORS
APPLICATION	Water systems for residential, industrial, commercial, multiple housing and farm clean water use	Water systems for residential, industrial, commercial, multiple housing and farm clean water use	Water systems for residential, industrial, commercial, multiple housing and farm clean water use	Residential, commercial and irrigation constant pressure systems	Water systems for residential, industrial, commercial, multiple housing and farm clean water use
DESCRIPTION	Single- and three-phase 4" submersible high thrust motor	Single-phase motor controls for submersible applications	Single- and three-phase 6" submersible motor	Constant pressure controller for below and above ground applications	Single-phase motor protectors for submersible applications
MATERIALS	Stainless steel construction	NEMA 3R Enclosure	Stainless steel and epoxy-coated cast iron	NEMA 1, NEMA 3R, and NEMA 4X Enclosures Available	NEMA 3R Enclosure
PERFORMANCE					
Capacity	N/A	N/A	N/A	N/A	N/A
Head	N/A	N/A	N/A	N/A	N/A
SUCTION/DISCHARGE	N/A	N/A	N/A	N/A	N/A
HORSEPOWER	1/2 to 10 HP	1/2 to 15 HP	5 to 50 HP	1/2 to 150 HP	1/3 to 15 HP
SERIES	XE	SMC	XE-6	PID, XL	SPP

Product Selection Guide



PRODUCT TYPE	SELF-PRIMING SHALLOW WELL AND CONVERTIBLE JET	VERTICAL SINGLE & MULTI-STAGE AND SELF-PRIMING HORIZONTAL MULTI-STAGE DEEP WELL JET	SMALL, STRAIGHT CENTRIFUGAL	SELF-PRIMING CENTRIFUGAL	HIGH PRESSURE BOOSTER PUMPS
APPLICATION	Residential and general water supply systems booster, and light irrigation	General water supply, booster and light irrigation for 2", 3" and 4" or larger water wells	General purpose, process, booster and liquid transfer	Lawn sprinkling, light irrigation, general dewatering and sump drainage, liquid transfer	General purpose booster, warm and cold water wash down, cleaning
DESCRIPTION	Threaded connections Motor-drive Mechanical seal Back pull-out design Convertible to deep well use	Threaded connections Motor-drive Mechanical seals	Threaded connections Motor-drive, ODP and TEFC Mechanical seals - standard and high temperature Back pull-out design 4-position discharge	Fast priming Threaded connections Motor- and engine-drive Portable or permanent installation Mechanical seals Back pull-out design	Threaded connections Motor-drive Mechanical seals ODP and TEFC motors
MATERIALS	Cast iron or fiberglass reinforced thermoplastic with thermoplastic impellers	Cast iron with thermoplastic impellers	Cast iron with bronze (high temperature) or thermoplastic impellers	Cast iron or fiberglass reinforced thermoplastic with bronze, cast iron or thermoplastic impellers	Signature 2000® - Stainless steel or cast iron construction with thermoplastic impellers/diffusers
PERFORMANCE					
Capacity	To 45 GPM	To 55 GPM	To 260 GPM	To 240 GPM	To 40 GPM
Head	To 160 TDH/ft.	To 325 TDH/ft.	To 140 TDH/ft.	To 160 TDH/ft.	To 690 TDH/ft.
SUCTION/ DISCHARGE	1" to 1-1/4" 3/4" to 1"	1-1/4" suction, 1" drive 1"	1-1/4" to 2-1/2" 1" to 2"	1" to 3" 1" to 2-1/2"	3/4" to 1-1/4" 1" to 1-1/2"
HORSEPOWER	1/3 to 1-1/2 HP	1/2 to 2 HP	1/3 to 5 HP	1/2 to 5 HP	1/2 to 3 HP
SERIES	SN, HN, FN, PN, SL, HL, FL, PL	SSJ, MS, HMS	J/JB, CC	D, DS3, EDD, DPC, PD	HP, HPS

Product Selection Guide



6" STAINLESS STEEL SUBMERSIBLE TURBINE	4" SUBMERSIBLE	WATER SYSTEMS TANKS
		PRO-SOURCE® COMPOSITE PRESSURIZED FIBREWOUND
General water supply, irrigation, booster, sump, circulation, dewatering	General water supply, booster, sump, circulation, and irrigation	General water storage and transfer
Crimped and threaded connections Completely submerged sealed motor coupled to pump	Threaded connections Completely submerged sealed motor 2 and 3 wire	Pre-pressurized composite well tank CSA Classified to ANSI/NSF 61 Field serviceable
All stainless steel construction	Signature 2000® - Stainless steel and composite construction with thermoplastic impellers/diffusers 70 GPM Series - Cast iron bowls with thermoplastic impellers 75 GPM and 90 GPM High-Flo Series	Pressure vessel: polyethylene Exterior: continuous, overlapping fiberglass strands, sealed with high-grade epoxy resin, then oven-cured
To 365 GPM To 1400 TDH/ft.	To 125 GPM To 1900 TDH/ft.	Physical Capacity: 14 - 119 gallons Drawdown: 5.3 - 43.8 gallons Maximum operating pressure: 125 PSI
3" to 4"	1-1/4" to 2"	1" to 1-1/4" NPT
1 to 60 HP	1/2 to 10 HP	N/A
Berkeley	Signature 2000 Series, 70 GPM Series and 90 GPM Series	Pro-Source Composite

MS Series

Stainless steel, 5 and 7 GPM TrimLine™



Precision-engineered, high-quality, rugged Stainless Steel Series Pumps deliver efficient, dependable performance even in rough, aggressive water.

The TrimLine™ 5 and 7 GPM Series Pumps are 3-3/4" maximum O.D. Heads to 1,150 feet and capacities to 10.5 GPM. Built to deliver long-term, trouble-free service. Floating impeller design resists sand and reduces sand locking. These pumps feature the proven SignaSeal™ staging system.

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing and farm use.

SPECIFICATIONS

Shell: Stainless steel

Discharge: Stainless steel

Discharge Bearing: Nylatron®

Intermediate Bearing: (On larger units) polycarbonate, nitrile rubber and stainless steel

Impellers: Acetal

Diffusers: Polycarbonate

Suction Caps: Polycarbonate with stainless steel insert

Thrust Pads: Proprietary spec.

Shaft and Coupling: Stainless steel

Intake: Stainless steel

Intake Screen: Stainless steel

Cable Guard: Stainless steel

Agency Listings: CSA

Check Valve: Acetal

FEATURES

Proven Staging System: Our proven SignaSeal staging system incorporates a harder-than-sand ceramic wear surface that when incorporated with our floating impeller design, greatly reduces problems with abrasives, sand lock-up and running dry.

Discharge: Corrosion-resistant 300 grade stainless steel for durability in aggressive water. Large octagon wrench area for ease of installation.

Discharge Bearing: Exclusive self-lubricating Nylatron bearing resists wear from sand.

Intake: Corrosion-resistant 300 grade stainless steel for durability in aggressive water.

Shaft: Positive drive from 7/16" hexagonal heavy-duty 300 grade stainless steel.

Coupling: Stainless steel press fit to pump shaft. Couples to all standard NEMA motors.

Shell: Heavy-walled corrosion-resistant 300 grade stainless steel. Threaded for easy servicing.

Hardware: All screws, washers and nuts are corrosion-resistant 300 grade stainless steel.

Check Valve: Durable internal spring-loaded check valve.

Cable Guard: Corrosion-resistant stainless steel guard protects motor leads. Tapered ends prevent pump from catching on well.

Intake Screen: Corrosion-proof stainless steel.

Pentek® XE Series™ Motor: 2 and 3 wire NEMA standard all stainless construction water-filled motors.

POWERED BY
PENTEK®



MS Series

Stainless steel, 5 and 7 GPM TrimLine™

ORDERING INFORMATION

GPM	MOTOR TYPE	HP	STGS.	PH†	VOLT	ASSEMBLED PUMP			PUMP END			MOTOR		CONTROL BOX			
						CATALOG NUMBER	LENGTH IN.*	WEIGHT LBS.*	CATALOG NUMBER	LENGTH IN.*	WEIGHT LBS.*	CATALOG NUMBER	WEIGHT LBS.*	CATALOG NUMBER	WEIGHT LBS.*		
5	2 WIRE	1/2	14	1	115	B5P4MS05121	28	28	L5P4CMGS	18	12	P42B0005A1	19				
		1/2	14	1	230	B5P4MS05221	28	28	L5P4CMGS	18	12	P42B0005A2	19				
		3/4	19	1	230	B5P4MS07221	33	34	L5P4DMGS	22	15	P42B0007A2	23				
		1	22	1	230	B5P4MS10221	37	39	L5P4EMGS	26	17	P42B0010A2	25				
		1-1/2	30	1	230	B5P4MS15221	47	51	L5P4FMGS	32	21	P42B0015A2	29				
	3 WIRE	1/2	13	1	115	B5P4MS05131	27-1/2	28	L5P4CMGS	18	12	P43B0005A1	19	SMC-IR0511	4		
		1/2	14	1	230	B5P4MS05231	28	28	L5P4CMGS	18	12	P43B0005A2	18	SMC-CR0521	4		
		3/4	19	1	230	B5P4MS07231	33	34	L5P4DMGS	22	15	P43B0007A2	21	SMC-CR0721	4		
		1	22	1	230	B5P4MS10231	38	39	L5P4EMGS	26	17	P43B0010A2	23	SMC-CR1021	4		
		1-1/2	30	1	230	B5P4MS15231	46	48	L5P4FMGS	32	21	P43B0015A2	27	SMC-CR1521	7		
		1-1/2	30	3	230				L5P4FMGS	32	21	P43B0015A3	23				
		1-1/2	30	3	460				L5P4FMGS	32	21	P43B0015A4	23				
		2	38	1	230				L5P4GMGS	37-3/4	25	P43B0020A2	31	SMC-CR2021	7		
		2	38	3	230				L5P4GMGS	37-3/4	25	P43B0015A3	23				
		2	38	3	460				L5P4GMGS	37-3/4	25	P43B0015A4	23				
		7	2 WIRE	1/2	11	1	115	B7P4MS05121	26	27	L7P4CMGS	16	11	P42B0005A1	19		
				1/2	11	1	230	B7P4MS05221	26	27	L7P4CMGS	16	11	P42B0005A2	19		
				3/4	15	1	230	B7P4MS07221	30	32	L7P4DMGS	19	13	P42B0007A2	23		
1	18			1	230	B7P4MS10221	34	37	L7P4EMGS	22	15	P42B0010A2	25				
1-1/2	22			1	230	B7P4MS15221	43	47	L7P4FMGS	28	17	P42B0015A2	29				
3 WIRE	1/2		10	1	115	B7P4MS05131	25-1/2	27	L7P4CMGS	16	11	P43B0005A1	19	SMC-IR0511	4		
	1/2		11	1	230	B7P4MS05231	26	27	L7P4CMGS	16	11	P43B0005A2	18	SMC-CR0521	4		
	3/4		15	1	230	B7P4MS07231	30	32	L7P4DMGS	19	13	P43B0007A2	21	SMC-CR0721	4		
	1		18	1	230	B7P4MS10231	34	37	L7P4EMGS	22	15	P43B0010A2	23	SMC-CR1021	4		
	1-1/2		22	1	230	B7P4MS15231	42	44	L7P4FMGS	28	17	P43B0015A2	27	SMC-CR1521	7		
	1-1/2		22	3	230				L7P4FMGS	27-1/4	17	P43B0015A3	23				
	1-1/2		22	3	460				L7P4FMGS	27-1/4	17	P43B0015A4	23				
	2		28	1	230				L7P4GMGS	32-1/2	20	P43B0020A2	31	SMC-CR2021	7		
	2		28	3	230				L7P4GMGS	32-1/2	20	P43B0020A3	27				
	2		28	3	460				L7P4GMGS	32-1/2	20	P43B0020A4	27				
	3		36	1	230				L7P4HMGS	39-1/2	24	P43B0030A2	37	SMC-CR3021	8		
	3		36	3	230				L7P4HMGS	39-1/2	24	P43B0030A3	37				
	3		36	3	460				L7P4HMGS	39-1/2	24	P43B0030A4	37				

†For all Pentek XE series three-phase motor options, see page 65.

*Length and Weight are approximate.

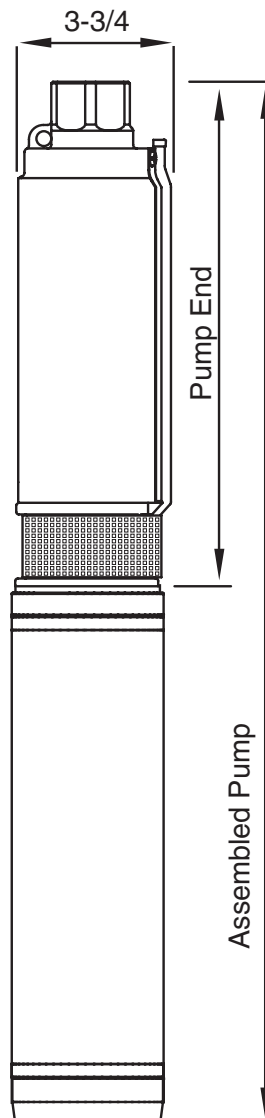
TrimLine™ version maximum outside diameter is 3-3/4". Standard version maximum outside diameter is 3-7/8".

NOTE: Motor, Control Box or Magnetic Starter must be ordered separately, if ordering pump end only. Discharge NPT is 1-1/4".

MS Series

Stainless steel, 5 and 7 GPM TrimLine™

OUTLINE DIMENSIONS



DISCHARGE

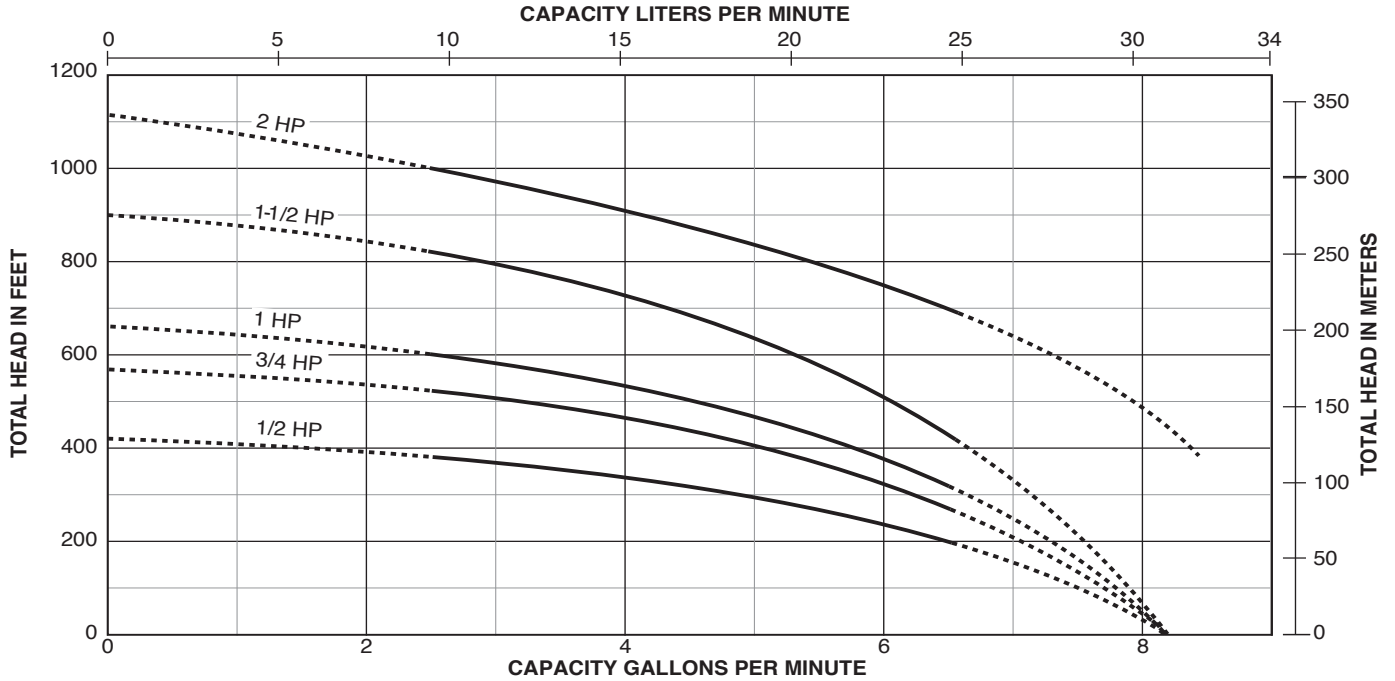
5 GPM	1-1/4" NPT
7 GPM	1-1/4" NPT

For dimensions, refer to Ordering Information table.
Dimensions (in inches) are for estimating purposes only.

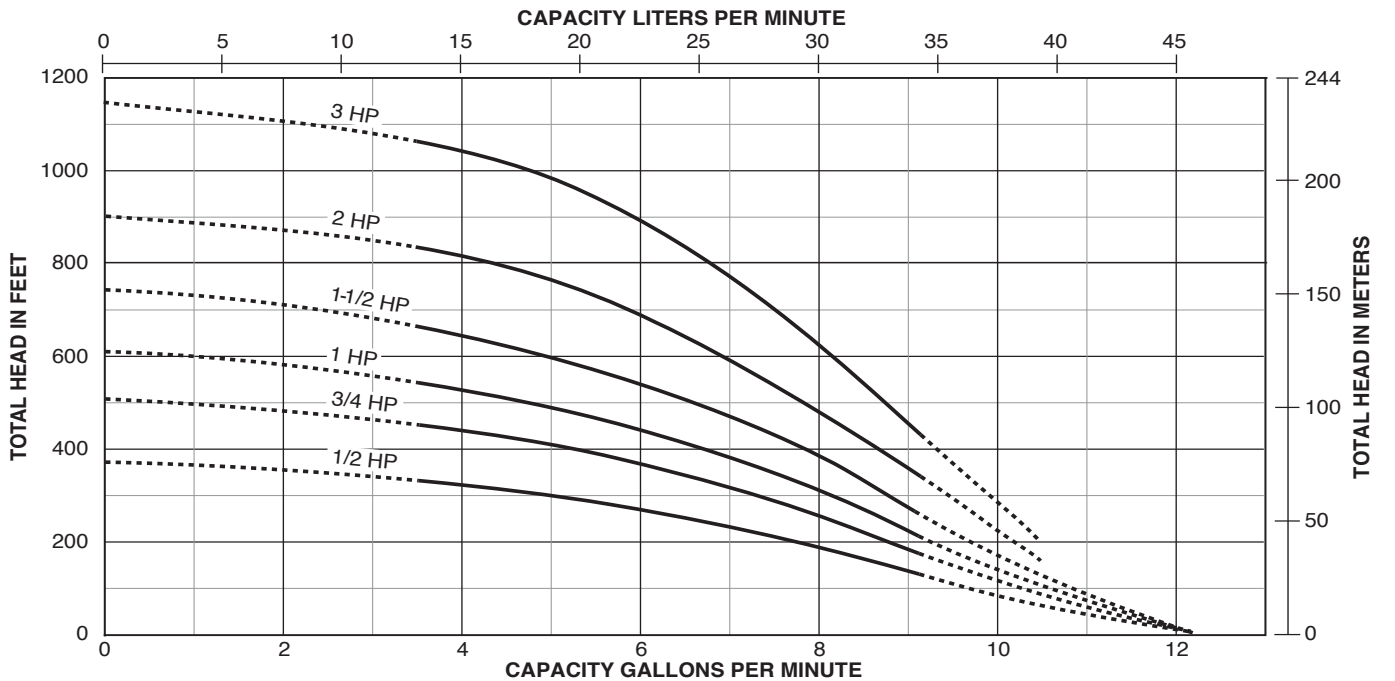
MS Series

Stainless steel, 5 and 7 GPM TrimLine™

PUMP PERFORMANCE: 5 GPM



PUMP PERFORMANCE: 7 GPM



Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Stainless steel, 5 and 7 GPM TrimLine™

7 GALLONS PER MINUTE

PUMP PERFORMANCE (Capacity in gallons per minute)

HP	PSI	PUMPING DEPTH IN FEET																												SHUT-OFF HEAD			
		0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	450	500	550	600	650	700	FEET	PSI			
1/2	0	–	11.0	10.7	10.4	10.0	9.7	9.3	8.9	8.6	8.1	7.7	7.2	6.7	6.2	5.6	5.0	4.2	3.3											372	161		
	20	10.6	10.3	9.9	9.6	9.2	8.8	8.4	8.0	7.6	7.1	6.6	6.0	5.4	4.7	3.9	2.9																
	30	10.2	9.9	9.5	9.2	8.8	8.4	7.9	7.5	7.0	6.5	5.9	5.3	4.6	3.8	2.7																	
	40	9.8	9.5	9.1	8.7	8.3	7.9	7.4	6.9	6.4	5.9	5.2	4.5	3.7	2.5																		
	50	9.4	9.0	8.6	8.2	7.8	7.3	6.9	6.3	5.8	5.1	4.4	3.5	2.3																			
	60	9.0	8.6	8.2	7.7	7.3	6.8	6.2	5.7	5.0	4.3	3.3	2.0																				
	70	8.5	8.1	7.7	7.2	6.7	6.2	5.6	4.9	4.1	3.2																						
	80	8.0	7.6	7.1	6.6	6.1	5.5	4.8	4.0	3.0																							
3/4	0	–	–	10.9	10.6	10.4	10.2	9.9	9.6	9.4	9.1	8.8	8.5	8.2	7.9	7.6	7.2	6.9	6.5	6.1	5.7	5.2	3.8						507	220			
	20	10.8	10.6	10.3	10.1	9.8	9.6	9.3	9.0	8.7	8.4	8.1	7.8	7.5	7.1	6.8	6.4	6.0	5.5	5.0	4.5	3.9											
	30	10.5	10.3	10.0	9.8	9.5	9.2	9.0	8.7	8.4	8.1	7.8	7.4	7.1	6.7	6.3	5.9	5.5	5.0	4.4	3.8	3.0											
	40	10.2	10.0	9.7	9.5	9.2	8.9	8.6	8.3	8.0	7.7	7.4	7.0	6.6	6.3	5.8	5.4	4.9	4.3	3.7	2.9												
	50	10.0	9.7	9.4	9.2	8.9	8.6	8.3	8.0	7.7	7.3	7.0	6.6	6.2	5.8	5.3	4.8	4.2	3.6	2.8													
	60	9.7	9.4	9.1	8.8	8.5	8.2	7.9	7.6	7.3	6.9	6.5	6.1	5.7	5.2	4.7	4.1	3.5	2.6														
	70	9.4	9.1	8.8	8.5	8.2	7.9	7.6	7.2	6.8	6.5	6.1	5.6	5.2	4.6	4.0	3.3	2.5															
	80	9.0	8.8	8.5	8.2	7.8	7.5	7.2	6.8	6.4	6.0	5.6	5.1	4.5	3.9	3.2	2.3																
1	0	–	–	11.0	10.8	10.6	10.4	10.2	9.9	9.7	9.5	9.3	9.1	8.8	8.6	8.3	8.1	7.8	7.5	7.2	6.9	6.6	5.8	4.8	3.5				608	263			
	20	10.9	10.7	10.5	10.3	10.1	9.9	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8.0	7.7	7.4	7.1	6.8	6.5	6.2	5.8	4.9	3.6									
	30	10.7	10.5	10.3	10.1	9.8	9.6	9.4	9.2	8.9	8.7	8.5	8.2	7.9	7.7	7.4	7.1	6.8	6.5	6.1	5.8	5.4	4.3	2.8									
	40	10.4	10.2	10.0	9.8	9.6	9.4	9.1	8.9	8.7	8.4	8.2	7.9	7.6	7.4	7.1	6.8	6.4	6.1	5.7	5.3	4.9	3.7										
	50	10.2	10.0	9.8	9.6	9.3	9.1	8.9	8.6	8.4	8.1	7.9	7.6	7.3	7.0	6.7	6.4	6.0	5.7	5.3	4.9	4.4	3.0										
	60	10.0	9.7	9.5	9.3	9.1	8.8	8.6	8.3	8.1	7.8	7.5	7.3	7.0	6.7	6.3	6.0	5.6	5.2	4.8	4.3	3.8											
	70	9.7	9.5	9.3	9.0	8.8	8.6	8.3	8.0	7.8	7.5	7.2	6.9	6.6	6.3	5.9	5.6	5.2	4.7	4.3	3.7	3.1											
	80	9.5	9.2	9.0	8.8	8.5	8.3	8.0	7.7	7.5	7.2	6.9	6.6	6.2	5.9	5.5	5.1	4.7	4.2	3.6	3.0	2.1											
1-1/2	0	–	–	11.0	10.9	10.7	10.5	10.4	10.2	10.0	9.9	9.7	9.5	9.3	9.1	8.9	8.8	8.6	8.3	8.1	7.9	7.7	7.1	6.5	5.8	5.0	4.0	2.7	744	322			
	20	11.0	10.8	10.7	10.5	10.3	10.2	10.0	9.8	9.6	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.6	7.4	7.2	6.5	5.8	5.0	4.1	2.8						
	30	10.8	10.6	10.5	10.3	10.1	10.0	9.8	9.6	9.4	9.2	9.1	8.9	8.7	8.5	8.3	8.0	7.8	7.6	7.4	7.1	6.9	6.2	5.5	4.6	3.5							
	40	10.6	10.4	10.3	10.1	9.9	9.8	9.6	9.4	9.2	9.0	8.8	8.6	8.4	8.2	8.0	7.8	7.6	7.3	7.1	6.8	6.6	5.9	5.1	4.2	2.9							
	50	10.4	10.2	10.1	9.9	9.7	9.6	9.4	9.2	9.0	8.8	8.6	8.4	8.2	8.0	7.8	7.5	7.3	7.1	6.8	6.5	6.3	5.5	4.7	3.6	2.1							
	60	10.2	10.1	9.9	9.7	9.5	9.3	9.2	9.0	8.8	8.6	8.4	8.2	7.9	7.7	7.5	7.3	7.0	6.8	6.5	6.2	5.9	5.2	4.2	3.0								
	70	10.0	9.9	9.7	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.7	7.5	7.2	7.0	6.7	6.5	6.2	5.9	5.6	4.8	3.7	2.3								
	80	9.8	9.6	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.6	7.4	7.2	6.9	6.7	6.4	6.1	5.9	5.5	5.2	4.3	3.1									
2	PUMPING DEPTH IN FEET																												SHUT-OFF HEAD				
	HP	PSI	20	40	60	80	100	125	150	175	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	FEET	PSI		
2	0	–	–	–	–	–	10.9	10.6	10.3	10.1	9.7	9.4	9.0	8.7	8.4	8.0	7.4	7.1	6.4	5.8	5.0	4.2	2.8							900	389		
	20	–	–	–	–	10.8	10.6	10.4	10.1	10.0	9.7	9.4	9.1	8.7	8.4	8.0	7.6	7.1	6.6	5.8	5.1	4.3	3.8										
	30	–	11.0	10.7	10.6	10.4	10.1	10.0	9.7	9.5	9.2	8.9	8.6	8.3	7.9	7.4	6.9	6.2	5.5	4.7	3.8												
	40	10.9	10.7	10.5	10.4	10.2	10.0	9.8	9.6	9.4	9.1	8.7	8.5	8.1	7.7	7.2	6.6	5.9	5.2	4.2	3.2												
	50	10.7	10.5	10.3	10.1	10.0	9.8	9.6	9.4	9.3	8.9	8.7	8.3	7.9	7.4	6.9	6.3	5.5	4.8	4.0	2.3												
	60	10.4	10.3	10.1	10.0	9.8	9.6	9.4	9.3	9.1	8.8	8.5	8.1	7.7	7.2	6.7	6.0	5.8	4.5	3.3													
3	0	–	–	–	–	–	–	10.8	10.5	10.1	9.9	9.5	9.3	9.0	8.8	8.6	8.3	8.0	7.6	7.3	6.8	6.4	5.7	5.2	4.7	3.9	2.5	1150	498				
	20	–	–	–	–	–	10.9	10.6	10.4	10.2	9.9	9.5	9.3	9.0	8.8	8.6	8.3	8.1	7.7	7.4	6.9	6.5	5.8	5.2	4.8	4.0	3.1						
	30	–	–	–	–	10.9	10.6	10.4	10.2	10.0	9.6	9.4	9.2	8.9	8.7	8.4	8.1	7.9	7.4	7.0	6.6	6.0	5.4	5.8	4.3	3.5							
	40	–	–	–	10.9	10.7	10.4	10.3	10.0	10.0	9.6	9.4	9.1	8.8	8.6	8.3	8.1	7.8	7.4	7.0	6.5	5.9	5.3	4.9	4.2	3.2							
	50	–	11.0	10.8	10.6	10.4	10.3	10.0	10.0	9.7	9.4	9.2	8.9	8.7	8.5	8.1	7.9	7.5	7.1	6.6	6.1	5.5	5.1	4.4	3.6								
	60	11.0	10.7	10.6	10.4	10.3	10.0	10.0	9.7	9.6	9.4	9.1	8.9	8.7	8.4	8.1	7.8	7.4	7.0	6.6	5.9	5.3	4.9	4.2	3.3								

CAUTION: DO NOT use pump at flow rates indicated by the symbol '–'. To do so can cause premature failure of unit. Pump warranty is void when failure occurs under these conditions.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Stainless Steel



POWERED BY
PENTEK[®]



Precision-engineered, high-quality, rugged Stainless Steel Series Pumps deliver efficient, dependable performance even in rough, aggressive water. Heads to 1,950 feet and capacities to 65 GPM. Built to deliver long-term, trouble-free service. Floating impeller design resists sand and reduces sand locking. These pumps feature the proven SignaSeal™ staging system.

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing and farm use.

SPECIFICATIONS

Shell: Stainless steel

Diameter: 3-7/8"

Discharge: Stainless steel

Discharge Bearing: Nylatron[®]

Intermediate Bearing: (On larger units) polycarbonate, nitrile rubber and stainless steel

Impellers: Acetal

Diffusers: Polycarbonate

Suction Caps: Polycarbonate with stainless steel insert

Thrust Pads: Proprietary spec.

Shaft and Coupling: Stainless steel

Intake: Stainless steel

Intake Screen: Polypropylene

Cable Guard: Stainless steel

Check Valve: Acetal[†]

Agency Listings: CSA

FEATURES

Proven Staging System: Our proven SignaSeal staging system incorporates a harder-than-sand ceramic wear surface that when incorporated with our floating impeller design, greatly reduces problems with abrasives, sand lock-up and running dry.

Discharge: Corrosion-resistant 300 grade stainless steel for durability in aggressive water. Large octagon wrench area for ease of installation.

Discharge Bearing: Self-lubricating Nylatron bearing resists wear from sand.

Intake: Corrosion-resistant 300 grade stainless steel for durability in aggressive water.

Shaft: Positive drive from 7/16" hexagonal heavy-duty 300 grade stainless steel.

Coupling: Stainless steel press fit to pump shaft. Couples to all standard NEMA motors.

Shell: Highest grade, heavy-walled corrosion-resistant stainless steel. Threaded for easy servicing.

Hardware: All screws, washers and nuts are corrosion-resistant 300 grade stainless steel.

Check Valve[†]: Durable internal spring-loaded check valve.

Cable Guard: Corrosion-resistant stainless steel guard protects motor leads. Tapered ends prevent pump from catching on well.

Intake Screen: Corrosion-proof.

Pentek[®] XE Series[™] Motor: 2 and 3 wire NEMA standard all stainless construction water-filled motors.

[†]Except where noted.

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MS Series

Stainless Steel

ORDERING INFORMATION

GPM	MOTOR TYPE	HP	STGS.	PH [†]	VOLT	ASSEMBLED PUMP			PUMP END			MOTOR		CONTROL BOX	
						CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
10**	2 WIRE	1/2	8	1	115	B10P4MS05121	23	28	L10P4CMGS	13	9	P42B0005A1	19		
		1/2	8	1	230	B10P4MS05221	23	28	L10P4CMGS	13	9	P42B0005A2	19		
		3/4	11	1	230	B10P4MS07221	26	31	L10P4DMGS	15	10	P42B0007A2	23		
		1	13	1	230	B10P4MS10221	29	35	L10P4EMGS	17	11	P42B0010A2	25		
		1-1/2	17	1	230	B10P4MS15221	35	42	L10P4FMGS	20	12	P42B0015A2	29		
	3 WIRE	1/2	7	1	115	B10P4MS05131	22-3/4	27-1/2	L10P4CMGS	12-3/4	9	P43B0005A1	19	SMC-IR0511	4
		1/2	8	1	230	B10P4MS05231	23	28	L10P4CMGS	13	9	P43B0005A2	19	SMC-CR0521	4
		3/4	11	1	230	B10P4MS07231	26	31	L10P4DMGS	15	10	P43B0007A2	21	SMC-CR0721	4
		1	13	1	230	B10P4MS10231	29	35	L10P4EMGS	17	11	P43B0010A2	23	SMC-CR1021	4
		1-1/2	17	1	230	B10P4MS15231	34	42	L10P4FMGS	20	12	P43B0015A2	27	SMC-CR1521	7
		1-1/2	17	3	230				L10P4FMGS	19-3/4	12-1/2	P43B0015A3	23		
		1-1/2	17	3	460				L10P4FMGS	19-3/4	12-1/2	P43B0015A4	23		
		2	22	1	230				L10P4GMGS	22	13-3/4	P43B0020A2	31	SMC-CR2021	7
		2	22	3	230				L10P4GMGS	22	13-3/4	P43B0020A3	23		
		2	22	3	460				L10P4GMGS	22	13-3/4	P43B0020A4	23		
		3	30	1	230				L10P4HMGS	22	16-3/4	P43B0030A2	40	SMC-CR3021	8
		3	30	3	230				L10P4HMGS	28	16-3/4	P43B0030A3	32		
		3	30	3	460				L10P4HMGS	28	16-3/4	P43B0030A4	32		
		5	50	1	230				L10P4JMGS	43-1/2	25-1/2	P43B0050A2	70	SMC-CR5021	12
5	50	3	230				L10P4JMGS	43-1/2	25-1/2	P43B0050A3	55				
5	50	3	460				L10P4JMGS	43-1/2	25-1/2	P43B0050A4	55				
15**	2 WIRE	1/2	6	1	115	B15P4MS05121	23	27	L15P4CMGS	13	9	P42B0005A1	19		
		1/2	6	1	230	B15P4MS05221	23	27	L15P4CMGS	13	9	P42B0005A2	19		
		3/4	8	1	230	B15P4MS07221	26	31	L15P4DMGS	15	10	P42B0007A2	23		
		1	10	1	230	B15P4MS10221	30	35	L15P4EMGS	17	11	P42B0010A2	25		
		1-1/2	12	1	230	B15P4MS15221	36	43	L15P4FMGS	21	13	P42B0015A2	29		
	3 WIRE	1/2	5	1	115	B15P4MS05131	22-1/4	27	L15P4CMGS	12-1/4	9	P43B0005A1	19	SMC-IR0511	4
		1/2	6	1	230	B15P4MS05231	23	27	L15P4CMGS	13	9	P43B0005A2	19	SMC-CR0521	4
		3/4	8	1	230	B15P4MS07231	26	31	L15P4DMGS	15	10	P43B0007A2	23	SMC-CR0721	4
		1	10	1	230	B15P4MS10231	30	35	L15P4EMGS	17	11	P43B0010A2	25	SMC-CR1021	4
		1-1/2	12	1	230	B15P4MS15231	34	41	L15P4FMGS	21	13	P43B0015A2	29	SMC-CR1521	7
		1-1/2	12	3	230				L15P4FMGS	20-1/4	13	P43B0015A3	23		
		1-1/2	12	3	460				L15P4FMGS	20-1/4	13	P43B0015A4	23		
		2	15	1	230				L15P4GMGS	23-1/2	15	P43B0020A2	31	SMC-CR2021	7
		2	15	3	230				L15P4GMGS	23-1/2	15	P43B0020A3	23		
		2	15	3	460				L15P4GMGS	23-1/2	15	P43B0020A4	23		
		3	22	1	230				L15P4HMGS	31-1/4	18	P43B0030A2	40	SMC-CR3021	7
		3	22	3	230				L15P4HMGS	31-1/4	18	P43B0030A3	32		
		3	22	3	460				L15P4HMGS	31-1/4	18	P43B0030A4	32		

†For all Pentek XE series three-phase motor options, see page 65.

*Length and Weight are approximate.

**For 10 GPM, 15 GPM and 20 GPM discharge is 1-1/4" NPT.

***For 30 GPM and 50 GPM discharge is 2" NPT.

NOTE: On 2 HP and larger - Pump, Motor, Control Box or Magnetic Starter must be ordered separately.

†Check Valve not included on 5 HP, 7-1/2 HP and 10 HP models. Check Valve not included on 50 GPM models.

TrimLine™ version maximum outside diameter is 3-3/4". Standard version maximum outside diameter on all models is 3-7/8".

MS Series

Stainless Steel

ORDERING INFORMATION

GPM	MOTOR TYPE	HP	STGS.	PH [†]	VOLT	ASSEMBLED PUMP			PUMP END			MOTOR		CONTROL BOX	
						CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
20**	2 WIRE	3/4	6	1	230	B20P4MS07221	24	30	L20P4DMGS	13	9	P42B0007A2	23		
		1	7	1	230	B20P4MS10221	28	34	L20P4EMGS	15	10	P42B0010A2	25		
		1-1/2	10	1	230	B20P4MS15221	32	39	L20P4FMGS	17	11	P42B0015A2	29		
	3 WIRE	3/4	6	1	230	B20P4MS07231	24	30	L20P4DMGS	13	9	P43B0007A2	23	SMC-CR0721	5
		1	7	1	230	B20P4MS10231	28	34	L20P4EMGS	15	10	P43B0010A2	25	SMC-CR1021	5
		1-1/2	10	1	230	B20P4MS15231	31	39	L20P4FMGS	17	11	P43B0015A2	29	SMC-CR1521	7
		1-1/2	9	3	230				L20P4FMGS	16-3/4	10-3/4	P43B0015A3	23		
		1-1/2	9	3	460				L20P4FMGS	16-3/4	10-3/4	P43B0015A4	23		
		2	12	1	230				L20P4GMGS	20-1/4	12-1/2	P43B0020A2	31	SMC-CR2021	7
		2	12	3	230				L20P4GMGS	20-1/4	12-1/2	P43B0020A3	32		
		2	12	3	460				L20P4GMGS	20-1/4	12-1/2	P43B0020A4	32		
		3	17	1	230				L20P4HMGS	25-3/4	15	P43B0030A2	40	SMC-CR3021	7
		3	17	3	230				L20P4HMGS	25-3/4	15	P43B0030A3	32		
		3	17	3	460				L20P4HMGS	25-3/4	15	P43B0030A4	32		
		5	28	1	230				L20P4JMGS	38	21	P43B0050A2	70	SMC-CR5021	8
		5	28	3	230				L20P4JMGS	38	21	P43B0050A3	55		
		5	28	3	460				L20P4JMGS	38	21	P43B0050A4	55		
		7-1/2	40	3	230				L20P4KMGS	53-3/4	30	P43B0075A3	70		
7-1/2	40	3	460				L20P4KMGS	53-3/4	30	P43B0075A4	70				
10	54	3	460				L20P4LMGS	71	41	P43B0100A4	78				
30***	2 WIRE	1	5	1	230	B30P4MS10221	26-1/2	35	L30P4EMGS	14	9-3/4	P42B0010A2	25		
		1-1/2	6	1	230	B30P4MS15221	30-1/2	39	L30P4FMGS	15-1/4	10-3/4	P42B0015A2	29		
	3 WIRE	1	5	1	230	B30P4MS10231	26-1/2	35	L30P4EMGS	14	10	P43B0010A2	25	SMC-CR1021	5
		1-1/2	6	1	230	B30P4MS15231	29	39	L30P4FMGS	15-1/4	11	P43B0015A2	29	SMC-CR-1521	7
		1-1/2	6	3	230				L30P4FMGS	15-1/4	11	P43B0015A3	23		
		1-1/2	6	3	460				L30P4FMGS	15-1/4	11	P43B0015A4	23		
		2	8	1	230				L30P4GMGS	18-1/4	12	P43B0020A2	31	SMC-CR2021	7
		2	8	3	230				L30P4GMGS	18-1/4	12	P43B0020A3	23		
		2	8	3	460				L30P4GMGS	18-1/4	12	P43B0020A4	23		
		3	12	1	230				L30P4HMGS	24	15	P43B0030A2	40	SMC-CR3021	7
		3	12	3	230				L30P4HMGS	24	15	P43B0030A3	32		
		3	12	3	460				L30P4HMGS	24	15	P43B0030A4	32		
		5	20	1	230				L30P4JMGS	35-3/4	20	P43B0050A2	70	SMC-CR5021	8
		5	20	3	230				L30P4JMGS	35-3/4	20	P43B0050A3	55		
		5	20	3	460				L30P4JMGS	35-3/4	20	P43B0050A4	55		
		7-1/2	28	3	230				L30P4KMGS	50	27	P43B0075A3	70		
		7-1/2	28	3	460				L30P4KMGS	50	27	P43B0075A4	70		
		10	38	3	460				L30P4LMGS	65-1/2	35	P43B0100A4	70		

†For all Pentek XE series three-phase motor options, see page 65.

*Length and Weight are approximate.

**For 10 GPM, 15 GPM and 20 GPM discharge is 1-1/4" NPT.

***For 30 GPM and 50 GPM discharge is 2" NPT.

NOTE: On 2 HP and larger - Pump, Motor, Control Box or Magnetic Starter must be ordered separately.

†Check Valve not included on 5 HP, 7-1/2 HP and 10 HP models. Check Valve not included on 50 GPM models.

TrimLine™ version maximum outside diameter is 3-3/4". Standard version maximum outside diameter on all models is 3-7/8".

MS Series

Stainless Steel

ORDERING INFORMATION

GPM	MOTOR TYPE	HP	STGS.	PH [†]	VOLT	PUMP END			MOTOR		CONTROL BOX	
						CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
50***	2 WIRE	1-1/2	4	1	230	L50P4FMGS	15-1/4	10	P42B0015A2	29		
		1-1/2	4	1	230	L50P4FMGS	15-1/4	10	P43B0015A2	27	SMC-CR1521	7
	3 WIRE	1-1/2	4	3	230	L50P4FMGS	15-1/4	10	P43B0015A3	23		
		1-1/2	4	3	460	L50P4FMGS	15-1/4	10	P43B0015A4	23		
		2	6	1	230	L50P4GMGS	19-1/4	12	P43B0020A2	31	SMC-CR2021	7
		2	6	3	230	L50P4GMGS	19-1/4	12	P43B0020A3	27		
		2	6	3	460	L50P4GMGS	19-1/4	12	P43B0020A4	27		
		3	8	1	230	L50P4HMGS	23-1/4	15	P43B0030A2	40	SMC-CR3021	7
		3	8	3	230	L50P4HMGS	23-1/4	15	P43B0030A3	32		
		3	8	3	460	L50P4HMGS	23-1/4	15	P43B0030A4	32		
		5	13	1	230	L50P4JMGS	33-1/2	20	P43B0050A2	70	SMC-CR5021	8
		5	13	3	230	L50P4JMGS	33-1/2	20	P43B0050A3	55		
		5	13	3	460	L50P4JMGS	33-1/2	20	P43B0050A4	55		
		7-1/2	20	3	230	L50P4KMGS	47-1/2	25	P43B0075A3	70		
		7-1/2	20	3	460	L50P4KMGS	47-1/2	25	P43B0075A4	70		
		10	25	3	460	L50P4LMGS	57-3/4	35	P43B0100A4	70		

†For all Pentek XE series three-phase motor options, see page 65.

*Length and Weight are approximate.

**For 10 GPM, 15 GPM and 20 GPM discharge is 1-1/4" NPT.

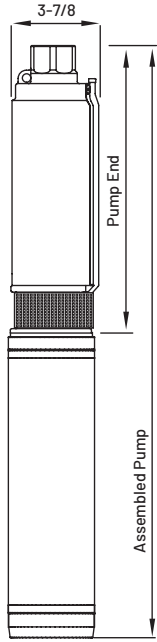
***For 30 GPM and 50 GPM discharge is 2" NPT.

NOTE: Pump, Motor, Control Box or Magnetic Starter must be ordered separately.
Check Valve not included on 50 GPM models.

MS Series

Stainless Steel

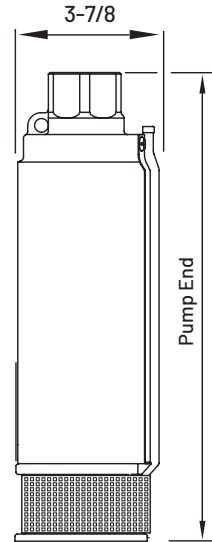
OUTLINE DIMENSIONS: 10, 15 AND 20 GPM



DISCHARGE	
10 GPM	1-1/4" NPT
15 GPM	1-1/4" NPT
20 GPM	1-1/4" NPT

For lengths, refer to Ordering Information tables.
Dimensions (in inches) are for estimating purposes only.

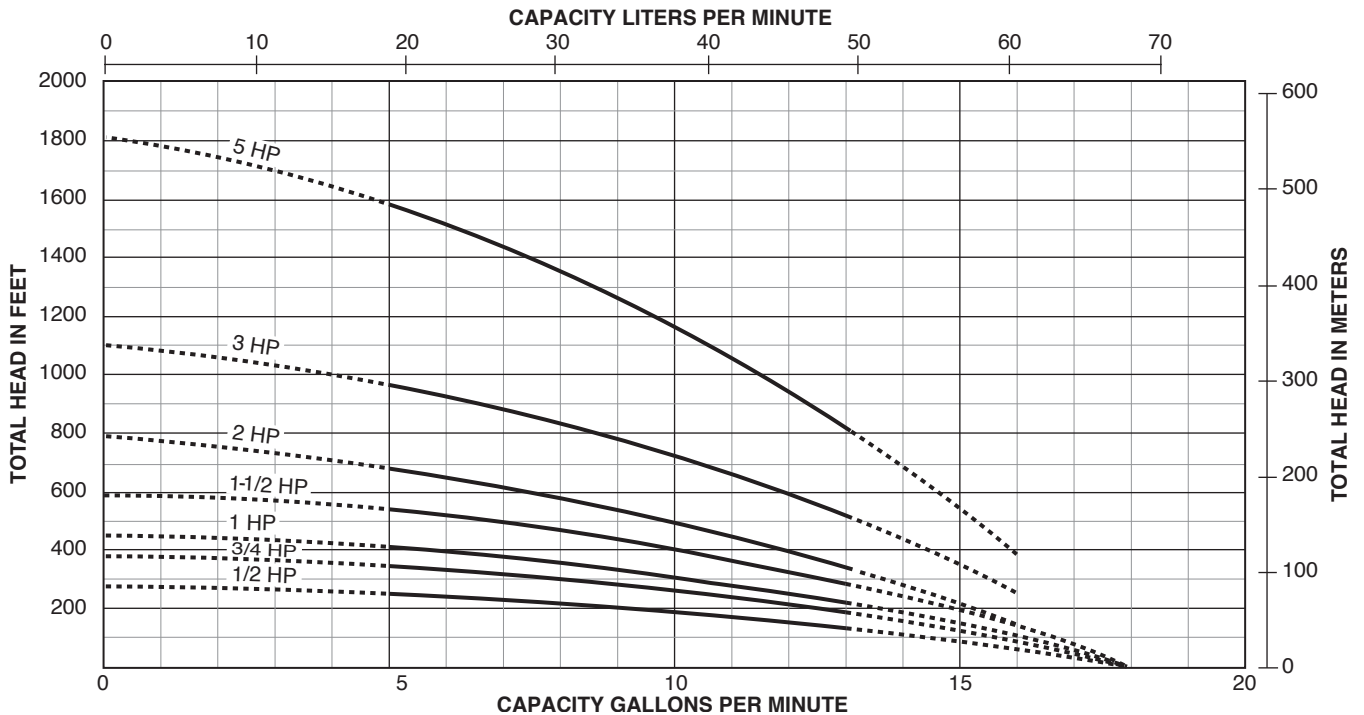
OUTLINE DIMENSIONS: 30 AND 50 GPM



DISCHARGE	
30 GPM	2" NPT
50 GPM	2" NPT

Pump diameter is 3-7/8".
For lengths, refer to Ordering Information tables.
Dimensions (in inches) are for estimating purposes only.

PUMP PERFORMANCE: 10 GPM



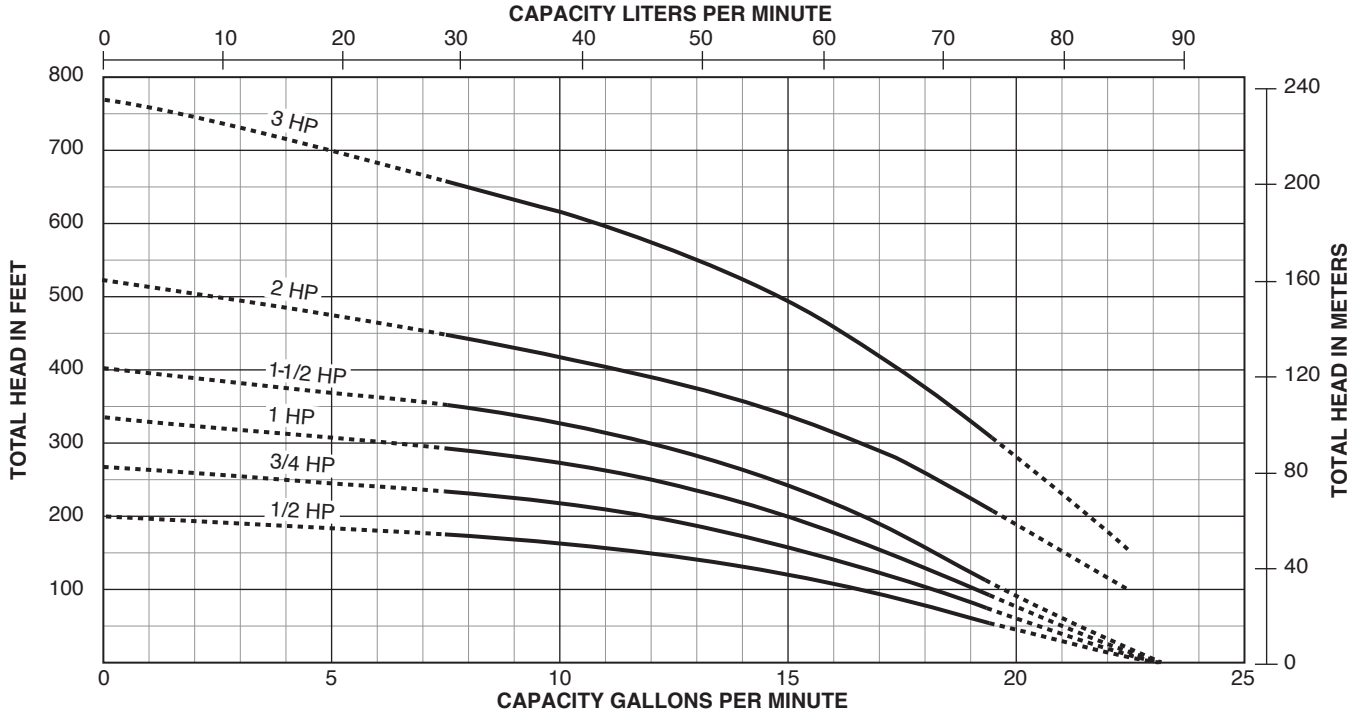
Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve.
Relief valve must be capable of relieving entire flow of pump at relief pressure.

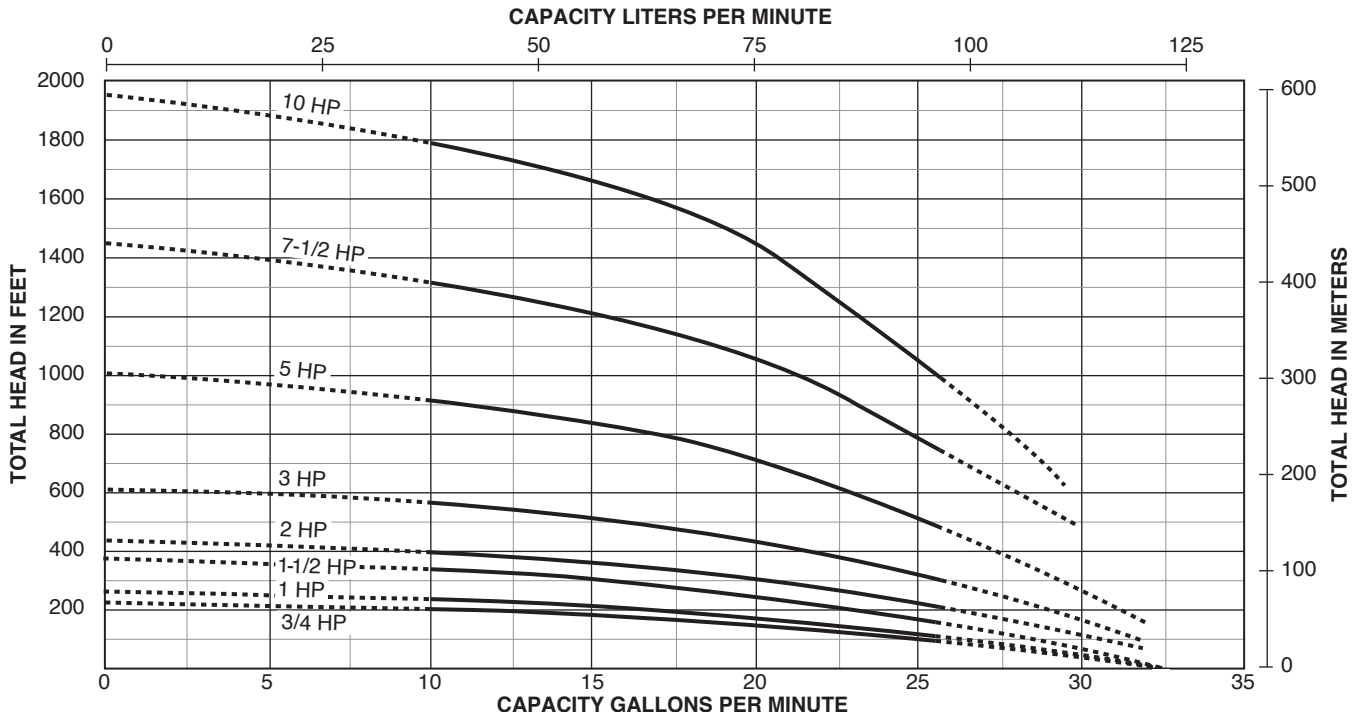
MS Series

Stainless Steel

PUMP PERFORMANCE: 15 GPM



PUMP PERFORMANCE: 20 GPM



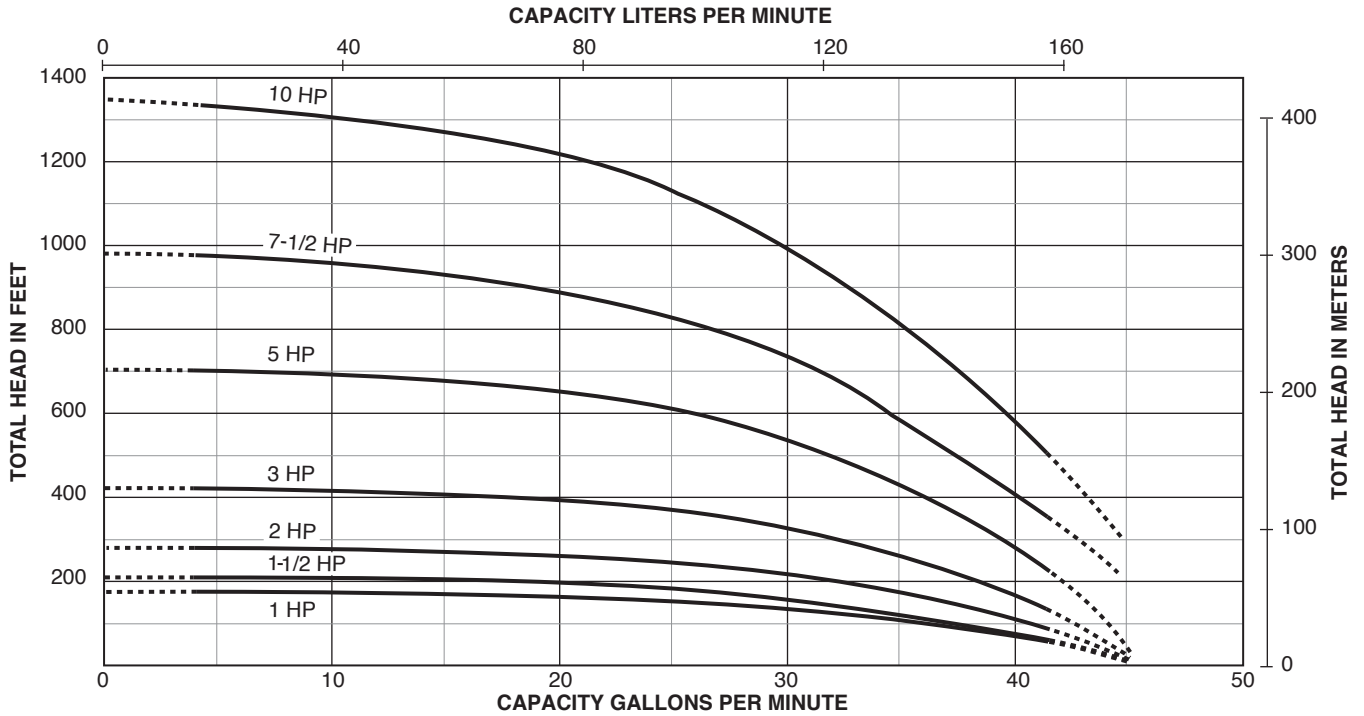
Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

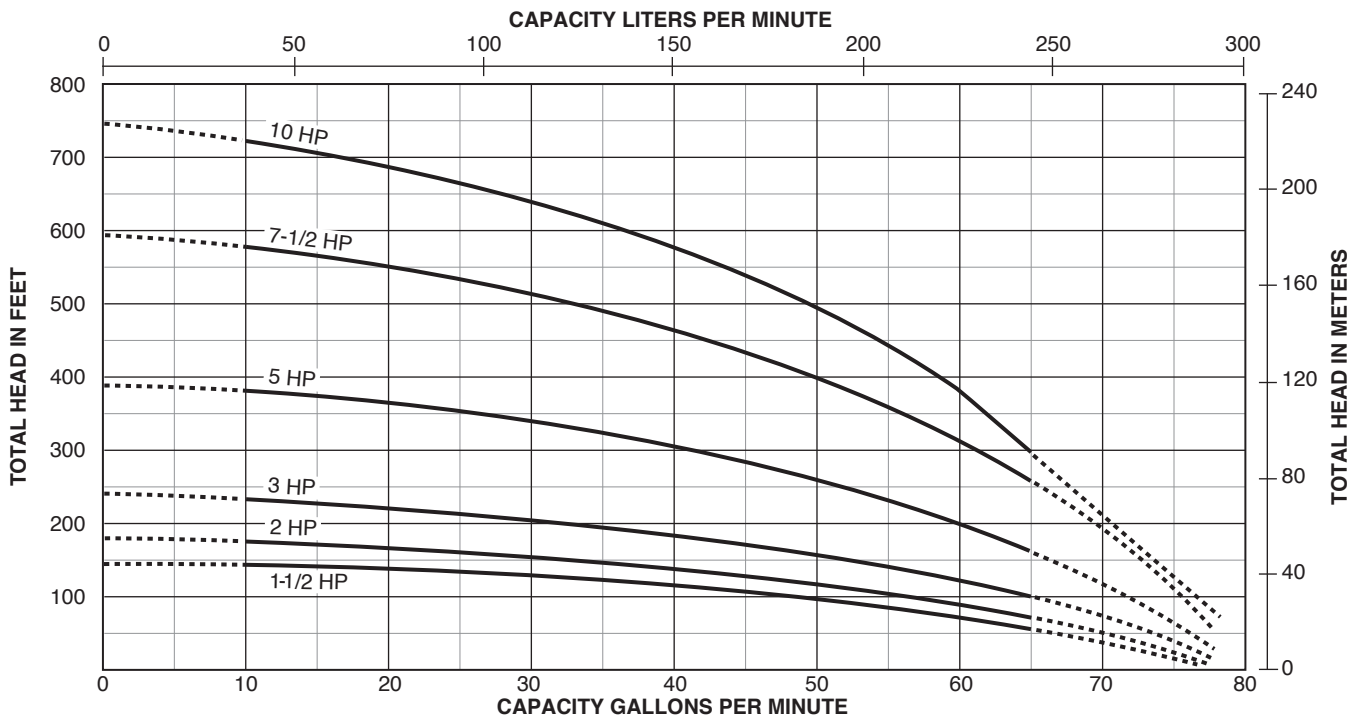
MS Series

Stainless Steel

PUMP PERFORMANCE: 30 GPM



PUMP PERFORMANCE: 50 GPM



Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Stainless Steel

10 GALLONS PER MINUTE										PUMP PERFORMANCE (Capacity in gallons per minute)																							
HP	PSI	PUMPING DEPTH IN FEET																				SHUT-OFF HEAD											
		0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	450	500	550	FEET	PSI						
1/2	0	—	—	—	—	—	14.7	13.8	12.9	11.8	10.7	9.4	8.0	6.3	4.1												278	120					
	20	—	—	—	14.4	13.5	12.5	11.5	10.3	9.0	7.5	5.7	3.2																				
	30	—	—	14.3	13.4	12.4	11.3	10.1	8.8	7.3	5.4	2.7																					
	40	—	14.2	13.2	12.2	11.1	9.9	8.6	7.0	5.1	2.0																						
	50	14.0	13.1	12.1	11.0	9.7	8.4	6.8	4.7																								
	60	12.9	11.9	10.8	9.5	8.1	6.5	4.3																									
	70	11.7	10.6	9.3	7.9	6.2	3.9																										
80	10.4	9.1	7.7	5.9	3.4																												
3/4	0	—	—	—	—	—	—	—	14.6	14.0	13.3	12.6	11.8	11.0	10.1	9.2	8.2	7.0	5.6	3.9							382	165					
	20	—	—	—	—	—	14.4	13.8	13.1	12.3	11.6	10.7	9.9	8.9	7.8	6.6	5.1	3.2															
	30	—	—	—	15.0	14.3	13.7	13.0	12.2	11.5	10.6	9.7	8.7	7.6	6.4	4.9	2.8																
	40	—	—	14.9	14.2	13.6	12.9	12.1	11.3	10.5	9.6	8.6	7.5	6.2	4.6	2.4																	
	50	15.4	14.8	14.1	13.5	12.7	12.0	11.2	10.3	9.4	8.4	7.3	6.0	4.3																			
	60	14.7	14.0	13.3	12.6	11.9	11.1	10.2	9.3	8.2	7.1	5.7	4.0																				
	70	13.9	13.2	12.5	11.8	10.9	10.1	9.1	8.1	6.9	5.5	3.7																					
80	13.1	12.4	11.6	10.8	9.9	9.0	7.9	6.7	5.3	3.4																							
1	0	—	—	—	—	—	—	—	—	14.8	14.2	13.7	13.1	12.5	11.8	11.1	10.4	9.6	8.8	7.9	6.9	5.7					452	195					
	20	—	—	—	—	—	14.6	14.1	13.5	12.9	12.3	11.6	10.9	10.2	9.4	8.5	7.6	6.6	5.3	3.8													
	30	—	—	—	—	—	14.5	14.0	13.4	12.8	12.2	11.5	10.8	10.1	9.3	8.4	7.5	6.4	5.1	3.5													
	40	—	—	—	15.0	14.5	13.9	13.3	12.7	12.1	11.4	10.7	9.9	9.1	8.3	7.3	6.2	4.9	3.2														
	50	—	—	14.9	14.4	13.8	13.2	12.6	12.0	11.3	10.6	9.8	9.0	8.1	7.1	6.0	4.7	2.9															
	60	—	14.8	14.3	13.7	13.1	12.5	11.9	11.2	10.5	9.7	8.9	8.0	7.0	5.8	4.4	2.6																
	70	14.7	14.2	13.6	13.0	12.4	11.8	11.1	10.4	9.6	8.7	7.8	6.8	5.6	4.2	2.2																	
80	14.1	13.5	12.9	12.3	11.7	11.0	10.2	9.5	8.6	7.7	6.6	5.4	3.9																				
1-1/2	0	—	—	—	—	—	—	—	—	15.0	14.6	14.1	13.7	13.3	12.8	12.3	11.8	11.3	10.8	10.2	8.6	6.8	4.3				590	256					
	20	—	—	—	—	—	—	—	—	14.9	14.4	14.0	13.6	13.1	12.6	12.2	11.7	11.1	10.6	10.0	9.4	8.8	6.9	4.5									
	30	—	—	—	—	—	—	—	14.8	14.4	13.9	13.5	13.0	12.6	12.1	11.6	11.1	10.5	9.9	9.3	8.7	8.0	5.9	2.9									
	40	—	—	—	—	—	—	14.7	14.3	13.9	13.4	13.0	12.5	12.0	11.5	11.0	10.4	9.8	9.2	8.6	7.9	7.1	4.7										
	50	—	—	—	—	—	—	14.7	14.2	13.8	13.4	12.9	12.4	11.9	11.4	10.9	10.3	9.7	9.1	8.5	7.7	7.0	6.1	3.2									
	60	—	—	—	15.0	14.6	14.2	13.7	13.3	12.8	12.4	11.9	11.3	10.8	10.2	9.6	9.0	8.3	7.6	6.8	6.0	4.9											
	70	—	—	14.9	14.5	14.1	13.7	13.2	12.8	12.3	11.8	11.3	10.7	10.1	9.5	8.9	8.2	7.5	6.7	5.8	4.8	3.5											
80	—	14.9	14.5	14.0	13.6	13.2	12.7	12.2	11.7	11.2	10.6	10.1	9.5	8.8	8.1	7.4	6.6	5.7	4.6	3.3													
HP	PSI	PUMPING DEPTH IN FEET																		SHUT-OFF HEAD													
		20	40	60	80	100	125	150	175	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	FEET	PSI					
2	0	—	—	—	—	—	—	—	14.9	14.6	14.0	13.3	12.7	12.0	11.1	10.2	9.2	8.0	6.6	5.1	3.1					806	349						
	20	—	—	—	—	—	14.9	14.6	14.4	14.0	13.4	12.7	12.0	11.1	10.2	9.2	8.0	6.6	5.1	3.1													
	30	—	—	—	—	15.0	14.7	14.4	14.0	13.8	13.1	12.4	11.7	10.7	9.8	8.8	7.5	6.1	4.5	2.0													
	40	—	—	—	14.9	14.6	14.4	14.2	13.8	13.3	12.8	12.1	11.3	10.2	9.2	8.0	6.6	5.1	3.1														
	50	—	—	14.9	14.6	14.4	14.1	13.8	13.4	13.1	12.4	11.6	10.8	9.8	8.8	7.6	6.1	4.7	2.2														
60	15.1	14.9	14.6	14.4	14.1	13.8	13.4	13.1	12.8	12.1	11.3	10.3	9.5	8.3	6.9	5.3	3.7																
3	0	—	—	—	—	—	—	—	—	15.2	14.7	14.3	13.8	13.3	12.8	12.3	11.8	11.0	10.2	9.5	8.7	7.6	6.4	5.3	4.1	1100	476						
	20	—	—	—	—	—	—	—	15.2	14.7	14.3	13.8	13.3	12.8	12.3	11.8	11.0	10.2	9.5	8.7	7.6	6.4	5.3	4.1									
	30	—	—	—	—	—	—	14.7	15.0	14.5	14.1	13.6	13.1	12.6	12.1	11.4	10.7	10.0	9.2	8.2	7.1	6.0	4.9	3.3									
	40	—	—	—	—	—	15.2	15.0	14.7	14.3	13.8	13.3	12.8	12.3	11.8	11.0	10.2	9.5	8.7	7.6	6.4	5.3	4.1										
	50	—	—	—	—	—	15.3	15.0	14.8	14.6	14.1	13.7	13.2	12.7	12.2	11.7	10.9	10.1	9.4	8.6	7.5	6.2	5.0	3.9									
60	—	—	—	—	15.3	15.0	14.8	14.6	14.4	13.9	13.4	12.9	12.4	11.9	11.2	10.4	9.7	8.8	7.9	6.6	5.5	4.3											
HP	PSI	PUMPING DEPTH IN FEET															SHUT-OFF HEAD																
		200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	FEET	PSI														
5	0	—	—	—	15.3	14.6	14.2	13.5	12.9	12.3	11.6	10.8	9.9	8.9	7.7	6.3	4.9	2.9								1824	745						
	20	—	—	—	15.0	14.5	13.9	13.3	12.7	12.1	11.2	10.3	9.4	8.5	7.1	5.6	4.1																
	30	—	—	—	14.9	14.3	13.8	13.1	12.5	11.9	11.1	10.2	9.2	8.2	6.7	5.2	3.7																
	40	—	—	—	14.7	14.2	13.5	12.9	12.3	11.6	10.8	9.9	8.9	7.7	6.3	4.9	2.9																
	50	—	—	—	14.6	14.1	13.4	12.8	12.2	11.5	10.7	9.8	8.8	7.5	6.1	4.7	2.7																
60	—	—	—	15.0	14.5	13.9	13.3	12.7	12.1	11.2	10.3	9.4	8.5	7.1	5.6	4.1																	

CAUTION: DO NOT use pump at flow rates indicated by the symbol '—'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Stainless Steel

15 GALLONS PER MINUTE		PUMP PERFORMANCE (Capacity in gallons per minute)																				SHUT-OFF HEAD					
HP	PSI	PUMPING DEPTH IN FEET																				FEET	PSI				
		0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380			400			
1/2	0	—	—	20.5	19.2	17.8	16.3	14.7	12.8	10.5	7.5												201	87			
	20	20.1	18.8	17.4	15.8	14.1	12.1	9.7	6.2																		
	30	18.6	17.1	15.6	13.8	11.8	9.2	5.5																			
	40	16.9	15.3	13.5	11.4	8.8	4.6																				
	50	15.1	13.2	11.0	8.3	3.4																					
	60	12.9	10.7	7.8																							
	70	10.3	7.2																								
	80	6.6																									
3/4	0	—	—	—	20.2	19.2	18.2	17.1	15.9	14.7	13.3	11.7	9.8	7.5	3.6								269	116			
	20	20.8	19.9	18.9	17.9	16.7	15.5	14.2	12.8	11.2	9.2	6.6															
	30	19.7	18.7	17.7	16.6	15.4	14.0	12.6	10.9	8.8	6.1																
	40	18.6	17.5	16.4	15.2	13.8	12.3	10.6	8.5	5.5																	
	50	17.3	16.2	15.0	13.6	12.1	10.3	8.1	4.8																		
	60	16.0	14.8	13.4	11.8	10.0	7.7	4.0																			
	70	14.5	13.1	11.5	9.7	7.3	3.0																				
	80	12.9	11.3	9.3	6.8																						
1	0	—	—	—	—	20.4	19.6	18.7	17.8	16.9	15.9	14.8	13.6	12.3	10.9	9.3	7.3	4.5					336	145			
	20	—	21.0	20.2	19.3	18.5	17.5	16.6	15.5	14.4	13.2	11.9	10.4	8.7	6.6	3.2											
	30	20.9	20.1	19.2	18.3	17.4	16.4	15.4	14.3	13.0	11.7	10.2	8.4	6.2	2.4												
	40	19.9	19.1	18.2	17.3	16.3	15.2	14.1	12.8	11.5	9.9	8.1	5.7														
	50	18.9	18.0	17.1	16.1	15.0	13.9	12.6	11.3	9.7	7.8	5.3															
	60	17.9	17.0	15.9	14.9	13.7	12.4	11.0	9.4	7.5	4.8																
	70	16.8	15.8	14.7	13.5	12.2	10.8	9.1	7.1	4.2																	
	80	15.6	14.5	13.3	12.0	10.6	8.8	6.7	3.6																		
1-1/2	0	—	—	—	—	20.5	19.9	19.2	18.5	17.8	17.1	16.3	15.5	14.7	13.7	12.8	11.7	10.5	9.1	7.5	5.3		403	174			
	20	—	20.9	20.3	19.7	19.0	18.3	17.6	16.9	16.1	15.3	14.4	13.4	12.4	11.3	10.1	8.7	6.9	4.3								
	30	20.8	20.2	19.6	18.9	18.2	17.5	16.7	16.0	15.1	14.2	13.3	12.3	11.2	9.9	8.4	6.6	3.8									
	40	20.1	19.5	18.8	18.1	17.4	16.6	15.8	15.0	14.1	13.1	12.1	11.0	9.7	8.2	6.2	3.0										
	50	19.4	18.7	18.0	17.3	16.5	15.7	14.9	14.0	13.0	11.9	10.8	9.5	7.9	5.9	1.8											
	60	18.6	17.9	17.1	16.4	15.6	14.7	13.8	12.8	11.8	10.6	9.2	7.6	5.5													
	70	17.8	17.0	16.3	15.4	14.6	13.7	12.7	11.6	10.4	9.0	7.3	5.1														
	80	16.9	16.1	15.3	14.4	13.5	12.5	11.4	10.2	8.8	7.0	4.6															
2	0	—	—	—	—	—	—	20.7	20.2	19.6	18.3	16.9	14.4	11.6	7.4	2.7							525	227			
	20	—	—	—	21.2	20.9	20.2	19.7	19.1	18.4	17.0	14.7	11.8	7.8	3.2												
	30	—	—	21.2	20.8	20.3	19.7	19.1	18.5	17.9	16.1	13.5	10.2	5.5													
	40	—	21.1	20.6	20.2	19.8	19.2	18.6	17.9	17.1	14.9	12.0	8.1	3.4													
	50	21.1	20.6	20.1	19.7	19.2	18.6	17.9	17.1	16.2	13.6	10.8	6.0														
	60	20.5	20.1	19.6	19.1	18.7	18.0	17.2	16.2	15.1	12.2	8.6	3.7														
3	0	—	—	—	—	—	—	—	21.0	20.2	19.5	18.7	17.8	16.6	15.0	13.0	10.8	8.0	4.9	1.6			770	333			
	20	—	—	—	—	—	—	21.1	20.8	20.3	19.5	18.8	17.9	16.7	15.1	13.2	11.1	8.3	5.2	1.9							
	30	—	—	—	—	—	21.2	20.8	20.3	19.9	19.2	18.3	17.4	16.1	14.3	12.2	10.4	7.0	3.5	3.6							
	40	—	—	—	21.6	21.2	20.9	20.4	19.9	19.6	18.8	18.0	16.8	15.2	13.4	11.2	8.4	5.4	2.1								
	50	—	—	21.6	21.1	20.9	20.4	20.0	19.7	19.2	18.4	17.5	16.2	14.4	12.3	10.5	7.1	3.8									
	60	—	21.4	21.1	20.8	20.5	20.0	19.7	19.3	18.9	18.0	16.9	15.3	13.5	11.4	8.8	5.5										

CAUTION: DO NOT use pump at flow rates indicated by the symbol '—'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Stainless Steel

30 GALLONS PER MINUTE

PUMP PERFORMANCE (Capacity in gallons per minute)

HP	PSI	PUMPING DEPTH IN FEET																		SHUT-OFF HEAD				
		20	40	60	80	100	125	150	175	200	250	300	350	400	450	500	550	600	650	700	FEET	PSI		
1	0	-	42.5	40.9	39.1	36.8	32.5	26.0	8.0												175	76		
	20	40.4	38.8	36.0	32.4	27.7	13.3																	
	30	38.0	35.3	31.7	26.3	14.3																		
	40	35.0	31.4	25.9	12.1																			
	50	30.2	24.0	3.0																				
	60	21.9																						
1-1/2	0	-	-	41.9	39.9	37.5	34.1	30.9	26.9	17.0											210	91		
	20	41.2	39.1	36.5	34.0	31.5	27.8	21.5																
	30	38.9	36.1	33.8	31.0	27.9	21.8																	
	40	36.0	33.5	30.8	27.7	20.2																		
	50	32.9	30.1	26.8	21.5																			
	60	29.5	25.9	18.1																				
2	0	-	-	-	41.8	40.5	38.8	36.8	34.7	31.6	23.7										280	121		
	20	-	41.3	40.1	38.7	37.1	34.9	32.1	29.0	24.8														
	30	41.2	40.0	38.5	37.0	35.0	32.2	29.1	24.9	15.2														
	40	39.9	38.3	36.6	34.8	32.7	29.8	25.1	16.1															
	50	38.0	36.3	34.5	32.1	30.0	25.3	17.5																
	60	36.0	34.0	31.9	29.1	26.0	18.0																	
3	0	-	-	-	-	42.7	41.6	40.1	39.6	38.2	35.5	32.0	27.3								420	182		
	20	-	-	42.4	41.5	41.0	39.8	38.5	37.1	35.7	32.1	28.0	18.5											
	30	42.9	42.2	41.3	40.6	39.9	38.7	37.2	35.8	34.2	30.3	24.9	6.0											
	40	42.1	41.2	40.4	39.7	38.8	37.3	35.9	34.5	32.6	28.3	19.9												
	50	41.1	40.3	39.5	38.5	37.4	36.0	34.6	32.7	31.0	25.2	9.5												
	60	40.2	39.3	38.3	37.2	36.1	34.7	32.8	31.0	28.5	20.5													
5	0	-	-	-	-	-	-	-	42.6	42.0	40.7	39.2	38.0	36.0	34.2	31.9	29.2	26.0	20.0		705	305		
	20	-	-	-	-	-	42.7	42.0	41.3	40.8	39.3	38.2	36.2	34.4	32.4	30.0	26.1	21.5						
	30	-	-	-	-	42.8	42.1	41.4	40.8	40.1	38.7	37.0	35.1	33.1	31.1	26.0	24.1	16.0						
	40	-	-	-	-	42.1	41.5	40.9	40.2	39.3	37.9	36.1	34.3	32.0	29.4	26.2	20.4							
	50	-	-	42.6	42.0	41.5	41.2	40.2	39.5	38.8	37.1	35.4	33.2	31.2	28.8	24.5	16.0							
	60	-	42.5	42.0	41.4	41.1	40.3	39.8	38.9	38.1	36.2	34.2	32.1	30.0	26.7	22.0								
HP	PSI	PUMPING DEPTH IN FEET														SHUT-OFF HEAD								
		200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	FEET	PSI								
7-1/2	0	-	-	40.4	37.6	34.8	32.0	28.1	20.0												975	422		
	20	-	42.0	39.3	36.5	33.8	30.5	25.5	13.8															
	30	-	41.3	38.6	35.8	33.1	29.8	23.3	6.5															
	40	-	40.7	38.1	35.6	32.6	29.3	21.7																
	50	42.7	40.1	37.3	34.6	31.7	27.4	19.3																
	60	42.0	39.4	36.5	33.7	30.7	25.1	13.9																
10	0	-	-	-	41.3	39.5	37.3	35.1	33.1	30.4	27.1	22.5	11.9								1345	582		
	20	-	-	42.3	40.5	38.6	36.4	34.5	31.8	29.2	25.3	18.7												
	30	-	-	42.0	40.1	43.0	35.7	33.7	31.3	28.4	24.2	16.3												
	40	-	-	41.6	39.7	37.7	35.5	33.5	30.9	27.7	23.4	14.4												
	50	-	42.7	41.0	39.3	37.1	34.9	32.8	30.2	26.7	21.7	7.7												
	60	-	42.3	40.6	38.7	36.5	34.5	32.3	29.5	25.7	20.1	5.0												

CAUTION: DO NOT use pump at flow rates indicated by the symbol '-'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Stainless Steel

50 GALLONS PER MINUTE																	PUMP PERFORMANCE (Capacity in gallons per minute)		
HP	PSI	PUMPING DEPTH IN FEET															SHUT-OFF HEAD		
		20	40	60	80	100	125	150	175	200	250	300	350	450	550	650	700	FEET	PSI
1-1/2	0	—	—	—	58.2	49.3	33.5											145	63
	20	—	55.9	46.5	32.5														
	30	54.8	45.0	30.0															
	40	43.3	26.9																
	50	21.9																	
	60																		
2	0	—	—	—	63.3	57.0	47.8	33.9										180	78
	20	—	62.2	55.1	46.8	37.1	13.0												
	30	61.1	53.6	46.0	34.3	14.1													
	40	52.8	45.0	32.5	11.0														
	50	42.7	27.9																
	60	25.2																	
3	0	—	—	—	—	64.5	59.4	52.5	45.0	33.8								235	102
	20	—	—	63.7	59.0	53.5	46.5	36.2	18.2										
	30	—	62.9	58.1	53.0	47.0	37.0	20.5											
	40	62.5	57.6	52.0	46.2	38.8	22.1												
	50	56.5	51.0	44.7	36.2	22.8													
	60	50.0	43.7	34.0	20.5														
5	0	—	—	—	—	—	—	65.9	63.2	59.9	51.9	41.9	22.5					385	166
	20	—	—	—	—	—	63.5	60.8	56.1	52.4	42.5	24.9							
	30	—	—	—	—	63.8	60.9	56.9	53.0	47.9	35.5	12.9							
	40	—	—	65.5	63.2	61.0	57.0	53.2	48.0	43.5	27.0								
	50	—	65.1	63.0	60.8	57.1	53.3	48.1	43.6	36.4	14.2								
	60	64.9	62.4	60.0	56.9	53.7	48.7	44.1	37.5	28.0									
7-1/2	0	—	—	—	—	—	—	—	—	66.0	61.0	55.3	43.1	20.0				595	257
	20	—	—	—	—	—	—	—	—	64.8	61.1	56.0	50.0	34.9					
	30	—	—	—	—	—	—	—	64.9	63.3	58.7	53.2	47.2	28.8					
	40	—	—	—	—	—	—	65.0	63.6	61.7	56.2	50.9	44.1	22.0					
	50	—	—	—	—	—	65.1	63.7	61.8	58.9	53.9	47.5	41.0	13.2					
	60	—	—	—	—	65.2	63.8	61.9	59.0	56.5	51.1	44.9	36.0						
10	0	—	—	—	—	—	—	—	—	—	65.0	62.1	54.2	44.7	29.0	15.2		745	322
	20	—	—	—	—	—	—	—	—	—	65.5	62.5	59.1	50.1	39.2	17.1			
	30	—	—	—	—	—	—	—	—	66.9	64.1	61.2	56.9	47.5	35.0	10.5			
	40	—	—	—	—	—	—	—	67.0	65.8	63.0	59.3	54.9	45.2	30.5				
	50	—	—	—	—	—	—	67.1	65.9	64.2	61.5	57.2	53.0	42.9	25.0				
	60	—	—	—	—	—	67.2	66.0	64.3	63.2	59.9	55.0	51.0	40.6	19.7				

CAUTION: DO NOT use pump at flow rates indicated by the symbol '—'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

JP Series

Composite, 5 and 7 GPM TrimLine™



Precision-engineered, corrosion-resistant Composite Pumps in 5 and 7 GPM deliver efficient, dependable performance even in rough, aggressive water. Heads to over 850 feet and capacities to 10 GPM. Built to deliver long-term, trouble-free service.

