



FLINT & WALLING

Irrigation Catalog

More pressure where you want it . . . When you need it!



95 N Oak Street

Kendallville, IN 46755

800-345-9422

flintandwalling.com



FLINT & WALLING

Irrigation Catalog

More pressure where you want it . . . When you need it!

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95 N Oak Street

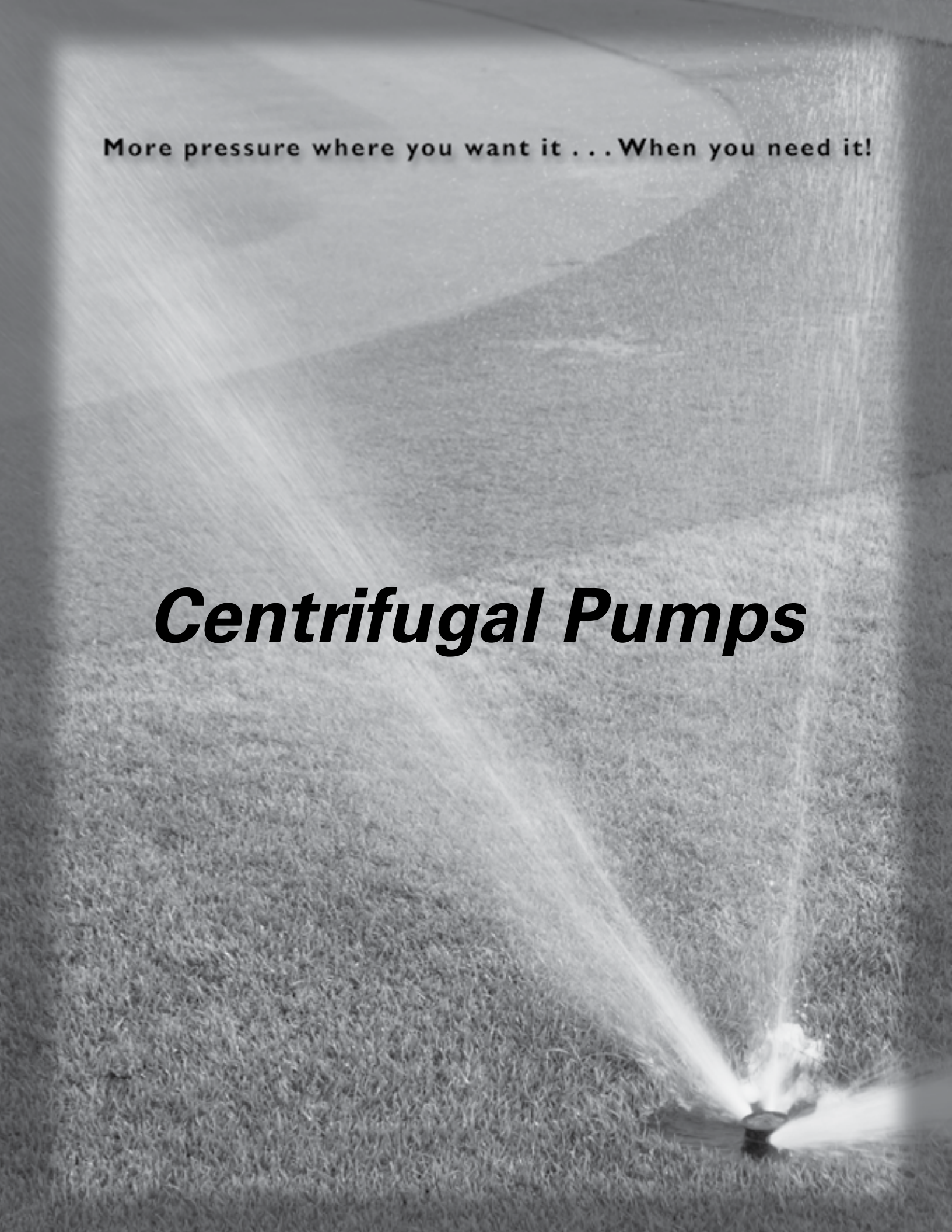
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More pressure where you want it . . . When you need it!

Centrifugal Pumps



Irrigation Pumps



City Water
Booster Pump



SPJ



CJ101

CJ103



C22000



FLINT & WALLING

We have all of your
irrigation pumping
needs covered.

FW1569 1115 Supersedes 1112



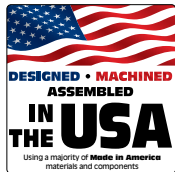
FLINT & WALLING

Zoeller Family of Water Solutions™

Lawn Sprinkling Pumps

SP SELF-PRIMING 1, 1-1/2 AND 2 HP LAWN SPRINKLING / IRRIGATION PUMPS

- Quick self-priming operation for lawn irrigation
- Flint & Walling's Service Plus motor featuring capacitor start and sealed ball bearings for continuous operation.
- Heavy-duty cast-iron construction
- 115/230 Dual voltage motor
- Easy access drain plug
- 2 in. suction pipe / 1-1/2 in. discharge pipe



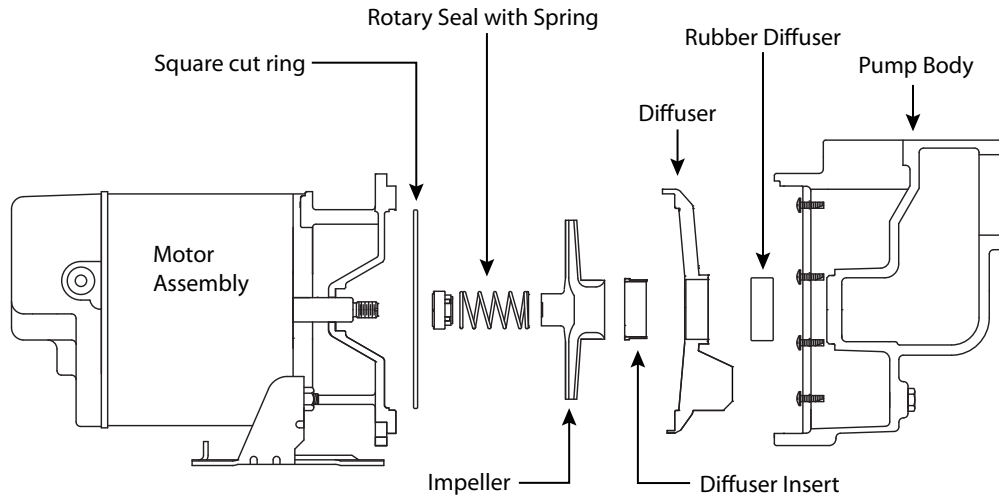
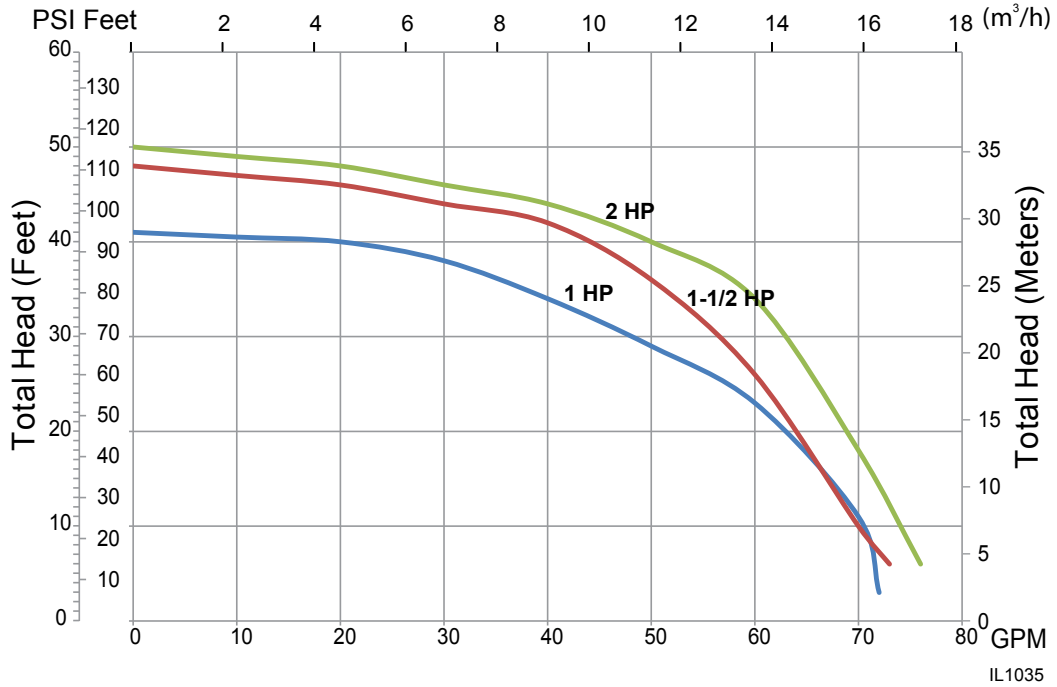
Model #	HP	Suction Lift (Ft.)	Discharge Pressure (PSI)							Shut Off Pressure @ 0 Lift (PSI)	Suction Pipe	Discharge Pipe
			15	20	25	30	35	40	45			
SP10P1	1	5	65	61	53	44	32			39	2 in.	1-1/2 in.
		10	64	58	49	39	24					
		15	62	55	45	34						
		20	59	51	41	28						
		25	56	46	36	2						
SP15P1	1-1/2	5	66	63	59	54	48	40	8	45	2 in.	1-1/2 in.
		10	64	61	57	52	45	28				
		15	63	60	55	49	41	15				
		20	62	58	53	46	32					
		25	60	56	50	42	21					
SP20P1	2	5	70	68	65	62	56	46	24	48	2 in.	1-1/2 in.
		10	69	66	63	60	52	39	6			
		15	68	65	62	57	47	27				
		20	67	64	60	53	41	13				
		25	65	62	58	48	30					

Max. Case Pressure: 100 PSI

Lawn Sprinkling Pumps



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For installation videos and other information, scan with your smart phone.



