

# STA-RITE® JP Series Signature 2000®

Composite



POWERED BY  
**PENTEK®**



**Precision-engineered, corrosion-resistant Signature 2000® 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

## 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.

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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	S10P4JP05121	23	28	L10P4CJ	13	9	P42B0005A1	19			
		1/2	8	1	230	S10P4JP05221	23	28	L10P4CJ	13	9	P42B0005A2	19			
		3/4	11	1	230	S10P4JP07221	26	31	L10P4DJ	15	10	P42B0007A2	23			
		1	13	1	230	S10P4JP10221	29	35	L10P4EJ	17	11	P42B0010A2	25			
	3 WIRE	3 WIRE	1-1/2	17	1	230	S10P4JP15221	35	42	L10P4FJ	20	12	P42B0015A2	29		
			1/2	7	1	115	S10P4JP05131	22-3/4	27-1/2	L10P4CJ	12-3/4	9	P43B0005A1	19	SMC-IR0511	4
			1/2	8	1	230	S10P4JP05231	23	28	L10P4CJ	13	9	P43B0005A2	19	SMC-CR0521	4
			3/4	11	1	230	S10P4JP07231	26	31	L10P4DJ	15	10	P43B0007A2	21	SMC-CR0721	4
			1	13	1	230	S10P4JP10231	29	35	L10P4EJ	17	11	P43B0010A2	23	SMC-CR1021	4
			1	13	3	230				L10P4EJ	15-1/2	10-1/4	P43B0010A3	23		
			1	13	3	460				L10P4EJ	15-1/2	10-1/4	P43B0010A4	23		
			1-1/2	17	1	230	S10P4JP15231	34	42	L10P4FJ	20	12	P43B0015A2	27	SMC-CR1521	7
			1-1/2	17	3	230				L10P4FJ	19-3/4	12-1/2	P43B0015A3	23		
			1-1/2	17	3	460				L10P4FJ	19-3/4	12-1/2	P43B0015A4	23		
15**	2 WIRE	1/2	6	1	115	S15P4JP05121	23	27	L15P4CJ	13	9	P42B0005A1	19			
		1/2	6	1	230	S15P4JP05221	23	27	L15P4CJ	13	9	P42B0005A2	19			
		3/4	8	1	230	S15P4JP07221	26	31	L15P4DJ	15	10	P42B0007A2	23			
		1	10	1	230	S15P4JP10221	30	35	L15P4EJ	17	11	P42B0010A2	25			
		1-1/2	12	1	230	S15P4JP15221	36	43	L15P4FJ	21	13	P42B0015A2	29			
	3 WIRE	3 WIRE	1/2	5	1	115	S15P4JP05131	22-1/4	27	L15P4CJ	12-1/4	9	P43B0005A1	19	SMC-IR0511	4
			1/2	6	1	230	S15P4JP05231	23	27	L15P4CJ	13	9	P43B0005A2	19	SMC-CR0521	4
			3/4	8	1	230	S15P4JP07231	26	31	L15P4DJ	15	10	P43B0007A2	21	SMC-CR0721	4
			1	10	1	230	S15P4JP10231	30	35	L15P4EJ	17	11	P43B0010A2	23	SMC-CR1021	4
			1	9	3	230				L15P4EJ	15-1/2	10-1/4	P43B0010A3	23		
			1	9	3	460				L15P4EJ	15-1/2	10-1/4	P43B0010A4	23		
			1-1/2	12	1	230	S15P4JP15231	34	41	L15P4FJ	21	13	P43B0015A2	27	SMC-CR1521	7
			1-1/2	12	3	230				L15P4FJ	20-1/4	13	P43B0015A3	23		
			1-1/2	12	3	460				L15P4FJ	20-1/4	13	P43B0015A4	23		
20**	2 WIRE	3/4	6	1	230	S20P4JP07221	23-3/4	30	L20P4DJ	13	9	P42B0007A2	23			
		1	7	1	230	S20P4JP10221	27-1/4	34	L20P4EJ	15	10	P42B0010A2	25			
		1-1/2	10	1	230	S20P4JP15221	32	39	L20P4FJ	17	11	P42B0015A2	29			
		3/4	6	1	230	S20P4JP07231	23-3/4	30	L20P4DJ	13	9	P43B0007A2	23	SMC-CR0721	4	
	3 WIRE	3 WIRE	1	7	1	230	S20P4JP10231	27-1/4	34	L20P4EJ	15	10	P43B0010A2	25	SMC-CR1021	4
			1	7	3	230				L20P4EJ	15-1/2	10-1/4	P43B0010A3	23		
			1	7	3	460				L20P4EJ	15-1/2	10-1/4	P43B0010A4	23		
			1-1/2	10	1	230	S20P4JP15231	30-1/2	39	L20P4FJ	17	11	P43B0015A2	29	SMC-CR1521	7
			1-1/2	9	3	230				L20P4FJ	16-3/4	10-3/4	P43B0015A3	23		
			1-1/2	9	3	460				L20P4FJ	16-3/4	10-3/4	P43B0015A4	23		
			2	12	1	230				L20P4GJ	20-1/4	12-1/2	P43B0020A2	31	SMC-CR2021	7
			2	12	3	230				L20P4GJ	20-1/4	12-1/2	P43B0020A3	23		
			2	12	3	460				L20P4GJ	20-1/4	12-1/2	P43B0020A4	23		
			30**	2 WIRE	1	5	1	230	S30P4JP10221	26-1/2	35	L30P4EJ	14	10	P42B0010A2	25
1-1/2	6	1			230	S30P4JP15221	30-1/2	39	L30P4FJ	15-1/4	11	P42B0015A2	29			
3 WIRE	3 WIRE	1		5	1	230	S30P4JP10231	26-1/2	35	L30P4EJ	14	10	P43B0010A2	23	SMC-CR1021	4
		1		5	3	230				L30P4EJ	15-1/2	10-1/4	P43B0010A3	23		
		1		5	3	460				L30P4EJ	15-1/2	10-1/4	P43B0010A4	23		
		1-1/2		6	1	230	S30P4JP15231	29	39	L30P4FJ	15-1/4	11	P43B0015A2	27	SMC-CR1521	7
		1-1/2		6	3	230				L30P4FJ	15-1/4	11	P43B0015A3	23		
		1-1/2		6	3	460				L30P4FJ	15-1/4	11	P43B0015A4	23		
		2		8	1	230				L30P4GJ	18-1/4	12	P43B0020A2	31	SMC-CR2021	7
		2		8	3	230				L30P4GJ	18-1/4	12	P43B0020A3	23		
		2		8	3	460				L30P4GJ	18-1/4	12	P43B0020A4	23		