These pumps feature the proven SignaSeal™ staging system. Floating stack design resists sand and reduces sand locking.

The 5 and 7 GPM models are the smaller 3-3/4" diameter TrimLine.

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing and farm use.

SPECIFICATIONS

Shell: Stainless steel

Discharge: Fiberglass-reinforced thermoplastic

Discharge Bearing: Nylatron®

Intermediate Bearing: (On larger units) polycarbonate, nitrile rubber and stainless steel

Impellers: Acetal

Diffusers: Polycarbonate

Suction Caps: Polycarbonate with stainless steel insert

Thrust Pads: Proprietary spec.

Shaft and Coupling : Stainless steel

Intake: Fiberglass-reinforced thermoplastic

Intake Screen: Polypropylene

Cable Guard: Stainless steel

Agency Listings: CSA

Check Valve: Spring-loaded check valve

FEATURES

Proven Staging System:

Our proven SignaSeal staging system incorporates a harder-than-sand ceramic wear surface that when incorporated with our floating impeller design, greatly reduces problems with abrasives, sand lock-up and running dry.

Discharge: Corrosion-resistant fiberglass-reinforced thermoplastic for durability in aggressive water. Large octagon wrench area for ease of installation.

Discharge Bearing: Exclusive self-lubricating Nylatron bearing resists wear from sand.

Intake: Corrosion-resistant fiberglass-reinforced thermoplastic for durability in aggressive water.

Shaft: Positive drive from 7/16" hexagonal heavy-duty 300 grade stainless steel.

Coupling: Stainless steel press fit to pump shaft. Couples to all standard NEMA motors.

Shell: Crimped shell.

Hardware: All screws, washers and nuts are corrosion-resistant 300 grade stainless steel.

Check Valve: Spring-loaded check valve.

Cable Guard: Corrosion-resistant stainless steel guard protects motor leads. Tapered ends prevent pump from catching on well.

Intake Screen: Molded-in screen.

Pentek® XE Series™ Motor: 2 and 3 wire NEMA standard all stainless construction water-filled motors.

POWERED BY
PENTEK®



JP Series

Composite, 5 and 7 GPM TrimLine™

ORDERING INFORMATION

GPM	MOTOR TYPE	HP	STGS.	PH†	VOLT	ASSEMBLED PUMP			PUMP END			MOTOR		CONTROL BOX	
						CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
5	2 WIRE	1/2	14	1	115	B5P4JP05121	28	28	SL5P4CJ	18	12	P42B0005A1	19		
		1/2	14	1	230	B5P4JP05221	28	28	SL5P4CJ	18	12	P42B0005A2	19		
		3/4	19	1	230	B5P4JP07221	33	34	SL5P4DJ	22	15	P42B0007A2	23		
		1	22	1	230	B5P4JP10221	37	39	SL5P4EJ	26	17	P42B0010A2	25		
	3 WIRE	1/2	13	1	115	B5P4JP05131	27-1/2	29	SL5P4CJ	18	12	P43B0005A1	19	SMC-IR0511	4
		1/2	14	1	230	B5P4JP05231	28	28	SL5P4CJ	18	12	P43B0005A2	18	SMC-CR0521	4
		3/4	19	1	230	B5P4JP07231	33	34	SL5P4DJ	22	15	P43B0007A2	21	SMC-CR0721	4
		1	22	1	230	B5P4JP10231	37	39	SL5P4EJ	26	17	P43B0010A2	23	SMC-CR1021	4
		1	22	3	230				SL5P4EJ	25-1/4	17	P43B0010A3	23		
		1	22	3	460				SL5P4EJ	25-1/4	17	P43B0010A4	23		
7	2 WIRE	1/2	11	1	115	B7P4JP05121	26	27	SL7P4CJ	16	11	P42B0005A1	19		
		1/2	11	1	230	B7P4JP05221	26	27	SL7P4CJ	16	11	P42B0005A2	19		
		3/4	15	1	230	B7P4JP07221	30	32	SL7P4DJ	19	13	P42B0007A2	23		
		1	18	1	230	B7P4JP10221	34	37	SL7P4EJ	22	15	P42B0010A2	25		
		1-1/2	22	1	230	B7P4JP15221	43	47	SL7P4FJ	28	21	P42B0015A2	29		
	3 WIRE	1/2	10	1	115	B7P4JP05131	25-1/2	27	SL7P4CJ	16	12	P43B0005A1	19	SMC-IR0511	4
		1/2	11	1	230	B7P4JP05231	26	27	SL7P4CJ	16	11	P43B0005A2	18	SMC-CR0521	4
		3/4	15	1	230	B7P4JP07231	29	32	SL7P4DJ	19	13	P43B0007A2	21	SMC-CR0721	4
		1	17	3	230				SL7P4EJ	22	17	P43B0010A3	23	SMC-CR1021	4
		1	17	3	460				SL7P4EJ	22	17	P43B0010A4	23		
		1-1/2	22	1	230	B7P4JP15231	41	44	SL7P4FJ	27-1/4	21	P43B0015A2	27		
		1-1/2	22	3	230				SL7P4FJ	27-1/4	21	P43B0015A3	23	SMC-CR1521	7
		1-1/2	22	3	460				SL7P4FJ	27-1/4	21	P43B0015A4	23		

†For all Pentek XE series three-phase motor options, see page 65.

*Length and Weight are approximate.

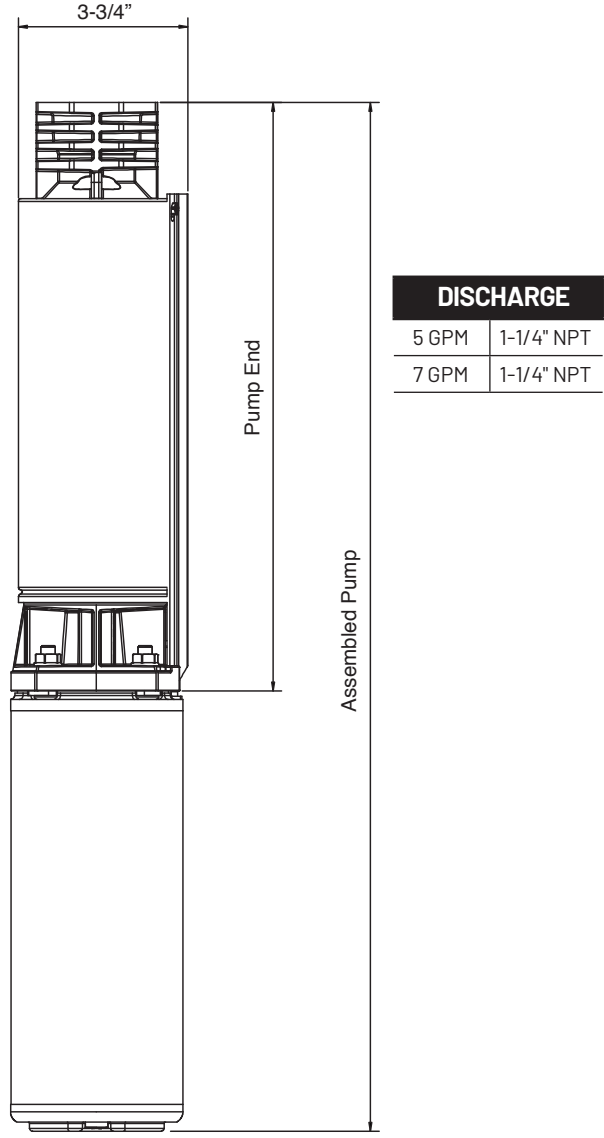
TrimLine™ version maximum outside diameter is 3-3/4". Standard version maximum outside diameter is 3-7/8".

NOTE: Motor, Control Box or Magnetic Starter must be ordered separately. Discharge NPT is 1-1/4".

JP Series

Composite, 5 and 7 GPM TrimLine™

OUTLINE DIMENSIONS

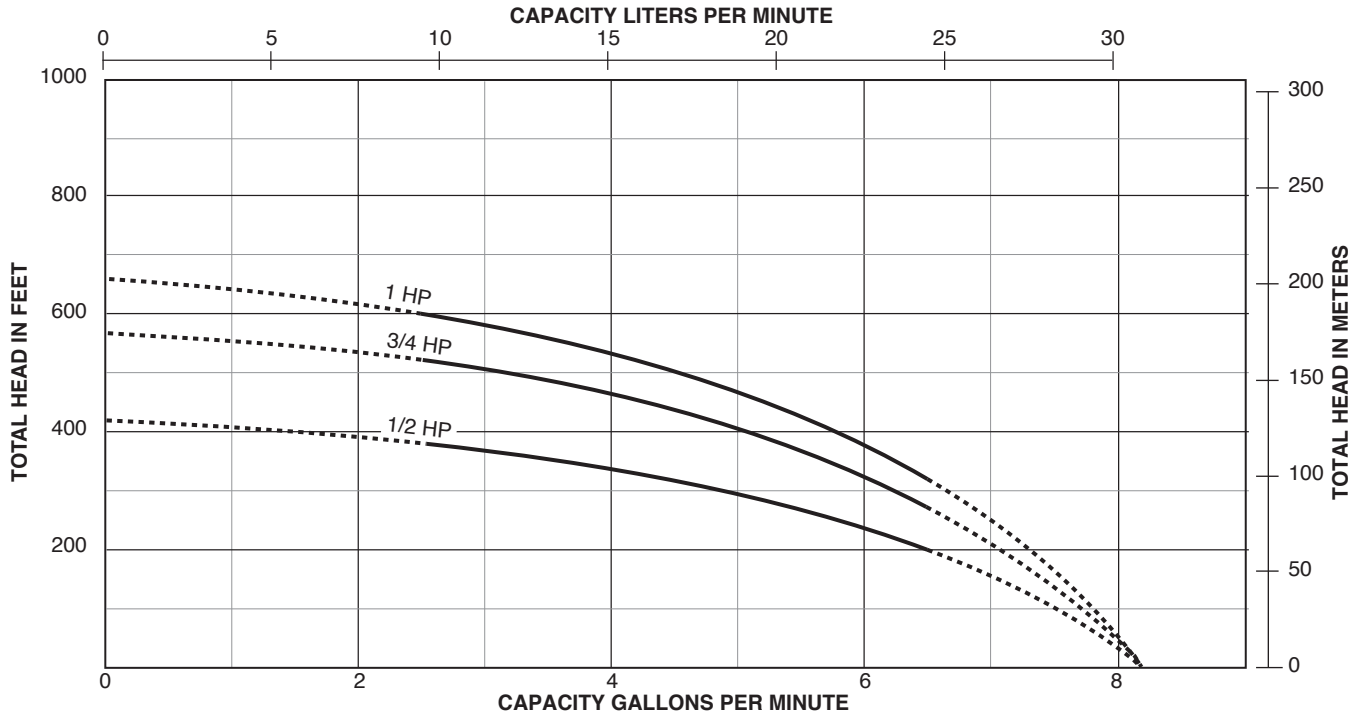


For dimensions, refer to Ordering Information table.
Dimensions (in inches) are for estimating purposes only.

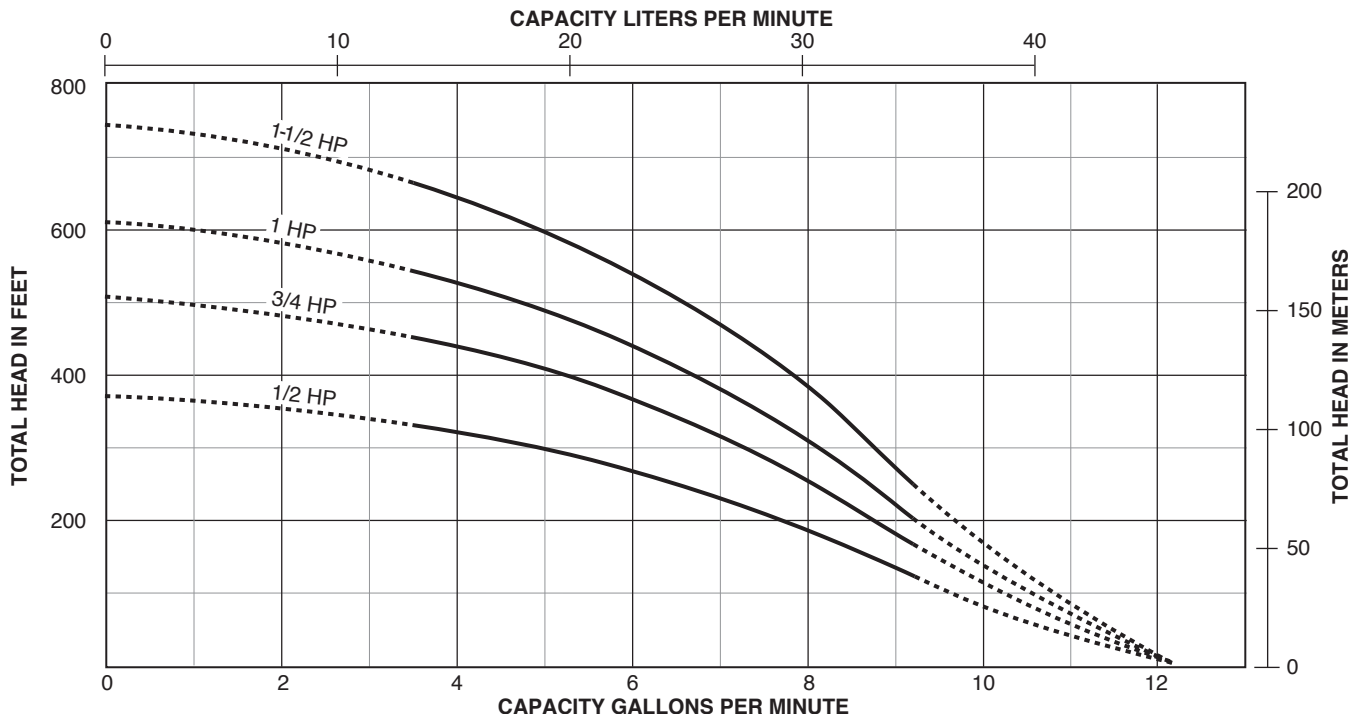
JP Series

Composite, 5 and 7 GPM TrimLine™

PUMP PERFORMANCE: 5 GPM



PUMP PERFORMANCE: 7 GPM



Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

JP Series

Composite, 5 and 7 GPM TrimLine™

7 GALLONS PER MINUTE

PUMP PERFORMANCE (Capacity in gallons per minute)

HP	PSI	PUMPING DEPTH IN FEET																												SHUT-OFF HEAD											
		0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	450	500	550	600	650	700	FEET	PSI											
1/2	0	-	11.0	10.7	10.4	10.0	9.7	9.3	8.9	8.6	8.1	7.7	7.2	6.7	6.2	5.6	5.0	4.2	3.3															372	161						
	20	10.6	10.3	9.9	9.6	9.2	8.8	8.4	8.0	7.6	7.1	6.6	6.0	5.4	4.7	3.9	2.9																								
	30	10.2	9.9	9.5	9.2	8.8	8.4	7.9	7.5	7.0	6.5	5.9	5.3	4.6	3.8	2.7																									
	40	9.8	9.5	9.1	8.7	8.3	7.9	7.4	6.9	6.4	5.9	5.2	4.5	3.7	2.5																										
	50	9.4	9.0	8.6	8.2	7.8	7.3	6.9	6.3	5.8	5.1	4.4	3.5	2.3																											
	60	9.0	8.6	8.2	7.7	7.3	6.8	6.2	5.7	5.0	4.3	3.3	2.0																												
	70	8.5	8.1	7.7	7.2	6.7	6.2	5.6	4.9	4.1	3.2																														
	80	8.0	7.6	7.1	6.6	6.1	5.5	4.8	4.0	3.0																															
3/4	0	-	-	10.9	10.6	10.4	10.2	9.9	9.6	9.4	9.1	8.8	8.5	8.2	7.9	7.6	7.2	6.9	6.5	6.1	5.7	5.2	3.8												507	220					
	20	10.8	10.6	10.3	10.1	9.8	9.6	9.3	9.0	8.7	8.4	8.1	7.8	7.5	7.1	6.8	6.4	6.0	5.5	5.0	4.5	3.9																			
	30	10.5	10.3	10.0	9.8	9.5	9.2	9.0	8.7	8.4	8.1	7.8	7.4	7.1	6.7	6.3	5.9	5.5	5.0	4.4	3.8	3.0																			
	40	10.2	10.0	9.7	9.5	9.2	8.9	8.6	8.3	8.0	7.7	7.4	7.0	6.6	6.3	5.8	5.4	4.9	4.3	3.7	2.9																				
	50	10.0	9.7	9.4	9.2	8.9	8.6	8.3	8.0	7.7	7.3	7.0	6.6	6.2	5.8	5.3	4.8	4.2	3.6	2.8																					
	60	9.7	9.4	9.1	8.8	8.5	8.2	7.9	7.6	7.3	6.9	6.5	6.1	5.7	5.2	4.7	4.1	3.5	2.6																						
	70	9.4	9.1	8.8	8.5	8.2	7.9	7.6	7.2	6.8	6.5	6.1	5.6	5.2	4.6	4.0	3.3	2.5																							
	80	9.0	8.8	8.5	8.2	7.8	7.5	7.2	6.8	6.4	6.0	5.6	5.1	4.5	3.9	3.2	2.3																								
1	0	-	-	11.0	10.8	10.6	10.4	10.2	9.9	9.7	9.5	9.3	9.1	8.8	8.6	8.3	8.1	7.8	7.5	7.2	6.9	6.6	5.8	4.8	3.5											608	263				
	20	10.9	10.7	10.5	10.3	10.1	9.9	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8.0	7.7	7.4	7.1	6.8	6.5	6.2	5.8	4.9	3.6																	
	30	10.7	10.5	10.3	10.1	9.8	9.6	9.4	9.2	8.9	8.7	8.5	8.2	7.9	7.7	7.4	7.1	6.8	6.5	6.1	5.8	5.4	4.3	2.8																	
	40	10.4	10.2	10.0	9.8	9.6	9.4	9.1	8.9	8.7	8.4	8.2	7.9	7.6	7.4	7.1	6.8	6.4	6.1	5.7	5.3	4.9	3.7																		
	50	10.2	10.0	9.8	9.6	9.3	9.1	8.9	8.6	8.4	8.1	7.9	7.6	7.3	7.0	6.7	6.4	6.0	5.7	5.3	4.9	4.4	3.0																		
	60	10.0	9.7	9.5	9.3	9.1	8.8	8.6	8.3	8.1	7.8	7.5	7.3	7.0	6.7	6.3	6.0	5.6	5.2	4.8	4.3	3.8																			
	70	9.7	9.5	9.3	9.0	8.8	8.6	8.3	8.0	7.8	7.5	7.2	6.9	6.6	6.3	5.9	5.6	5.2	4.7	4.3	3.7	3.1																			
	80	9.5	9.2	9.0	8.8	8.5	8.3	8.0	7.7	7.5	7.2	6.9	6.6	6.2	5.9	5.5	5.1	4.7	4.2	3.6	3.0	2.1																			
1-1/2	0	-	-	11.0	10.9	10.7	10.5	10.4	10.2	10.0	9.9	9.7	9.5	9.3	9.1	8.9	8.8	8.6	8.3	8.1	7.9	7.7	7.1	6.5	5.8	5.0	4.0	2.7													
	20	11.0	10.8	10.7	10.5	10.3	10.2	10.0	9.8	9.6	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.6	7.4	7.2	6.5	5.8	5.0	4.1	2.8														
	30	10.8	10.6	10.5	10.3	10.1	10.0	9.8	9.6	9.4	9.2	9.1	8.9	8.7	8.5	8.3	8.0	7.8	7.6	7.4	7.1	6.9	6.2	5.5	4.6	3.5															
	40	10.6	10.4	10.3	10.1	9.9	9.8	9.6	9.4	9.2	9.0	8.8	8.6	8.4	8.2	8.0	7.8	7.6	7.3	7.1	6.8	6.6	5.9	5.1	4.2	2.9															
	50	10.4	10.2	10.1	9.9	9.7	9.6	9.4	9.2	9.0	8.8	8.6	8.4	8.2	8.0	7.8	7.5	7.3	7.1	6.8	6.5	6.3	5.5	4.7	3.6	2.1															
	60	10.2	10.1	9.9	9.7	9.5	9.3	9.2	9.0	8.8	8.6	8.4	8.2	7.9	7.7	7.5	7.3	7.0	6.8	6.5	6.2	5.9	5.2	4.2	3.0																
	70	10.0	9.9	9.7	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.7	7.5	7.2	7.0	6.7	6.5	6.2	5.9	5.6	4.8	3.7	2.3																
	80	9.8	9.6	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.6	7.4	7.2	6.9	6.7	6.4	6.1	5.9	5.5	5.2	4.3	3.1																	

CAUTION: DO NOT use pump at flow rates indicated by the symbol '-'. To do so can cause premature failure of unit. Pump warranty is void when failure occurs under these conditions.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

JP Series

Composite



Precision-engineered, corrosion-resistant Composite Pumps in 10, 15, 20 and 30 GPM deliver efficient, dependable performance even in rough, aggressive water. Heads to over 650 feet and capacities to 45 GPM. Built to deliver long-term, trouble-free service.

These pumps feature the proven SignaSeal™ staging system. Floating impeller design resists sand and reduces sand locking.

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing and farm use.

SPECIFICATIONS

Shell: Stainless steel

Diameter: 3-7/8"

Discharge: Fiberglass-reinforced thermoplastic

Discharge Bearing: Nylatron®

Intermediate Bearing: (On larger units) polycarbonate, nitrile rubber and stainless steel

Impellers: Acetal

Diffusers: Polycarbonate

Suction Caps: Polycarbonate with stainless steel insert

Thrust Pads: Proprietary spec.

Shaft and Coupling: Stainless steel

Intake: Fiberglass-reinforced thermoplastic

Intake Screen: Polypropylene

Cable Guard: Stainless steel

Check Valve: Spring-loaded check valve

Agency Listings: CSA

POWERED BY
PENTEK®



FEATURES

Proven Staging System: Our proven SignaSeal staging system incorporates a harder-than-sand ceramic wear surface that when incorporated with our floating impeller design, greatly reduces problems with abrasives, sand lock-up and running dry.

Discharge: Corrosion-resistant fiberglass-reinforced thermoplastic for durability in aggressive water. Large octagon wrench area for ease of installation.

Discharge Bearing: Exclusive self-lubricating Nylatron bearing resists wear from sand.

Intake: Corrosion-resistant fiberglass-reinforced thermoplastic for durability in aggressive water.

Shaft: Positive drive from 7/16" hexagonal heavy-duty 300 grade stainless steel.

Coupling: Stainless steel press fit to pump shaft. Couples to all standard NEMA motors.

Shell: Crimped shell.

Hardware: All screws, washers and nuts are corrosion-resistant 300 grade stainless steel.

Check Valve: Spring-loaded check valve.

Cable Guard: Corrosion-resistant stainless steel guard protects motor leads. Tapered ends prevent pump from catching on well.

Intake Screen: Molded-in screen.

Pentek® XE Series™ Motor: 2 and 3 wire NEMA standard all stainless construction water-filled motors.

JP Series

Composite

ORDERING INFORMATION

GPM	MOTOR TYPE	HP	STGS.	PH†	VOLT	ASSEMBLED PUMP			PUMP END			MOTOR		CONTROL BOX	
						CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
10**	2 WIRE	1/2	8	1	115	B10P4MS05121	23	28	L10P4CMGS	13	9	P42B0005A1	19		
		1/2	8	1	230	B10P4MS05221	23	28	L10P4CMGS	13	9	P42B0005A2	19		
		3/4	11	1	230	B10P4MS07221	26	31	L10P4DMGS	15	10	P42B0007A2	23		
		1	13	1	230	B10P4MS10221	29	35	L10P4EMGS	17	11	P42B0010A2	25		
		1-1/2	17	1	230	B10P4MS15221	35	42	L10P4FMGS	20	12	P42B0015A2	29		
	3 WIRE	1/2	7	1	115	B10P4MS05131	22-3/4	27-1/2	L10P4CMGS	12-3/4	9	P43B0005A1	19	SMC-IR0511	4
		1/2	8	1	230	B10P4MS05231	23	28	L10P4CMGS	13	9	P43B0005A2	19	SMC-CR0521	4
		3/4	11	1	230	B10P4MS07231	26	31	L10P4DMGS	15	10	P43B0007A2	21	SMC-CR0721	4
		1	13	1	230	B10P4MS10231	29	35	L10P4EMGS	17	11	P43B0010A2	23	SMC-CR1021	4
		1	13	3	230				L10P4EMGS	15-1/2	10-1/4	P43B0010A3	23		
		1	13	3	460				L10P4EMGS	15-1/2	10-1/4	P43B0010A4	23		
		1-1/2	17	1	230	B10P4MS15231	34	42	L10P4FMGS	20	12	P43B0015A2	27	SMC-CR1521	7
		1-1/2	17	3	230				L10P4FMGS	19-3/4	12-1/2	P43B0015A3	23		
		1-1/2	17	3	460				L10P4FMGS	19-3/4	12-1/2	P43B0015A4	23		
15**	2 WIRE	1/2	6	1	115	B15P4MS05121	23	27	L15P4CMGS	13	9	P42B0005A1	19		
		1/2	6	1	230	B15P4MS05221	23	27	L15P4CMGS	13	9	P42B0005A2	19		
		3/4	8	1	230	B15P4MS07221	26	31	L15P4DMGS	15	10	P42B0007A2	23		
		1	10	1	230	B15P4MS10221	30	35	L15P4EMGS	17	11	P42B0010A2	25		
		1-1/2	12	1	230	B15P4MS15221	36	43	L15P4FMGS	21	13	P42B0015A2	29		
	3 WIRE	1/2	5	1	115	B15P4MS05131	22-1/4	27	L15P4CMGS	12-1/4	9	P43B0005A1	19	SMC-IR0511	4
		1/2	6	1	230	B15P4MS05231	23	27	L15P4CMGS	13	9	P43B0005A2	19	SMC-CR0521	4
		3/4	8	1	230	B15P4MS07231	26	31	L15P4DMGS	15	10	P43B0007A2	21	SMC-CR0721	4
		1	10	1	230	B15P4MS10231	30	35	L15P4EMGS	17	11	P43B0010A2	23	SMC-CR1021	4
		1	9	3	230				L15P4EMGS	15-1/2	10-1/4	P43B0010A3	23		
		1	9	3	460				L15P4EMGS	15-1/2	10-1/4	P43B0010A4	23		
		1-1/2	12	1	230	B15P4MS15231	34	41	L15P4FMGS	21	13	P43B0015A2	27	SMC-CR1521	7
		1-1/2	12	3	230				L15P4FMGS	20-1/4	13	P43B0015A3	23		
		1-1/2	12	3	460				L15P4FMGS	20-1/4	13	P43B0015A4	23		
20**	2 WIRE	3/4	6	1	230	B20P4MS07221	23-3/4	30	L20P4DMGS	13	9	P42B0007A2	23		
		1	7	1	230	B20P4MS10221	27-1/4	34	L20P4EMGS	15	10	P42B0010A2	25		
		1-1/2	10	1	230	B20P4MS15221	32	39	L20P4FMGS	17	11	P42B0015A2	29		
	3 WIRE	3/4	6	1	230	B20P4MS07231	23-3/4	30	L20P4DMGS	13	9	P43B0007A2	23	SMC-CR0721	4
		1	7	1	230	B20P4MS10231	27-1/4	34	L20P4EMGS	15	10	P43B0010A2	25	SMC-CR1021	4
		1	7	3	230				L20P4EMGS	15-1/2	10-1/4	P43B0010A3	23		
		1	7	3	460				L20P4EMGS	15-1/2	10-1/4	P43B0010A4	23		
		1-1/2	10	1	230	B20P4MS15231	30-1/2	39	L20P4FMGS	17	11	P43B0015A2	29	SMC-CR1521	7
		1-1/2	9	3	230				L20P4FMGS	16-3/4	10-3/4	P43B0015A3	23		
		1-1/2	9	3	460				L20P4FMGS	16-3/4	10-3/4	P43B0015A4	23		
		2	12	1	230				L20P4GMGS	20-1/4	12-1/2	P43B0020A2	31	SMC-CR2021	7
		2	12	3	230				L20P4GMGS	20-1/4	12-1/2	P43B0020A3	23		
		2	12	3	460				L20P4GMGS	20-1/4	12-1/2	P43B0020A4	23		
		30**	2 WIRE	1	5	1	230	B30P4MS10221	26-1/2	35	L30P4EMGS	14	10	P42B0010A2	25
1-1/2	6			1	230	B30P4MS15221	30-1/2	39	L30P4FMGS	15-1/4	11	P42B0015A2	29		
3 WIRE	1		5	1	230	B30P4MS10231	26-1/2	35	L30P4EMGS	14	10	P43B0010A2	23	SMC-CR1021	4
	1		5	3	230				L30P4EMGS	15-1/2	10-1/4	P43B0010A3	23		
	1		5	3	460				L30P4EMGS	15-1/2	10-1/4	P43B0010A4	23		
	1-1/2		6	1	230	B30P4MS15231	29	39	L30P4FMGS	15-1/4	11	P43B0015A2	27	SMC-CR1521	7
	1-1/2		6	3	230				L30P4FMGS	15-1/4	11	P43B0015A3	23		
	1-1/2		6	3	460				L30P4FMGS	15-1/4	11	P43B0015A4	23		
	2		8	1	230				L30P4GMGS	18-1/4	12	P43B0020A2	31	SMC-CR2021	7
	2		8	3	230				L30P4GMGS	18-1/4	12	P43B0020A3	23		
2	8	3	460				L30P4GMGS	18-1/4	12	P43B0020A4	23				

†For all Pentek XE series three-phase motor options, see page 65.

*Length and Weight are approximate.

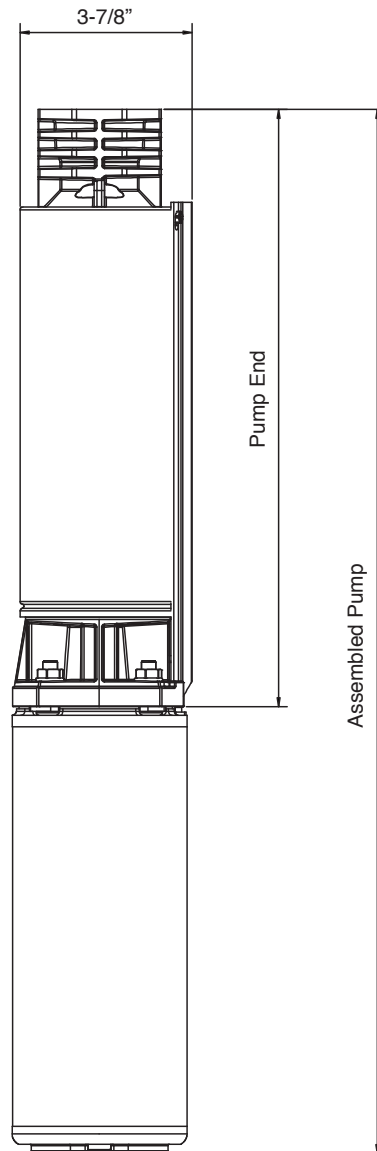
**For 10 GPM, 15 GPM, 20 GPM and 30 GPM discharge is 1-1/4" NPT.

NOTE: On 2 HP and larger pumps – Motor, Control Box or Magnetic Starter must be ordered separately.

JP Series

Composite

OUTLINE DIMENSIONS



DISCHARGE

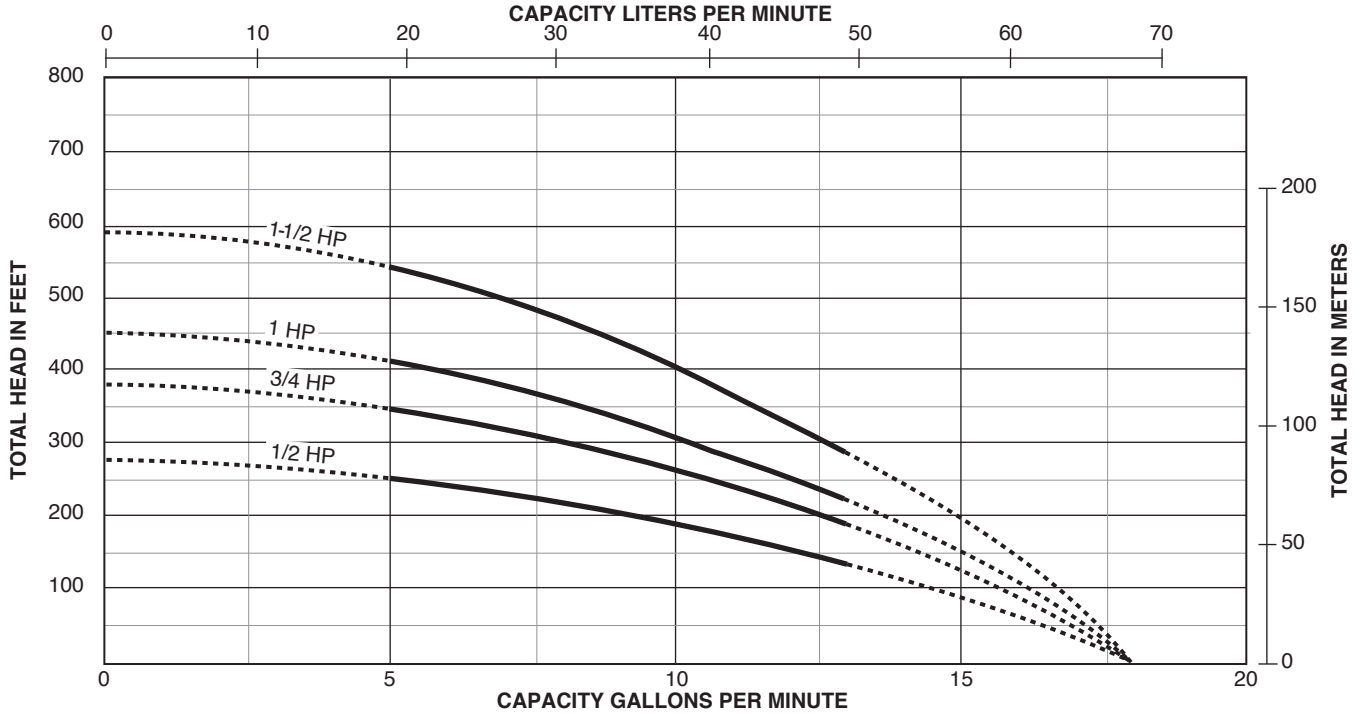
10 GPM	1-1/4" NPT
15 GPM	1-1/4" NPT
20 GPM	1-1/4" NPT
30 GPM	1-1/4" NPT

For lengths, refer to Ordering Information tables.
Dimensions (in inches) are for estimating purposes only.

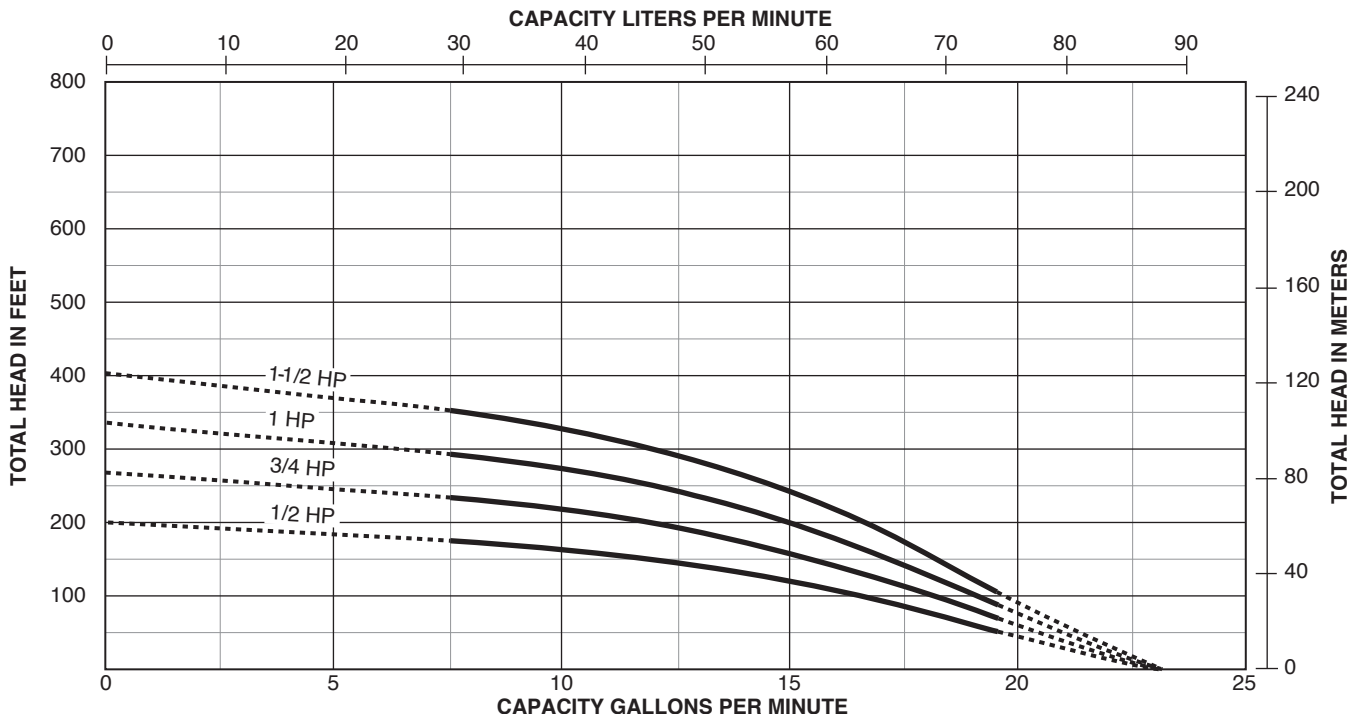
JP Series

Composite

PUMP PERFORMANCE: 10 GPM



PUMP PERFORMANCE: 15 GPM



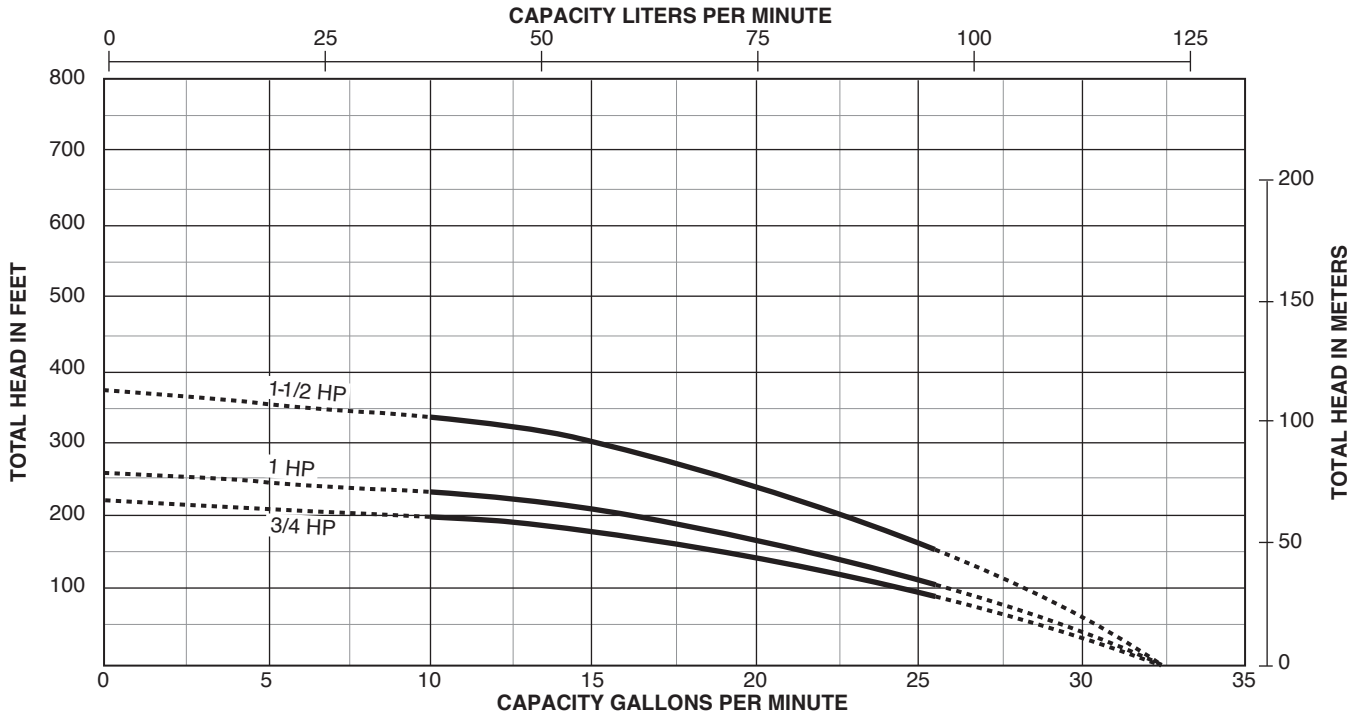
Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

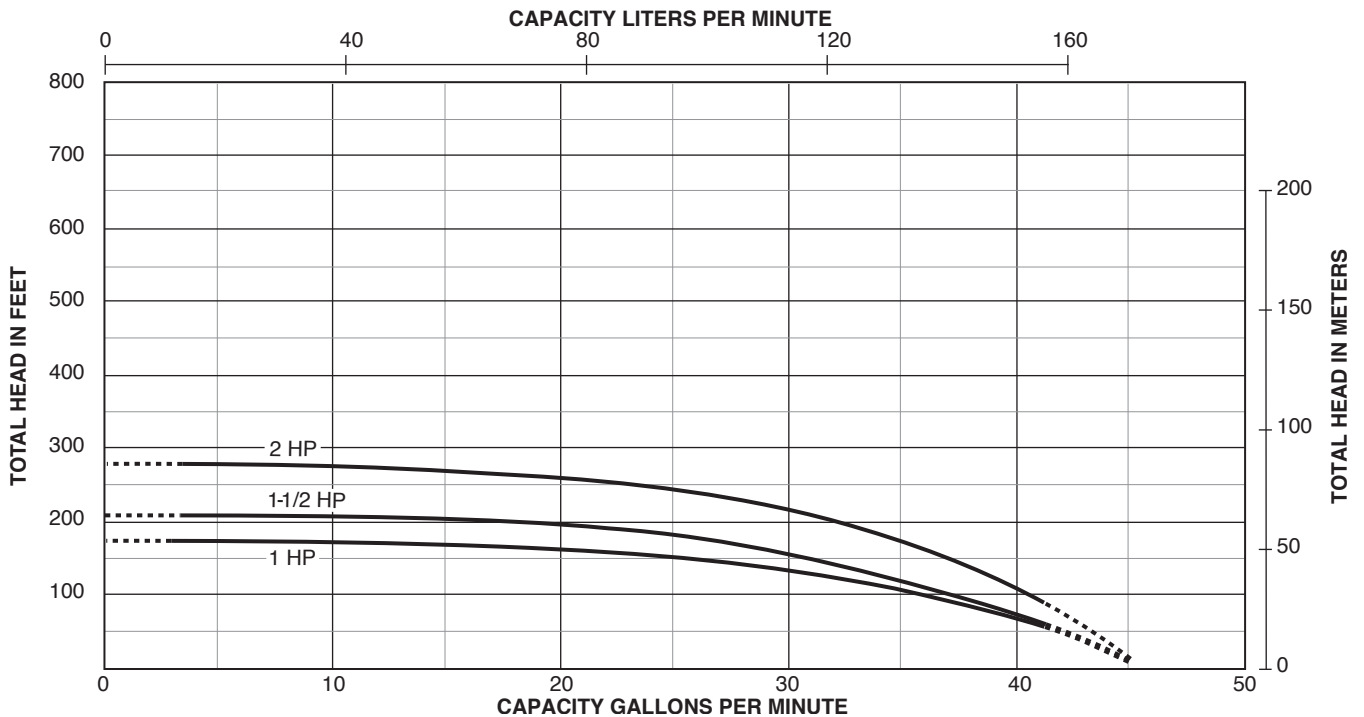
JP Series

Composite

PUMP PERFORMANCE: 20 GPM



PUMP PERFORMANCE: 30 GPM



Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

JP Series

Composite

15 GALLONS PER MINUTE		PUMP PERFORMANCE (Capacity in gallons per minute)																				SHUT-OFF HEAD					
HP	PSI	PUMPING DEPTH IN FEET																				FEET	PSI				
		0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380			400			
1/2	0	-	-	20.5	19.2	17.8	16.3	14.7	12.8	10.5	7.5												201	87			
	20	20.1	18.8	17.4	15.8	14.1	12.1	9.7	6.2																		
	30	18.6	17.1	15.6	13.8	11.8	9.2	5.5																			
	40	16.9	15.3	13.5	11.4	8.8	4.6																				
	50	15.1	13.2	11.0	8.3	3.4																					
	60	12.9	10.7	7.8																							
	70	10.3	7.2																								
	80	6.6																									
3/4	0	-	-	-	20.2	19.2	18.2	17.1	15.9	14.7	13.3	11.7	9.8	7.5	3.6								269	116			
	20	20.8	19.9	18.9	17.9	16.7	15.5	14.2	12.8	11.2	9.2	6.6															
	30	19.7	18.7	17.7	16.6	15.4	14.0	12.6	10.9	8.8	6.1																
	40	18.6	17.5	16.4	15.2	13.8	12.3	10.6	8.5	5.5																	
	50	17.3	16.2	15.0	13.6	12.1	10.3	8.1	4.8																		
	60	16.0	14.8	13.4	11.8	10.0	7.7	4.0																			
	70	14.5	13.1	11.5	9.7	7.3	3.0																				
	80	12.9	11.3	9.3	6.8																						
1	0	-	-	-	-	20.4	19.6	18.7	17.8	16.9	15.9	14.8	13.6	12.3	10.9	9.3	7.3	4.5					336	145			
	20	-	21.0	20.2	19.3	18.5	17.5	16.6	15.5	14.4	13.2	11.9	10.4	8.7	6.6	3.2											
	30	20.9	20.1	19.2	18.3	17.4	16.4	15.4	14.3	13.0	11.7	10.2	8.4	6.2	2.4												
	40	19.9	19.1	18.2	17.3	16.3	15.2	14.1	12.8	11.5	9.9	8.1	5.7														
	50	18.9	18.0	17.1	16.1	15.0	13.9	12.6	11.3	9.7	7.8	5.3															
	60	17.9	17.0	15.9	14.9	13.7	12.4	11.0	9.4	7.5	4.8																
	70	16.8	15.8	14.7	13.5	12.2	10.8	9.1	7.1	4.2																	
	80	15.6	14.5	13.3	12.0	10.6	8.8	6.7	3.6																		
1-1/2	0	-	-	-	-	20.5	19.9	19.2	18.5	17.8	17.1	16.3	15.5	14.7	13.7	12.8	11.7	10.5	9.1	7.5	5.3		403	174			
	20	-	20.9	20.3	19.7	19.0	18.3	17.6	16.9	16.1	15.3	14.4	13.4	12.4	11.3	10.1	8.7	6.9	4.3								
	30	20.8	20.2	19.6	18.9	18.2	17.5	16.7	16.0	15.1	14.2	13.3	12.3	11.2	9.9	8.4	6.6	3.8									
	40	20.1	19.5	18.8	18.1	17.4	16.6	15.8	15.0	14.1	13.1	12.1	11.0	9.7	8.2	6.2	3.0										
	50	19.4	18.7	18.0	17.3	16.5	15.7	14.9	14.0	13.0	11.9	10.8	9.5	7.9	5.9	1.8											
	60	18.6	17.9	17.1	16.4	15.6	14.7	13.8	12.8	11.8	10.6	9.2	7.6	5.5													
	70	17.8	17.0	16.3	15.4	14.6	13.7	12.7	11.6	10.4	9.0	7.3	5.1														
	80	16.9	16.1	15.3	14.4	13.5	12.5	11.4	10.2	8.8	7.0	4.6															

CAUTION: DO NOT use pump at flow rates indicated by the symbol '-'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

JP Series

Composite

20 GALLONS PER MINUTE		PUMP PERFORMANCE (Capacity in gallons per minute)																				SHUT-OFF HEAD						
HP	PSI	PUMPING DEPTH IN FEET																				FEET	PSI					
		0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380			400				
3/4	0	-	-	-	-	26.9	25.0	23.0	20.7	18.1	15.1	11.3	4.9											225	97			
	20	-	-	26.3	24.4	22.3	19.9	17.3	14.1	9.8																		
	30	27.9	26.1	24.1	21.9	19.6	16.8	13.5	9.0																			
	40	25.8	23.8	21.6	19.2	16.4	12.9	8.0																				
	50	23.4	21.2	18.8	15.9	12.3	7.0																					
	60	20.9	18.3	15.4	11.6	5.7																						
	70	17.9	14.9	10.9	3.8																							
	80	14.3	10.2																									
1	0	-	-	-	-	27.9	26.4	24.7	23.0	21.0	18.9	16.5	13.6	10.0	2.8									262	114			
	20	-	-	27.5	25.9	24.2	22.4	20.4	18.2	15.7	12.6	8.5																
	30	-	27.2	25.6	23.9	22.1	20.1	17.8	15.2	12.1	7.6																	
	40	27.0	25.4	23.7	21.8	19.7	17.5	14.8	11.5	6.6																		
	50	25.1	23.4	21.5	19.4	17.1	14.3	10.9	5.5																			
	60	23.1	21.2	19.1	16.7	13.9	10.3	3.9																				
	70	20.9	18.7	16.3	13.4	9.6																						
	80	18.4	15.9	12.9	8.8																							
1-1/2	0	-	-	-	-	-	27.9	26.8	25.6	24.4	23.1	21.7	20.2	18.6	16.9	15.0	12.7	10.0	6.1					375	162			
	20	-	-	-	-	27.5	26.4	25.2	24.0	22.6	21.3	19.8	18.1	16.3	14.3	12.0	9.0	4.1										
	30	-	-	-	27.4	26.2	25.0	23.8	22.4	21.0	19.5	17.9	16.0	14.0	11.6	8.4	2.6											
	40	-	-	27.2	26.0	24.8	23.6	22.2	20.8	19.3	17.6	15.7	13.6	11.1	7.8													
	50	-	27.0	25.8	24.6	23.4	22.0	20.6	19.0	17.3	15.4	13.3	10.7	7.2														
	60	26.8	25.7	24.4	23.2	21.8	20.3	18.8	17.0	15.1	12.9	10.2	6.5															
	70	25.5	24.2	23.0	21.6	20.1	18.5	16.8	14.8	12.5	9.7	5.6																
	80	24.1	22.7	21.4	19.9	18.2	16.5	14.5	12.2	9.2	4.7																	

CAUTION: DO NOT use pump at flow rates indicated by the symbol '-'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

JP Series

Composite

30 GALLONS PER MINUTE																PUMP PERFORMANCE (Capacity in gallons per minute)				
HP	PSI	PUMPING DEPTH IN FEET														SHUT-OFF HEAD				
		20	40	60	80	100	125	150	175	200	250	300	350	400	450	FEET	PSI			
1	0	—	—	40.9	39.1	36.8	32.5	26.0	8.0							175	76			
	20	40.4	38.8	36.0	32.4	27.7	13.3													
	30	38.0	35.3	31.7	26.3	14.3														
	40	35.0	31.4	25.9	12.1															
	50	30.2	24.0	3.0																
	60	21.9																		
1-1/2	0	—	—	41.9	39.9	37.5	34.1	30.9	26.9	17.0						210	91			
	20	41.2	39.1	36.5	34.0	31.5	27.8	21.5												
	30	38.9	36.1	33.8	31.0	27.9	21.8													
	40	36.0	33.5	30.8	27.7	20.2														
	50	32.9	30.1	26.8	21.5															
	60	29.5	25.9	18.1																
2	0	—	—	—	41.8	40.5	38.8	36.8	34.7	31.6	23.7					280	121			
	20	—	41.3	40.1	38.7	37.1	34.9	32.1	29.0	24.8										
	30	41.2	40.0	38.5	37.0	35.0	32.2	29.1	24.9	15.2										
	40	39.9	38.3	36.6	34.8	32.7	29.8	25.1	16.1											
	50	38.0	36.3	34.5	32.1	30.0	25.3	17.5												
	60	36.0	34.0	31.9	29.1	26.0	18.0													

CAUTION: DO NOT use pump at flow rates indicated by the symbol '—'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

K Series

Composite



The K Series 4" Submersible Pumps in 5, 7, 10 and 20 GPM models offer dependable performance and value.

K Series pumps will handle dry run conditions.

Proven "Floating Impeller" staging system is designed with a corrosive resistant stainless steel wear surface that greatly reduces problems with abrasives and sand lock-up.

Powered by water-filled submersible motors.

APPLICATIONS

Water systems... for residential, commercial, irrigation and farm use.

SPECIFICATIONS

Shell: Stainless steel

Discharge: Fiberglass-reinforced thermoplastic

Discharge Bearing: Nylatron®

Impellers: Acetal

Diffusers: Polycarbonate

Suction Caps: Polycarbonate with stainless steel insert

Thrust Pads: Proprietary spec.

Shaft and Coupling: Stainless steel 300 grade

Motor Bracket/Intake Screen Fiberglass-reinforced thermoplastic

Spring-loaded Check Valve: Durable internal check valve

Cable Guard: Rigid PVC

FEATURES

Proven "Floating Impeller" Staging System:

Incorporates 1st-in-class performance, sand handling and thrust management staging system with the industry exclusive "dry-run" design element. Reinforced engineered composites and stainless steel, offering high resistance to corrosion and abrasion.

Discharge: Tested-tough, fiberglass-reinforced thermoplastic, with proven internal check valve. Large wrench flats and rope hole.

Shell: 300-grade stainless steel pump shell offers high corrosion resistance.

Shaft: Hexagonal 3/8", 300-grade stainless steel pump shaft; offers generous impeller drive surfaces.

Shaft Bearing: Exclusive self-lubricating Nylatron® bearing resists wear surface from sand..

Motor Bracket: Tested-tough, fiberglass-reinforced thermoplastic; incorporates an integral suction screen.

Cable Guard: Corrosion resistant rigid PVC with 300-grade stainless steel fasteners.

POWERED BY
PENTEK®



K Series

Composite

ORDERING INFORMATION

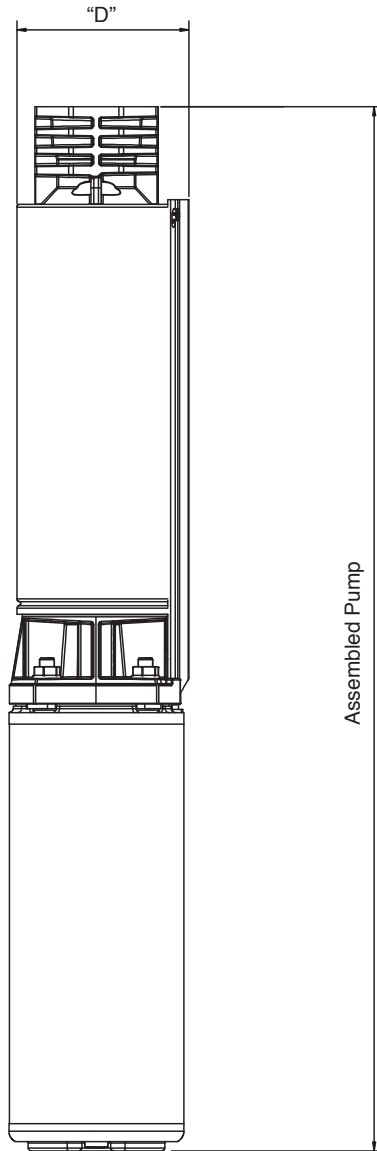
GPM	Motor Type	HP	Stages	Phase	Volt	Catalog Number	Assembled Pump Length Inches*	Weight Pounds*
5 GPM	2 wire	1/2	12	1	115V	B5K05121	23.36	27.2
		1/2	12	1	230V	B5K05221	23.36	27.2
		3/4	17	1	230V	B5K07221	29.66	32.7
		1	21	1	230V	B5K10221	33.78	35.5
	3 wire	1/2	12	1	230V	B5K05231	22.06	26.1
		3/4	17	1	230V	B5K07231	28.06	31.4
1		21	1	230V	B5K10231	32.48	34.1	
7 GPM	2 wire	1/2	10	1	115V	B7K05121	21.52	27.2
		1/2	10	1	230V	B7K05221	21.52	27.2
		3/4	13	1	230V	B7K07221	25.64	32.7
		1	17	1	230V	B7K10221	30.26	35.5
	3 wire	1/2	10	1	230V	B7K05231	20.20	26.1
		3/4	13	1	230V	B7K07231	24.04	31.4
1		17	1	230V	B7K10231	28.96	34.1	
10 GPM	2 wire	1/2	7	1	115V	B10K05121	18.86	27.2
		1/2	7	1	230V	B10K05221	18.86	27.2
		3/4	9	1	230V	B10K07221	22.02	32.7
		1	12	1	230V	B10K10221	25.36	35.5
	3 wire	1 1/2	16	1	230V	B10K15221	31.08	42.9
		1/2	7	1	230V	B10K05231	17.56	26.1
		3/4	9	1	230V	B10K07231	20.42	31.4
		1	12	1	230V	B10K10231	24.06	34.1
1 1/2	16	1	230V	B10K15231	29.68	41.4		
20 GPM	2 wire	1	7	1	230V	B20K10221	20.86	35.5
		1 1/2	9	1	230V	B20K15221	24.32	42.9
	3 wire	1	7	1	230V	B20K10231	19.56	34.1
		1 1/2	9	1	230V	B20K15231	22.92	41.4

*Length and weight is approximate

K Series

Composite

OUTLINE DIMENSIONS



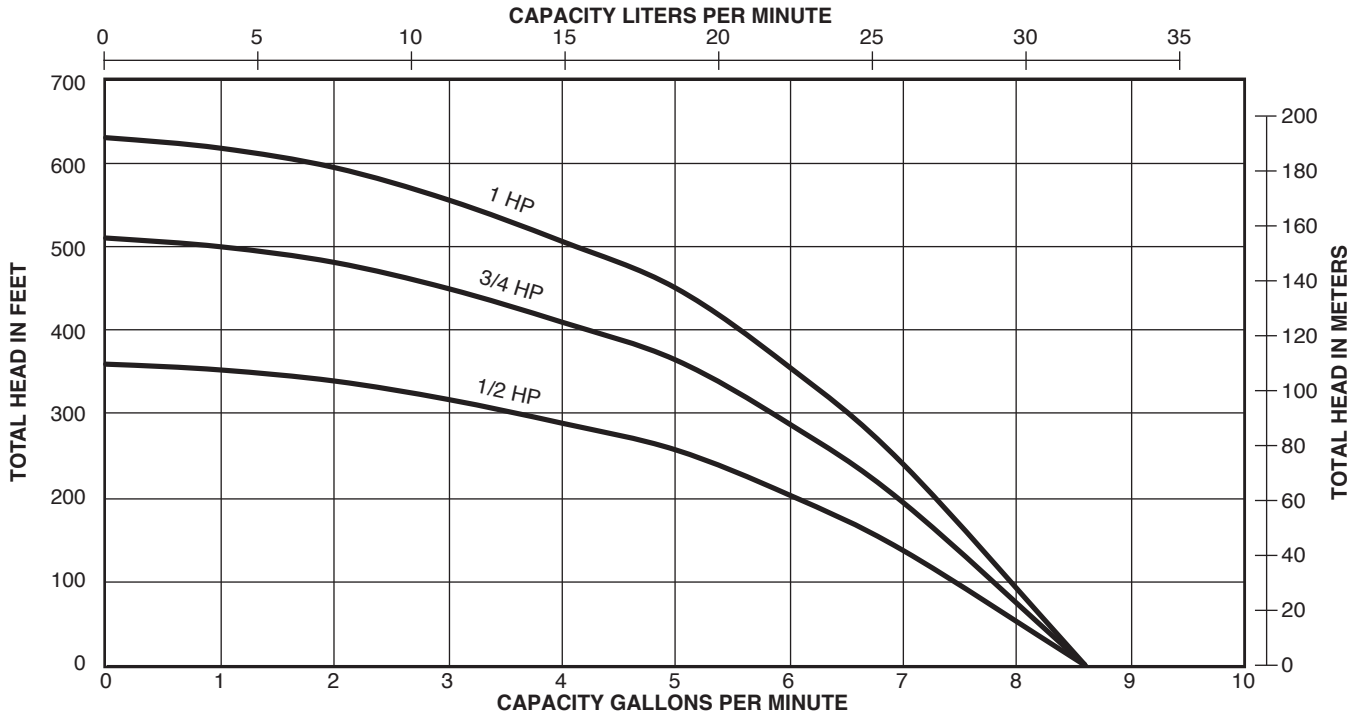
DISCHARGE		
GPM	NPT	"D"
5	1-1/4"	3-3/4"
7	1-1/4"	3-3/4"
10	1-1/4"	3-7/8"
20	1-1/4"	3-7/8"

For lengths, refer to Ordering Information tables.
Dimensions (in inches) are for estimating purposes only.

K Series

Composite

PUMP PERFORMANCE: 5 GPM



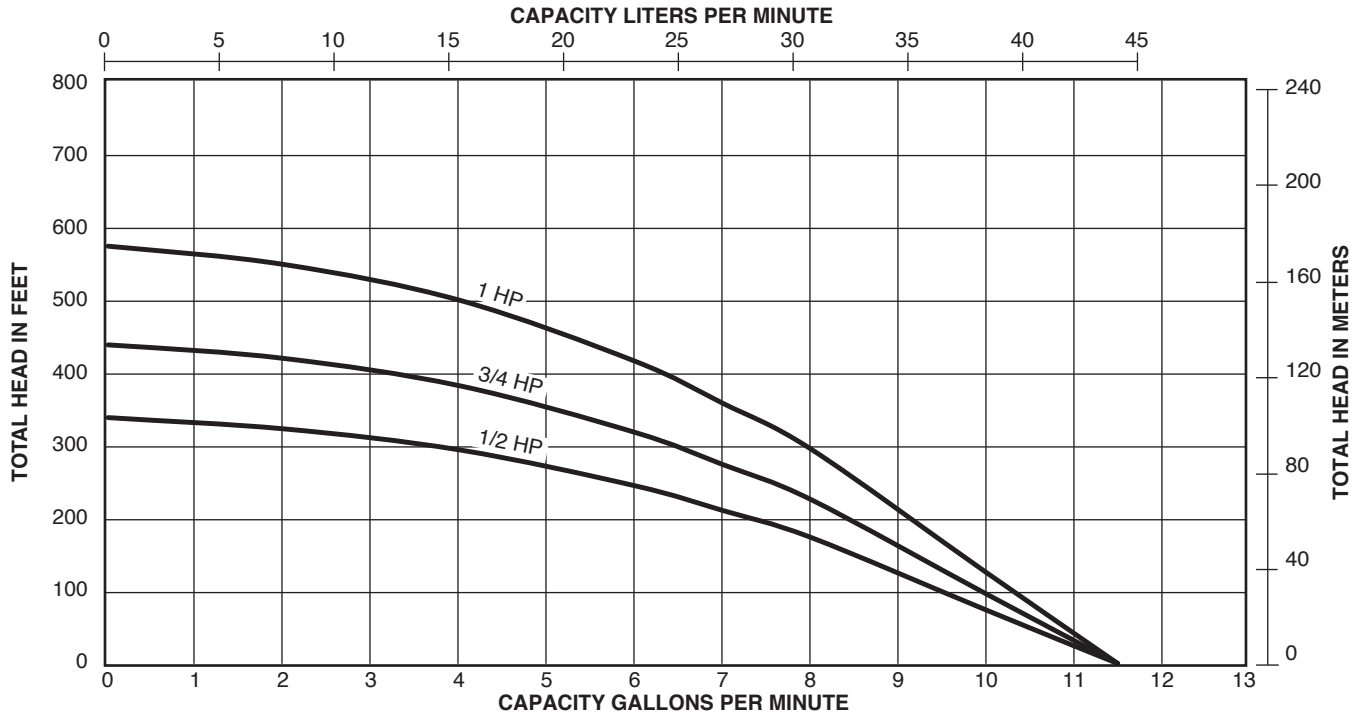
CAPACITY IN GALLONS PER MINUTE

	PSI	PUMPING DEPTH IN FEET															
		0	20	40	60	80	100	125	150	175	200	250	300	350	400	500	600
21 STAGES, 1HP	0	-	-	-	-	-	-	-	-	7.5	7.3	6.9	6.4	6.0	5.4	4.2	2.2
	20	-	-	-	-	-	-	7.5	7.3	7.1	6.9	6.5	6.0	5.5	4.9	3.4	
	30	-	-	-	-	-	7.5	7.3	7.1	6.9	6.7	6.2	5.8	5.2	4.6	3.0	
	40	-	-	-	-	7.5	7.3	7.1	6.9	6.7	6.5	6.0	5.5	5.0	4.3	2.4	
	50	-	-	-	7.4	7.3	7.1	6.9	6.7	6.5	6.3	5.8	5.3	4.7	4.0	1.5	
	60	-	-	7.4	7.3	7.1	6.9	6.7	6.5	6.3	6.1	5.6	5.0	4.4	3.6		
	70	-	7.4	7.2	7.1	6.9	6.8	6.5	6.3	6.1	5.8	5.3	4.7	4.0	3.1		
	80	7.4	7.2	7.1	6.9	6.7	6.6	6.3	6.1	5.9	5.6	5.0	4.4	3.6	2.6		
17 STAGES, 0.75HP	0	-	-	-	-	-	-	-	7.4	7.1	6.9	6.3	5.7	5.1	4.3	1.3	
	20	-	-	-	-	-	7.4	7.2	6.9	6.7	6.4	5.8	5.1	4.3	3.3		
	30	-	-	-	-	7.4	7.2	6.9	6.7	6.4	6.1	5.5	4.8	3.9	2.7		
	40	-	-	7.5	7.4	7.2	7.0	6.7	6.4	6.1	5.8	5.2	4.4	3.4	1.8		
	50	-	7.5	7.3	7.1	6.9	6.7	6.4	6.2	5.9	5.5	4.8	4.0	2.8			
	60	7.5	7.3	7.1	6.9	6.7	6.5	6.2	5.9	5.6	5.2	4.5	3.5	2.0			
	70	7.3	7.1	6.9	6.7	6.4	6.2	5.9	5.6	5.3	4.9	4.1	3.0				
	80	7.0	6.8	6.6	6.4	6.2	5.9	5.6	5.3	4.9	4.5	3.6	2.2				
12 STAGES, 0.5HP	0	-	-	-	-	-	7.5	7.1	6.7	6.4	6.0	5.0	3.8	1.6			
	20	-	-	-	7.4	7.1	6.8	6.4	6.0	5.6	5.1	3.9	1.9				
	30	-	-	7.3	7.1	6.8	6.5	6.0	5.6	5.1	4.6	3.2					
	40	-	7.3	7.0	6.7	6.4	6.1	5.6	5.2	4.6	4.0	2.2					
	50	7.2	7.0	6.7	6.4	6.0	5.7	5.2	4.7	4.1	3.3						
	60	6.9	6.6	6.3	6.0	5.6	5.2	4.7	4.1	3.4	2.4						
	70	6.6	6.3	5.9	5.6	5.2	4.8	4.2	3.5	2.5							
	80	6.2	5.9	5.5	5.1	4.7	4.2	3.5	2.6								

K Series

Composite

PUMP PERFORMANCE: 7 GPM



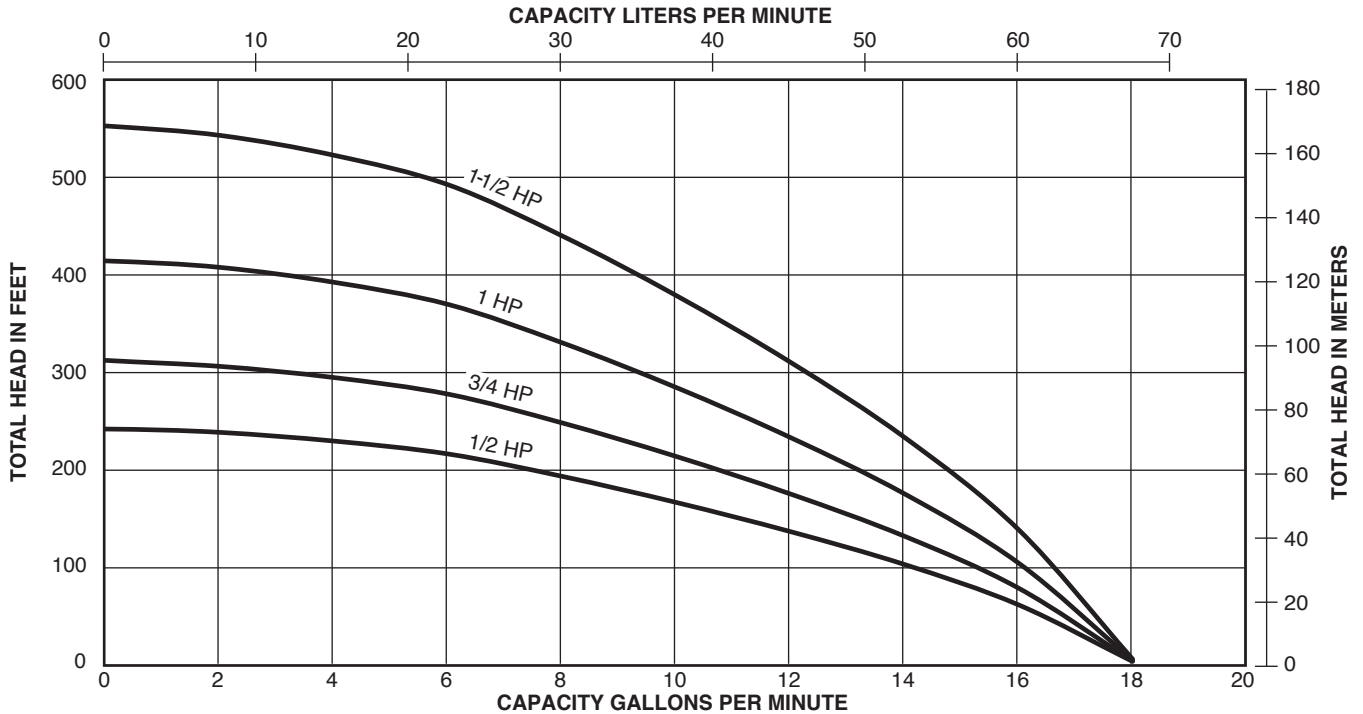
CAPACITY IN GALLONS PER MINUTE

	PSI	PUMPING DEPTH IN FEET															
		0	20	40	60	80	100	125	150	175	200	250	300	350	400	500	600
17 STAGES, 1HP	0	-	-	11.0	10.8	10.6	10.4	10.1	9.8	9.5	9.2	8.6	7.9	7.1	6.2	4.0	
	20	11.0	10.8	10.6	10.3	10.1	9.9	9.6	9.3	9.0	8.6	7.9	7.2	6.3	5.3	2.4	
	30	10.7	10.5	10.3	10.1	9.8	9.6	9.3	9.0	8.6	8.3	7.6	6.8	5.9	4.8		
	40	10.5	10.3	10.0	9.8	9.6	9.3	9.0	8.7	8.3	8.0	7.2	6.4	5.4	4.2		
	50	10.2	10.0	9.8	9.5	9.3	9.0	8.7	8.4	8.0	7.6	6.8	5.9	4.9	3.5		
	60	10.0	9.7	9.5	9.2	9.0	8.7	8.4	8.0	7.7	7.3	6.4	5.5	4.3	2.7		
	70	9.7	9.4	9.2	8.9	8.7	8.4	8.1	7.7	7.3	6.9	6.0	5.0	3.7			
	80	9.4	9.2	8.9	8.6	8.4	8.1	7.7	7.3	6.9	6.5	5.6	4.4	2.8			
13 STAGES, 0.75HP	0	-	-	10.9	10.6	10.3	10.1	9.7	9.3	8.9	8.4	7.5	6.4	5.1	3.3		
	20	10.8	10.5	10.3	10.0	9.6	9.3	8.9	8.5	8.0	7.5	6.5	5.2	3.4			
	30	10.5	10.2	9.9	9.6	9.3	8.9	8.5	8.1	7.6	7.1	5.9	4.5	2.3			
	40	10.2	9.9	9.6	9.2	8.9	8.6	8.1	7.6	7.1	6.6	5.3	3.6				
	50	9.8	9.5	9.2	8.8	8.5	8.1	7.7	7.1	6.6	6.0	4.6	2.5				
	60	9.5	9.1	8.8	8.4	8.1	7.7	7.2	6.6	6.0	5.4	3.8					
	70	9.1	8.7	8.4	8.0	7.6	7.2	6.7	6.1	5.4	4.7	2.7					
	80	8.7	8.3	8.0	7.6	7.2	6.7	6.1	5.5	4.8	3.9						
10 STAGES, 0.5HP	0	-	-	10.8	10.4	10.0	9.6	9.1	8.5	7.9	7.3	5.8	3.7				
	20	10.6	10.3	9.9	9.5	9.0	8.6	8.0	7.4	6.7	5.9	3.9					
	30	10.2	9.8	9.4	9.0	8.5	8.0	7.4	6.7	5.9	5.1	2.5					
	40	9.7	9.3	8.9	8.4	8.0	7.5	6.8	6.0	5.1	4.1						
	50	9.3	8.8	8.4	7.9	7.4	6.8	6.1	5.2	4.2	2.8						
	60	8.8	8.3	7.8	7.3	6.7	6.1	5.3	4.3	2.9							
	70	8.2	7.7	7.2	6.6	6.0	5.3	4.3	3.0								
	80	7.7	7.1	6.6	5.9	5.2	4.4	3.2									

K Series

Composite

PUMP PERFORMANCE: 10 GPM



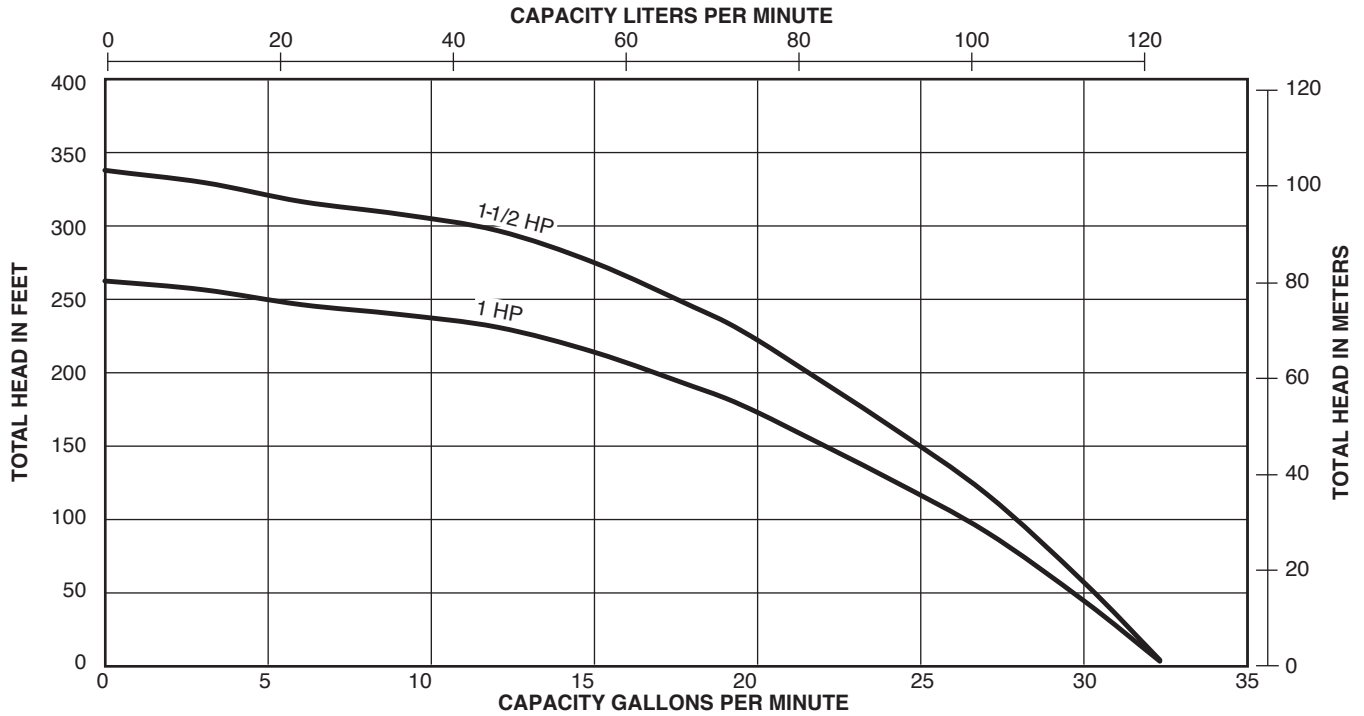
CAPACITY IN GALLONS PER MINUTE

	PSI	PUMPING DEPTH IN FEET														
		0	20	40	60	80	100	125	150	175	200	250	300	350	400	500
16 STAGES, 1.5HP	0	-	-	-	-	-	-	-	-	-	14.6	13.5	12.3	11.0	9.5	5.6
	20	-	-	-	-	-	-	-	14.6	14.1	13.6	12.4	11.1	9.7	8.0	2.0
	30	-	-	-	-	-	-	14.7	14.1	13.6	13.0	11.8	10.5	8.9	7.0	
	40	-	-	-	-	-	14.7	14.2	13.6	13.1	12.5	11.2	9.8	8.1	6.0	
	50	-	-	-	-	14.6	14.2	13.7	13.1	12.5	11.9	10.6	9.0	7.2	4.7	
	60	-	-	15.0	14.6	14.2	13.7	13.2	12.6	12.0	11.3	9.9	8.2	6.2	2.9	
	70	-	14.9	14.5	14.1	13.7	13.2	12.6	12.0	11.4	10.7	9.2	7.4	4.9		
	80	14.9	14.5	14.0	13.6	13.1	12.7	12.1	11.4	10.7	10.0	8.4	6.3	3.2		
12 STAGES, 1HP	0	-	-	-	-	-	-	-	14.6	13.8	13.1	11.5	9.5	7.1	3.4	
	20	-	-	-	-	-	14.7	14.0	13.2	12.4	11.6	9.7	7.4	3.8		
	30	-	-	-	-	14.6	14.0	13.3	12.5	11.7	10.8	8.7	6.0			
	40	-	-	15.0	14.5	13.9	13.3	12.6	11.7	10.8	9.9	7.6	4.2			
	50	-	15.0	14.4	13.8	13.2	12.6	11.8	10.9	9.9	8.9	6.2				
	60	14.9	14.3	13.7	13.1	12.5	11.9	11.0	10.0	9.0	7.8	4.5				
	70	14.2	13.6	13.0	12.4	11.7	11.0	10.1	9.0	7.9	6.5					
	80	13.6	12.9	12.3	11.6	10.9	10.2	9.1	7.9	6.6	4.8					
9 STAGES, 0.75HP	0	-	-	-	-	-	15.0	14.1	13.1	12.0	10.9	8.0	3.4			
	20	-	-	-	14.8	14.0	13.3	12.2	11.0	9.8	8.3	3.9				
	30	-	-	14.7	13.9	13.1	12.3	11.1	9.9	8.4	6.6					
	40	-	14.6	13.8	13.0	12.1	11.2	10.0	8.5	6.8	4.4					
	50	14.4	13.7	12.9	12.0	11.1	10.1	8.6	6.9	4.6						
	60	13.6	12.7	11.9	10.9	9.9	8.7	7.1	4.8							
	70	12.6	11.7	10.8	9.7	8.6	7.2	5.0								
	80	11.6	10.6	9.6	8.4	7.0	5.2									
7 STAGES, 0.5HP	0	-	-	-	-	14.9	13.9	12.7	11.2	9.5	7.5					
	20	-	-	14.6	13.6	12.6	11.4	9.8	7.9	5.3						
	30	-	14.5	13.5	12.4	11.2	9.9	8.0	5.5							
	40	14.3	13.3	12.2	11.1	9.7	8.2	5.7								
	50	13.2	12.1	10.9	9.5	7.9	6.0									
	60	11.9	10.7	9.3	7.7	5.6	2.1									
	70	10.5	9.0	7.4	5.2											
	80	8.8	7.1	4.8												

K Series

Composite

PUMP PERFORMANCE: 20 GPM



CAPACITY IN GALLONS PER MINUTE

	PSI	PUMPING DEPTH IN FEET											
		0	20	40	60	80	100	125	150	175	200	250	300
9 STAGES, 1.5HP	0	-	-	-	-	-	27.7	26.3	24.8	23.2	21.4	17.4	11.6
	20	-	-	-	27.4	26.2	25.0	23.4	21.7	19.8	17.7	12.2	
	30	-	-	27.2	26.0	24.8	23.6	21.9	20.0	17.9	15.4	8.0	
	40	-	27.0	25.9	24.6	23.4	22.0	20.1	18.0	15.6	12.7		
	50	26.8	25.7	24.5	23.2	21.8	20.3	18.2	15.8	12.9	8.9		
	60	25.5	24.3	22.9	21.5	20.0	18.4	16.0	13.2	9.2			
	70	24.1	22.7	21.3	19.8	18.1	16.2	13.4	9.6				
	80	22.5	21.1	19.5	17.8	15.9	13.7	10.0					
7 STAGES, 1HP	0	-	-	-	-	27.6	26.1	24.1	22.0	19.5	16.7	7.4	
	20	-	-	27.1	25.6	24.0	22.3	19.9	17.1	13.7	8.6		
	30	-	26.9	25.4	23.8	22.0	20.1	17.4	14.0	9.1			
	40	26.7	25.1	23.5	21.7	19.8	17.6	14.3	9.6				
	50	24.9	23.2	21.4	19.5	17.2	14.6	10.1					
	60	23.0	21.2	19.1	16.8	14.1	10.5						
	70	20.9	18.8	16.5	13.6	9.8							
	80	18.5	16.1	13.1	9.0								

KS Series

Stainless Steel



POWERED BY
PENTEK[®]



KS Series 4" Submersible Pumps in 10 and 20 GPM models offer dependable performance and value.