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LAWN SPRINKLER PUMPS

FW0075

0414

Supersedes

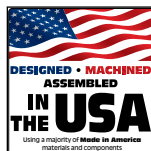
0210

SPJ Self-Priming

- High capacity, high volume
- Cast iron pump body and mounting ring for long life
- Flint & Walling's Service Plus NEMA J, capacitor start, double ball bearing motors for continuous operation
- Easy access drain plug
- Designed for lawn sprinkling, irrigation and more
- Rapid self-priming characteristics under maximum suction conditions

SPM Series

- High capacity, high pressure
- Large cast iron pump body ensures rapid priming
- JM frame industrial duty motor
- Self-adjusting, water-lubricated mechanical seal for maintenance free operation
- Designed for lawn and turf sprinkling, irrigation and water transfer
- Cast iron impeller for long life
- Built-in check valve facilitates priming and prevents backflow



SPJ SERIES
3/4 - 3 HP
Single or Three Phase



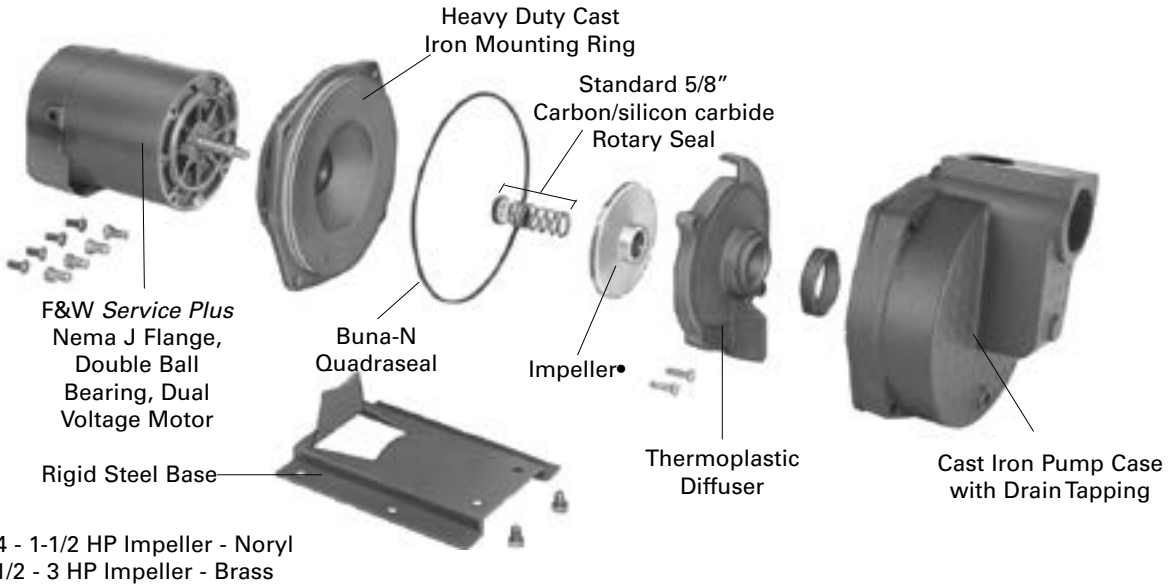
SPM SERIES High Head
3 and 5 HP
Single or Three Phase



FLINT & WALLING

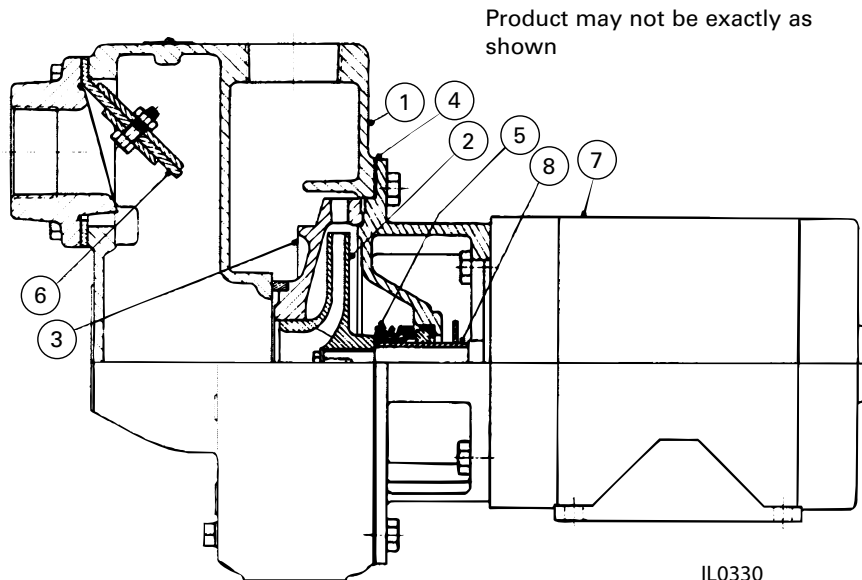
Zoeller Family of Water Solutions™

SPJ SELF-PRIMING 3/4 - 3 HP SINGLE OR THREE PHASE



SPM SERIES HIGH HEAD 3 HP and 5 HP, Single or 3 Phase

1. Housing - Cast iron ASTM 48 class 30
2. Impeller - Cast iron ASTM 48 Class 20, closed type, 6 vane
3. Diffuser - Cast iron ASTM 48 Class 20, 7 vane
4. Gasket - Red rubber
5. Seal - 1-1/4" Type 21 mechanical seal
6. Valve Gasket - Neoprene rubber, nylon fabric reinforced
7. Electric motor - JM Frame, industrial duty
8. Sleeve - Replaceable shaft sleeve, stainless steel type 304



SPJ SERIES PERFORMANCE



FLINT & WALLING

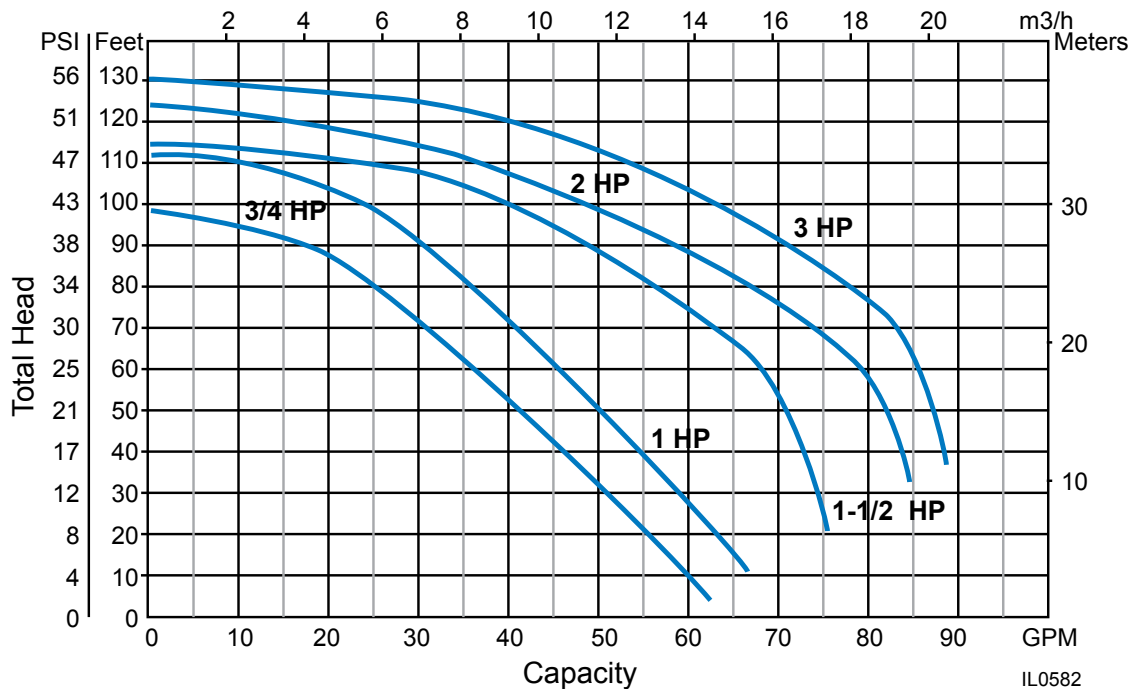
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SPECIFICATIONS

Model Number		HP	Suction Lift Ft.	Discharge Pressure PSI								Shut-Off Pressure PSI	Suction Pipe Tap	Disch. Pipe Tap
				10	15	20	25	30	35	40	45			
1 Phase	3 Phase			Capacity - U.S. Gallons per Minute										
SPJ07P1	SPJ07P3	3/4	5 15 25	56 47 43	48 42 37	42 37 31	37 29 22	29 22 10	21 12			41 37 33	2"	1-1/2"
SPJ10P1	SPJ10P3	1	5 15 25	58 53 48	53 48 44	48 45 38	43 37 33	38 31 25	32 24 14	23 12	11	48 43 39	2"	1-1/2"
SPJ15P1 SPJ15B1	SPJ15B3	1-1/2	5 15 25	78 70 47	77 68 46	74 66 45	70 62 44	62 53 42	53 43 34	43 30	30	47 41 36	2"	1-1/2"
SPJ20B1	SPJ20B3	2	5 15 25	86 76 52	84 74 51	81 72 50	77 69 47	71 64 45	62 55 42	52 43 30	40 25	50 45 40	2"	1-1/2"
SPJ30B1	SPJ30B3	3	5 15 25	88 77 54	86 76 53	85 75 52	84 74 51	80 72 49	73 65 45	64 55 45	53 43 10	54 50 45	2"	1-1/2"

Motor voltage: Single Phase 3/4 - 2 HP - 115/230V; 3 HP - 230V, 60Hz
 Three Phase 3/4 - 2 HP - 208 - 230/460V, 50/60Hz; 3 HP - 208 - 230/460V; 60Hz
 Maximum Case Pressure: 100 PSI

PERFORMANCE CURVE



IL0582

SPM SERIES PERFORMANCE



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PERFORMANCE SPECIFICATIONS

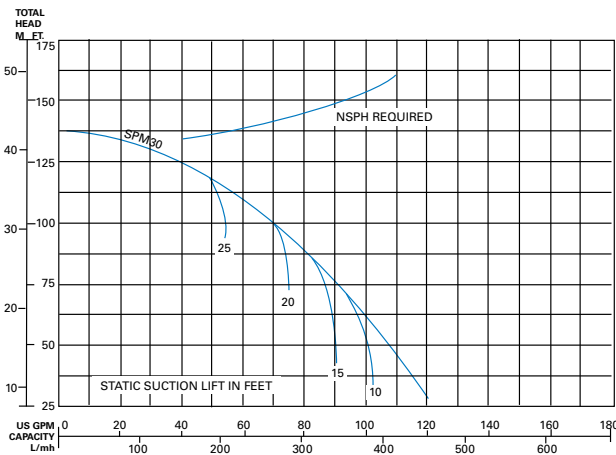
MODEL NUMBER		HP	SUCTION LIFT FT.	DISCHARGE PRESSURE -PSI						SHUT-OFF PRESSURE PSI	SUCTION PORT NPT.	DISCHARGE PORT NPT.
1 PH.	3 PH.			10	20	30	40	50	60			
SPM30A1	SPM30A3	3	5	120	118	91	72	47		57.3	2"	2"
			10	103	100	88	68	40		55.2		
			15	91	90	83	66	31		53.0		
			20	76	75	74	59	19		50.8		
			25	54	54	54	49			48.7		
SPM50A1	SPM50A3	5	5		158	141	123	104	81	72.5	2 1/2"	2"
			10		138	127	115	99	67	70.3		
			15		124	117	107	92	64	68.2		
			20		104	102	96	82	48	66.0		

Motor Voltage: Single Phase: 3 HP, 115/230V 60Hz; 5 HP 230V, 60Hz Three Phase; 3-5 HP, 208-230/460, 60Hz

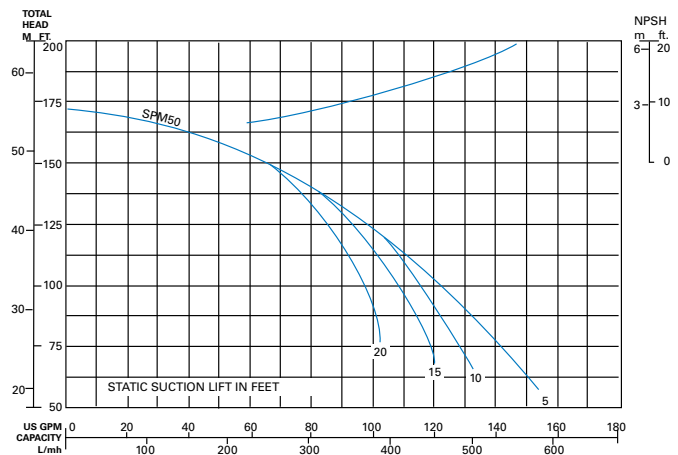
Maximum Case Pressure: 125 PSI

MODEL SPM30A1, 3 HP, 1 PH
MODEL SPM30A3, 3 HP, 3 PH

MODEL SPM50A1, 5 HP, 1 PH
MODEL SPM50A3, 5 HP, 3 PH



IL0353



IL0354



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FW0710

1115

Supersedes

0414

SPJ100 Lawn Sprinkler Pump

FEATURES AND BENEFITS

- Stainless steel pump body
- Includes 2 male garden hose adapters
- On/off switch
- One year limited warranty