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

\*Length and Weight are approximate.

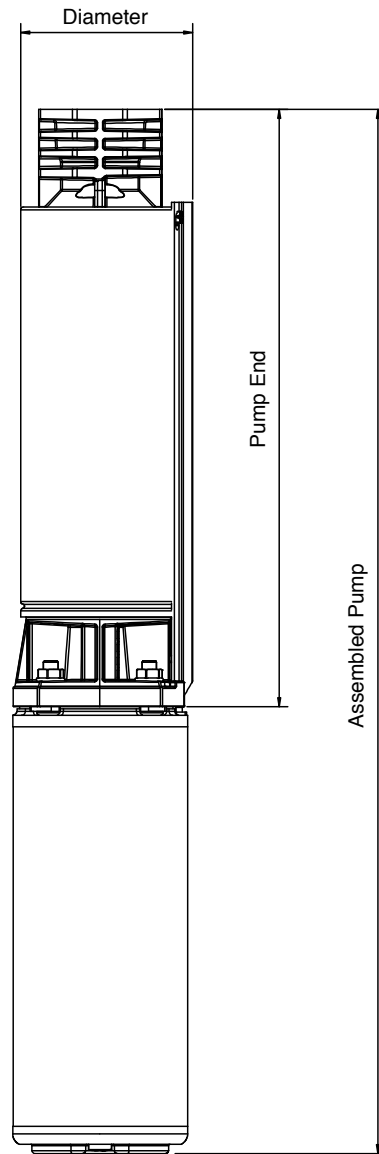
\*\*For 10 GPM, 15 GPM, 20 GPM and 30 GPM discharge is 1-1/4" NPT.