KS Series pumps will handle dry run conditions.

Proven "Floating Impeller" staging system is designed with a corrosive resistant stainless steel wear surface that greatly reduces problems with abrasives and sand lock-up.

Powered by water-filled submersible motors.

APPLICATIONS

Water systems... for residential, commercial, irrigation and farm use.

SPECIFICATIONS

Shell: Stainless steel

Discharge: Stainless steel

Discharge Bearing: Nylatron[®]

Impellers: Acetal

Diffusers: Polycarbonate

Suction Cap: Polycarbonate with stainless steel wear ring

Thrust Pads: Proprietary spec.

Shaft and Coupling: Stainless steel 300 grade

Intake Screen: Polypropylene

Motor Bracket: Stainless steel

Check Valve: Durable internal check valve

Cable Guard: Rigid PVC

FEATURES

Proven "Floating Impeller" Staging System: Incorporates high performance, sand handling and thrust management staging system with "dry-run" design. Reinforced engineered composites and stainless steel, offering high resistance to corrosion and abrasion.

Discharge: Corrosion-resistant, heavy-duty 300-grade stainless steel with proven internal check valve. Large wrench flats and rope hole.

Shell: 300-grade stainless steel pump shell offers high corrosion resistance.

Shaft: Hexagonal 3/8", 300-grade stainless steel pump shaft; offers generous impeller drive surfaces.

Shaft Bearing: Exclusive self-lubricating Nylatron[®] bearing resists wear surface from sand.

Motor Bracket: Corrosion-resistant, heavy-duty 300-grade stainless steel.

Cable Guard: Corrosion resistant rigid PVC with 300-grade stainless steel fasteners.

Pentek Motor: NEMA standard all stainless steel construction water-filled motors.

KS Series

Stainless Steel

ORDERING INFORMATION

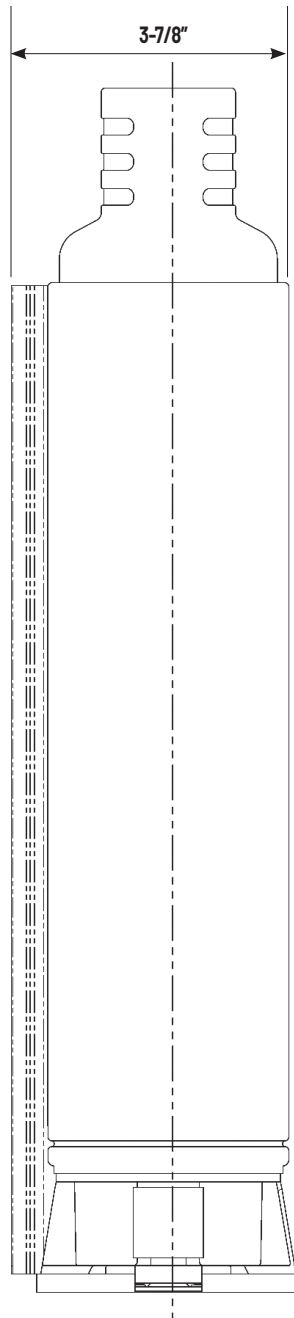
GPM	Motor Type	HP	Phase	Volt	Assembled Pump Catalog Number	Assembled Pump Length Inches	Weight Pounds*
10 GPM	2 wire	1/2	1	115V	B10KS05121	23.32	35.2
		1/2	1	230V	B10KS05221	23.32	35.2
		3/4	1	230V	B10KS07221	26.30	42.7
		1	1	230V	B10KS10221	29.72	46.5
		1 1/2	1	230V	B10KS15221	34.94	56.9
	3 wire	1/2	1	115V	B10KS05131	22.42	34.9
		1/2	1	230V	B10KS05231	22.02	34.1
		3/4	1	230V	B10KS07231	24.70	41.4
		1	1	230V	B10KS10231	28.42	45.1
		1 1/2	1	230V	B10KS15231	33.54	55.4
20 GPM	2 wire	1	1	230V	B20KS10221	26.19	46.5
		1 1/2	1	230V	B20KS15221	29.65	56.9
	3 wire	1	1	230V	B20KS10231	24.89	45.1
		1 1/2	1	230V	B20KS15231	28.25	55.4

*Length and weight is approximate.

KS Series

Stainless Steel

OUTLINE DIMENSIONS



DISCHARGE

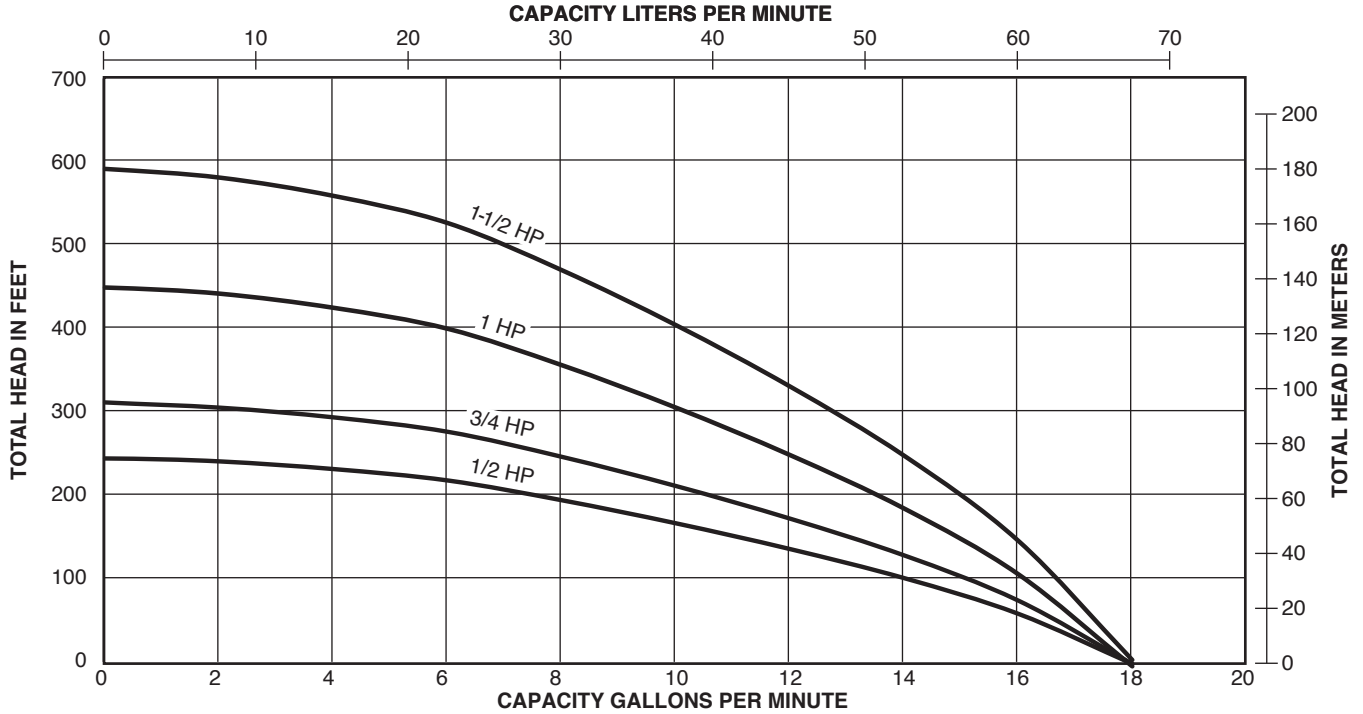
GPM	NPT
10	1-1/4
20	1-1/4

For lengths, refer to Ordering Information tables.
Dimensions (in inches) are for estimating purposes only.

KS Series

Stainless Steel

PUMP PERFORMANCE: 10 GPM



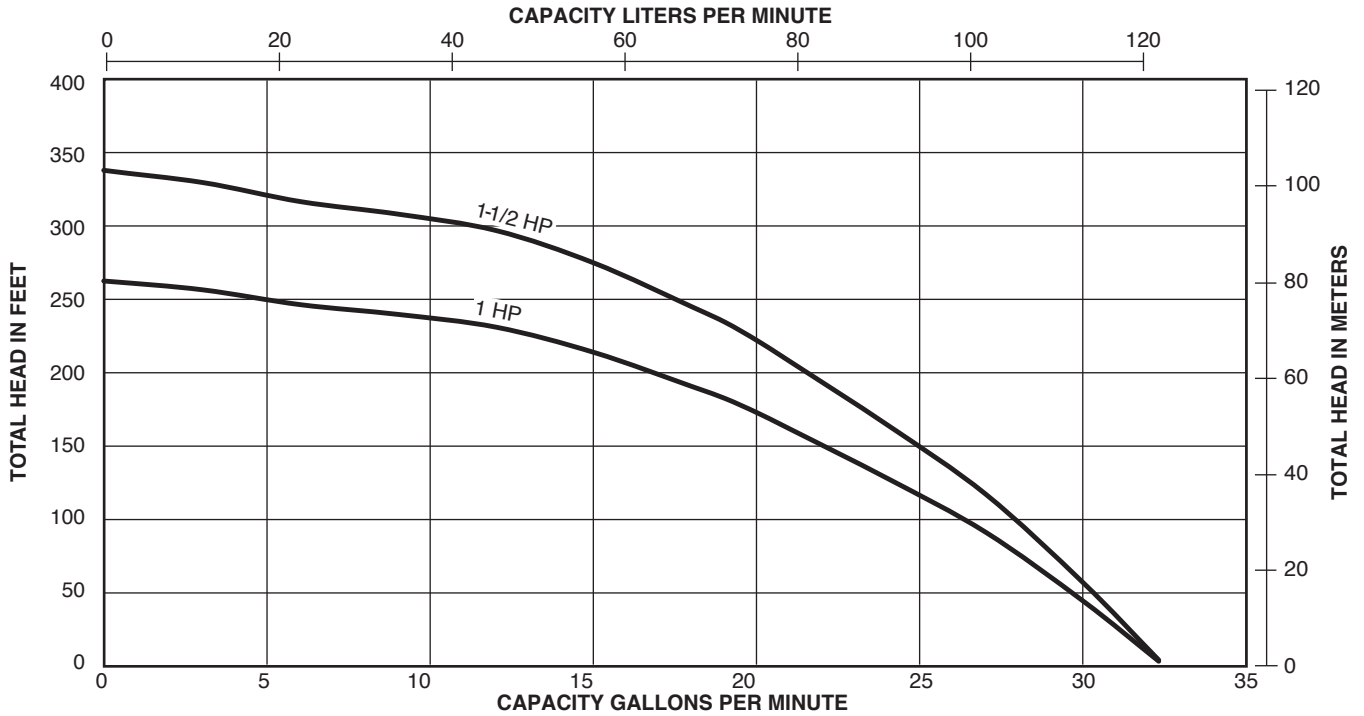
CAPACITY IN GALLONS PER MINUTE

	PSI	PUMPING DEPTH IN FEET															
		0	20	40	60	80	100	125	150	175	200	250	300	350	400	500	
17 STAGES, 1.5HP	0	-	-	-	-	-	-	-	-	-	-	14.8	13.8	12.7	11.6	10.3	7.0
	20	-	-	-	-	-	-	-	14.9	14.4	13.9	13.4	12.8	11.7	10.4	8.9	4.8
	30	-	-	-	-	-	-	14.9	14.4	13.9	13.4	12.9	11.7	10.5	9.0	7.3	
	40	-	-	-	-	-	14.9	14.5	14.0	13.4	12.9	11.7	10.5	9.0	7.3		
	50	-	-	-	-	14.9	14.5	14.0	13.5	12.9	12.4	11.2	9.8	8.3	6.3		
	60	-	-	-	14.8	14.4	14.0	13.5	13.0	12.4	11.8	10.6	9.1	7.4	5.2		
	70	-	-	14.8	14.4	14.0	13.6	13.0	12.5	11.9	11.3	9.9	8.4	6.5	3.8		
	80	-	14.7	14.3	13.9	13.5	13.1	12.5	11.9	11.3	10.7	9.2	7.6	5.4			
13 STAGES, 1HP	0	-	-	-	-	-	-	-	14.9	14.2	13.6	12.1	10.5	8.5	6.0		
	20	-	-	-	-	-	15.0	14.3	13.7	13.0	12.2	10.6	8.7	6.2			
	30	-	-	-	-	14.9	14.4	13.7	13.0	12.3	11.5	9.8	7.6	4.6			
	40	-	-	-	14.8	14.3	13.8	13.1	12.3	11.6	10.7	8.8	6.4	2.2			
	50	-	-	14.7	14.2	13.7	13.1	12.4	11.6	10.8	9.9	7.8	4.9				
	60	-	14.7	14.1	13.6	13.0	12.5	11.7	10.9	10.0	9.0	6.6	2.8				
	70	14.6	14.1	13.5	13.0	12.4	11.7	10.9	10.0	9.1	8.0	5.2					
	80	14.0	13.4	12.9	12.3	11.7	11.0	10.1	9.2	8.1	6.8	3.2					
9 STAGES, 0.75HP	0	-	-	-	-	-	15.0	14.1	13.1	12.0	10.9	8.0	3.4				
	20	-	-	-	14.8	14.0	13.3	12.2	11.0	9.8	8.3	3.9					
	30	-	-	14.7	13.9	13.1	12.3	11.1	9.9	8.4	6.6						
	40	-	14.6	13.8	13.0	12.1	11.2	10.0	8.5	6.8	4.4						
	50	14.4	13.7	12.9	12.0	11.1	10.1	8.6	6.9	4.6							
	60	13.6	12.7	11.9	10.9	9.9	8.7	7.1	4.8								
	70	12.6	11.7	10.8	9.7	8.6	7.2	5.0									
	80	11.6	10.6	9.6	8.4	7.0	5.2										
7 STAGES, 0.5HP	0	-	-	-	-	14.9	13.9	12.7	11.2	9.5	7.5						
	20	-	-	14.6	13.6	12.6	11.4	9.8	7.9	5.3							
	30	-	14.5	13.5	12.4	11.2	9.9	8.0	5.5								
	40	14.3	13.3	12.2	11.1	9.7	8.2	5.7									
	50	13.2	12.1	10.9	9.5	7.9	6.0										
	60	11.9	10.7	9.3	7.7	5.6	2.1										
	70	10.5	9.0	7.4	5.2												
	80	8.8	7.1	4.8													

KS Series

Stainless Steel

PUMP PERFORMANCE: 20 GPM



CAPACITY IN GALLONS PER MINUTE

	PSI	PUMPING DEPTH IN FEET											
		0	20	40	60	80	100	125	150	175	200	250	300
9 STAGES, 1.5HP	0	-	-	-	-	-	27.7	26.3	24.8	23.2	21.4	17.4	11.6
	20	-	-	-	27.4	26.2	25.0	23.4	21.7	19.8	17.7	12.2	
	30	-	-	27.2	26.0	24.8	23.6	21.9	20.0	17.9	15.4	8.0	
	40	-	27.0	25.9	24.6	23.4	22.0	20.1	18.0	15.6	12.7		
	50	26.8	25.7	24.5	23.2	21.8	20.3	18.2	15.8	12.9	8.9		
	60	25.5	24.3	22.9	21.5	20.0	18.4	16.0	13.2	9.2			
	70	24.1	22.7	21.3	19.8	18.1	16.2	13.4	9.6				
	80	22.5	21.1	19.5	17.8	15.9	13.7	10.0					
7 STAGES, 1HP	0	-	-	-	-	27.6	26.1	24.1	22.0	19.5	16.7	7.4	
	20	-	-	27.1	25.6	24.0	22.3	19.9	17.1	13.7	8.6		
	30	-	26.9	25.4	23.8	22.0	20.1	17.4	14.0	9.1			
	40	26.7	25.1	23.5	21.7	19.8	17.6	14.3	9.6				
	50	24.9	23.2	21.4	19.5	17.2	14.6	10.1					
	60	23.0	21.2	19.1	16.8	14.1	10.5						
	70	20.9	18.8	16.5	13.6	9.8							
	80	18.5	16.1	13.1	9.0								

50 GPM Series

Stainless Steel



The 50 GPM Stainless Steel 4" High-Flo Submersible Pumps deliver efficient and dependable performance even in rough, aggressive water. New stack design delivers better efficiency and head per

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing, and farm use.

SPECIFICATIONS

Discharge: 300 grade stainless steel with 2" NPT Threads

Top Bearing: Nylatron®

Top Bearing Journal: 300 grade stainless steel

Diffuser Assembly: Noryl® (20% glass filled)

Impellers: Noryl (20% glass filled)

Bowls: Noryl (20% glass filled)

Diffuser Bearing: Nylatron

Diffuser Bearing Journal: 300 grade stainless steel

Shaft: 300 grade stainless steel, 7/16" hex stock

Coupling: 300 grade stainless steel

Shell: 300 grade stainless steel

Motor Adapter: 300 grade stainless steel

Suction Screen: 300 grade stainless steel

Cable Guard: 300 grade stainless steel

Fastener: 300 grade stainless steel

FEATURES

Discharge: Heavy-duty 300 grade stainless steel construction provides smooth water passage to column pipe. Large wrench flats and rope hole.

Top Bearing: Self-lubricated top bearing ensures long bearing life.

Impellers: 20% glass-reinforced Noryl to resist abrasives and provide smooth water passage for minimal friction loss.

Diffuser Bearing: Bearings at each stage provide radial protection and stability, and excellent resistance to sand damage.

Motor Bracket: 300 grade precision cast stainless steel. Incorporates an efficient hydraulic design for maximum volume and access to motor mounting nuts.

Shaft: 300 grade "treated" stainless steel pump shaft is corrosion-resistant. The hex shape offers generous impeller drive surfaces.

Motor Coupling: Pressed-on, sintered 300 grade stainless steel for maximum corrosion resistance provides trouble-free transfer of power between motor and pump shaft.

Shell: Heavy-gauge, 300 series stainless steel pump shell is durable and offers high corrosion resistance.

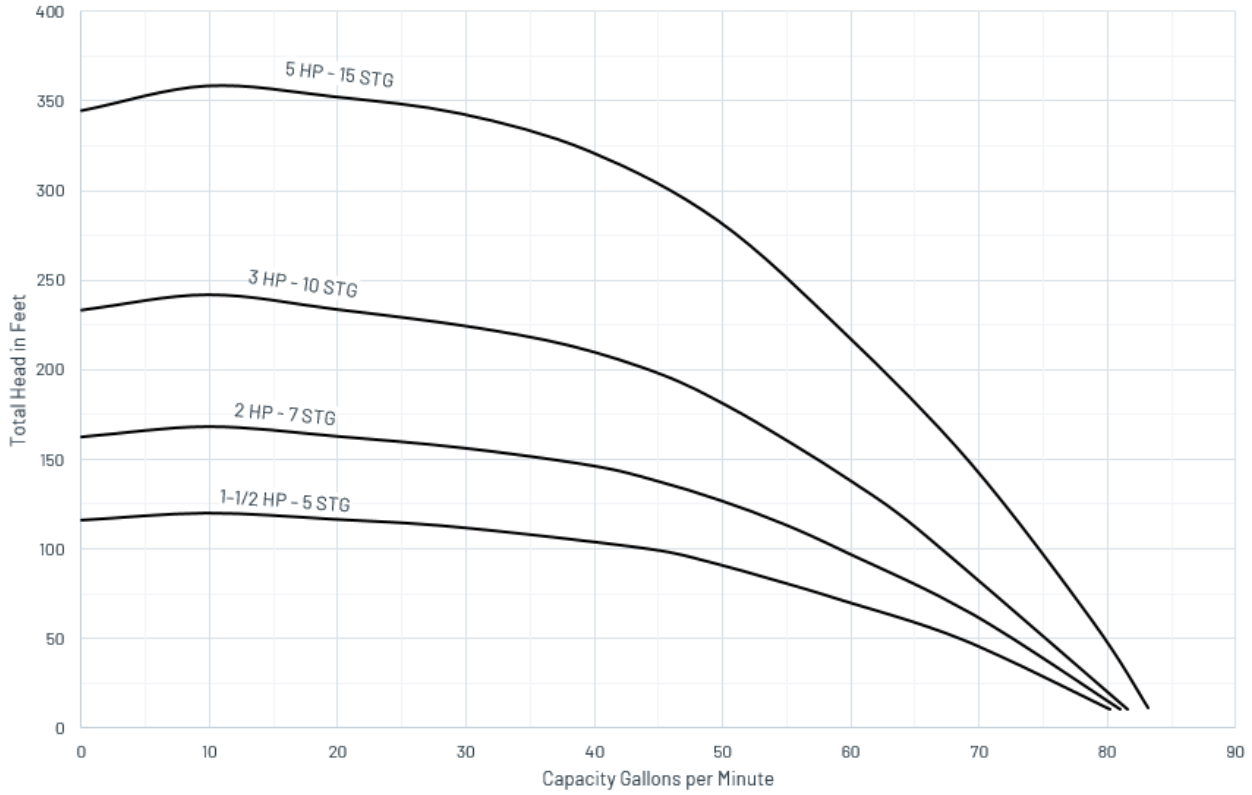
Intake Screen: 300 series stainless steel material offers maximum corrosion resistance and protects against damaging solids entering the pump.

50 GPM Series

Stainless Steel

PUMP PERFORMANCE: 70 GPM

PEI (CL) = 0.85



Tested and rated in accordance with Water Systems Council Standards.

Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure. Check valve sold separately.

50 GPM Series

Stainless Steel

PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)

HP	PSI	PUMPING DEPTH IN FEET															SHUT-OFF HEAD				
		20	40	60	80	100	125	150	175	200	250	300	350	450	550	650	700	FEET	PSI		
1-1/2	0	-	-	64	56	43												116	50		
	20	62	52	37																	
	30	50	34																		
	40	48	30																		
	50	25																			
	60																				
2	0	-	-	-	65	59	50	37										164	71		
	20	-	64	57	50	39															
	30	63	56	49	38																
	40	55	47	35																	
	50	45	33																		
	60	30																			
3	0	-	-	-	-	67	63	57	51	43								235	101		
	20	-	-	66	62	58	52	45	34												
	30	-	66	62	57	53	45	35													
	40	65	61	57	52	46	36														
	50	61	56	51	45	37															
	60	55	50	44	35																
5	0	-	-	-	-	-	-	69	66	63	55	45	26					346	150		
	20	-	-	-	-	-	66	63	59	56	46	29									
	30	-	-	-	-	67	63	60	56	52	40										
	40	-	-	-	66	64	60	56	52	47	31										
	50	-	-	66	63	61	57	52	47	41											
	60	-	66	63	60	57	53	48	42	33											

CAUTION: DO NOT use pump at flow rates indicated by the symbol ¹/₂. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

50 GPM Series

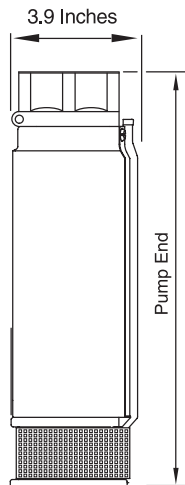
Stainless Steel

ORDERING INFORMATION

MOTOR TYPE	HP	STGS.	PH	VOLT	PUMP END			MOTOR		CONTROL BOX	
					CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
2 WIRE	1.5	5	1	230	L50P4FMGS-05	18-3/4	11	P42B0015A2	29		
3 WIRE	1.5	5	1	230	L50P4FMGS-05	18-3/4	11	P43B0015A2	27	SMC-CR1521	7
			3	230	L50P4FMGS-05	18-3/4	11	P43B0015A3	23		
			3	460	L50P4FMGS-05	18-3/4	11	P43B0015A4	23		
	2	7	1	230	L50P4GMGS-05	24-1/8	16	P43B0020A2	31	SMC-CR2021	7
			3	230	L50P4GMGS-05	24-1/8	16	P43B0020A3	27		
			3	460	L50P4GMGS-05	24-1/8	16	P43B0020A4	27		
	3	10	1	230	L50P4HMGS-05	32	19	P43B0030A2	40	SMC-CR3021	7
			3	230	L50P4HMGS-05	32	19	P43B0030A3	32		
			3	460	L50P4HMGS-05	32	19	P43B0030A4	32		
	5	15	3	230	L50P4JMGS-05	45-3/8	24	P43B0050A2	70	SMC-CR5021	8
			3	460	L50P4JMGS-05	45-3/8	24	P43B0050A3	55		
			3	460	L50P4JMGS-05	45-3/8	24	P43B0050A4	55		

*Length and Weight are approximate. NOTE: Pump end and motor purchased separately. Check valve sold separately.

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

For lengths, refer to Ordering Information table.

70 GPM Series

Cast Iron



Precision-engineered, quality-built and rugged 70 GPM Series submersibles may be used in wells 4" or larger. Maximum outside diameter 3-7/8".

APPLICATIONS

Water Systems... for residential, industrial, commercial, multiple housing, and farm use.

SPECIFICATIONS

Discharge: Cast iron, ASTM A48 Class 30

Pump Bowls: Cast iron, ASTM A48 Class 30

Impellers: Noryl®

Upthrust Bearing: Nylatron®

Discharge Bearing: Nylatron

Bowl and Intake Bearings: Nitrile (proprietary spec.)

Pump Shaft: 300 Series Stainless steel

Lead Guard: 300 Series Stainless steel

Intake Bracket: Cast iron, ASTM A48 Class 30

Intake Screen: 300 Series Stainless steel

Pump/Motor Coupling: 300 Series Stainless steel

FEATURES

Discharge: Heavy-duty cast iron construction provides smooth water passage to column pipe. NPT threads standard.

Pump Bowls: Highly efficient hydraulic design...threaded bowl design in gray cast iron.

Impellers: 20% glass-reinforced Noryl to resist abrasives and provide smooth water passage for minimal friction loss.

Upthrust Bearing: Nylatron upthrust bearing provides positive momentary upthrust protection during start-up.

Diffuser Bearing: Bearings at each stage provide radial protection and stability, and excellent resistance to sand damage.

Bowl and Intake Bearings: Fluted, cutless rubber type assures superior abrasive-handling characteristics, located at each stage.

Stainless Steel Pump Shaft: Stainless Steel Pump Shaft: 300 grade "treated" stainless steel pump shaft is corrosion-resistant. The hex shape offers generous impeller drive surfaces.

Intake Screen: Stainless steel material offers maximum corrosion resistance... protects against damaging solids entering the pump assembly.

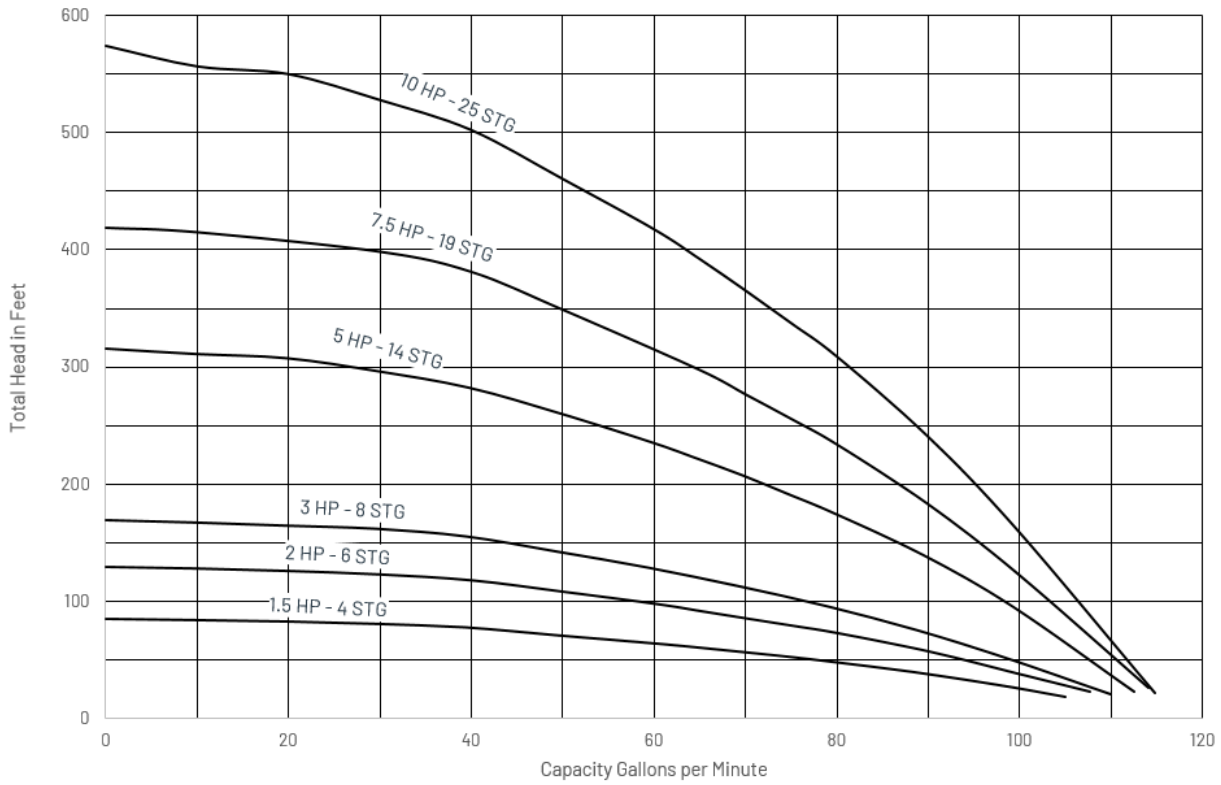
Motor Bracket: Incorporates an efficient hydraulic design for maximum volume and access to motor mounting nuts.

Pump/Motor Coupling: Pressed-on, sintered 300 grade stainless steel for maximum corrosion resistance provides trouble-free transfer of power between motor and pump shaft.

70 GPM Series

Cast Iron

PUMP PERFORMANCE



Tested and rated in accordance with Water Systems Council Standards.

Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

Check valve sold separately.

70 GPM Series

Stainless steel, High-Flo 4"

70 GALLONS PER MINUTE		PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)																							
HP	PSI	PUMPING DEPTH IN FEET																							
		20	40	60	80	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	
1-1/2	0	105	88	66	33																				
	20	58																							
	30																								
	40																								
	50																								
	60																								
2	0	-	99	88	75	59	26																		
	20	84	70	53	23																				
	30	68	49																						
	40	46																							
	50																								
	60																								
3	0	-	103	95	86	77	63	43																	
	20	93	84	74	62	47																			
	30	82	72	60	44																				
	40	71	58	41																					
	50	56	37																						
	60	35																							
5	0	-	110	106	102	98	93	87	80	72	64	54	42	27											
	20	105	101	97	92	88	81	74	65	56	45	30													
	30	100	96	92	87	81	74	66	57	46	31														
	40	96	91	86	81	74	67	58	47	32															
	50	90	85	80	74	67	58	48	34																
	60	84	79	73	66	59	48	35																	
7-1/2	0	-	-	109	106	103	100	96	91	87	82	76	71	65	58	50	41	29							
	20	-	106	103	100	96	92	87	82	77	71	65	59	52	42	31									
	30	105	102	99	96	92	88	83	78	72	66	59	52	43	32										
	40	102	98	95	92	88	83	78	73	67	60	53	44	33											
	50	98	95	91	87	84	78	73	67	61	53	44	34												
	60	94	90	87	83	79	73	68	61	54	46	35													
10	0	-	-	-	109	107	104	101	98	95	92	88	85	81	77	73	69	64	59	53	46	39	30		
	20	-	-	106	104	101	98	96	92	89	85	82	78	74	69	64	59	54	48	40					
	30	-	105	103	101	99	96	92	89	86	82	78	74	70	65	60	54	48	41	33					
	40	105	103	101	98	96	93	89	86	82	78	74	70	65	60	55	49	41	34						
	50	103	100	98	96	93	90	86	83	78	75	70	66	61	55	49	42	34							
	60	100	98	95	93	90	86	83	79	75	71	66	61	56	49	43	35								

CAUTION: DO NOT use pump at flow rates indicated by the symbol '-'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

70 GPM Series

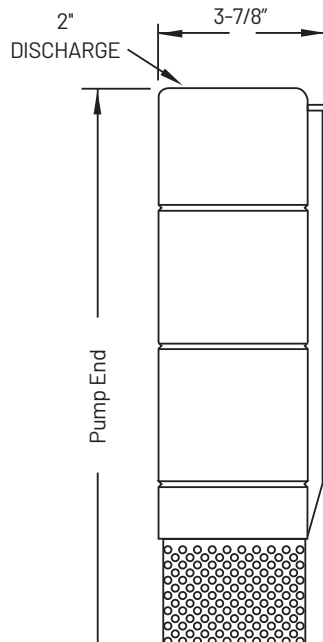
Stainless steel, High-Flo 4"

ORDERING INFORMATION

MOTOR TYPE	HP	STGS.	PH	VOLT	PUMP END			MOTOR		CONTROL BOX	
					CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
2 WIRE	1-1/2	4	1	230	SL70F4-05	21	28	P42B0015A2	29		
	1-1/2	4	1	230	SL70F4-05	21	28	P42B0015A2	29	SMC-CR1521	7
	1-1/2	4	3	230	SL70F4-05	21	28	P42B0015A3	23		
3 WIRE	1-1/2	4	3	460	SL70F4-05	21	28	P42B0015A4	23		
	2	6	1	230	SL70G4-05	27-3/8	32	P43B0020A2	31	SMC-CR2021	7
	2	6	3	230	SL70G4-05	27-3/8	32	P43B0020A3	31		
	2	6	3	460	SL70G4-05	27-3/8	32	P43B0020A4	31		
	3	8	1	230	SL70H4-05	34	42	P43B0030A2	40	SMC-CR3021	7
	3	8	3	230	SL70H4-05	34	42	P43B0030A3	32		
	3	8	3	460	SL70H4-05	34	42	P43B0030A4	32		
	5	14	1	230	SL70J4-05	54	68	P43B0050A2	70	SMC-CR5021	8
	5	14	3	230	SL70J4-05	54	68	P43B0050A3	55		
	5	14	3	460	SL70J4-05	54	68	P43B0050A4	55		
	7-1/2	19	3	230	SL70K4-05	70	116	P43B0075A3	70		
	7-1/2	19	3	460	SL70K4-05	70	116	P43B0075A4	70		
	10	25	3	460	SL70L4-05	90	156	P43B0100A4	78		

*Length and Weight are approximate. NOTE: Pump end and motor purchased separately. Check valve sold separately.

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

For lengths, refer to Ordering Information table.

90 GPM Series

Stainless Steel



The 90 GPM Stainless Steel 4" High-Flo Submersible Pumps deliver efficient and dependable performance even in rough, aggressive water. New stack design delivers better efficiency and head per stage than previous model.

APPLICATIONS

Water Systems...for residential, industrial, commercial, multiple housing, and farm use.

SPECIFICATIONS

Discharge: 300 grade stainless steel with 2" NPT Threads

Top Bearing: Nylatron®

Top Bearing Journal: 300 grade stainless steel

Diffuser Assembly: Noryl® (20% glass filled)

Impellers: Noryl (20% glass filled)

Bowls: Noryl (20% glass filled)

Diffuser Bearing: Nylatron

Diffuser Bearing Journal: 300 grade stainless steel

Shaft: 300 grade stainless steel, 7/16" hex stock

Coupling: 300 grade stainless steel

Shell: 300 grade stainless steel

Motor Adapter: 300 grade stainless steel

Suction Screen: 300 grade stainless steel

Cable Guard: 300 grade stainless steel

Fastener: 300 grade stainless steel

FEATURES

Discharge: Heavy-duty 300 grade stainless steel construction provides smooth water passage to column pipe. Large wrench flats and rope hole.

Top Bearing: Self-lubricated top bearing ensures long bearing life.

Impellers: 20% glass-reinforced Noryl to resist abrasives and provide smooth water passage for minimal friction loss.

Diffuser Bearing: Bearings at each stage provide radial protection and stability, and excellent resistance to sand damage.

Motor Bracket: 300 grade precision cast stainless steel. Incorporates an efficient hydraulic design for maximum volume and access to motor mounting nuts.

Shaft: 300 grade "treated" stainless steel pump shaft is corrosion-resistant. The hex shape offers generous impeller drive surfaces.

Motor Coupling: Pressed-on, sintered 300 grade stainless steel for maximum corrosion resistance provides trouble-free transfer of power between motor and pump shaft.

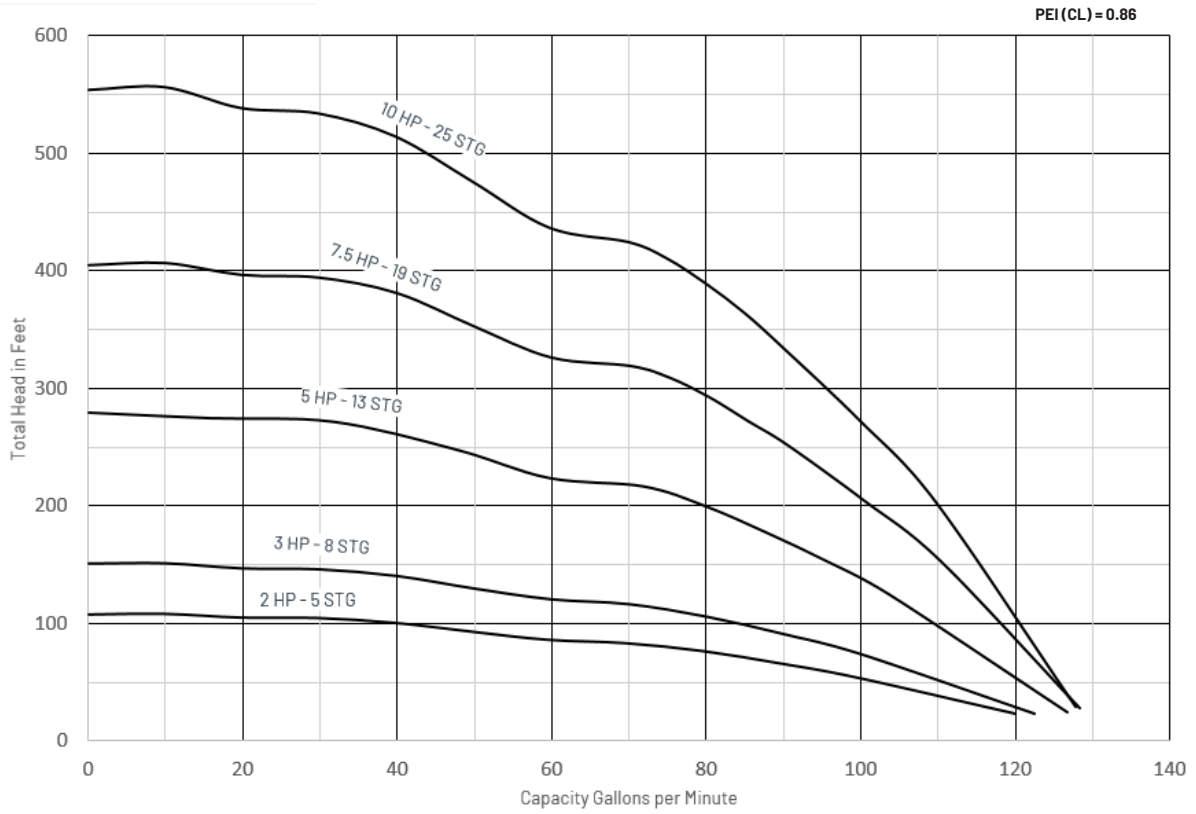
Shell: Heavy-gauge, 300 series stainless steel pump shell is durable and offers high corrosion resistance.

Intake Screen: 300 series stainless steel material offers maximum corrosion resistance and protects against damaging solids entering the pump.

90 GPM Series

Stainless Steel

PUMP PERFORMANCE



Tested and rated in accordance with Water Systems Council Standards.

Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure. Check valve sold separately.

90 GPM Series

Stainless Steel

PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)

HP	PSI	PUMPING DEPTH IN FEET																			SHUT-OFF HEAD				
		20	40	60	80	100	125	150	175	200	225	250	275	300	350	375	400	425	450	475	500	FEET	PSI		
2	0	-	110	94	75	39																107	46		
	20	90	59																						
	30	53																							
	40																								
	50																								
	60																								
3	0	-	115	107	96	84	54															151	65		
	20	104	93	80	53	30																			
	30	91	78	50																					
	40	75	47																						
	50	45																							
	60																								
4	0	-	-	119	115	110	104	97	89	80	59	46										279	120		
	20	-	113	108	103	98	90	81	63	48	32														
	30	112	108	102	97	91	82	69	49	34															
	40	107	102	96	90	83	72	50	36																
	50	100	95	89	82	73	51	37																	
	60	94	87	81	70	52	39																		
7-1/2	0	-	-	-	121	119	115	111	106	101	96	91	84	78	61	51	43					407	176		
	20	-	-	118	115	111	107	102	97	92	85	79	68	52	44										
	30	-	117	114	111	107	103	98	92	86	80	71	53	45	31										
	40	117	114	110	107	103	98	93	87	81	72	53	46	33											
	50	113	110	106	103	98	93	87	81	73	54	46	34												
	60	109	106	101	98	94	88	81	74	55	47	35													
10	0	-	-	-	-	121	118	116	113	110	107	103	100	96	92	87	83	77	69	56	50	558	240		
	20	-	-	-	118	116	113	110	109	104	100	96	92	88	83	78	71	57	51	45	37				
	30	-	-	118	116	114	111	108	104	100	96	92	88	84	79	72	57	51	46	38					
	40	-	118	116	114	111	108	104	101	97	92	89	84	79	73	58	51	46	39						
	50	118	115	113	111	108	105	101	97	93	89	84	80	73	58	52	47	40							
	60	115	113	110	108	105	101	98	93	89	85	80	74	59	53	47	40								

CAUTION: DO NOT use pump at flow rates indicated by the symbol '-'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

90 GPM Series

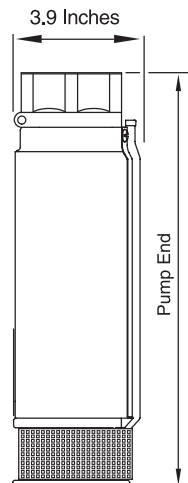
Stainless Steel

ORDERING INFORMATION

MOTOR TYPE	HP	STGS.	PH	VOLT	PUMP END			MOTOR		CONTROL BOX	
					CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
3 WIRE	2	5	1	230	L90BF20-01	22	15	P43B0020A2	31	SMC-CR2021	7
			3	230	L90BF20-01	22	15	P43B0020A3	28		
			3	460	L90BF20-01	22	15	P43B0020A4	28		
	3	8	1	230	L90BF30-01	32-1/8	17	P43B0030A2	40	SMC-CR3021	7
			3	230	L90BF30-01	32-1/8	17	P43B0030A3	32		
			3	460	L90BF30-01	32-1/8	29	P43B0030A4	32		
	5	13	1	230	L90BF50-01	48-7/8	20	P43B0050A2	70	SMC-CR5021	8
			3	230	L90BF50-01	48-7/8	20	P43B0050A3	55		
			3	460	L90BF50-01	48-7/8	20	P43B0050A4	55		
	7-1/2	19	3	230	L90BF75-01	69-1/8	33	P43B0075A3	70		
			3	460	L90BF75-01	69-1/8	33	P43B0075A4	70		
	10	25	3	460	L90BF100-01	89-3/8	46	P43B0100A4	78		

*Length and Weight are approximate. NOTE: Pump end and motor purchased separately. Check valve sold separately.

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

For lengths, refer to Ordering Information table.

4"x6" Submersible Motor Adapter

Stainless Steel



The PKG 4x6, Pump/Motor Adapter offers the professional distributor and dealer the flexibility to stock standard 4" submersible pump ends, and 4" and 6" motors, better utilizing inventory dollars and delivery demands!

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing and farm use.

ORDERING INFORMATION

CATALOG NUMBER	PUMP END*	MOTOR*	MAXIMUM HP	WEIGHT POUNDS**
PKG 4x6	4" NEMA	6" NEMA	10	5

*Pump end and motor ordered separately.

**Shipping weight is approximate.

FEATURES

Extends Single and Three-Phase Power Availability: To all Signature 2000[®] submersibles through 10 HP using 6" single-phase motors.

Easy Assembly: Easy job-site assembly.

Double-Suction Screens: Reduces inlet suction velocity, reducing the amount of suspended solids ingested by pump.



6TSP Series

50, 75, and 100 GPM



The 6TSP series pumps feature abrasion and corrosion resistant materials for maximum performance and longevity under the toughest operating conditions.

Components are 100% lead-free, and meet all U.S. federal guidelines for safe drinking water.

APPLICATIONS

Water systems... for residential, industrial, commercial, multiple housing and farm use.

SPECIFICATIONS

Discharge – 304 grade stainless steel

Diffuser Assembly – Noryl diffusers with a stainless steel/urethane wear rings

Wear Rings – 304 stainless steel / Polyurethane

Impellers – Noryl

Upper Guide Bearing – Ceramic

Shaft – 416 stainless steel

Motor Coupling – 316 stainless steel

Shell – 300 grade stainless steel

Motor Adapter – 300 grade stainless steel

Suction Screen – 304 stainless steel

Cable Guard – 304 stainless steel

FEATURES

Discharge – 304 stainless steel, investment cast, 3" FNPT. Features 6 extra wide wrench flats for a secure grip when tightening to the drop pipe.

Standard Check Valve – 304 stainless steel. The poppet-style check valve helps protect the pump against backflow. The check valve can be easily removed if not required.

Shaft and Bearing Assembly – 416 stainless steel. A ceramic upper bearing guide combined with a cutless rubber bearing protects the shaft from premature wear.

Impellers and Diffusers – glass-filled Noryl. Smooth and efficient performance, and superior sand handling.

Wear Rings – 304 stainless steel and polyurethane. Minimizes re-circulation for increased pump performance and longevity.

Pump Sleeve – 304 stainless steel. Provides superior corrosion resistance when the pump is installed in harsh environments.

Lead guard – 304 stainless steel. Easy installation, and protects the motor leads across the full length of the pump.

Suction Bracket – 304 stainless steel, investment cast. Machined for both 4" and 6" motor registers. Bolt kits included for either motor size where appropriate.

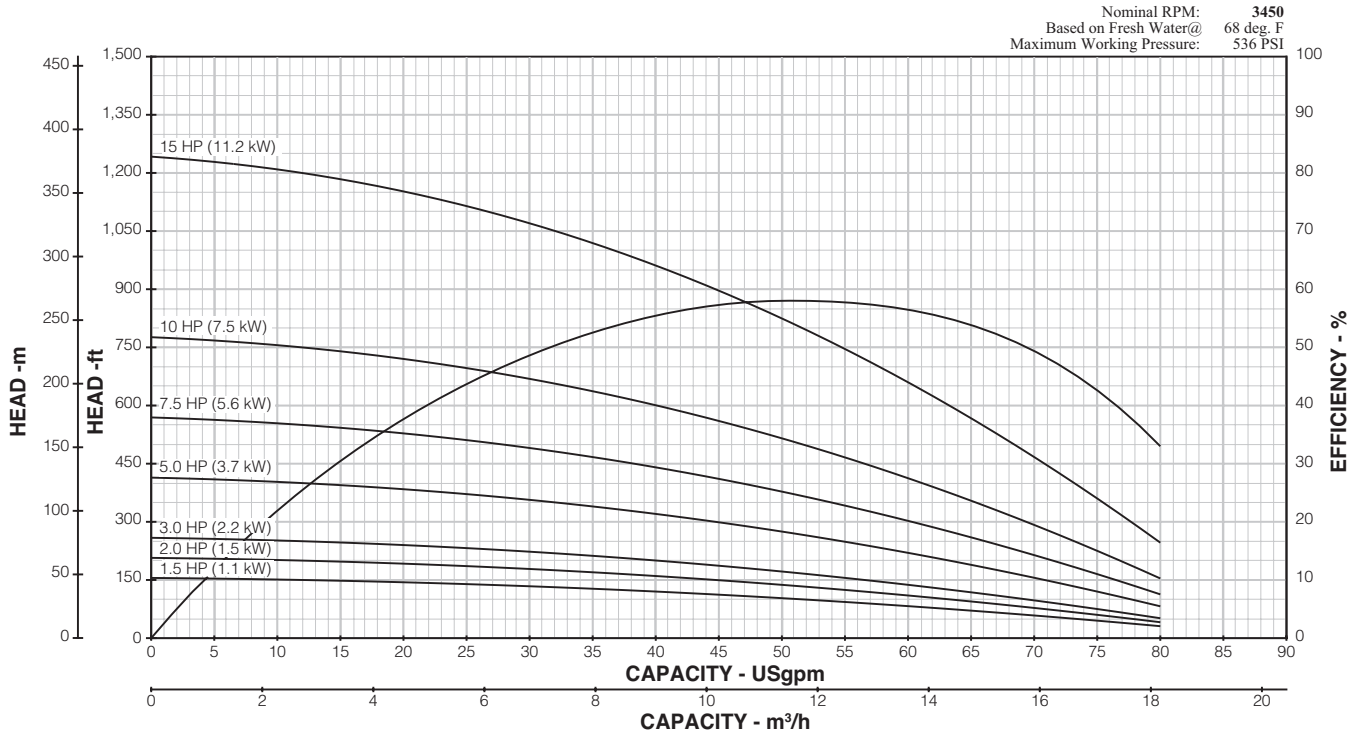
Motor Coupling – 316 stainless steel. Designed to effectively divert debris away from the spline engagement area to maximize durability.

Suction Screen – 304 stainless steel. Form fitted, provides corrosion resistance, and prevents particulates larger than 0.10" from entering the pump.

6TSP Series

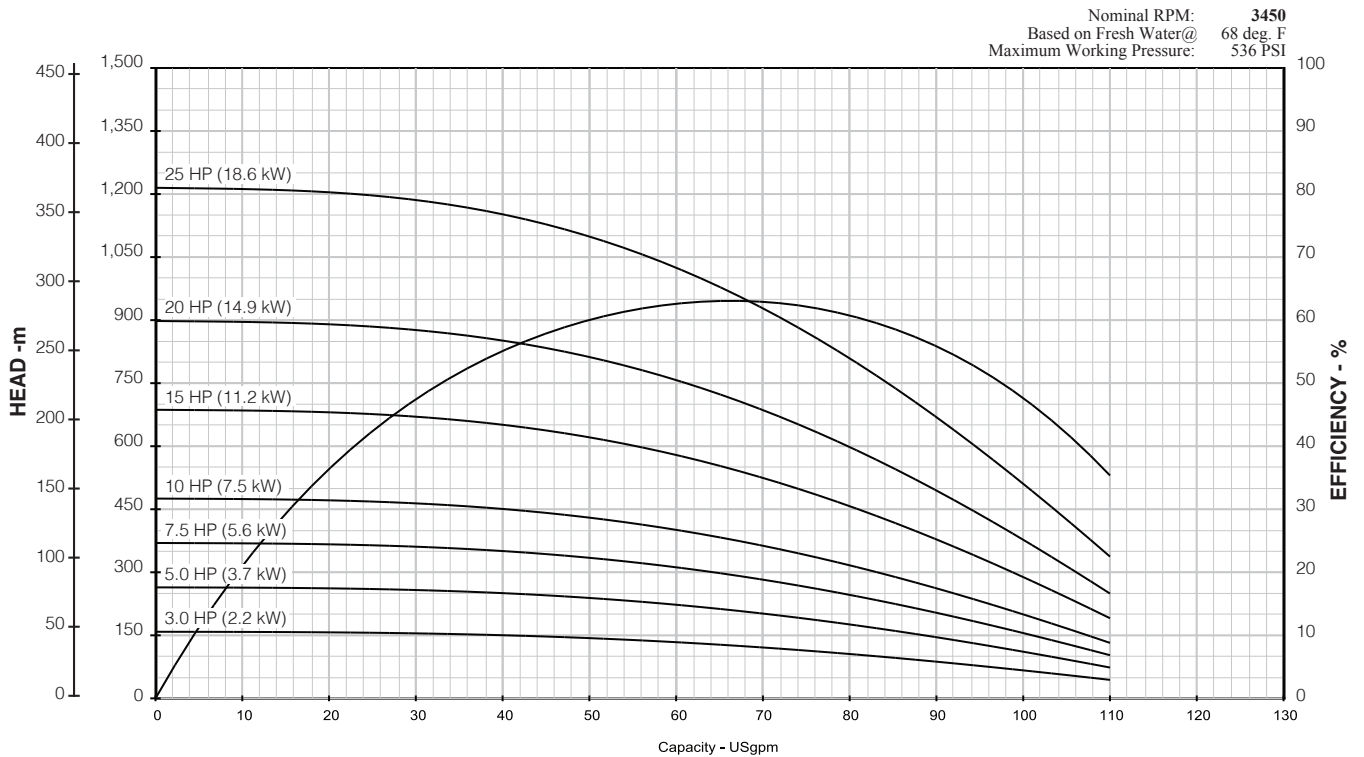
50, 75, and 100 GPM

PUMP PERFORMANCE - 6TSP-50



For latest performance information, please reference BEC2.

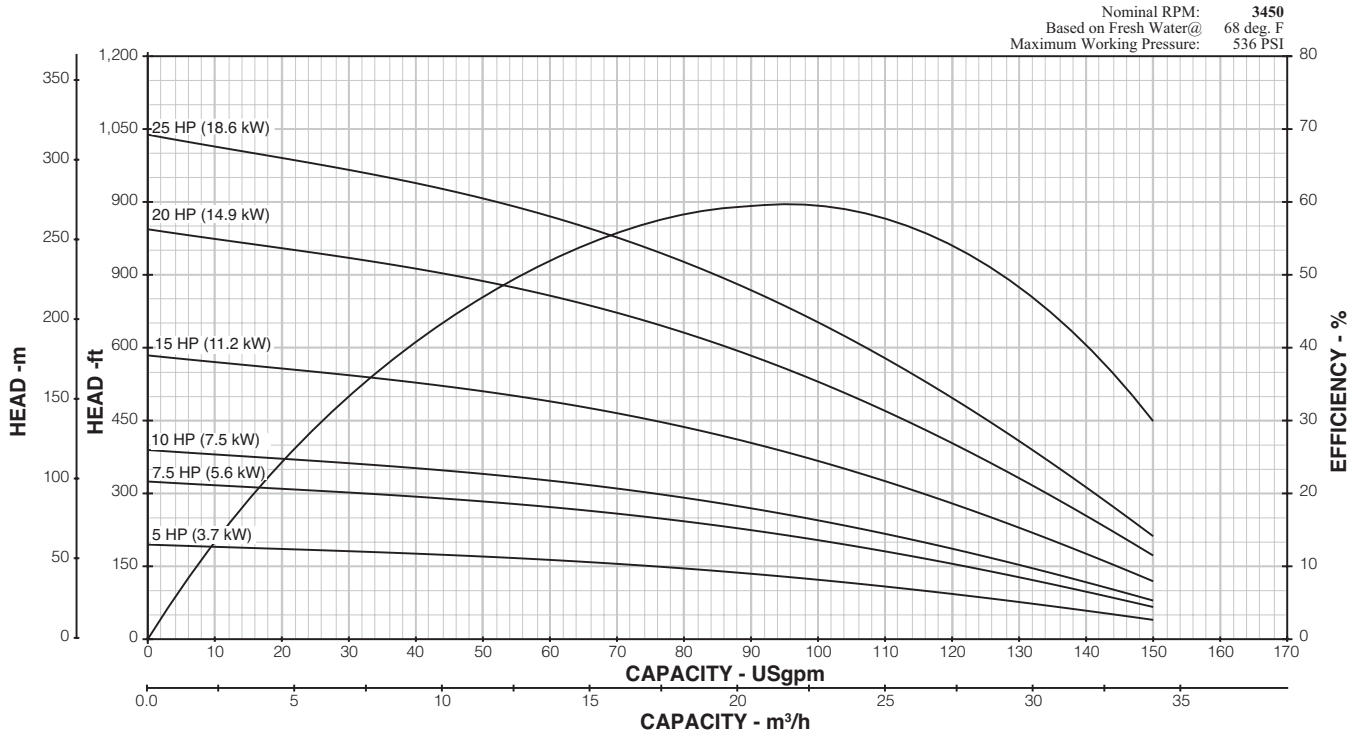
PUMP PERFORMANCE - 6TSP-75



6TSP Series

50, 75, and 100 GPM

PUMP PERFORMANCE - 6TSP-100



For latest performance information, please reference BEC2.

6TS Series

115, 155, 230 and 300 GPM



The 6TS Series Submersible features heavy-duty 304 stainless steel construction that will outperform ordinary fabricated stainless steel pumps in aggressive water conditions.

APPLICATIONS

Water systems... for municipal, multiple housing, commercial, in water fountains, irrigation, mine de-watering, and farm use.

SPECIFICATIONS

Suction Motor Bracket – Stainless steel 304 (investment cast)

Top Bearing – Stainless steel 304 (chrome plated)

Coupling – Stainless steel 416

Shaft – Stainless steel 416

Spacer – Stainless steel 304

Impeller – Stainless steel 304

Diffuser Bowl – Stainless steel 304

Discharge Bracket – Stainless steel 304 (investment cast)

Check Valve – Stainless steel 304

FEATURES

Heavy-Duty, Investment Cast 304 Stainless Steel Discharge and Suction Bracket – Assures perfect pump-to-motor alignment with any NEMA-standard submersible motor. Discharge assures secure connection to drop pipe. Wrench flats provide positive grip during installation.

Low-Profile Stainless Steel Lead Guard – Aids installation in narrow wells

Hard Chrome-plated Top Bearing Journal – Reduces wear in harsh conditions, such as sand

State-of-the-Art Design – Delivers maximum performance and reliability in the toughest conditions

100% Lead-free Components – Meets all U.S. federal guidelines for safe drinking water

Built-In Thrust Protection – Protects pump during periods of high demand and start-up. Prevents pump failure.

Built-In Check Valve (Optional) – Prevents backflow and reverse rotation

Buna® Wear Rings – Improve pump efficiency and durability

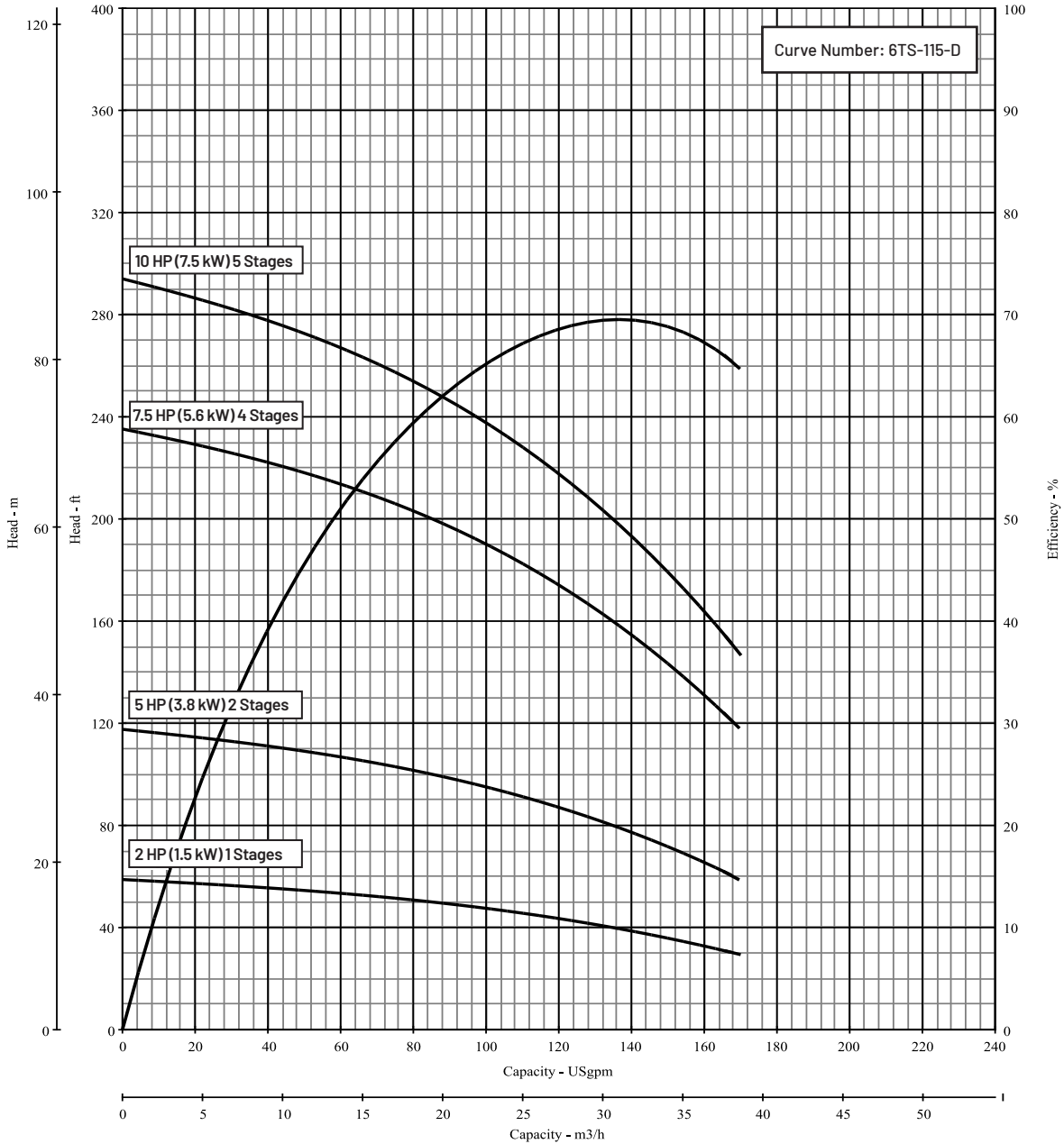
6TS Series

115, 155, 230 and 300 GPM

Series Name: 6TS-115

Pump Size: 6TS-115

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.95	Submersible Turbine	6TS-115	Nominal RPM	3475
Model	6TS-115			Maximum Working Pressure	650 PSI (44.8 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

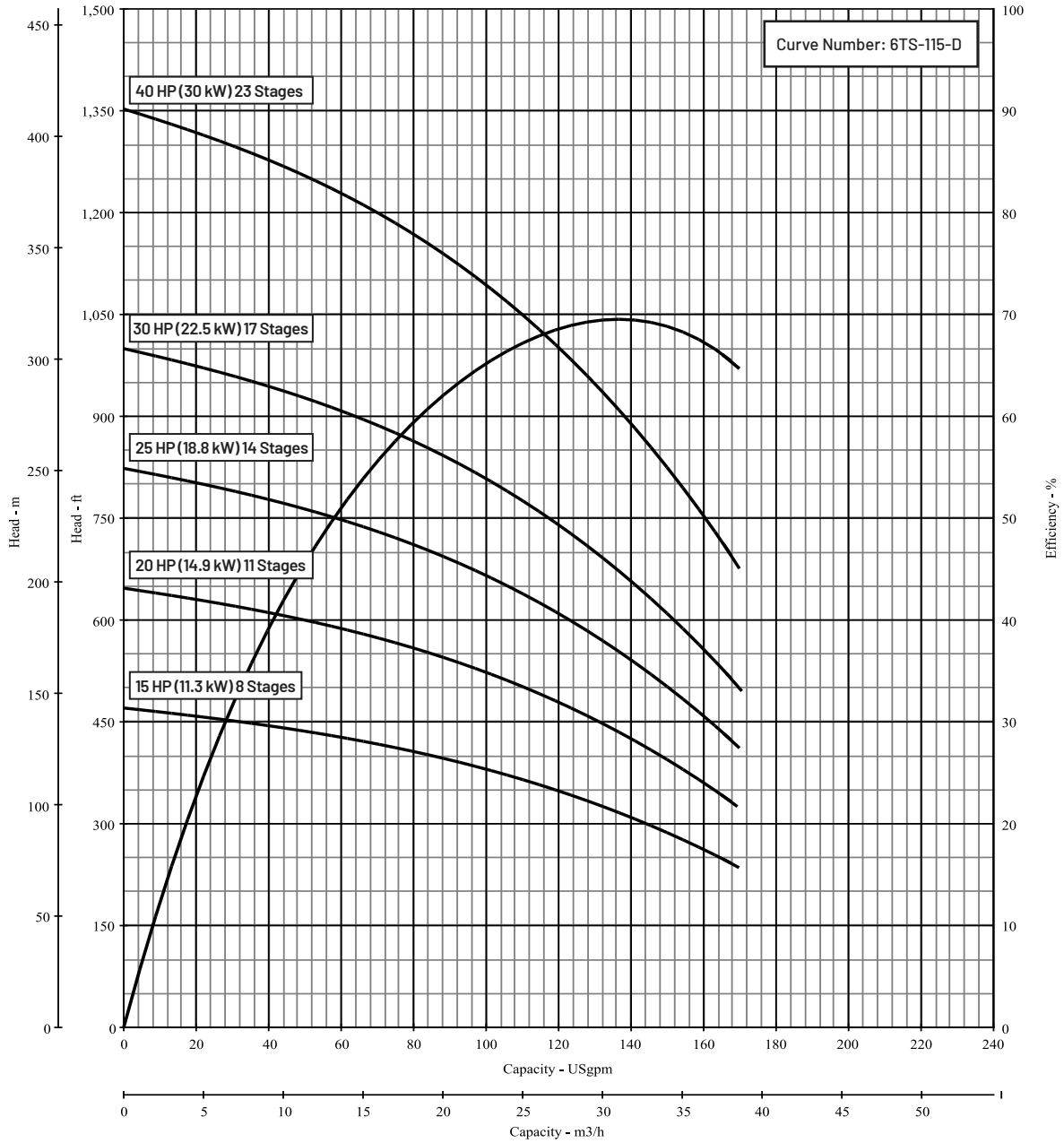
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-115**

Pump Size: **6TS-115**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.95	Submersible Turbine	6TS-115	Nominal RPM	3475
Model	6TS-115			Maximum Working Pressure	650 PSI (44.8 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

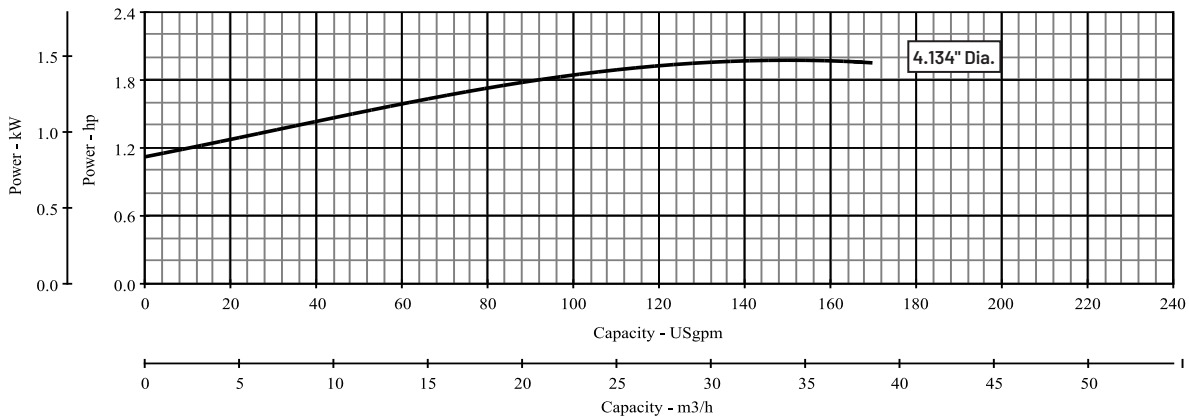
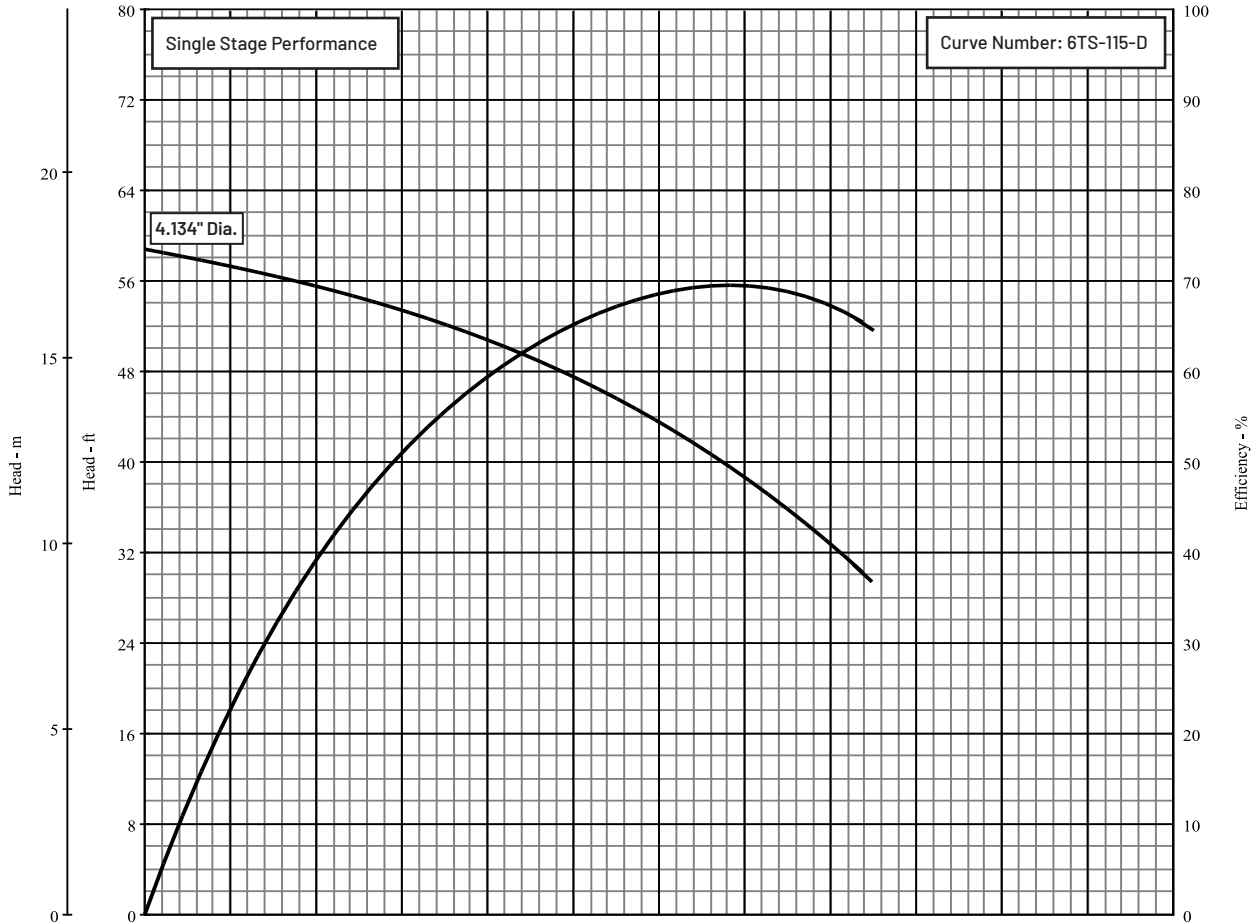
6TS Series

115, 155, 230 and 300 GPM

Series Name: 6TS-115

Pump Size: 6TS-115

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.95	Submersible Turbine	6TS-115	Nominal RPM	3475
Model	6TS-115			Maximum Working Pressure	650 PSI (44.8 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

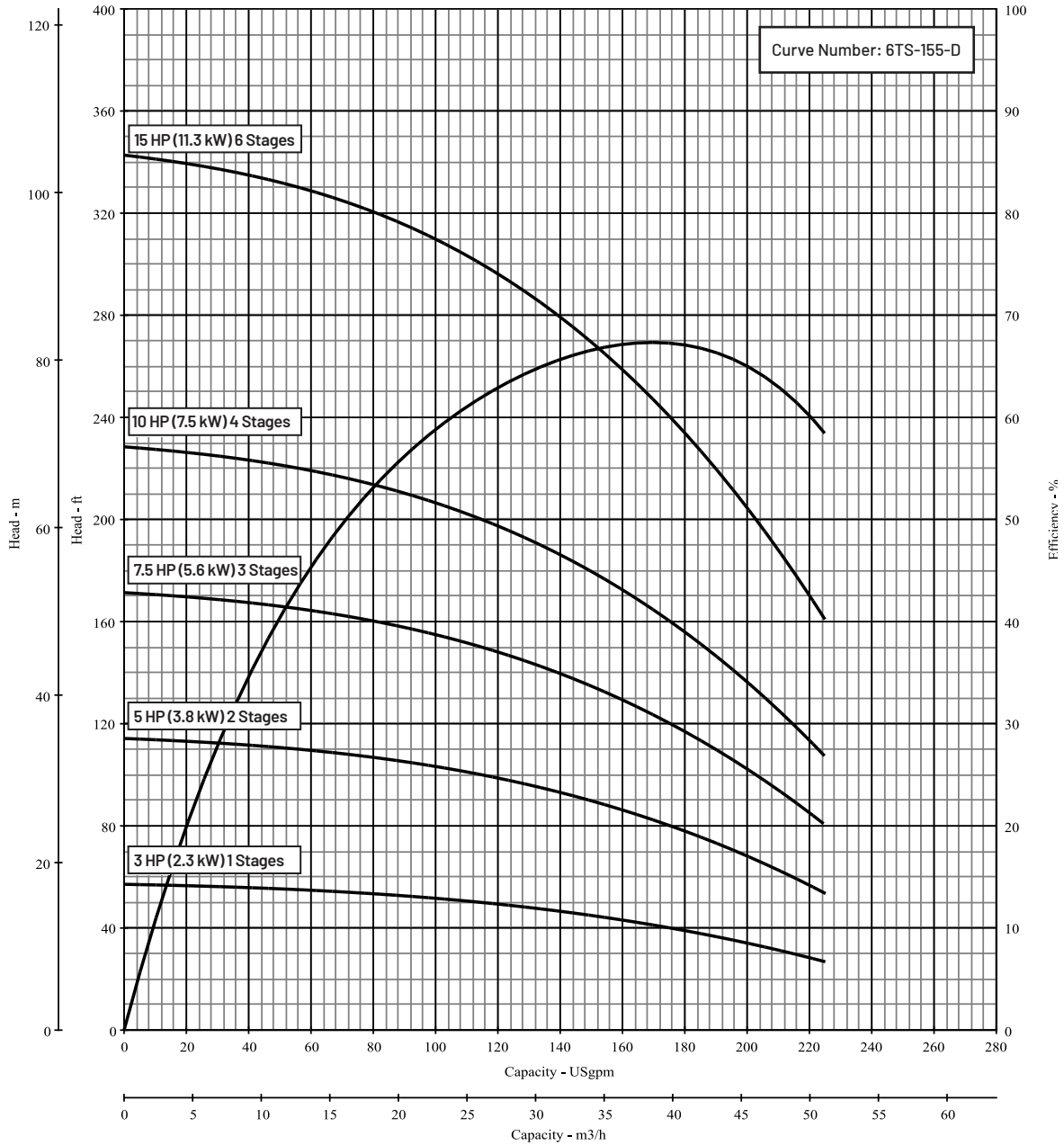
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-155**

Pump Size: **6TS-155**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.96	Submersible Turbine	6TS-155	Nominal RPM	3475
Model	6TS-155			Maximum Working Pressure	650 PSI (44.8 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

6TS Series

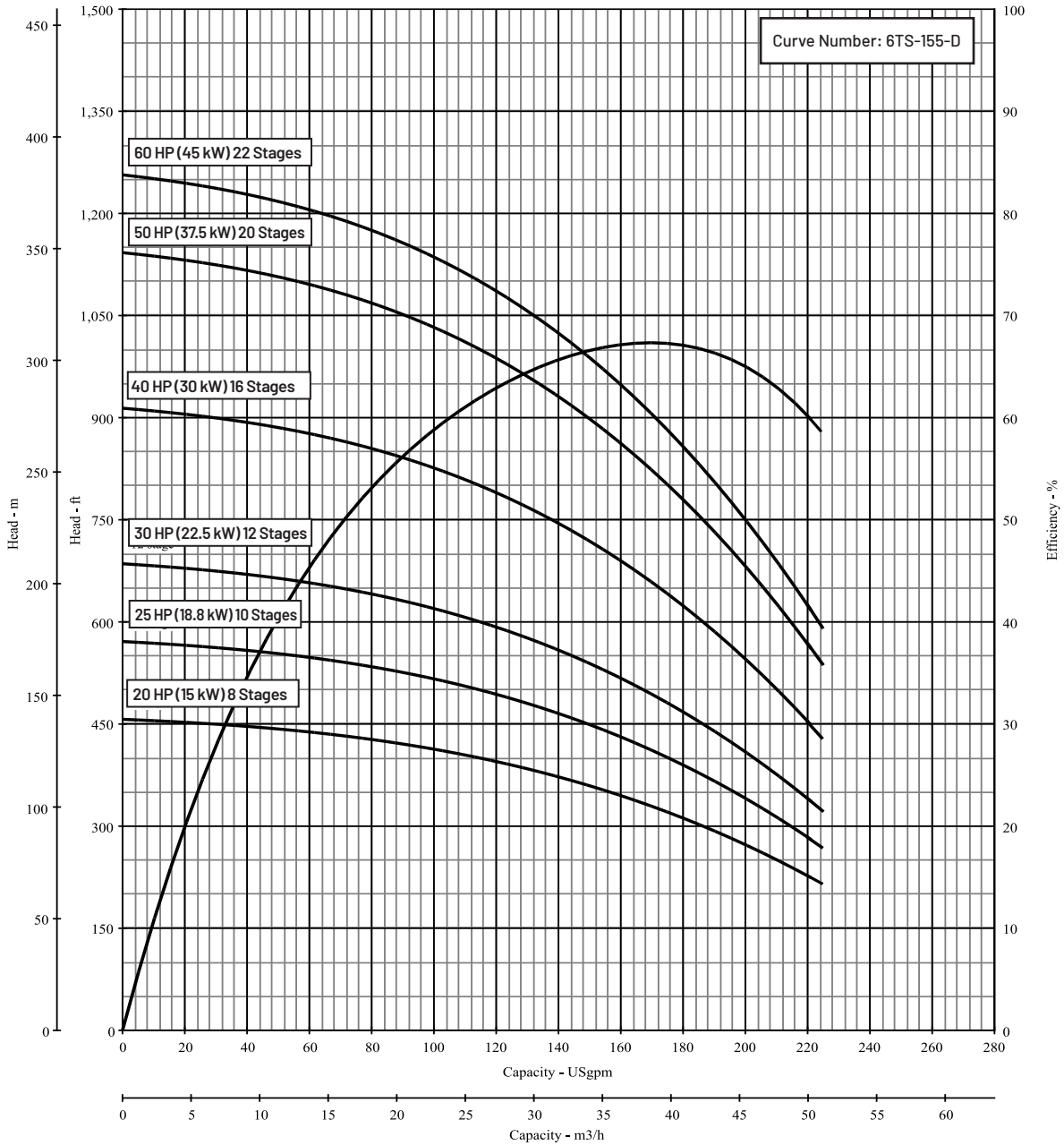
115, 155, 230 and 300 GPM

Series Name: 6TS-155

Pump Size:

6TS-155

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.96	Submersible Turbine	6TS-155	Nominal RPM	3475
Model	6TS-155			Maximum Working Pressure	650 PSI (44.8 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

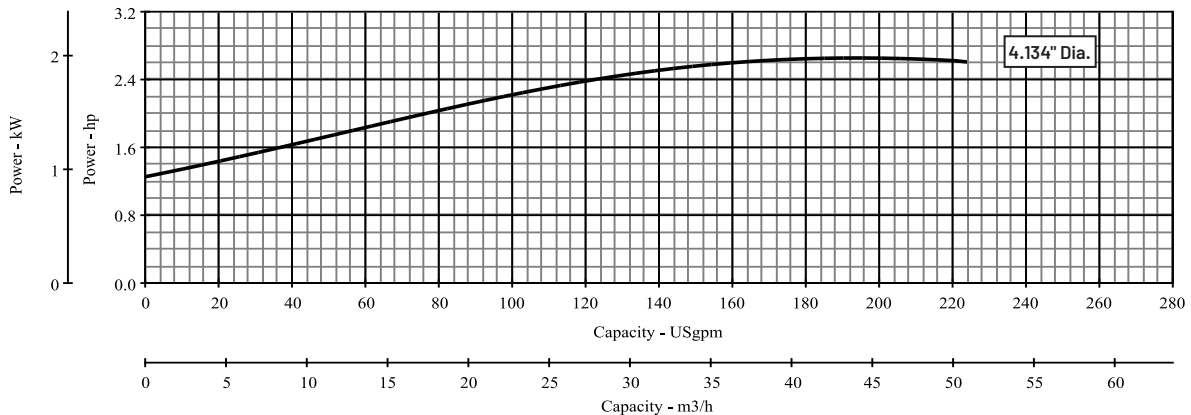
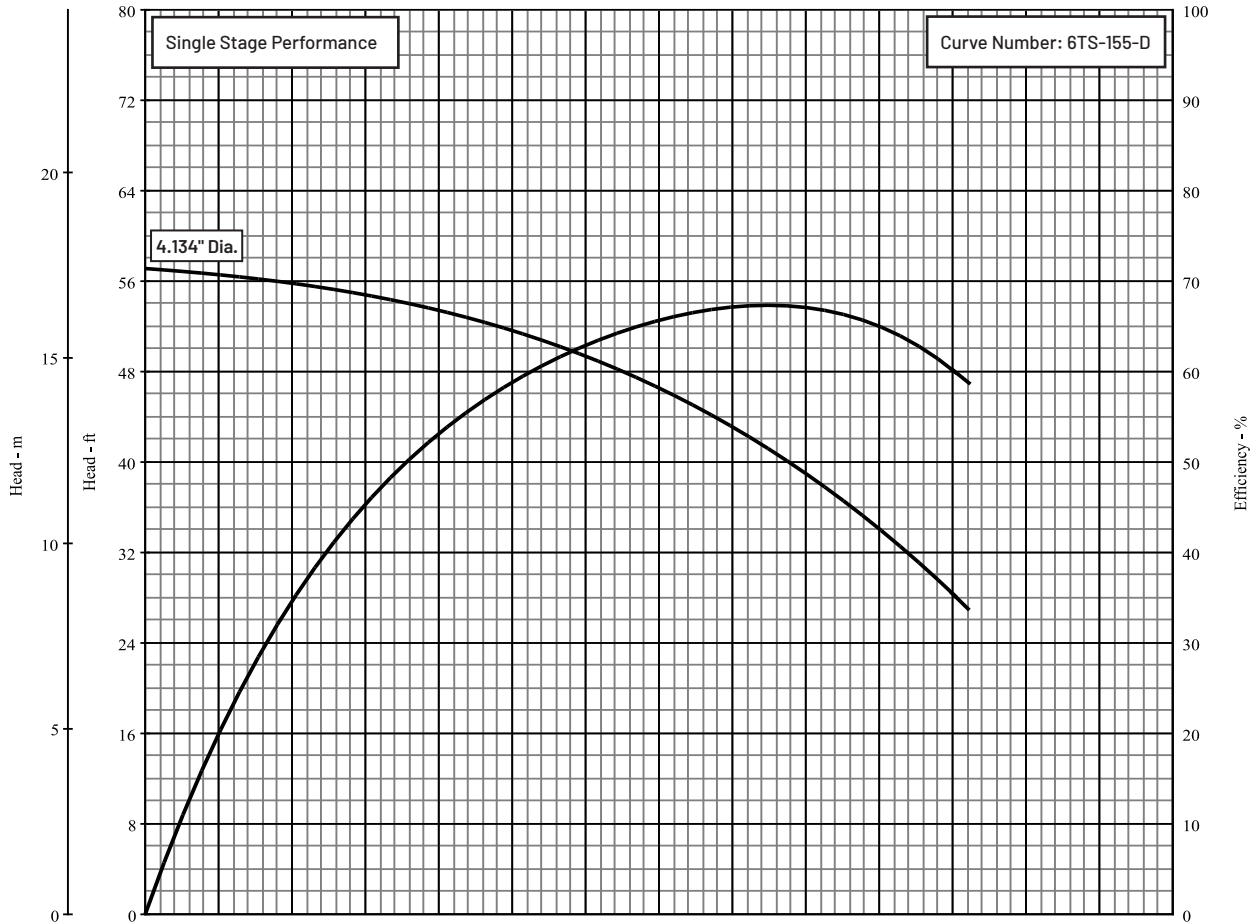
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-155**