APPLICATIONS

- Sprinkle lawns and gardens from lakes, ponds or rivers
- Remove standing water from flooded areas
- Empty or fill stock tanks

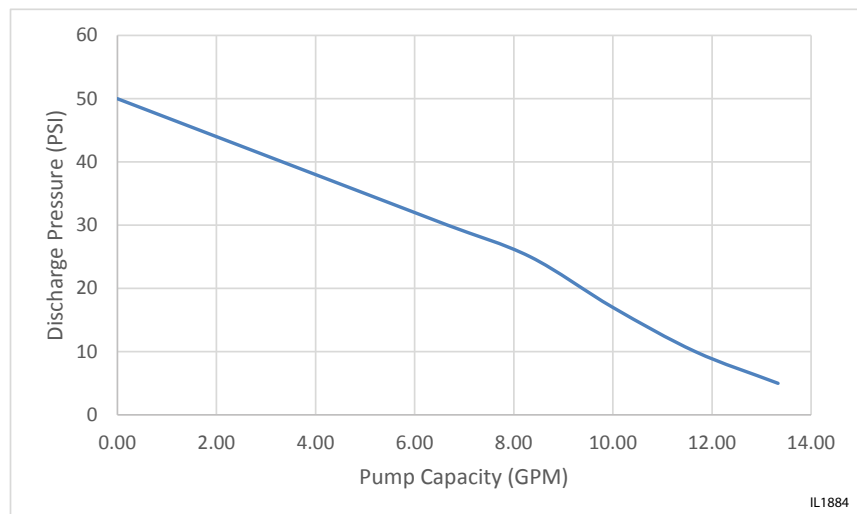


SPJ100
115V, 6.5 A, 1 PH, 60Hz, 1 HP

PERFORMANCE CHART

Lift Capacity	GPH
5 ft.	800
10 ft.	700
17 ft.	600
25 ft.	500
30 ft.	400
40 ft.	200
50 ft.	100

PERFORMANCE CURVE





FLINT & WALLING

Zoeller Family of Water Solutions™

FW0074

1015

Supersedes

0515

CENTRIFUGAL PUMPS

Model CJ101

- Low lead brass or thermoplastic impellers
- Capacities to 3,400 GPH.
- Pressures to 95 PSI.
- Multi-Stage for high head

Model CJ103

- Low lead brass or thermoplastic impellers.
- Capacities to 6,800 GPH.
- Pressures to 45 PSI.
- Discharge can be rotated to any one of four positions for horizontal or vertical positioning.

Featuring Flint & Walling's Service Plus Motor



100% FACTORY TESTED



Model CJ101

3/4, 1, 1-1/2, 2 and 3 HP sizes with single or three phase options

Some models not for sale in states following Proposition 65 and AB1953. Alternates are available.



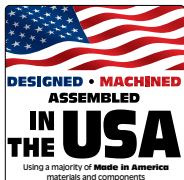
100% FACTORY TESTED



Model CJ103

1/3, 1/2, 3/4, 1, 1-1/2 and 2 HP sizes with single or three phase options

Some models not for sale in states following Proposition 65 and AB1953. Alternates are available.






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CENTRIFUGAL PUMPS

SUCTION LIFT TO 25 FEET - PRESSURES TO 95 PSI

Flint & Walling single and multi stage CJ103 and CJ101 Centrifugal pumps are non-self priming with suction lifts up to 25 feet. Applications include booster service, water circulation, liquid transfer, cooling systems, jockey pump service and general service in farm, commercial and industrial applications.

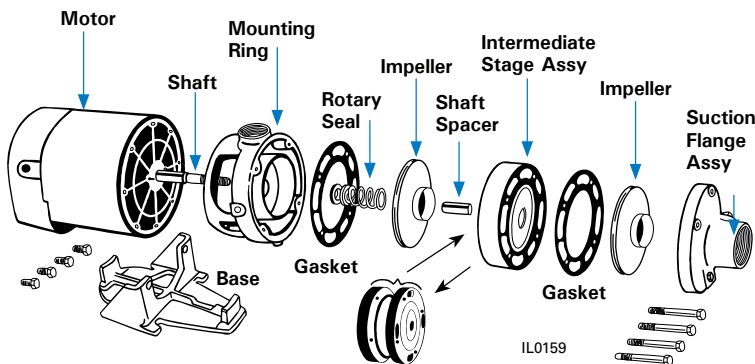
REF. NO.	COMPONENT DESCRIPTION	CJ103 SERIES 1/3 THRU 2 HP SINGLE STAGE MODELS	CJ101 SERIES 3/4 THRU 3 HP TWO & THREE STAGE MODELS
1	Suction Body	Cast iron w/low lead brass clearance ring. Discharge port rotates in 90° increments. 1/4" vacuum tappings and drain plugs.	Cast iron w/low lead brass clearance ring and 1/4" vacuum tapping.
2	Impeller(s)	Closed low lead brass or closed thermoplastic	Closed low lead brass or closed thermoplastic
3	Gasket(s)	Buna-N quadra seal	Lexide gasket, Buna-N quadra seal
4	Intermediate Stage(s)	Not applicable	Cast iron w/brass suction and hub clearance rings
5	Shaft Seal	Carbon-silicon carbide, stainless steel spring, and Buna-N	Carbon-silicon carbide, stainless steel spring, and Buna-N
6	Mounting Ring	Cast iron body	Cast iron body, 1/4" tapping for applications requiring a pressure switch
7	Pump Shaft	Threaded 416 stainless steel	Threaded 416 stainless steel
8	Base	Rigid steel base assembly	Heavy cast iron base assembly
9	Motor 	All pumps feature Flint & Walling's Service Plus 56 frame NEMA J, dual voltage ODP motors with permanently lubricated double ball bearing. Single or three phase options. TEFC motors available on selective models.	

Open Drip Proof (ODP) motor voltage

Single Phase: 1/3 thru 2 HP - 115/230V; 3 HP - 230V, 60HZ
 Three Phase: 1/2 thru 2 HP - 208-230V/460V, 50/60HZ
 3 HP - 208-230/460V; 60HZ

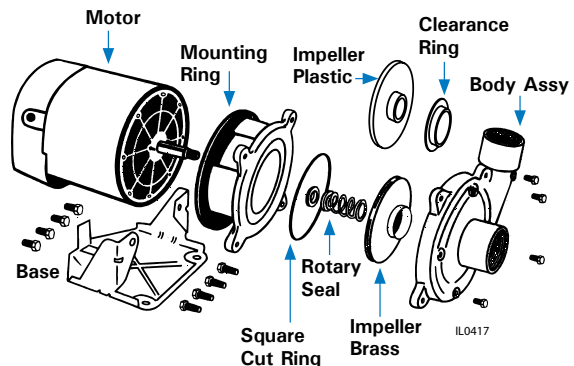
Totally Enclosed Fan Cooled (TEFC) motor voltage

Single Phase: 1/2 thru 3 HP - 115/230V 60/50HZ
 Three Phase: 1/2 thru 3 HP - 208-230/460V 60/50HZ



CJ101 SERIES

Product may not be exactly as shown.



CJ103 SERIES

CJ103 1/2, 3/4 and 1 HP series also available with autophoretic coating on inside of castings. Add suffix PC to Model No. Example: CJ103051PC.

CENTRIFUGAL PUMPS



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Pump Performance

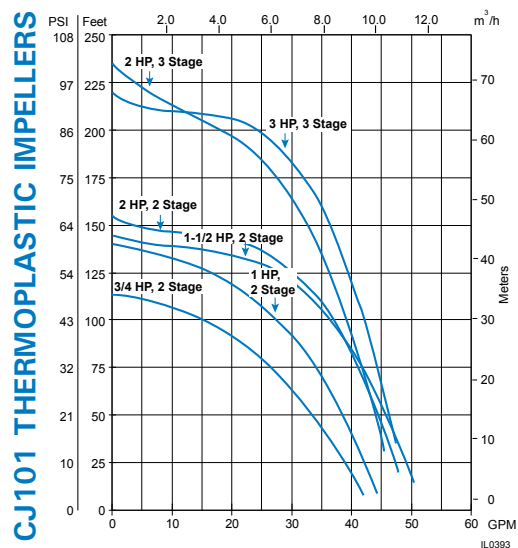
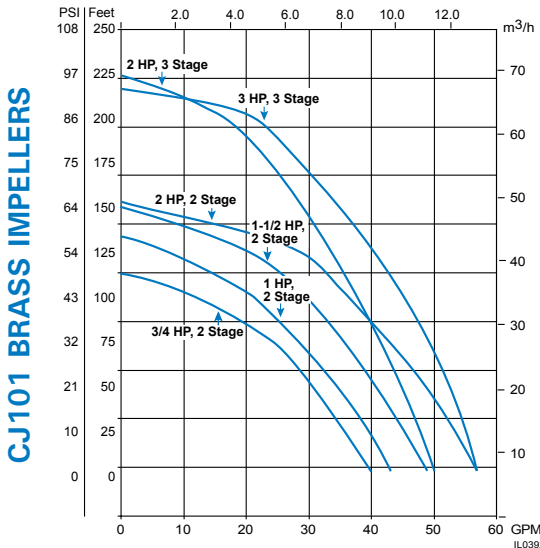
CJ101 SERIES CENTRIFUGAL PUMPS, LOW LEAD BRASS IMPELLERS

MODEL NO.		HP	STAGES	STAGES LIFT FT.	Discharge Pressure PSI										MAX. PRESS. PSI	▲MAX. CASE PRESS.	▲MAX. LIQUID TEMP.
1 PHASE	3 PHASE				10	20	30	40	50	60	70	80	90				
CAPACITY U.S. GPM																	
CJ101B071AB CJ101B071TAB	CJ101B073AB CJ101B073TAB	3/4	2	5	39	34	29	21	5					54	160psig	200° F	
				15	38	33	26	18									
				25	31	29	23	12									
CJ101B101AB CJ101B101TAB	CJ101B103AB CJ101B103TAB	1	2	5	42	38	33	26	18				62	160psig	200° F		
				15	40	36	31	24	14								
				25	32	31	28	21									
CJ101B151AB CJ101B151TAB	CJ101B153AB CJ101B153TAB	1 1/2	2	5	48	44	39	34	27	17			69	160psig	200° F		
				15	44	42	37	31	24	10							
				25	34	33	32	29	20								
CJ101B201AB CJ101B201TAB	CJ101B203AB CJ101B203TAB	2	2	5	56	52	47	41	34	24			70	160psig	200° F		
				15	50	49	45	39	31	19							
				25	37	36	35	34	27								
CJ101C201AB CJ101C201TAB	CJ101C203AB CJ101C203TAB	2	3	5	49	47	43	40	36	32	28	22	12	98	160psig	200° F	
				15	45	44	42	39	35	31	26	19					
				25	35	34	33	32	31	29	23	15					
CJ101C301AB CJ101C301TAB	CJ101C303AB CJ101C303TAB	3	3	5	56	54	51	48	44	39	33	27	18	95	160psig	200° F	
				15	50	49	48	46	42	37	31	24					
				25	37	36	36	35	34	33	29	20					