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

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## OUTLINE DIMENSIONS



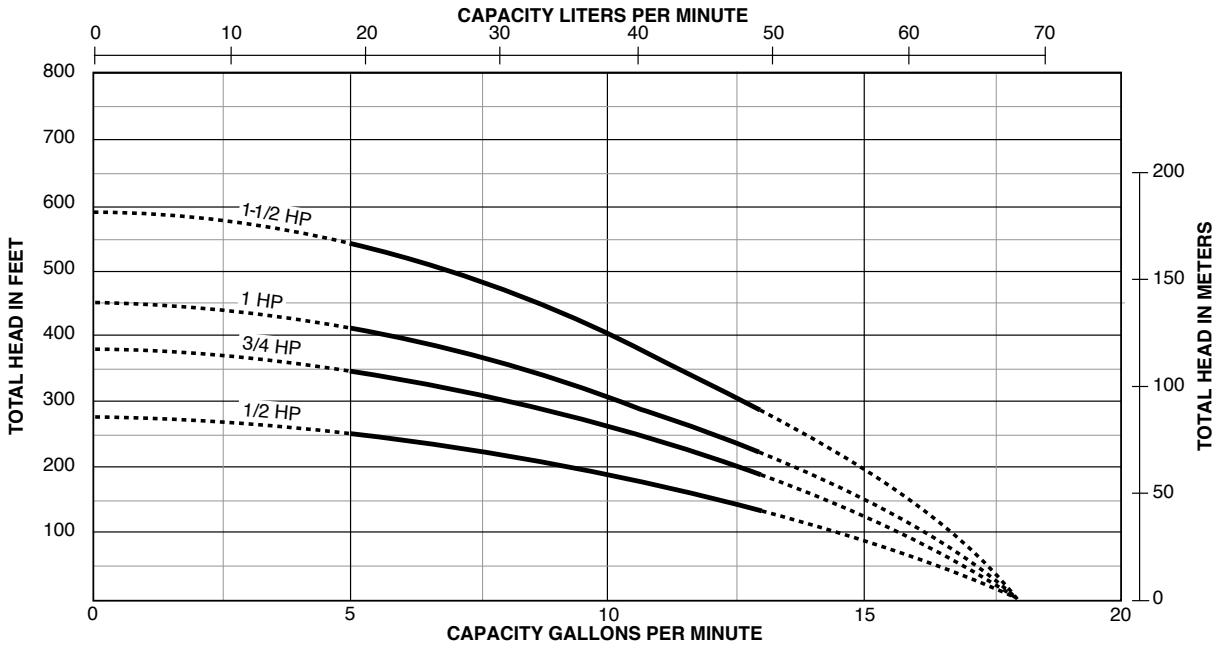
DISCHARGE	
10 GPM	1-1/4" NPT
15 GPM	1-1/4" NPT
20 GPM	1-1/4" NPT
30 GPM	1-1/4" NPT