Pump Size: **6TS-155**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.96	Submersible Turbine	6TS-155	Nominal RPM	3475
Model	6TS-155			Maximum Working Pressure	650 PSI (44.8 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

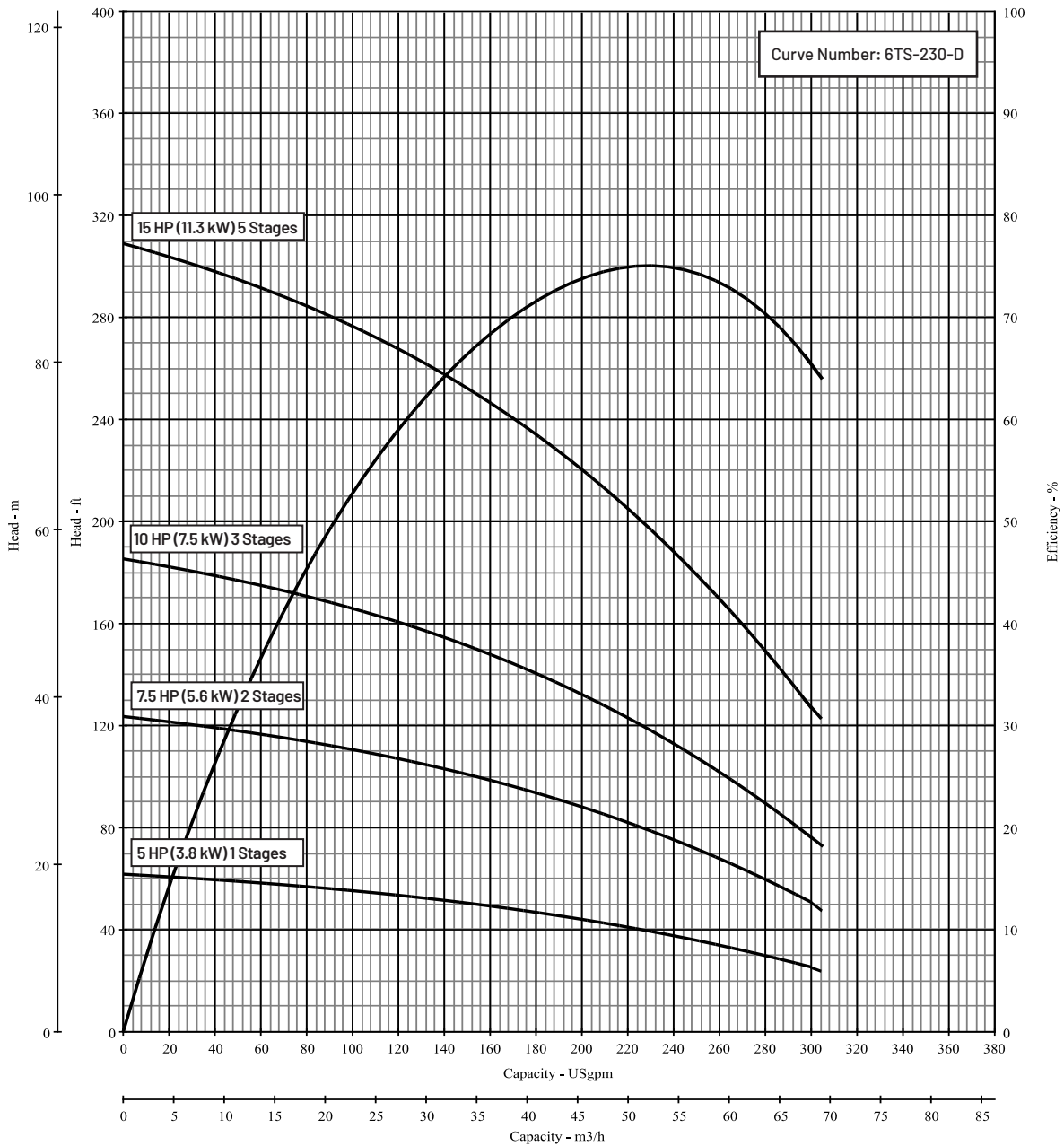
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-230**

Pump Size: **6TS-230**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.91	Submersible Turbine	6TS-230	Nominal RPM	3475
Model	6TS-230			Maximum Working Pressure	625 PSI (43 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

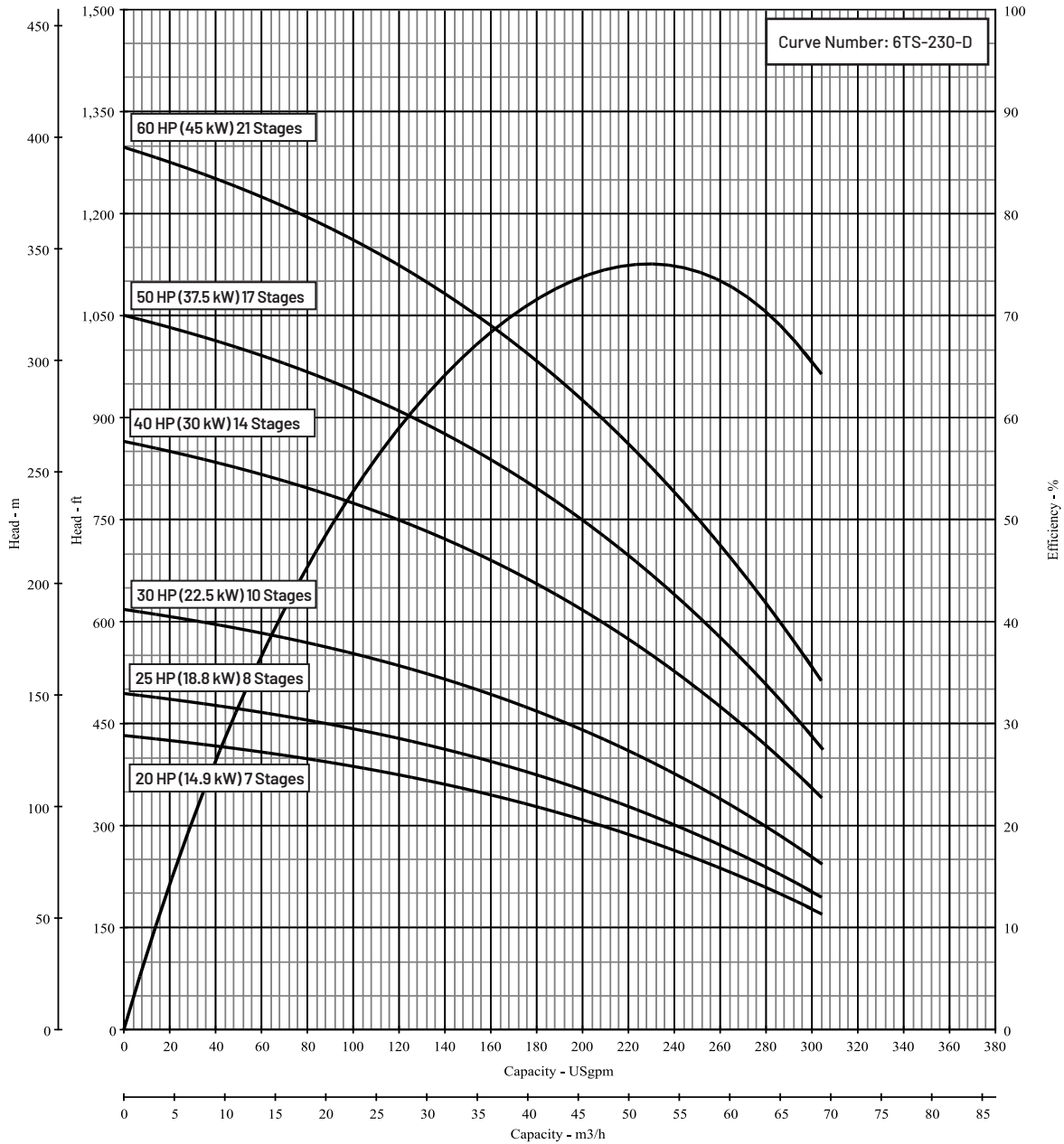
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-230**

Pump Size: **6TS-230**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.91	Submersible Turbine	6TS-230	Nominal RPM	3475
Model	6TS-230			Maximum Working Pressure	625 PSI (43 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

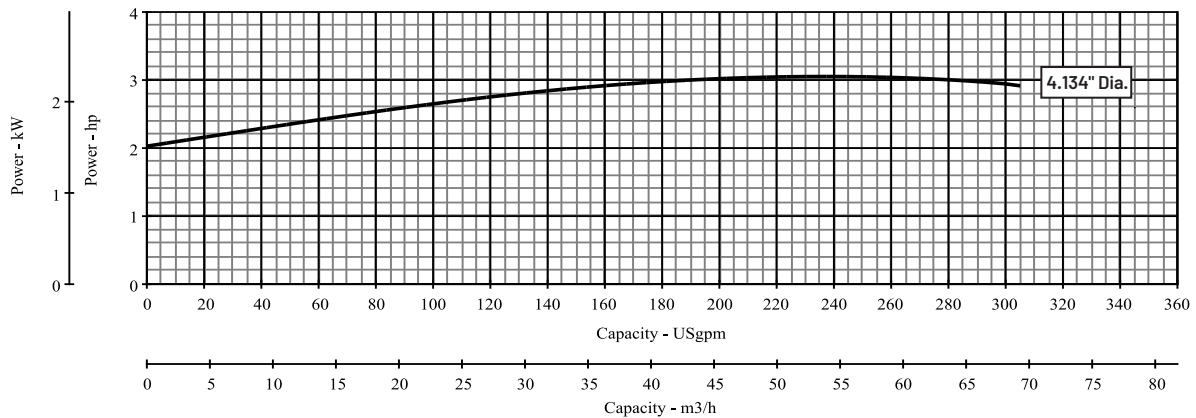
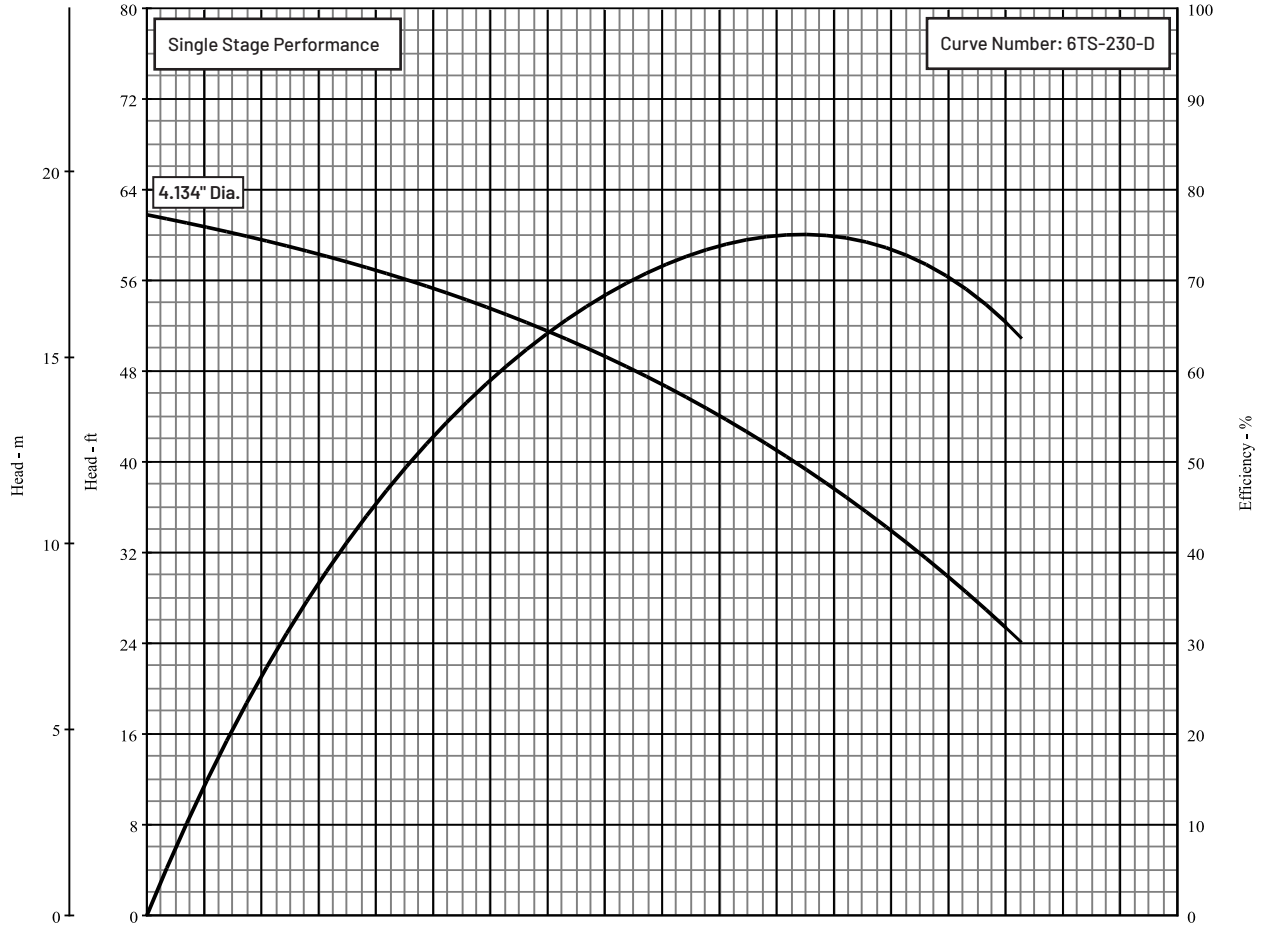
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-230**

Pump Size: **6TS-230**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.91	Submersible Turbine	6TS-230	Nominal RPM	3475
Model	6TS-230			Maximum Working Pressure	625 PSI (43 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

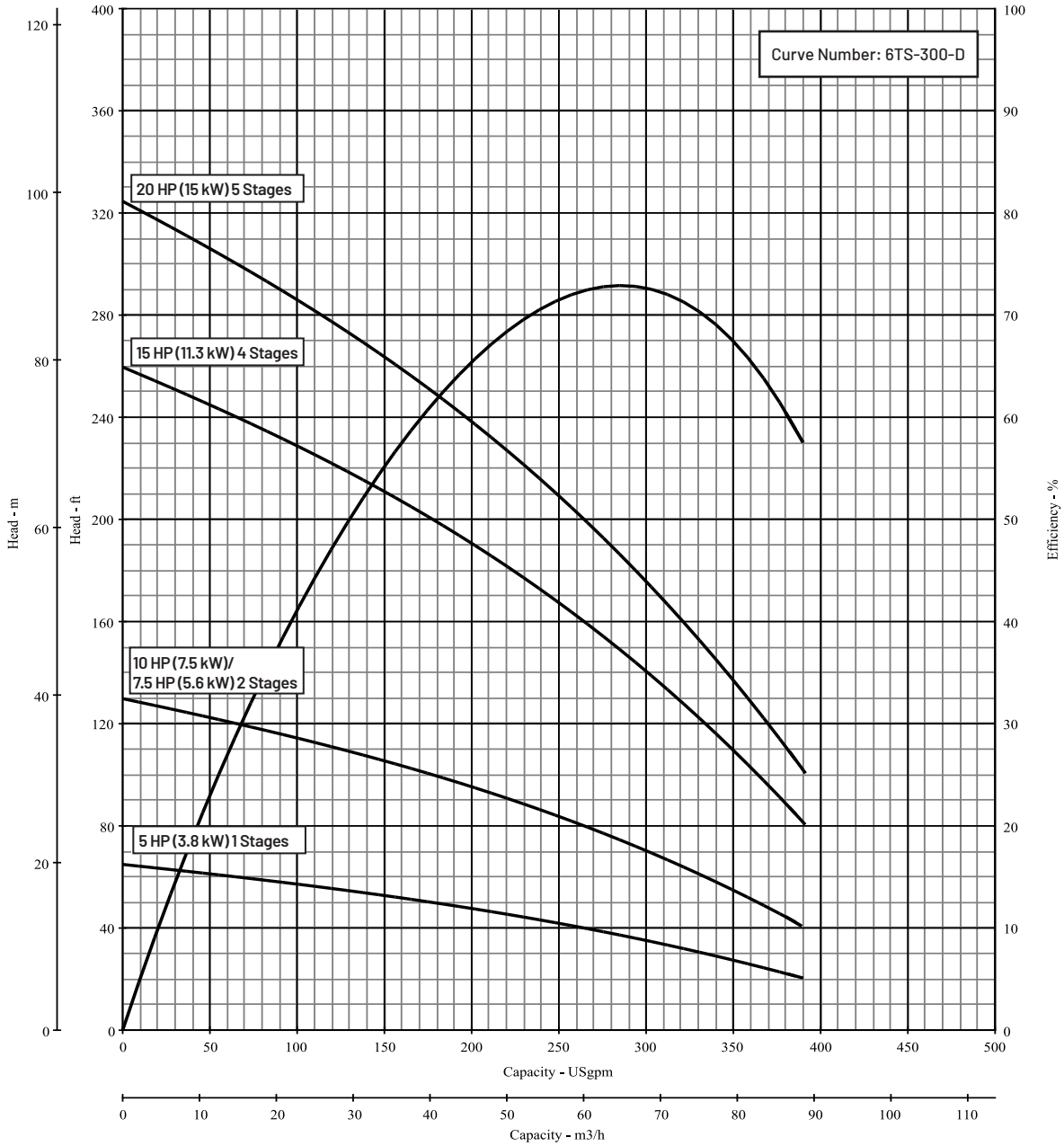
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-300**

Pump Size: **6TS-300**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.94	Submersible Turbine	6TS-300	Nominal RPM	3475
Model	6TS-300			Maximum Working Pressure	625 PSI (43 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

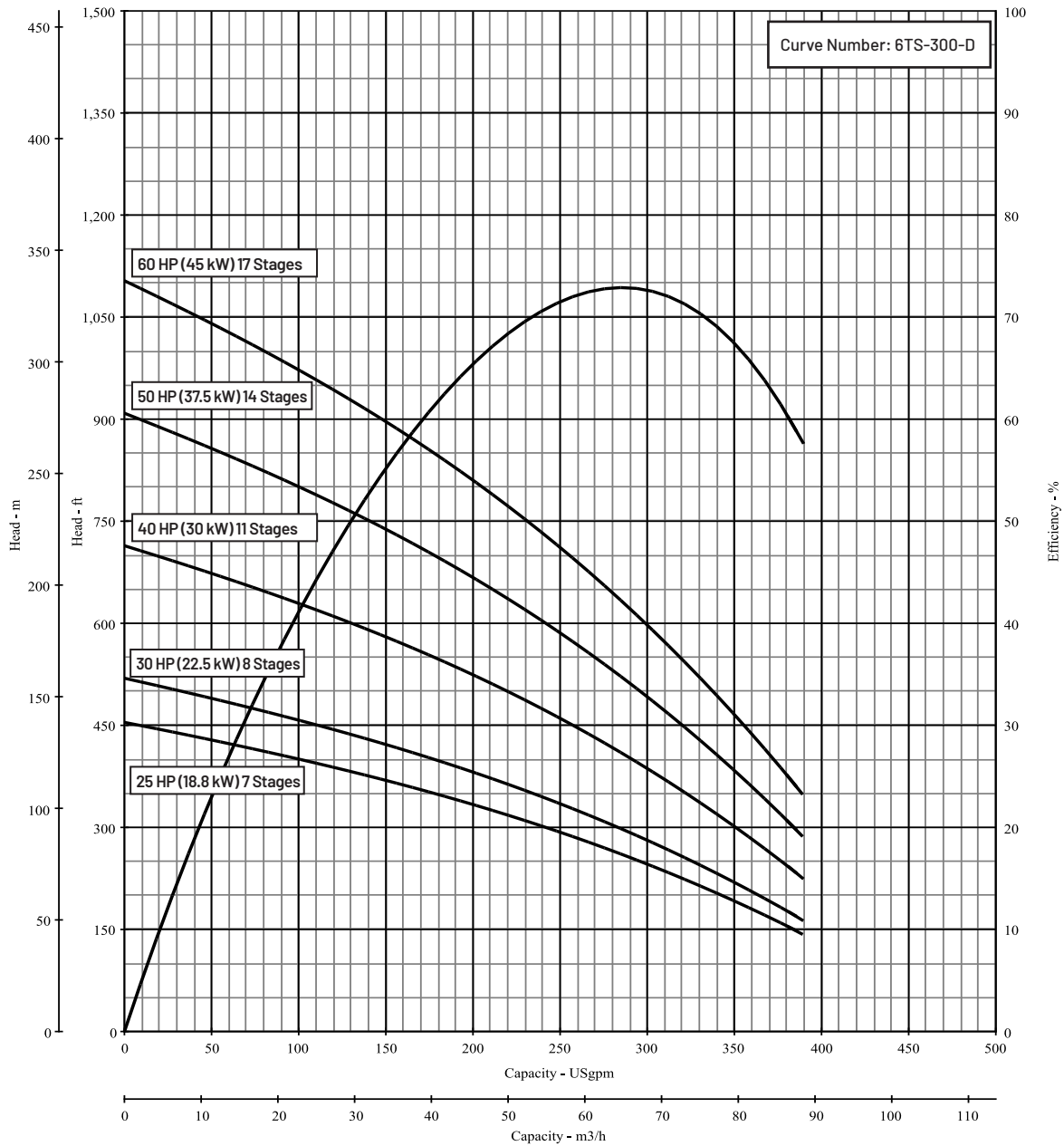
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-300**

Pump Size: **6TS-300**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{CL}	0.94	Submersible Turbine	6TS-300	Nominal RPM	3475
Model	6TS-300			Maximum Working Pressure	625 PSI (43 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

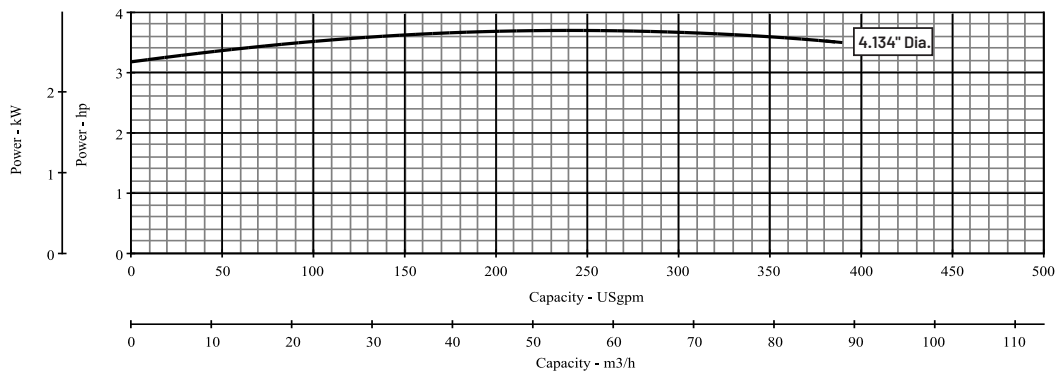
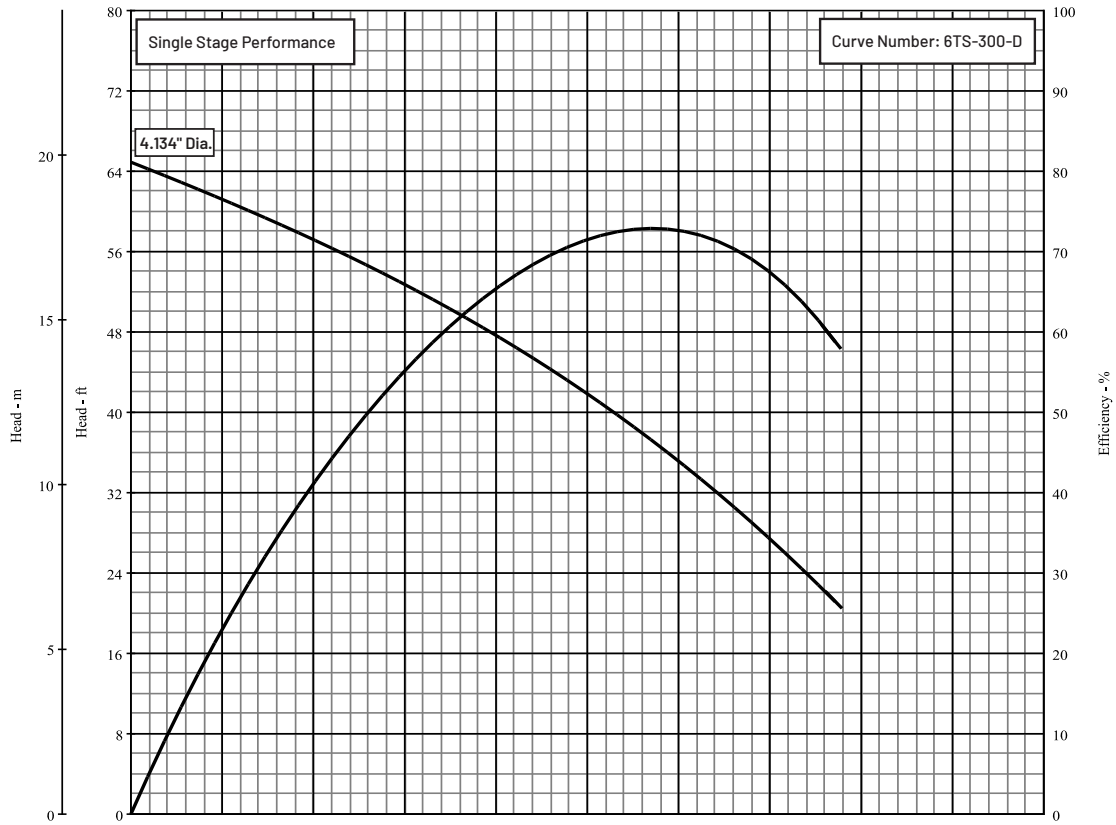
6TS Series

115, 155, 230 and 300 GPM

Series Name: **6TS-300**

Pump Size: **6TS-300**

Department of Energy Requirements		Available Configurations		Curve Conditions	
PEI _{cl}	0.94	Submersible Turbine	6TS-300	Nominal RPM	3475
Model	6TS-300			Maximum Working Pressure	625 PSI (43 BAR)
Imp. Dia. (in.)	4.134			Based on Fresh Water @ F	68



This product as sold in U. S. is regulated by 10 CFR Parts 429 and 431.

6TS Series

115, 155, 230 and 300 GPM

ORDERING INFORMATION

	Pump Model	HP	Stage(s)	Discharge (Female)	Motor Diameter	With Check Valve	Without Check Valve	Weight (lbs.)
115 GPM	6TS2-115	2	1	3"	4"	B85963	B85975	24
	6TS5-115	5	2		4"	B85964	B85976	29
	6TS5-115	5	2		6"	B85965	B85977	29
	6TS7.5-115	7-1/2	4		4"	B85966	B85978	40
	6TS7.5-115	7-1/2	4		6"	B85967	B85979	40
	6TS10-115	10	5		4"	B85968	B85980	47
	6TS10-115	10	5		6"	B85969	B85981	47
	6TS15-115	15	8			B85970	B85982	62
	6TS20-115	20	11			B85971	B85983	79
	6TS25-115	25	14			B85972	B85984	90
	6TS30-115	30	17			B85973	B85985	105
	6TS40-115	40	23			B85974	B85986	129

6TS Series

115, 155, 230 and 300 GPM

ORDERING INFORMATION

	Pump Model	HP	Stage(s)	Discharge (Female)	Motor Diameter	With Check Valve	Without Check Valve	Weight (lbs.)
155 GPM	6TS3-155	3	1	3"	4"	B85987	B86001	24
	6TS5-155	5	2		4"	B85988	B86002	29
	6TS5-155	5	2		6"	B85989	B86003	29
	6TS7.5-155	7-1/2	3		4"	B85990	B86004	35
	6TS7.5-155	7-1/2	3		6"	B85991	B86005	35
	6TS10-155	10	4		4"	B85992	B86006	40
	6TS10-155	10	4		6"	B85993	B86007	40
	6TS15-155	15	6			B85994	B86008	51
	6TS20-155	20	8			B85995	B86009	62
	6TS25-155	25	10			B85996	B86010	73
	6TS30-155	30	12			B85997	B86011	84
	6TS40-155	40	16			B85998	B86012	106
	6TS50-155	50	20			B85999	B86013	128
6TS60-155	60	22	B86000	B86014		139		
230 GPM	6TS3-230	3	1	4"	4"	B86015	B86029	40
	6TS5-230	5	1		4"	B86016	B86030	44
	6TS5-230	5	1		6"	B86017	B86031	44
	6TS7.5-230	7-1/2	2		4"	B86018	B86032	49
	6TS7.5-230	7-1/2	2		6"	B86019	B86033	49
	6TS10-230	10	3		4"	B86020	B86034	53
	6TS10-230	10	3		6"	B86021	B86035	53
	6TS15-230	15	5			B86022	B86036	62
	6TS20-230	20	7			B86023	B86037	67
	6TS25-230	25	8			B86024	B86038	76
	6TS30-230	30	10			B86025	B86039	89
	6TS40-230	40	14			B86026	B86040	103
	6TS50-230	50	17			B86027	B86041	116
6TS60-230	60	21	B86028	B86042		129		
300 GPM	6TS5-300	5	1	4"	4"	B86043	B86056	40
	6TS5-300	5	1		6"	B86044	B86057	40
	6TS7.5-300	7-1/2	2		4"	B86045	B86058	44
	6TS7.5-300	7-1/2	2		6"	B86046	B86059	44
	6TS10-300	10	2		4"	B86047	B86060	44
	6TS10-300	10	2		6"	B86048	B86061	44
	6TS15-300	15	4			B86049	B86062	55
	6TS20-300	20	5			B86050	B86063	60
	6TS25-300	25	7			B86051	B86064	70
	6TS30-300	30	8			B86052	B86065	75
	6TS40-300	40	11			B86053	B86066	90
	6TS50-300	50	14			B86054	B86067	105
	6TS60-300	60	17			B86055	B86068	120

Pentek® XE Series™ Motors

Stainless Steel



Built with the latest design, manufacturing and testing technology, they feature laser-welded 304L stainless steel construction, higher thrust capacities and higher efficiencies. The Pentek XE Series submersible motors incorporate "encapsulated, epoxy stator design," and professional-grade Class F insulation provides longer life in harsh environments. Each motor is 100% factory pressure and run tested to support our quality standards.

APPLICATIONS

Water systems...for residential, industrial, commercial, multiple housing and farm clean water use.

SPECIFICATIONS

End Bell: 304 stainless steel over cast iron

Shell: 304 stainless steel

Motor Shaft: 17-4 precipitation hardened stainless steel

Winding: Copper

Insulation: Class F, 311°F (155°C)

Max. Water Temp: 86°F (30°C)

Fasteners: 304 stainless steel

Sand Boot: Nitrile

Cable: Field-serviceable, Controlled Compression Design, UL and CSA Approved

Cable Length: 48"

Diaphragm: EPDM

Thrust Bearings: Kingsbury-type, pivot shoe, carbon graphite mating ring

Thrust Load Capacity: 700 lbs.

FEATURES

700# Rated Kingsbury Thrust Bearing Design: Large high-performance bearings are standard on all HPs allowing for higher thrust loads, providing many years of trouble-free service under severe-duty operation.

2-Wire Permanent Split Capacitor: Design insures quiet operation and improved operating efficiency.

3-Wire Motors: Operate with Pentek SMC and Pentek VIP motor controls.

All Stainless Steel Exterior Professional-Grade Class F-Compliant Motor Insulation: Allows for longer service life.

UL, CSA Approved and NSF/ANSI 61 Certified

100% Factory Pressure and Run Tested

Equipped with Surge Arrestor

Automatic Thermal Protection on 1/2 - 1 HP Models

Pentek® XE Series™ Motors

Stainless Steel

ORDERING INFORMATION

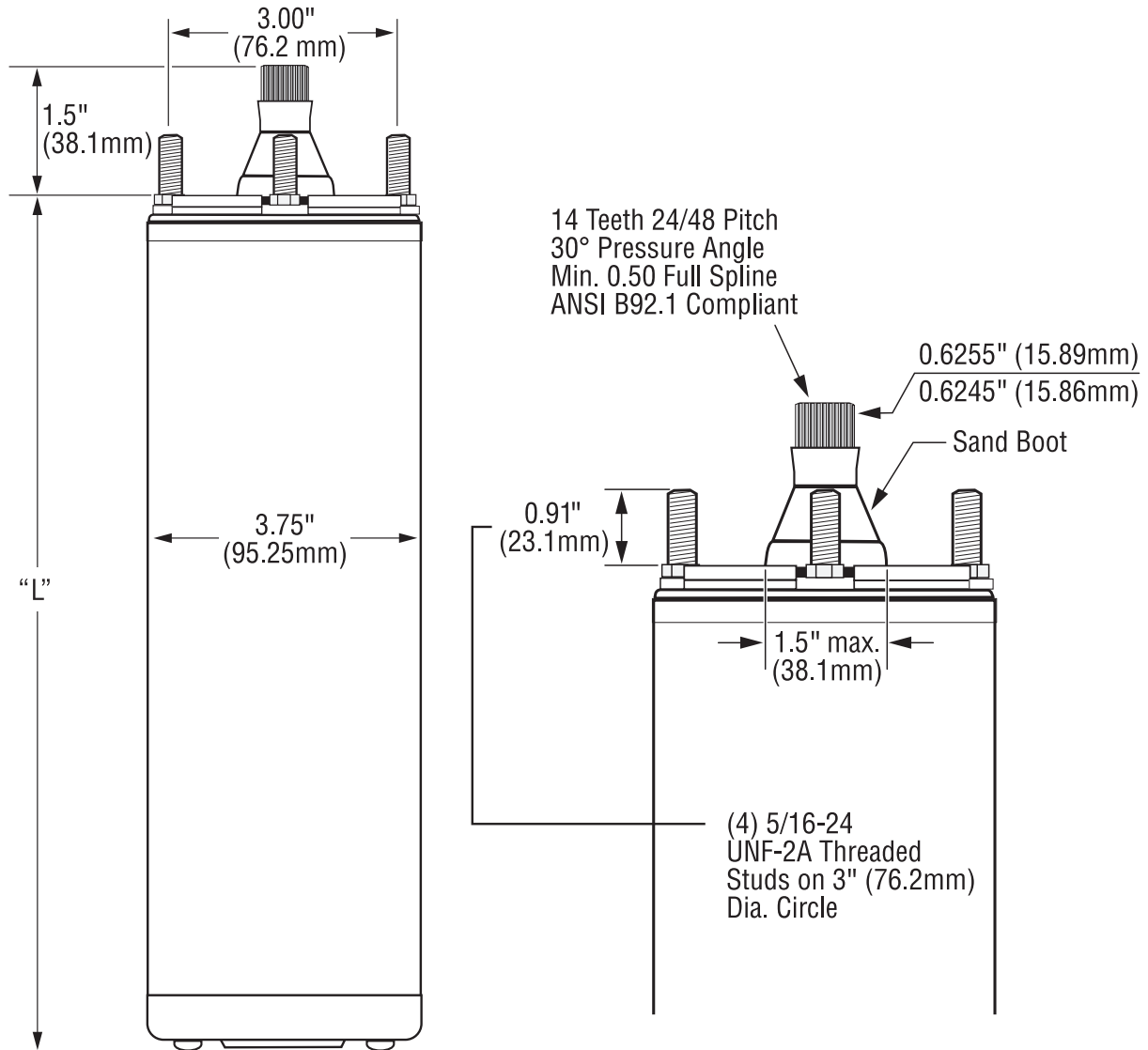
RATING					CATALOG NUMBER	FULL LOAD AMPS	MAX. LOAD (SFLOAD) AMPS	LOCKED ROTOR AMPS	WINDING		THRUST RATING	LENGTH		WEIGHT		
HP	kW	VOLTS	Hz	SERVICE FACTOR					MAIN RESISTANCE	START RESISTANCE		IN.	MM	LB.	KG	
PERMANENT SPLIT CAPACITOR (PSC) 2 WIRE																
1/2	0.37	115	60	1.6	P42B0005A1-01	8.1	10.2	28.0	1.4-2.0	700	700	11.0	279	19.2	8.7	
		230		1.6	P42B0005A2-01	4.3	4.8	16.0	6.1-7.2		11.0	279	19.2	8.7		
3/4	0.55	230		1.5	P42B0007A2-01	5.0	6.4	18.0	5.9-6.9		12.4	314	22.7	10.3		
1	0.75	230		1.4	P42B0010A2-01	6.7	8.2	23.5	4.2-5.2		13.0	337	24.5	11.1		
1-1/2	1.1	230		1.3	P42B0015A2-01	9.1	10.5	43.0	1.8-2.4		14.9	378	28.9	13.1		
CAPACITOR START/INDUCTION RUN (CSIR) 3 WIRE																
1/2	0.37	115	60	1.6	P43B0005A1-01	9.8	11.6	44.0	1.0-1.4	2.5-3.1	700	700	10.0	253	18.9	8.6
		230		1.6	P43B0005A2-01	5.7	6.3	20.5	5.1-6.1	12.4-13.7		9.7	246	18.1	8.2	
3/4	0.55	230		1.5	P43B0007A2-01	6.7	7.9	32.0	2.6-3.3	10.4-11.7		10.8	275	21.4	9.7	
1	0.75	230		1.4	P43B0010A2-01	8.5	9.5	41.0	2.0-2.6	9.3-10.4		11.7	297	23.1	10.5	
CAPACITOR START/CAPACITOR RUN (CSCR) 3 WIRE																
1/2	0.37	230	60	1.6	P43B0005A2-01	4.4	5.0	21.0	5.1-6.1	12.4-13.7	700	700	9.7	246	18.1	8.2
3/4	0.55			1.5	P43B0007A2-01	4.6	6.1	32.0	2.6-3.3	10.4-11.7		10.8	275	21.4	9.7	
1	0.75			1.4	P43B0010A2-01	6.2	7.4	41.0	2.0-2.6	9.3-10.4		11.7	297	23.1	10.5	
1-1/2	1.1			1.3	P43B0015A2-01	9.2	11.0	49.0	2.1-2.5	10.0-10.8		13.6	345	27.4	12.4	
2	1.5			1.25	P43B0020A2	9.9	12.2	49.0	1.6-2.2	4.8-5.9	15.1	383	31.0	14.1		
3	2.2			1.15	P43B0030A2	14.3	16.5	76.0	1.0-1.4	2.0-2.5	18.3	466	40.0	18.1		
5	3.7			1.15	P43B0050A2	24.0	27.0	101.0	.6-.8	1.3-1.7	1500	27.7	703	70.0	31.8	
3 PHASE																
RATING					CATALOG NUMBER	FULL LOAD AMPS	MAX. LOAD (SFLOAD) AMPS	LINE TO LINE RESISTANCE OHMS	LOCKED ROTOR AMPS	THRUST RATING	LENGTH		WEIGHT			
HP	kW	VOLTS	Hz	SERVICE FACTOR							IN.	MM	LB.	KG		
1/2	0.37	200	60	1.6	P43B0005A8	2.9	3.5	4.1-5.2	22	700	700	10.0	254	18.9	8.6	
		230			P43B0005A3	2.4	3.0	5.7-7.2	18		10.0	254	18.9	8.6		
		460			P43B0005A4	1.3	1.5	23.6-26.1	9		10.0	254	18.9	8.6		
3/4	0.55	200	60	1.5	P43B0007A8	3.9	4.7	2.8-3.7	30		700	10.8	274	21.4	9.7	
		230			P43B0007A3	3.3	4.0	3.3-4.3	27		10.8	274	21.4	9.7		
		460			P43B0007A4	1.7	2.0	14.4-16.2	14		10.8	274	21.4	9.7		
1	0.75	200	60	1.4	P43B0010A8	4.8	5.7	2.2-3.1	34		700	11.7	297	23.1	10.5	
		230			P43B0010A3	4.1	4.9	3.2-4.2	26		11.7	297	23.1	10.5		
		460			P43B0010A4	2.2	2.5	16.8-18.6	15		11.7	297	23.1	10.5		
1-1/2	1.1	200	60	1.3	P43B0015A8	6.6	7.6	1.9-2.5	40		700	11.7	297	23.1	10.5	
		230			P43B0015A3	5.8	6.6	2.5-3.1	36		11.7	297	23.1	10.5		
		460			P43B0015A4	3.0	3.4	9.5-10.5	16		11.7	297	23.1	10.5		
		575			P43B0015A5	2.3	2.6	15.6-17.3	15	11.7	297	23.1	10.5			
2	1.5	200	60	1.25	P43B0020A8	8.0	9.3	1.4-2.0	51	900	900	13.8	351	27.4	12.4	
		230			P43B0020A3	6.7	8.0	2.2-2.8	44		13.8	351	27.4	12.4		
		460			P43B0020A4	3.6	4.1	7.5-9.3	23		13.8	351	27.4	12.4		
		575			P43B0020A5	2.7	3.3	10.2-12.5	21		15.3	389	32.0	14.5		
3	2.2	200	60	1.15	P43B0030A8	10.9	12.0	1.2-1.5	71		900	15.3	389	32.0	14.5	
		230			P43B0030A3	9.2	10.1	1.6-2.0	59		15.3	389	32.0	14.5		
		460			P43B0030A4	4.8	5.3	6.3-7.7	30		15.3	389	32.0	14.5		
		575			P43B0030A5	3.7	4.1	10.2-12.5	21		15.3	389	32.0	14.5		
5	3.7	200	60	1.15	P43B0050A8	18.3	20.2	.7-.9	113		1500	1500	21.7	551	55.0	24.9
		230			P43B0050A3	15.7	17.5	.9-1.3	93			21.7	551	55.0	24.9	
		460			P43B0050A4	7.6	8.5	3.9-4.9	48			21.7	551	55.0	24.9	
		575			P43B0050A5	7.0	7.6	3.6-4.2	55			27.7	703	70.0	31.8	
7-1/2	5.6	200	60	1.15	P43B0075A8	27.0	30.0	.4-.6	165	1500		27.7	703	70.0	31.8	
		230			P43B0075A3	24.0	26.4	.5-.9	140	27.7		703	70.0	31.8		
		460			P43B0075A4	12.2	13.5	2.1-2.7	87	27.7		703	70.0	31.8		
		575			P43B0075A5	9.1	10	3.6-4.2	55	27.7		703	70.0	31.8		
10	7.5	460	60	1.15	P43B0100A4	15.6	17.2	1.8-2.2	110	1500		30.7	780	78.0	35.4	

NOTE: Amp ratings on 3-wire motors reflect use with CSIR controls. A CSCR control is recommended for lower values.

Pentek® XE Series™ Motors

Stainless Steel

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

CATALOG NUMBER	# OF WIRES	TYPE	LENGTH	GAUGE
XE SERIES REPLACEMENT MOTOR LEADS				
P18-1485K	2 Wire	XLPE	48 in.	14
P18-1486K	3 Wire	XLPE	48 in.	14
P18-1651K	2 Wire	XLPE	100 in.	14
P18-1652K	3 Wire	XLPE	100 in.	14
P18-1678K	3 Wire	XLPE	180 in.	14

CATALOG NUMBER	# OF WIRES	TYPE	LENGTH	GAUGE
XE SERIES REPLACEMENT MOTOR LEADS				
P18-1490K	2 Wire	SJOW	10 ft.	16
P18-1488K	2 Wire	S00W	10 ft.	16
P18-1628K	2 Wire	S00W	30 ft.	16
P18-1629K	2 Wire	S00W	50 ft.	16
P18-1630K	2 Wire	S00W	100 ft.	16
P18-1631K	3 Wire	SOW	10 ft.	16
P18-1632K	3 Wire	SOW	20 ft.	16
P18-1633K	3 Wire	SOW	30 ft.	16
P18-1634K	3 Wire	SOW	50 ft.	16
P18-1635K	3 Wire	SOW	100 ft.	16

Submersible Motor Controls



Pentek® offers a full range of 1/2 - 5 HP models that are interchangeable with existing motor controls for Capacitor Start/Induction Run (CSIR) and Capacitor Start/Capacitor Run (CSCR) applications. Pentek is the professional choice in harsh and high temperature installations.

APPLICATIONS

Water systems...for residential, commercial, multiple housing and farm uses, where a submersible 3-wire motor is used.

FEATURES

ENCLOSURE

Rugged NEMA 3R Enclosure:

Suitable for indoor/outdoor use.

NEW HardBond™ Finish:

5-times more corrosion-resistant.

Multiple-Size Electrical Knockouts

INTERNALS

High-Load Voltage Relay

Heavy-Duty Contacts

External Access to Overload Reset CSCR

Heavy-Duty Terminal Connectors:

Suitable for up to #4 AWG wire.

Industry Standard Wiring Connections:

Easy-to-read wiring diagrams.

Agency Approvals: UL 778 and CUL

Recognized (60 Hz)



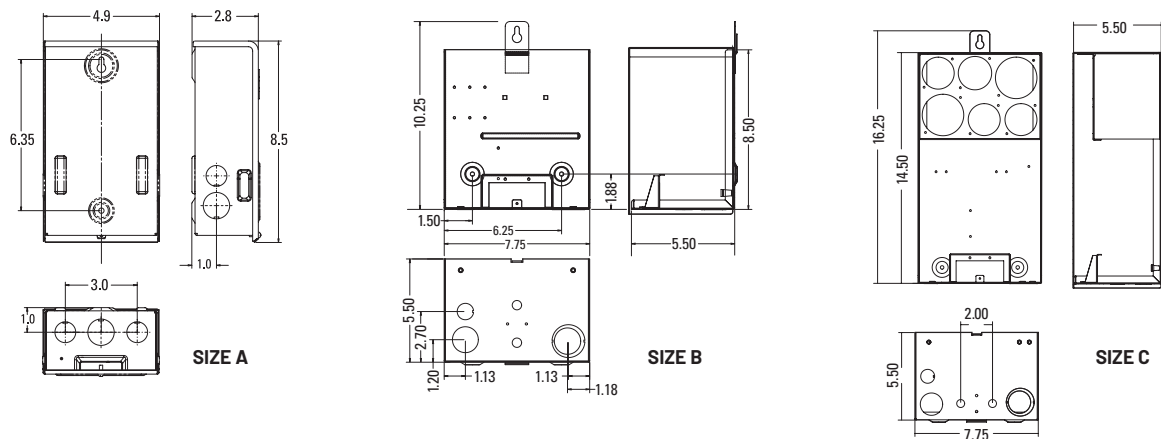
Submersible Motor Controls

ORDERING INFORMATION

HP	KW	PH	VOLTS	60 HZ CATALOG NUMBER	WEIGHT		ENCLOSURE SIZE
					LBS.	KG	
CSIR – CAPACITOR START/INDUCTION RUN							
1/2	0.37	1	115	SMC-IR0511(-6pk)*	4	1.8	A
1/2	0.37	1	230	SMC-IR0521(-6pk)*	4	1.8	A
3/4	0.55	1	230	SMC-IR0721(-6pk)*	4	1.8	A
1	0.75	1	230	SMC-IR1021(-6pk)*	4	1.8	A
CSCR – CAPACITOR START/CAPACITOR RUN							
1/2	0.37	1	230	SMC-CR0521(-6pk)*	5	2.3	A
3/4	0.55	1	230	SMC-CR0721(-6pk)*	5	2.3	A
1	0.75	1	230	SMC-CR1021(-6pk)*	5	2.3	A
1-1/2	1.1	1	230	SMC-CR1521	7	3.2	B
2	1.5	1	230	SMC-CR2021	7	3.2	B
3	2.2	1	230	SMC-CR3021	7	3.2	B
5	3.7	1	230	SMC-CR5021	8	3.6	B
CSCR PLUS – CAPACITOR START/CAPACITOR RUN PLUS MAGNETIC CONTACTOR							
2	1.5	1	230	SMC-CRP2021	7	3.2	B
3	2.2	1	230	SMC-CRP3021	8	3.6	B
5	3.7	1	230	SMC-CRP5021	12	5.4	C

*Submersible Motor Controls are available in single and six packs. Include the suffix “-6pk” after the catalog number if 6 packs are required.

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

Pentek® VIP Pro Series Controls



Capacitor start, capacitor run – designed for the full range of single-phase 1/2, 3/4, 1, 1-1/2, 2, 3 and 5 HP, 3-wire submersible motors

APPLICATIONS

Water systems...for residential, multiple housing, farm and commercial installations, where a submersible 3-wire motor is used.

FEATURES

ENCLOSURE

- 1 Weather resistant construction – NEMA 3R/IP24 rated enclosure for indoor/outdoor use
- 2 Control box rated for 50°C (122°F) ambient temperature
- 3 One screw removal for easy panel access with motor running
- 4 Pentek® proprietary dielectric control panel board, UL and CSA Certified

INTERNALS

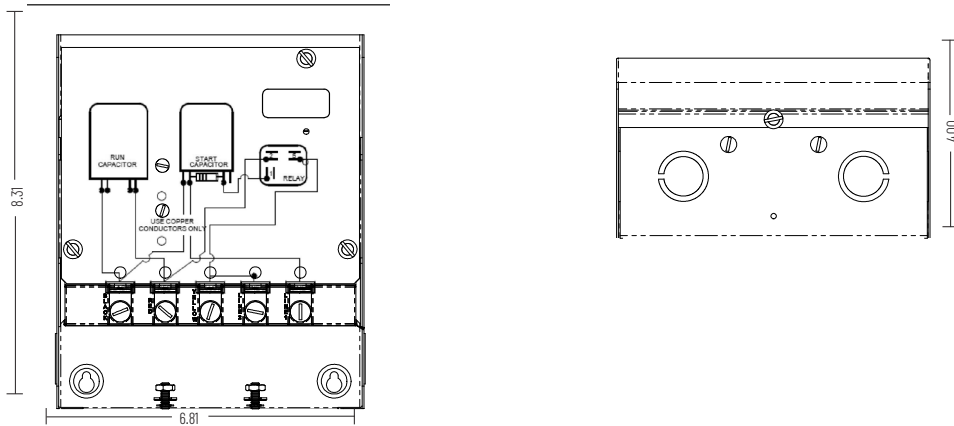
- 5 Universal controls -designed to work on most manufacturers 3-wire submersible motors
- 6 Large wiring area offers generous space to make your wiring connections. Incorporates 1/2", 3/4" and 1" conduit knock-outs
- 7 Control box is functional with the cover removed, offering easier in-the-field troubleshooting

Agency Approvals: CSA CUS Certified Pentek Submersible Motor Controls can be used with Pentek XE Series motors.

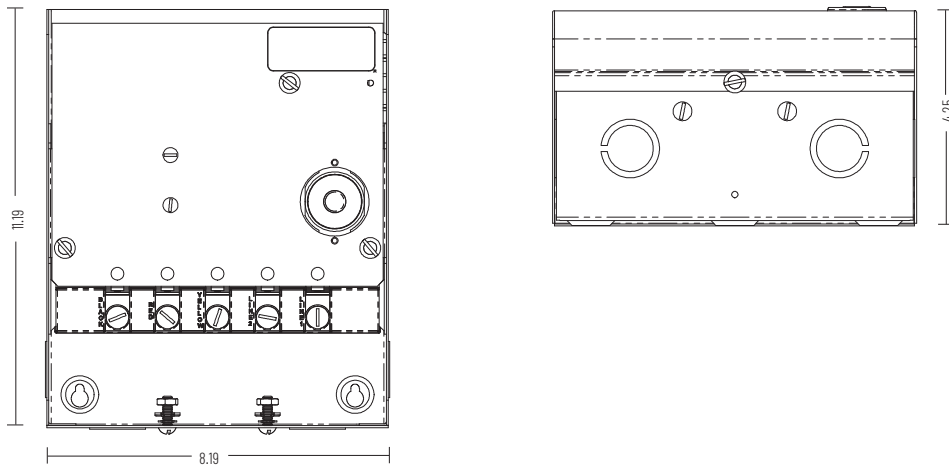


Pentek® VIP Pro Series Controls

SIZE A



SIZE B



VIP CONTROL BOX SPECIFICATION

CATALOG NUMBER	HP	KW	PHASE	VOLTS	HERTZ	TYPE	WEIGHT		ENCLOSURE SIZE	START CAPACITOR		RUN CAPACITOR		VOLTAGE RELAY	PROTECTOR
							LBS	KG		PN	RATING	PN	RATING		
VIP4C02	0.50	0.37	1	230	60	CSCR	4.6	2.1	A	U17-1422	43MFD-270V-15kΩ	U17-2072	15MFD-370V	U17-2077	None
VIP4D02	0.75	0.55	1	230	60	CSCR	4.4	2.0	A	U17-1423	59MFD-270V-15kΩ	U17-2073	20MFD-370V	U17-2077	None
VIP4E02	1.00	0.75	1	230	60	CSCR	4.4	2.0	A	U17-1424	86MFD-270V-15kΩ	U17-2074	23MFD-370V	U17-2077	None
VIP4F02	1.50	1.1	1	230	60	CSCR	4.6	2.1	A	U17-1430	105MFD-330V-15kΩ	U17-1438	10MFD-370V	U17-2078	CGP69JB-7
VIP4G02	2.00	1.5	1	230	60	CSCR	4.6	2.1	A	U17-1430	105MFD-330V-15kΩ	U17-1440	23MFD-370V	U17-1431	CET38EB-7
VIP4H02	3.00	2.2	1	230	60	CSCR	5.4	2.4	A	U17-1428	208MFD-330V-15kΩ	U17-1443	45MFD-370V	U17-1431	CGT66DD-07
VIP4J02	5.00	3.7	1	230	60	CSCR	8.2	3.7	B	U17-1437	270MFD-330V-15kΩ	U17-1442	40MFD-370V (2 pcs)	U17-2079	BET00EE-21

Control boxes are designed to be used on Pentair motors with the same HP and Voltage ratings. Do not use on motors with different ratings.

Single Phase Pump Protectors



Pentek® offers a full range of 1/3 - 15 HP single-phase protectors for residential, commercial, multiple housing and farm water systems applications where a 4" submersible, 2- and 3-wire motor is used and for aboveground pressure-boost applications.

APPLICATIONS

Pentek offers 5 models for your application needs based on HP and Motor Type: SPP-111P, SPP-111-3RLP, SPP-231P, SPP-233P and SPP-235P.

FEATURES

Protects Pumps: From dry well, overcurrent (jammed impeller), flow restriction (dead head), overvoltage, undervoltage, rapid cycling.

ORDERING INFORMATION

	115 VOLT MODELS		230 VOLT MODELS		
Catalog Number	SPP-111P	SPP-111-3RLP	SPP-231P	SPP-233P	SPP-235P
Enclosure Type	Insider	NEMA 3R	Insider	NEMA 3R	NEMA 3R
1-Phase Line Voltage	115VAC	115VAC	230VAC	230VAC	230VAC
Load Range	1/3-1/2 HP	1/3-1 HP	1/2-1 HP	1/2-3 HP	5-15 HP
Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Operating Points					
Overload (% of Cal. Point)	125%	125%	125%	125%	125%
Overvoltage Reset Point	132VAC	132VAC	265VAC	265VAC	265VAC
Undervoltage Reset Point	95VAC	95VAC	190VAC	190VAC	190VAC
Trip Delay (Overload)	10 sec.	10 sec.	10 sec.	5 sec.	5 sec.
Trip Delay (Dry Well)	2 sec.	2 sec.	2 sec.	2 sec.	2 sec.
Optional Trip Delay	4 sec.	4 sec.	4 sec.	4 sec.	4 sec.
Restart Delay Time					
Over/Under Voltage Delay	5 sec.	5 sec.	5 sec.	5 sec.	5 sec.
All Other Faults (Dry Well REC. Timer)	2-225 min.	2-225 min.	2-225 min.	2-225 min.	2-225 min.
Output Contact Rating (SPST)	1 HP	1 HP	1 HP (17 amps max.)	3 HP (17 amps max.)	480VA @ 240VAC
Power Consumption (max.)	5 amps	5 amps	5 amps	5 amps	5 amps
Weight w/o Enclosure	10 oz.		10 oz.	14 oz.	14 oz.
Weight w/Enclosure		1.6 lbs.		1.6 lbs.	1.6 lbs.
Enclosure Size	2.2" x 2.8"	6" x 6" x 4"	2.2" x 2.8"	6" x 6" x 4"	6" x 6" x 4"

SPP-111P and SPP-231P

The Insider - Submersible Motors Controls



APPLICATIONS

Water systems...for residential, commercial, multiple housing, farm and turf irrigation uses, where a 4" submersible 3-wire motor is used.

FEATURES

Restart Delay: Can be set up to 225 minutes or placed in manual reset mode.

Calibration: Can be calibrated to specific pump/motor combinations and various conditions.

Infrared Communication: Coupled with the Pentek Informer makes diagnostics simple.

Fits in Existing 3-Wire Motor Control Boxes

For 1/3 - 1 HP applications, the SPP-111P and the SPP-231P Insider fits within 1/3 - 1 HP 115V and 230V CSIR control boxes. It's a "current monitor" designed to protect single-phase pumps. A simple adjustment allows the Insider to be calibrated to your specific pumping applications, reducing the possibility of false or nuisance tripping. Its unique microprocessor constantly monitors the incoming power for fluctuations in voltage and current. If

loss of suction or other abnormality is detected, the Insider deactivates its output relay and directly disconnects the pump motor. Then it begins its user-selectable "Restart Delay/Dry Well Recovery" timer. When the timer counts zero or power is removed and reapplied, the SPP-231P Insider reactivates its output relay and turns the pump back on.

The Pentek® Informer Remote Handheld Diagnostic Tool (sold separately) communicates directly with ALL Pentek Pump Protectors and instantly displays 16 parameters including calibration points, running points and last fault.

ORDERING INFORMATION

HP	PHASE	VOLTS	FREQUENCY	CATALOG NUMBER	WEIGHT		CARTON SIZE
					LBS.	KG	
1/3-1/2	1	115	50-60Hz	SPP-111P	1	0.45	4.4" x 4.4" x 6.8"
1/3-1	1	230	50-60Hz	SPP-231P	1	0.45	4.4" x 4.4" x 6.8"

SPP-111-3RLP, SPP-233P and SPP-235P

Submersible and Above Ground Single Phase Pump Protector



SPP-233P



APPLICATIONS

Water systems...for residential, commercial, multiple housing and farm uses, where a 4" 2 or 3-wire submersible motor or aboveground motor is used.

FEATURES

Protects Pumps: From dry well overvoltage, flow restriction (dead head), undervoltage, overcurrent (jammed impeller).

For 1/2 - 15 HP applications the SPP-111-3RLP, SPP-233P and SPP-235P single-phase protectors include a unique microcontroller-based voltage and current-sensing circuit that constantly monitors the incoming power for fluctuations including overcurrent and undercurrent. When an abnormality, such as loss of suction, is detected, the control deactivates its output relay and directly disconnects the pump motor.

The SPP then begins its user-selectable restart delay (dry-well recovery) timer. When the timer counts to zero or power is removed and reapplied, the SPP reactivates its output relay and turns the pump back on. An infrared LED communicates directly with a handheld diagnostic tool called the Informer (sold separately - see page 85). The Informer displays 15 parameters including calibration point, trip point, running points, and last fault. The SPPs are all mounted in a NEMA 3R enclosure.

ORDERING INFORMATION

HP	PHASE	VOLTS	FREQUENCY	CATALOG NUMBER	WEIGHT		CARTON SIZE
					LBS.	KG	
1/2-1	1	115	50-60Hz	SPP-111-3RLP	1.6	0.7	7.25" x 7" x 5.25"
1/2-1-1/2	1	230	50-60Hz	SPP-233P-1.5	1.6	0.7	7.25" x 7" x 5.25"
1/2-3	1	230	50-60Hz	SPP-233P	1.6	0.7	7.25" x 7" x 5.25"
5 and 7-1/2	1	230	50-60Hz	SPP-235P-75*	2	0.9	7.25" x 7" x 5.25"
10	1	230	50-60Hz	SPP-235P-100*	2	0.9	7.25" x 7" x 5.25"
15	1	230	50-60Hz	SPP-235P-150*	2	0.9	7.25" x 7" x 5.25"

*Current transformer included.

The Informer

Remote diagnostic



FEATURES

Infrared Receiver: The Pentek® Informer uses an infrared receiver to access data sent from the SPP, allowing remote troubleshooting of the system.

Infrared LED: Each Pentek SPP is equipped with an infrared LED that transmits information from the device.

The Informer must be aimed at the SPP as shown in the figure to the left. As soon as power is applied, the Informer begins receiving both past and present information and displays it on the LCD.

Status Light: The green COMM STATUS light indicates when the Informer is receiving data from the SPP. If communication is lost, the Informer will hold the last values it received.

APPLICATIONS

The Pentek® Informer...a remote handheld diagnostic tool designed for use with Pentek single-phase submersible pump protectors (SPP-111P, 231P, 233P and 235P) equipped with infrared LED transmitters.

SPECIFICATIONS

Displayed Parameters: Diagnostic information received and displayed in real time: Voltage, Current, Power, Dry Well.

Overload Trip Points

Calibration Voltage

Last Fault

Highest/Lowest Voltage Since Last Calibration

ORDERING INFORMATION

CATALOG NUMBER	WEIGHT		CARTON SIZE
	LBS.	KG	
SPP-Informer	1	0.45	4.375" x 3.375" x 6.75"

Pentek Intellidrive™

Water Pressure Control Center



Homeowners with water pressure problems experience weak showers, unclean dishes, dry lawns and more.

The Pentek Intellidrive Water Pressure Control Center is an “Intelligent Variable Frequency Drive” that directs changes in submersible pump motor speed, responding to fluctuations in household demand. It maintains constant water pressure, regardless of how many people or appliances are using water at the same time.

APPLICATIONS

Residential water systems, landscape irrigation, water transfer.

SPECIFICATIONS

Enclosure Dimensions:

Width: 9.72” Height: 19” Depth: 6.93”

Carton Dimensions:

Width: 10.4” Height: 22.3” Depth: 9.4”

Shipping Weight: 22 pounds

Ambient Temperature Range:

-20°C (-4°F) to 50°C (122°F)

Ambient Humidity Range:

95% non-condensing

Includes:

Variable Frequency Drive

Transducer: 1/4” thread size, 18 NPT type

Transducer Cable: 10’ length standard

FEATURES

4 MODELS MEET ALL YOUR NEEDS

- 1/2 HP - 5 HP Capabilities
- All in same unit;
 - 2-Wire, 3-Wire & 3-Phase
- Submersible motors
- 3-Phase Above Ground motors
- 1-Phase Input *(230V)
- 80 Hz 3-Phase Output option**

PUMP AND MOTOR LAST LONGER

“Soft Start/Coast to Stop” minimizes mechanical stress.

Constant pressure eliminates frequent on/off “pressure cycling”.

ADVANCED CONTROL SYSTEM

Needed for installation, system monitoring and troubleshooting.

Easy touchpad operation.

GROUND DETECTION

Detects and displays when there is a grounding problem.

Shuts down system until problem is corrected.

60Hz operation is recommended as the industry standard. Intermittent 80Hz operation is an acceptable option. ** Ongoing 80Hz operation may reduce the life of the pump and motor.

ORDERING INFORMATION

MODEL NUMBER	MOTOR TYPE	HP RANGE	INPUT VOLTAGE	MAXIMUM OUTPUT AMPS	ENCLOSURE TYPE
PID10	2-WIRE 1-PHASE	0.5 - 1 HP	190V - 265V	9.5A	NEMA 3R outdoor
	3-WIRE 1-PHASE			7.5A	
	3-PHASE			5A	
PID20	2-WIRE 1-PHASE	0.5 - 1.5 HP		11A	
	3-WIRE 1-PHASE	0.5 - 2 HP		13.5A	
	3-PHASE			8.5A	
PID30	2-WIRE 1-PHASE	0.5 - 1.5 HP		11A	
	3-WIRE 1-PHASE	0.5 - 2 HP		13.5A	
	3-PHASE	0.5 - 3 HP		11.5A	
PID50	2-WIRE 1-PHASE	0.5 - 1.5 HP		11A	
	3-WIRE 1-PHASE	0.5 - 2 HP		13.5A	
	3-PHASE	0.5 - 5 HP		18A	

Pentek Intellidrive™

Water Pressure Control Center

Keyhole Mount

For fast and easy installation

LCD Information Center

Displays installation, status and fault information in easy-to-understand language instead of codes

Ground Detection

Message Center shows if there is a grounding problem

Multiple Accessory Inputs

Additional inputs allow use of multiple drive accessories at the same time

Best-In-Class EMI/RFI Filter

Superior noise and interference protection, including AM radio signals

Spacious Wiring Area

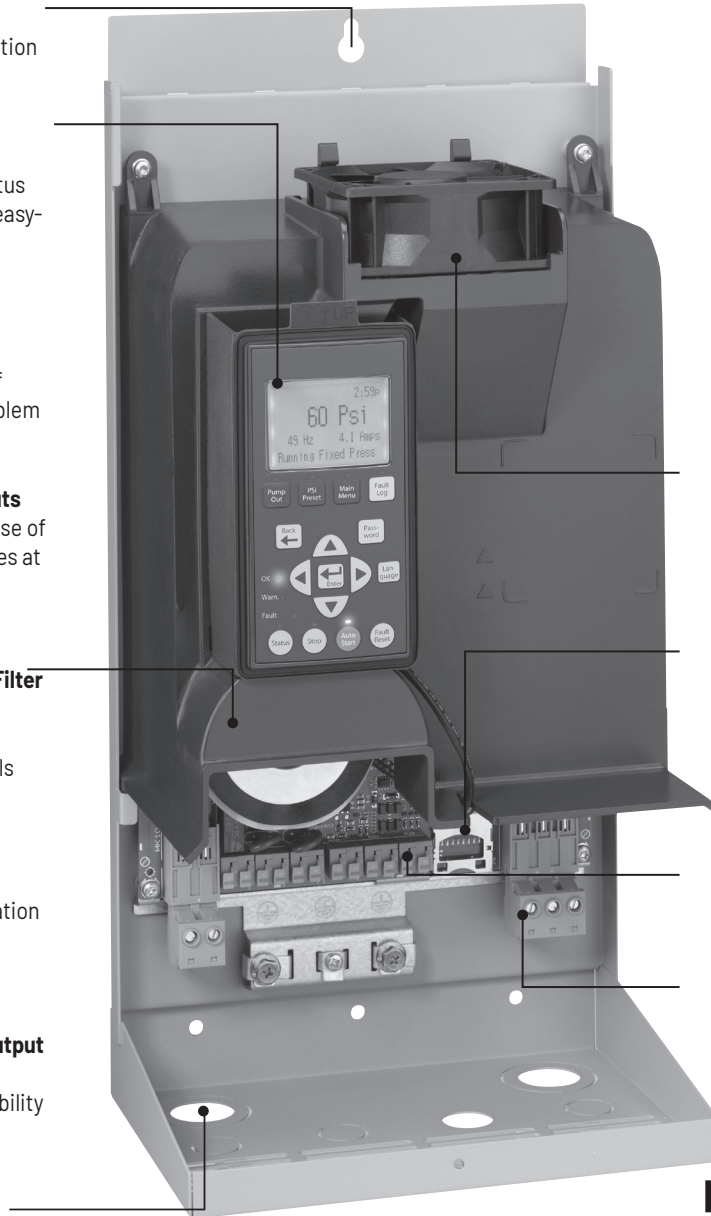
For fast and easy installation

Programmable Input/Output Relays

Provide application flexibility

Easy-Access Conduit Openings

Align with appropriate terminals for straight-in accessibility. Fits 1/2", 3/4" or 1-1/4"



Electronic Pressure Transducer

More accurate and reliable than mechanical pressure switch, with piezo resistive technology designed to resist water hammer

Temperature-Sensitive Intelligent Fan

Operates when needed for quiet operation

SD Card Slot

For easy software updates when provided by manufacturer

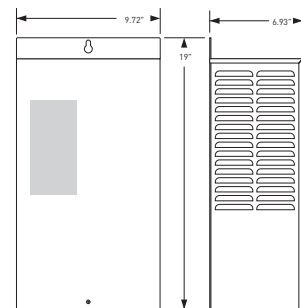
Spring Terminals

For secure connections and easy installation without special tools

Removable Terminal Blocks

For easy wiring of motor and power supply - field replaceable

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

Pentek Intellidrive™

Water Pressure Control Center

PENTEK INTELLIDRIVE ACCESSORIES

MODEL NO.	DESCRIPTION
VFD-LINK	Wireless Translator for Intellidrive
VFD-SGA	Surge arrestor kit, line and load
VFD-SGA-LN	Surge arrestor kit, line side
VFD-SGA-LD	Surge arrestor kit, load side
VFD-ALT	VFD Alternating panel
VFD-WS	VFD Water sensor with 15' cable
PID-GRP	Cable mounting and nut, 1/2 NPT, black, qty. 10
VFD-SCRN	Filter Kit
PS2-S01	2 Gallon Tank
PS5-S02	5 Gallon Tank

PENTEK INTELLIDRIVE TRANSDUCER CABLES

PART NUMBER	DESCRIPTION	REPLACES
VFD-10TCB	Transducer Cable 10FT 3R	U18-1593
VFD-20TCB	Transducer Cable 20FT 3R	U18-1594
VFD-50TCB	Transducer Cable 50FT 3R	U18-1595
VFD-100TCB	Transducer Cable 100FT 3R	U18-1596
VFD-200TCB	Transducer Cable 200FT 3R	U18-1598

PENTEK INTELLIDRIVE REPAIR PARTS

MODEL NO.	ITEM	DESCRIPTION	MANUFACTURER
PID-CON2	2-Pole Connector (Line In)	2-Pole Connector (Line In)	Pentek®
PID-CON3	3-Pole Connector (Line Out)	3-Pole Connector (Line Out)	Pentek
PID-FAN	Replacement Fan	Replacement Fan	Pentek
PID-HMI	Replacement Keypad	Replacement Keypad	Pentek
U17-1561-R	Transducer (PID Control)	0 - 100 psig, 4-20ma, less lead	Pentek
U17-2000	Transducer (PID Control)	0 - 300 psig, 4-20ma, less lead	Pentek

Pentek Transducer for use with Pentek Intellidrive and Intellidrive XL.



VFD-WS
VFD WATER SENSOR WITH 15' CABLE



VFD-ALT
VFD ALTERNATING PANEL



VFD-LINK
WIRELESS TRANSLATOR FOR INTELLIDRIVE

Pentek Intellikit™

Constant Pressure Controller

Pre-Specified and Packaged Constant Pressure Systems for Residential Well Water

Maintain constant water pressure for submersible well pump systems, similar to municipal water systems



1

PENTEK

Submersible 3-Phase Motor

Built with the latest design, manufacturing and testing technology

Encapsulated stainless steel design and professional-grade insulation provide longer life in harsh environments

100% factory pressure- and run-tested

2

BERKELEY

Submersible Pump

Submersible pumps deliver efficient and dependable performance even in rough, aggressive water

One of the few manufacturers of both pumps and pressurized water storage tanks, now sold in over 100 countries

3

PENTEK INTELLIDRIVE

Variable Frequency Drive

Maintains constant pressure output regardless of fluctuating demand

Extends life of pump and motor

Utilizes a smaller pressure tank for a space-saving solution

KIT CONTAINS:

- Pentek® Submersible Motor
- Berkeley® Submersible Pump
- Pentek Intellidrive™ Variable Frequency Drive

The Pentek Intellidrive Constant Pressure Controller automatically adjusts motor speeds to meet changes in water demand. Instantaneous feedback from an electronic pressure transducer instructs the drive to change the submersible well pump motor speed to maintain constant pressure throughout the system.

Pentek Intellikit™

Constant Pressure Controller

ORDERING INFORMATION

60Hz NEMA 3 Kits

Order Number	Flow Series	HP	Shut-Off Head	At Rated Flow	at Max Runout		Pump	Drive	Motor
			TDH (ft)	TDH (ft)	Flow (GPM)	TDH (ft)			
B5PIK10-60	5	1HP	650	475	7	300	L5P4EMGS	PID10	P43B0010A3-C
B5PIK15-60	5	1.5HP	885	640	7	400	L5P4FMGS	PID20	P43B0015A3-C
B7PIK10-60	7	1HP	540	380	10	140	L7P4EMGS	PID10	P43B0010A3-C
B7PIK15-60	7	1.5HP	740	475	10	190	L7P4FMGS	PID20	P43B0015A3-C
B7PIK20-60	7	2HP	920	610	10	210	L7P4GMGS	PID20	P43B0020A3-C
B10PIK10-60	10	1HP	495	300	15	110	L10P4EMGS	PID10	P43B0010A3-C
B10PIK15-60	10	1.5HP	629	410	15	150	L10P4FMGS	PID20	P43B0015A3-C
B10PIK20-60	10	2HP	795	498	15	200	L10P4GMGS	PID20	P43B0020A3-C
B10PIK30-60	10	3HP	1100	710	15	250	L10P4HMGS	PID30	P43B0030A3-C
B15PIK10-60	15	1HP	310	200	21	95	L15P4EMGS	PID10	P43B0010A3-C
B15PIK15-60	15	1.5HP	420	280	21	120	L15P4FMGS	PID20	P43B0015A3-C
B15PIK20-60	15	2.0HP	522	350	21	150	L15P4GMGS	PID20	P43B0020A3-C
B15PIK30-60	15	3.0HP	770	520	21	230	L15P4HMGS	PID30	P43B0030A3-C
B20PIK10-60	20	1HP	250	185	28	80	L20P4EMGS	PID10	P43B0010A3-C
B20PIK15-60	20	1.5HP	335	232	28	110	L20P4FMGS	PID20	P43B0015A3-C
B20PIK20-60	20	2.0HP	420	310	28	150	L20P4GMGS	PID20	P43B0020A3-C
B20PIK30-60	20	3.0HP	640	460	28	200	L20P4HMGS	PID30	P43B0030A3-C
B30PIK20-60	30	2.0HP	275	195	42	85	L30P4GMGS	PID20	P43B0020A3-C
B30PIK30-60	30	3.0HP	410	295	42	120	L30P4HMGS	PID30	P43B0030A3-C
B50PIK20-60	50	2.0HP	180	119	63	80	L50P4GMGS	PID20	P43B0020A3-C
B50PIK30-60	50	3.0HP	240	162	63	110	L50P4HMGS	PID30	P43B0030A3-C
B90PIK20-60	90	2.0HP	109	58	120	40	L90HF20	PID20	P43B0020A3-C
B90PIK30-60	90	3.0HP	150	80	120	55	L90HF30	PID30	P43B0030A3-C

80Hz NEMA 3 Kits

B7PIK15-80	7	1.5HP	740	475	10	190	L7P4DMGS	PID20	P43B0015A3-C
B7PIK20-80	7	2HP	920	610	10	210	L7P4EMGS	PID20	P43B0020A3-C
B7PIK30-80	7	3HP	1205	805	10	290	L7P4FMGS	PID30	P43B0030A3-C
B10PIK15-80	10	1.5HP	629	410	15	150	L10P4DMGS	PID20	P43B0015A3-C
B10PIK20-80	10	2HP	795	498	15	200	L10P4EMGS	PID20	P43B0020A3-C
B10PIK30-80	10	3HP	1100	710	15	250	L10P4FMGS	PID30	P43B0030A3-C
B15PIK15-80	15	1.5HP	420	280	21	120	L15P4DMGS	PID20	P43B0015A3-C
B15PIK20-80	15	2.0HP	522	350	21	150	L15P4EMGS	PID20	P43B0020A3-C
B15PIK30-80	15	3.0HP	770	520	21	230	L15P4FMGS	PID30	P43B0030A3-C
B20PIK15-80	20	1.5HP	335	232	28	110	L20P4DMGS	PID20	P43B0015A3-C
B20PIK20-80	20	2.0HP	420	310	28	150	L20P4EMGS	PID20	P43B0020A3-C
B20PIK30-80	20	3.0HP	640	460	28	200	L20P4FMGS	PID30	P43B0030A3-C
B30PIK20-80	30	2.0HP	275	195	42	85	L30P4EMGS	PID20	P43B0020A3-C
B30PIK30-80	30	3.0HP	410	295	42	120	L30P4FMGS	PID30	P43B0030A3-C
B50PIK30-80	50	3.0HP	240	162	63	110	L50P4FMGS	PID30	P43B0030A3-C
B90PIK30-80	90	3.0HP	150	80	120	55	L90HF20	PID30	P43B0030A3-C

Note:

80Hz Kits utilize an undersized liquid end running at higher speed to match pump performance of the curve equivalent to the driving motor. Maximum life expectancy of the liquid end is obtained using 60Hz solutions.

Pentek Intellidrive™ XL Pump Controllers



Pentek Intellidrive XL, the latest addition to our line of variable frequency drives, is designed for large horsepower pumping applications. Selection is easy. Setup is simple. And you have powerful opportunities to customize as needs arise. All backed by expert, dedicated tech support, available to quickly and efficiently resolve any issues.

APPLICATIONS

Turf irrigation, water transfer, light commercial water systems and agricultural.

SPECIFICATIONS

HP Ratings: 1-600

Voltage: 230, 460, 575

Frequency: 50/60 Hz

Standard I/O: Digital Inputs: 6; Analog Inputs: 2; Pulse Inputs: 2; Relays: 2; Digital Outputs: 2; Analog Outputs: 4

Communication: Modbus RTU

Enclosure Type: NEMA 1, 3R, 4X, IP20 Open/Chassis

FEATURES

Pentek Intellidrive XL:

Variable Speed Control: Meets requirements of process control with constant pressure at variable flow conditions or constant flow at variable pressure conditions.

Reduced Energy Costs: Calculate energy savings online using BEC2 software at www.bec2.net.

Pump System Protection: Dry Run detection, check valve ramp, pipe fill mode, Sleep mode, no/low flow detection, end of pump curve detection, integrated mains disconnect switch (optional), real-time clock battery backup.

Phase Conversion: Single phase input drives are available that convert to 3 phase output.

Simple Setup:

Pump and Motor Settings: Above/ Below Ground, Horsepower, Voltage, Current, Nominal Speed.

System Learning: No Load, Sleep, No Flow.

Ready to Go!: That's it. The drive is now ready for use. Following those simple steps to configure your system for constant pressure has you ready to move to the next job.