CJ101 SERIES CENTRIFUGAL PUMPS, PLASTIC IMPELLERS

MODEL NO.		HP	STAGES	STAGES LIFT FT.	Discharge Pressure PSI										MAX. PRESS. PSI	▲MAX. CASE PRESS.	▲MAX. LIQUID TEMP.
1 PHASE	3 PHASE				10	20	30	40	50	60	70	80	90				
CAPACITY U.S. GPM																	
CJ101P071	CJ101P073	3/4	2	5	41	35	28	20					49	160psig	160° F		
				15	38	32	26	13									
				25	32	29	22										
CJ101P101	CJ101P103	1	2	5	45	40	35	28	20			60	160psig	160° F			
				15	42	39	33	26	15								
				25	35	33	30	22									
CJ101P151	CJ101P153	1 1/2	2	5	54	50	44	38	28			61	160psig	160° F			
				15	48	46	42	35	23								
				25	37	35	33	28	17								
CJ101P201	CJ101P203	2	2	5	55	52	47	41	34	23		67	160psig	160° F			
				15	49	47	45	39	30	17							
				25	37	36	33	32	26								
CJ101D201	CJ101D203	2	3	5	44	44	44	41	37	32	28	22	16	101	160psig	160° F	
				15	36	36	36	36	35	30	25	20	11				
				25	26	26	24	24	24	22	20	15					
CJ101D301	CJ101D303	3	3	5	54	52	50	47	44	39	33	25	15	95	160psig	160° F	
				15	48	47	46	45	42	37	30	22	11				
				25	36	36	36	35	33	31	27	19					

▲Do not exceed the maximum case pressure and maximum liquid temperature rating of the pump
Performance shown for 60Hz models. 50 Hz models also available.
Suction and Discharge Tappings 1-1/2" X 1-1/4"



CENTRIFUGAL PUMPS



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CJ103 SERIES CENTRIFUGAL PUMPS, LOW LEAD BRASS IMPELLERS

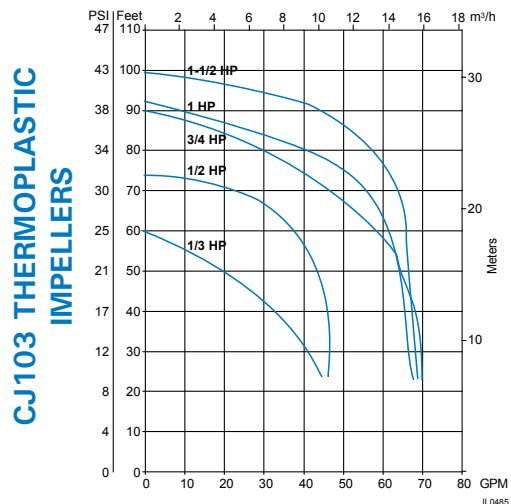
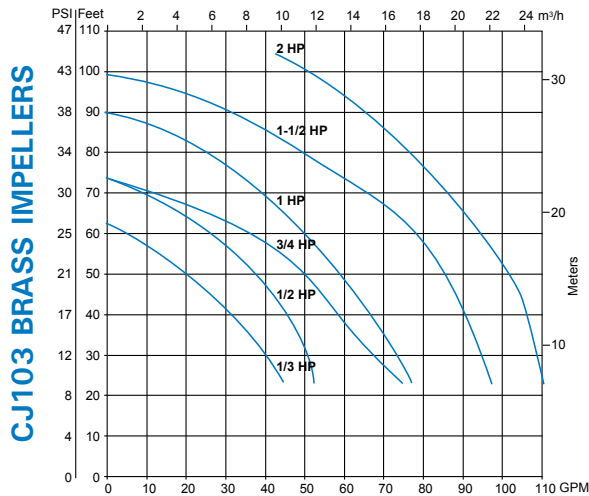
MODEL NO.		HP	STAGES	STAGES LIFT FT.	Discharge Pressure PSI										MAX. PRESS. PSI	▲MAX. CASE PRESS.	▲MAX. LIQUID TEMP.
1 PHASE	3 PHASE				10	15	20	25	30	35	40	45	50				
CAPACITY U.S. GPM																	
CJ103031 †		1/3	1	5	42	34	21								27	100psig	200° F
					15	36	26										
					25	28											
CJ103051 CJ103051T CJ103051AB † CJ103051TAB †	CJ103053 †	1/2	1	5	50	47	37	25							32	100psig	200° F
					15	43	40	29	9								
					25	33	30	15									
CJ103071 CJ103071T	CJ103073 CJ103073T	3/4	1	5	71	62	51	36	11						32	100psig	200° F
					15	66	54	40	19								
					25	57	43	25									
CJ103101 CJ103101T	CJ103103 CJ103103T	1	1	5	76	69	61	50	36	16					39	100psig	200° F
					15	73	65	54	41	24							
					25	66	57	45	29								
CJ103151 CJ103151T	CJ103153 CJ103153T	1 1/2	1	5	94	88	80	70	59	44	18				43	100psig	200° F
					15	92	85	75	63	49	27						
					25	74	72	66	52	34							
CJ103201 CJ103201T	CJ103203 CJ103203T	2	1	5	109	103	96	86	75	61	39				44	100psig	200° F
					15	109	103	94	82	67	45						
					25	90	89	85	71	51							

†Not for sale in states following Proposition 65 and AB1953. Alternates are available.

CJ103 SERIES CENTRIFUGAL PUMPS, PLASTIC IMPELLERS

MODEL NO.		HP	STAGES	STAGES LIFT FT.	Discharge Pressure PSI										MAX. PRESS. PSI	▲MAX. CASE PRESS.	▲MAX. LIQUID TEMP.
1 PHASE	3 PHASE				10	15	20	25	30	35	40	45	50				
CAPACITY U.S. GPM																	
CJ103P031		1/3	1	5	43	35	21								26	100psig	160° F
					15	35	24										
					25	26											
CJ103P051	CJ103P053	1/2	1	5	45	45	44	36	19						32	100psig	160° F
					15	41	41	38	24								
					25	31	29	27									
CJ103P071	CJ103P073	3/4	1	5	69	68	64	57	42	20					38	100psig	160° F
					15	64	62	57	46	28							
					25	49	48	45	31								
CJ103P101	CJ103P103	1	1	5	67	65	64	62	51	35					40	100psig	160° F
					15	61	59	58	55	41							
					25	47	46	45	43	23							
CJ103P151	CJ103P153	1 1/2	1	5	68	67	66	65	63	52	31				44	100psig	160° F
					15	62	61	60	59	55	39						
					25	48	47	46	45	41							

▲Do not exceed the maximum case pressure and maximum liquid temperature rating of the pump. Performance shown for 60Hz models. 50 Hz models also available. Models with suffix T denotes TEFC motor. All other models utilize ODP motors. Suction and Discharge Tappings 1-1/2" X 1-1/4"



Flint & Walling | 95 North Oak Street | Kendallville, IN 46755
800-345-9422 | www.flintandwalling.com



C22000 Series

FW0176
0414
Supersedes
0611

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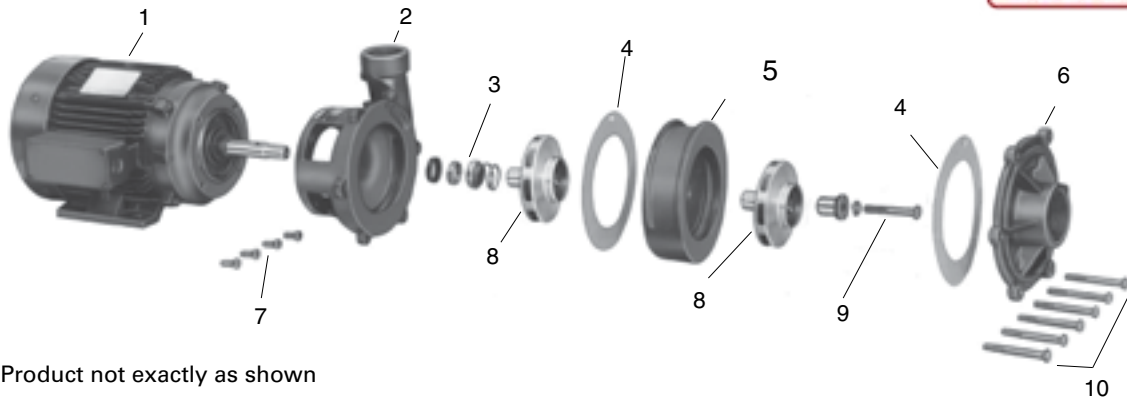
- The C22000 Series is a rugged pump built for extra performance.
- Nationally known NEMA JM motors.
- Electronically balanced brass impellers.
- Capacities to 8,580 gallons per hour.
- Pressures to 85 PSI
- 3" Suction

3 - 7-1/2 HP Single or Three Phase Single and Two Stage Centrifugal Pumps



For Extra Performance

100% FACTORY TESTED



Product not exactly as shown

Ref No.	Description
1	Heavy-duty NEMA JM motor 3, 5, 7-1/2 HP
2	Heavy duty cast iron mounting ring
3	1-1/4" Rotary seal
4	Gasket
5	Heavy duty cast iron Intermediate stage

Ref No.	Description
6	Heavy duty cast iron body
7	Motor mounting bolts
8	Electronically balanced brass impellers
9	Brass impeller retainer and stainless steel lockscrew
10	Pump through bolts