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

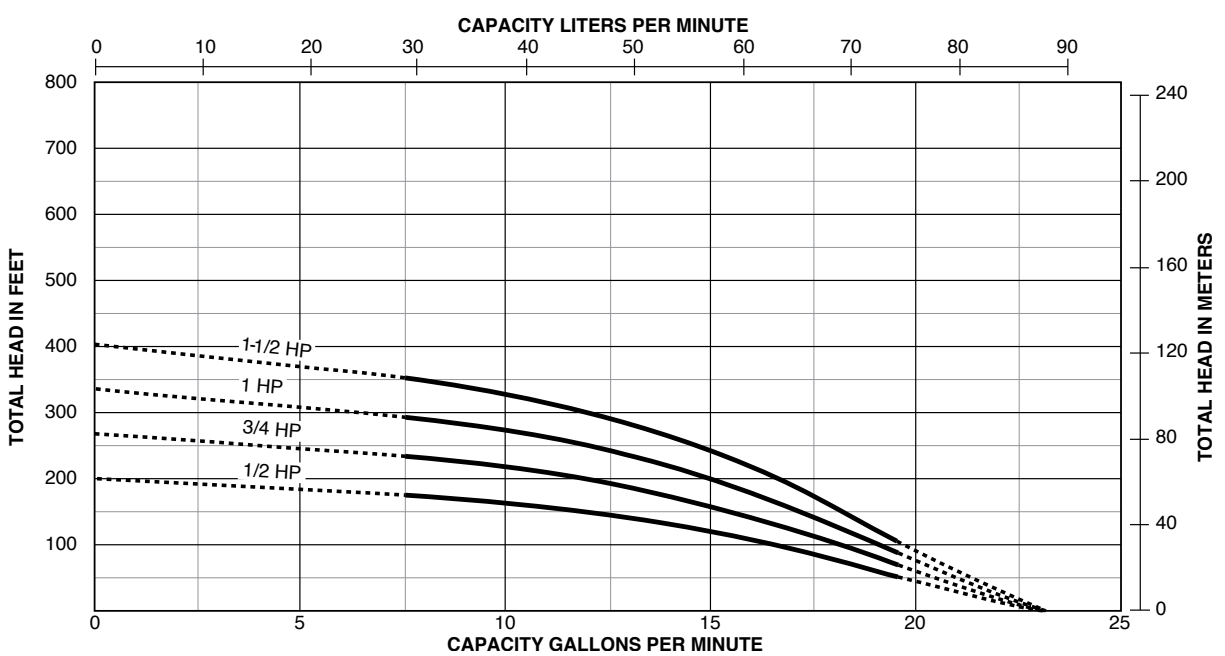
# STA-RITE® JP Series Signature 2000®

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## PUMP PERFORMANCE: 10 GPM



## PUMP PERFORMANCE: 15 GPM



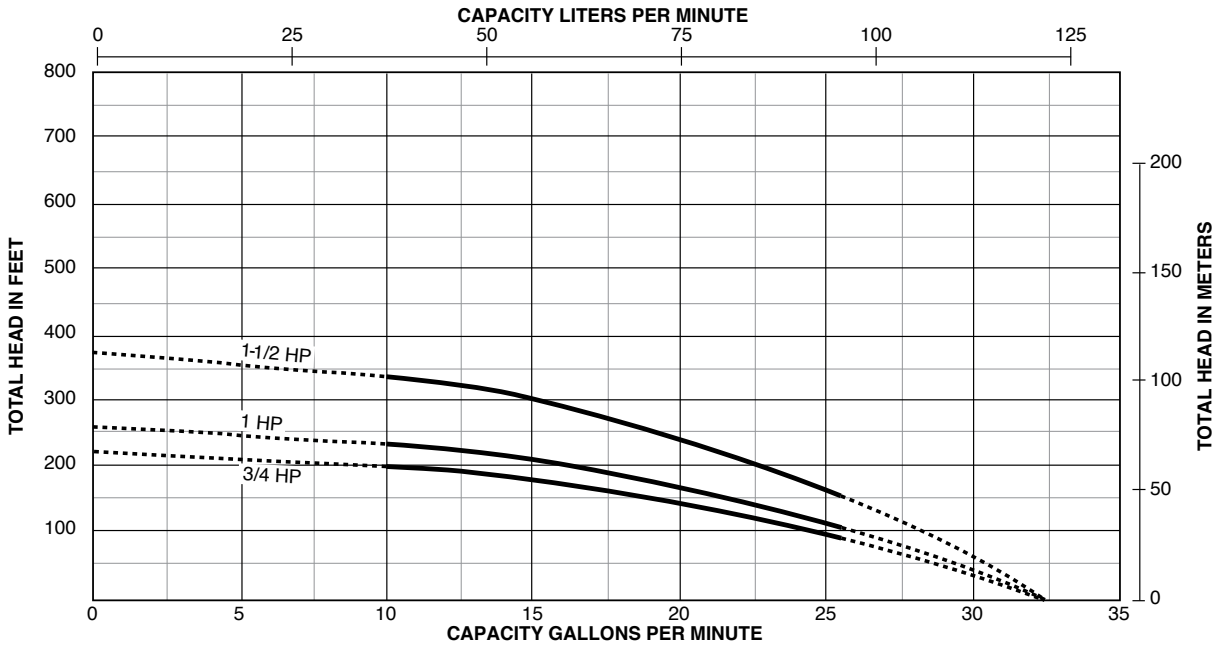
Tested and rated in accordance with Water Systems Council Standards.