Pentek Intellidrive™ XL Pump Controllers

ORDERING INFORMATION

SINGLE PHASE INPUT DRIVES				
OUTPUT AMPS	INPUT VOLTAGE	INPUT PHASE	NEMA RATING	MODEL NUMBER
24.2	230	1	NEMA 1	PID007512ND
30.8				PID010012ND
59.4				PID020012ND
88				PID030012ND
24.2				NEMA 3R
30.8			PID010032ND	
59.4			PID020032ND	
88			PID030032ND	

ORDERING INFORMATION

SINGLE PHASE INPUT DRIVES				
OUTPUT AMPS	INPUT VOLTAGE	INPUT PHASE	NEMA RATING	MODEL NUMBER
24.2	230	1	NEMA 4X	PID007542ND
30.8				PID010042ND
59.4				PID020042ND
88				PID030042ND

ORDERING INFORMATION

THREE PHASE INPUT DRIVES			NEMA 1		NEMA 3R		NEMA 4X		OPEN CHASSIS		
OUTPUT AMPS	INPUT VOLTAGE	INPUT PHASE	NO DISCONNECT	DISCONNECT	NO DISCONNECT	DISCONNECT	NO DISCONNECT	DISCONNECT	NO DISCONNECT		
4.6	230	3	PID001013ND	PID001013FD	PID001033ND	PID001033FD	PID001043ND	PID001043FD	PID001003ND		
7.5			PID002013ND	PID002013FD	PID002033ND	PID002033FD	PID002043ND	PID002043FD	PID002003ND		
10.6			PID003013ND	PID003013FD	PID003033ND	PID003033FD	PID003043ND	PID003043FD	PID003003ND		
16.7			PID005013ND	PID005013FD	PID005033ND	PID005033FD	PID005043ND	PID005043FD	PID005003ND		
24.2			PID007513ND	PID007513FD	PID007533ND	PID007533FD	PID007543ND	PID007543FD	PID007503ND		
30.8			PID010013ND	PID010013FD	PID010033ND	PID010033FD	PID010043ND	PID010043FD	PID010003ND		
46.2			PID015013ND	PID015013FD	PID015033ND	PID015033FD	PID015043ND	PID015043FD	PID015003ND		
59.4			PID020013ND	PID020013FD	PID020033ND	PID020033FD	PID020043ND	PID020043FD	PID020003ND		
74.8			PID025013ND	PID025013FD	PID025033ND	PID025033FD	PID025043ND	PID025043FD	PID025003ND		
88			PID030013ND	PID030013FD	PID030033ND	PID030033FD	PID030043ND	PID030043FD	PID030003ND		
115			PID040013ND	PID040013FD	PID040033ND	PID040033FD	PID040043ND	PID040043FD	PID040003ND		
143			PID050013ND	PID050013FD	PID050033ND	PID050033FD	PID050043ND	PID050043FD	PID050003ND		
170			PID060013ND	PID060013FD	PID060033ND	PID060033FD	PID060043ND	PID060043FD	PID060003ND		
2.1			460	3	PID001014ND	PID001014FD	PID001034ND	PID001034FD	PID001044ND	PID001044FD	PID001004ND
3.4					PID002014ND	PID002014FD	PID002034ND	PID002034FD	PID002044ND	PID002044FD	PID002004ND
4.8					PID003014ND	PID003014FD	PID003034ND	PID003034FD	PID003044ND	PID003044FD	PID003004ND
8.2					PID005014ND	PID005014FD	PID005034ND	PID005034FD	PID005044ND	PID005044FD	PID005004ND
11	PID007514ND	PID007514FD			PID007534ND	PID007534FD	PID007544ND	PID007544FD	PID007504ND		
14.5	PID010014ND	PID010014FD			PID010034ND	PID010034FD	PID010044ND	PID010044FD	PID010004ND		
21	PID015014ND	PID015014FD			PID015034ND	PID015034FD	PID015044ND	PID015044FD	PID015004ND		
27	PID020014ND	PID020014FD			PID020034ND	PID020034FD	PID020044ND	PID020044FD	PID020004ND		
34	PID025014ND	PID025014FD			PID025034ND	PID025034FD	PID025044ND	PID025044FD	PID025004ND		
40	PID030014ND	PID030014FD			PID030034ND	PID030034FD	PID030044ND	PID030044FD	PID030004ND		
52	PID040014ND	PID040014FD			PID040034ND	PID040034FD	PID040044ND	PID040044FD	PID040004ND		
65	PID050014ND	PID050014FD			PID050034ND	PID050034FD	PID050044ND	PID050044FD	PID050004ND		
80	PID060014ND	PID060014FD			PID060034ND	PID060034FD	PID060044ND	PID060044FD	PID060004ND		
105	PID075014ND	PID075014FD			PID075034ND	PID075034FD	PID075044ND	PID075044FD	PID075004ND		
130	PID100014ND	PID100014FD			PID100034ND	PID100034FD	PID100044ND	PID100044FD	PID100004ND		
160	PID125014ND	PID125014FD			PID125034ND	PID125034FD	PID125044ND	PID125044FD	PID125004ND		
1.7	575	3			PID001015ND	PID001015FD	PID001035ND	PID001035FD	PID001045ND	PID001045FD	PID001005ND
2.7			PID002015ND	PID002015FD	PID002035ND	PID002035FD	PID002045ND	PID002045FD	PID002005ND		
3.9			PID003015ND	PID003015FD	PID003035ND	PID003035FD	PID003045ND	PID003045FD	PID003005ND		
6.1			PID005015ND	PID005015FD	PID005035ND	PID005035FD	PID005045ND	PID005045FD	PID005005ND		
9			PID007515ND	PID007515FD	PID007535ND	PID007535FD	PID007545ND	PID007545FD	PID007505ND		
11			PID010015ND	PID010015FD	PID010035ND	PID010035FD	PID010045ND	PID010045FD	PID010005ND		
18			PID015015ND	PID015015FD	PID015035ND	PID015035FD	PID015045ND	PID015045FD	PID015005ND		
22			PID020015ND	PID020015FD	PID020035ND	PID020035FD	PID020045ND	PID020045FD	PID020005ND		
27			PID025015ND	PID025015FD	PID025035ND	PID025035FD	PID025045ND	PID025045FD	PID025005ND		
34			PID030015ND	PID030015FD	PID030035ND	PID030035FD	PID030045ND	PID030045FD	PID030005ND		
41			PID040015ND	PID040015FD	PID040035ND	PID040035FD	PID040045ND	PID040045FD	PID040005ND		
52			PID050015ND	PID050015FD	PID050035ND	PID050035FD	PID050045ND	PID050045FD	PID050005ND		
62			PID060015ND	PID060015FD	PID060035ND	PID060035FD	PID060045ND	PID060045FD	PID060005ND		
83			PID075015ND	PID075015FD	PID075035ND	PID075035FD	PID075045ND	PID075045FD	PID075005ND		
100			PID100015ND	PID100015FD	PID100035ND	PID100035FD	PID100045ND	PID100045FD	PID100005ND		
131			PID125015ND	PID125015FD	PID125035ND	PID125035FD	PID125045ND	PID125045FD	PID125005ND		

NOTE: the output current (or amps) of the Pentek Intellidrive XL must be greater than or equal to the maximum rated motor current.

Pentek® XE-6 6" Submersible Motors

Encapsulated Design



Delivers outstanding performance through lower amp draw and higher efficiencies, which yields lower operating costs. Combined with many durable, innovative, and advanced design features, the Pentek XE-6 is the perfect solution for your submersible motor needs.

FEATURES

Exceptional insulation rating (Class F) and temperature rating (95 F / 35 C)

IP68 protection rating

VFD-compatible

Vertical or Horizontal operation

APPLICATIONS

High-thrust water well applications.

SPECIFICATIONS

Shaft: 17-4 stainless steel

Motor Casing: 304 stainless steel

Upper and Lower Bracket: Epoxy-coated cast iron - coating is TNEMEC 140, an NSF-certified coating

Upper Bracket: "dual-flange" design

Motor Lead: XLPE

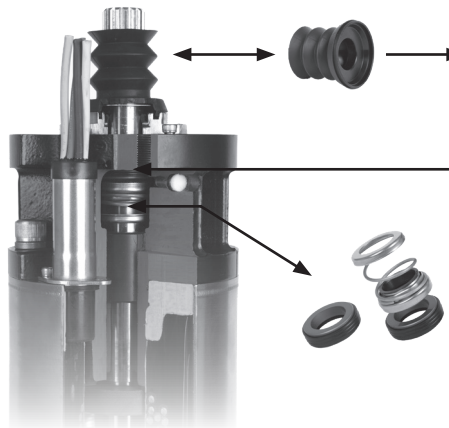
Thrust Bearing: Water-lubricated, Kingsbury-type

Pressure Equalizing Diaphragm: Spring-less design



EXCLUSIVE ADVANCED PROTECTION SYSTEM

Provides **THREE** layers of defense against sand and debris intrusion



1) External sand slinger boot

- Features a labyrinth seal design to better capture any sand or debris, keeping it away from the shaft

2) Lip seal

- Located below the sand slinger, providing an extra layer of protection

3) Mechanical seal – silicon carbide

- Excellent abrasion, wear, and corrosion resistance
- Resists deflection in high-pressure, high-heat, and high-speed conditions
- High thermal conductivity (heat dissipation)
- Provides superior protection against sand intrusion

Pentek® XE-6 6" Submersible Motors

Encapsulated Design

MOTOR PERFORMANCE AND DIMENSIONAL DATA

Nominal Diameter - 6" / 152.4mm
 Effective Diameter - 5.43" / 138mm
 60Hz • 2 POLE • 3450 RPM
 CLASS F INSULATION
 Shaft Extension - 2.87" / 73mm

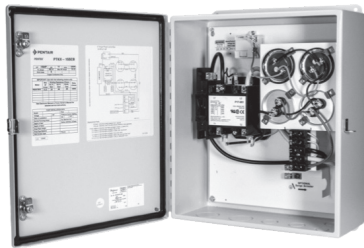
ORDERING INFORMATION

PHASE	MODEL #	HP	KW	VOLTS	FULL LOAD				SERVICE FACTOR 1.15				LOCKED ROTOR AMPS	THRUST LOAD (LBS)	KVA CODE	LENGTH (INCLUDES SHAFT EXT)		WEIGHT		CRATE						WEIGHT MOTOR+CRATE										
					AMPS	WATTS	EFF %	PF %	AMPS	WATTS	EFF %	PF %				IN	MM	LBS	KG	L		W		H		LBS	KG									
																				IN	MM	IN	MM	IN	MM											
1	P60A0050A2	5	3.70	230	22.8	4975	74.5	97.0	26.0	5625	75.5	97.0	104	3600	E	25.6	650	104	47.2	48	1219	10	254	13.5	343	134	60.8									
	P60A0075A2	7.5	5.60		35.2	7300	77.0	92.0	40.0	8300	77.5	92.5	162			28.1	714	117	53.1							151	68.5									
	P60A0100A2	10	7.50		45.7	9700	76.5	94.0	52.4	1175	76.5	94.0	202			30.3	770	132	59.9							166	75.3									
	P60A0150A2	15	11.20		62.4	13725	81.5	98.0	72.5	15825	81.5	98.0	296			32.8	833	144	65.3							178	80.7									
2	P60A0050A8	5	3.7	200-208	16.1	4830	77.5	86.5	18.0	5490	78.5	88.0	96	3600	H	23.0	583	87	39.5	48	1219	10	254	13.5	343	115	52.2									
	P60A0075A8	7.5	5.5		23.3	7000	80.0	87.5	26.8	8070	80.0	88.5	140			24.3	618	97	44.0							127	57.6									
	P60A0100A8	10	7.5		31.5	9090	82.5	86.5	35.0	10400	82.5	88.0	187			25.6	650	104	47.2							134	60.8									
	P60A0150A8	15	11		44.9	13440	83.5	87.0	50.8	15460	83.5	88.5	268			28.1	713	117	53.1							151	68.5									
	P60A0200A8	20	15		59.0	17850	83.0	87.5	67.1	20630	83.0	89.0	354			30.3	770	132	59.9							166	75.3									
	P60A0250A8	25	19		76.8	22110	84.0	85.5	86.5	25520	84.0	87.5	445			32.8	834	144	65.3							180	81.6									
	P60A0300A8	30	22		91.7	26420	84.5	86.0	103.3	30450	84.5	87.5	530			35.6	904	165	74.8							207	93.9									
	P60A0050A3	5	3.7		14.4	4830	77.5	86.5	16.1	5490	78.5	88.0	87			23.0	583	87	39.5							115	52.2									
	P60A0075A3	7.5	5.5		21.5	7000	80.0	87.5	24.1	8070	80.0	88.5	127			24.3	618	97	44.0							127	57.6									
	P60A0100A3	10	7.5		28.0	9090	82.5	86.5	31.5	10400	82.5	88.0	164			25.6	650	104	47.2							134	60.8									
	P60A0150A3	15	11		40.9	13440	83.5	87.0	46.3	15460	83.5	88.5	237			28.1	713	117	53.1							151	68.5									
	P60A0200A3	20	15		53.2	17850	83.0	87.5	60.8	20630	83.0	89.0	312			30.3	770	132	59.9							166	75.3									
P60A0250A3	25	19	66.7	22110	84.0	85.5	76.0	25520	84.0	87.5	387	32.8	834	144	65.3	180	81.6																			
P60A0300A3	30	22	79.3	26420	84.5	86.0	90.2	30450	84.5	87.5	458	35.6	904	165	74.8	207	93.9																			
3	P60A0050A4	5	3.7	460	7.0	4830	77.5	86.5	8.0	5490	78.5	88.0	44	6750	H	23.0	583	87	39.5	48	1219	10	254	13.5	343	115	52.2									
	P60A0075A4	7.5	5.5		10.0	7000	80.0	87.5	11.3	8070	80.0	88.5	62			24.3	618	97	44.0							127	57.6									
	P60A0100A4	10	7.5		13.1	9090	82.5	86.5	14.8	10400	82.5	88.0	82			25.6	650	104	47.2							134	60.8									
	P60A0150A4	15	11		20.4	13440	83.5	87.0	23.0	15460	83.5	88.5	117			28.1	713	117	53.1							151	68.5									
	P60A0200A4	20	15		25.8	17850	83.0	87.5	29.4	20630	83.0	89.0	151			30.3	770	132	59.9							166	75.3									
	P60A0250A4	25	19		32.8	22110	84.0	85.5	36.8	25520	84.0	87.5	187			32.8	834	144	65.3							180	81.6									
	P60A0300A4	30	22		39.3	26420	84.5	86.0	44.6	30450	84.5	87.5	226			35.6	904	165	74.8							207	93.9									
	P60A0400A4	40	30		51.3	35030	85.0	87.5	58.6	40500	85.0	89.0	302			39.3	999	187	84.8							229	103.9									
	P60A0500A4	50	37		65.8	44350	84.0	87.0	75.1	51200	84.0	88.0	385			54.1	1374	265	120.2							319	144.7									
	P60A0050A5	5	3.7		575	5.8	4830	77.5	86.5	6.5	5490	78.5	88.0			35	3600	H	23.0							584	87	39.5	48	1219	10	254	13.5	343	115	52.2
	P60A0075A5	7.5	5.5			8.2	7000	80.0	87.5	9.3	8070	80.0	88.5			51			24.3							617	97	44.0							127	57.6
	P60A0100A5	10	7.5			10.5	9090	82.5	86.5	11.8	10400	82.5	88.0			61			25.6							650	104	47.2							134	60.8
P60A0150A5	15	11	15.0	13440		83.5	87.0	17.1	15460	83.5	88.5	88	28.1	714	117	53.1			151	68.5																
P60A0200A5	20	15	20.9	17850		83.0	87.5	23.7	20630	83.0	89.0	122	30.3	770	132	59.9			166	75.3																
P60A0250A5	25	19	26.2	22110		84.0	85.5	29.7	25520	84.0	87.5	153	32.8	833	144	65.3			180	81.6																
P60A0300A5	30	22	31.0	26420		84.5	86.0	35.0	30450	84.5	87.5	179	35.6	904	165	74.8			207	93.9																
P60A0400A5	40	30	41.5	35030		85.0	87.5	47.3	40500	85.0	89.0	247	39.3	998	187	84.8			229	103.9																

Note:
 Pentek XE-6 single phase motors must use the corresponding Pentek control box. Use of any other control box will void the warranty.

Pentek® XE-6 Controls

For Pentek XE-6 Single Phase Motors



14 ga steel enclosure with polyester powder-coated paint

- Heavy-duty construction, high durability and corrosion-resistance

Continuous hinge door

- Easy access - no need to remove during installation or service
- Opens past 180° for easy access

Integral mounting flange

- Easy to wall-mount while maintaining NEMA 4 rating

Multiple knockout (embossed) options

- 2 - dual 1/2" - 3/4"
- 2 - dual 3/4" - 1"
- 2 - dual 1-1/4" - 1- 1/2"

Seamless, foamed-in-place door gasket

- Excellent protection against intrusion from dirt, dust, rain, sleet, snow or wind-directed water

Bonding provision on door

- When required by code

NEMA 4 rated enclosure (compare to competition at only NEMA 3)

IP66 Ingress Protection rating

Opens with two quarter-turn latches

- No risk of lost door fasteners, no tools needed

Locking Hasp

- Added security

Size - 16" x 14"

- Generous size allows for more room to work inside the box
- Easier conduit attachment, wire pulling, and wire connections

Terminals accept up to 4AWG wire Magnetic line contactors

- Included standard on each box

Removable back panel

- All electric components mounted on panel
- Easy installation and servicing, when down-time is critical

Pentek Single Phase Control Boxes For Pentek XE-6 Single Phase Motors

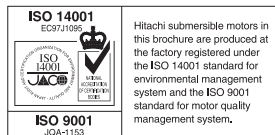
60Hz • 2 POLE

ORDERING INFORMATION

PHASE	MODEL #	HP	KW	VOLTS	CONTROL BOX DIMENSIONS						LBS	KG
					HEIGHT		WIDTH		DEPTH			
					IN	MM	IN	MM	IN	MM		
1	PTKX-5SCB	5	3.70	230	14.0	356	12.0	304.8	6.0	152.4	30	13.6
	PTKX-7SCB	7.5	5.60								32	14.5
	PTKX-10SCB	10	7.50								33.2	15.1
	PTKX-15SCB	15	11.20									

Note:
Pentek XE-6 single phase motors must use the corresponding Pentek control box. Use of any other control box will void the warranty.

Hitachi® 6" Submersible Motors



Hitachi Motors are designed and manufactured to provide long service life and trouble-free operation. Innovative design and robust characteristics make this the perfect motor for your pumping applications.

Combined with exceptional insulation and a patented epoxy fill resin, these motors exceed NEMA requirements for high water temperature by 18° F (10° C). Designed with internal lubrication and cooling blend of water, antifreeze, and an antirust mixture, Hitachi submersible motors are unique in providing the industry with innovative and robust design features that will extend the serviceable life of your installation.

APPLICATIONS

High-thrust, deep water well applications.

SPECIFICATIONS

Motor Sleeve: Stainless steel construction

Castings: Baked epoxy-coated gray cast iron

Fasteners: Stainless steel

Shaft: NEMA splined stainless steel

Flange: NEMA standard type

Rotor: Double epoxy-coated

Thrust Bearings: Kingsbury-type 420 stainless steel

Double Lip Seals: Nitrile rubber (NBR), sand-resistant, grease-packed for harsh, sandy well conditions

Diaphragm: Nitrile rubber

Sand Cap: Polyurethane

Sand Slinger: Stainless steel

Lead Wire (or Cable): Double-insulated, heat and water-resistant, 167°F/75°C, 600V

FEATURES

Higher Efficiencies and Lower Current Consumption: For reduced energy costs.

Carbon Bearings: Two water-lubricated carbon bearings, for extra alignment support, serve as a steady bushing for the motor.

Corrosion-Resistant Design: For long life.

High-Capacity Kingsbury-Type Bearings: For dependable performance.

Low-Profile NEMA Design: For ease of installation.

Replaceable Plug-in Motor Lead: For ease of maintenance.

Dual Voltage Type: For application versatility (5HP – 30HP, 230V or 460V, 3-phase motors).

VFD-Compatible

Hitachi Control Box – Single Phase, 230V (Required for Hitachi 10 motors)

- Type 1 NEMA Enclosure
- In-Panel Circuit Breaker
- Magnetic Contactor
- Terminal Blocks for External Controls
- UL Recognized



Hitachi single phase motors must use a Hitachi control box. Use of any other control box will void the warranty.

Hitachi® 6" Submersible Motors

ORDERING INFORMATION

HP	KW	VOLTS	PH	SERVICE FACTOR	CATALOG NUMBER	RATED INPUT AMPS	SERVICE FACTOR INPUT AMPS	WINDING RESISTANCE (OHMS)	THRUST CAPACITY	LENGTH (L)		DIAMETER (D)		WEIGHT	
										IN.	MM	IN.	MM	LBS.	KG
6" DIAMETER 60 HZ															
5	3.7	200	3	1.15	6HIT2-5-8	17.5	19.5	RTF	3,500	22.95"	582.9	5.5"	139.7	95	43.0
5	3.7	230	1	1.15	6HIT2-5-1	24	27.5	R-Y, B-Y, R-B, 2.172, 0.512, 2.627	3,500	26.97"	685.0	5.5"	139.7	110	49.9
5	3.7	230	3	1.15	6HIT2-5-2	15	17	0.806	3,500	22.95"	582.9	5.5"	139.7	95	43.0
5	3.7	460	3	1.15	6HIT2-5-4	7.5	8.5	3.05	3,500	22.95"	582.9	5.5"	139.7	95	43.0
7.5	5.5	200	3	1.15	6HIT2-7-8	25.4	28.5	RTF	3,500	24.80"	629.9	5.5"	139.7	99	43.0
7.5	5.5	230	1	1.15	6HIT2-7-1	36	41	R-Y, B-Y, R-B, 1.401, 0.400, 1.774	3,500	29.92"	760.0	5.5"	139.7	128	58.1
7.5	5.5	230	3	1.15	6HIT2-7-2	22	26	0.651	3,500	24.80"	629.9	5.5"	139.7	99	43.0
7.5	5.5	460	3	1.15	6HIT2-7-4	11	13	2.43	3,500	24.80"	629.9	5.5"	139.7	99	43.0
10	7.5	200	3	1.15	6HIT2-10-8	33.3	37.2	RTF	3,500	26.97"	685.0	5.5"	139.7	110	49.9
10	7.5	230	1	1.15	6HIT2-10-1	50	58	R-Y, B-Y, R-B, 1.052, 0.316, 1.310	3,500	29.92"	760.0	5.5"	139.7	128	58.1
10	7.5	230	3	1.15	6HIT2-10-2	29	33	0.448	3,500	26.97"	685.0	5.5"	139.7	110	49.9
10	7.5	460	3	1.15	6HIT2-10-4	14.5	16.5	1.619	3,500	26.97"	685.0	5.5"	139.7	110	49.9
15	11	200	3	1.15	6HIT2-15-8	47.4	53.5	RTF	3,500	29.92"	760.0	5.5"	139.7	128	58.1
15	11	230	1	1.15	6HIT2-15-1	72	85	R-Y, B-Y, R-B, 0.678, 0.230, 0.850	3,500	33.46"	849.9	5.5"	139.7	148	67.1
15	11	230	3	1.15	6HIT2-15-2	42	46	0.312	3,500	29.92"	760.0	5.5"	139.7	128	58.1
15	11	460	3	1.15	6HIT2-15-4	21	23	1.074	3,500	29.92"	760.0	5.5"	139.7	128	58.1
20	15	200	3	1.15	6HIT2-20-8	61.2	69.5	RTF	3,500	31.5"	800.1	5.5"	139.7	137	62.1
20	15	230	3	1.15	6HIT2-20-2	54	60	0.258	3,500	31.5"	800.1	5.5"	139.7	137	62.1
20	15	460	3	1.15	6HIT2-20-4	27	30	0.861	3,500	31.5"	800.1	5.5"	139.7	137	62.1
25	18.5	200	3	1.15	6HIT2-25-8	77.3	87.5	RTF	3,500	36.22"	920.0	5.5"	139.7	161	73.0
25	18.5	230	3	1.15	6HIT2-25-2	68	76	0.21	3,500	36.22"	920.0	5.5"	139.7	161	73.0
25	18.5	460	3	1.15	6HIT2-25-4	34	38	0.666	3,500	36.22"	920.0	5.5"	139.7	161	73.0
30	22	200	3	1.15	6HIT2-30-8	91.8	104	RTF	3,500	38.19"	970.0	5.5"	139.7	176	79.8
30	22	230	3	1.15	6HIT2-30-2	82	94	0.166	3,500	39.19"	970.0	5.5"	139.7	176	79.8
30	22	460	3	1.15	6HIT2-30-4	41	47	0.554	3,500	38.19"	970.0	5.5"	139.7	176	79.8
40	30	460	3	1.15	6HIT2-40-4	56	61	0.358	5,000	40.55"	1,030.0	5.5"	139.7	187	84.8

NOTE: 6" motors are 3450 rpm, 60 Hz, 1.15 SF.

Hitachi single phase motors must use a Hitachi control box. Use of any other control box will void the warranty.

OUTLINE DIMENSIONS



Shaft Extension
2.87" (72.9 mm)

For lengths, refer to Ordering Information tables.

Dimensions are for estimating purposes only.

ORDERING INFORMATION

HP	KW	VOLTS	PH	CATALOG NUMBER
HITACHI CONTROL BOX				
5	3.7	230	1	HIT-5CBD
7.5	5.5	230	1	HIT-7.5CBD
10	7.5	230	1	HIT-10CBD
15	11	230	1	HIT-15CBD

SJH Series

Self-priming shallow well jet pumps, stainless steel body



SJH models provide excellent performance with good pressure for wells to 25' deep. Self-priming after the priming chamber has been filled with water.

APPLICATIONS

Water systems and sprinkling... for homes, farms and cottages.

SPECIFICATIONS

Maximum Liquid Temperature Limits: 122°F (50°C)

Max. Inlet Pressure: 50 PSI

Average Priming Time at 20 Feet:

07SJH11C = 5.3 min.

10SJH11C = 4.2 min.

Body: 304 Stainless steel

Jet Assembly, Diffuser, Impeller: Noryl®

Shaft: One-piece threaded, 416 grade stainless steel

Base: Polypropylene

FEATURES

Corrosion Free: Stainless steel pump body provides maximum resistance to corrosion.

Built-in Jet: High-strength thermoplastic components are corrosion resistant.

Mechanical Shaft Seal: Highly polished carbon-ceramic and stainless steel construction.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants... assure prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency, dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

Dustproof Cover: All electrical components are protected from dirt, dust and insects by a dustproof canopy; ventilating air cannot contaminate vital switching components.

Pressure Switch: Quality, fixed differential (20 PSI).

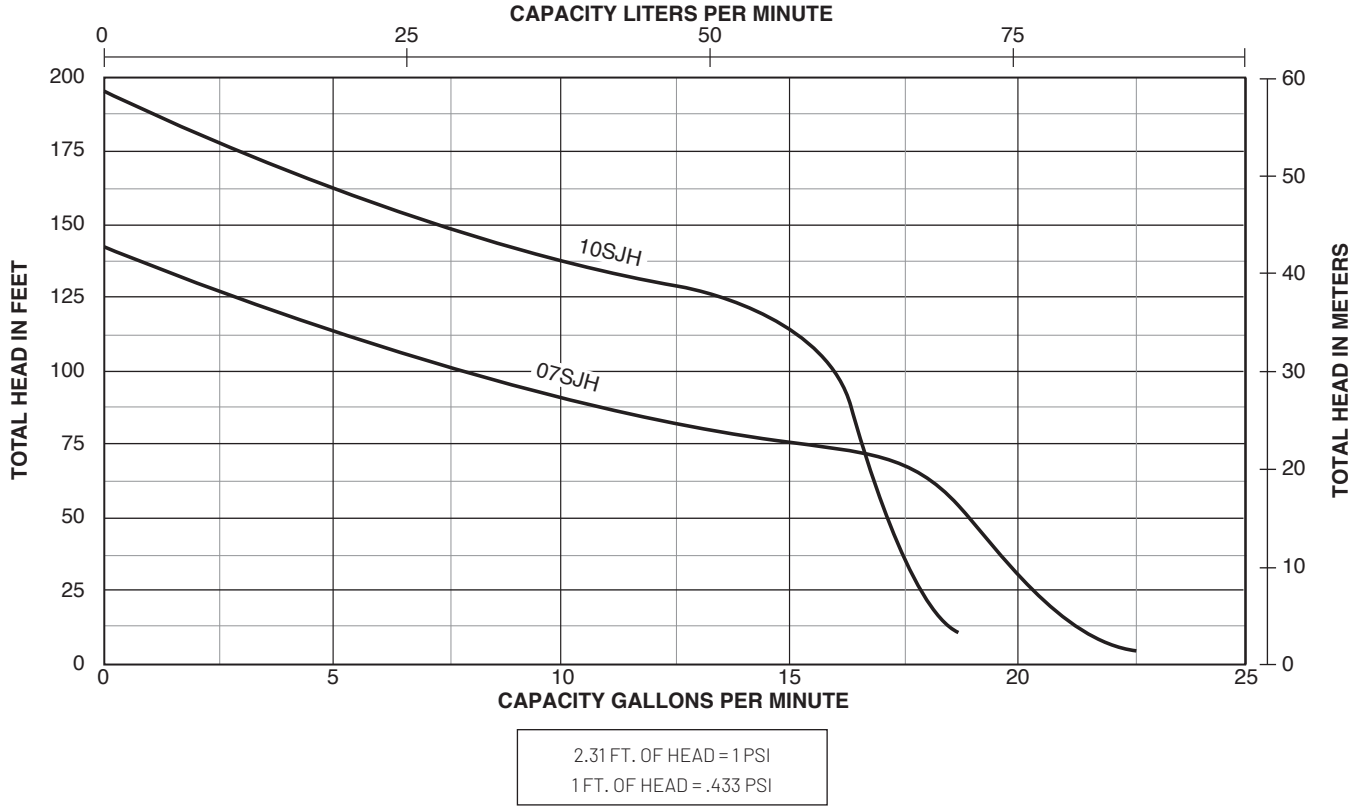
ORDERING INFORMATION

CATALOG NUMBER	HP	SWITCH SETTING	DESCRIPTION	PIPE TAPPING SIZES		MOTOR VOLTAGE	APPROX. WT. LBS.
				SUCTION	DISCHARGE		
07SJH11C	3/4	30-50	Shallow Well Jet	1-1/4"	1"	115/230	26
10SJH11C	1	40-60	Shallow Well Jet	1-1/4"	1"	115/230	29

SJH Series

Self-priming shallow well jet pumps, stainless steel body

PUMP PERFORMANCE



PUMP PERFORMANCE (Capacity in gallons per minute)								
CATALOG NUMBER	HP	DISCH. PRESSURE PSI	DEPTH TO WATER					SHUT-OFF PRESSURE PSI
			5'	10'	15'	20'	25'	
07SJH	3/4	30	15.0	13.5	11.9	10.4	9.1	64
		40	8.3	7.1	6.1	5.2	4.3	
		50	3.7	2.9	1.9	1.0	0.2	
10SJH	1	40	16.2	14.6	12.6	10.6	7.5	80
		50	15.4	14.3	12.3	10.3	7.3	
		60	9.5	9.5	9.5	9.5	7.1	

Tested and rated in accordance with Water Systems Council Standards.

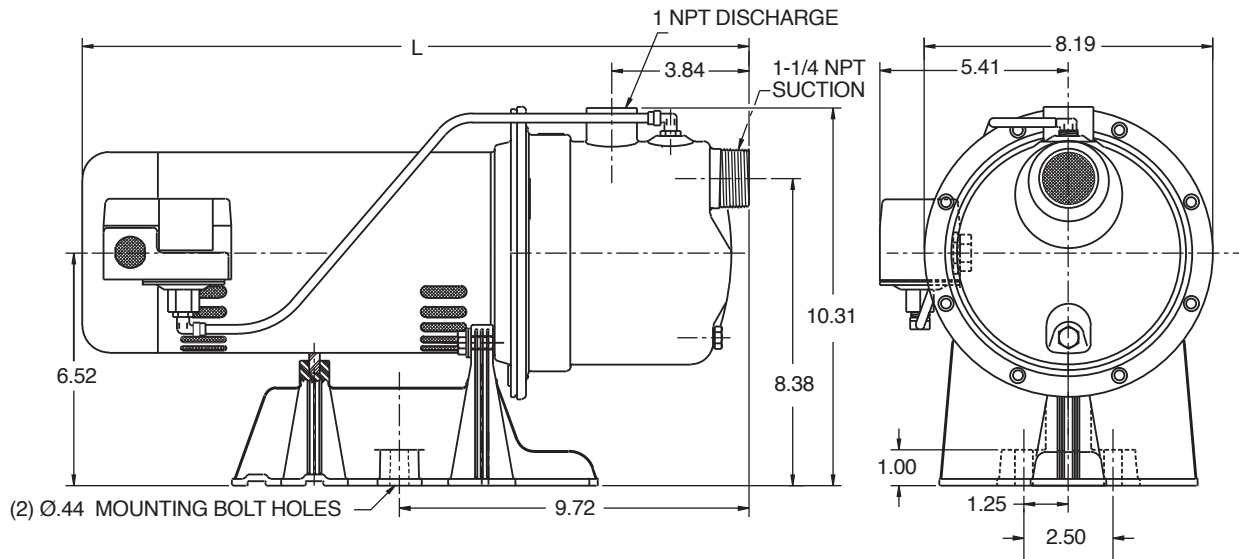
NOTE: CJ90E uses 30-50 PSI pressure switch; CJ90F uses 40-60 PSI pressure switch.

Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

SJH Series

Self-priming shallow well jet pumps, stainless steel body

OUTLINE DIMENSIONS

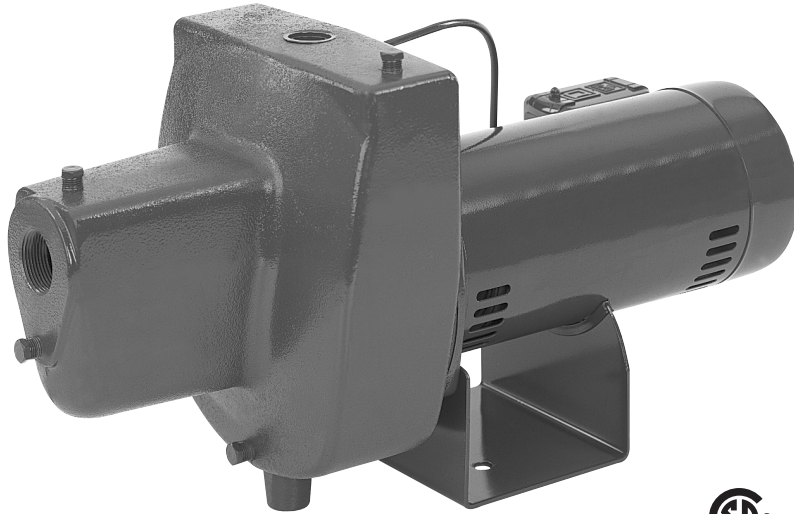


CATALOG NUMBER	L
7SJH	18.19
10SJH	19.25

Dimensions (in inches) are for estimating purposes only.

ProJet™ HN Series

Cast iron, self-priming shallow well jet pumps



The ProJet HN models provide excellent performance with good pressure for wells to 25' deep. Self-priming after the priming chamber has been filled with water.

APPLICATIONS

Water systems and sprinkling... for homes, farms and cottages.

SPECIFICATIONS

Max. Liquid Temperature: 140°F

Max. Inlet Pressure: 50 PSI

Average Priming Time (in minutes) at 15 Feet:

5HN = 1.7; 7HN = 1.1; 10HN = 1.3

Average Priming Time (in minutes) at 25 Feet:

5HN = 4.4; 7HN = 4.4; 10HN = 2.6

Body: Close-grained cast iron

Nozzle: High-strength Lexan®

Venturi: Lexan®

Impeller: Noryl®

Diffuser: Reinforced polypropylene

Shaft: One-piece threaded, 416 grade stainless steel

Base: Steel, 12 gauge

FEATURES

Quality Construction: Close-grained cast iron body, specially treated for corrosion resistance. Drain port provided for easy winterizing.

Built-in Jet: High-strength Lexan nozzle and venturi for maximum resistance to corrosion and abrasion. Cleanout plug provided for ease of service.

Noryl Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

Mechanical Shaft Seal: Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...assure prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency, dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

Pressure Switch: Professional quality, allows cut-in and differential adjustments.

ORDERING INFORMATION

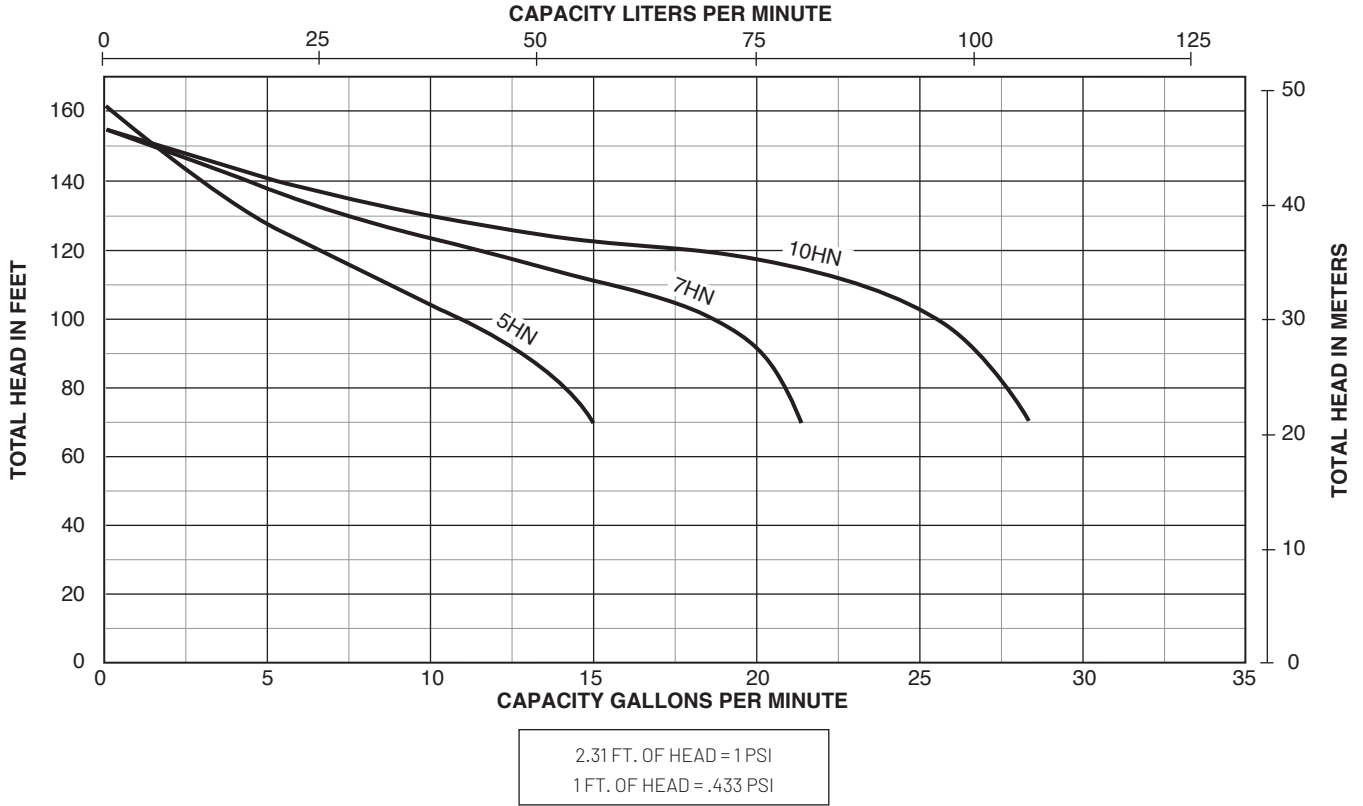
CATALOG NUMBER	HP	SWITCH SETTING	DESCRIPTION	PIPE TAPPING SIZES		MOTOR VOLTAGE	APPROX. WT. LBS.
				SUCTION	DISCHARGE		
5HN	1/2	30-50	Shallow Well Jet	1-1/4"	1"	115/230	47
7HN	3/4	30-50	Shallow Well Jet	1-1/4"	1"	115/230	65
10HN	1	30-50	Shallow Well Jet	1-1/4"	1"	115/230	70

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ProJet™ HN Series

Cast iron, self-priming shallow well jet pumps

PUMP PERFORMANCE



PUMP PERFORMANCE (Capacity in gallons per minute)

CATALOG NUMBER	HP	DISCH. PRESSURE PSI	DYNAMIC SUCTION LIFT					SHUT-OFF PRESSURE PSI
			5'	10'	15'	20'	25'	
5HN	1/2	30	15.0	13.0	11.6	8.7	6.9	70
		40	12.5	11.4	10.1	8.2	6.8	
		50	8.0	6.8	6.1	4.8	3.5	
7HN	3/4	30	21.4	19.1	16.5	13.3	9.5	67
		40	20.8	18.7	15.8	13.2	9.3	
		50	13.5	11.6	10.1	7.4	2.4	
10HN	1	30	28.5	25.0	21.4	17.4	12.6	67
		40	28.3	24.4	21.0	17.2	12.3	

Pump will operate at all depths shown, with pressure switch set at 30-50 PSI.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

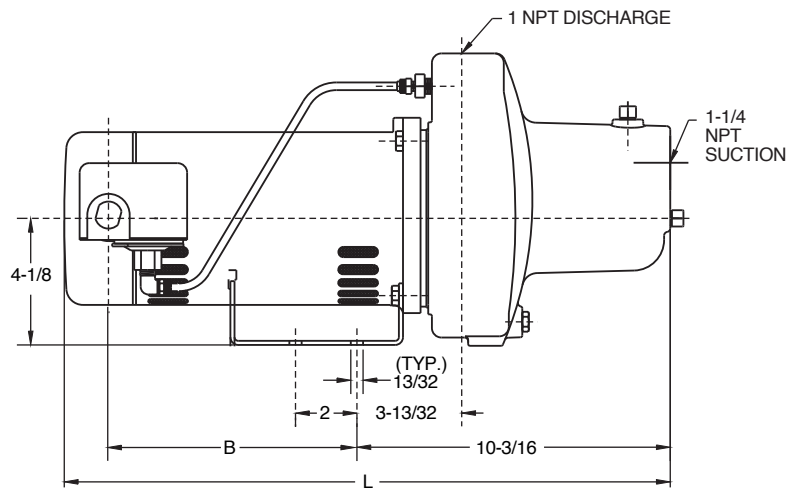
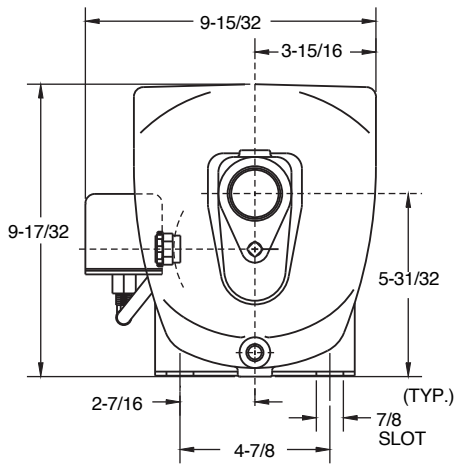
ProJet™ HN Series

Cast iron, self-priming shallow well jet pumps

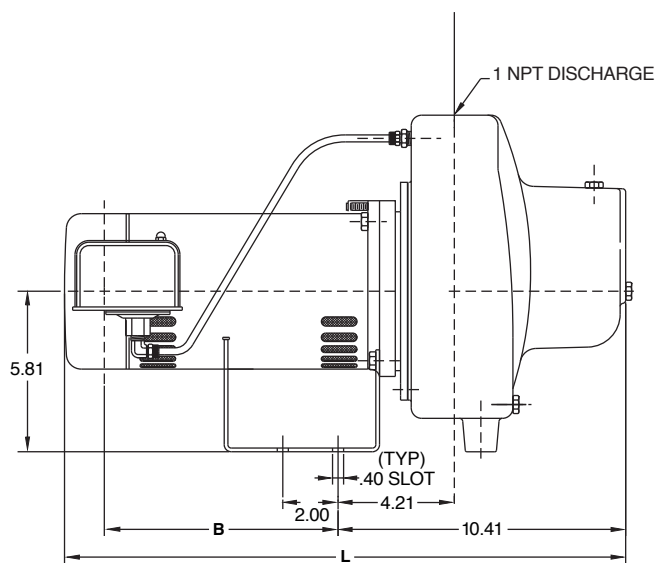
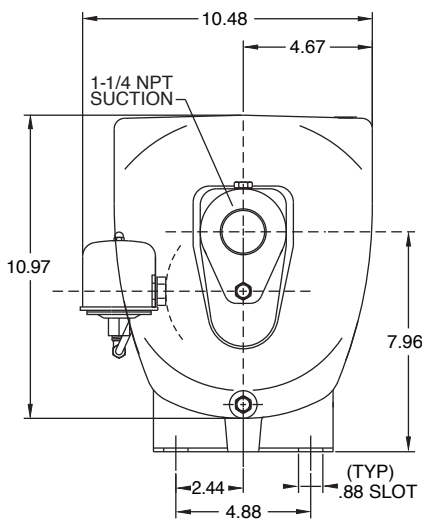
OUTLINE DIMENSIONS

CATALOG NUMBER	L	B
5HN	18.7	7.1
7HN	21.3	7.0
10HN	22.4	8.0

5HN



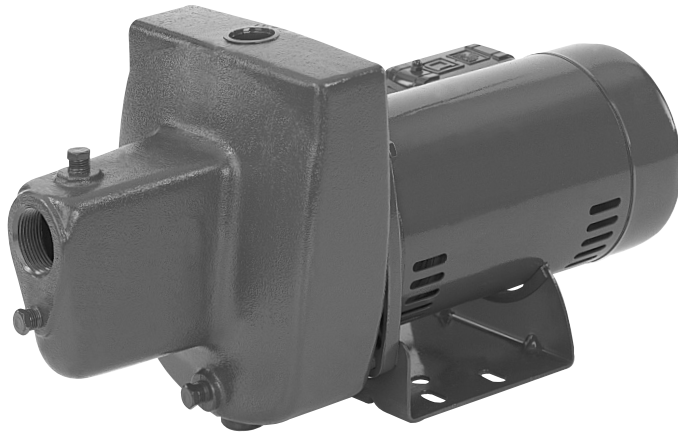
7HN and 10HN



Dimensions (in inches) are for estimating purposes only.

ProJet™ SN Series

Cast iron, self-priming shallow well jet pumps



The ProJet SN Series Pumps provide excellent performance with good pressure for wells to 25' deep. Self-priming after the priming chamber has been filled with water.

APPLICATIONS

Water systems and sprinkling... for homes, farms and cottages.

SPECIFICATIONS

Max. Liquid Temperature: 140°F

Max. Inlet Pressure: 50 PSI

Average Priming Time (in minutes) at 15 Feet:

5SN = 2.3; 7SN = 1.7
10SN = 1.3; 15SN = 1.1

Average Priming Time (in minutes) at 25 Feet:

5SN = 6.4; 7SN = 4.4
10SN = 4.4; 15SN = 2.6

Body: Close-grained cast iron

Nozzle: High-strength Lexan®

Venturi: Lexan

Impeller: Noryl®

Diffuser: Reinforced polypropylene

Shaft: One-piece threaded, 416 grade stainless steel

Base: Steel, 12 gauge

FEATURES

Quality Construction: Close-grained cast iron body. Drain port provided for easy winterizing.

Built-in Jet: High-strength Lexan nozzle and venturi for maximum resistance to corrosion and abrasion. Cleanout plug provided for ease of service.

Noryl Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser:

Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

Mechanical Shaft Seal: Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...assure prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency, dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

Dustproof Cover: All electrical components are protected from dirt, dust and insects by a dustproof canopy; ventilating air cannot contaminate vital switching components.

Pressure Switch: Professional quality, allows cut-in adjustments.

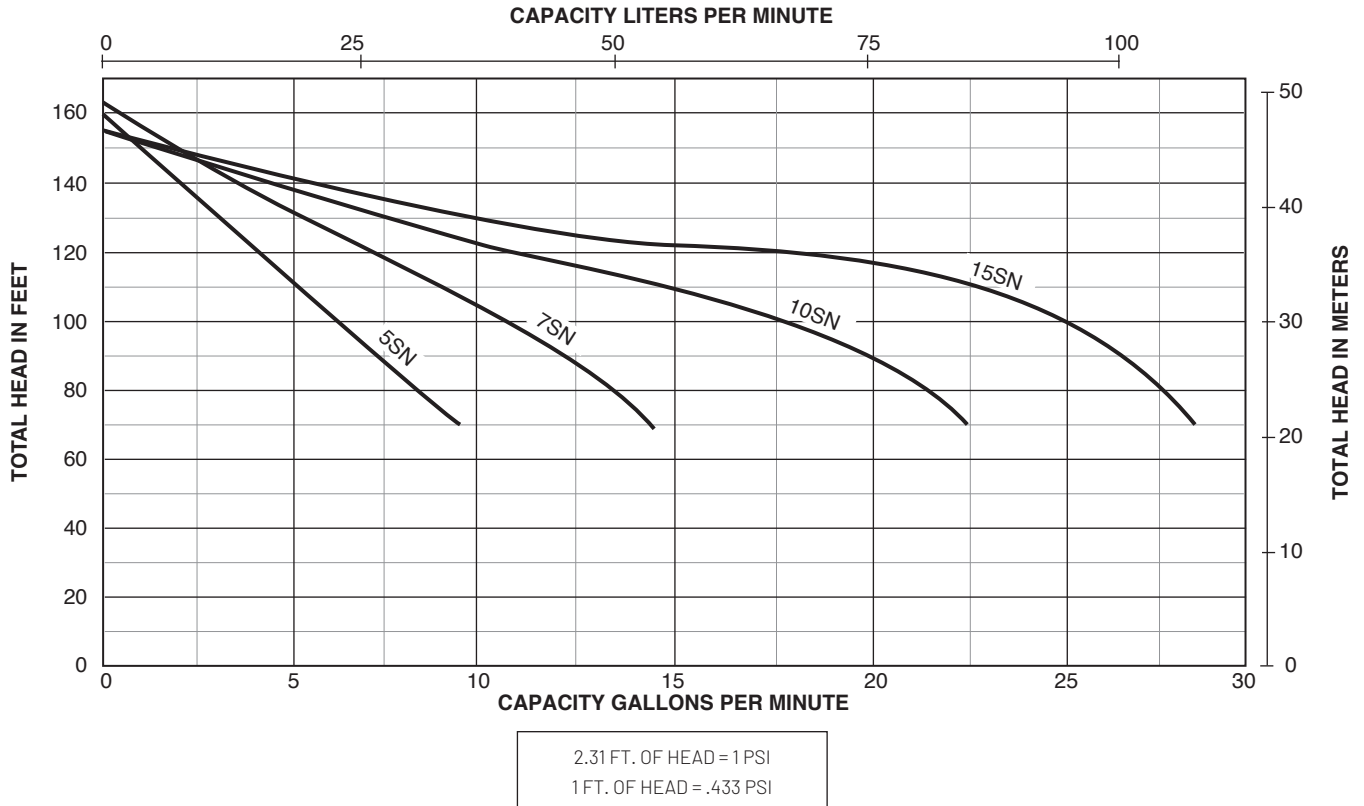
ORDERING INFORMATION

CATALOG NUMBER	HP	SWITCH SETTING	DESCRIPTION	PIPE TAPPING SIZES		MOTOR VOLTAGE	APPROX. WT. LBS.
				SUCTION	DISCHARGE		
5SN	1/2	30-50	Shallow Well Jet	1-1/4"	1"	115/230	45
7SN	3/4	30-50	Shallow Well Jet	1-1/4"	1"	115/230	47
10SN	1	30-50	Shallow Well Jet	1-1/4"	1"	115/230	55
15SN	1-1/2	30-50	Shallow Well Jet	1-1/4"	1"	115/230	60

ProJet™ SN Series

Cast iron, self-priming shallow well jet pumps

PUMP PERFORMANCE



PUMP PERFORMANCE (Capacity in gallons per minute)								
CATALOG NUMBER	HP	DISCH. PRESSURE PSI	DYNAMIC SUCTION LIFT					SHUT-OFF PRESSURE PSI
			5'	10'	15'	20'	25'	
5SN	1/2	30	9.7	8.3	7.4	5.9	4.3	70
		40	7.9	7.2	6.4	5.6	4.1	
		50	4.5	3.8	3.1	2.7	1.8	
7SN	3/4	30	15.0	13.0	11.6	8.7	6.9	70
		40	12.5	11.4	10.1	8.2	6.8	
		50	8.0	6.8	6.1	4.8	3.5	
10SN	1	30	21.4	19.1	16.5	13.3	9.5	67
		40	20.8	18.7	15.8	13.2	9.3	
		50	13.5	11.6	10.1	7.4	2.4	
15SN	1-1/2	30	28.5	25.0	21.4	17.4	12.6	67
		40	28.3	24.4	21.0	17.2	12.3	
		50	21.5	18.3	10.9	3.1	1.6	

Pump will operate at all depths shown, with pressure switch set at 30-50 PSI.
 Tested and rated in accordance with Water Systems Council Standards.
 NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve.
 Pumps installed with a conventional tank require a 75 PSI relief valve.
 Relief valve must be capable of relieving entire flow of pump at relief pressure.

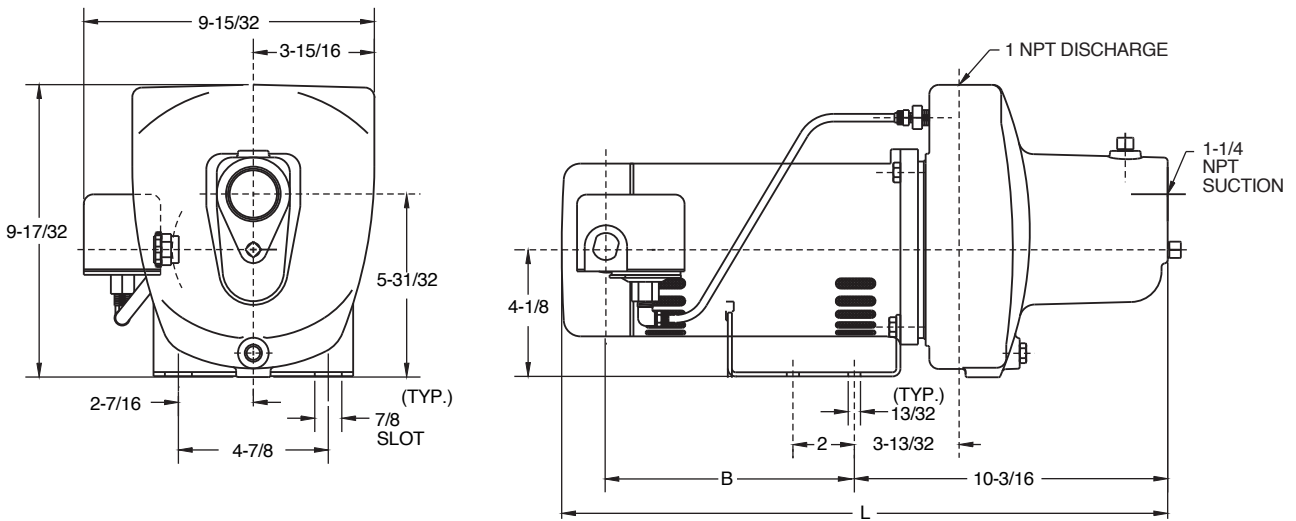
ProJet™ SN Series

Cast iron, self-priming shallow well jet pumps

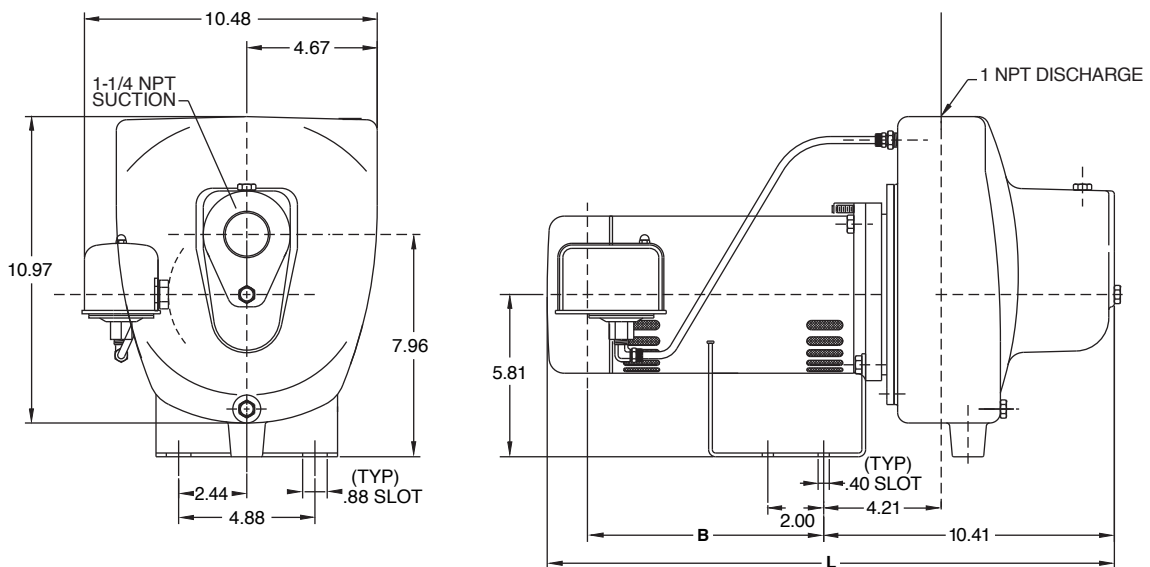
OUTLINE DIMENSIONS

CATALOG NUMBER	L	B
5SN	18.7	7.1
7SN	18.7	7.1
10SN	21.3	7.0
15SN	22.4	8.0

5SN and 7SN



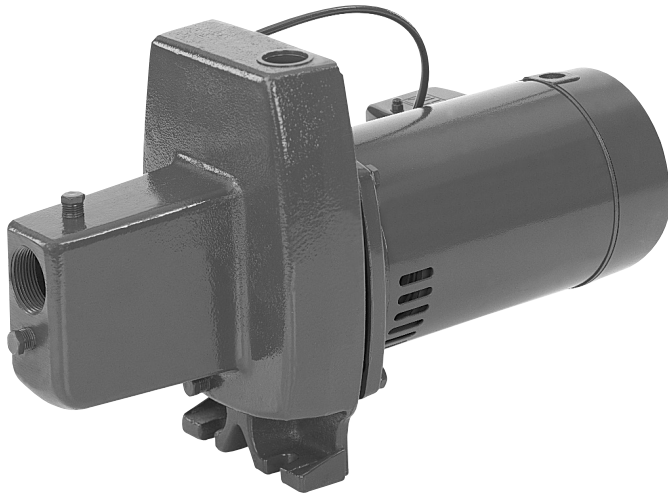
10SN and 15SN



Dimensions (in inches) are for estimating purposes only.

FN Series

Cast iron, self-priming shallow well jet pumps



The FN Series provides strong performance with good pressure for wells to 25' deep. Self-priming after the priming chamber has been filled with water.

APPLICATIONS

Water systems and sprinkling...
for homes, farms and cottages.

SPECIFICATIONS

5FN Priming Time (in minutes):

at 15': 2.25 minutes max.
at 25': 6.5 minutes max.

7FN Priming Time (in minutes):

at 15': 1.7 minutes max.
at 25': 4.4 minutes max.

Max. Liquid Temperature: 140°F

5FN Max. Inlet Pressure: 60 PSI

7FN Max. Inlet Pressure: 50 PSI

Max. Inlet PSI + Pump Discharge PSI: Not to exceed 100 PSI

Body and Base: Close-grained cast iron

Nozzle: High-strength polycarbonate

Venturi: Polycarbonate

Impeller: Noryl®

Diffuser: Reinforced polypropylene

Shaft: One-piece threaded stainless steel

FEATURES

Quality Construction: Close-grained cast iron body and base, specially treated for corrosion resistance. Drain port provided for easy winterizing.

Built-in Jet: High-strength polycarbonate nozzle and venturi for maximum resistance to corrosion and abrasion. Cleanout plug provided for ease of service.

Noryl Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

Mechanical Shaft Seal: Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...assure prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency, dynamically balanced.

Heavy-Duty Ball Bearings: Sealed, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

Dustproof Cover: All electrical components are protected from dirt, dust and insects by a dustproof canopy; ventilating air cannot contaminate vital switching components.

Pressure Switch: Adjustable cut-in and fixed differential (20 PSI).

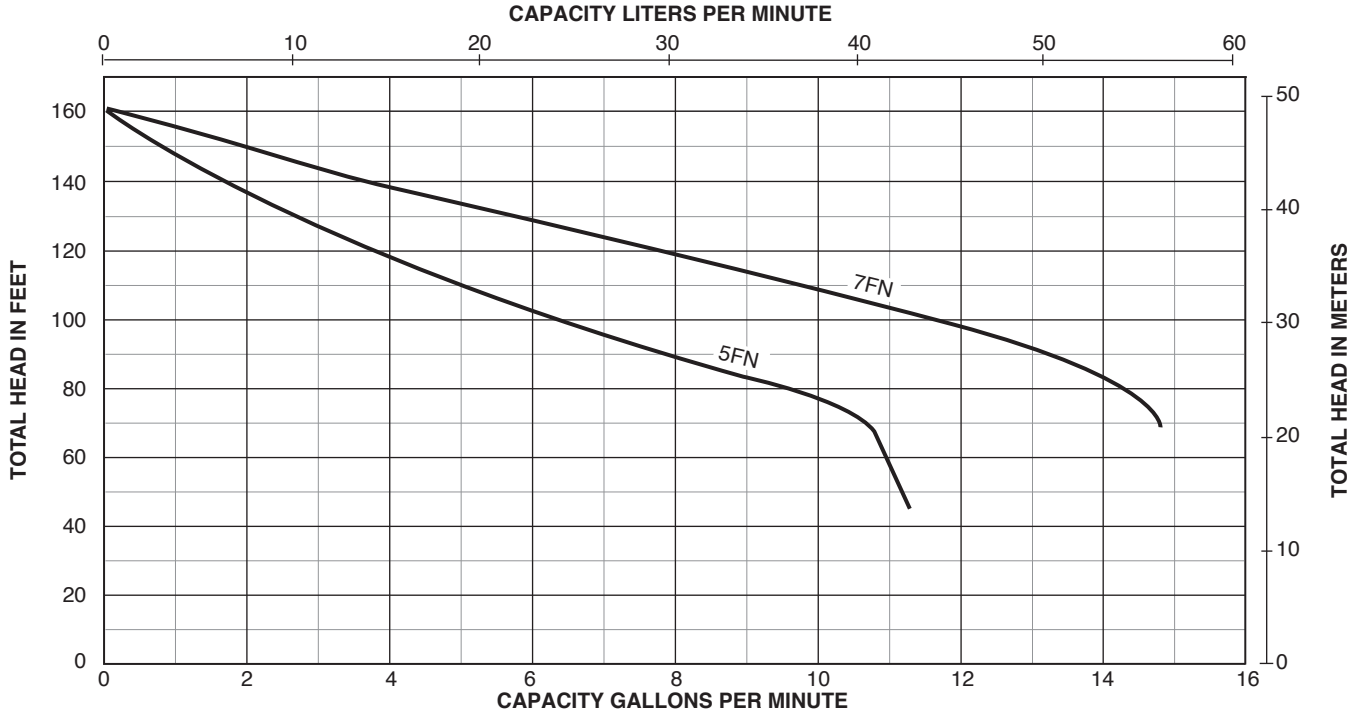
ORDERING INFORMATION

CATALOG NUMBER	HP	SWITCH SETTING	DESCRIPTION	PIPE TAPPING SIZES		MOTOR VOLTAGE	APPROX. WT. LBS.
				SUCTION	DISCHARGE		
5FN	1/2	30-50	Shallow Well Jet	1-1/4"	1"	115/230	46
7FN	3/4	30-50	Shallow Well Jet	1-1/4"	1"	115/230	47

FN Series

Cast iron, self-priming shallow well jet pumps

PUMP PERFORMANCE



PUMP PERFORMANCE (Capacity in gallons per minute)

CATALOG NUMBER	HP	DISCH. PRESSURE		DYNAMIC SUCTION LIFT					SHUT-OFF PRESSURE PSI
		PSI	FEET HEAD	5'	10'	15'	20'	25'	
5FN	1/2	20	46.2	9.8	8.8	7.5	6.2	4.5	69
		30	69.3	9.2	8.2	7.2	5.9	4.2	
		40	92.4	6.9	6.0	5.3	4.5	4.0	
		50	115.5	3.8	3.5	2.7	1.9	1.4	
7FN	3/4	30	69.3	15.0	13.0	11.6	8.7	6.9	70
		40	92.4	12.5	11.4	10.1	8.2	6.8	
		50	115.5	8.0	6.8	6.1	4.8	3.5	

Pump will operate at all depths shown, with pressure switch set at 30-50 PSI.

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve.

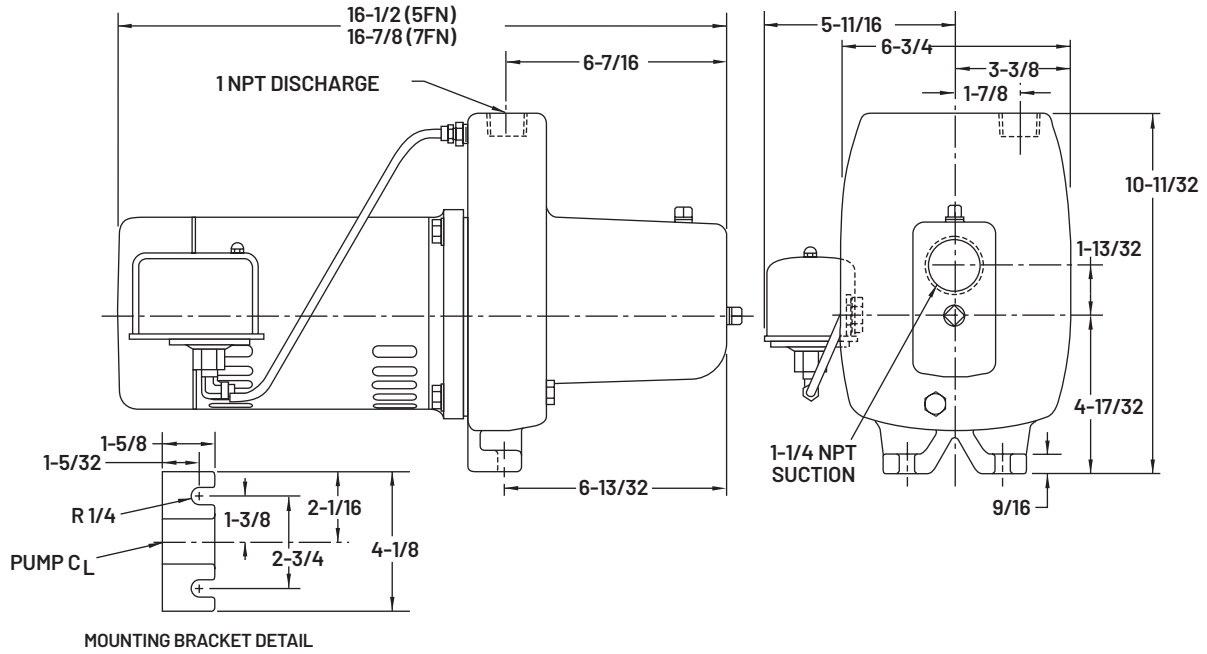
Pumps installed with a conventional tank require a 75 PSI relief valve.

Relief valve must be capable of relieving entire flow of pump at relief pressure.

FN Series

Cast iron, self-priming shallow well jet pumps

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

PN Series

Corrosion-resistant, self-priming shallow well jet pumps



PN Series Shallow Well Jet Pumps are corrosion- and abrasion-resistant and are ideal for wells with pumping levels of 25' or less.

Self-priming after the pump housing is initially filled with water.

Capacities to 18 GPM. Available in 1/2, 3/4 and 1 HP models.

Supplied with the industry standard 30-50 pressure switch setting.

APPLICATIONS

Water Systems
Booster Pump
Marine Use
Mist Sprayers - Poultry
Fountains and Water Features

SPECIFICATIONS

Body and Seal Plate: Fiberglass-reinforced thermoplastic

Impeller: Engineered polymer

Base: 12-gauge steel

Nozzle, Venturi, Diffuser: Polypropylene

FEATURES

Quality Construction: Fiberglass-reinforced thermoplastic body provides total corrosion resistance and high resistance to abrasion.

Built-in Jet: Shallow-well jet has corrosion-resistant polypropylene nozzle and venturi.

Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Polypropylene diffuser allows pump to prime faster, handle more air.

Heavy-Duty Motor: Stainless steel shaft and dual heavy-duty ball bearings.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Dual Voltage Capability: Dual voltage motors are shipped at the 230-volt setting.

Professional Quality, Pre-set 30-50 PSI: Allows for cut-in pressure adjustments.

New Nozzle Cleanout: Easy plug removal and access for ease of service.

New Drain Plug: Bottom-mounted for easy draining and winterization.

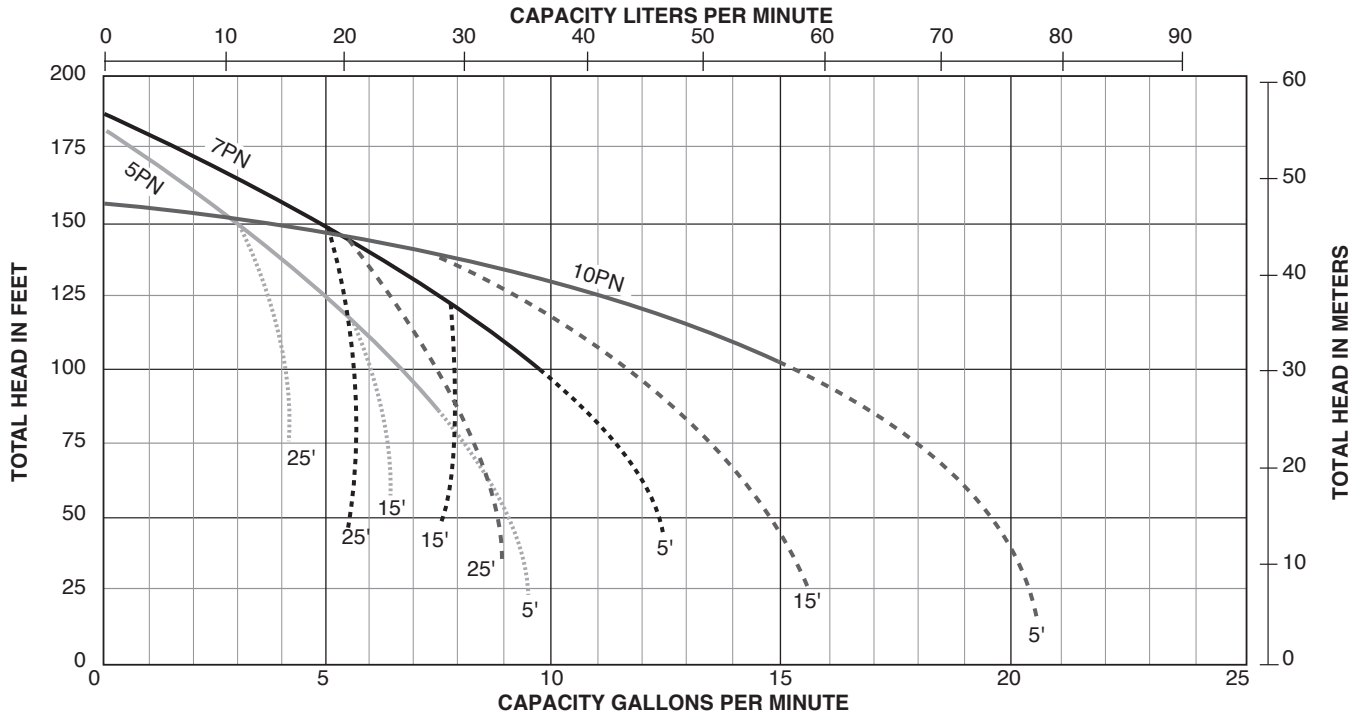
ORDERING INFORMATION

CATALOG NUMBER	HP	DESCRIPTION	PIPE TAPPING SIZES		MOTOR VOLTAGE	APPROX. WT. LBS./KG
			SUCTION	DISCHARGE		
5PN	1/2	Shallow Well Jet	1-1/4"	1"	115/230	21/9.5
7PN	3/4	Shallow Well Jet	1-1/4"	1"	115/230	24/11
10PN	1	Shallow Well Jet	1-1/4"	1"	115/230	26/12

PN Series

Corrosion-resistant, self-priming shallow well jet pumps

PUMP PERFORMANCE



PUMP PERFORMANCE (Capacity in gallons per minute)

CATALOG NUMBER	HP	DISCH. PRESSURE PSI	DYNAMIC SUCTION LIFT					SHUT-OFF PRESSURE PSI
			5'	10'	15'	20'	25'	
5PN	1/2	30	8.5	7.1	6.5	5.4	4.1	77
		40	7.4	6.4	6.1	5.1	4.0	
		50	5.2	5.1	4.5	4.1	3.4	
7PN	3/4	30	12.1	10.7	9.0	7.6	5.3	78
		40	10.7	10.2	8.5	7.3	5.7	
		50	8.5	8.4	8.1	7.1	5.1	
10PN	1	30	18.0	17.1	14.9	12.6	8.8	67
		40	16.8	16.1	14.4	12.2	8.5	
		50	13.5	13.4	13.0	12.0	8.1	

Pumps will operate at all depths shown, with pressure switch set at 30-50 PSI. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve.

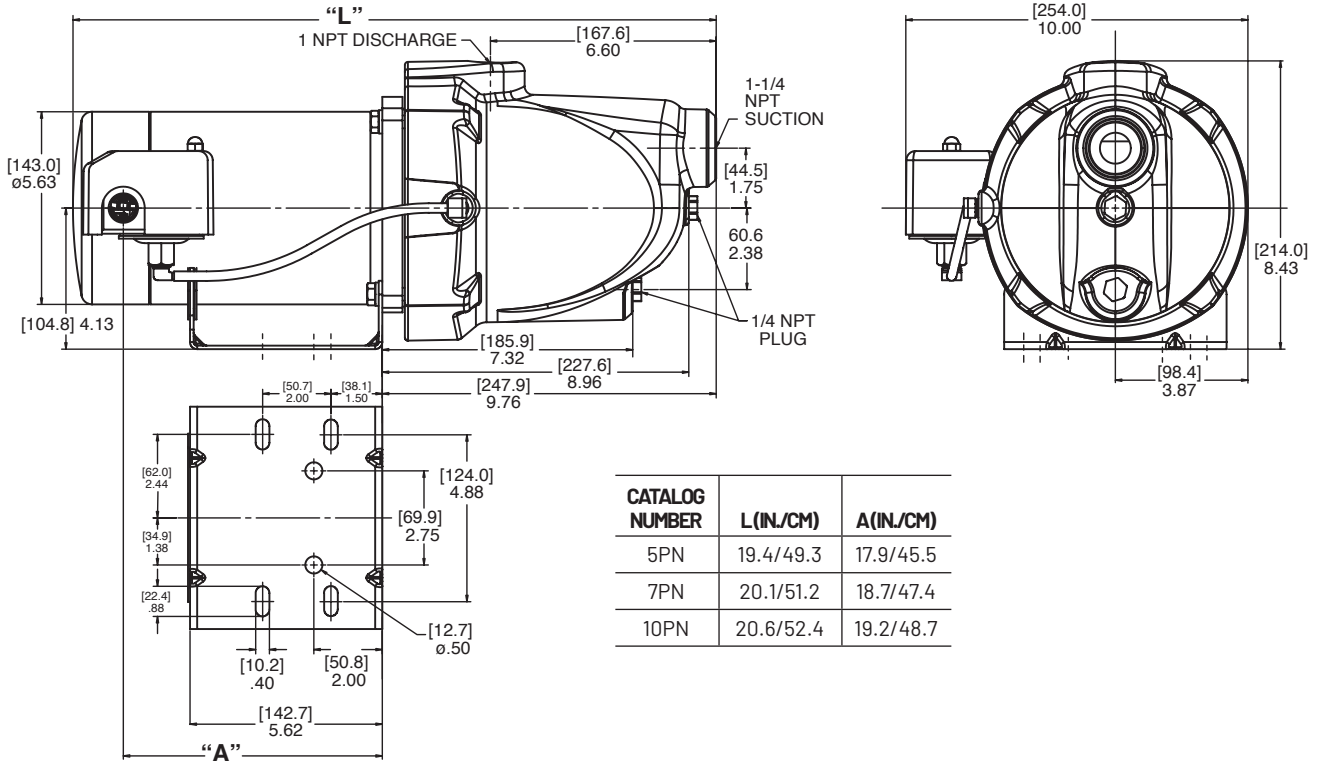
Pumps installed with a conventional tank require a 75 PSI relief valve.

Relief valve must be capable of relieving entire flow of pump at relief pressure.

PN Series

Corrosion-resistant, self-priming shallow well jet pumps

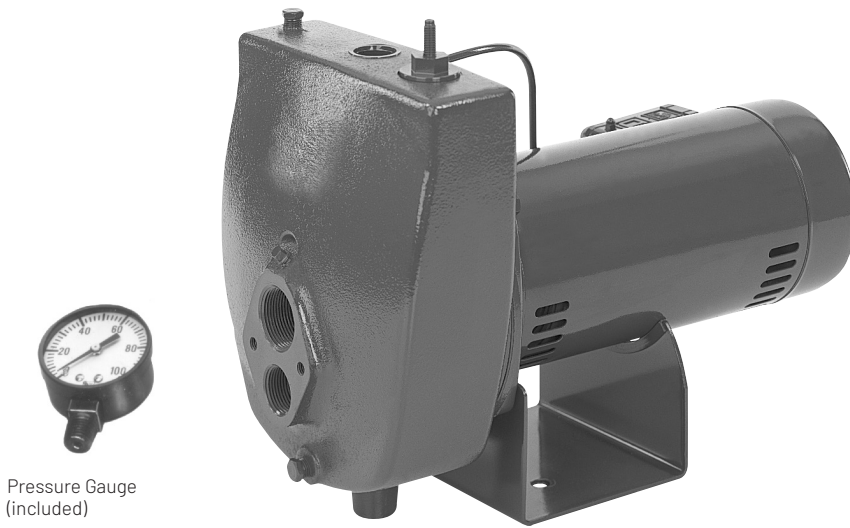
OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

ProJet™ HL Series

Cast iron, self-priming convertible jet pumps



Pressure Gauge (included)



The ProJet HL convertible jet pumps offer a proven cast iron self-priming design available in 1/2 – 1 HP models. The ProJet HL convertible jets utilize built-in regulators offering easier priming and better range of performance from a complete line of shallow well, 4" double pipe, 2" and 3" single pipe jet packages.

APPLICATIONS

Water systems and sprinkling... for homes, farms and cottages.

SPECIFICATIONS

Body and Seal Plate: Close-grained cast iron

Impeller: High-strength Noryl®

Diffuser: Reinforced polypropylene with brass wear ring

Shaft: One-piece threaded 416 stainless steel

Base: Steel, 12 gauge

Max. Liquid Temperature: 140°F

Max. Inlet Pressure: 50 PSI

Pressure Switch Pre-Set: 30-50 PSI

Suction Ports: "Suction-over-Drive"

Pressure Gauge: 0-100 PSI

FEATURES

Quality Construction: Close-grained cast iron pump body is a rugged one-piece unit, specially treated to resist corrosion. Drain port provided for easy winterizing.

Noryl Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

Pressure Switch: High quality, cut-in and differential pressure setting are adjustable.

Mechanical Shaft Seal: Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...assures prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency...dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: 416 stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

ORDERING INFORMATION

CATALOG NUMBER	HP	DESCRIPTION	PIPE TAPPING SIZES			MOTOR VOLTAGE	APPROX. WT. LBS.
			SUCTION	DRIVE	DISCHARGE		
5HL	1/2	Deep Well Jet	1-1/4"	1"	1"	115/230	42
7HL	3/4	Deep Well Jet	1-1/4"	1"	1"	115/230	60
10HL	1	Deep Well Jet	1-1/4"	1"	1"	115/230	65

A Jet Package should be ordered with every Series HL Pump.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving flow of pump at relief pressure.

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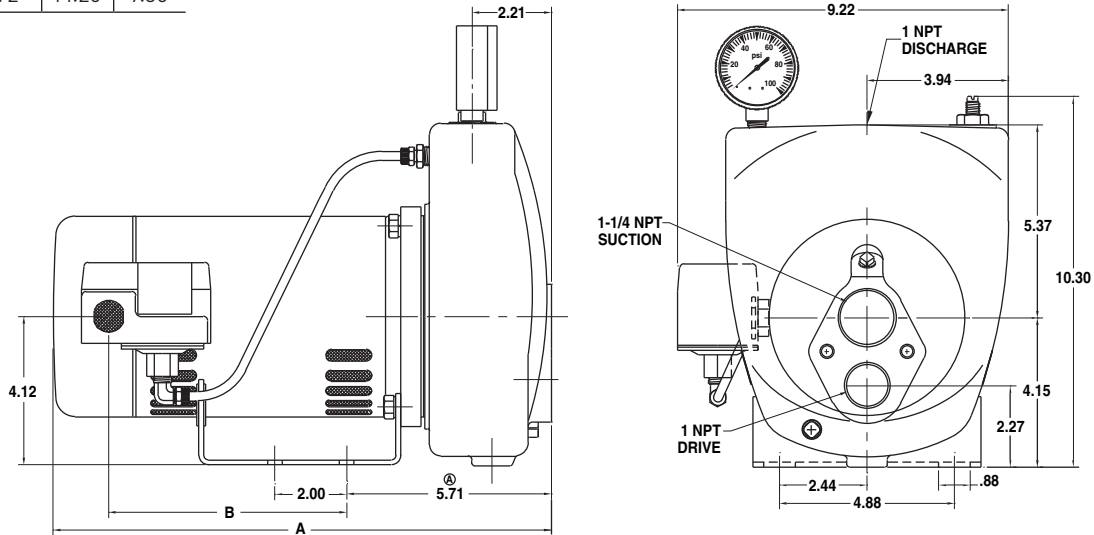
ProJet™ HL Series

Cast iron, self-priming convertible jet pumps

OUTLINE DIMENSIONS

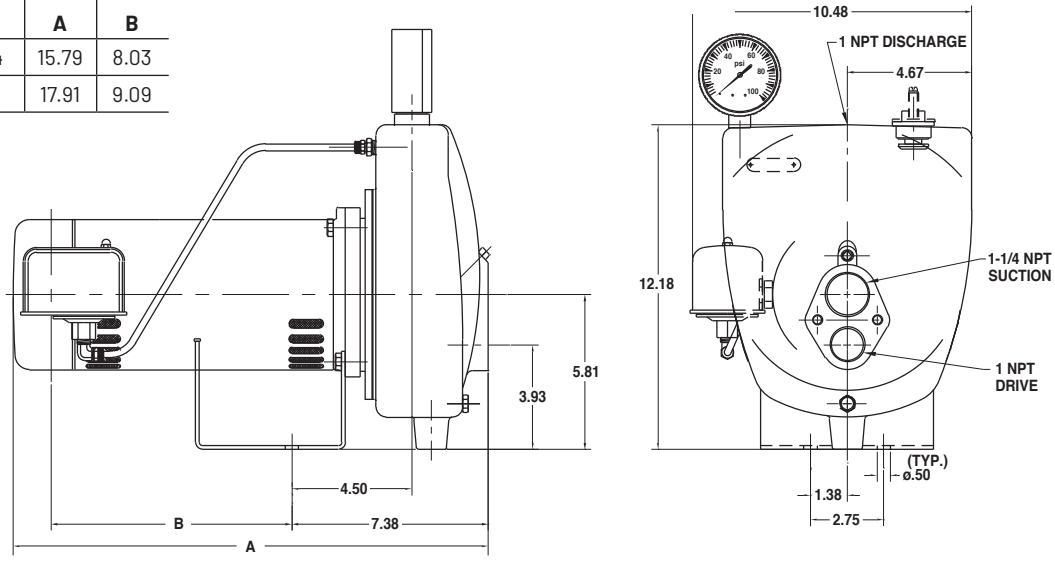
CATALOG NUMBER	HP	A	B
5HL	1/2	14.25	7.09

SHL



CATALOG NUMBER	HP	A	B
7HL	3/4	15.79	8.03
10HL	1	17.91	9.09

7HL and 10HL



Dimensions (in inches) are for estimating purposes only.