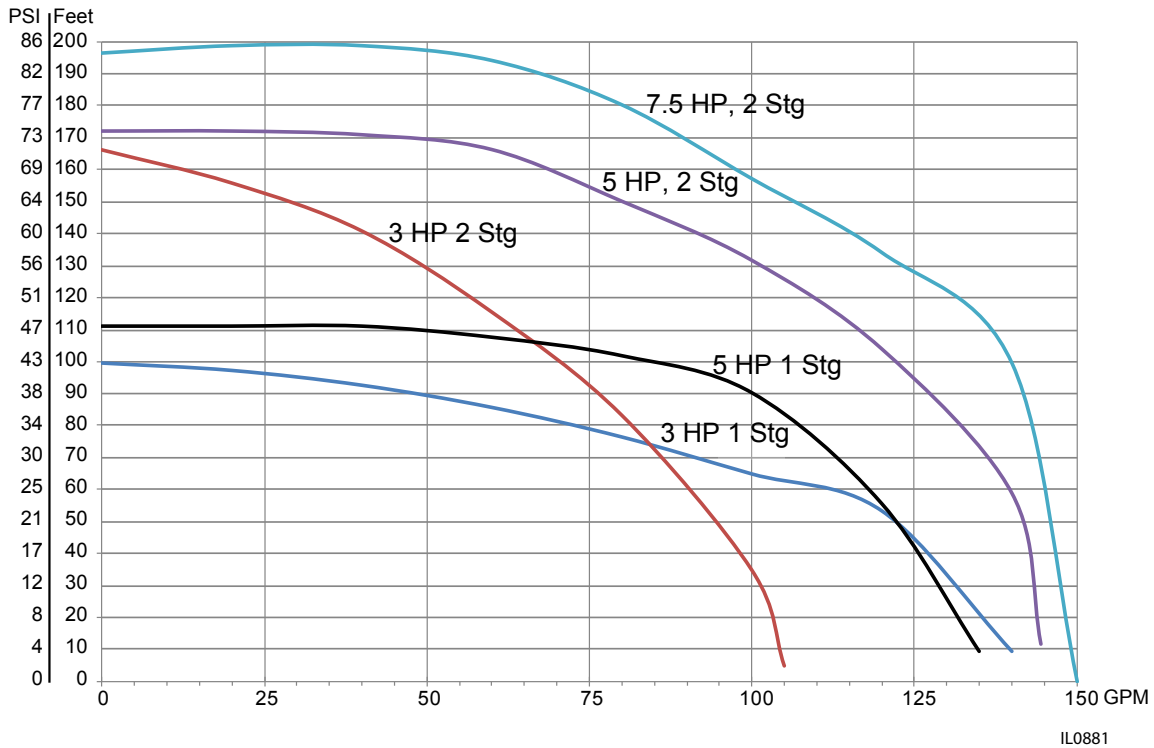
C22000 Series Performance



FLINT & WALLING
 Zoeller Family of Water Solutions™

MODEL NUMBER		HP	STAGES	DISCHARGE PRESSURES (PSI)							MAX SUCTION LIFT (FT)	SUCT PIPETAP (NPT)	DISCH PIPETAP (NPT)
1 PHASE	3 PHASE			20	30	40	50	60	70	80			
				CAPACITY - U.S. GALLONS PER MINUTE (0 LIFT)									
C22131	C22133	3	1	125	90	42					15	3	2
C22151	C22153	5	1	122	113	98					20	3	2
C22231	C22233	3	2	95	86	75	60	40	12		20	3	2
C22251	C22253	5	2	143	137	124	111	91	65		20	3	2
--	C22273	7 1/2	2	145	140	138	135	121	95	75	20	3	2

MOTOR VOLTAGE: 3HP 1 Phase 208-230V 60 Hz, 5HP 1 Phase 208-230V 60Hz, 3, 5 & 7.5HP 3 Phase 208-230/460V 60Hz.
 120 PSI Maximum Case Pressure



"C5" Series Heavy Duty Straight Centrifugal Pumps

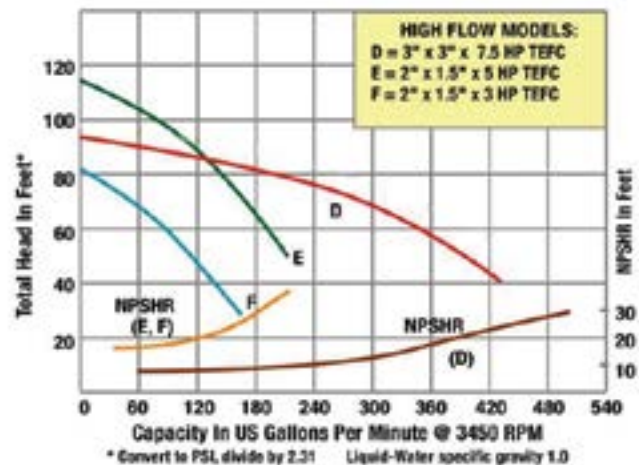
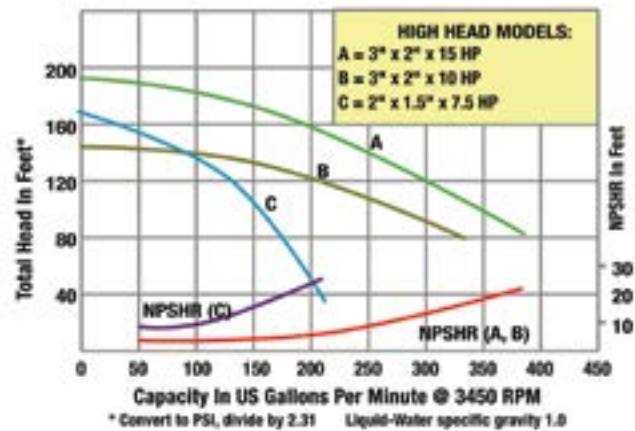
- Investment cast 316 stainless steel construction with Viton seals or cast iron construction with Buna seals
- Stainless steel impellers with solids handling capacity of 1/8 - 3/16".
- 3 HP to 15 HP NEMA JM motors, three phase TEFC
- High flow and high head designs
- Max. temperature
 - SS - Viton®: 200° F
 - CI - Buna N: 180° F
- Front drain plugs located 90° apart
- Max head 194 Ft. (100 PSI)
- Max flow 425 GPM
- Max working pressure 150 PSI



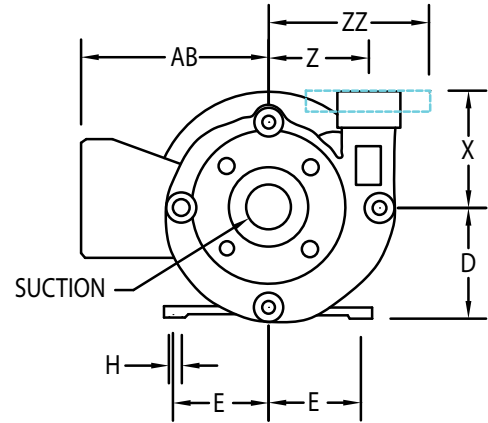
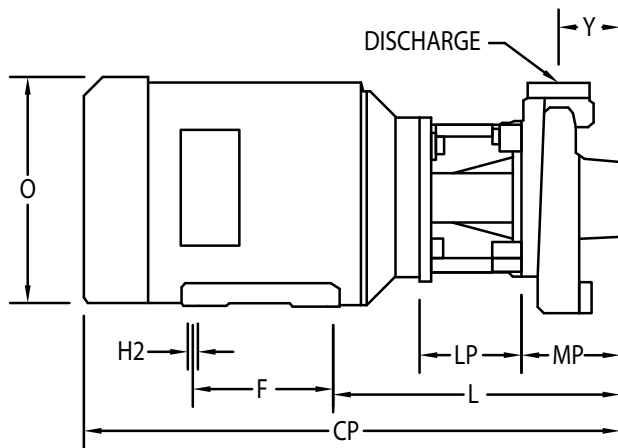
F&W Heavy Duty Straight Centrifugal pumps are suited for liquid transfer, heating and cooling, recirculation, booster service and other industrial applications. Applications include, but are not limited to cooling towers and car washes.

Stainless Steel units are especially effective in applications where rust and/or corrosion can develop in systems. Semi-open impeller features self-cleaning ability that makes the unit useful in applications involving muddy or dirty liquids as well as clean, clear fluids.

Discharge position can be adjusted in 90° increments with vent and drain plugs for all positions. Type 21 mechanical seal and O-ring casing seal. Pumps are close-coupled to totally enclosed fan cooled (TEFC) motors. **Pumps are not self-priming and require flooded suction.**



"C5" Series Heavy Duty Straight Centrifugal Pumps



IL1422

Pump Dimensional & Specification Chart

Model No. CI	Model No. SS	Curve	HP	PH	Frame	Encl	Voltage @ 60 Hz ±10%	Full Load Amps	S.F. Amp	Connect Type	Suct*	Disch*	AB**	CP**	D	E	F	H1	H2	L	LP	MP	O	X	Y	Z	ZZ	Ship Wt (Lbs.)	
																												CI	SS
C55A303T	C55S303T	F	3		182JM	TEFC	230/460	8/4	9/4.5	NPT	2"	1-1/2"	7.5	21.6	4.5	3.8	4.5	0.4	0.4	12.7	4.1	4.0	9.3	4.8	2.5	4.0	N/A	98	83
C55A503T	C55S503T	E	5		184JM			17/9	20/10		2"	1-1/2"	7.5	21.6	4.5	3.8	5.5	0.4	0.4	11.8	4.1	4.0	9.3	4.8	2.5	4.0		108	100
C57A753T	C57S753T	D	7.5	3	184JM			22/11	25/12.5		3"	3"	7.5	22.4	4.5	3.8	5.5	0.4	0.4	12.5	4.1	4.8	9.3	6.5	2.8	4.5		122	117
C55A753T	C55S753T	C	7.5		184JM			22/11	25/12.5		2"	1-1/2"	7.5	21.4	4.5	3.8	5.5	0.4	0.4	11.5	3.5	4.4	9.3	5.9	2.4	3.8		105	108
C56A1003T	C56S1003T	B	10		215JM			26/13	30/15		3"	2"	8.3	26.0	5.3	4.3	7.0	0.4	0.4	11.7	3.5	4.5	10.9	5.0	2.8	4.8		173	176
C56A1503T	C56S1503T	A	15	215JM	47/24			54/27	3"		2"	8.3	26.0	5.3	4.3	7.0	0.4	0.4	12.5	3.5	4.5	10.9	5.0	2.8	4.8	190		195	

(* Standard NPT (female) pipe thread.

(**) This dimension may vary due to motor manufacturer's specifications

(+) 3-Phase motors can also operate on 50 Hz. (This will change the Full Load Amps, Service Factor and RPM)

NOTE: Dimensions have a tolerance of ± 1/8"

NOTE: Electric supply for ALL motors must be within ± 10% of nameplate voltage rating (ex. 230V ± 10% = 207 to 253)

CI = Cast Iron Construction with SS Impeller and Buna N Seals, Max. Temperature 180° F

SS = All 316 Stainless Steel Construction with Viton® Seals, Max. Temperature 200° F

Standard Features

- Stainless steel and cast iron construction
- Buna N or Viton® mechanical seal and o-rings depending on model
- Stainless steel hardware
- NEMA TEFC three phase motors
- Self-cleaning stainless steel impeller
- Discharge rotates in 90° Increments
- Max. working pressure to 150 PSI
- Max. temperature:
 - SS - 200° F Viton®
 - CI - 180° F Buna N



FLINT & WALLING

Zoeller Family of Water Solutions™

Horizontal Jet Pumps

1/3 - 1-1/2 HP

The CPJ, CPH and EK models feature the famous Flint and Walling "Service Plus" motor, available in either NEMA J or Uni-frame flange construction. The F & W 56 frame, double ball bearing motor offers the ultimate in performance and dependability.

Designed for years of trouble-free operation and simple, on-site servicing, the CPJ and CPH feature unique interchangeability of replacement parts to keep inventories at a minimum.

The FJ Pump is designed for shallow wells with suction lifts from 0 - 25 ft. Featuring cast iron construction, the pump incorporates an integral shallow well ejector for ready use installation. The TEFC, permanent split capacitor motor is dual voltage (115/230V) with easy change voltage switch. This pump is quick to prime and features a NEMA Class C cover to protect the capacitor from moisture. The proven hydraulic pump design meets essential household water pressure demands.

CPJ ,CPH, EK AND FJ SERIES

Whether operating as a shallow well or deep well pump, count on F & W's versatile, powerful jet pumps to deliver more water at full city pressures.