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.

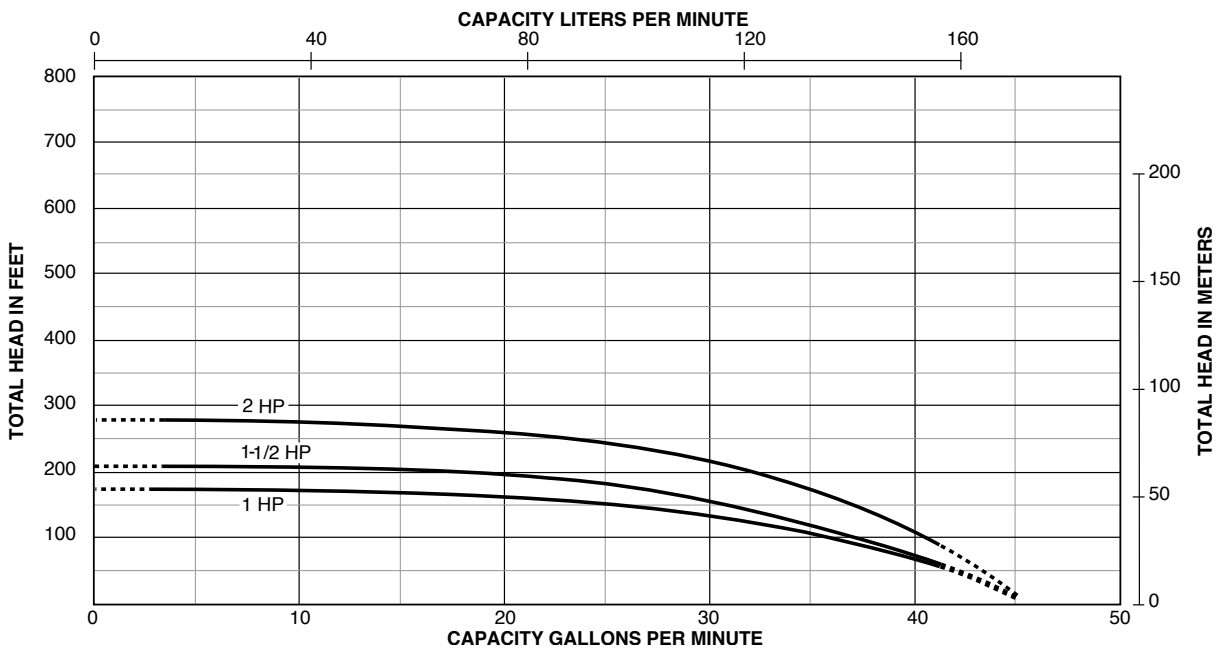
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## PUMP PERFORMANCE: 20 GPM



## 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.



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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.

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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.

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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										

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