NOTE: 1/4 NPT, 0-100 PSI pressure gauge supplied uninstalled to prevent shipping damage.

ProJet™ HL Series

Cast iron, self-priming convertible jet pumps

PUMP PERFORMANCE (Capacity in gallons per minute)
SHALLOW WELL – 5', 10', 15', 20' AND 25' PUMPING DEPTHS

CAT. NO.	HP	DISCH. PRESS.	PUMPING DEPTH TO WATER IN FEET																								
			5 FT. LIFT				10 FT. LIFT				15 FT. LIFT				20 FT. LIFT				25 FT. LIFT								
5HL	1/2	JET PACKAGE	1TSD	1OSD	29SD	CK5	1TSD	1OSD	29SD	CK5	1TSD	1OSD	29SD	CK5	1TSD	1OSD	29SD	CK5	1TSD	1OSD	29SD	CK5					
		Venturi N32P- <u> </u>	-68B	-67B	-66B	-66B	-68B	-67B	-66B	-66B	-68B	-67B	-66B	-66B	-68B	-67B	-66B	-66B	-68B	-67B	-66B	-66B					
		Nozzle J43P- <u> </u>	-44	-44	-41	-45	-44	-44	-41	-45	-44	-44	-41	-45	-44	-44	-41	-45	-44	-44	-41	-45					
		20 PSI	20.6	14.4	10.1	6.6	19.0	13.2	9.3	6.1	16.5	11.5	8.1	5.3	13.3	9.5	6.9	4.5	9.8	6.9	5.3	3.4					
		30 PSI	19.6	14.3	9.9	6.5	18.1	13.1	9.1	6.0	15.7	11.4	7.9	5.2	13.3	9.5	6.7	4.4	9.8	6.9	5.1	3.4					
		40 PSI	10.3	12.1	9.8	6.4	9.4	11.2	9.0	5.9	8.2	9.7	7.8	5.1	6.4	8.3	6.6	4.3	3.1	6.3	5.1	3.3					
		50 PSI		4.6	7.3	6.3		4.3	6.7	5.8		3.7	5.8	5.0		2.6	4.9	4.3		1.0	3.8	3.3					
		60 PSI			3.5	5.8			3.2	5.3			2.8	4.6			2.4	3.9				3.0					
Shut-off-PSI	55	59	70	72	53	57	66	67	50	55	64	65	48	53	61	63	46	51	59	61							
7HL	3/4	JET PACKAGE	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1
		Venturi N32P- <u> </u>	-65	-68B	-72E	-67B	-72	-65	-68B	-72E	-67B	-72	-65	-68B	-72E	-67B	-72	-65	-68B	-72E	-67B	-72	-65	-68B	-72E	-67B	-72
		Nozzle J34P- <u> </u>	-44	-44	-43	-45	-43	-44	-44	-43	-45	-43	-44	-44	-43	-45	-43	-44	-44	-43	-45	-43	-44	-44	-43	-45	-43
		20 PSI	24.2	20.3	14.5	12.6	8.6	23.2	19.4	13.9	12.1	8.3	20.2	16.9	12.1	10.5	7.2	17.7	13.6	10.3	8.2	6.1	12.5	10.4	7.9	6.2	4.7
		30 PSI	24.0	20.3	14.4	12.4	8.5	23.0	19.4	13.8	11.8	8.2	20.0	16.9	12.0	10.3	7.1	17.7	13.6	10.2	8.0	6.0	12.5	10.4	7.8	6.0	4.6
		40 PSI	16.7	16.4	13.7	12.2	8.3	16.0	15.8	13.1	11.7	7.9	13.9	13.7	11.4	10.2	6.9	16.0	11.5	9.7	7.8	5.9	10.3	8.3	7.4	5.8	4.5
		50 PSI			12.6	12.0	8.2			12.1	11.5	7.8			10.5	10.0	6.8			8.9	7.7	5.8			6.8	5.7	4.4
		60 PSI			6.0	8.2	6.1			5.8	7.8	5.9			5.0	6.8	5.1			4.3	5.8	4.3			3.3	4.8	3.3
70 PSI				4.2	2.9				4.0	2.8				3.5	2.4				2.8	2.0				2.0	1.6		
Shut-off-PSI	61	62	71	80	82	59	60	69	78	79	57	58	67	76	77	54	55	65	74	75	52	53	63	72	73		
10HL	1	JET PACKAGE	12SD	CK2	60SD	12SD	CK2	60SD	12SD	CK2	60SD	12SD	CK2	60SD	12SD	CK2	60SD	12SD	CK2	60SD							
		Venturi N32P- <u> </u>	-65	-64	-64	-65	-64	-64	-65	-64	-64	-65	-64	-64	-65	-64	-64	-65	-64	-64							
		Nozzle J34P- <u> </u>	-44	-44	-45	-44	-44	-45	-44	-44	-45	-44	-44	-45	-44	-44	-45	-44	-44	-45							
		20 PSI	26.8	21.6	18.4	24.6	19.9	16.9	21.4	17.3	14.7	18.2	14.7	12.5	13.9	11.2	9.6										
		30 PSI	26.5	21.5	18.1	24.4	19.8	16.7	21.2	17.2	14.5	18.0	14.6	12.3	13.8	11.2	9.4										
		40 PSI	22.9	21.3	17.5	21.0	19.6	16.1	18.3	17.0	14.0	15.6	14.5	11.9	11.9	11.1	9.1										
		50 PSI	15.1	16.8	17.3	13.9	15.4	15.9	12.1	13.4	13.8	10.3	11.4	11.7	7.9	8.7	9.0										
		60 PSI		4.0	15.6		3.7	14.4		3.2	12.5		2.7	10.6		2.1	8.1										
70 PSI			4.1			3.8			3.3			2.8															
Shut-off-PSI	61	71	77	59	69	75	57	67	73	55	65	71	53	63	68												

NOTE: Pumps are supplied with 30-50 pressure switch setting. Cut-in/Cut-out pressure settings are adjustable.

ProJet™ HL Series

Cast iron, self-priming convertible jet pumps

PUMP PERFORMANCE (Capacity in gallons per minute) DEEP WELL (40 PSI) 4" DOUBLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET												MAX. PUMP SHUT-OFF PRESSURE PSI	
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	JET AT 20 FT. DEPTH	JET AT MAX. DEPTH	
5HL	1/2	CK3	J32P-26	J34P-41	9.4	8.0	6.6									77	68	
		54SD	J32P-22	J34P-44	8.0	6.9	5.7	4.8	3.8	3.2						94	70	
		CK5	N32P-66B	J34P-45	7.3	6.2	5.0	4.0								83	69	
		55SD	J32P-18	J34P-43	5.0	4.3	3.7	3.2	2.6	2.2	1.8	1.5				96	63	
7HL	3/4	CK1	N32P-72	J34P-43	13.2	10.8	8.4	6.3	4.2							74	56	
		CK2	J32P-24	J34P-44	13.0	11.5	9.9	8.7	7.5	6.6	5.4					105	80	
		54SD	J32P-22	J34P-44	8.2	7.7	6.7	6.3	5.8	5.4	4.8	4.0	3.7	3.4	2.7	122	73	
10HL	1	54SD	J32P-22	J34P-44	9.5	8.5	7.4	6.9	6.5	6.0	5.4	4.8	4.2	3.6	2.9	127	76	

NOTE: Tank body on 10HL pump tapped 1-1/4" x 1". On 10HL pump, drop pipe should be increased to 1-1/2" x 1-1/4" to ensure adequate capacity from pump.

PUMP PERFORMANCE (Capacity in gallons per minute) DEEP WELL (40 PSI) 2" SINGLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET												MAX. PUMP SHUT-OFF PRESSURE PSI	
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	JET AT 20 FT. DEPTH	JET AT MAX. DEPTH	
5HL	1/2	54AP	J32P-22	J34P-44	7.4	6.3	5.2	3.9	2.5	2.0						82	54	
7HL	3/4	10AP	J32P-24	J34P-44	10.5	10.0	8.1	6.2								96	79	
		54AP	J32P-22	J34P-44	6.0	5.3	4.8	4.2	4.1	3.7	3.5	2.8	2.1	1.6		95	53	
10HL	1	9AP	J32P-29	J34P-44	11.7	11.1	9.8	6.8								69	57	
		8AP	J32P-18	J34P-42	6.7	5.8	5.3	4.7	4.5	4.1	3.8	3.1	2.6	2.0	1.6	129	72	

DEEP WELL (40 PSI) 3" SINGLE PIPE

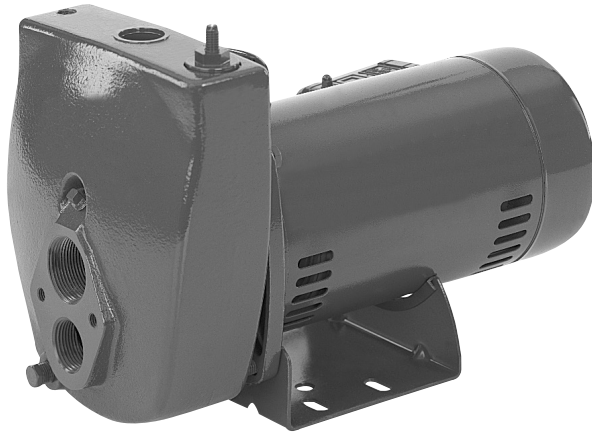
5HL	1/2	9CP	J32P-26	J34P-41	9.4	8.0	6.6									77	68
		54CP	J32P-22	J34P-44	8.0	6.9	5.7	4.8	3.8	3.2						94	70
7HL	3/4	18CP	J32P-24	J34P-44	13.0	11.5	9.9	8.7	7.5	6.6	5.4					106	80
		54CP	J32P-22	J34P-44	8.5	7.7	6.7	6.3	5.8	5.4	4.8	4.0	3.7	3.4	2.7	122	73
		57CP	J32P-33	P122-108	18.0	15.4	12.8	10.8								81	68
10HL	1	54CP	J32P-22	J34P-44	9.5	8.5	7.4	6.9	6.5	6.0	5.4	4.8	4.2	3.6	2.9	127	76

Tank body on HLE pump tapped 1-1/4" x 1". Drop pipe should be increased to 1-1/2" x 1-1/4" to ensure adequate capacity from pump. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

ProJet™ SL/SLJ Series

Cast iron, self-priming convertible jet pumps



The ProJet SL convertible jet pumps offer a proven cast iron self-priming design available in 1/2 to 1-1/2 HP models. The ProJet SL convertible jets utilize the built-in regulators, offering easier priming and better range of performance from a complete line of shallow well, 4" double pipe, 2" and 3" single pipe jet packages.

APPLICATIONS

Water systems and sprinkling...
for homes, farms and cottages.

SPECIFICATIONS

- Body and Seal Plate:** Close-grained cast iron
- Impeller:** High-strength Noryl®
- Diffuser:** Reinforced polypropylene with brass wear ring
- Shaft:** One-piece threaded 416 stainless steel
- Base:** Steel, 12 gauge
- Max. Liquid Temperature:** 140°F
- Max. Inlet Pressure:** 50 PSI
- Pressure Switch Pre-Set:** 30-50 PSI
- Suction Ports:** "Suction-over-Drive"

FEATURES

Quality Construction: Close-grained cast iron pump body is rugged one-piece unit, specially treated to resist corrosion. Drain port provided for easy winterizing.

Noryl Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

Pressure Switch: High-quality, cut-in pressure setting is adjustable. Fixed 20 PSI differential.

Mechanical Shaft Seal: Precision-lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...assures prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency...dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: 416 stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

Dustproof Cover: Dustproof canopy protects all electrical components from dirt, dust and insects; ventilating air cannot contaminate vital switching components... eliminates the most common cause of motor failure.

ORDERING INFORMATION

CATALOG NUMBER	HP	DESCRIPTION	PIPE TAPPING SIZES			MOTOR VOLTAGE	APPROX. WT. LBS.
			SUCT.	DRIVE	DISCH.		
5SL/5SLJ*	1/2	Deep Well Jet	1-1/4"	1"	1"	115/230	40
7SL/7SLJ*	3/4	Deep Well Jet	1-1/4"	1"	1"	115/230	42
10SL/10SLJ*	1	Deep Well Jet	1-1/4"	1"	1"	115/230	60
15SL/15SLJ*	1-1/2	Deep Well Jet	1-1/4"	1"	1"	115/230	65

* SLJ Models include ejector package.

A Jet Package should be ordered with every SL Series Pump.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving flow of pump at relief pressure.

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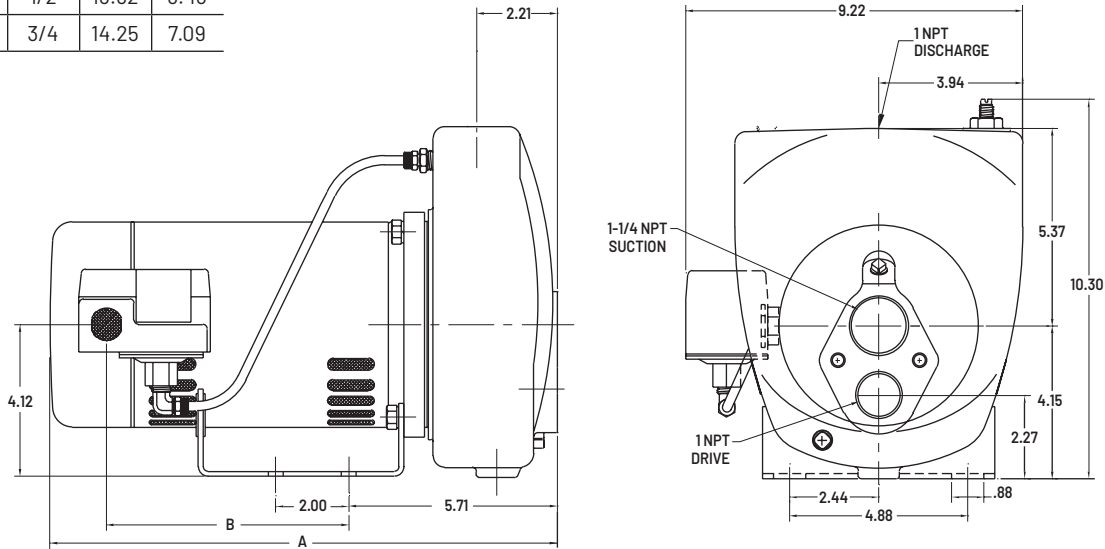
ProJet™ SL/SLJ Series

Cast iron, self-priming convertible jet pumps

OUTLINE DIMENSIONS

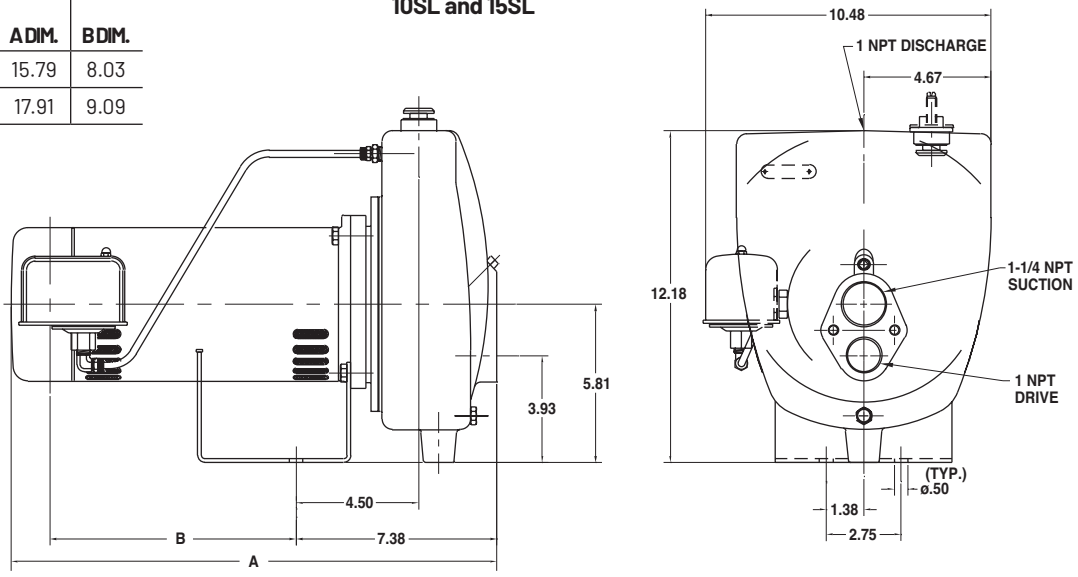
CATALOG NUMBER	HP	ADIM.	BDIM.
5SL	1/2	13.62	6.46
7SL	3/4	14.25	7.09

5SL and 7SL



CATALOG NUMBER	HP	ADIM.	BDIM.
10SL	1	15.79	8.03
15SL	1-1/2	17.91	9.09

10SL and 15SL



Dimensions (in inches) are for estimating purposes only.

ProJet™ SL/SLJ Series

Cast iron, self-priming convertible jet pumps

PUMP PERFORMANCE (Capacity in gallons per minute) SHALLOW WELL – 5', 10', 15', 20' AND 25' PUMPING DEPTHS

CAT. NO.	HP	DISCH. PRESS.	PUMPING DEPTH TO WATER IN FEET																									
			5 FT. LIFT				10 FT. LIFT				15 FT. LIFT				20 FT. LIFT				25 FT. LIFT									
5SL	1/2	JET PACKAGE	10SD	29SD	CK3			10SD	29SD	CK3			10SD	29SD	CK3			10SD	29SD	CK3			10SD	29SD	CK3			
		Venturi N32P-_-	-67B	-66B	-78B			-67B	-66B	-78B			-67B	-66B	-78B			-67B	-66B	-78B			-67B	-66B	-78B			
		Nozzle J34P-_-	-44	-41	-41			-44	-41	-41			-44	-41	-41			-44	-41	-41			-44	-41	-41			
		20 PSI	12.0	9.1	5.9			9.7	8.4	5.4			12.0	7.3	4.7			9.7	6.2	4.0			6.7	4.7	3.1			
		30 PSI	10.8	9.0	5.8			9.5	8.3	5.3			10.8	7.2	4.6			9.5	6.1	3.9			6.7	4.7	3.0			
		40 PSI	5.2	7.9	5.6			4.2	7.2	5.2			5.2	6.3	4.5			4.2	5.4	3.8			2.5	4.1	2.9			
		50 PSI		4.1	4.5				3.8	4.1				3.3	3.6				2.8	3.1				2.1	2.3			
		60 PSI			2.4					2.2					1.9					1.6								
Shut-off-PSI		53	61	70			51	58	66			49	56	64			47	54	61			45	52	58				
7SL	3/4	JET PACKAGE	11SD	10SD	29SD	CK5			11SD	10SD	29SD	CK5			11SD	10SD	29SD	CK5			11SD	10SD	29SD	CK5				
		Venturi N32P-_-	-68B	-67B	-66B	-66B			-68B	-67B	-66B	-66B			-68B	-67B	-66B	-66B			-68B	-67B	-66B	-66B				
		Nozzle J34P-_-	-44	-44	-41	-45			-44	-44	-41	-45			-44	-44	-41	-45			-44	-44	-41	-45				
		20 PSI	20.6	14.4	10.1	6.6			19.0	13.2	9.3	6.1			16.5	11.5	8.1	5.3			13.3	9.5	6.9	4.5				
		30 PSI	19.6	14.3	9.9	6.5			18.1	13.1	9.1	6.0			15.7	11.4	7.9	5.2			13.3	9.5	6.7	4.4				
		40 PSI	10.3	12.1	9.8	6.4			9.4	11.2	9.0	5.9			8.2	9.7	7.8	5.1			6.4	8.3	6.6	4.3				
		50 PSI		4.6	7.3	6.3				4.3	6.7	5.8				3.7	5.8	5.0				2.6	4.9	4.3				
		60 PSI			3.5	5.8					3.2	5.3					2.8	4.6					2.4	3.9				
Shut-off-PSI		55	59	70	72			53	57	66	67			50	55	64	65			48	53	61	63					
10SL	1	JET PACKAGE	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	12SD	11SD	CK1	CK5	CK1	
		Venturi N32P-_-	-65	-68B	-72E	-67B	-72			-65	-68B	-72E	-67B	-72			-65	-68B	-72E	-67B	-72			-65	-68B	-72E	-67B	-72
		Nozzle J34P-_-	-44	-44	-43	-45	-43			-44	-44	-43	-45	-43			-44	-44	-43	45	-43			-44	-44	-43	-45	-43
		20 PSI	24.2	20.3	14.5	12.6	8.6			23.2	19.4	13.9	12.1	8.3			20.2	16.9	12.1	10.5	7.2			17.7	13.6	10.3	8.2	6.1
		30 PSI	24.0	20.3	14.4	12.4	8.5			23.0	19.4	13.8	11.8	8.2			20.0	16.9	12.0	10.3	7.1			17.7	13.6	10.2	8.0	6.0
		40 PSI	16.7	16.4	13.7	12.2	8.3			16.0	15.8	13.1	11.7	7.9			13.9	13.7	11.4	10.2	6.9			11.8	11.5	9.7	7.8	5.9
		50 PSI			12.6	12.0	8.2				12.1	11.5	7.8				10.5	10.0	6.8						8.9	7.7	5.8	
		60 PSI			6.0	8.2	6.1				5.8	7.8	5.9				5.0	6.8	5.1						4.3	5.8	4.3	
70 PSI				4.2	2.9					4.0	2.8					3.5	2.4							2.8	2.0			
Shut-off-PSI		61	62	71	80	82			59	60	69	78	79			57	58	67	76	77			54	55	65	74	75	
15SL	1-1/2	JET PACKAGE	12SD	CK2	60SD			12SD	CK2	60SD			12SD	CK2	60SD			12SD	CK2	60SD			12SD	CK2	60SD			
		Venturi N32P-_-	-65	-64	-64			-65	-64	-64			-65	-64	-64			-65	-64	-64			-65	-64	-64			
		Nozzle J34P-_-	-44	-44	-45			-44	-44	-45			-44	-44	-45			-44	-44	-45			-44	-44	-45			
		20 PSI	26.8	21.6	18.4			24.6	19.9	16.9			21.4	17.3	14.7			18.2	14.7	12.5			13.9	11.2	9.6			
		30 PSI	26.5	21.5	18.1			24.4	19.8	16.7			21.2	17.2	14.5			18.0	14.6	12.3			13.8	11.2	9.4			
		40 PSI	22.9	21.3	17.5			21.0	19.6	16.1			18.3	17.0	14.0			15.6	14.5	11.9			11.9	11.1	9.1			
		50 PSI	15.1	16.8	17.3			13.9	15.4	15.9			12.1	13.4	13.8			10.3	11.4	11.7			7.9	8.7	9.0			
		60 PSI		4.0	15.6				3.7	14.4				3.2	12.5				2.7	10.6				2.1	8.1			
70 PSI			4.1					3.8					3.3					2.8										
Shut-off-PSI		61	71	77			59	69	75			57	67	73			55	65	71			53	63	68				

PUMP PERFORMANCE – SLJ MODELS*

Catalog Number	Ejector Package (Included)	Shallow Well			Deep Well		
		Nozzle	Venturi		Nozzle	Venturi	
5SLJ	J198-26	J34P-41	N32P-66B		J34P-42	J32P-18	
7SLJ	J198-27	J34P-41	N32P-66B		J34P-43	J32P-18	
10SLJ	J198-28	J34P-43	N32P-72E		J34P-44	J32P-22	
15SLJ	J198-29	J34P-44	N32P-64		J34P-44	J32P-22	

Pumps are supplied with 30-50 pressure switch setting. Cut-in pressure settings are adjustable.

ProJet™ SL Series

Cast iron, self-priming convertible jet pumps

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 4" DOUBLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET											MAX. PUMP SHUT-OFF PRESSURE PSI		
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	JET AT 20 FT. DEPTH	JET AT MAX. DEPTH	
5SL	1/2	4SD	J32P-24	J34P-41	5.9	4.5	3.4	2.3									68	54
		15SD	J32P-18	J34P-42	4.6	3.9	3.3	2.8	2.3	1.7							84	59
7SL	3/4	CK3	J32P-26	J34P-41	9.4	8.0	6.6										77	68
		54SD	J32P-22	J34P-44	8.0	6.9	5.7	4.8	3.8	3.2							94	70
		CK5	N32P-66B	J34P-45	7.3	6.2	5.0	4.0									83	69
		55SD	J32P-18	J34P-43	5.0	4.3	3.7	3.2	2.6	2.2	1.8	1.5					96	63
10SL	1	CK1	N32P-72	J34P-43	13.2	10.8	8.4	6.3	4.2								74	56
		CK2	J32P-24	J34P-44	13.0	11.5	9.9	8.7	7.5	6.6	5.4						105	80
		54SD	J32P-22	J34P-44	8.5	7.7	6.7	6.3	5.8	5.4	4.8	4.0	3.7	3.4	2.7		122	73
15SL	1-1/2	54SD	J32P-22	J34P-44	9.5	8.5	7.4	6.9	6.5	6.0	5.5	4.8	4.2	3.6	2.9		127	76

Tank body on SLF pump tapped 1-1/4" x 1". On SLF pump, drop pipe should be increased to 1-1/2" x 1-1/4" to ensure adequate capacity from pump.

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 2" SINGLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET											MAX. PUMP SHUT-OFF PRESSURE PSI		
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	JET AT 20 FT. DEPTH	JET AT MAX. DEPTH	
5SL	1/2	8AP	J32P-18	J34P-42	4.7	4.1	3.4	2.5	1.9	1.5							84	58
7SL	3/4	54AP	J32P-22	J34P-44	7.4	6.3	5.2	3.9	2.5	2.0							82	54
10SL	1	10AP	J32P-24	J34P-44	10.5	10.0	8.1	6.2									96	79
		54AP	J32P-22	J34P-44	6.0	5.3	4.8	4.2	4.1	3.7	3.5	2.8	2.1	1.6			95	53
15SL	1-1/2	9AP	J32P-29	J34P-44	11.7	11.1	9.8	6.8									69	57
		8AP	J32P-18	J34P-42	6.7	5.8	5.3	4.7	4.5	4.1	3.8	3.1	2.6	2.0	1.6		129	72

DEEP WELL (40 PSI) 3" SINGLE PIPE

5SL	1/2	19CP	J32P-24	J34P-41	5.9	4.5	3.4	2.3									68	54
		16CP	J32P-18	J34P-42	4.6	3.9	3.3	2.8	2.3	1.7							84	59
		9CP	J32P-26	J34P-41	9.4	8.0	6.6										77	68
7SL	3/4	54CP	J32P-22	J34P-44	8.0	6.9	5.7	4.8	3.8	3.2							94	70
10SL	1	18CP	J32P-24	J34P-44	13.0	11.5	9.9	8.7	7.5	6.6	5.4						106	80
		54CP	J32P-22	J34P-44	8.5	7.7	6.7	6.3	5.8	5.4	4.8	4.0	3.7	3.4	2.7		122	73
		57CP	J32P-33	P122-10B	18.0	15.4	12.8	10.8									81	68
15SL	1-1/2	54CP	J32P-22	J34P-44	9.5	8.5	7.4	6.9	6.5	6.0	5.4	4.8	4.2	3.6	2.9		127	76

Tank body on SLF pump tapped 1-1/4" x 1". Drop pipe should be increased to 1-1/2" x 1-1/4" to ensure adequate capacity from pump. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

FL/FLJ Series

Cast iron, self-priming convertible jet pumps



FEATURES

Quality Construction: Close-grained cast iron pump body and base are rugged one-piece unit, specially treated to resist corrosion. Drain port provided for easy winterizing.

Pressure Regulator: Simple, built-in regulator is performance proven. Adjustable for best performance on all deep well installations.

Lexan Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

Mechanical Shaft Seal: Precision-lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...assures prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency...dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

Dustproof Cover: Dustproof canopy protects all electrical components from dirt, dust and insects; ventilating air cannot contaminate vital switching components... eliminates the most common cause of motor failure.

FL Series Pumps feature a proven self-priming "convertible" design. The same convertible jet can be attached to pump for use on shallow well installation, or be utilized in 4" or larger wells for use as a double pipe deep well jet.

FL Series Pumps provide high capacities up to 11 GPM...depths to 90 feet. They are rated for 30-50 PSI operation.

APPLICATIONS

Water systems and sprinkling...for homes, farms and cottages

SPECIFICATIONS

Body and Base: Close-grained cast iron

Impeller: Lexan[®]

Diffuser: Reinforced polypropylene

Shaft: One-piece threaded 416 stainless steel

Pressure Switch Pre-Set: 30-50 PSI

Suction Ports: Drive-over-Suction

ORDERING INFORMATION

CATALOG NUMBER	HP	DESCRIPTION	PIPE TAPPING SIZES			MOTOR VOLTAGE	APPROX. WT. LBS.
			SUCT.	DRIVE	DISCH.		
5FL/5FLJ*	1/2	Deep Well Jet	1-1/4"	1"	1"	115/230	44
7FL/7FLJ*	3/4	Deep Well Jet	1-1/4"	1"	1"	115/230	45

*FLJ Models include ejector package.

A Jet Package should be ordered with every FL Series Pump.

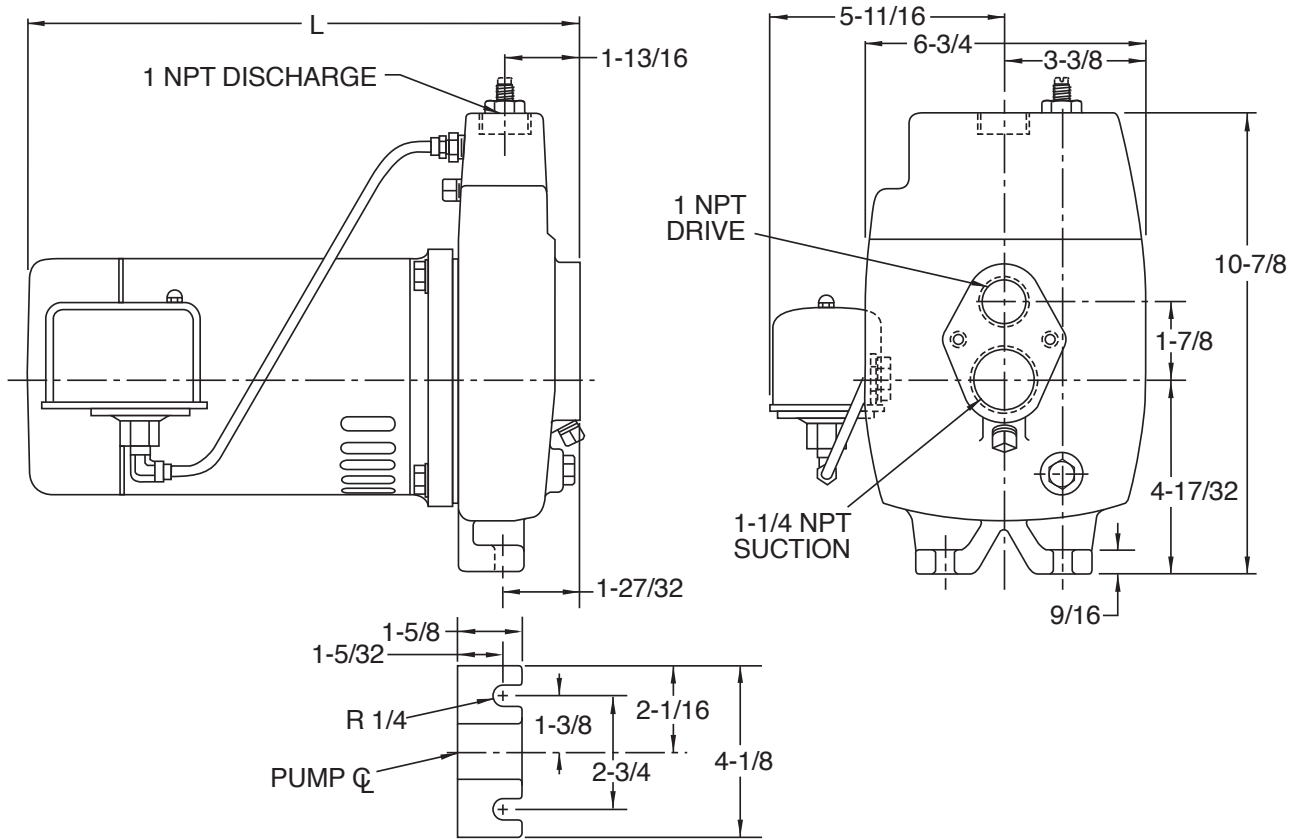
NOTE: Pumps installed with a Pro-Source[®] tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving flow of pump at relief pressure.

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FL/FLJ Series

Cast iron, self-priming convertible jet pumps

OUTLINE DIMENSIONS



MOUNTING BRACKET DETAIL

CATALOG NUMBER	L
5FL	11-13/16
7FL	12-9/16

Dimensions (in inches) are for estimating purposes only.

PUMP PERFORMANCE - FLJ MODELS*

Catalog Number	Ejector Package (Included)	Shallow Well		Deep Well	
		Nozzle	Venturi	Nozzle	Venturi
5FLJ	J198-26	J34P-41	N32P-66B	J34P-42	J32P-18
7FLJ	J198-27	J34P-41	N32P-66B	J34P-43	J32P-18

FL/FLJ Series

Cast iron, self-priming convertible jet pumps

PUMP PERFORMANCE (Capacity in gallons per minute)
SHALLOW WELL – 5', 10', 15', 20' AND 25' PUMPING DEPTHS

CAT. NO.	HP	DISCHARGE PRESSURE	PUMPING DEPTH TO WATER IN FEET														
			5 FT. LIFT			10 FT. LIFT			15 FT. LIFT			20 FT. LIFT			25 FT. LIFT		
		JET PACKAGE	10SD	29SD		10SD	29SD		10SD	29SD		10SD	29SD		10SD	29SD	
5FL	1/2	Venturi N32P-_-	-67B	-66B		-67B	-66B		-67B	-66B		-67B	-66B		-67B	-66B	
		Nozzle J34P-_-	-44	-41		-44	-41		-44	-41		-44	-41		-44	-41	
		20 PSI	12.0	9.1		9.7	8.4		12.0	7.3		9.7	6.2		6.7	4.7	
		30 PSI	10.8	9.0		9.5	8.3		10.8	7.2		9.5	6.1		6.7	4.7	
		40 PSI	5.2	7.9		4.2	7.2		5.2	6.3		4.2	5.4		2.5	4.1	
		50 PSI		4.1			3.8			3.3			2.8			2.1	
		60 PSI															
		Shut-off-PSI	53	61		51	58		49	56		47	54		45	52	
7FL	3/4	JET PACKAGE	11SD	10SD	29SD	11SD	10SD	29SD	11SD	10SD	29SD	11SD	10SD	29SD	11SD	10SD	29SD
		Venturi N32P-_-	-68B	-67B	-66B	-68B	-67B	-66B	-68B	-67B	-66B	-68B	-67B	-66B	-68B	-67B	-66B
		Nozzle J43P-_-	-44	-44	-41	-44	-44	-41	-44	-44	-41	-44	-44	-41	-44	-44	-41
		20 PSI	20.6	14.4	10.1	19.0	13.2	9.3	16.5	11.5	8.1	13.3	9.5	6.9	9.8	6.9	5.3
		30 PSI	19.6	14.3	9.9	18.1	13.1	9.1	15.7	11.4	7.9	13.3	9.5	6.7	9.8	6.9	5.1
		40 PSI	10.3	12.1	9.8	9.4	11.2	9.0	8.2	9.7	7.8	6.4	8.3	6.6	3.1	6.3	5.1
		50 PSI		4.6	7.3		4.3	6.7		3.7	5.8		2.6	4.9		1.0	3.8
		60 PSI			3.5			3.2			2.8			2.4			
Shut-off-PSI	55	59	70	53	57	66	50	55	64	48	53	61	46	51	59		

NOTE: Pumps are supplied with 30-50 pressure switch setting. Cut-in pressure settings are adjustable.

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 4" DOUBLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET									MAX. PUMP SHUT-OFF PRESSURE PSI	
					20'	30'	40'	50'	60'	70'	80'	90'	JET AT 20 FT. DEPTH	JET AT MAX. DEPTH	
5FL	1/2	4SD	J32P-24	J34P-41	5.9	4.5	3.4	2.3						68	54
		15SD	J32P-18	J34P-42	4.6	3.9	3.3	2.8	2.3	1.7				84	59
7FL	3/4	54SD	J32P-22	J34P-44	8.0	6.9	5.7	4.8	3.8	3.2				94	70
		55SD	J32P-18	J34P-43	5.0	4.3	3.7	3.2	2.6	2.2	1.8	1.5		96	63

DEEP WELL (40 PSI) 2" SINGLE PIPE

5FL	1/2	8AP	J32P-18	J34P-42	4.7	4.1	3.4	2.5	1.9	1.5			84	58
7FL	3/4	54AP	J32P-22	J34P-44	7.4	6.3	5.2	3.9	2.5	2.0			82	54

DEEP WELL (40 PSI) 3" SINGLE PIPE

5FL	1/2	19CP	J32P-24	J34P-41	5.9	4.5	3.4	2.3					68	54
		16CP	J32P-18	J34P-42	4.6	3.9	3.3	2.8	2.3	1.7			84	59
7FL	3/4	9CP	J32P-26	J34P-41	9.4	8.0	6.6						77	68
		54CP	J32P-22	J34P-44	8.0	6.9	5.7	4.8	3.8	3.2			94	70

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

PL Series

Corrosion-resistant, convertible deep well jet pumps



Durability and corrosion resistance are built into every PL Series Pump, due to the rugged fiberglass reinforced thermoplastic pump construction. The engineered composite components are lightweight yet extremely resistant to sand and abrasive wear. The non-corrosive design and exceptional strength assure years of trouble-free operation.

APPLICATIONS

Water systems and sprinkling... for homes, farms and cottages.

SPECIFICATIONS

Pump Body and Seal Plate: Dura-Glas®

Impeller: Noryl®

Nozzle: Noryl

Venturi: Noryl

O-Ring: Buna-N

Clamp: Stainless steel

Shaft: Stainless steel

Diffuser: Reinforced polypropylene with brass wear ring

Shallow Well Jet: Sold separately

Pressure Switch Pre-Set: 30-50 PSI

Suction Ports: Suction-over-Drive

FEATURES

Superior Rustproof Construction: Pump body is Dura-Glas fiberglass reinforced thermoplastic—lightweight, rustproof and exceptionally strong. All components in contact with water are resistant to the corrosive and abrasive forces found in the most aggressive water conditions.

Precision Diffuser: Multi-port, reinforced polypropylene design primes faster and handles more air.

Precision-Molded Impeller: Precision-molded Noryl gives perfect balance and ultra-smoothness for highest performance and efficiency.

Pressure Regulator and Gauge: Performance-proven, simple, built-in pressure regulator is adjustable for best performance on all deep well installations. Pressure gauge included.

Shaft Seal: Stainless steel heat sink provides maximum cooling of the mechanical shaft seal.

Heavy-Duty Motor: Dustproof canopy completely encloses electrical components and provides dust, dirt and insect protection. Ventilating air cannot contaminate vital switching components. Permanently lubricated, heavy-duty ball bearings ensure smooth, quiet operation and extended motor life.

Easy Serviceability: PL pumps are disassembled by removing the stainless steel clamp. Piping does not have to be disturbed. Seal replacement takes only a few minutes. "Control room" motor design makes all components easily accessible.

ORDERING INFORMATION

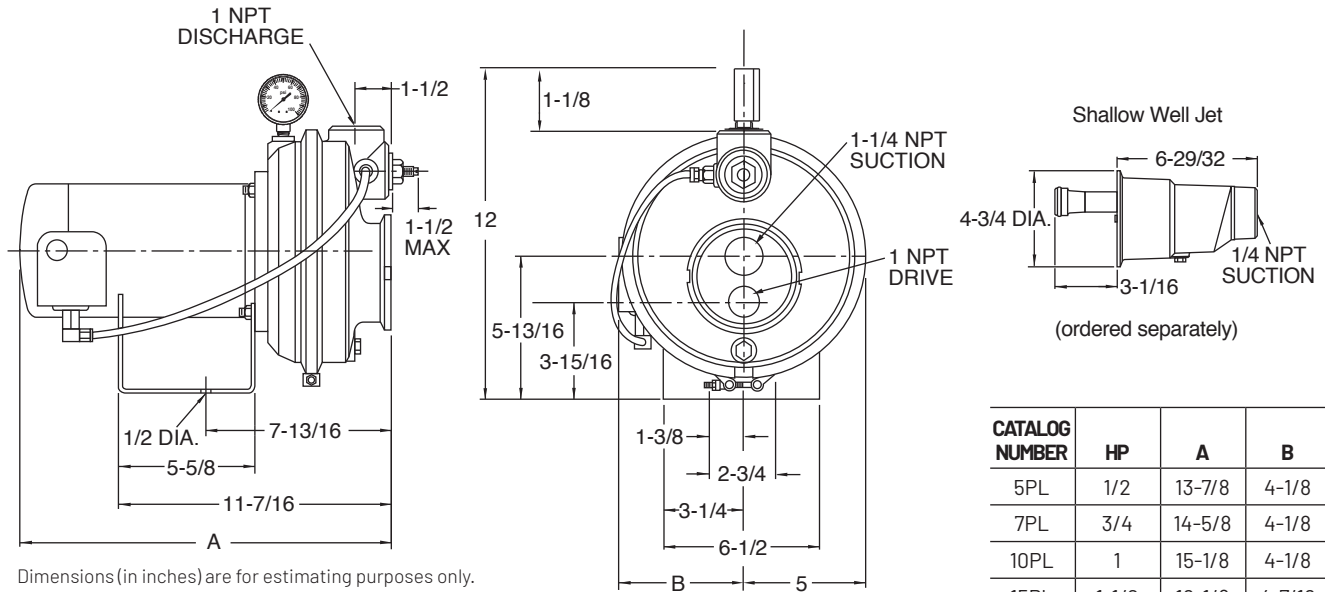
CATALOG NUMBER	HP	DESCRIPTION	PIPE TAPPING SIZES			MOTOR VOLTAGE	APPROX. WT. LBS.
			SUCT.	DRIVE	DISCH.		
5PL	1/2	Deep Well Jet	1-1/4"	1"	1"	115/230	27
7PL	3/4	Deep Well Jet	1-1/4"	1"	1"	115/230	28
10PL	1	Deep Well Jet	1-1/4"	1"	1"	115/230	30
15PL	1-1/2	Deep Well Jet	1-1/4"	1"	1"	115/230	36

A Jet Package should be ordered with every PL Series pump. Pentair trademarks and logos are owned by Pentair plc or its affiliates. All other third party registered and unregistered trademarks and logos are the property of their respective owners.

PL Series

Corrosion-resistant, convertible deep well jet pumps

OUTLINE DIMENSIONS



CATALOG NUMBER	HP	A	B
5PL	1/2	13-7/8	4-1/8
7PL	3/4	14-5/8	4-1/8
10PL	1	15-1/8	4-1/8
15PL	1-1/2	16-1/8	4-7/16

PUMP PERFORMANCE (Capacity in gallons per minute) SHALLOW WELL

CATALOG NUMBER	HP	S.W. JET NUMBER	PRESS. SWITCH SETTING	DYNAMIC SUCTION LIFT FT.	DISCHARGE PRESSURE PSI					SHUT-OFF PRESSURE PSI
					20'	30'	40'	50'	60'	
5PL	1/2	PKG 1-21N	30-50	5'	9.5	9.2	9.0	5.8	3.0	72
				10'	8.2	8.0	7.8	5.2	2.3	70
				15'	7.2	6.8	6.8	4.5	1.8	68
				20'	5.7	5.7	5.7	3.8		66
				25'	4.3	4.3	4.3	3.2		62
7PL	3/4	PKG 1-22N	30-50	5'	16.2	15.8	15.3	8.7	1.3	62
				10'	14.2	14.0	13.8	7.2		60
				15'	12.2	12.0	11.8	5.3		58
				20'	9.7	9.7	9.2	3.7		55
				25'	7.2	6.8	6.8			52
10PL	1	PKG 1-23N	30-50	5'	21.3	21.0	20.7	13.2	4.2	62
				10'	18.8	18.7	18.3	11.1	1.7	60
				15'	16.0	15.8	15.7	8.9		58
				20'	12.8	12.7	12.3	5.7		55
				25'	8.5	8.5	8.5			52
15PL	1-1/2	PKG 1-24N	30-50	5'	26.3	26.2	26.2	21.3	7.7	64
				10'	23.7	23.3	23.2	19.2	3.5	62
				15'	20.3	20.2	20.0	16.3		60
				20'	16.2	16.0	15.8	11.2		57
				25'	11.5	11.3	11.3			54

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

PL Series

Corrosion-resistant, convertible deep well jet pumps

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 4" DOUBLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET								
					30'	40'	50'	60'	70'	80'	90'	100'	
5PL	1/2	4SD	J32P-24	J34P-41	4.5	3.5	2.3	1.3					
		10SD	N32P-67B	J34P-44	9.5	7.0	4.5	2.0					
7PL	3/4	4SD	J32P-24	J34P-41	6.5	5.1	4.0	3.0	1.8	0.8			
10PL	1	4SD	J32P-24	J34P-41	8.4	7.3	6.2	5.0	4.1	2.9	2.0	1.1	
15PL	1-1/2	11SD	N32P-68B	J34P-44	11.5	9.4	8.0	6.5	5.3	3.8	2.5	1.1	

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 2" SINGLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET											
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	
5PL	1/2	13AP	J32P-26	J34P-44	5.8	3.8	1.0									
		10AP	J32P-24	J34P-44	4.3	3.0	1.6									
		8AP	J32P-18	J34P-42	3.8	3.3	2.6	2.0	1.5							
7PL	3/4	14AP	J32P-32	J34P-45	9.2	6.7	4.3									
		10AP	J32P-24	J34P-44	6.2	4.8	3.7	2.3	1.2							
		8AP	J32P-18	J34P-42	4.1	3.7	3.1	2.6	2.1	1.6	1.2	0.8				
10PL	1	15AP	J32P-33	J34P-41	12.3	9.2	5.7									
		9AP	J32P-29	J34P-44	10.6	7.4	4.7	2.2								
		8AP	J32P-18	J34P-42	5.0	4.7	4.2	3.8	3.3	2.7	2.3	1.8	1.3			
15PL	1-1/2	16AP	J32P-38	J34P-45	15.3	11.8	8.5	5.2								
		9AP	J32P-29	J34P-44	-	12.3	9.3	6.4	4.0							
		8AP	J32P-18	J34P-42	-	5.7	5.0	4.6	4.2	3.7	3.3	2.8	2.4	1.8	1.3	

DEEP WELL (40 PSI) 3" SINGLE PIPE

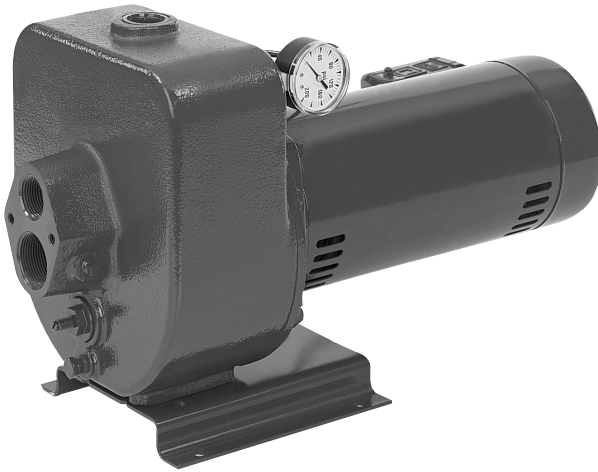
5PL	1/2	25CP	J32P-26	J34P-44	5.8	4.0	2.1								
		19CP	J32P-24	J34P-41	-	4.5	3.5	2.3	1.3						
7PL	3/4	11CP	J32P-32	J34P-45	9.5	7.0	4.5	2.0							
		19CP	J32P-24	J34P-41	-	6.5	5.1	4.0	3.0	1.8	0.8				
10PL	1	26CP	J32P-33	J34P-41	13.0	9.8	6.0								
		17CP	J32P-29	J34P-44	-	11.5	8.0	5.2	2.6						
		19CP	J32P-24	J34P-41	-	8.4	7.3	6.2	5.0	4.1	2.9	2.0	1.1		
15PL	1-1/2	10CP	J32P-38	J34P-45	16.6	13.3	9.5	6.0							
		15CP	J32P-22	J34P-43	-	8.6	7.9	6.9	6.2	5.4	4.4	3.2	2.2	1.5	0.9

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

LT2 Series

Cast iron, horizontal multi-stage



LT2 Series Multi-Stage Jet Pumps are the highest performing pumps available in its category. The LT2 Series Convertible Jets utilize the built-in regulator, offering easier priming and better range of performance from a complete line of Shallow Well, 4" Double Pipe, 2" and 3" Single Pipe Jet Packages. Pump may also be operated as a self-priming centrifugal (to 25 ft.) to provide a wide range of high pressure applications.

APPLICATIONS

Water systems and sprinkling... for homes, farms and cottages.

SPECIFICATIONS

- Body:** One-piece rugged cast iron
- Pump and Motor Shaft:** 416 stainless steel
- Impeller:** Polycarbonate
- Diffuser:** Corrosion-resistant cast iron
- Pressure Switch Pre-Set:** 30-50 PSI
- Suction Ports:** Drive-over-Suction

FEATURES

- Automatic Pressure Regulator:** Faster-acting and quieter, design eliminates "hunting" for correct drive pressure. New improved stem and guide are precisely molded to assure efficient, trouble-free performance on all deep wells. See ordering information (deep well only).
- Quality Construction:** Close-grained cast iron pump body is rugged, one-piece unit, specially treated to resist corrosion. Drain port provided for easy winterizing.
- Precision-Machined Diffusers:** Assure faster priming.
- Mechanical Shaft Seal:** Precision-lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.

- Polycarbonate Impellers:** Precision-molded for perfect balance, and ultra-smooth for highest performance and efficiency.
- Motor Windings:** Superior insulation materials protect against excessive moisture and contaminants to ensure prolonged motor life.

Dustproof Cover: All electrical components are protected from dirt, dust and insects by a dustproof canopy. Ventilating air cannot contaminate vital switching components. This eliminates the most common cause of motor failure.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency...dynamically balanced.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings are extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance;. one-piece threaded shaft for positive impeller drive and alignment.

ORDERING INFORMATION

CATALOG NUMBER	HP	DESCRIPTION	PIPE TAPPING SIZES			STAGES	MOTOR VOLTAGE	APPROX. WT. LBS.
			SUCT.	DRIVE	DISCH.			
7LT2	3/4	Deep Well Jet	1-1/4"	1"	1"	2	115/230	50
10LT2	1	Deep Well Jet	1-1/4"	1"	1"	2	115/230	80
15LT2	1-1/2	Deep Well Jet	1-1/4"	1"	1"	2	115/230	85

AUTOMATIC PRESSURE REGULATOR - DEEP WELL

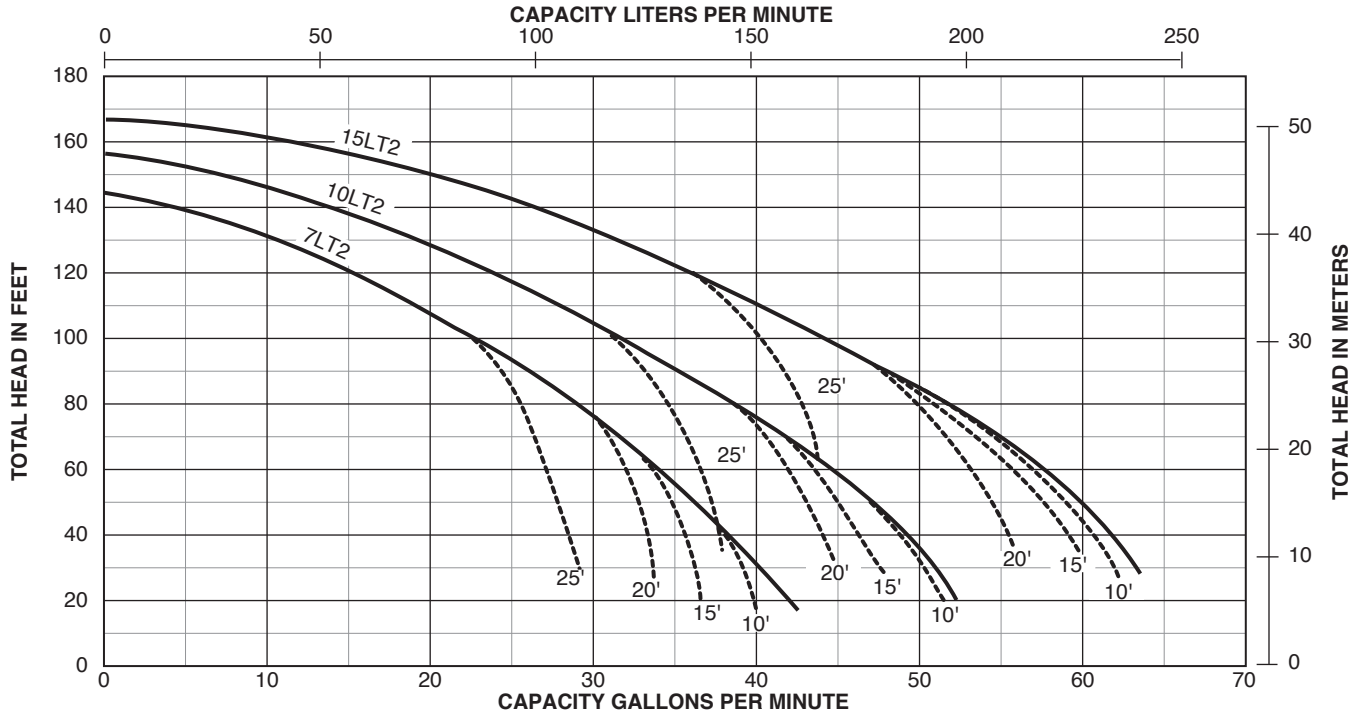
CATALOG NUMBER	DESCRIPTION	APPLICATION	APPROX. WT. LBS.
PKG 107	Regulator, tubing, pipe plug and compression fitting	Required for ALL deep well installations	4

Order pump and pressure regulator, if required, from ordering information tables above. A Jet Package and the Automatic Pressure Regulator, described above, are required on all deep well installations.

LT2 Series

Cast iron, horizontal multi-stage

PUMP PERFORMANCE



NOTE: Dotted lines indicate performance reduction at high suction lift.

PUMP PERFORMANCE (Capacity in gallons per minute) CENTRIFUGAL APPLICATION

CATALOG NUMBER	HP	TOTAL SUCTION LIFT FT.	DISCHARGE PRESSURE PSI					SHUT-OFF PRESSURE PSI
			20'	30'	40'	50'	60'	
7LT2	3/4	5	37	30	24	15		60
		10	35	29	21	13		60
		15	33	27	19	9		60
		20	32	26	17	6		60
		25	31	24	15			60
10LT2	1	5	47	40	33	24	10	65
		10	46	38	31	21	7	65
		15	44	36	28	18		65
		20	42	35	26	15		65
		25	41	33	24	12		65
15LT2	1-1/2	5	60	53	46	36	23	68
		10	58	52	43	33	21	68
		15	56	49	41	30	16	68
		20	55	47	39	27	12	68
		25	54	41	36	25		68

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure. PKG 107 Regulator, tubing, pipe plug and compression fitting is required for all DEEP WELL installations.

LT2 Series

Cast iron, horizontal multi-stage

PUMP PERFORMANCE: SHALLOW WELL

CATALOG NUMBER	HP	JET* NUMBER	USES VENTURI	USES NOZZLE	DISCH. PRESS. PSI	TOTAL SUCTION LIFT FT.				
						5'	10'	15'	20'	25'
7LT2	3/4	PKG 1 - 29SD	N32P-66B	J34P-41	20	9.6	8.2	7.0	5.8	3.9
					30	9.1	7.9	6.5	5.6	3.9
					40	8.8	7.7	6.3	5.6	3.9
					50	8.5	7.6	6.2	5.6	3.9
					60	7.7	7.3	6.2	5.6	3.9
					70	5.5	5.1	4.7	4.2	3.6
					80	3.5	3.1	2.8	2.3	1.9
					Shut-off	102	96	96	96	90
10LT2	1	PKG 1 - 10SD	N32P-67B	J34P-44	20	13.0	11.2	9.8	7.8	5.8
					30	12.5	11.0	9.5	7.6	5.7
					40	12.2	10.9	9.4	7.6	5.7
					50	12.1	10.8	9.2	7.6	5.7
					60	12.0	10.8	9.2	7.6	5.7
					70	10.2	9.6	8.6	7.4	5.7
					80	7.4	6.8	6.2	5.5	4.8
					Shut-off	108	108	108	102	102
15LT2	1-1/2	PKG 1 - 10SD	N32P-67B	J34P-44	20	15.9	13.3	12.2	9.6	7.0
					30	15.6	13.2	12.2	9.5	7.0
					40	15.3	13.1	12.1	9.4	6.9
					50	14.9	13.0	11.9	9.3	6.8
					60	14.4	12.9	11.7	9.2	6.7
					70	13.7	12.7	11.5	9.0	6.6
					80	12.6	12.1	10.8	8.7	6.4
					90	9.5	8.5	7.8	7.2	5.7
					100	5.9	5.0	4.4	3.8	3.2
					Shut-off	120	120	114	114	108

* Order Jet Package separately.

Tested and rated in accordance with Water Systems Council Standards.

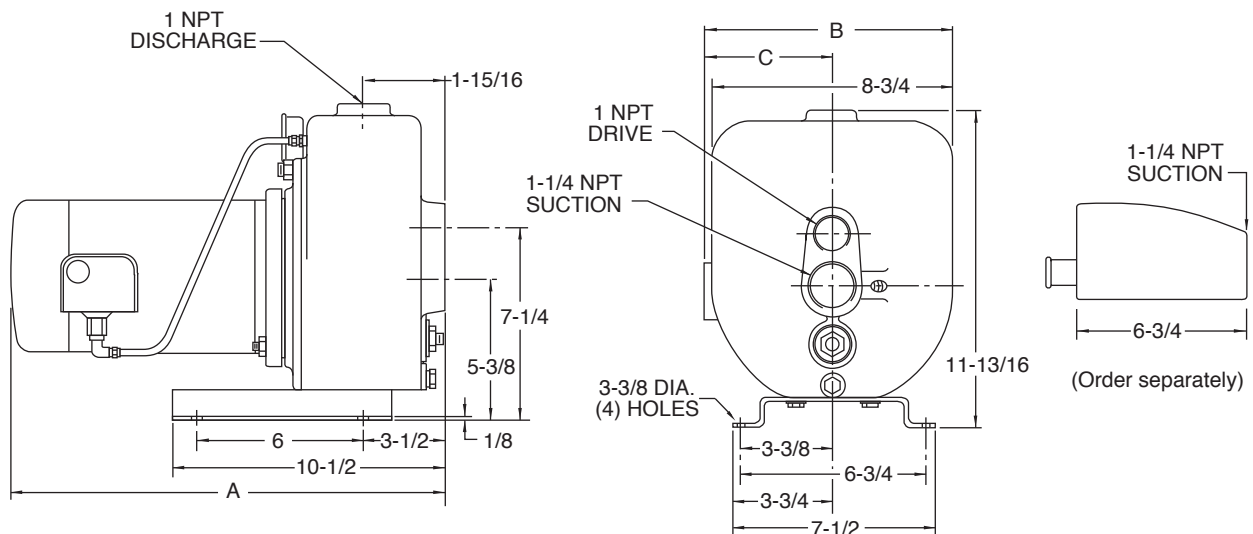
NOTE: Pumps installed with a Pro-Source[®] tank require a 100 PSI relief valve.

Pumps installed with a conventional tank require a 75 PSI relief valve.

Relief valve must be capable of relieving entire flow of pump at relief pressure.

OUTLINE DIMENSIONS

Cat. No.	A	B	C
7LT2	16-7/8	9-1/2	5-1/8
10LT2	17-3/4	9-1/2	5-1/8
15LT2	18-1/4	10	5-5/8



Dimensions (in inches) are for estimating purposes only.

LT2 Series

Cast iron, horizontal multi-stage

PUMP PERFORMANCE (Capacity in gallons per minute) DEEP WELL 2" SINGLE PIPE: 40 PSI

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET															
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'	160'	
7LT2	3/4	13AP	J32P-26	J34P-44	12.0	10.8	9.6	8.1	6.9	5.5										
		22AP	J32P-22	J34P-43					7.9	6.7	5.5	4.7	3.9	3.0						
		8AP	J32P-18	J34P-42									4.0	3.6	3.1	2.7	2.2			
10LT2	1	5AP	J32P-29	J34P-41	16.3	15.6	14.1	12.0	9.9	8.2	6.0									
		4AP	J32P-24	J34P-41					8.9	7.9	7.0	5.8	4.7	3.6	2.5					
		19AP	J32P-20	J34P-43										4.0	3.2	2.3	1.8	1.3		
15LT2	1-1/2	15AP	J32P-33	J34P-41	20.0	18.5	17.0	13.6	10.4	7.6	5.0									
		9CP	J32P-26	J34P-41					10.6	9.2	8.0	6.0	4.5	3.7	3.0	2.2				
		23AP	J32P-20	J34P-44											4.3	3.5	2.7	2.4	2.0	

DEEP WELL 3" SINGLE PIPE: 40 PSI

7LT2	3/4	17CP	J32P-29	J34P-44	12.8	11.5	10.2	8.9	7.6	6.1									
		18CP	J32P-24	J34P-44					7.8	6.9	6.0	5.3	4.5	3.6					
		16CP	Factory Installed										5.0	4.4	3.9	3.4	3.0	2.5	2.0
10LT2	1	7CP	J32P-32	J34P-41	17.8	16.2	14.6	13.0	11.4	9.6	7.7								
		9CP	J32P-26	J34P-41					10.7	9.8	9.0	7.9	6.7	5.8	5.0	4.1			
15LT2	1-1/2	10CP	J32P-38	J34P-45	21.7	19.7	17.9	15.9	14.0	11.0	8.0								
		9CP	J32P-26	J34P-41					11.1	10.8	10.6	9.7	8.9	7.5	6.5	5.5			
		19CP	Factory Installed	J34P-41											6.9	6.1	5.3	4.6	4.1

DEEP WELL 4" DOUBLE PIPE: 40 PSI

7LT2	3/4	CK2	J32P-29	J34P-44	12.8	11.5	10.2	8.9	7.6	6.1									
		CK2	J32P-24	J34P-44					7.8	6.9	6.0	5.3	4.5	3.6					
		15SD	Factory Installed										5.0	4.4	3.9	3.4	3.0	2.5	2.0
10LT2	1	CK3	J32P-32	J34P-41	17.8	16.2	14.6	13.0	11.4	9.6	7.7								
		CK3	J32P-26	J34P-41					10.7	9.8	9.0	7.9	6.7	5.8	5.0	4.1			
		CK1	J32P-20	J34P-43											5.0	4.5	3.9	3.5	3.0
15LT2	1-1/2	CK4	J32P-38	J34P-45	21.7	19.7	17.9	15.9	14.0	11.0	8.0								
		CK3	J32P-26	J34P-41					11.1	10.8	10.6	9.7	8.9	7.5	6.5	5.5			
		4SD	FACTORY INSTALLED												6.9	6.1	5.3	4.6	4.1

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

AUTOMATIC PRESSURE REGULATOR – DEEP WELL

CATALOG NUMBER	DESCRIPTION	APPLICATION	APPROX. WT. LBS.
PKG 107	Regulator, tubing, pipe plug and compression fitting	Required for ALL deep well installations	4

MS Series

Cast Iron



The MS Series Vertical Jet Pumps are the industry standard deep well jet pumps for over-the-well "bolt-on" installations.

The MS Series Jet Pumps include the pre-plumbed external automatic regulator, pressure gauge, pressure switch, and a complete line of casing adapters to drive the 4" double pipe or 2" and 3" single pipe jet packages.

APPLICATIONS

Water systems and sprinkling...for homes, farms and cottages.

SPECIFICATIONS

Body: Rugged cast iron

Pump and Motor Shaft: 416 stainless steel

Impellers: Noryl[®]

Diffuser: Close-grained cast iron

FEATURES

Automatic Pressure Regulator: Faster-acting and quieter, design eliminates "hunting" for correct drive pressure. New, improved stem and guide are precisely molded to assure efficient, trouble-free performance on all deep wells.

Quality Construction: Precision-machined, close-grained cast iron pump body and base are specially treated to resist corrosion.

Noryl Impellers: Precision-molded for perfect balance, and ultra-smooth for highest performance and efficiency.

Pressure Switch: High quality. Differential and cut-in/cut-out pressure settings are adjustable.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants to ensure prolonged motor life.

Mechanical Shaft Seal: Precision-lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.

Dustproof Cover: All electrical components are protected from dirt, dust and insects by a dustproof canopy. Ventilating air cannot contaminate vital switching components. This eliminates the most common cause of motor failure.

Balanced Rotor: Rotor is diecast under high pressures for uniform performance and greater efficiency...dynamically balanced.

Heavy-Duty Ball Bearings: Permanently lubricated sealed bearings are extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft: Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

ORDERING INFORMATION

CATALOG NUMBER	HP	DESCRIPTION	MAX. PRESS. REG. SETTING	PIPE TAPPING SIZES			MOTOR VOLTAGE	APPROX. WT. LBS.
				SUCT.	DRIVE	DISCH.		
10MS	1	Deep Well Jet	60 PSI	1-1/4"	1-1/4"	1"	115/230	73
15MS	1-1/2	Deep Well Jet	85 PSI	1-1/4"	1-1/4"	1"	230	120
20MS	2	Deep Well Jet	95 PSI	1-1/4"	1-1/4"	1"	230	125

ADAPTER FLANGE

CATALOG NUMBER	DESCRIPTION	USED WITH
J216-26	1-1/4" x 1"	Offset single pipe, 4" double pipe through 3/4 HP
J216-27	1-1/4" x 1-1/4"	4" double pipe 1, 1-1/2 and 2 HP

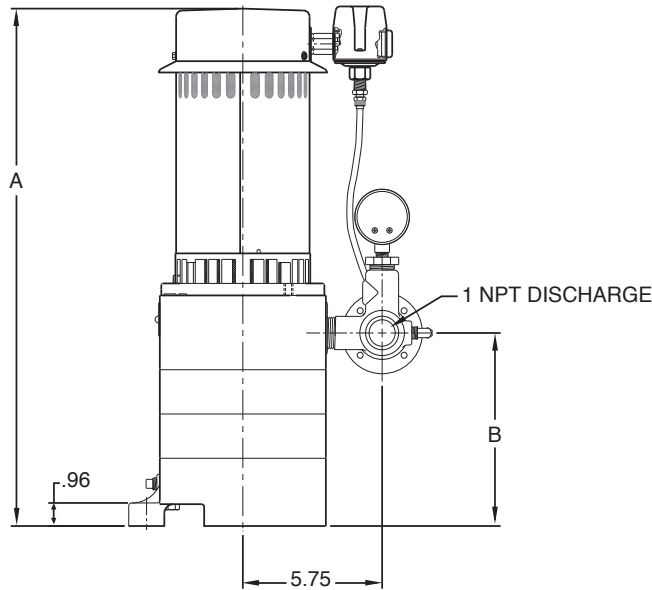
Order pump from ordering information table above. A Jet Package should be ordered with every MS Series Pump. All installations require an appropriate size adapter flange or casing adapter if bolt-on feature is desired.

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MS Series

Cast Iron

OUTLINE DIMENSION



Cat. No.	A	B
10MS	18-3/8	5-5/8
15MS	20-7/16	7-1/2
20MS	20-15/16	7-1/2

Dimensions (in inches) are for estimating purposes only.

PUMP PERFORMANCE (Capacity in gallons per minute) DEEP WELL (40 PSI) 4" DOUBLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET																	MAX. PUMP SHUT-OFF PRESS. PSI							
					30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	180'	200'	220'	240'	260'	280'	300'	320'	JET AT MIN. DEPTH	JET AT MAX. DEPTH			
10MS	1	23SD	J32P-24	J34P-42	12.1	11.7	11.6	11.1	10.2	9.2	7.8	6.4	5.0	4.0	3.0													120	76
		15SD	J32P-18	J34P-42	5.5	5.5	5.5	5.4	5.3	5.3	5.2	5.1	5.1	5.0	4.8	4.5	3.3	2.7	2.0	1.3	1.0							200	97
15MS	1-1/2	23SD	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.7	11.3	10.7	9.9	9.0	8.3	7.0	4.0	1.3											164	95
		15SD	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.2	5.1	5.1	5.0	4.8	4.7	4.5	4.3	4.0	3.3	2.7				314	172	
20MS	2	23SD	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.8	11.3	11.2	11.1	11.0	10.0	8.7	7.0	4.0	2.0										195	110
		15SD	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.2	5.1	5.1	5.0	5.0	4.8	4.8	4.5	4.3	4.0	3.3	2.7			314	172	

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

MS Series

Cast Iron

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 2" SINGLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET																				MAX. PUMP SHUT-OFF PRESS. PSI	
					30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	180'	200'	220'	240'	260'	JET AT MIN. DEPTH	JET AT MAX. DEPTH			
					10MS	1	12AP	J32P-24	J34P-42	12.1	11.3	11.2	10.0	8.8	7.6	6.5	5.6	3.3	1.8							
		8AP	J32P-18	J34P-42	5.5	5.5	5.3	5.3	5.2	5.1	5.0	5.0	5.0	5.0	4.5	4.2	2.0						198	126		
15MS	1-1/2	12AP	J32P-24	J34P-42	12.2	12.0	12.0	12.0	11.5	11.2	9.7	8.3	6.8	5.5	4.2	3.3							162	110		
		8AP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.3	5.2	5.1	5.0	5.0	5.0	4.8	4.3	3.5	2.7	1.7			266	158		
20MS	2	12AP	J32P-24	J34P-42	12.2	12.0	12.0	12.0	11.7	11.2	11.0	10.3	8.3	7.5	6.3	5.3							193	139		
		8AP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.3	5.2	5.2	5.1	5.1	5.0	4.8	4.7	4.3	3.7	3.2	2.5		312	192		

PUMP PERFORMANCE (Capacity in gallons per minute)
DEEP WELL (40 PSI) 3" SINGLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET																				MAX. PUMP SHUT-OFF PRESS. PSI	
					30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	180'	200'	220'	240'	260'	280'	300'	320'	JET AT MIN. DEPTH	JET AT MAX. DEPTH
					10MS	1	23CP	J32P-24	J34P-42	12.1	11.7	11.6	11.1	10.2	9.2	7.8	6.4	5.0	4.0	3.0						
		16CP	J32P-18	J34P-42	5.5	5.5	5.5	5.4	5.3	5.3	5.2	5.1	5.1	5.0	4.8	4.5	3.3	2.7	2.0	1.3	1.0		200	97		
15MS	1-1/2	23CP	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.7	11.3	10.7	9.9	9.0	8.3	7.0	4.0	1.3						164	95		
		22CP	J32P-20	J34P-42	7.7	7.7	7.7	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.0	7.0	4.3	4.0	3.2	2.2			210	110		
		16CP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.2	5.2	5.1	5.0	5.0	4.9	4.7	4.0	3.8	3.0	2.3	1.7	268	132	
20MS	2	23CP	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.8	11.3	11.2	11.1	11.0	10.0	8.7	7.0	4.0	2.0					195	110		
		22CP	J32P-20	J34P-42	7.7	7.7	7.7	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.0	7.0	5.3	5.0	4.7	4.0	3.0	2.2		250	128	
		16CP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.2	5.1	5.1	5.0	5.0	4.8	4.7	4.5	4.3	4.0	3.3	2.7	314	172

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

Intelliboost® R Series

Multi-stage variable frequency drive booster pump



The Intelliboost® is the only TRUE variable speed booster with an LCD screen that gives you an easy to use, all-in-one solution for not only boosting, but also delivering a constant pressure throughout the system. This dependable unit quickly enhances your customer's system with smart controls that adjusts to their water usage.

APPLICATIONS

- Residential Boosting
- Water Transfer
- Turf Irrigation

SPECIFICATIONS

- Pump Case:** Stainless Steel
Diffuser: Reinforced Polypropylene
Impeller: Reinforced Polypropylene
Mechanical Shaft Seal: Carbon, Ceramic, Stainless Steel
Mounting Base: Steel

FEATURES

TRUE Variable Speed: The Intelliboost features a variable speed control that adjusts itself as demand changes to hold water pressure (up to 60psi) at the desired level.

All-In-One Unit: Includes pump, variable speed drive and tank all in one unit for quick and easy install.

Simple Startup: Unit is preset to boost 60psi, allowing you to plumb it, wire it, power up and go!

Built-in Check Valve: Includes a check valve after the discharge to further protect your system.

LCD Screen: No blinking lights! The Intelliboost has an easy-to-read LCD screen that tells you the status of your unit in plain text.

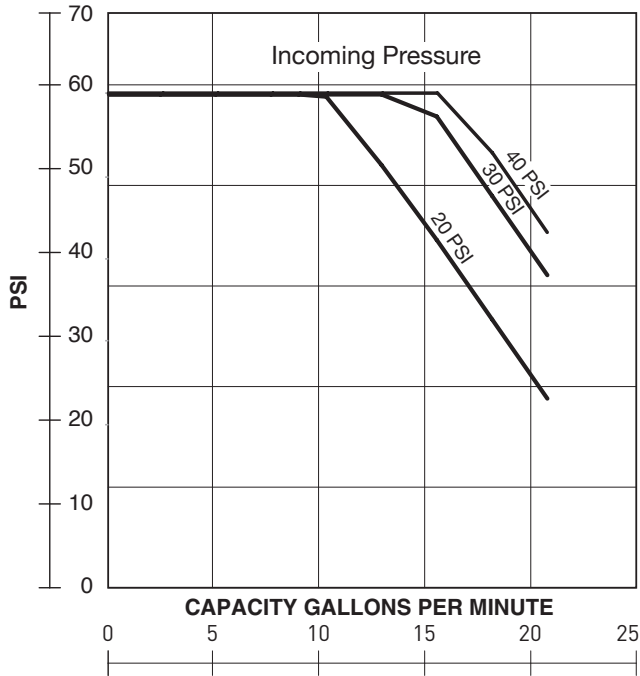
ORDERING INFORMATION

Catalog Number	HP	Input Voltage	Phase	Pipe Tapping Size		Approx. Wt. Lbs.
				Suction	Discharge	
MIB0715B	3/4	230	1	1"	1"	30

Intelliboost® R Series

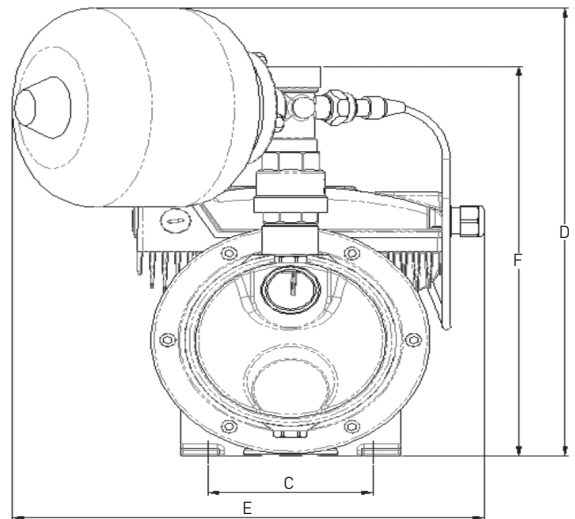
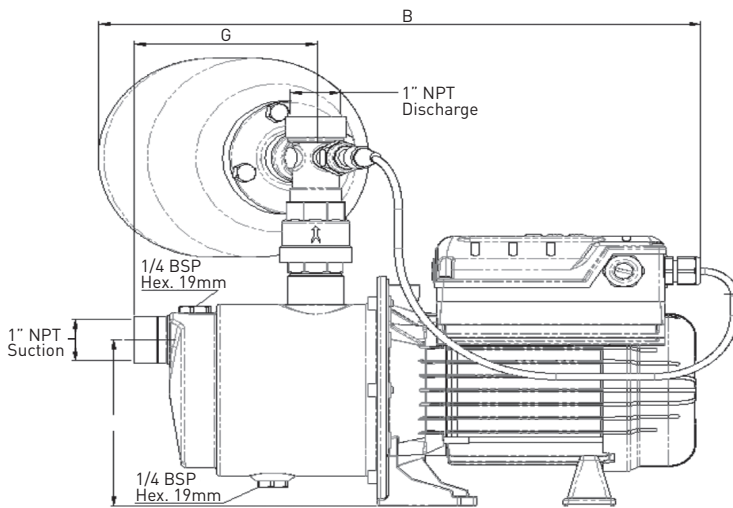
Multi-stage variable frequency drive booster pump

PUMP PERFORMANCE



Incoming Household Pressure	Booster Set At:	
	50 PSI	60 PSI
20 PSI	Boosted Household Pressure	
	50 PSI	60 PSI
	Household Water Usage	
	Up to 13 GPM	Up to 10 GPM
30 PSI	Boosted Household Pressure	
	50 PSI	60 PSI
	Household Water Usage	
	Up to 19 GPM	Up to 15 GPM
40 PSI	Boosted Household Pressure	
	50 PSI	60 PSI
	Household Water Usage	
	Up to 21 GPM	Up to 19 GPM

OUTLINE DIMENSIONS



Dimensions (inch)

A	B	C	D	E	F	G
5.1	15.0	3.9	13.7	11.8	12.0	4.6

MGP/MGPS Series



The MGP/MGPS Booster Pumps are the most durable booster pump available. The proven **SignaSeal™** floating impeller design minimizes thrust loads allowing for continuous operation without damage to motor bearings, mechanical seal or pump hydraulic components.

APPLICATIONS

- Car wash
- Filtration and reverse osmosis
- Residential, commercial or agricultural pressure washing
- Booster and spray systems
- HVAC
- General purpose pumping

SPECIFICATIONS

- Max. Inlet Pressure:** 80 PSI
- Max. Working Pressure:** 315 PSI
- Max. Suction Lift:** 15 feet
- Maximum Limits:** Prolonged use with liquids above 140°F is not recommended.
- Discharge:**
MGP Series: cast iron
MGPS Series: stainless steel
- Motor Adapter and Base:**
MGP Series: cast iron
MGPS Series: stainless steel
- Shell:** Stainless steel 304 grade
- Impeller:** Acetal
- Diffuser:** Polycarbonate
- Shaft:** Stainless steel 304 grade
- O-Rings:** Buna-N
- Mechanical Seal:** Carbon/ceramic, Buna-N

FEATURES

- SignaSeal Staging System:** The proven SignaSeal staging system utilizes a ceramic wear surface that, when incorporated with Sta-Rite's "true" independent floating impellers, dominates with 1st-in-class performance, superior sand handling and thrust management staging system.
- Acetal Impellers:** Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.
- Precision-Molded Diffusers:** Superior performance with high resistance to corrosion and abrasion.
- Mechanical Shaft Seal:** Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication.
- Motor Windings:** Superior insulation materials protect against excessive moisture and contaminants...assure prolonged motor life.
- Balanced Rotor:** Diecast under high pressures for uniform performance and greater efficiency; dynamically balanced.
- Heavy-Duty Ball Bearings:** Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.
- Pump and Motor Shaft:** Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive.
- Dustproof Cover:** All electrical components are protected from dirt, dust and insects by a dustproof canopy; ventilating air cannot contaminate.
- TEFC Models available.** Contact Customer Service.

MGP/MGPS Series

ORDERING INFORMATION									
Catalog Number		GPM	HP	Phase	Stages	Pipe Tapping Sizes		Motor Voltage	Shipping Wt. (lbs.)
Cast Iron	Stainless Steel					Inlet	Outlet		
MGP7C	MGPS7C	7	1/2	1	9	3/4"	3/4"	115/230	42
MGP7C3	MGPS7C3		1/2	3	9	3/4"	3/4"	208-230/460	42
MGP7D	MGPS7D		3/4	1	12	3/4"	3/4"	115/230	48
MGP7D3	MGPS7D3		3/4	3	12	3/4"	3/4"	208-230/460	48
MGP7E	MGPS7E		1	1	16	3/4"	3/4"	115/230	59
MGP7E3	MGPS7E3		1	3	16	3/4"	3/4"	208-230/460	59
MGP10C	MGPS10C	10	1/2	1	6	3/4"	3/4"	115/230	40
MGP10C3	MGPS10C3		1/2	3	6	3/4"	3/4"	208-230/460	40
MGP10D	MGPS10D		3/4	1	8	3/4"	3/4"	115/230	46
MGP10D3	MGPS10D3		3/4	3	8	3/4"	3/4"	208-230/460	46
MGP10E	MGPS10E		1	1	10	3/4"	3/4"	115/230	57
MGP10E3	MGPS10E3		1	3	10	3/4"	3/4"	208-230/460	57
MGP10F	MGPS10F		1-1/2	1	14	3/4"	3/4"	230	71
MGP10F3	MGPS10F3		1-1/2	3	14	3/4"	3/4"	208-230/460	71
MGP10G	MGPS10G		2	1	16	3/4"	3/4"	230	79
MGP10G3	MGPS10G3		2	3	16	3/4"	3/4"	208-230/460	79
MGP20E	MGPS20E	20	1	1	7	1"	1"	115/230	55
MGP20E3	MGPS20E3		1	3	7	1"	1"	208-230/460	55
MGP20F	MGPS20F		1-1/2	1	9	1"	1"	230	68
MGP20F3	MGPS20F3		1-1/2	3	9	1"	1"	208-230/460	68
MGP20G	MGPS20G		2	1	11	1"	1"	230	74
MGP20G3	MGPS20G3		2	3	11	1"	1"	208-230/460	74
MGP20H	MGPS20H		3	1	15	1"	1"	208-230-1	59
MGP20H3	MGPS20H3		3	3	15	1"	1"	208-230/460-3	55
MGP30E	MGPS30E	30	1	1	5	1-1/4"	1-1/4"	115/230-1	47
MGP30E3	MGPS30E3		1	3	5	1-1/4"	1-1/4"	208-230/460-3	44
MGP30F	MGPS30F		1-1/2	1	6	1-1/4"	1-1/4"	230-1	54
MGP30F3	MGPS30F3		1-1/2	3	6	1-1/4"	1-1/4"	208-230/460-3	49
MGP30G	MGPS30G		2	1	7	1-1/4"	1-1/4"	230-1	57
MGP30G3	MGPS30G3		2	3	7	1-1/4"	1-1/4"	208-230/460-3	53
MGP30H	MGPS30H		3	1	11	1-1/4"	1-1/4"	208-230-1	59
MGP30H3	MGPS30H3		3	3	11	1-1/4"	1-1/4"	208-230/460-3	55

NOTE: ODP motor is standard, for TEFC motors, contact Customer Service.