These pumps provide higher single stage capacities and pressures; depths to 150 feet, capacities to 1800 GPH and as much as 90 pound pressure.



**CPJ
CONVERTIBLE**



**CPJS
CONVERTIBLE**



**CPH
CONVERTIBLE**



EK SHALLOW WELL



FJ SHALLOW WELL

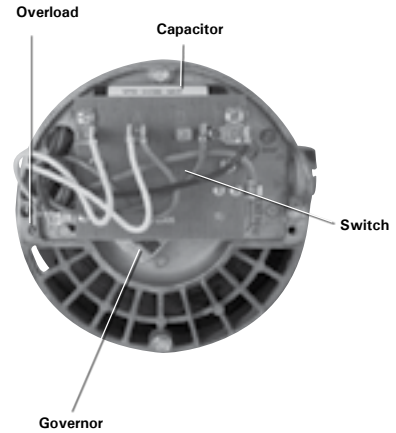
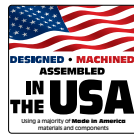
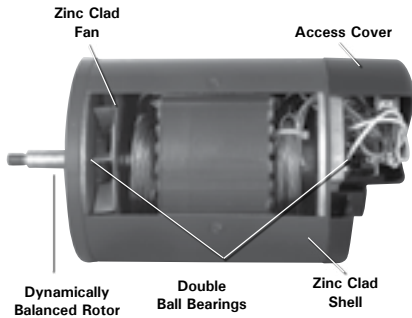


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Zoeller Family of Water Solutions™

Service Plus F&W Motors

Service Plus JET PUMP MOTORS



“Service Plus” means top reliability plus quick access to all electrical components.

Routine maintenance is simplified through the convenient mounting of electrical components. Removal of the rear access cover exposes components for fast replacement. Spade connectors enable quick hookup and voltage change.

Rear access cover directs ventilating air over the windings and bearings, and away from the switch mechanism. All electrical components are protected from dirt, dust and insects.

Quality-wound double insulated stator uses nylon over coated wire with an additional varnish dip to insure against moisture penetration. Class B wire insulation rated for 266°F.

Permanently lubricated ball bearings are located on each end of the motor insuring alignment of the dynamically balanced rotor for smooth operation and extended motor life.

Fully enclosed transfer switch mounted on a UL recognized thermo-set plastic board utilizes spark quenching and extra large silver cadmium oxide contact points.

Patented governor features an advanced simplified design, using a stainless steel compression spring to insure proper motor RPM before switching from start to run windings.

Zinc clad steel shell and cooling fan resist corrosion and dissipate motor heat.

Automatic overload senses both start and run winding heat to ensure complete winding protection.

“Service Plus” motors are manufactured by Flint & Walling, Inc. in Kendallville, IN, USA—An industry exclusive among jet pump manufacturers.



EK, CPJ, CPH PRODUCT FEATURES

High tensile gray iron pump bodies with large water cavities for fast, easy priming. Separate priming ports enable quick water fill and the fast evacuation of air. Separate 1/4" tapings are provided for the convenient mounting of pressure/vacuum gauges and the pressure switch, and for pump draining.

Buna-n Quadraseal is reusable and provides a positive seal between the pump case and motor bracket.

Molded diffusers are corrosion and abrasion resistant, and provide precision alignment with the impeller for maximum performance. The snap-in diffuser design uses no bolts and is held in place by compression.

Molded thermoplastic impellers on 1/3 thru 1 HP CPJ, CPH, and EK models. Precision balanced, these impellers are ultra-smooth for high efficiency. 1-1/2 HP CPJ models feature brass impellers.

All pipe plugs and priming plugs are coated with a non-hardening, non-toxic, non-corrosive material which allows for easy removal even after the pump has been in service for years.

Standard shaft seal with silicon carbide face is self-adjusting throughout the seal life. One size fits all models.

Patented uni-frame motor bracket used on CPH and EK models is unique to the water systems industry and is designed to accept any NEMA J motor if motor replacement is ever necessary.

Automatic overload senses both start and run winding heat to ensure complete winding protection.

CPJ models feature NEMA J motors. All motors are dual voltage, capacitor start with automatic thermal overload protection.

1/3 and 1/2 HP CPJ SERIES



CPJS SHALLOW WELL
Includes: Pump, Motor, Pressure Switch and Shallow Well Ejector.



CPJ CONVERTIBLE
Includes: Pump, Motor, Pressure Switch and Flow Control Screw. Order Ejector and Pressure Gauge Separately.

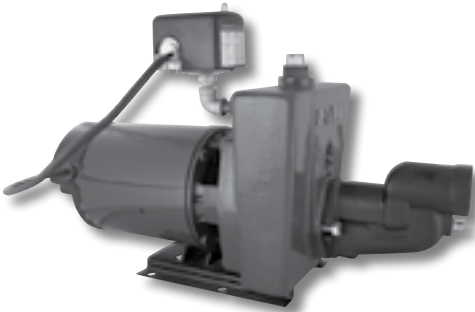


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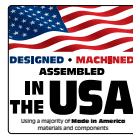
CPJ and CPH Series Jet Pumps

3/4, 1 and 1-1/2 HP CPJ SERIES



CPJS SHALLOW WELL

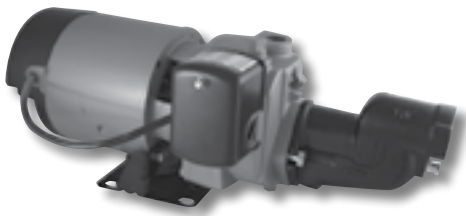
Includes: pump, motor, pressure switch and shallow well ejector.



CPJ CONVERTIBLE

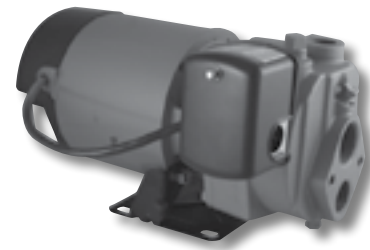
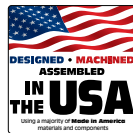
Includes: pump, motor, pressure switch and pressure regulator. Order ejector and pressure gauge separately.

1/2, 3/4 and 1 HP CPH SERIES



CPH SHALLOW WELL

Available in 1/2, 3/4 and 1 HP. Includes: pump, motor, pressure switch and shallow well ejector.



CPH CONVERTIBLE

Available in 1/2, 3/4 and 1 HP. Includes: pump, motor and pressure switch. Order ejector, control package and pressure gauge separately. *Add "R" to end of model number to include 134349 control package with pump.



134349 Control Package*

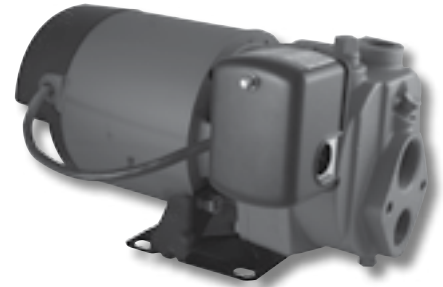
Order Separately for Deep Well Applications.

EK Series Jet Pumps



100% FACTORY TESTED

**DESIGNED • MACHINED
ASSEMBLED
IN THE USA**
Using a majority of Made in America materials and components



EKS SHALLOW WELL JET PUMP

Includes: Pump, Motor, Pressure Switch and Ejector.

Product may not be exactly as shown

EK CONVERTIBLE JET PUMP

Includes: Pump, Motor and Pressure Switch. Purchase ejector separately.

EKS SHALLOW WELL CAPACITIES

Model	HP	Suction Lift. Ft.	DISCHARGE PRESSURES (PSI)				Shut Off Pressure @ 0 Lift (PSI)	Suction & Discharge	Pressure Switch Setting - PSI	Pump Shipping Weight
			20	30	40	50				
CAPACITY - U.S. GALLONS PER MINUTE										
EK05S	1/2	5	10.5	9.5	5.8	4.0	60	1-1/4" x 3/4"	20-40	40
		15	7.6	7.3	4.5	2.5				
		25	4.5	4.2	3.5	2.0				
EK07S	3/4	5	15.5	15.0	10.0	5.8	65	1-1/4" x 3/4"	30-50	41
		15	11.9	11.7	9.1	3.8				
		25	6.0	5.8	5.2	2.0				
EK10S	1	5	20.0	20.0	19.5	18.3	65	1-1/4" x 1"	30-50	51
		15	15.8	15.5	15.0	14.5	60			
		25	10.0	9.7	9.5	9.0	55			

Maximum Pump Case Pressure = 150 PSI

EK DEEP WELL CAPACITIES

Pump Model No. and Motor HP	Ejector Model No.	Discharge Pressure	Shallow Well Ejector		Deep Well Ejector in 4" ID well or Larger										DW Minimum Operating Pressure PSI		
			Vertical Distance to Water in Feet														
			5	15	25	20	30	40	50	60	70	80	90	100		110	
Capacity - US Gallons Per Minute																	
EK05* 1/2 HP	SW03E-1626	20 40	11.3 9.5	8.7 7.8	5.3 5.2												--
	DW40E-1726	20 40				10.8 6.0	8.3 4.7	7.0 3.8									20
	DW40E-1622	20 40					7.0 4.3	6.2 3.5	5.5 3.0	4.7 2.3							24
EK07* 3/4 HP	SW05E-1630	30 50	17.0 10.0	12.9 8.0	7.8 5.5												
	DW40E-1730	30 50				12.5 5.5	10.8 3.7	8.7 2.0									
	DW40E-1828	30 50				11.2 6.7	10.8 5.5	8.8 3.8	7.2 2.3	5.0 1.0							
	DW40E-1622	30 50					6.7 4.3	6.0 3.8	5.3 3.3	4.3 2.5	3.3 1.7	2.5 1.0					
EK10** 1 HP	SW07E-1432	30 50	19.5 18.0	15.2 14.2	9.5 8.8												--
	DW40E-1630	30 50				16.7 12.5	14.2 8.3	12.2 5.0	8.3 2.5								35-37
	DW40E-1726	30 50				11.7 9.2	11.7 9.2	11.5 8.2	10.3 7.0	9.0 5.7	7.7 4.3	6.2 3.2	4.8 1.7				37-39
	DW40E-1520	30 50										5.0 3.7	4.8 3.3	4.3 3.0	3.7 2.7		39

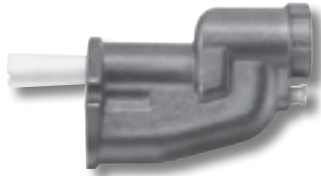
Maximum Pump Case Pressure = 150 PSI, Suction & pressure pipe tapping 1-1/4" x 1", *Discharge 3/4", **Discharge 1" -- reduced pipe sizes will result in lower than published performance.