MGP/MGPS Series

ORDERING INFORMATION (ACCESSORIES)

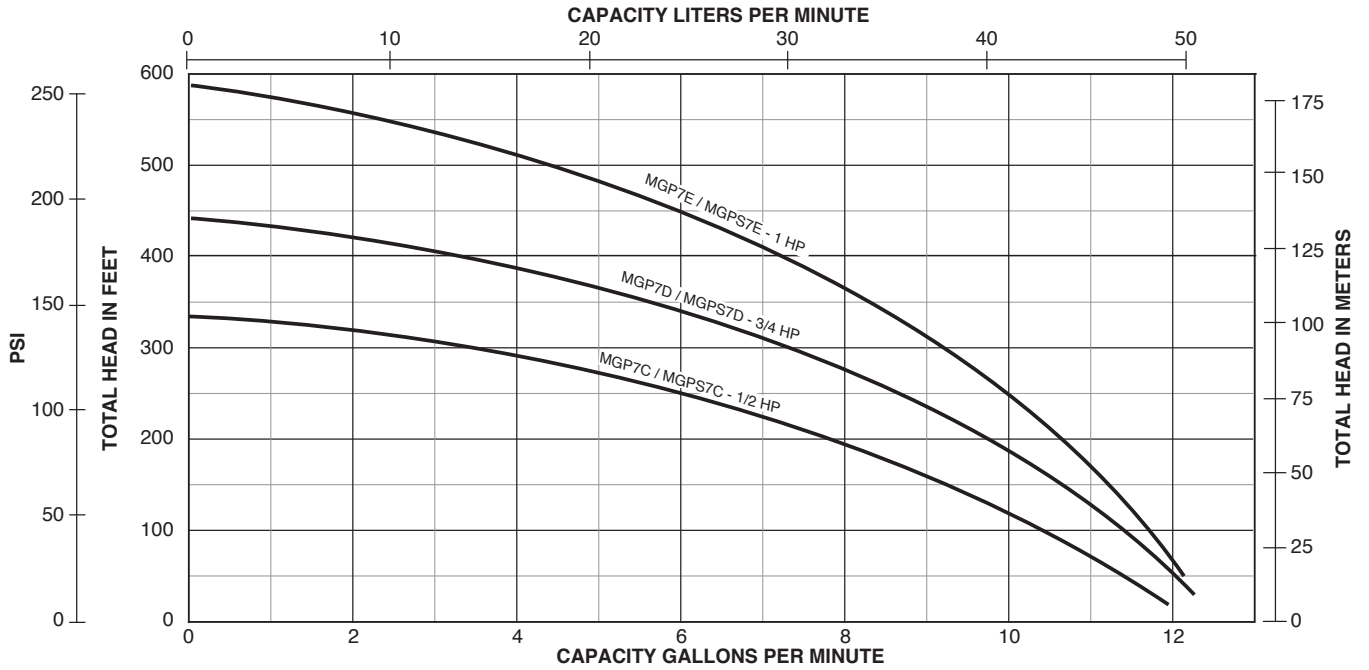
Pkg. No.	Description	Approx. Wt. Lbs.
SUCTION		
83	Suction hose - 3/4" 150 PSI hose, 6 ft. section with two (2) female hose fittings	3
85	Two (2) garden hose/NPT adapters - 3/4" NPT male to 3/4" garden hose male	3
150 PSI RATED* DISCHARGE		
84	Discharge hose - 3/4" 150 PSI hose, 25 ft. section with male and female garden hose fittings	10
86	High-pressure pistol-grip nozzle with three (3) nozzles (No. 56, 50 and 49)	2

*To select proper discharge accessories for your pump, add incoming pressure to pump output pressure, to determine total discharge pressure.

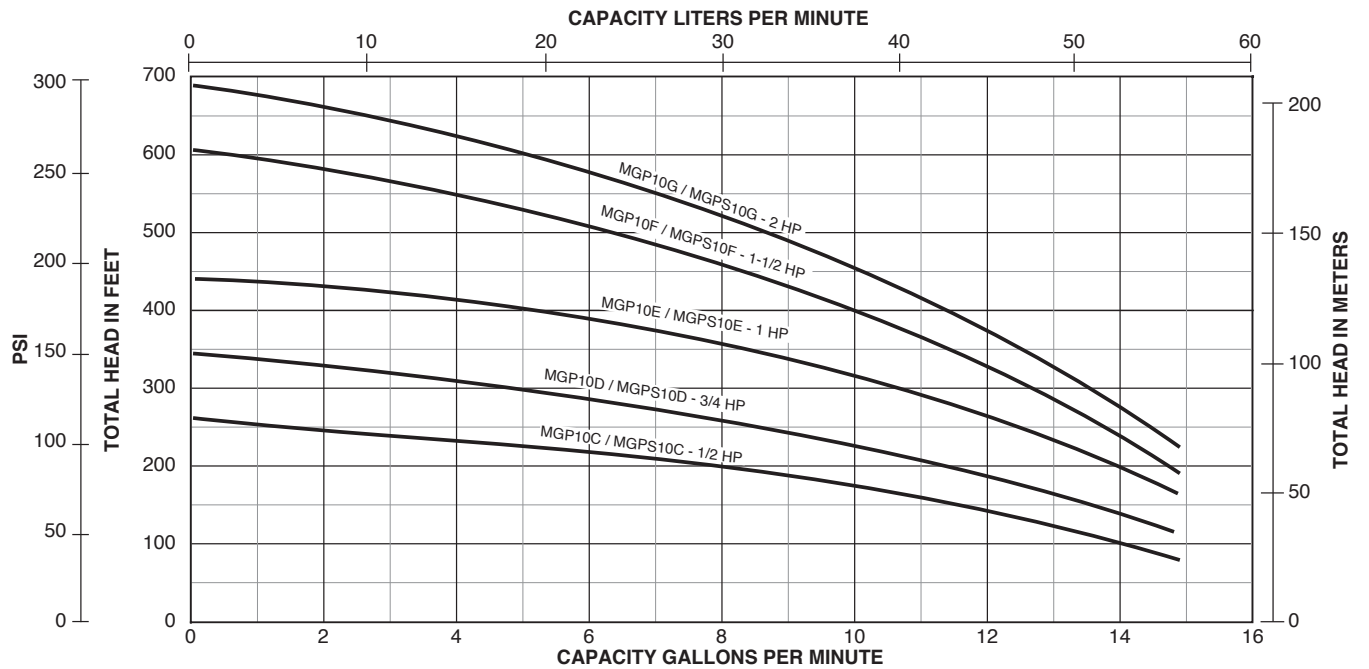
Example: Incoming pressure 20 PSI + pump output pressure (HP7C at 0 GPM, 300') 87 PSI = Total 150 PSI at discharge = 150 PSI rated discharge accessories

MGP/MGPS Series

PUMP PERFORMANCE: 7 GPM

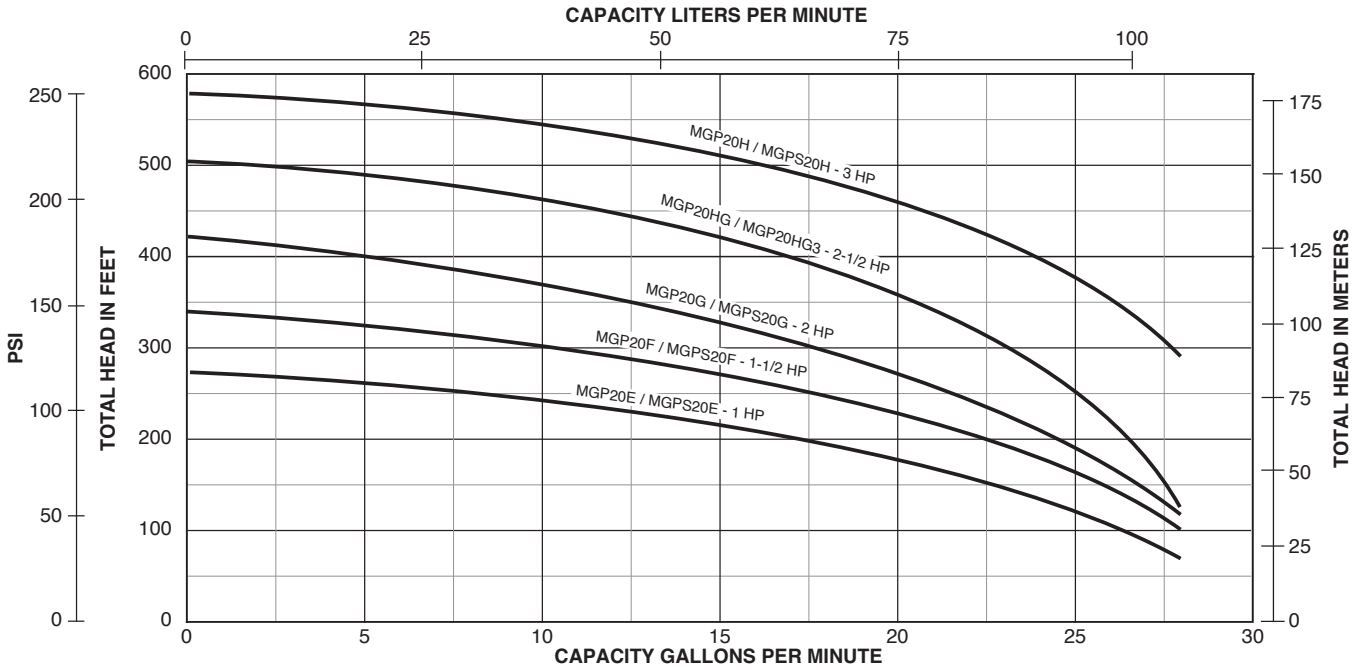


PUMP PERFORMANCE: 10 GPM

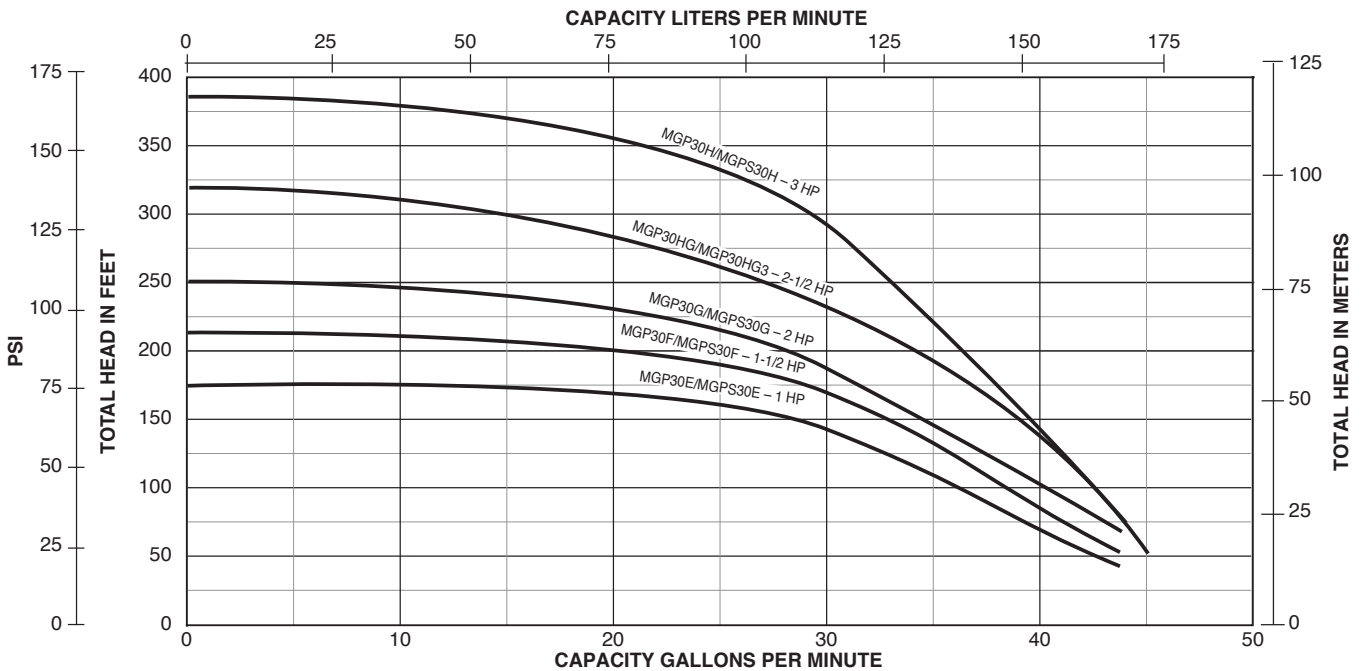


MGP/MGPS Series

PUMP PERFORMANCE: 20 GPM

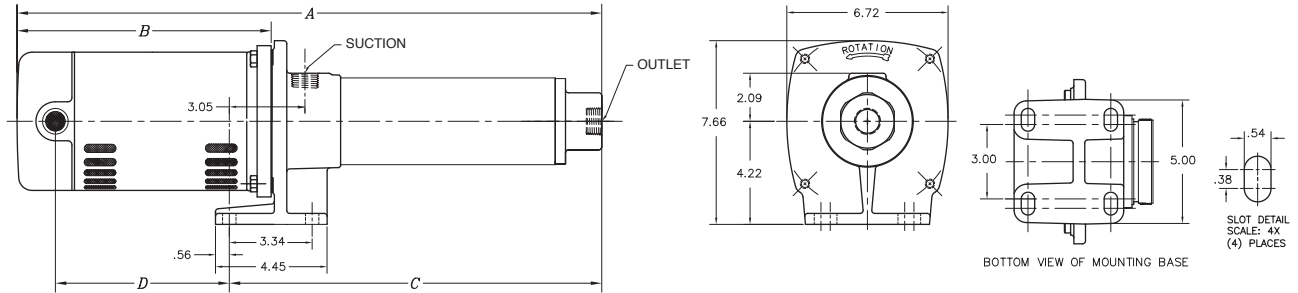


PUMP PERFORMANCE: 30 GPM



MGP/MGPS Series

OUTLINE DIMENSIONS



DIMENSIONS IN INCHES

CAST IRON						STAINLESS STEEL					
Catalog Number	HP	A	B	C	D	Catalog Number	HP	A	B	C	D
MGP7C	1/2	24.28	10.38	15.76	6.68	MGPS7C	1/2	25.39	11.60	15.65	8.44
MGP7C3	1/2	26.41	9.88	18.39	6.68	MGPS7C3	1/2	26.27	9.88	18.25	6.68
MGP7D	3/4	27.41	10.88	18.39	7.69	MGPS7D	3/4	28.36	11.97	18.25	8.81
MGP7D3	3/4	30.41	10.38	21.89	7.28	MGPS7D3	3/4	26.77	10.38	18.25	7.28
MGP7E	1	31.91	11.88	21.89	8.69	MGPS7E	1	31.89	11.97	21.78	8.81
MGP7E3	1	22.15	10.88	13.13	7.68	MGPS7E3	1	30.80	10.88	21.78	11.94
MGP10C	1/2	22.87	11.60	13.13	8.44	MGPS10C	1/2	22.76	11.60	13.02	8.44
MGP10C3	1/2	21.15	9.88	13.13	6.68	MGPS10C3	1/2	22.79	9.88	14.77	6.68
MGP10D	3/4	24.99	11.97	14.88	8.81	MGPS10D	3/4	24.88	11.97	14.77	8.81
MGP10D3	3/4	25.15	10.38	16.63	7.28	MGPS10D3	3/4	25.04	10.38	16.52	7.28
MGP10E	1	27.80	13.03	16.63	9.87	MGPS10E	1	27.69	13.03	16.52	9.87
MGP10E3	1	24.78	10.88	15.76	7.68	MGPS10E3	1	29.05	10.88	20.03	7.68
MGP10F	1-1/2	31.18	13.78	19.26	10.31	MGPS10F	1-1/2	31.95	13.78	20.03	10.31
MGP10FG	1-1/2	31.91	11.88	21.89	8.69	MGPS10F3	1-1/2	31.80	11.88	21.78	8.69
MGP10G	2	36.44	13.78	24.52	10.62	MGPS10G	2	33.70	13.78	21.78	10.62
MGP10G3	2	32.66	12.63	21.89	9.44	MGPS10G3	2	27.22	12.63	16.45	9.44
MGP20E	1	26.85	13.03	15.68	9.87	MGPS20E	1	26.74	13.03	15.57	9.87
MGP20E3	1	26.93	10.88	17.91	7.68	MGPS20E3	1	26.82	10.88	17.80	7.68
MGP20F	1-1/2	29.83	13.78	17.91	10.31	MGPS20F	1-1/2	29.72	13.78	17.80	10.31
MGP20F3	1-1/2	30.16	11.88	20.14	8.69	MGPS20F3	1-1/2	30.05	11.88	20.03	8.69
MGP20G	2	32.06	13.78	20.14	10.62	MGPS20G	2	31.95	13.78	20.03	10.62
MGP20G3	2	26.53	12.63	15.76	9.44	MGPS20G3	2	26.42	12.63	15.65	9.44
MGP30E	1	25.08	11.88	14.92	8.69	MGPS30E	1	26.23	13.03	14.92	9.87
MGP30E3	1	24.08	10.88	14.92	7.69	MGPS30E3	1	24.08	10.88	14.92	7.69
MGP30F	1-1/2	27.26	12.63	16.35	9.44	MGPS30F	1-1/2	28.10	13.47	16.35	10.31
MGP30F3	1-1/2	26.51	11.88	16.35	8.69	MGPS30F3	1-1/2	26.51	11.88	16.35	8.69
MGP30G	2	28.49	12.42	17.79	9.47	MGPS30G	2	29.85	13.78	17.79	10.62
MGP30G3	2	28.70	12.63	17.79	9.44	MGPS30G3	2	28.70	12.63	17.79	9.44
MGP30HG	2-1/2	32.24	13.18	20.78	10.25	MGPS30HG	2-1/2	32.24	13.18	20.78	10.28
MGP30HG3	2-1/2	32.26	13.20	20.78	10.28	MGPS30HG3	2-1/2	32.26	13.20	20.78	10.28
MGP30H	3	35.86	14.05	23.53	11.12	MGPS30H	3	35.86	14.05	23.53	11.12
MGP30H3	3	33.73	11.92	23.53	8.97	MGPS30H3	3	33.73	11.92	23.53	8.97

Jet Packages & Accessories

A jet package should be ordered with every convertible deep well jet pump.

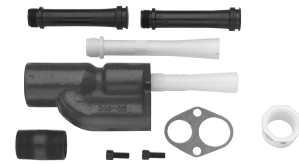
ORDERING INFORMATION

Package	Jet Number	Used with Pump Series
SHALLOW WELL AND 4" DEEP WELL DOUBLE PIPE		
Pkg 1- <input type="text"/> <input type="text"/> SD For shallow well applications For all 4" double pipe applications	PKG 1-4SD	SL, HL, FL, LT2
	PKG 1-10SD	SL, HL, FL, LT2
	PKG 1-11SD	SL, HL, FL, LT2
	PKG 1-12SD	SL, HL, FL, LT2
	PKG 1-15SD	SL, HL, FL, LT2
	PKG 1-23SD	MS, PL
	PKG 1-27SD	SL, HL, FL
	PKG 1-29SD	SL, HL, FL, LT2
	PKG 1-54SD	SL, HL, FL
	PKG 1-55SD	SL, HL, FL
PKG 1-60SD	SL, HL	
SHALLOW WELL AND 4" DEEP WELL DOUBLE PIPE - KITS		
Pkg CK <input type="text"/> Same as SD jets above, with three (3) venturis	PKG CK1	SL, HL, LT2, SSJ
	PKG CK2	SL, HL, LT2, SSJ
	PKG CK3	SL, HL, LT2, SSJ, FL
	PKG CK4	LT2, SSJ
	PKG CK5	SL, HL, LT2, SSJ
4" DEEP WELL DOUBLE PIPE WITH ACCESSORY PACKAGES		
Pkg 2A- <input type="text"/> <input type="text"/> SD	PKG 2A-4SD	SL, HL, FL, LT2
	PKG 2A-15SD	SL, HL, FL, LT2
	PKG 2A-23SD	MS, PL
	PKG 2A-54SD	SL, HL, FL
	PKG 2A-55SD	SL, HL, FL
PL SERIES PLASTIC SHALLOW WELL JET PACKAGES		
Pkg 1- <input type="text"/> <input type="text"/> N For all shallow well applications	PKG 1-21N	PL
	PKG 1-22N	PL
	PKG 1-23N	PL
	PKG 1-24N	PL

Continued On Next Page.



PKG 1- **SD**
SHALLOW WELL & DEEP WELL



PKG CK



PKG 2A- **SD**
DOUBLE PIPE



PKG 1- **N**
PL SHALLOW WELL



PKG 2A
ACCESSORY PACKAGE

ORDERING INFORMATION

Accessory Package		
Catalog Number	Description	Approx. Wt. Lbs.
PKG 2A	Poly Pipe and Foot Valve Kit (1-1/4" Brass)	3

Jet Packages & Accessories

A jet package should be ordered with every convertible deep well jet pump.

ORDERING INFORMATION (CONT'D.)

Package	Jet Number	Suction Tapping	Used with Pump Series
2" SINGLE PIPE*			
PKG 1**-<input type="checkbox"/><input type="checkbox"/> AP PKG 1-<input type="checkbox"/><input type="checkbox"/> APB (4 lbs.) Jet with built-in check valve For all 2" single pipe deep well applications	PKG 1-54 AP	1-1/4" M and 1" F	SL, HL, FL
	PKG 1-23 AP		LT2
	PKG 1-22 AP		LT2
	PKG 1-18 AP		LT2
	PKG 1-19 AP		LT2
	PKG 1-16 AP & APB		PL, SSJ
	PKG 1-15 AP		PL, LT2, SSJ
	PKG 1-14 AP		PL, SSJ
	PKG 1-13 AP		PL, LT2
	PKG 1-12 AP & APB		MS
	PKG 1-10 AP & APB		SL, HL, PL, SSJ
	PKG 1-9 AP & APB		SL, HL, PL, SSJ
	PKG 1-8 AP & APB		SL, HL, PL, LT2, SSJ, MS, FL
	PKG 1-7 AP & APB		LT2
	PKG 1-5 AP		LT2
	PKG 1-4 AP		LT2
PKG 1-2 AP	LT2		
3" SINGLE PIPE			
PKG 1**-<input type="checkbox"/><input type="checkbox"/> CP (6 lbs.) Jet with built-in check valve For all 3" single pipe deep well applications	PKG 1-57 CP	1-1/4" M and 1" F	SL, HL
	PKG 1-54 CP		SL, HL, FL
	PKG 1-26 CP		PL, SSJ
	PKG 1-25 CP		PL
	PKG 1-23 CP		MS
	PKG 1-22 CP		LT2, MS
	PKG 1-19 CP		SL, HL, PL, LT2, SSJ, FL
	PKG 1-18 CP		SL, HL, LT2
	PKG 1-17 CP		PL, LT2, SSJ, MS
	PKG 1-16 CP		SL, HL, LT2, SSJ, MS, FL
	PKG 1-15 CP		PL, SSJ
	PKG 1-11 CP		PL, SSJ
	PKG 1-10 CP		PL, LT2
	PKG 1-9 CP		SL, HL, LT2, FL
	PKG 1-7 CP		LT2



PKG 1- AP
2" SINGLE PIPE CAST IRON

OR

PKG 1- APB
2" SINGLE PIPE BRASS

PKG 1- CP
3" SINGLE PIPE

*Order one (1) U11-1 turned coupling for each length of drop pipe.

**For casing adapter, please see following page.

ORDERING INFORMATION

TURNED COUPLING		
Catalog Number	Description	Approx. Wt. Lbs.
U11-1	Turned Coupling (1-1/4" NPT)	1



PKG U11-1
TURNED COUPLING

Jet Packages & Accessories



View A
Vertical - Straight Offset
Casing Adapter



View B
Vertical - Bolt-on
Casing Adapter



View C
Horizontal - Right Angle
Casing Adapter
Drive-Over-Suction



View D
Horizontal - Right Angle
Casing Adapter
Suction-Over-Drive

ACCESSORIES

Catalog Number	View	Description	Approx. Wt. Lbs.	Use with Pump Series
CASING ADAPTERS				
J216-13A	A	2" vertical - straight offset	6	General Usage
J216-21	B	2" vertical - bolt-on	6	SSJ, MS
J216-23	B	3" vertical - bolt-on	7	SSJ, MS
J216-16A	C	2" horizontal - right angle - drive-over-suction	7	FL, LT2
J216-18A	C	3" horizontal - right angle - drive-over-suction	9	FL, LT2
J37-4	-	Offset nipple (1" NPT x 4-3/4")	1	General Usage
J216-29B	-	2" concentric pipe - pitless adapter	6	SSJ, MS
J216-42	-	2" concentric pipe - pitless adapter	6	FL, LT2
J216-44	D	2" horizontal - right angle - suction-over-drive	7	SL, HL
FOOT VALVES				
U212-28	E	3/4" foot valve and strainer	1	
U212-93	E	1" foot valve and strainer	1	
U212-94	E	1-1/4" foot valve and strainer	2	
U212-92	E	1-1/2" foot valve and strainer	3	
U212-16	E	2" foot valve and strainer	3	
PRESSURE REGULATOR				
PKG 107	F	Regulator, tubing, pipe plug and compression fitting	4	

View E
Foot
Valves



View F
Pressure
Regulator



Jet Packages & Accessories

ACCESSORIES (CONT'D.)

AIR VOLUME CONTROLS

Catalog Number	Description	Approx. Wt. Lbs.
U238-5A	AVC, 1/4" compression fitting for copper tube, nipple, instruction sheet, jet type	1
U238-5B	AVC, 1/4" compression fitting for plastic tube, nipple, instruction sheet, jet type	1
J238-10B	AVC, 1/4" plastic tubing, compression fittings, reducer bushing and instruction sheet	3
E238-2	Air volume control - submersible	1
U238-4	AVC bulk. No fittings.	1
U238-5E	AVC boxed. No fittings or nipple.	1
U78-774P	Plastic AVC reducer bushing, 1-1/4" x 1/4"	1

TANK MOUNTING PACKAGES -PRO-SOURCE' TANKS

PKG 111	For tank mounting PL and PN Series jet pumps	2
PKG 112	For tank mounting HN, SN, FN, HL, SL, and FL Series Jet Pumps	2
PKG 198	Jet Pump to Tank Mounting Bracket	3
PKG 207	Pump-to-Tank Fitting Package - all galvanized fittings	4

REVERSING ADAPTER

PKG 108	Adapter, gasket, capscrews, 1" x 1-1/4"	4
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PRESSURE GAUGES

U239-2	Pressure gauge, bottom mount 1/4", 0-100 PSI	1
U239-3	Pressure gauge, bottom mount 1/8", 0-100 PSI	1
U239-3A	U239-3 with 1/4" x 1/8" reducer bushing	1
U239-8	Pressure gauge, bottom mount 1/4", 0-200 PSI	1
U78-107DT	Reducer bushing for U239-3 1/4" x 1/8"	1



U238-5
Air Volume Controls
(Jet pump type)



E238-2
Air Volume Control
(Submersible type)



Reducer Bushing



Tank Mounting Packages



PKG 108
Reversing Adapter
Drive over suction to suction over drive



PKG 198
Universal Jet Pump to Tank
Mounting Bracket



Pressure Gauge

Pro-Source® Composite Fibrewound Tanks



NSF/ANSI 61
Drinking Water

Built Tough...for Quality

Every Pro-Source® Composite tank utilizes a durable, FDA approved air cell which is resistant to chlorine and will not promote taste or odor problems associated with iron bacteria that may be present in the water supply.

Built Tough...for Durability

Each tank is wrapped with more than three miles of overlapping, continuous fiberglass strands, sealed with high-grade epoxy resin, then oven-cured. Tough composite construction means longer lasting tanks that will not rust, corrode, dent or scratch.

Built Tough...for Easy Installation and Service

Not only is composite construction tougher, it's also more lightweight...as little as half the weight of steel tanks. Installation is faster, easier and can be handled by one person. Repairable with the tank installed.

ORDERING INFORMATION

Catalog Number	Tank Capacity Gal./Liter	Tank Diameter Inch / cm	Tank Height Inch / cm	Discharge Tapping Inch / cm	Water Yield Per Pump Cycle Pressure Switch Setting		
					20-40 Gal./ Liter	30-50 Gal./Liter	40-60 Gal./ Liter
PSC-14-4	14.5 / 55	16 / 41	28.2 / 71.6	1 / 2.5	4.9 / 18.7	4.4 / 16.5	3.8 / 14.3
PSC-20-6	19.8 / 75	16 / 41	34.1 / 86.6	1 / 2.5	6.7 / 25.5	5.9 / 22.5	5.1 / 19.5
PSC-30-9	29.5 / 112	16 / 41	46.3 / 117.6	1 / 2.5	10.0 / 38.1	8.9 / 33.5	7.7 / 29.1
PSC-40-12	40.3 / 153	16 / 41	59.0 / 149.9	1 / 2.5	13.7 / 52.0	12.1 / 45.8	10.5 / 39.8
PSC-48-14	47.1 / 178	21 / 53	43.6 / 110.7	1.25 / 3.1	16.0 / 60.5	14.1 / 53.5	12.2 / 46.3
PSC-60-20	60 / 227	24 / 61	44.4 / 112.8	1.25 / 3.1	20.4 / 77.2	18.0 / 68.1	15.6 / 59.0
PSC-80-23	79.6 / 301	21 / 53	65.5 / 166.4	1.25 / 3.1	27.1 / 102.3	23.8 / 90.4	20.7 / 78.3
PSC-85-25	86.7 / 328	24 / 61	57.2 / 145.3	1.25 / 3.1	29.5 / 111.5	26.0 / 98.5	22.5 / 85.3
PSC-119-35	119.7 / 453	24 / 61	75.4 / 191.5	1.25 / 3.1	40.7 / 154	35.9 / 135.9	31.1 / 117.8

Maximum Operating Pressure = 125 PSI, PSC - 80-23 has a maximum operating pressure of 125 PSI.
Maximum Internal Water Temperature: 120°F (49°C), Maximum Ambient Air Temperature: 120°F (49°C)
Distance from base to center line of connection is 2-1/4" (5.7 cm)*. Allow 12" (30.5 cm) for service clearance.
*1-3/4" (4.4 cm) for 16" diameter tanks

Certified to ANSI/NSF 61, Drinking Water System Components

Pro-Source® Composite Fibrewound Tanks

APPLICATIONS

Use wherever pressurized tanks are needed in water systems applications.

SPECIFICATIONS

Inner Liner: One-piece high-density polyethylene

Outer Shell: Fiberglass-wound, oven-cured, and epoxy resin sealed

Exclusive Air Cell: Heavy gauged PEU, meets Water Quality Association standards

Base: Rotatable base with quick connect

Service Connection: Stainless steel, 300 grade

FEATURES

Durable Composite Construction: A rugged one-piece molded inner liner of premium high-density polyethylene.

Miles of continuous overlapping fiberglass strands, sealed with oven-cured epoxy, make the outer shell impervious to rust, dents and ultra-violet rays (no paint to scratch and touch up).

Air Cell: Seamless, durable PEU air cell is full replaceable and constructed of heavy-gauge engineered polymer. Meets Water Quality Association standards.

Tank Base: Rigid molded ABS is the sturdiest composite base on the market. Corrosion- and impact-resistant.

Replaceable Air Cell: Generous and accessible air cell opening facilitates easy removal and re-installation of replacement air cell (with the professional contractor in mind). Replaceable on PSC line of Fibrewound.

Stainless Steel Service Connection: 300 grade, the professional's choice

TANK SIZING RULE:

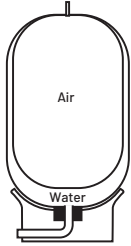
Size tank for one gallon of drawdown for each gallon per minute at pump capacity.

Example: For a 1 HP, 20 GPM unit pumping 20 gallons per minute on a 30-50 pressure switch setting, the properly sized Pro-Source composite tank is a PSC-80-23, which has a 23.8 gallon drawdown.

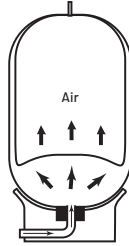
Pro-Source® Composite Fibrewound Tanks

OPERATING CYCLE

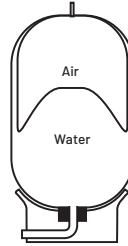
1. Pro-Source® Composite tank is nearly empty: air cell is fully expanded



2. Water is pumped into tank: air in cell is compressed



3. Pump-up cycle is complete: air is now compressed to "cut off" setting of pressure switch



4. Water is drawn from tank: pressure in air cell provides water as needed, until tank is empty and cycle repeats

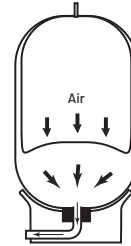


CHART A

TANK SELECTION CHART

Pump GPM	SYSTEM PRESSURE SWITCH SETTING - PSI					
	20-40		30-50		40-60	
	Runtimes					
	1 Minute	2 Minute	1 Minute	2 Minute	1 Minute	2 Minute
5	PSC-20-6	PSC-30-9	PSC-20-6	PSC-40-12	PSC-20-6	PSC-40-12
7.5	PSC-30-9	PSC-48-14	PSC-30-9	PSC-60-20	PSC-30-9	PSC-60-20
12.5	PSC-40-12	PSC-80-23	PSC-48-14	PSC-85-25	PSC-60-20	PSC-119-35
15	PSC-48-14	PSC-119-35	PSC-60-20	PSC-119-35	PSC-60-20	PSC-119-35
20	PSC-60-20	PSC-119-35	PSC-80-23	PSC-80-23 (2)	PSC-80-23	PSC-80-23 (2)
30	PSC-85-25	PSC-85-25 (2)	PSC-119-35	PSC-119-35 (2)	PSC-119-35	PSC-119-35 (2)
50	PSC-80-23 (2)	PSC-119-35 (3)	PSC-85-25 (2)	PSC-119-35 (3)	PSC-119-35 (2)	PSC-119-35 (3)

NOTE: Drawdown will be affected by operating temperature of the system, accuracy of the pressure switch and gauge, the actual precharge pressure, and rate of fill.

CHART B

DRAWDOWN VOLUME MULTIPLIER* (APPROXIMATE)

Pump Off Pressure PSI	PUMP START PRESSURE - PSI							
	10	20	30	40	50	60	70	80
20	0.26							
30	0.41	0.22						
40		0.37	0.18					
50		0.46	0.31	0.15				
60			0.40	0.27	0.13			
70			0.47	0.35	0.24	0.12		
80				0.42	0.32	0.21	0.11	
90				0.48	0.38	0.29	0.19	0.10
100					0.44	0.35	0.26	0.17

*Utilize this chart if proper selection cannot be made using tank selection chart. Drawdown based on Boyle's Law.

Procedure:

1. Identify drawdown multiplier relating to specific application.

2. Insert multiplier (X) into the following formula:

$$\frac{\text{Pump GPM} \times \text{Min Runtime}}{\text{Multiplier (X)}} = \frac{\text{Minimum Tank Capacity Required}}{\text{Capacity Required}}$$

3. Refer to "Ordering Information" Table - Max. Capacity Gals.

Pro-Source® Composite Fibrewound Tanks

Contact

FCT Series Contact Tanks



FCT40

FCT80

FCT120



NSF/ANSI 61
Drinking Water

Built Tough...for Quality

Professional grade composite construction means longer lasting tanks that will not rust, corrode, dent or scratch.

Built Tough...for Durability

Each tank is wrapped with more than three miles of overlapping, continuous fiberglass strands, sealed with high-grade epoxy resin, then oven-cured.

Built Tough... for Easy Installation

Composite construction is lightweight... as little as half the weight of steel tanks. Installation is faster, easier and can be handled by one person.

APPLICATIONS

Residential Water Systems

Industrial, Commercial and Agricultural

SPECIFICATIONS

Inner Liner: One-piece high-density polyethylene

Outer Shell: Fiberglass-wound and epoxy resin sealed

Upper and Lower Flanges: Reinforced polypropylene

Base: One-piece ABS

Service Connections: Reinforced polypropylene

FEATURES

Durable Composite

Construction: A rugged one-piece molded inner liner of premium high-density polyethylene. Miles of continuous overlapping fiberglass strands, sealed with oven-cured epoxy, make the outer shell impervious to rust, dents and ultra-violet rays (no paint to scratch and touch up).

Tank Base: Rigid ABS is the sturdiest composite base on the market. Corrosion- and impact-resistant. Base rotates 360° for ease-of-service hook-up.

Composite Service Connection: Threaded for ease of installation.

ORDERING INFORMATION

FCT SERIES CONTACT TANKS

Catalog Number	Maximum Capacity Gal./Liter	Maximum Operating Pressure PSI/kPa/Bar	Diameter Inch/cm	Overall Height Inch/cm	Height Inlet/Outlet to Floor Inch/cm	Top System Connection	Bottom System Connection	Assembly Weight Lbs./kg
FCT40	40/151	75/500/5.0	16/41	57.25/145	1.5/3.8	1-1/4" Socket	1-1/4" Socket	28/12.7
FCT80	80/303	75/500/5.0	21/53	62.75/159	2/5.1	1-1/4" Socket	1-1/4" Socket	43/19.5
FCT120	120/454	75/500/5.0	24/61	73.25/186	2/5.1	1-1/4" Socket	1-1/4" Socket	63/28.6

Maximum external operating temperature 120°F (49°C).
Maximum internal operating temperature 100°F (38°C).
Minimum operating temperature 40°F (4°C).

Certified to ANSI/NSF 61, Drinking Water System Components.

In order to provide the best products possible, specifications are subject to change.

Pro-Source® Composite Fibrewound Tanks

Sideport Contact/Air Over Water

SP Series Sideport Contact Tanks



NSF/ANSI 61
Drinking Water

Built Tough...for Quality

Professional grade composite construction means longer lasting tanks that will not rust, corrode, dent or scratch.

Built Tough...for Durability

Each tank is wrapped with more than three miles of overlapping, continuous fiberglass strands, sealed with high-grade epoxy resin, then oven-cured.

Built Tough... for Easy Installation

Composite construction is lightweight... as little as half the weight of steel tanks. Installation is faster, easier and can be handled by one person.

APPLICATIONS

Residential Water Systems

Industrial, Commercial and Agricultural

SPECIFICATIONS

Inner Liner: One-piece high-density polyethylene

Outer Shell: Fiberglass-wound and epoxy resin sealed

Upper and Lower Flanges: Reinforced polypropylene

Base: One-piece ABS

Service Connections: Reinforced polypropylene

FEATURES

Durable Composite

Construction: A rugged one-piece molded inner liner of premium high-density polyethylene. Miles of continuous overlapping fiberglass strands, sealed with oven-cured epoxy, make the outer shell impervious to rust, dents and ultra-violet rays (no paint to scratch and touch up).

Tank Base: Rigid ABS is the sturdiest composite base on the market. Corrosion- and impact-resistant. Base rotates 360° for ease-of-service hook-up.

Composite Service Connection: Threaded for ease of installation.

ORDERING INFORMATION

SP SERIES SIDEPORT CONTACT TANKS

Catalog Number	Maximum Capacity Gal./Liter	Drawdown 30-50 Setting Gallons/Liters	Diameter Inch/cm	Overall Height Inch/cm	Height Inlet/Outlet to Floor Inch/cm	Height Sideport to Floor Inch/cm	Unit Ship Weight Lbs./kg
SP-7	30/114	7/26	16/41	43.75/111	1.5/3.8	14/35.6	26/11.8
SP-9	40/151	9/34	16/41	56.5/144	1.5/3.8	15.5/39.4	35/15.9
SP-9SQ	47/178	9/34	21/53	41.25/105	2/5.1	16.9/42.9	48/21.8
SP-18	80/303	18/67	21/53	62/157	2/5.1	18.3/46.5	67/30.5
SP-26	120/454	26/98	24/61	72.5/184	2/5.1	20.2/51.3	97/44.1

Maximum Operating Pressure = 100 PSI

1-1/4" System connections sidewall. Customer-supplied air control valve. Bottom, dual port 1-1/4" PVC.



U238-5
Air Volume Controls
(Jet pump type)



E238-2
Air Volume Control
(Submersible type)

Certified to ANSI/NSF 61, Drinking Water System Components.

In order to provide the best products possible, specifications are subject to change.

SSHM-2 Series

Multi-stage



The SSHM-2 multi-stage series of sprinkler pumps delivers high-performance without priming problems and delays.

The SSHM-2 multi-stage series is designed for minimal electrical consumption and quiet operation from the professional-grade motor. The SSHM-2 multi-stage series offers first-in-class priming capabilities of up to 15 foot lifts!

APPLICATIONS

Residential and commercial turf irrigation
 Residential water systems
 Shower and washing systems
 Water transfer
 Heating and air conditioning systems
 Water features and fountains

SPECIFICATIONS

Motor Bracket and Integral Pump Base:

Close-grained cast iron, 1-1/2" NPT inlet connection, stable heavy-duty design for rigid pipe and solid base mountings

Discharge: Close-grained cast iron, 1-1/4" NPT discharge connection, with easy-access drain port for end of season draining and winterization

Impellers and Diffusers: Noryl® precision-molded extra-smooth ports to maximize efficiency and performance

Outer Shell: Polished 304 stainless steel

Shaft: 303 stainless steel

Priming Valve: Special brass priming valve for trouble-free operation during the initial pump priming

Mechanical Seal: High-pressure seal, carbon-ceramic seal faces, Buna-N elastomers

Heavy-Duty Motor: 2 HP, single-phase, 3450 RPM, 230-volt, high-service factor, capacitor-start/capacitor-run, open drip-proof motor, rated for continuous-duty operation. 230/460 TEFC available

Maximum Inlet Pressure: 20 PSI

Maximum Discharge Pressure: 155 PSI

Maximum Operating Temperature: 120°F (49°C)

Maximum Suction Lift: 15 feet

Number of Stages: 3 or 4

ORDERING INFORMATION

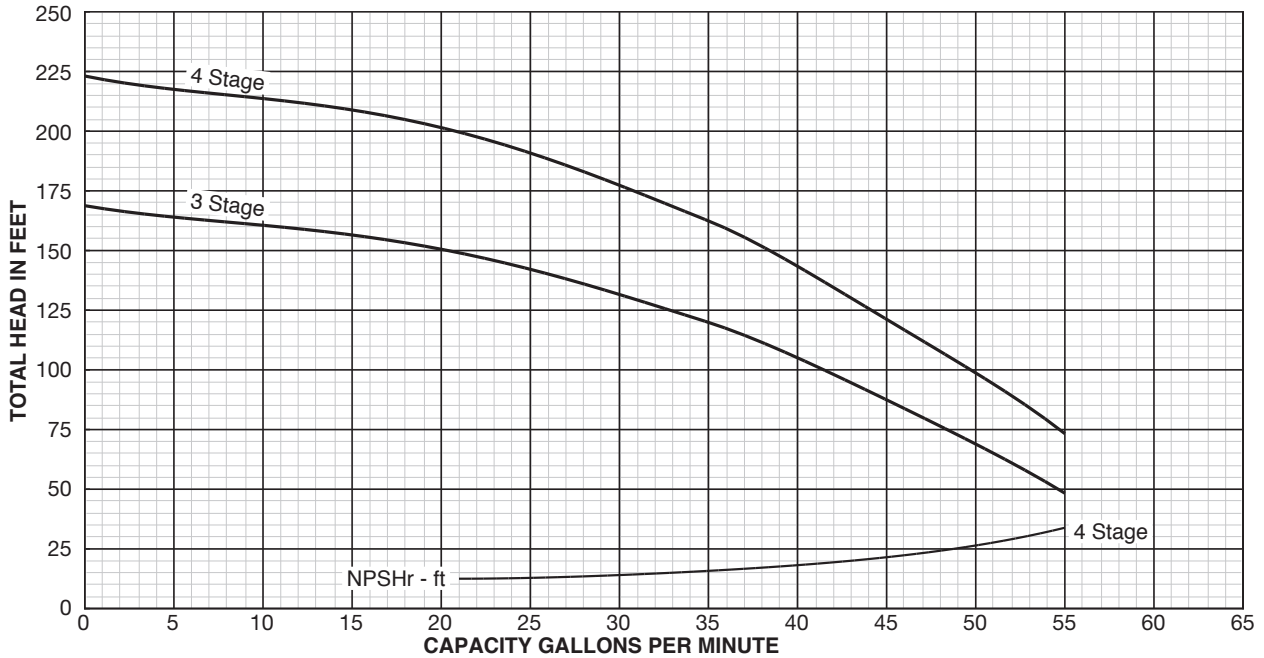
Catalog Number	Stages	HP	Pipe Tapping Sizes		Motor Voltage	Approx. Wt. Lbs.
			Suction	Discharge		
B86073	3	2	1-1/2" NPT	1-1/4" NPT	230 1Ø	95
B86074	3	2	1-1/2" NPT	1-1/4" NPT	230/460 TEFC	95
B82456-01	4	2	1-1/2" NPT	1-1/4" NPT	230 1Ø	95
B82639	4	2	1-1/2" NPT	1-1/4" NPT	230/460 TEFC	95

SSHM-2 Series

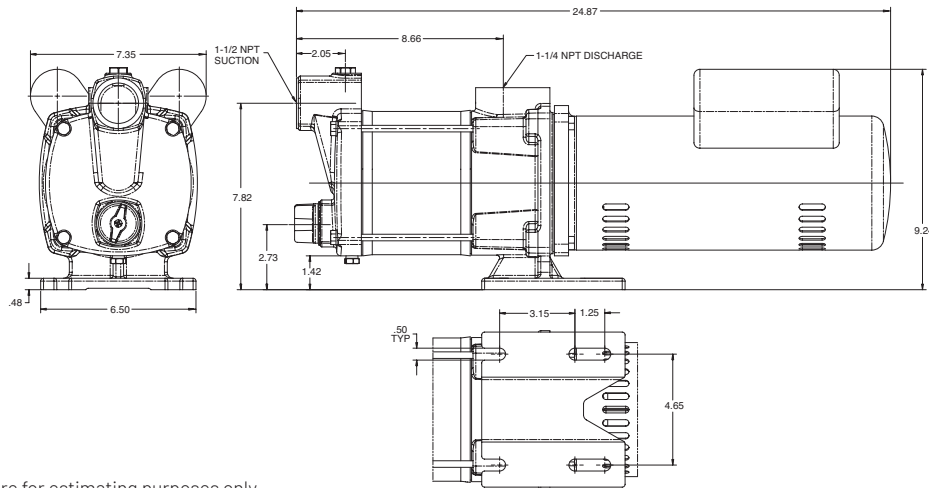
Multi-stage

PUMP PERFORMANCE

NOMINAL RPM: 3450, BASED ON FRESH WATER @ 68°F, MAXIMUM WORKING PRESSURE: 175 PSI



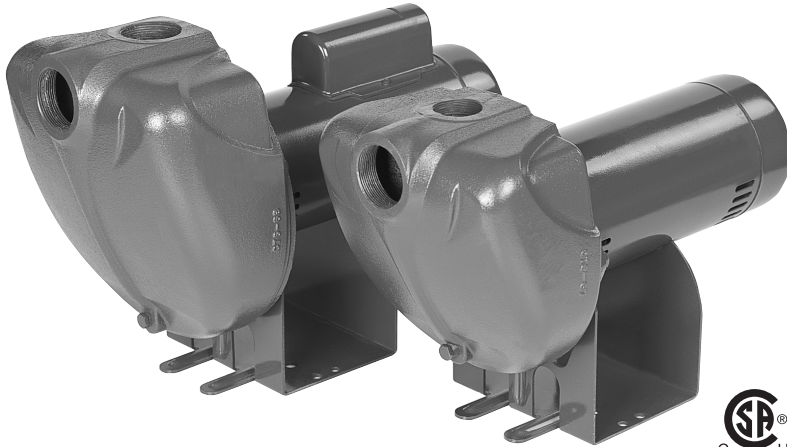
OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

LTHH Series

Self-priming centrifugal



The LTHH Series* of cast iron sprinklers offers superior unmatched performance, available in 1 HP through 2-1/2 HP models.

The LTHH models offer "single-body-fill" priming to 25-foot lifts, in less than 5 minutes!

The LTHH models exceed the strict safety requirements of Underwriters Laboratories UL778, and CSA. Required by many state and local codes.

The LTHH models are completely interchangeable with the original

LTH Series models, saving costly plumbing "change-out" dollars and installation headaches!

*Single- and three-phase available

APPLICATIONS

Residential irrigation pump...can be safely operated by timer or other automatic device

Contractors...for dewatering excavation, water transfer and supply

Agriculture...seed bed and plot irrigation, stock watering

Industrial...sump drainage, marine pumping, liquid transfer and supply operations

SPECIFICATIONS

Body and Seal Plate: Close-grained cast iron

Impeller: Noryl®

Diffuser: Reinforced polypropylene

Shaft: One-piece threaded 300 grade stainless steel

Base: Steel, 10 gauge

Motor: 2-compartment

FEATURES

Rugged Construction: Close-grained cast iron body, specially treated for corrosion resistance.

Noryl Impeller: Precision-molded for perfect balance...ultra-smooth for highest performance and efficiency.

Precision-Molded Diffuser: Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.

High Head Models: Deliver up to 145' of head with capacities to 95 GPM.

Easy Serviceability: Normal wearing parts are easily accessible for service and replacement, without disturbing piping or mounting.

Motor Windings: Superior insulation materials protect against excessive moisture and contaminants...ensures prolonged motor life.

Balanced Rotor: Diecast under high pressures for uniform performance and greater efficiency, dynamically balanced.

Drain Port: Provided for easy winterizing.

Max. Operating Pressure: 100 PSI

ORDERING INFORMATION

Catalog Number	HP	Voltage	Phase	High Head		Approx. Wt. Lbs.
				Pipe Tapping Sizes		
				Suction	Discharge	
10LTHH	1	115/230	1	2"	1-1/2"	52
10LTHH3	1	208-230/460	3	2"	1-1/2"	52
10LTHH3-575T	1	115/230	3	2"	1-1/2"	57
15LTHH	1-1/2	208-230/460	1	2"	1-1/2"	58
15LTHH3	1-1/2	115/230	3	2"	1-1/2"	58
15LTHH3-575T	1-1/2	208-230/460	3	2"	1-1/2"	63
20LTHH	2	115/230	1	2"	2"	83
20LTHH3	2	208-230/460	3	2"	2"	83
20LTHH3-575T	2		3	2"	2"	88
25LTHH	2-1/2		1	2"	2"	85
25LTHH3	2-1/2		3	2"	2"	85
25LTHH3-575T	2-1/2		3	2"	2"	90

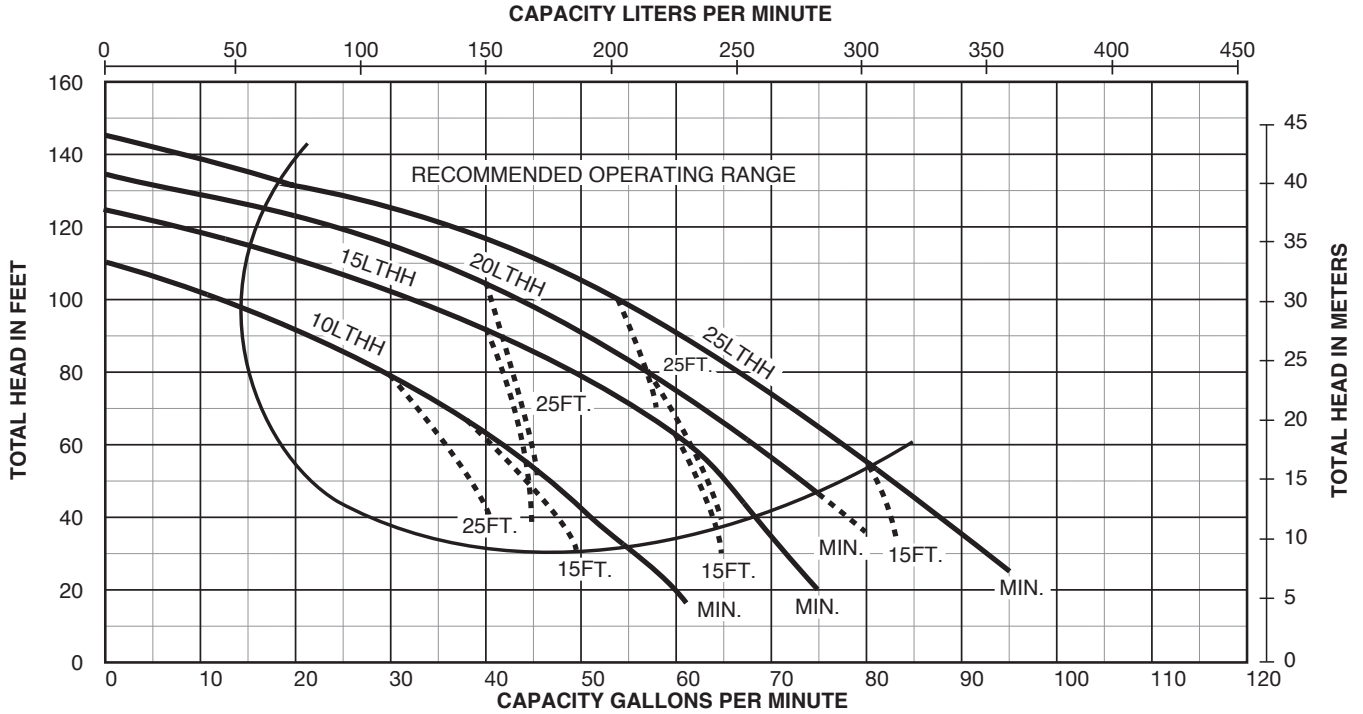
NOTE: All single-phase motors shipped from the factory set at 230 volt.

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LTHH Series

Self-priming centrifugal

PUMP PERFORMANCE



NOTE: Dotted lines indicate performance reduction at high suction lift.

PUMP PERFORMANCE (Capacity in gallons per minute)

Catalog Number	HP	Discharge Pressure		Suction Lift in Feet				
		PSI	Feet Head	5'	10'	15'	20'	25'
10LTHH	1	20	46.2	48	45	40	37	33
		30	69.3	33	30	26	22	16
		40	92.4	15	10	—	—	—
15LTHH	1-1/2	20	46.2	64	62	60	57	54
		30	69.3	53	50	46	42	37
		40	92.4	35	30	25	19	—
20LTHH	2	20	46.2	72	70	67	65	62
		30	69.3	60	58	54	51	47
		40	92.4	45	42	37	30	27
		50	115.5	23	16	—	—	—
25LTHH	2-1/2	20	46.2	83	80	77	74	71
		30	69.3	70	67	63	60	55
		40	92.4	56	52	48	40	35
		50	115.5	36	28	20	—	—

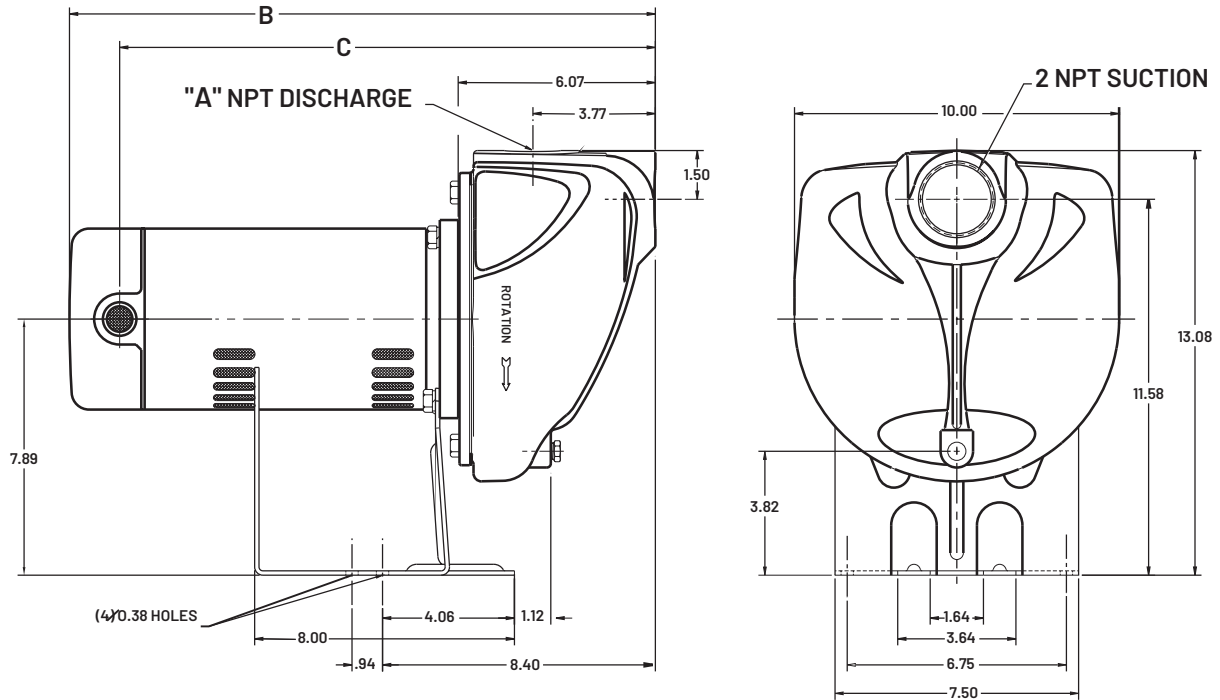
Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

LTHH Series

Self-priming centrifugal

OUTLINE DIMENSIONS



Catalog Number	A NPT	B	C
10LTHH	1-1/2" NPT	17.04	16.57
10LTHH3	1-1/2" NPT	15.45	15.04
10LTHH3-575T	1-1/2" NPT	17.35	13.29
15LTHH	1-1/2" NPT	18.10	17.63
15LTHH3	1-1/2" NPT	15.95	15.45
15LTHH3-575T	1-1/2" NPT	18.60	14.54
20LTHH	2" NPT	18.54	18.38
20LTHH3	2" NPT	18.22	16.75
20LTHH3-575T	2" NPT	16.95	14.85
25LTHH	2" NPT	18.85	18.69
25LTHH3	2" NPT	17.69	17.50
25LTHH3-575T	2" NPT	18.91	14.85

Dimensions (in inches) are for estimating purposes only.

BPD Series

Corrosion-resistant, self-priming sprinkler pumps



Quick priming BPD Series Pumps feature lightweight construction in a self-priming design. These models offer a stronger pump body with reinforcement ribs and also a new 2" suction that is designed for the professional pump contractor.

APPLICATIONS

Lawn and landscape sprinkling; self-primers out of tanks or cisterns.

Light chemical transfer for compatible fluids.

SPECIFICATIONS

Body and Base: Fiberglass-reinforced thermoplastic

Impeller: Engineered polymer

Diffuser: Polypropylene

Shaft: 300 grade stainless steel

FEATURES

Quality Construction: Fiberglass-reinforced thermoplastic provides total corrosion resistance and high resistance to sandy water.

Lightweight Design: Space-age materials make these pumps more portable than conventional cast iron pumps.

Composite Impeller: Highest performance and efficiency from ultra-smooth materials Precision-Molded for perfect balance.

Easily Serviced: Normal wearing parts are easily accessible for service and replacement, without disturbing piping or mounting.

Dustproof Cover: Electrical components protected from dust and insects.

Heavy-Duty Motor: Heavy-duty 1 through 2-1/2 HP motors. Designed for continuous operation. Stainless steel shaft.

Dual Voltage Capability: 1 and 1-1/2 HP motors have dual voltage motors and are shipped at the 230-volt setting. 2 and 2-1/2 HP are 230-volt setting only.

Max. Operating Pressure: 60 PSI

ORDERING INFORMATION

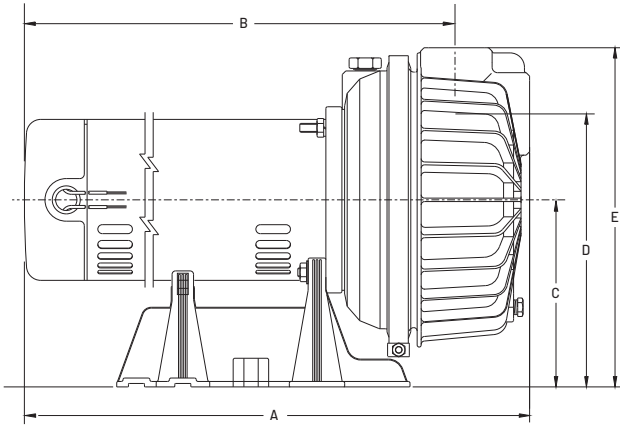
Catalog Number	HP	Pipe Tapping Sizes		Motor Voltage	Approx. Wt. Lbs.
		Suction	Discharge		
BPDH10	1	2"	1-1/2"	115/230	38
BPDH15	1-1/2	2"	1-1/2"	115/230	41
BPDH20	2	2"	2"	115/230	52
BPHD25	2-1/2	2"	2"	115/230	54

NOTE: All motors are shipped from the factory set at 230 volt.

BPD Series

Corrosion-resistant, self-priming sprinkler pumps

OUTLINE DIMENSIONS



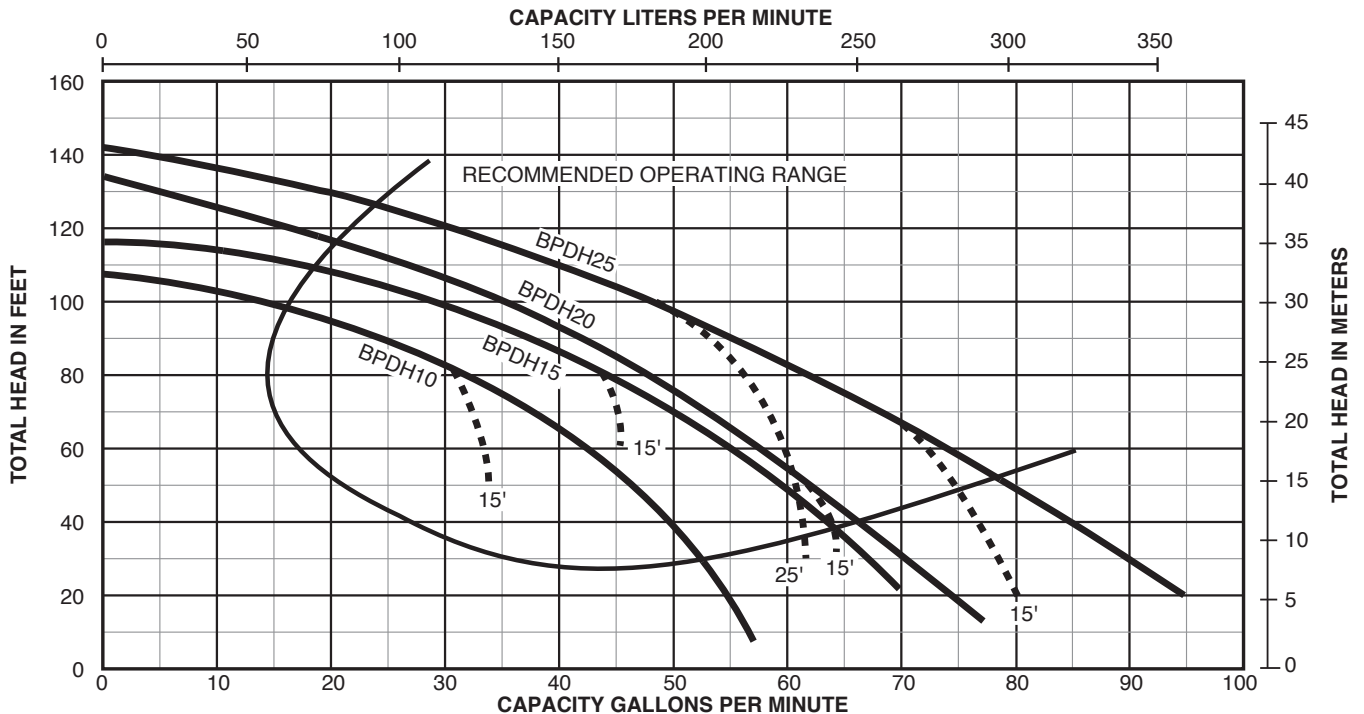
Catalog Number	A	B	C	D	E
BPDH10	17-5/8	15-1/8	6-9/16	9-9/16	11-13/16
BPDH15	18-3/4	16-1/4	6-9/16	9-9/16	11-13/16
BPDH20	20	16-3/16	6-9/16	8-7/8	12-3/8
BPDH25	20	16-3/16	6-9/16	8-7/8	12-3/8

Dimensions (in inches) are for estimating purposes only.

PERFORMANCE (Capacity in gallons per minute)

Disch. Press. PSI	BPDH10 - 1 HP					BPDH15 - 1.5 HP					BPDH20 - 2 HP					BPDH25 - 2.5 HP				
	Distance Above Water																			
	5'	10'	15'	20'	25'	5'	10'	15'	20'	25'	5'	10'	15'	20'	25'	5'	10'	15'	20'	25'
10	53	52	50	48	46	67	66	64	61	59	70	69	67	64	62	90	88	86	82	80
20	45	42	39	37	35	59	56	54	50	47	61	59	56	53	50	79	76	72	70	65
30	35	31	27	24	18	48	44	40	37	32	50	48	44	41	37	66	62	57	55	50
40	17	10				31	26	20	10		36	33	25	23	19	50	45	42	37	32
50											16	9				30	23	20		

PUMP PERFORMANCE



NOTE: Dotted lines indicate performance reduction at high suction lift.

LTH/LTM Series

Self-priming centrifugal pumps



3 and 5 HP



Suction flange with flapper check included.

Some of the fastest priming pumps on the market. Available in high head or medium head series. Features mechanical seals, easy service design, heavy-duty motors, rugged construction. Available in 3 and 5 HP.

Optional 6" and 8" Trap Packages are available.

APPLICATIONS

Lawn Sprinkling...operate from 1 to 30 or more heads. Can be safely operated by timer or other automatic device.

Contractors...for dewatering excavation, jetting, water transfer and supply operations.

Agriculture...seed bed and plot irrigation, stock watering, fire protection.

Industrial...sump drainage, fire protection, marine pumping, liquid transfer and supply operations.

SPECIFICATIONS

Body and Base: Close-grained cast iron

Impeller: Bronze

Diffuser: Cast iron

Shaft: Carbon steel inside removable shaft sleeve of stainless steel.

Max Inlet Pressure: 20 PSI

Max Discharge Pressure: 100 PSI

Max Liquid Temperature: 60°C/140°F

Max Ambient Air Temperature: 40°C/104°F

FEATURES

3 and 5 HP: Both high head and medium head models offer heavy-duty motors, easy service design, and air volume control tapping.

Drain Port: Provided for easy winterizing.

Medium Head Models: Deliver up to 115' of head with capacities to 159 GPM.

High Head Models: Deliver up to 138' of head with capacities to 162 GPM.

Easy Serviceability: Normal wearing parts are easily accessible for service and replacement, without disturbing piping or mounting.

Heavy-Duty Motors: Designed for continuous operation. Capacitor start, will not cause electrical interference with TV or other appliances. Nationally known motors have ball bearing, stainless steel shaft. For single- and three-phase operation, 3450 RPM.

LTH/LTM Series

Self-priming centrifugal pumps

ORDERING INFORMATION

HIGH HEAD

Catalog Number	HP	Pipe Tapping Sizes		Motor Voltage	Phase	Max. Load Amps	Approx. Wt. Lbs.
		Suction Flanges	Top Discharge				
S40094	3	2"	1-1/2"	230	1	13.4	144
S40093	3	2"	1-1/2"	208-230/460	3	8.6/4.3	144
S40097	5	2-1/2"	2"	230	1	22	184
S40096	5	2-1/2"	2"	208-230/460	3	13.2/6.6	184

MEDIUM HEAD

S40100	3	2-1/2"	2"	230	1	13.4	137
S40099	3	2-1/2"	1/2"	208-230/460	3	8.6/4.3	137
S40102	5	3"	2-1/2"	230	1	22	184
S40103	5	3"	2-1/2"	2230/460	3	13.2/6.6	184

SUCTION FLANGES (Order separately - required for suction tap sizes)

Package 52 -	Package 53 -	Package 72 -	Package 73 -
1-1/2"	2"	2-1/2"	3"



PKG 52 1-1/2"
PKG 53 2" NPT



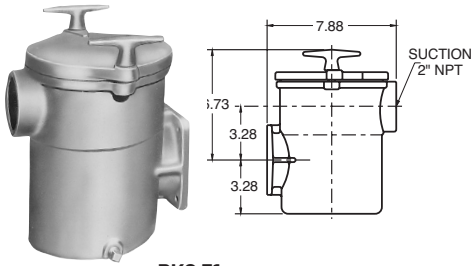
PKG 72 2-1/2"
PKG 73 3" NPT

LTH/LTM Series

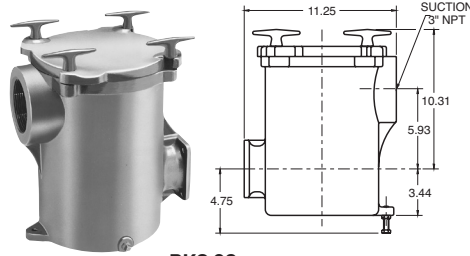
Self-priming centrifugal pumps

6" AND 8" TRAP PACKAGES

Catalog Number	Description	Suction Port Size	Approx. Wt. Lbs.
PKG 51	6" Cast Iron Trap with Basket (For C, CC, and D Series Pumps)	2" NPT	20
PKG 76	Cast Iron Flange for Remote Installation	3" NPT	4
PKG 98	8" Cast Iron Trap with Basket (For C, CC, and D Series Pumps)	3" NPT	40



PKG 51
6-INCH TRAP

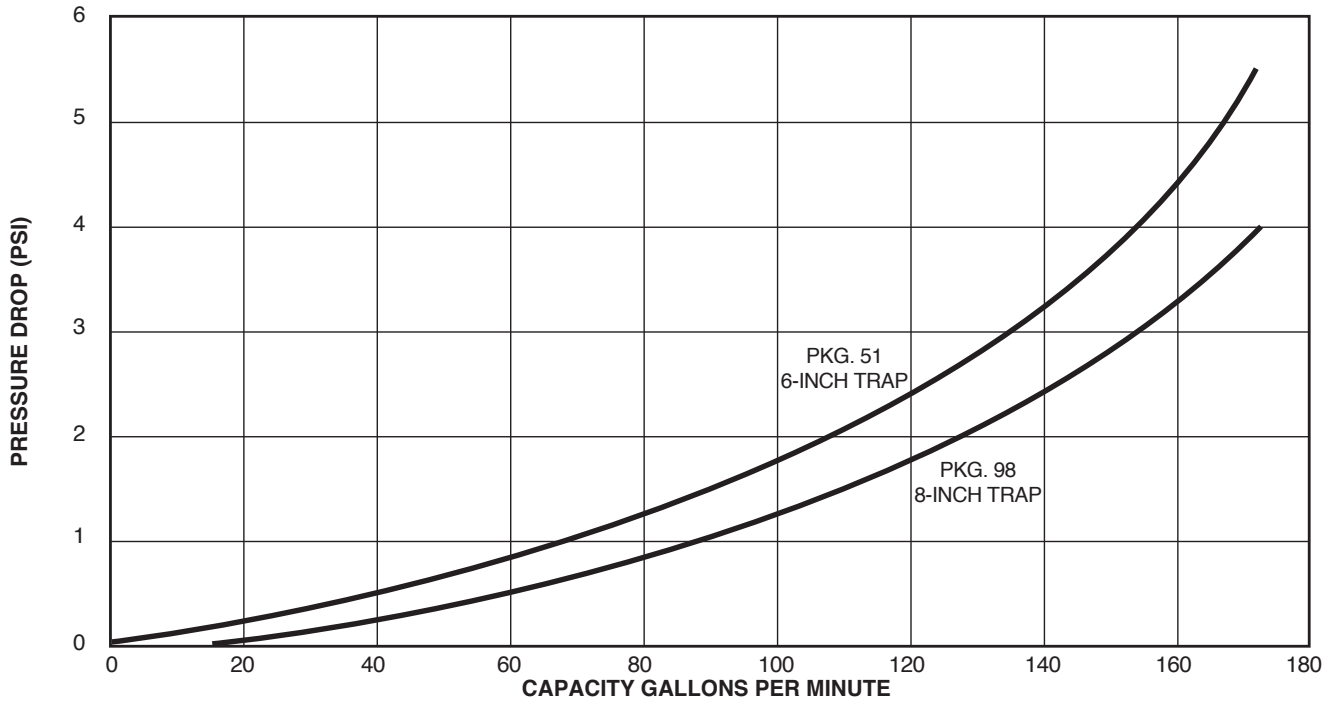


PKG 98
8-INCH TRAP



PKG 76

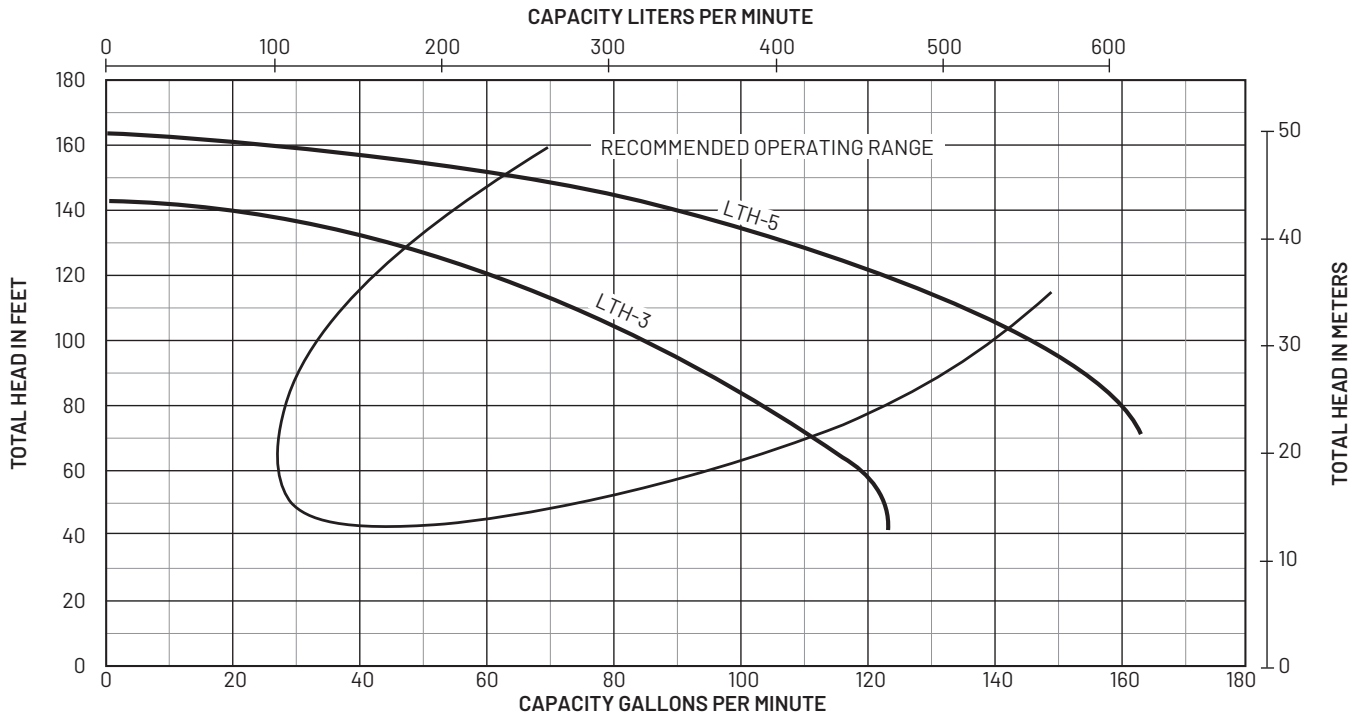
SUCTION TRAP PSI LOSS CURVE



LTH/LTM Series

Self-priming centrifugal pumps

PUMP PERFORMANCE: HIGH HEAD



PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)

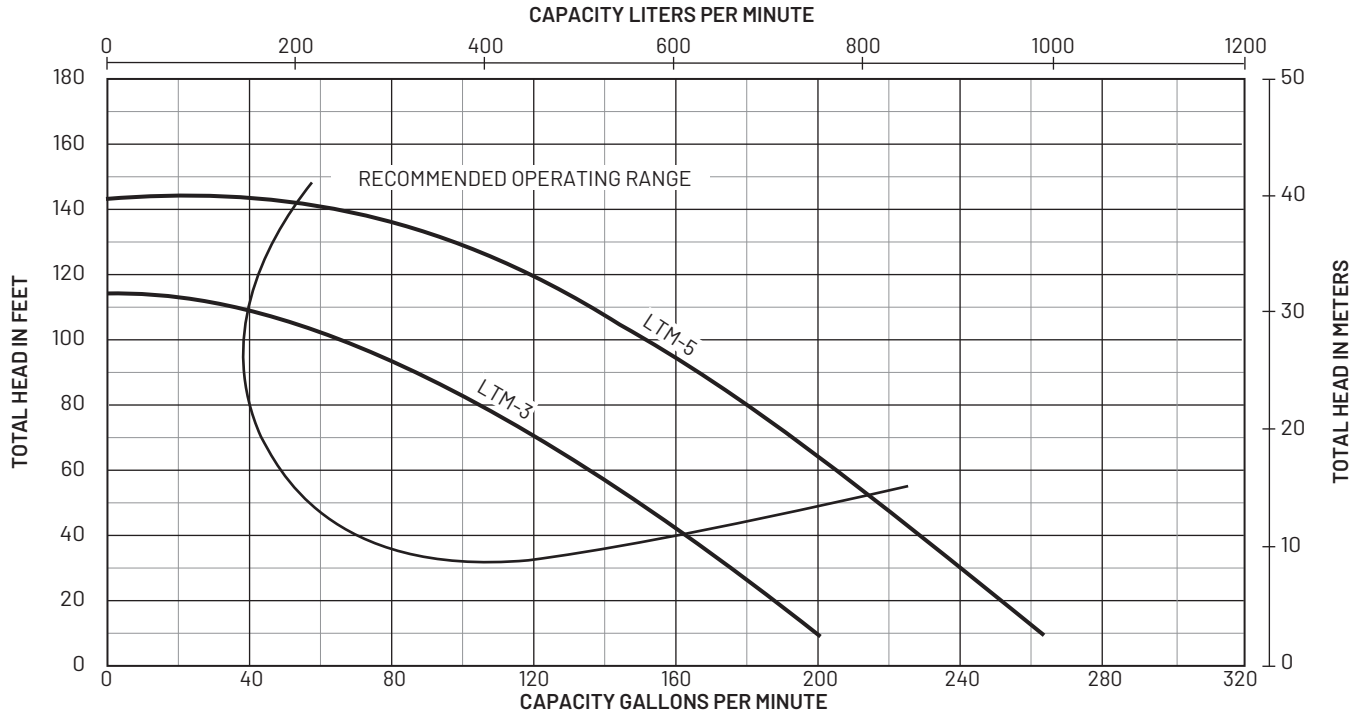
LTH HIGH HEAD

Cat. No.	HP	Discharge		Suction Lift in Feet				
		PSI	Feet Head	5'	10'	15'	20'	25'
S40094/ S40093	3	20	46.2	121	119	105	96	68
		30	69.3	106	103	98	92	66
		40	92.4	85	80	74	69	60
		50	115.5	58	51	42	32	13
S40097/ S40096	5	20	46.2	162	161	138	138	98
		30	69.3	160	158	150	136	98
		40	92.4	146	141	136	130	96
		50	115.5	119	114	105	95	85
		60	138.6	81	70	55	30	-

LTH/LTM Series

Self-priming centrifugal pumps

PUMP PERFORMANCE: MEDIUM HEAD



PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)

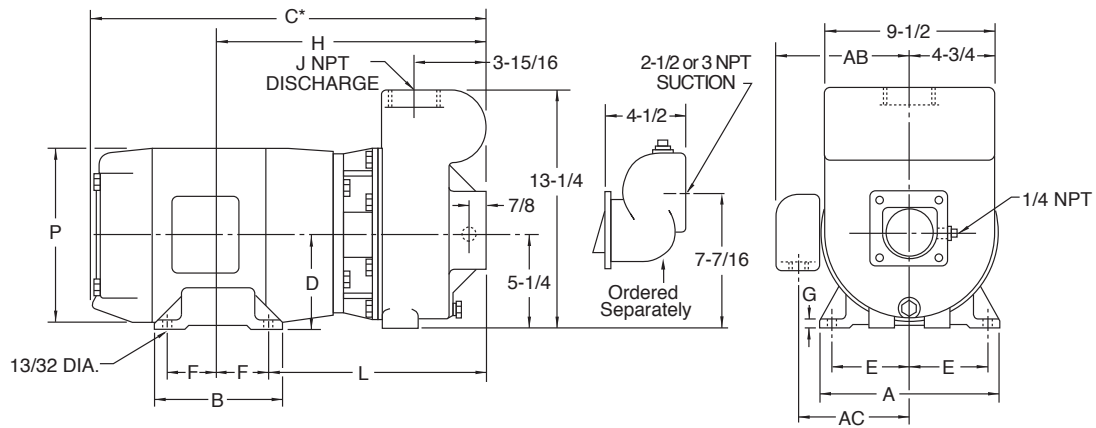
LTH MEDIUM HEAD

Cat. No.	HP	Discharge		Suction Lift in Feet				
		PSI	Feet Head	5'	10'	15'	20'	25'
S40099/ S40100	3	20	46.2	159	154	146	138	99
		30	69.3	126	118	110	101	86
		40	92.4	85	75	51	26	-
S40102/ S40103	5	20	46.2	214	209	202	194	162
		30	69.3	185	179	172	165	158
		40	92.4	153	146	139	130	120
		50	115.5	114	101	85	65	28

LTH/LTM Series

Self-priming centrifugal pumps

OUTLINE DIMENSIONS



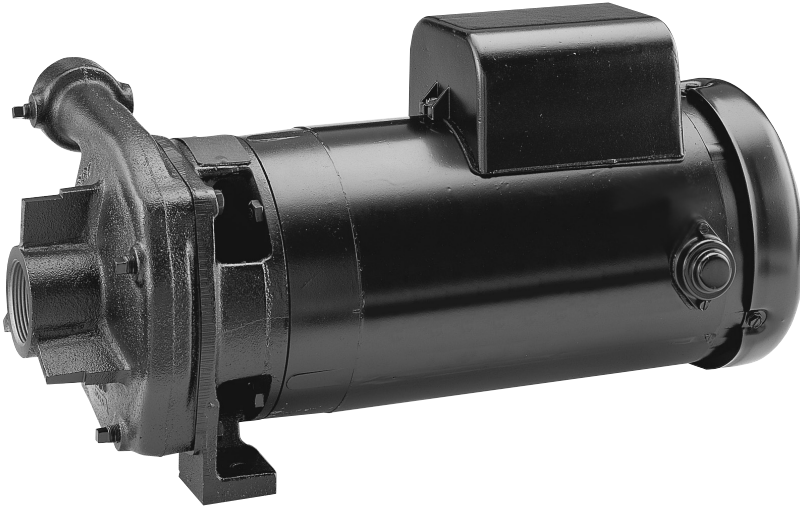
Dimensions (in inches) are for estimating purposes only.