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Zoeller Family of Water Solutions™

CPJS, CPHS, CPJ and CPH Shallow Well Capacities



CPJS AND CPHS MODEL SHALLOW WELL PERFORMANCE WITH SHALLOW WELL EJECTORS

Model No.	HP	Ejector* Assembly	Suction Lift Ft.	DISCHARGE PRESSURES (PSI)					Suction & Discharge	Pressure Switch Setting	Shut Off Pressure PSI	Pump Shipping Weight
				20	30	40	50	60				
				CAPACITY - U.S. GALLONS PER MINUTE								
CPJ03SB	1/3	SW03E-1626	5	11.3	10.7	9.5	6.7		1-1/4" X 3/4"	30-50	74	49
			15	8.7	8.5	7.8	5.3					
			25	5.3	5.3	5.2	4.2					
CPJ05SB CPH05S	1/2	SW05E-1630	5	17.2	16.8	14.8	10.0		1-1/4" X 3/4"	30-50	69	50
			15	12.8	12.7	12.2	7.7					
			25	7.7	7.5	7.2	5.3					
CPJ07SB CPH07S	3/4	SW07E-1432	5	19.8	19.5	19.2	18.0		1-1/4" X 1"	30-50	65	58
			15	15.5	15.2	14.8	14.2					
			25	9.8	9.5	9.3	8.8					
CPJ10SB CPH10S	1	SW10E-1334	5	23.7	23.5	23.3	23.0		1-1/4" X 1"	30-50	70	62
			15	18.3	18.3	18.2	18.0					
			25	11.7	11.7	11.5	11.3					
CPJ15S	1-1/2	SW15E-1238	5	30.0	29.8	29.8	29.8	23.3	1-1/4" X 1"	30-50	77	72
			15	24.0	23.8	23.7	23.5	18.7				
			25	15.0	15.0	15.0	14.8	8.0				

* Ejector assembly included
Maximum Pump Case Pressure = 150 PSI



DW40E Ejector

NOTE: The DW40E ejector can be bolted to the pump as a shallow well ejector or submerged in casing as a convertible "deep well" ejector.

CPJ AND CPH MODEL SHALLOW WELL CAPACITIES WITH CONVERTIBLE EJECTOR

Model No.	HP	Ejector Assembly	Suct. Lift Ft.	DISCHARGE PRESSURES (PSI)								Suction & Discharge	Pressure Switch Setting	Shut Off Pressure PSI	Pump Ship Weight
				20	30	40	50	60	70	80	90				
				CAPACITY - U.S. GALLONS PER MINUTE											
CPJ05B CPH05 CPH05R†	1/2	DW40E-1730	5	14.8	14.5	13.2	10.0	6.7				1-1/4" X 3/4"	30-50	76	46
			15	11.8	11.3	11.2	8.3	5.0							
			25	7.3	7.2	7.0	6.5	3.3							
		DW40E-1828	5	12.0	11.5	11.3	10.2	7.8	5.0			1-1/4" X 3/4"	30-50	90	
			15	9.0	8.8	8.7	8.5	6.7	4.2						
			25	5.3	5.3	5.2	5.2	5.0	3.3						
CPJ07B CPH07 CPH07R†	3/4	DW40E-1630	5	16.0	15.7	15.5	15.0	10.3				1-1/4" X 1"	30-50	75	56
			15	12.5	12.3	12.3	12.2	7.0							
			25	8.3	8.3	8.2	8.0	4.2							
		DW40E-1726	5	10.2	10.0	9.7	9.5	9.3	9.2	7.5	5.7	1-1/4" X 1"	30-50	120	
			15	8.0	7.5	7.3	7.3	7.2	7.2	6.7	5.0				
			25	4.8	4.7	4.5	4.3	4.2	4.2	4.2	3.3				
CPJ10B CPH10 CPH10R†	1	DW40E-1634	5	20.8	20.8	20.5	20.3	15.8				1-1/4" X 1"	30-50	80	58
			15	16.7	16.7	16.3	16.2	13.0							
			25	11.7	11.5	11.3	11.2	9.3							
		DW40E-1828	5	12.2	11.7	11.7	11.3	11.2	11.2	10.8	8.0	1-1/4" x 1"	30-50	125	
			15	9.5	9.2	9.0	8.8	8.8	8.8	8.7	6.7				
			25	5.7	5.5	5.3	5.2	5.0	5.0	5.0	5.0				
CPJ15	1-1/2	DW40E-1736	5	23.8	23.3	23.3	23.0	18.7	13.8	8.3		1-1/4" x 1"	30-50	93	66
			15	18.0	17.8	17.5	17.3	16.3	11.7	6.0					
			25	11.0	10.7	10.7	10.5	10.3	8.3	2.0					

† "R" models include pressure switch and 134349 control package. Order ejector separately.
Maximum Pump Case Pressure = 150 PSI

CPJ and CPH Deep Well Capacities



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DW40E* CAST IRON TWO PIPE CONV. EJECTOR

CPJ AND CPH MODEL DEEP WELL CAPACITIES WITH TWO-PIPE CONVERTIBLE EJECTOR

Model No.	HP	Ejector Assembly	Min. Oper. Press.	Disch. Press. PSI	Vertical Distance to Water in Feet														Press. Switch Setting	Pump Ship Wt.		
					20	30	40	50	60	70	80	90	100	110	120	130	140					
					CAPACITY - U.S. GALLONS PER MINUTE																	
CPJ05B CPH05	1/2	DW40E-1730	25	30 50 Shut Off	12.5 5.5 67	10.8 3.7 63	8.7 2.0 57												30-50	46 38		
		DW40E-1828	25-28	30 50 Shut Off	11.2 6.7 75	10.8 5.5 69	8.8 3.8 64	7.2 2.3 59	5.0 0.8 54										30-50			
		DW40E-1622	30	30 50 Shut Off			6.7 4.3 91	6.0 3.3 86	5.3 1.7 80	4.3 2.5 74	3.3 1.7 68	2.5 0.8 60									30-50	
CPJ07B CPH07	3/4	DW40E-1630	35-37	30 50 Shut Off	16.7 12.5 75	14.2 8.3 70	12.2 5.0 65	8.3 2.5 59												30-50	56	
		DW40E-1726	37-39	30 50 Shut Off	11.7 9.2 98	11.7 9.2 91	11.5 8.21 86	10.3 7.0 80	9.0 5.7 74	7.7 4.3 69	6.2 3.2 65	4.8 1.7 58								30-50		
		DW40E-1520	39	30 50 Shut Off							5.0 3.7 105	4.8 3.3 95	4.3 3.0 90	3.7 2.7 85	3.2 2.0 80	2.7 1.8 75				30-50		
CPJ10B CPH10	1	DW40E-1634	46	30 50 Shut Off	19.2 10.0 71	15.0 7.5 66	11.7 5.0 62	8.3 2.5 57												30-50	58 49	
		DW40E-1828	46-47	30 50 Shut Off	13.0 12.0 110	13.0 12.0 105	12.8 10.8 99	12.5 9.5 93	10.5 7.8 87	9.0 6.2 81	7.5 5.0 76	5.8 3.5 70	4.0 2.0 64							30-50		
		DW40E-1520	46-47	30 50 Shut Off							5.5 5.2 130	5.5 4.7 123	5.0 4.2 117	4.5 3.7 110	3.8 3.2 104	3.5 2.7 98	2.7 2.2 92					30-50
CPJ15	1-1/2	DW40E-1736	46-52	30 50 Shut Off	21.7 15.0 80	17.5 11.7 76	13.3 8.3 71	10.0 5.0 60	6.7 2.7 60											30-50	66	
		DW40E-1728	50-53	30 50 Shut Off			12.8 11.7 105	12.5 9.5 98	10.7 7.8 92	9.0 7.7 87	7.7 6.7 82	6.2 5.0 77	5.0 3.3 72	3.5 2.5 65								30-50
		DW40E-1520	52-54	30 50 Shut Off							5.3 5.2 135	5.3 5.0 128	5.2 4.7 123	4.5 4.2 118	4.3 3.8 112	3.8 3.3 105	3.3 2.8 100					30-50

Maximum Pump Case Pressure = 150 PSI
* Suction & pressure pipe tapping 1-1/4" x 1"