DIMENSIONS IN INCHES

Catalog Number	HP	A	B	C^*	D	E	F	G	H	J	L	P	AB	AC
LTH	3	9	6	20-3/4	4-1/2	3-3/4	2-1/4	1/2	15	1-1/2"	12-3/4	9-3/4	8-1/8	6-1/2
LTH	5	9	7	21-3/4	4-1/2	3-3/4	2-3/4	1/2	15-1/2	2"	12-3/4	9-3/4	9	7
LTM	3	9	6	20-3/4	4-1/2	3-3/4	2-1/4	1/2	15	2"	12-3/4	9-3/4	8-1/8	6-1/2
LTM	5	9	7	21-3/4	4-1/2	3-3/4	2-3/4	1/2	15-1/2	2-1/2"	12-3/4	9-3/4	9	7

*Overall length (C) is shown for single-phase motors. Three-phase motors are slightly smaller. Dimensions are for estimating purposes only.
Pump body has additional built in 1-1/2" NPT side discharge tap.

Type C Straight Centrifugal



The Type C Pump is a compact, horizontal, single stage, centrifugal pump close-coupled to an electric motor. The removal of readily accessible bolts (back pull-out construction), permits the removal of the pumping element, exposing the impeller and seal for inspection, without disturbing the piping..

APPLICATIONS

General farm or home irrigation, air conditioning, and refrigeration.

SPECIFICATIONS

Body and Base: Gray cast iron
Bracket: Cast iron
Impeller: Silicon bronze
Shaft: Threaded stainless steel

FEATURES

Flow Rates: In excess of 160 U.S. gallons per minute

Operating Pressure: 100 PSI

Discharge sizes: 1-1/4" - 2"

Temperature: Up to 200 F

Volute Case: Precision machined gray cast iron with NPT tapped openings for suction and discharge. Standard discharge position is horizontal, as pictured. Volute may be rotated for vertical-up discharge

Impeller: Enclosed multi-vane silicon bronze impeller is balanced to eliminate vibration and provide smooth, quiet operation. Impeller is threaded on motor shaft for positive alignment

Motor Shaft: Stainless steel shaft is threaded for direct mounting of impeller. A short shaft extension to the impeller increases shaft rigidity and extends bearing life

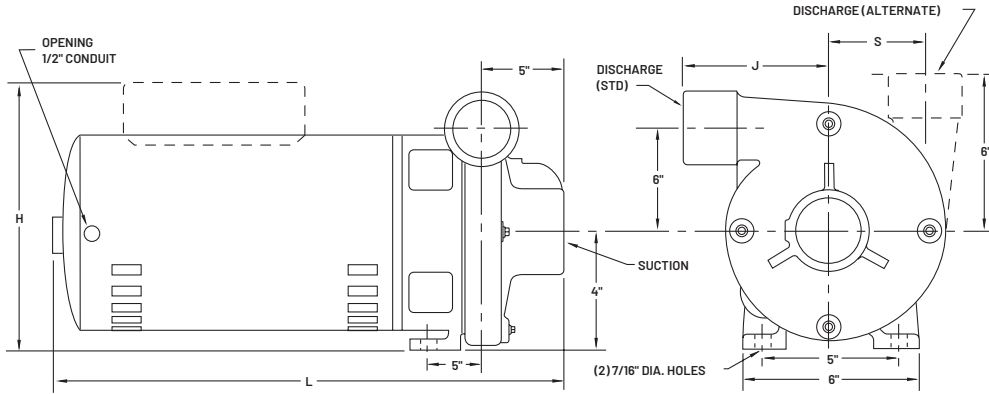
Motor: Heavy-duty, 3 HP, flangemounted motor designed for continuous 3600 RPM operation. Two ball bearings are permanently lubricated, eliminating the need for re-lubrication service. Open, drip-proof enclosures are standard. All models can be furnished with either singlephase (230V) or three-phase (230/460) motors. Totally enclosed fan-cooled motor is available for three-phase power

ORDERING INFORMATION

Model Number	HP	Catalog Number	Phase	Volts	Suct.	Disch.	Approx. Wt. Lbs.
C1-1/4TPMS	1	B53602S	1	230	1-1/2"	1-1/4"	65
		B53603S	3	208/230/460			
		B53603SMS2	3	575			
C1-1/2TPMS	3	B59212S	1	230	2"	1-1/2"	61
		B59213S	3	208/230/460			
C2MPS	3	B53616S	1	230	2-1/2"	2"	61
		B53617S	3	208/230/460			
		B53617SMS2	3	575			

Type C Straight Centrifugal

OUTLINE DIMENSIONS

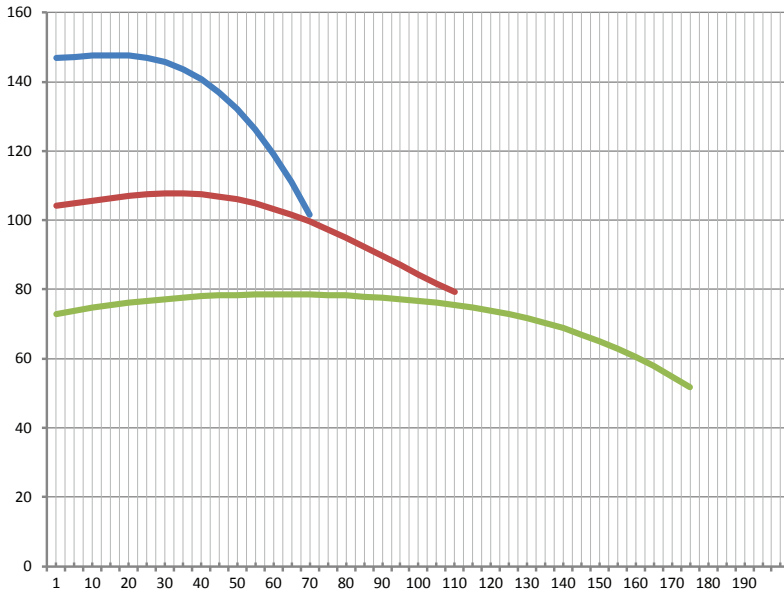


Dimensions (in inches) are for estimating purposes only.

DIMENSIONAL DATA

Model Number	HP	Suction (NPT)	Discharge Phase	H*	J	K	L*	S	M
C1-1/4TPMS	3	1-1/2	1-1/4	9-1/4	5	2-1/2	16-15/16	3-5/16	1-7/8
C1-1/2TPHS	3	2	1-1/2	8-1/4	5	2-11/16	17-1/4	3-1/2	2
C2MPS	3	2-1/2	2	9-1/4	4-7/8	2-5/16	17-1/4	3-1/16	2-7/16

PUMP PERFORMANCE

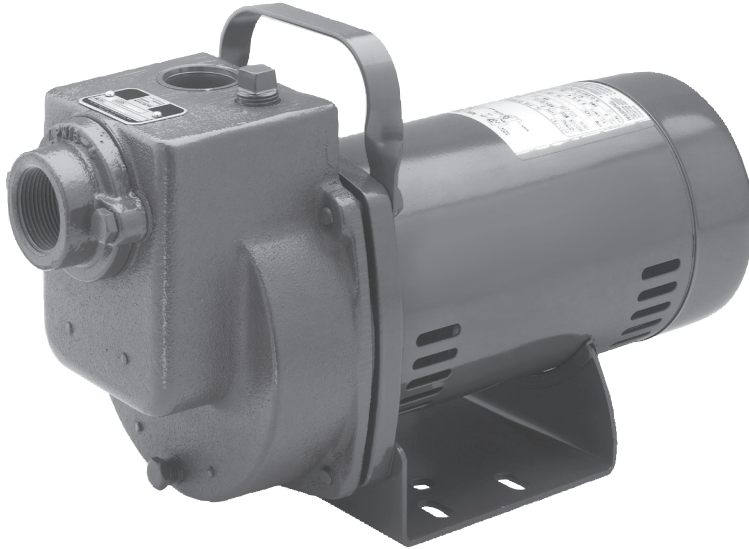


- C1-1/4TPMS
- C1-1/2TPHS
- C2MPS

BASIC	IMP DIA	PEI _{CL}
C1-1/4TM	5.94	0.70
C1-1/2TH	4.88	0.83
C2M	4.50	0.89

ECC5 Series

Self-priming centrifugal pump



The ECC5 Series self-priming centrifugal pump is a rugged cast iron pump capable of priming up to 20' vertically and will handle solids up to 0.225" diameter. The unit is equipped with a 1/2 HP 115-volt motor and features 1-1/4" suction and discharge.

APPLICATIONS

Effluent and Wastewater Removal
Sump Drainage
Dewatering
Circulation
Fountains

SPECIFICATIONS

Volute: Cast iron

Impeller: Polycarbonate

Diffuser: Thermoset

Shaft: One-piece threaded stainless steel

Base: Steel 12 gauge

Maximum Liquid Temperature Limits:
130°F (55°C)

FEATURES

Motor: 1/2 HP, 3450 RPM, 115-volt split phase, 60 Hz. Built-in thermal overload protection with automatic reset.

Mechanical Seal: Buna-N elastomers, carbon and ceramic sealing faces, stainless steel metal part.

Heavy-Duty Ball Bearings: Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.

Built-in Convenience: Comes complete with built-in overload protection with automatic reset and a built-in check valve.

Power Cord: 10', 115 volt.

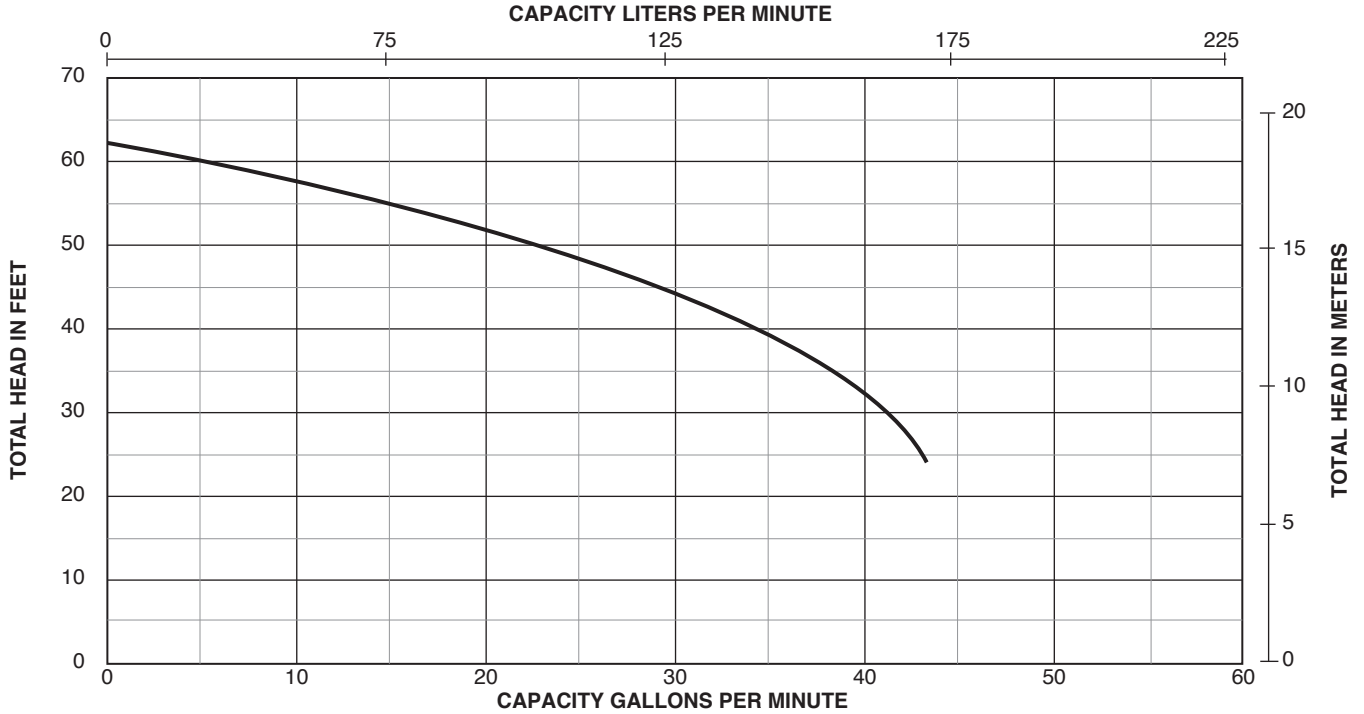
ORDERING INFORMATION

Catalog Number	HP	Volts	Phase/Cycles
ECC5510MB	1/2	115	1/60

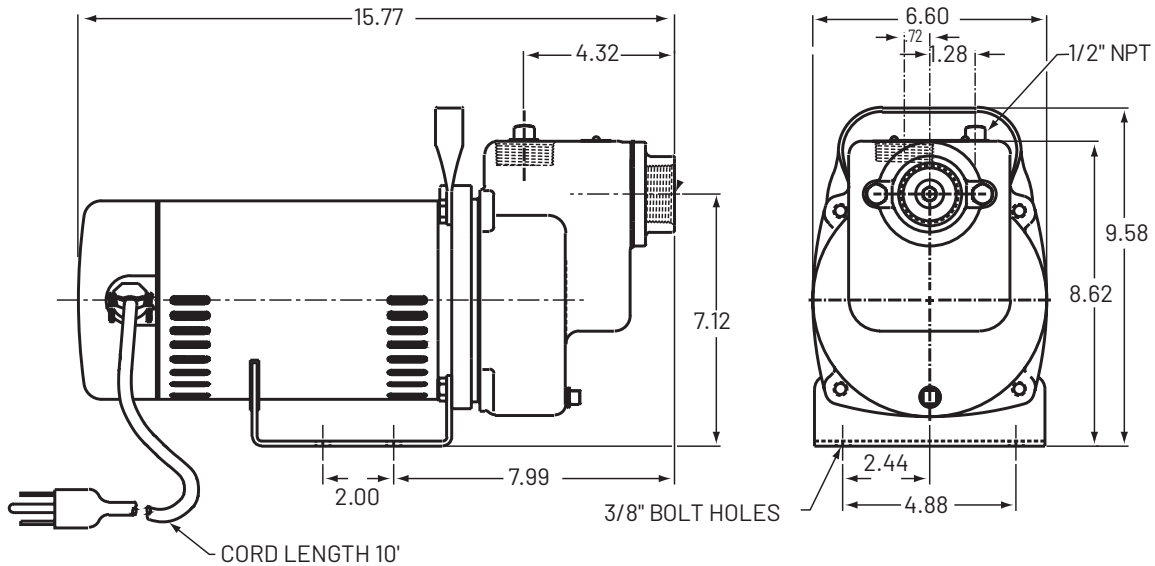
ECC5 Series

Self-priming centrifugal pump

PUMP PERFORMANCE



OUTLINE DIMENSIONS



NOTE: 1-1/4" SUCTION AND DISCHARGE
ALL DIMENSIONS ±.06

Dimensions (in inches) are for estimating purposes only.

SSCXN Series - Stainless Steel



The SSCXN Series Centrifugal Pumps feature high-head performance and quiet operation. These pumps are remarkably versatile and have corrosion-resistant dependability.

APPLICATIONS

Ideal choice for a wide range of pump applications and varying temperature conditions

SPECIFICATIONS

Pump Body – Stainless steel

Impeller – Noryl[®]

Multiple Seal Options

FEATURES

Stainless Steel Housing and Shaft –

Maximum corrosion resistance in chemical as well as water applications; smooth flow path assures quiet operation.

High Temperature Rating – The SSCXN Series centrifugal pumps are designed for temperatures up to 185°F.

Mechanical Shaft Seal – Precision lapped and highly polished carbon-ceramic, stainless steel construction with buna elastomers; delivers long-life reliability.

Multiple Seal Options – Choice of three seal options to meet a wide variety of pump applications.

- The standard seal in a SSCX Series is a Buna carbon/ceramic. The volute uses a Buna O-ring to seal the pumping chamber sections.
- Viton with carbon/ceramic faces, includes Viton O-ring change out in pump volute.
- Viton with carbon/silicon carbide faces, includes Viton O-ring change out in pump volute.

Noryl[®] Composite Impeller – Precision molded for perfect balance and lasting quality; ultra-smooth flow ports maximize performance and efficiency. 304SS impeller insert for increased durability.

Drain/Vent Ports – Priming and draining is easier, faster.

Max. Operating Pressure – 125 PSI

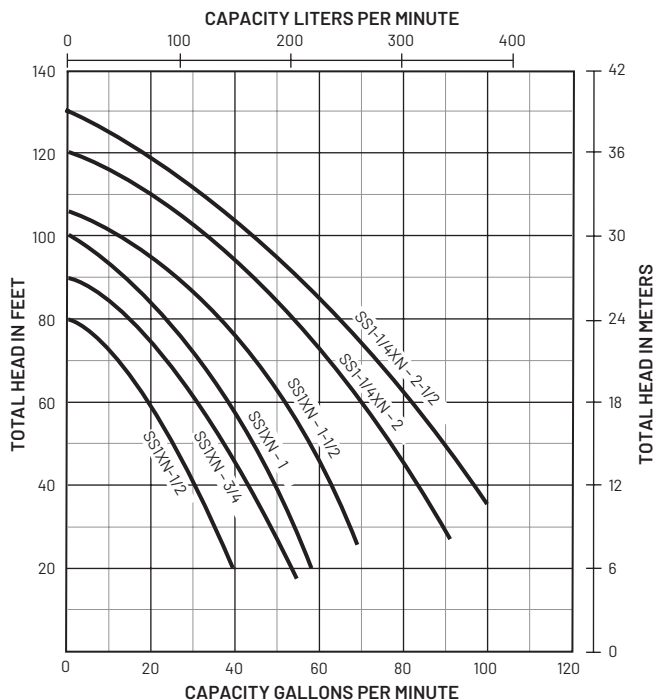
Noryl[®] is a registered trademark of General Electric Co. All other brand or product names are trademarks or registered marks of Pentair Ltd.

SSCXN Series - Stainless Steel

ORDERING INFORMATION

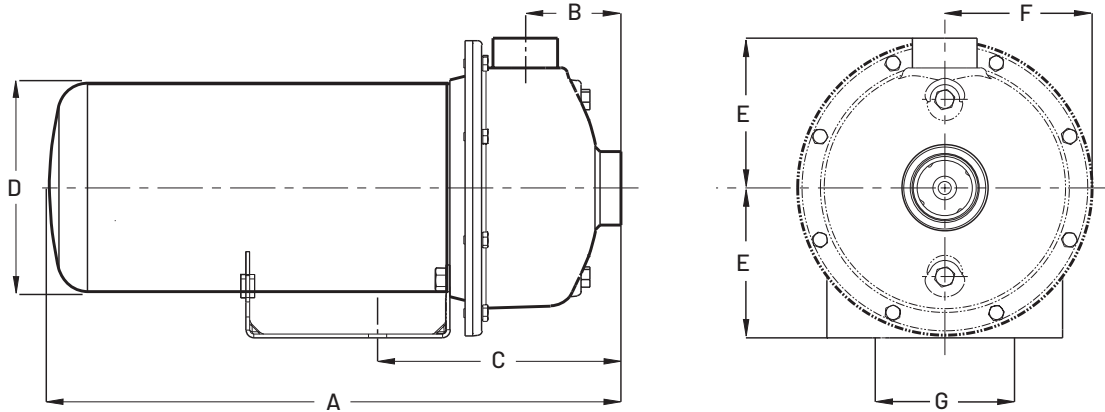
MODEL NUMBER	CATALOG NUMBER	HP	SUCTION	DISCHARGE	MOTOR VOLTAGE	PHASE	ENCLOSURE	APPROX. WT. LBS.
SS1XN-1/2	B78635	1/2	1-1/4"	1"	115/230	1	ODP	29
	B78636				230/460	3	ODP	29
	B78647				115/230	1	TEFC	32
	B78648				230/460	3	TEFC	32
SS1XN-3/4	B78637	3/4	1-1/4"	1"	115/230	1	ODP	38
	B78638				230/460	3	ODP	38
	B78649				115/230	1	TEFC	41
	B78650				230/460	3	TEFC	41
SS1XN-1	B78639	1	1-1/4"	1"	115/230	1	ODP	47
	B78640				230/460	3	ODP	47
	B78651				115/230	1	TEFC	50
	B78652				230/460	3	TEFC	50
SS1XN-1-1/2	B78641	1-1/2	1-1/4"	1"	115/230	1	ODP	62
	B78642				230/460	3	ODP	62
	B78653				115/230	1	TEFC	65
	B78654				230/460	3	TEFC	65
SS1-1/4XN-2	B78643	2	1-1/2"	1-1/4"	230	1	ODP	77
	B78644				230/460	3	ODP	77
SS1-1/4XN-2-1/2	B78645	2-1/2	1-1/2"	1-1/4"	230	1	ODP	90
	B78646				230/460	3	ODP	90

PUMP PERFORMANCE



SSCXN Series - Stainless Steel

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

DIMENSIONS IN INCHES - SSCXN OPD

HP	NPT Suct.	NPT Disch.	A (1 phase)	A (3 phase)	B	C	D	E	F	G
1/2	1-1/4	1	13.2	13.5	2.43	6.51	5.63	4.13	4.06	4.875
3/4	1-1/4	1	13.2	13.5	2.43	6.51	5.63	4.13	4.06	4.875
1	1-1/4	1	14.2	14.0	2.43	6.51	5.63	4.13	4.06	4.875
1-1/2	1-1/4	1	14.5	14.5	2.43	6.51	5.63	4.13	4.06	4.875
2	1-1/2	1-1/4	16.0	15.7	2.63	6.71	5.63	4.13	4.06	4.875
2-1/2	1-1/2	1-1/4	16.9	16.4	2.63	6.71	5.63	4.13	4.06	4.875

DIMENSIONS IN INCHES - SSCXN TEFC

HP	NPT Suct.	NPT Disch.	A (1 phase)	A (3 phase)	B	C	D	E	F	G
1/2	1-1/4	1	14.0	14.2	2.43	6.51	6.44	4.13	4.06	4.875
3/4	1-1/4	1	14.9	14.2	2.43	6.51	6.44	4.13	4.06	4.875
1	1-1/4	1	15.7	15.2	2.43	6.51	6.44	4.13	4.06	4.875
1-1/2	1-1/4	1	16.2	15.2	2.43	6.51	6.44	4.13	4.06	4.875

CP/CB Series

General purpose centrifugal pumps



The CP/CB Series Pumps feature heavy-duty cast iron construction and are offered in high and medium head models, with Noryl® or silicon bronze impellers.

APPLICATIONS

Water Systems and Sprinkling – for homes, farms, and industry

SPECIFICATIONS

Volute and Seal Plate: close-grained cast iron

Impellers: CP Series = Noryl; CB Series = silicon bronze

Base Plate: 12 gauge stamped steel

Motor Shaft: 300 series stainless steel

Mechanical Seal: Carbon ceramic faces, BUNA-N cup and bellows

FEATURES

1/2hp through 2-1/2hp: high head performance models, heavy-duty motors, easy serviceability, and four-position discharge

Drain Port: provided for easy winterizing

Performance Range, High Head Models: up to 150'+ of head, with capacities to over 100 gpm.

Performance Range, Medium Head Models: up to 100'+ of head, with capacities to over 110 gpm.

Easy Serviceability: all models feature a replaceable wear ring, and a back pull-out design

CP Series - Noryl Impellers: abrasion resistant for normal applications and working temperatures to 140 F

CB Series - Silicon Bronze Impellers: include shaft seals rated for working temperatures to 225 F

CP/CB Series General Purpose

General Purpose - Cast Iron

ORDERING INFORMATION

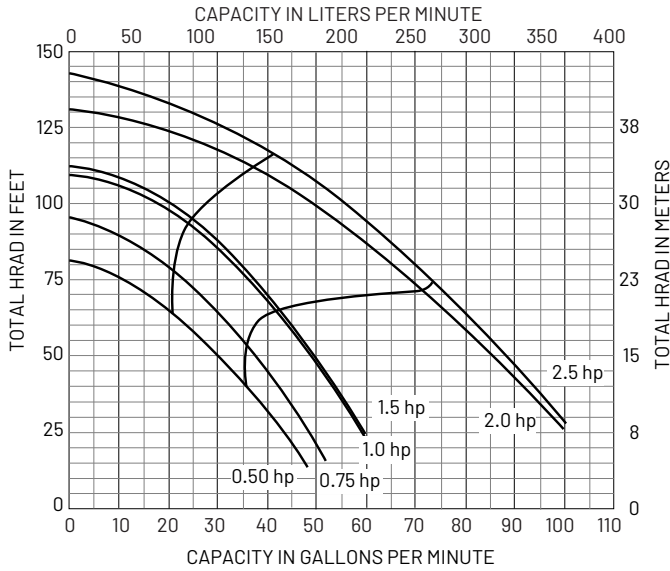
HIGH HEAD									
Noryl Impeller		Silicon Bronze Impeller		HP	Pipe Tapping Sizes		Motor Voltage	Phase	Approx. Wt. Lbs.
Model Number	Catalog Number	Model Number	Catalog Number		Suct.	Disch.			
CP1XPHS	S39516	CB1XPHS	S39529	1/2	1-1/4"	1"	115/230	1	39
CP1XPHS	S39517	CB1XPHS	S39530		1-1/4"	1"	208-230/460	3	39
CP1XPHS	S39517-575T	CB1XPHS	S39530-575T		1-1/4"	1"	575	3	40
CP1XPHS	S39518	CB1XPHS	S39531	3/4	1-1/4"	1"	115/230	1	42
CP1XPHS	S39519	CB1XPHS	S39532		1-1/4"	1"	208-230/460	3	42
CP1XPHS	S39519-575T	CB1XPHS	S39532-575T		1-1/4"	1"	575	3	43
CP1XPHS	S39520	CB1XPHS	S39533	1	1-1/4"	1"	115/230	1	45
CP1XPHS	S39521	CB1XPHS	S39534		1-1/4"	1"	208-230/460	3	45
CP1XPHS	S39521-575T	CB1XPHS	S39534-575T		1-1/4"	1"	575	3	46
CP1XPHS	S39522	CB1XPHS	S39535	1-1/2	1-1/4"	1"	115/230	1	49
CP1XPHS	S39523	CB1XPHS	S39536		1-1/4"	1"	208-230/460	3	49
CP1XPHS	S39523-575T	CB1XPHS	S39536-575T		1-1/4"	1"	575	3	50
CP1-1/4TPHS	S39524	CB1-1/4TPHS	S39537	2	1-1/2"	1-1/4"	115/230	1	69
CP1-1/4TPHS	S39525	CB1-1/4TPHS	S39538		1-1/2"	1-1/4"	208-230/460	3	69
CP1-1/4TPHS	S39525-575T	CB1-1/4TPHS	S39538-575T		1-1/2"	1-1/4"	575	3	70
CP1-1/2TPHS	S39526	CB1-1/2TPHS	S39539	2-1/2	2"	1-1/2"	115/230	1	74
CP1-1/2TPHS	S39527	CB1-1/2TPHS	S39540		2"	1-1/2"	208-230/460	3	74
CP1-1/2TPHS	S39527-575T	CB1-1/2TPHS	S39540-575T		2"	1-1/2"	575	3	75
MEDIUM HEAD									
Noryl Impeller		Silicon Bronze Impeller		HP	Pipe Tapping Sizes		Motor Voltage	Phase	Approx. Wt. Lbs.
Model Number	Catalog Number	Model Number	Catalog Number		Suct.	Disch.			
CP1MPS	S39489	-	-	1/3	1-1/4"	1"	115	1	39
CP1MPS	S39490	CB1MPS	S39503	1/2	1-1/4"	1"	115/230	1	39
CP1MPS	S39491	CB1MPS	S39504		1-1/4"	1"	208-230/460	3	39
CP1MPS	S39491-575T	CB1MPS	S39504-575T		1-1/4"	1"	575	3	40
CP1MPS	S39492	CB1MPS	S39505	3/4	1-1/4"	1"	115/230	1	42
CP1MPS	S39493	CB1MPS	S39506		1-1/4"	1"	208-230/460	3	42
CP1MPS	S39493-575T	CB1MPS	S39506-575T		1-1/4"	1"	575	3	43
CP1-1/4XPS	S39494	CB1-1/4XPS	S39507	1	1-1/2"	1-1/4"	115/230	1	43
CP1-1/4XPS	S39495	CB1-1/4XPS	S39508		1-1/2"	1-1/4"	208-230/460	3	43
CP1-1/4XPS	S39495-575T	CB1-1/4XPS	S39508-575T		1-1/2"	1-1/4"	575	3	44
CP1-1/4XPS	S39496	CB1-1/4XPS	S39509	1-1/2	1-1/2"	1-1/4"	115/230	1	54
CP1-1/4XPS	S39497	CB1-1/4XPS	S39510		1-1/2"	1-1/4"	208-230/460	3	54
CP1-1/4XPS	S39497-575T	CB1-1/4XPS	S39510-575T		1-1/2"	1-1/4"	575	3	55
CP1-1/4XPS	S39498	CB1-1/4XPS	S39511	2	1-1/2"	1-1/4"	230	1	66
CP1-1/4XPS	S39499	CB1-1/4XPS	S39512		1-1/2"	1-1/4"	208-230/460	3	66
CP1-1/4XPS	S39499-575T	CB1-1/4XPS	S39512-575T		1-1/2"	1-1/4"	575	3	67
Not Available		CB1-1/2XPS	S39513	2-1/2	2"	1-1/2"	115/230	1	74
		CB1-1/2XPS	S39514		2"	1-1/2"	208-230/460	3	74
		CB1-1/2XPS	S39514-575T		2"	1-1/2"	575	3	75

CP/CB Series

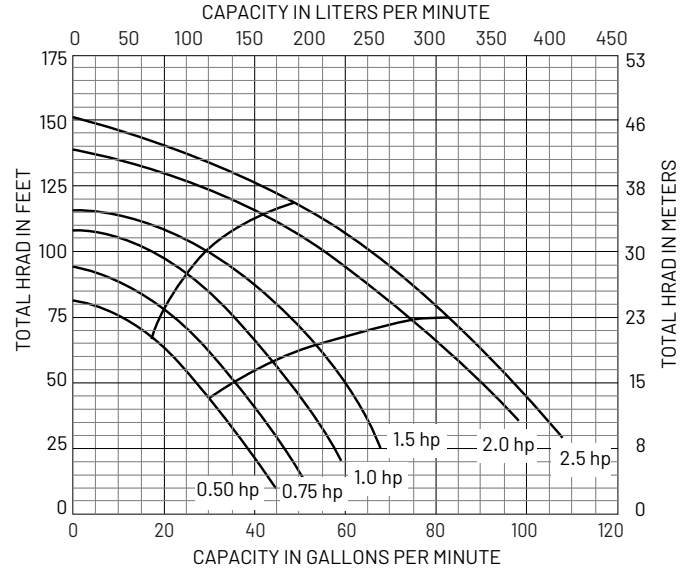
General purpose centrifugal pumps

PUMP PERFORMANCE: HIGH HEAD

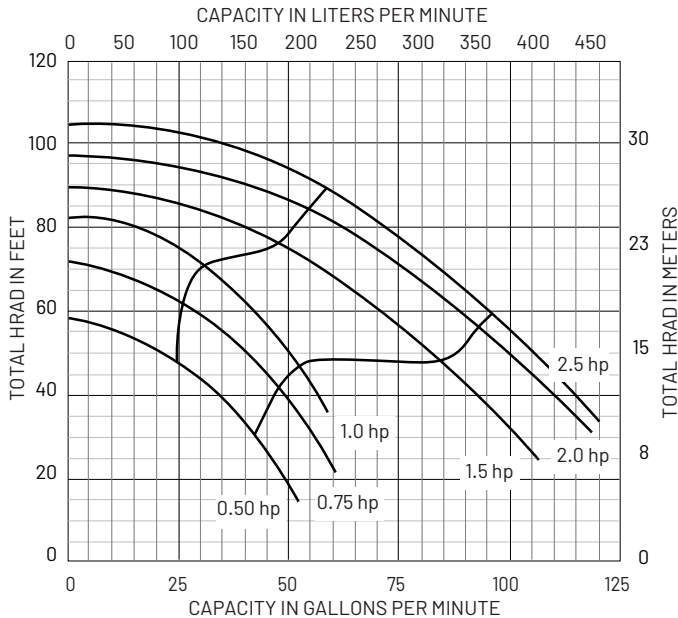
PUMP PERFORMANCE: HIGH HEAD, SILICON BRONZE IMPELLER



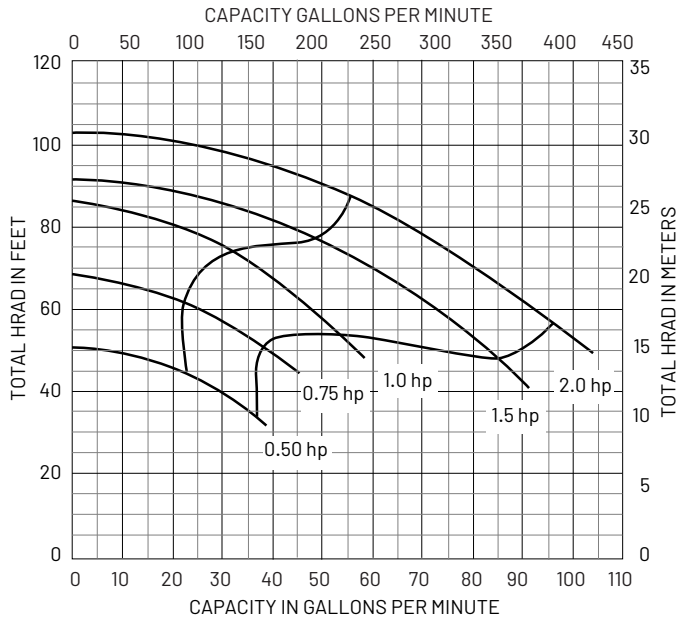
PUMP PERFORMANCE: HIGH HEAD, NORYL® IMPELLER



PUMP PERFORMANCE: MEDIUM HEAD, SILICON BRONZE IMPELLER



PUMP PERFORMANCE: MEDIUM HEAD, NORYL IMPELLER



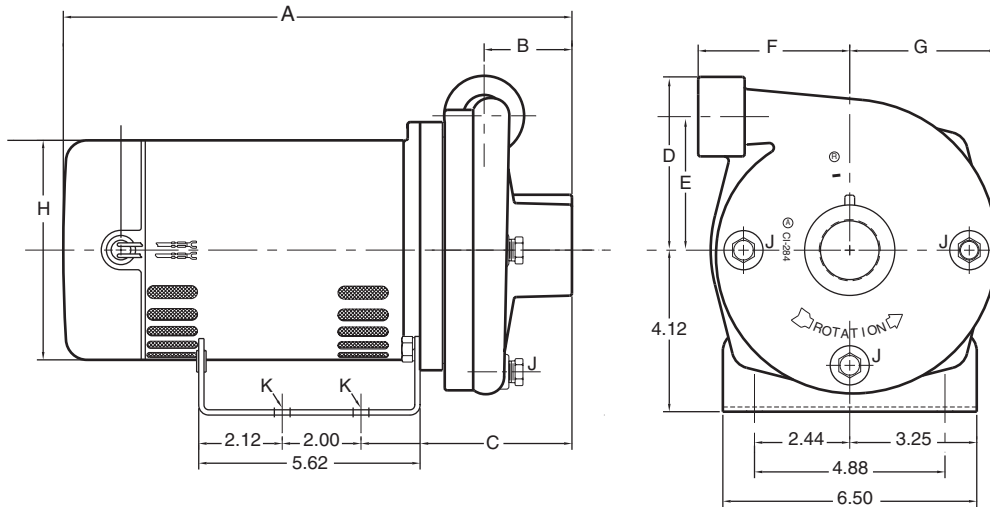
Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a Pro-Source® tank require a 100 PSI relief valve. Pumps with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

CP/CB Series

General purpose centrifugal pumps

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

DIMENSIONS (IN INCHES)

HIGH HEAD													
HP	NPT Suct.	NPT Disch.	A (1Phase)	A (3Phase)	B	C	D	E	F	G	H	NPT J	K
1/2	1-1/4	1	11-21/32	13-3/8	2-1/16	5-9/16	4-1/2	3-7/16	3-7/8	3-15/16	5-5/8	1/4	3/8 Dia.
3/4	1-1/4	1	11-25/32	13-3/8	2-1/16	5-9/16	4-1/2	3-7/16	3-7/8	3-15/16	5-5/8	1/4	3/8 Dia.
1	1-1/4	1	12-25/32	13-7/8	2-1/16	5-9/16	4-1/2	3-7/16	3-7/8	3-15/16	5-5/8	1/4	3/8 Dia.
1-1/2	1-1/4	1	13-39/64	14-3/8	2-1/16	5-9/16	4-1/2	3-7/16	3-7/8	3-15/16	5-5/8	1/4	3/8 Dia.
2	1-1/2	1-1/4	16-3/4	16-15/16	2-13/16	6-5/16	4-27/32	3-13/32	4-5/8	4	6-7/16	1/4	3/8 Dia.
2-1/2	2	1-1/2	17-3/4	17-1/4	2-13/16	6-5/16	4-27/32	3-13/32	4-5/8	4	6-7/16	1/4	3/8 Dia.
MEDIUM HEAD													
1/2	1-1/4	1	11-7/32	12-15/16	1-7/16	5-1/8	4-7/16	3-1/4	2-1/4	3-1/4	5-5/8	1/4	3/8 Dia.
3/4	1-1/4	1	11-31/32	12-15/16	1-7/16	5-1/8	4-7/16	3-1/4	2-1/4	3-1/4	5-5/8	1/4	3/8 Dia.
1	1-1/2	1-1/4	12-11/32	13-7/16	1-7/16	5-1/8	4-7/16	3-1/4	2-1/4	3-1/4	5-5/8	1/4	3/8 Dia.
1-1/2	1-1/2	1-1/4	13-25/32	14-9/16	2	5-3/4	4-13/16	3-1/2	4-1/4	3-15/16	5-5/8	1/4	3/8 Dia.
2	1-1/2	1-1/4	16-3/16	16-3/8	2	5-3/4	4-13/16	3-1/2	4-1/4	3-15/16	6-7/16	1/4	3/8 Dia.
2-1/2	2	1-1/2	17-3/16	16-11/16	2	5-3/4	4-13/16	3-1/2	4-1/4	3-15/16	6-7/16	1/4	3/8 Dia.

Pro-Source® Pumper Series

Engine-driven pumps



Lightweight, corrosion-resistant, engineered composite pump construction make this engine-driven pump extremely versatile for applications where electrical power is not available.

Powered by a powerful 6-1/2 HP, PowerPro 4-cycle gasoline engine, rated for continuous-duty, equipped with professional-grade features like an automatic low-oil safety cut, manual throttle, choke and shut-off controls.

Securely mounted within a rugged steel framed rollcage, reinforced with steel cross-members, coated for corrosion resistance, equipped with noise-dampening, non-slip rubber feet.

Suction lift capability of 25 feet.

APPLICATIONS

Water Transfer and Supply
 Sprinkler Turf Irrigation
 Dewatering
 Fire Protection
 Agriculture, Light Commercial and Marine

SPECIFICATIONS

Body: Reinforced corrosion-resistant thermoplastic

Impeller: Polymer

Diffuser: Reinforced corrosion-resistant thermoplastic

Seals: Viton mechanical

O-rings: Viton

Check Valve: Viton

Rollcage: Coated steel frame with cross-member and stay-in-place (no-slip) rubber feet

Engine: 6-1/2 HP

Dimensions: 21"H x 17"D x 21"L

Fasteners: 300 grade stainless steel

FEATURES

Rugged Lightweight Design

Corrosion-Resistant Composite Pump Construction

Chemical-Resistant Viton Seals, O-rings with Stainless Steel Fasteners

Built-in Check Valve

ACCESSORIES

Suction Hose Kit: Built-in 2" NPTF swivel fitting and 2" NPTM fitting for easy hookup; coil-reinforced wall prevents collapse; includes aluminum suction screen to prevent debris from reaching pump

Discharge Hose Kit: Built-in 2" NPTF swivel fitting and 2" NPTM fitting for easy hookup; collapsible for easy roll-up and storage; reinforced wall adds durability

ORDERING INFORMATION

Catalog Number	HP	Description	Pipe Tapping Sizes		Approx. Wt. Lbs./Kg
			Suction	Discharge	
EDP55RV	6-1/2	Engine-driven pump w/rollcage	2" NPT	2" NPT	46/20.9

ACCESSORIES

Catalog Number	Description	Approx. Wt. Lbs./Kg
FP2735	2" x 15' Suction Hose Kit	15/6.8
FP2731	2" x 25' Discharge Hose Kit	6/2.7



FP2735
Suction
Hose Kit

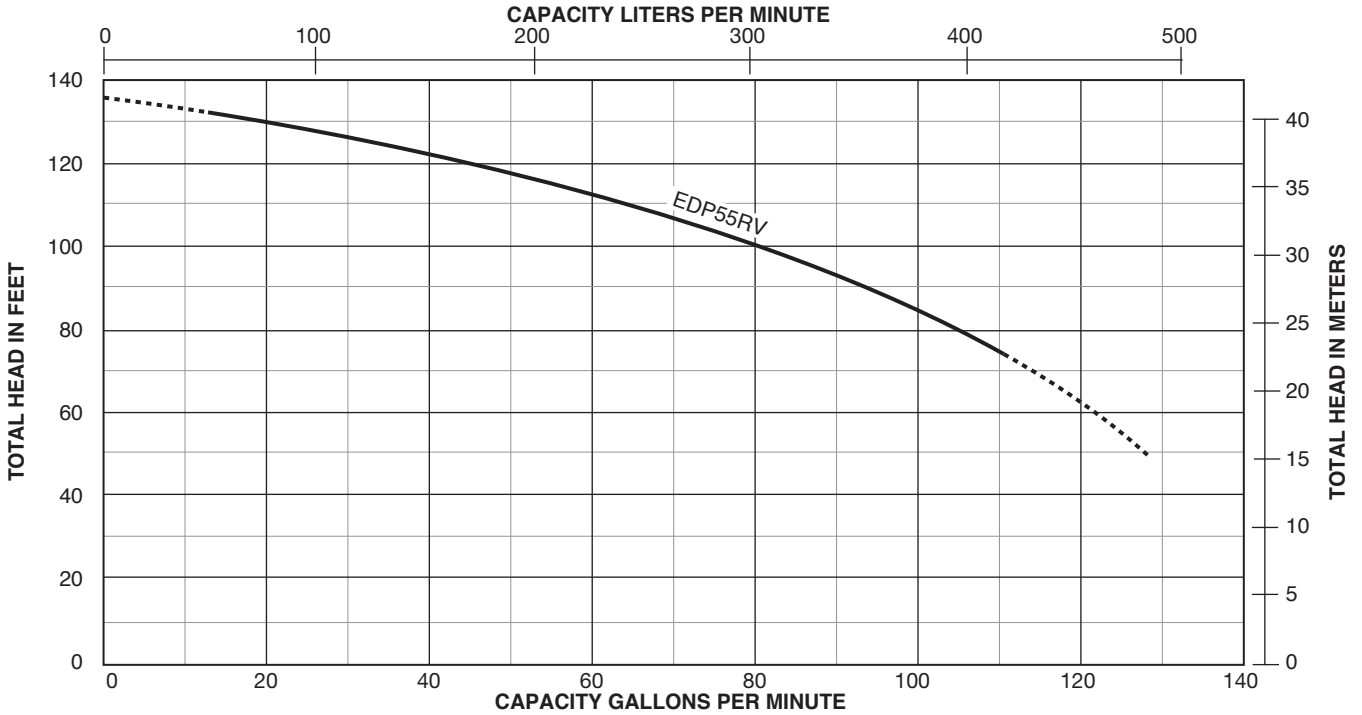


FP2731
Discharge
Hose Kit

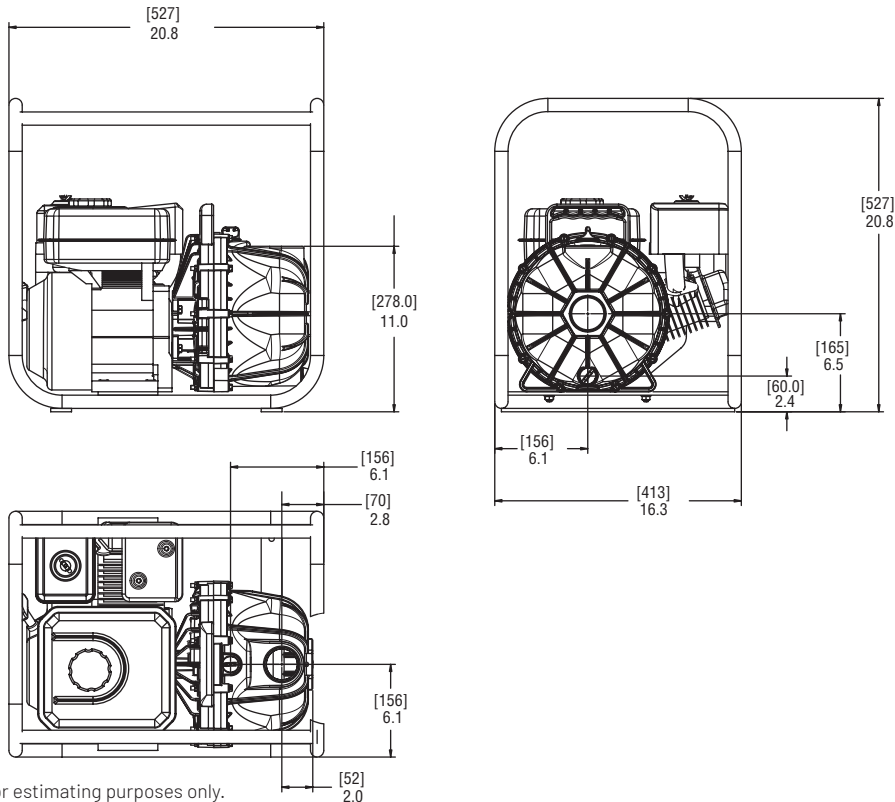
Pro-Source® Pumper Series

Engine-driven pumps

PUMP PERFORMANCE



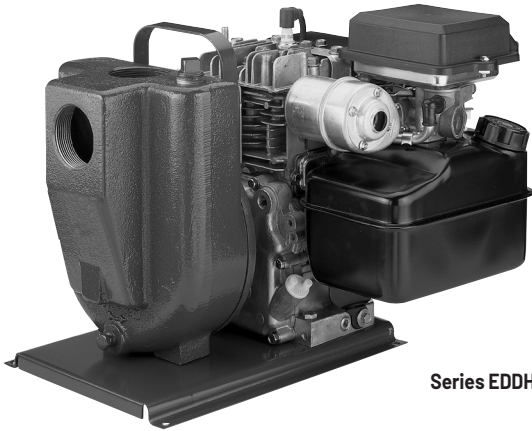
OUTLINE DIMENSIONS



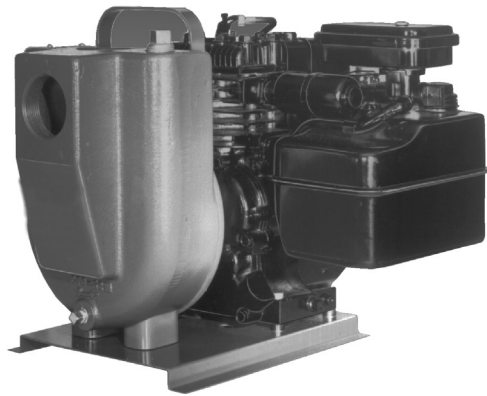
Dimensions (in inches) are for estimating purposes only.

EDD/EEDD Series

Engine-driven self-priming pumps



Series EDDH



Series EEDDH

These engine-driven centrifugal pumps can be used where electrical power is not available. Powerful 4-cycle gasoline engines get the job done faster and more efficiently.

Close-coupled EDDH has pump and engine close-coupled on all-steel base...16" long, 14" wide and 13-1/8" high. EDDH features 5/8" diameter, ductile iron threaded shaft extension.

Frame-mounted EEDDH features pump and engine frame-mounted on all-steel base...18-11/16" long, 14" wide and 13-1/8" high. Stub shaft allows easy replacement with other gasoline-powered engines. EEDDH has 3/4" diameter keyed ductile iron shaft extension.

Order Catalog No. EEDD for pump end only, supplied without engine, to be used with 5/8" or 3/4" shaft in gasoline-engine-driven applications. Pump is identical in design to stub-shaft EEDDH.

SPECIFICATIONS

Body: Close-grained cast iron

Impeller: Cast iron

Diffuser: Cast iron

Diffuser Ring: Buna-N

Stub Shaft (EEDD only):

416 stainless steel

ORDERING INFORMATION

Catalog Number	HP	Description	Fuel Tank Size	Pipe Tapping Sizes		Approx. Wt. Lbs.
				Suction	Discharge	
EDDH	3	Gasoline-powered pump	3 Quarts	2"	2"	65
EEDDH	3	Gasoline-powered pump	3 Quarts	2"	2"	70
EEDD	-	Gasoline-powered pump	-	2"	2"	38

Design Series EDDH - Engine-driven without stub shaft

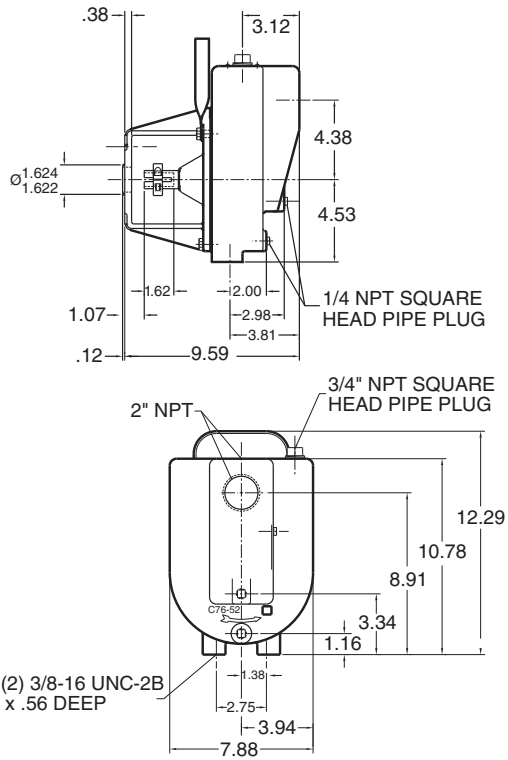
Design Series EEDDH - Engine-driven with stub shaft

Design Series EEDD - Stub shaft pump only

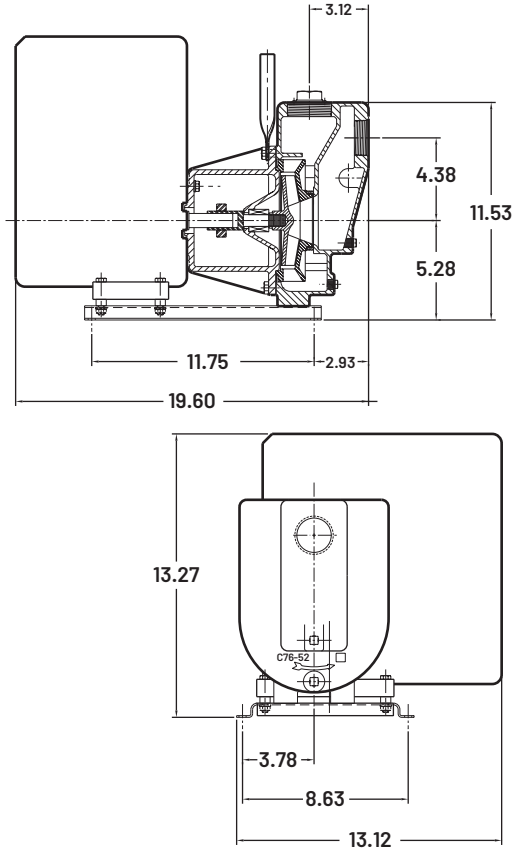
EDD/EEDD Series

Engine-driven self-priming pumps

OUTLINE DIMENSIONS: EEDD

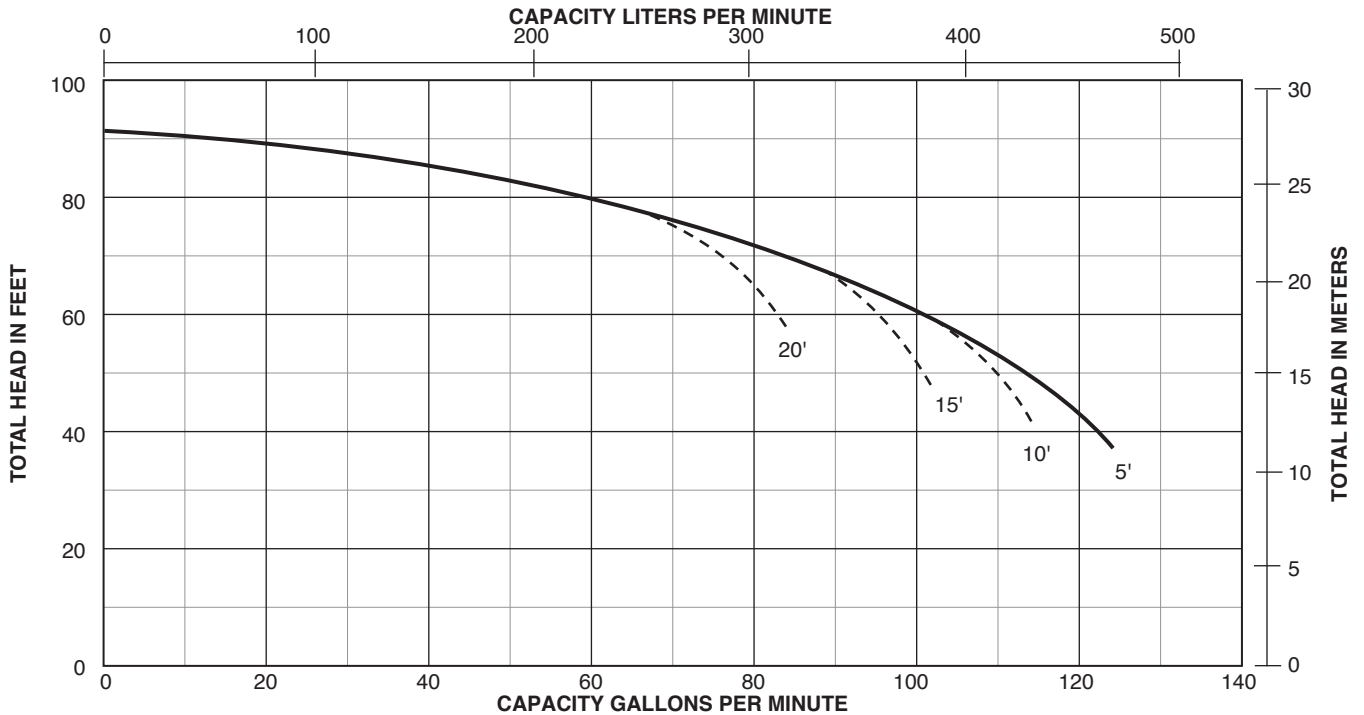


OUTLINE DIMENSIONS: EEDDH



Dimensions (in inches) are for estimating purposes only.

PUMP PERFORMANCE



NOTE: Dotted lines indicate performance reduction at high suction lift.

Water Systems Product Nomenclature

Berkeley® Catalog Numbers define products for you.

The following paragraphs describe number assignments and their meanings for 4" submersibles, jets and small centrifugal pumps.

4" SUBMERSIBLE PUMP CATALOG NUMBERS

Submersible pump catalog numbers are patterned like this:

B10P4MS05221

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Brand	GPM	Motor Type Motor Size	Pump Series	HP	Volts	No. of Wires	Phase
example:	B	10	P4	MS	05	2	2	1

Brand:
B - Berkeley

GPM:
Gallons Per Minute
Current sizes: 5, 7, 10, 15, 20, 30
for the 4" Series.

Type:
P4 - Pentek® four inch

Pump Series:
MS- "M" Series Stn. Stl.
JP- "J" Series Plastic

Volts:
1 = 115V
2 = 230V

HP: Horsepower
Horsepower designation for all Berkeley pumps:
05 = .5 HP
07 = .75 HP
10 = 1 HP
15 = 1.5 HP

Phase:
1 = Single

No. of Wires:
2 = 2-wire
3 = 3-wire

Water Systems Product Nomenclature

JET PUMP CATALOG NUMBERS

Jet pump catalog numbers are patterned like this:

5SN-L

	(1)	(2)	(3)
	HP	type	dash#

example: 5 SN -L

(1) HP: HORSEPOWER

Horsepower designation for all Berkeley Pumps:

5 = 1/2 HP 15 = 1-1/2 HP
 7 = 3/4 HP 20 = 2 HP
 10 = 1 HP 25 = 2-1/2 HP

**(2) type - First Letter in DESIGN SERIES
 Second Letter (N) - Shallow Well
 (L) - Deep Well**

**(3) dash#: ENGINEERING SERIES NUMBER
 (dash number)**

Indicates small product improvements.

SMALL CENTRIFUGAL PUMP CATALOG NUMBERS

Centrifugal pump catalog numbers are patterned like this:

10LTHH

	(1)	(2)	(3)	(4)	(5)
	HP	type	head	PH	dash#

example: 10 LTH H 3 -01

(1) HP - HORSEPOWER

Horsepower designation for all BERKELEY pumps:

5 = 1/2 HP 15 = 1-1/2 HP
 7 = 3/4 HP 20 = 2 HP
 10 = 1 HP 25 = 2-1/2 HP

(2) type - PUMP DESIGN SERIES

(3) head - HEAD DESIGN

H = high head
 M = medium head

(4) PH - PHASE

3 = 3 phase

**(5) dash# - ENGINEERING SERIES NUMBER
 (dash number)**

Indicates product improvements.

STEEL TANK CATALOG NUMBERS

Steel tank catalog numbers are patterned like this:

PS19T

	(1)	(2)	(3)
	type	size	dash#

example: PS 19T -T02

(1) type: TANK DESIGN SERIES

(2) S = "short" stand-up type
 T = "tall" stand-up type
 H = "horizontal" pump mount type

**(3) dash#: ENGINEERING SERIES NUMBER
 (dash number)**

Indicates small product improvements.

FIBREWOUND TANKS

Fibrewound tank catalog numbers are patterned like this:

PSC-35-10

	(1)	(2)	(3)	(4)
	type	size	drawdown	dash#

example: PSC 35 -10 -01

(1) type: TANK DESIGN SERIES

(2) size: Tank vessel capacity in U.S. gallons

**(3) drawdown: U.S. gallons drawdown with a
 30-50 system pressure**

**(4) dash#: ENGINEERING SERIES NUMBER
 (dash number)**

Indicates small product improvements.

Sizing Home Water Systems

Pentair has developed the following "Rule of Thumb" formula for sizing home water systems that will be applicable in many instances:

Simply count the fixtures and water outlets in the home. This method bases the approximate pumping capacity on use at the rate of a gallon per minute per fixture, and avoids the possibility of undersizing.

For instance, let us assume you count the following list of fixtures and water outlets in your home:

Kitchen:	Sink/Dishwasher	1
	(count as 1 fixture)	1
Bath:	Lavatory	1
	Tub	1
	Toilet	1
Powder Room:	Lavatory	1
	Toilet	1
Laundry and Utility Room:		
	Automatic washing machine	
	(count as one fixture)	1
	Laundry tubs	1
	Shower	1
	Outdoor faucets	2

Total fixtures and outlets **12**

Be sure that your pump installer provides a water system that will deliver 12 gallons per minute at the desired pressure.

Average Water Requirements for General Service Around the Home and Farm

Each person per day, for all purposes	50 gal.
Each horse, dry cow or beef animal per day	12 gal.
Each milking cow per day	35 gal.
Each hog per day	4 gal.
Each sheep per day	2 gal.
Each 100 chickens per day	4 gal.

Average Amount of Water Required By Various Home and Yard Fixtures

Drinking fountain, continuously flowing,	50 to 100 gal. per day
Each shower bath	Up to 60 gal.
To fill bathtub	30 gal.
To flush toilet	6 gal.
To fill lavatory	2 gal.
To sprinkle 1/4" of water on each	
1000 sq. feet of lawn	160 gal.
Dishwasher - per load	3 gal.
Automatic washer - per load	Up to 50 gal.
Regeneration of domestic water softener	50-100 gal.

Average Flow Rate Requirements by Various Fixtures

(GPM equals gallons per minute; GPH equals gallons per hour)

Shower	4 to 6 GPM
Bathtub	4 to 8 GPM
Toilet	4 to 5 GPM
Lavatory	1 to 3 GPM
Kitchen sink	2 to 3 GPM
1/2" hose and nozzle	200 GPH
3/4" hose and nozzle	300 GPH
Lawn sprinkler	120 GPH

Pounds Pressure - Feet of Head

Each pound of pressure developed by a pumping system is equal to 2.31 feet of head (feet of lift). Therefore, 10 pounds of pressure (PSI) will lift water vertically 23.1 feet. The following chart converts pressure to feet of head at various settings from 1 to 100 PSI.

This can be calculated for any setting using the following formula:

$$\text{Pounds per Sq. Inch} = \frac{\text{Head in Feet}}{2.31}$$

$$\text{Head in Feet} = \text{Pounds per Sq. In.} \times 2.31$$

CONVERSION TABLE

POUNDS PRESSURE/FEET OF HEAD	
Pounds Pressure	Feet of Head
1	2.31
5	11.6
10	23.1
15	34.7
20	46.2
25	57.7
30	69.3
35	80.8
40	92.4
45	103.9
50	115.5
60	138.6
65	150.1
70	161.7
75	173.2
80	184.8
85	196.3
90	207.9
95	219.4
100	231.0

Pipe Friction Loss Charts

1/2"-1-1/4" I.D.

LOSS OF HEAD IN FEET DUE TO FRICTION PER 100 FEET OF PIPE

1/2"					3/4"					1"					1-1/4"				
Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID .622"	Steel C=100 ID .622"	Copper C=130 ID .625"	Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID .824"	Steel C=100 ID .824"	Copper C=130 ID .822"	Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID 1.049"	Steel C=100 ID 1.049"	Copper C=130 ID 1.062"	Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID 1.380"	Steel C=100 ID 1.380"	Copper C=130 ID 1.368"
0.5	0.5	0.314	0.582	0.35	1.5	0.9	0.61	1.13	0.7	2	0.74	0.322	0.595	0.345	4	0.9	0.304	0.564	0.364
1	1.1	1.14	2.1	1.26	2	1.2	1.04	1.93	1.21	3	1.1	0.68	1.26	0.732	5	1.1	0.46	0.853	0.545
1.5	1.6	2.38	4.44	2.67	2.5	1.5	1.57	2.91	1.82	4	1.5	1.15	2.14	1.24	6	1.3	0.649	1.2	0.765
2	2.1	4.1	7.57	4.56	3	1.8	2.21	4.08	2.56	5	1.9	1.75	3.42	1.88	7	1.5	0.86	1.59	1.02
2.5	2.6	6.15	11.4	6.88	3.5	2.1	2.93	5.42	3.4	6	2.2	2.45	4.54	2.63	8	1.7	1.1	2.04	1.31
3	3.2	8.65	16	9.66	4	2.4	3.74	6.94	4.36	8	3.0	4.16	7.73	4.5	10	2.1	1.67	3.08	1.98
3.5	3.7	11.5	21.3	12.9	4.5	2.7	4.66	8.63	5.4	10	3.7	6.31	11.7	6.77	12	2.6	2.33	4.31	2.75
4	4.2	14.8	27.3	16.4	5	3.0	5.66	10.5	6.57	12	4.5	8.85	16.4	9.47	14	3.0	3.1	5.73	3.64
4.5	4.8	18.3	33.9	20.4	6	3.6	7.95	14.7	9.22	14	5.2	11.8	21.8	12.6	16	3.4	3.96	7.34	4.68
5	5.3	22.2	41.2	24.8	7	4.2	10.6	19.6	12.2	16	5.9	15.1	27.9	16.2	18	3.9	4.93	9.13	5.81
5.5	5.8	26.6	49.2	29.5	8	4.8	13.5	25	15.7	18	6.7	18.7	34.7	20.1	20	4.3	6	11.1	7.1
6	6.3	31.2	57.8	34.8	9	5.4	16.8	31.1	19.5	20	7.4	22.8	42.1	24.4	25	5.4	9.06	16.8	10.7
6.5	6.9	36.2	67	40.2	10	6.0	20.4	37.8	23.7	22	8.2	27.1	50.2	28.8	30	6.4	12.7	23.5	15
7	7.4	41.5	76.8	46.1	11	6.6	24.4	45.1	28.2	24	8.9	31.9	59	34	35	7.5	16.9	31.2	20
7.5	7.9	47.2	87.3	52.5	12	7.2	28.6	53	33.2	26	9.7	36.9	68.4	39.7	40	8.6	21.6	40	25.6
8	8.4	53	98.3	59.4	13	7.8	33.2	61.5	38.5	28	10.4	42.5	78.5	45.5	50	10.7	32.6	60.4	38.7
8.5	9.0	59.5	110	66	14	8.4	38	70.5	44.2	30	11.1	48.1	89.2	51.6	60	12.9	45.6	84.7	54.1
9	9.5	66	122	73.5	16	9.6	48.6	90.2	56.6	35	13.0	64.3	119	68.7	70	15.0	61.5	114	72.2
9.5	10.0	73	135	81	18	10.8	60.5	112	70.4	40	14.8	82	152	88	80	17.2	77.9	144	92.4
10	10.6	80.5	149	89.4	20	12.0	73.5	136	83.5	45	16.7	102	189	109	90	19.3	96.6	179	115

NOTE: Recommended velocity is 5 FPS (feet per second) with a maximum of 7 FPS.

FRICTION LOSSES THROUGH FITTINGS IN TERMS OF EQUIVALENT LENGTHS OF PIPE

Type Fitting and Application	Pipe and Fitting Material (Note 1)	Equivalent Length of Pipe - Nominal Size Fitting and Pipe						
		1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Threaded Adapter Plastic or Copper to Thread	Copper	1	1	1	1	1	1	1
	Plastic	3	3	3	3	3	3	3
90° Standard Elbow	Steel	2	3	3	4	4	5	6
	Copper	2	3	3	4	4	5	6
	Plastic	4	5	6	7	8	9	10
Insert Coupling	Plastic	3	3	3	3	3	3	3
Standard Tee	Steel	4	5	6	8	9	11	14
	Copper	4	5	6	8	9	11	14
	Plastic	7	8	9	12	13	17	20
Gate Valve	Note (2)	2	3	4	5	6	7	8

Note (1) Loss Figures are based on equivalent lengths of indicated pipe material.

Note (2) Loss Figures for screwed valves are based on equivalent lengths of steel pipe.

Pipe Friction Loss Charts

1-1/2"-2-1/2" I.D.

LOSS OF HEAD IN FEET DUE TO FRICTION PER 100 FEET OF PIPE

1-1/2"					2"					2-1/2"				
Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID 1.61"	Steel C=100 ID 1.61"	Copper C=130 ID 1.60"	Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID 2.067"	Steel C=100 ID 2.067"	Copper C=130 ID 2.062"	Flow U.S. Gal. Min.	Velocity Plastic ft/sec	Plastic C=140 ID 2.469"	Steel C=100 ID 2.469"	Copper C=130 ID 2.50"
4	0.6	0.144	0.267	0.165	10	1.0	0.233	0.431	0.268	20	1.3	0.353	0.654	0.375
6	0.9	0.305	0.565	0.358	15	1.4	0.495	0.916	0.569	30	2.0	0.75	1.39	0.792
8	1.3	0.52	0.962	0.611	20	1.9	0.839	1.55	0.962	40	2.7	1.27	2.36	1.35
10	1.6	0.785	1.45	0.923	25	2.4	1.27	2.35	1.45	50	3.4	1.92	3.56	2.04
12	1.9	1.1	2.04	1.29	30	2.9	1.78	3.29	2.03	60	4.0	2.69	4.99	2.86
14	2.2	1.46	2.71	1.71	35	3.3	2.36	4.37	2.71	70	4.7	3.58	6.64	3.82
16	2.5	1.87	3.47	2.2	40	3.8	3.03	5.6	3.47	80	5.4	4.59	8.5	4.88
18	2.8	2.33	4.31	2.75	45	4.3	3.76	6.96	4.31	90	6.0	5.72	10.6	6.06
20	3.2	2.83	5.24	3.31	50	4.8	4.57	8.46	5.24	100	6.7	6.9	12.8	7.37
25	3.9	4.26	7.9	5	55	5.3	5.46	10.1	6.22	110	7.4	8.25	15.3	8.8
30	4.7	6	11.1	7	60	5.7	6.44	11.9	7.34	120	8.0	9.71	18	10.3
35	5.5	7.94	14.7	9.35	70	6.7	8.53	15.8	9.78	130	8.7	11.3	20.9	12
40	6.3	10.2	18.9	12	80	7.6	10.9	20.2	12.5	140	9.4	12.9	23.9	13.7
45	7.1	12.63	23.4	14.9	90	8.6	13.6	25.1	15.6	150	10.1	14.7	27.3	15.6
50	7.9	15.4	28.5	18.1	100	9.6	16.5	30.5	18.9	160	10.7	16.6	30.7	17.6
55	8.7	18.35	34	21.5	110	10.5	19.7	36.4	22.5	170	11.4	18.5	34.3	19.7
60	9.5	21.6	40	25.3	120	11.5	23.1	42.7	26.6	180	12.1	20.6	38.1	21.9
65	10.2	25.1	46.4	29	130	12.4	26.8	49.6	30.7	190	12.7	22.7	42.1	24.2
70	11.0	28.7	53.2	33.8	140	13.4	30.6	56.9	35.2	200	13.4	25	46.3	26.6
75	11.8	32.6	60.4	38	150	14.3	35	64.7	40.1	220	14.7	29.8	55.3	31.8
80	12.6	36.8	68.1	43.1	160	15.3	39.3	72.8	45.1	240	16.1	35.8	66.4	37.4
85	13.4	41.2	76.2	47.6	170	16.3	44	81.4	50.5	260	17.4	41.6	75.3	43.3
90	14.2	45.7	84.7	53.6	180	17.2	48.9	90.5	56.1	280	18.8	46.6	86.3	49.4
95	15.0	50.5	93.6	58.8	190	18.2	54	100	62	300	20.1	52.9	98.1	56.8
100	15.8	56.6	103	65.1	200	19.1	59.4	110	68					

NOTE: Recommended velocity is 5 FPS (feet per second) with a maximum of 7 FPS.

Note(1) Loss Figures are based on equivalent lengths of indicated pipe material

Note(2) Loss Figures for screwed valves based on equivalent lengths of steel pipe.

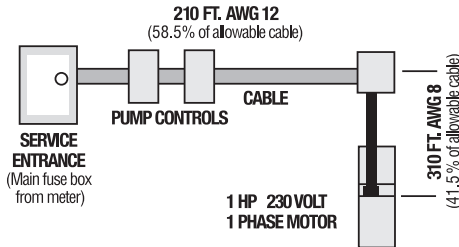
Cable Selection

Stainless steel, 4" submersible motors

TWO DIFFERENT CABLE SIZES CAN BE USED

The example below is for reference. Depending on the installation, any number of combinations may be used, as long as the total percentage length of the two cables used does not exceed 100%. This is to ensure that adequate voltage will be supplied to the motor.

EXAMPLE:
1 HP,
230 Volt, 3W,
1 PH Motor



In a replacement installation, the well already has 210 feet of buried #12 cable between the service entrance and the well head. The question is: What size cable is required in the well with a 1 HP, 230 Volt, 1 PH, 3W motor setting at 310 feet?

1. According to the table, #12 cable is large enough for the 1 HP motor so the percent of the maximum allowable cable used by the 210-foot run is $210 \div 359 = 58.5\%$, since 359 feet is the total allowable.
2. With 58.5% of the total allowable cable already used between the service entrance and the well head, only 41.5% is left for the well. Therefore, the 310 feet needed in the well can only utilize 41.5% of the total feet allowed in the table.
3. From the table, 41.5% of the 573 feet for #10 cable equals only 238 feet, so a larger size is needed. For #8, 41.5% of 908 feet = 377 feet. As a result, #8 can be used for the 310 feet in the well.

CAUTION USE OF WIRE SIZE SMALLER THAN LISTED WILL VOID WARRANTY.

MOTOR LEAD LENGTHS: PENTEK® 2-WIRE PSC MOTORS

60 HZ MOTOR RATING		60C AND 75C INSULATION - AWG COPPER WIRE SIZE												
VOLTS	HP	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0
115	1/2	107	171	273	432	672	1071	1346	1700	2142	2703	3411	4305	5424
230	1/2	457	726	1158	1835	2855	4551	5721	7225	9102	11489			
	3/4	342	545	869	1376	2141	3413	4291	5419	6826	8617	10871		
	1	267	425	678	1074	1671	2664	3349	4229	5328	6725	8485	10711	
	1-1/2	209	332	530	839	1305	2080	2615	3303	4161	5252	6626	8365	

MOTOR LEAD LENGTHS: PENTEK® 3-WIRE MOTORS

CSIR CONTROL BOXES

60 HZ MOTOR RATING		60C AND 75C INSULATION - AWG COPPER WIRE SIZE												
VOLTS	HP	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0
115	1/2	94	150	240	380	591	942	1184	1495	1883	2377	2999	3786	4770
230	1/2	348	553	883	1398	2175	3467	4359	5505	6935	8753			
	3/4	277	441	704	1115	1734	2765	3476	4390	5530	6981	8807		
	1	231	367	585	927	1442	2299	2891	3651	4599	5805	7324		

CSCR CONTROL BOXES

60 HZ MOTOR RATING		60C AND 75C INSULATION - AWG COPPER WIRE SIZE												
VOLTS	HP	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0
230	1/2	438	697	1112	1761	2740	4369	5492	6936	8738	11029			
	3/4	359	571	912	1444	2246	3581	4502	5685	7162	9040	11406		
	1	296	471	751	1190	1852	2952	3711	4686	5904	7452	9402		
	1-1/2	199	317	505	801	1246	1986	2496	3153	3972	5013	6325		
	2	180	286	456	722	1123	1790	2251	2843	3581	4520	5703		
	3	133	211	337	534	830	1324	1664	2102	2648	3342	4217	5323	
	5			206	326	507	809	1017	1284	1618	2042	2577	3253	

All lengths in feet.

NOTE: Based on service factor amps, 30C ambient and 5% voltage drop.

(1) This table is based on copper wire. If aluminum wire is used it must be two sizes larger.
Example: When the table calls for #12 copper wire you would use #10 aluminum wire.

(2) Cables #14 to 4/0 are AWG sizes.

Cable Selection

Stainless steel, 4" submersible motors

MOTOR LEAD LENGTHS: PENTEK® 3-PHASE MOTORS

60 HZ MOTOR RATING		60C AND 75C INSULATION - AWG COPPER WIRE SIZE												
VOLTS	HP	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0
200	0.5	629	1000	1595	2526	3931								
	3/4	468	745	1188	1881	2927								
	1	386	614	979	1551	2414	3848	4837						
	1.5	290	461	735	1163	1810	2886	3628						
	2	237	376	600	951	1479	2358	2965	3744	4717	5954			
	3	183	292	465	737	1147	1828	2298	2902	3656	4614			
	5	109	173	276	438	681	1086	1365	1724	2172	2741	3458	4366	5500
7.5	73	117	186	295	459	731	919	1161	1462	1846	2329	2940	3704	
230	0.5	844	1342	2140	3389	5274	8408	10570						
	0.75	633	1006	1605	2542	3956	6306	7927	10011					
	1	516	821	1310	2075	3229	5148	6471	8172					
	1.5	383	610	973	1541	2397	3822	4804	6067	7643	9648			
	2	316	503	803	1271	1978	3153	3964	5006	6306	7960	10042		
	3	251	399	636	1007	1567	2497	3140	3965	4995	6305	7954	10042	12651
	5			367	581	904	1441	1812	2288	2883	3639	4591	5795	7301
7.5				385	599	955	1201	1517	1911	2412	3043	3842	4840	
460	0.5	3374	5367	8561										
	0.75	2531	4025	6420	10168									
	1	2024	3220	5136	8135									
	1.5	1489	2368	3777	5981									
	2	1234	1964	3132	4960	7718								
	3	955	1519	2423	3837	5971								
	5	595	947	1511	2393	3723	5935							
	7.5	375	596	951	1506	2344	3737	4698	5933	7474				
	10	294	468	747	1182	1840	2933	3687	4656	5866				
575	1.5	2433	3870	6173										
	2	1917	3049	4864	7703									
	3	1543	2454	3915	6200									
	5	832	1324	2112	3345	5205								
	7.5	633	1006	1605	2542	3956								

All lengths in feet.

NOTE: Based on service factor amps, 30C ambient and 5% voltage drop.

- (1) This table is based on copper wire. If aluminum wire is used it must be two sizes larger. Example: When the table calls for #12 copper wire you would use #10 aluminum wire.
- (2) The portion of the total cable that is between the service entrance and a 3-phase motor starter should not exceed 25% of the total maximum length to assure reliable starter operation.
- (3) Cables #14 to 4/0 are AWG sizes.

Warranty

Pentair BERKELEY® warrants to the original consumer purchaser ("Purchaser" or "You") of the products listed in the table below, that they will be free from defects in material and workmanship for the Warranty Period shown in the table below.

Product	Warranty Period
Water Systems:	
Water Systems Products – jet pumps, small centrifugal pumps, submersible pumps and related accessories	<i>whichever occurs first:</i> 12 months from date of original installation, or 18 months from date of manufacture
Pentair Pro-Source® Composite Tanks	5 years from date of original installation
Pentair Pro-Source Steel Pressure Tanks	5 years from date of original installation
Pentair Pro-Source Epoxy-Lined Tanks	3 years from date of original installation
Agricultural/Commercial:	
Centrifugals – close-coupled motor drive, frame mount, SAE mount, engine drive, VMS, SSCX, SSHM	12 months from date of original installation, or 24 months from date of manufacture
Submersible Turbines, 6" diameter and larger	12 months from date of original installation, or 24 months from date of manufacture

Our warranty will not apply to any product that, in our sole judgement, has been subject to negligence, misapplication, improper installation, or improper maintenance. Examples that may result in denial of a warranty claim (this list is not all inclusive):

- Damage caused by careless handling, improper repackaging, or shipping.
- Damage due to misapplication, misuse, abuse, or failure to operate equipment as specified in the owner's manual.
- Damage caused by failure to install products as specified in the owner's manual.
- Damage due to unauthorized product modifications or failure to use Pentair original replacement parts.
- Damage caused by negligence, or failure to properly maintain products as specified in the owner's manual.
- Damage caused by water freezing inside the product.
- Accidental damage, fire, acts of God, or other circumstances outside the control of Pentair.

Without limiting the foregoing, operating a three phase motor with single phase power through a phase converter will void the warranty. Note also that three phase motors must be protected by three-leg, ambient compensated, extra-quick trip overload relays of the recommended size or the warranty is void.

All impeller diameters specified in the BEC2 pump sizing program have been tested and determined to not exceed the service factor of the specified motor. Oversized impeller diameters can be requested, however, use of an oversized impeller will void any warranty claims.

Your only remedy, and BERKELEY's only duty under this warranty, is that BERKELEY repair or replace defective products (at BERKELEY's choice). THE REMEDIES DESCRIBED HERE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS WARRANTY.

You must pay all labor and shipping charges associated with the warranty and must request warranty service through the installing dealer as soon as a problem is discovered. No request for service will be accepted if received after the Warranty Period has expired. This warranty is not transferable.

BERKELEY'S LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE PRODUCT AT ISSUE. BERKELEY SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE, OR CONTINGENT DAMAGES OR LOSSES WHATSOEVER, WHETHER DIRECT OR INDIRECT. THE FOREGOING WARRANTY IS EXCLUSIVE. EXCEPT FOR THE WARRANTY SET FORTH HEREIN, BERKELEY MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE PRODUCTS, INCLUDING, BUT NOT TO ANY WARRANTIES OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.

THE FOREGOING WARRANTIES SHALL NOT EXTEND BEYOND THE DURATION PROVIDED HEREIN. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on the duration of an implied warranty, so the above limitations or exclusions may not apply to You. This warranty gives You specific legal rights and You may also have other rights which vary from state to state.

This Warranty is effective July 14, 2020 and replaces all undated warranties and warranties dated before July 14, 2020.

BERKELEY

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