CPJ AND CPH MODEL DEEP WELL CAPACITIES WITH 2" SINGLE PIPE EJECTOR



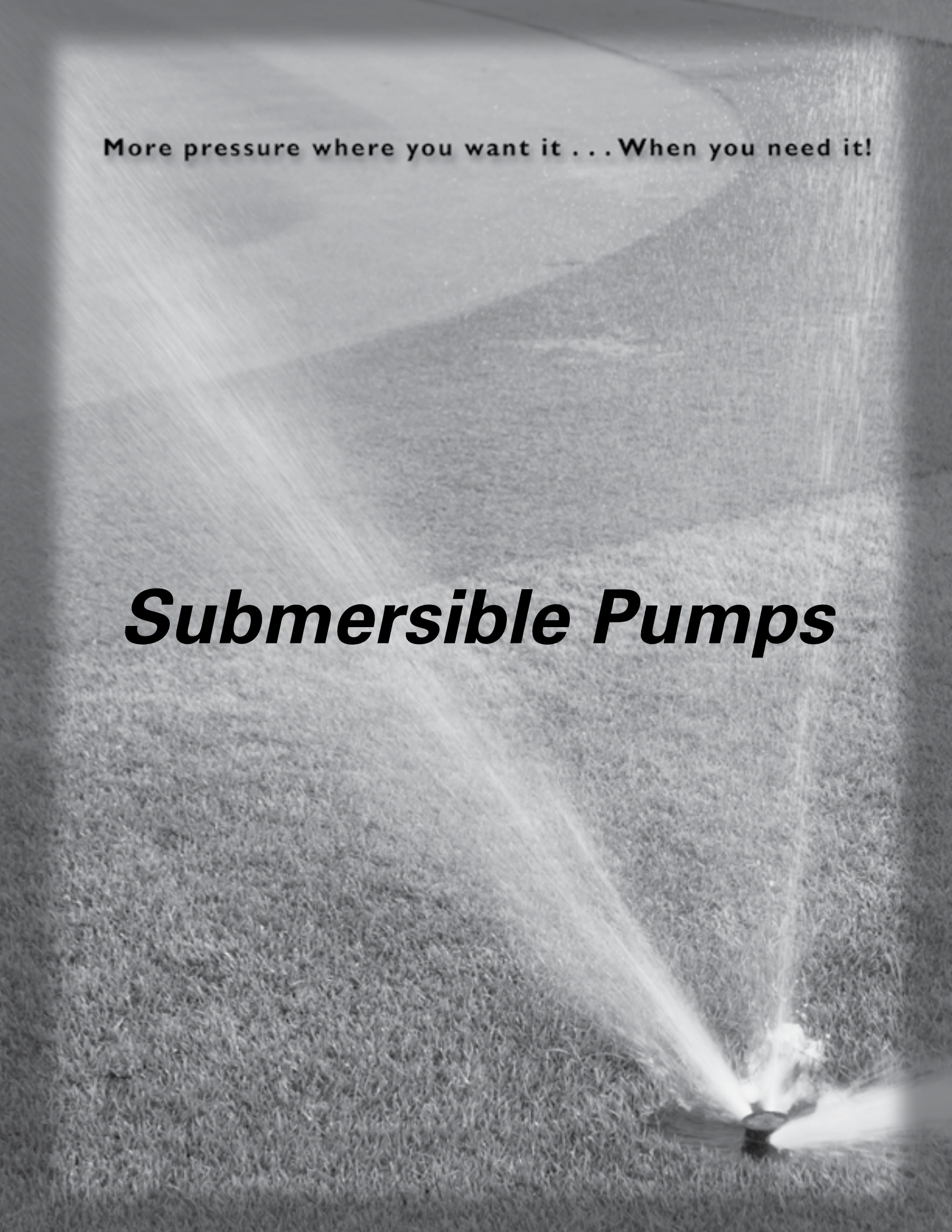
TWO INCH SINGLE PIPE EJECTOR

Model No.	HP	Ejector Assembly	Min. Oper. Press.	Disch. Press. PSI	Vertical Distance to Water in Feet														Press. Switch Setting	Pump Ship Wt.		
					20	30	40	50	60	70	80	90	100	110	120	130	140	150				
					CAPACITY - U.S. GALLONS PER MINUTE																	
CPJ05B CPH05	1/2	SP20BL-1730†	27	30 50 Shut Off	10.8 5.0 65	9.2 3.3 60	7.5 1.7 55													30-50	46 38	
		SP20BL-1828†	27-30	30 50 Shut Off	11.7 6.7 76	9.7 4.7 68	7.5 2.8 60	5.8 1.2 55	3.8 51											30-50		
		SP20BL-1622†	31	30 50 Shut Off			6.2 4.2 90	5.8 3.7 83	5.0 2.8 76	4.0 2.2 70	3.3 1.3 61	2.3 0.3 55										30-50
CPJ07B CPH07	3/4	SP20BL-1630†	39	30 50 Shut Off	16.2 11.7 75	13.7 7.5 70	10.8 5.0 65	7.5 1.7 55													30-50	56
		SP20BL-1726†	39	30 50 Shut Off	11.0 8.3 91	11.0 7.5 87	9.7 6.7 82	9.5 5.3 78	7.2 4.2 72	5.8 2.8 66	3.3 1.8 62									30-50		
		SP20BL-1520†	40	30 50 Shut Off					5.3 4.2 108	5.0 3.8 100	4.5 3.3 92	3.8 2.7 84	3.3 2.2 77	2.8 1.7 70							30-50	
CPJ10B CPH10	1	SP20BL-1634†	44-47	30 50 Shut Off	16.7 10.0 71	15.0 7.5 66	11.7 4.7 61	8.3 2.0 55													30-50	49
		SP20BL-1828†	44-47	30 50 Shut Off	11.7 11.0 104	11.7 9.8 98	11.2 8.8 92	10.0 7.3 86	8.3 6.0 80	7.0 4.5 72	5.5 3.3 67	3.8 1.8 61	2.2 0.5 55							30-50		
		SP20BL-1520†	45-47	30 50 Shut Off					5.3 5.0 119	5.3 4.5 106	5.0 4.0 100	4.3 3.5 94	4.3 2.8 89	3.7 2.5 83	3.2 2.0 78	2.5 1.3 78				30-50		
CPJ15	1-1/2	SP20BL-1736†	46-52	30 50 Shut Off	20.0 13.3 80	15.8 10.0 75	12.5 7.5 70	9.7 5.0 65	6.7 2.7 60											30-50	66	
		SP20BL-1728†	51-53	30 50 Shut Off			11.7 10.0 102	11.7 9.0 96	10.0 7.5 90	8.0 5.8 84	6.3 4.3 78	4.8 3.0 71	3.5 1.8 65							30-50		
		SP20BL-1520†	52-55	30 50 Shut Off					5.3 5.3 130	5.3 5.0 125	5.3 4.5 120	4.8 4.2 115	4.2 3.7 110	3.7 3.2 103	3.2 2.7 95	2.7 2.2 88				30-50		

Maximum Pump Case Pressure = 150 PSI †Not for sale in states following Proposition 65 or AB 1953

More pressure where you want it . . . When you need it!

Submersible Pumps



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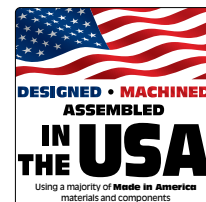
**2 and 3 wire
1/2 thru 7 1/2 HP
5 to 85 GPM**

Series "4F"

Low, medium and high capacity submersible pumps for home, farm, industry and many other domestic and commercial applications

- Stainless steel or cast iron suction and discharge housings
- Stainless steel pump shell
- Stainless steel hex drive shaft and coupling
- Stainless steel screen
- Corrosion resistant cable guard
- NEMA standard motor mounting ring
- Field replaceable cartridge assembly, lead guard, motor and motor lead wire assembly
- Flint & Walling or Franklin NEMA-mount stainless steel motors with lightning protection - (F&W available up to 2 HP)

100% FACTORY TESTED



For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301



FLINT & WALLING

Material Construction



Component Description	Commander® "S" Series 5, 7, 10, 15, 19 & 27 GPM 1/2 thru 5 HP	Captain® "A" Series 5, 7, 10, 19 & 27 GPM 1/2 thru 5 HP	Commander® Plus "S" Series 35, 55 & 85 GPM 1 thru 7-1/2 HP	Captain® Plus "A" Series 35, 55 & 85 GPM 1 thru 7-1/2 HP
Discharge Head	Stainless Steel, 1-1/4" NPT, safety rope eyelet included	Cast Iron, 1-1/4" NPT, safety rope eyelet included	Stainless Steel, 2" NPT, safety rope eyelets included	Cast Iron, 2" NPT
Check Valve Poppet	Internal removable, with elastomer sealing ring		Check valve not included	Check valve not included
Top Bearing	Closed sintered lead free sleeve bearing		Closed sintered lead free sleeve bearing	Closed sintered lead free sleeve bearing
Pump Shell	Heavy wall stainless steel	Heavy wall stainless steel	Heavy wall stainless steel	Heavy wall stainless steel
Cable Guard	Stainless steel	Stainless steel or Crush-proof PVC	Stainless steel	Stainless steel or Crush-proof PVC
Staging*	Noryl® impellers and diffusers; type stainless steel floating bearing inserts and acetal diffuser plates	Noryl® impellers and diffusers; type stainless steel floating bearing inserts and acetal diffuser plates	Noryl® impellers and diffusers; stainless steel floating bearing inserts and acetal diffuser plates	Noryl® impellers and diffusers; stainless steel floating bearing inserts and acetal diffuser plates
Pump Shaft*	Stainless steel hex shaft with one piece motor-to-shaft coupling	Stainless steel hex shaft with one piece motor-to-shaft coupling	Stainless steel hex shaft with one piece motor-to-shaft coupling	Stainless steel hex shaft with one piece motor-to-shaft coupling
Motor Bracket	NEMA standard, stainless steel with stainless steel suction screen	NEMA standard, cast iron with stainless steel suction screen	NEMA standard, stainless steel with stainless steel suction screen	NEMA standard, cast Iron with stainless steel suction screen
Motor	All pumps driven by a complete selection of Flint & Walling or Franklin stainless steel two wire or three wire motors. (F&W available up to 2 HP).		All pumps driven by a complete selection of Flint & Walling or Franklin stainless steel two wire or three wire motors. (F&W available up to 2 HP). Order motors separately.	
Motor Controls	F&W control boxes required for three-wire single phase motors. Franklin control boxes available on request. Magnetic starters and heaters are required for three phase models. Purchase at your local electrical outlet.		F&W control boxes required for three-wire single phase motors. Franklin control boxes available on request. Magnetic starters and heaters are required for three phase models. Purchase at your local electrical outlet.	

* Replacement cartridge assembly available for all models. Includes all necessary parts to restore pumps to like-new performance. No special tools required.

Noryl® is a registered trademark of General Electric.

For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301

4" 5 GPM • 1/2 thru 1 1/2 HP • 3450 RPM • 60 Cycle

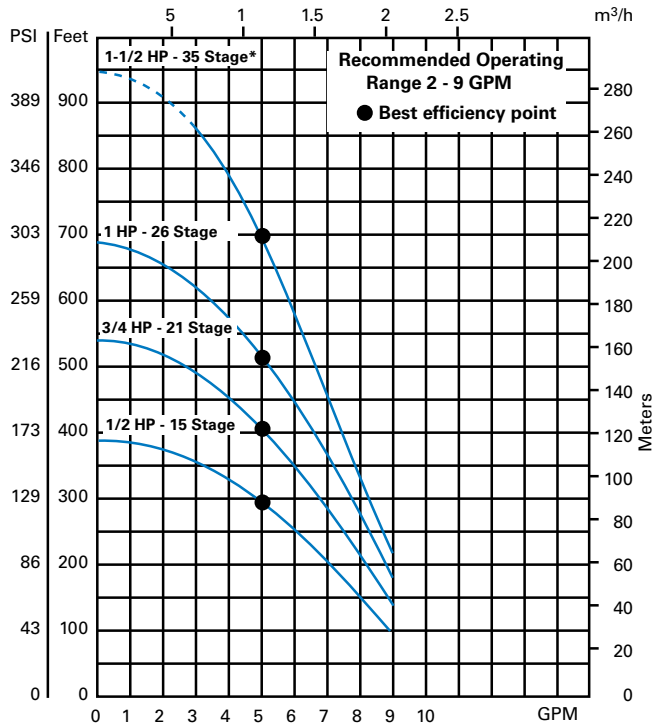


HP Size and Model No.	Stages	Weight		Disch. Pressure PSI	DEPTH TO WATER LEVEL IN FEET																Max. Pressure																			
		Motor Type	Ship Wt.		20	40	60	80	100	120	140	160	180	200	225	250	275	300	325	350	400	450	500	550	600	650	700	800	Ft.	PSI										
		CAPACITIES IN GALLONS PER MINUTE																																						
1/2 HP 4F05A05 4F05S05 4F05G05	15	1 PH 3 Wire	29	0					8.9	8.5	8.2	7.8	7.4	7.0	6.5	5.9	5.3	4.7	4.0	3.2															390	168				
			20				8.1	7.7	7.3	6.9	6.5	6.0	5.5	4.8	4.1	3.3	2.3																							
		1 PH 2 Wire	29				8.3	7.9	7.5	7.1	6.7	6.3	5.9	5.4	4.9	4.2	3.5	2.4																						
			60				7.5	7.1	6.7	6.2	5.8	5.3	4.8	4.2	3.6	2.7																								
			80					6.5	6.1	5.6	5.1	4.6	4.0	3.4	2.6	1.2																								
3/4 HP 4F05A07 4F05S07	21	1 PH 3 Wire	35	0					8.8	8.6	8.3	8.1	7.8	7.5	7.2	6.9	6.5	6.2	5.7	5.3	4.9	4.4	4.1	3.3	2.3									550	238					
			20				8.8	8.6	8.3	8.1	7.8	7.5	7.2	6.9	6.5	6.2	5.7	5.3	4.9	4.4	4.1	3.3	2.3																	
		1 PH 2 Wire	35				8.7	8.5	8.2	8.0	7.7	7.5	7.2	6.9	6.5	6.2	5.7	5.3	4.9	4.4	4.1	3.3	2.3																	
			60				8.2	7.9	7.7	7.4	7.1	6.8	6.5	6.2	5.8	5.4	4.9	4.5	3.9	3.3	3.3	1.3																		
			80					7.6	7.3	7.0	6.7	6.4	6.1	5.9	5.5	5.1	4.5	4.0	3.3	2.6	1.5																			
1 HP 4F05A10 4F05S10	26	1 PH 3 Wire	43	0										8.9	8.7	8.4	8.2	7.9	7.7	7.4	7.2	6.9	6.6	6.0	5.4	4.6	3.7	2.5							695	300				
			20												8.9	8.7	8.4	8.2	7.9	7.7	7.4	7.2	6.9	6.6	6.0	5.4	4.6	3.7	2.5											
		1 PH 2 Wire	43												8.5	8.3	8.1	7.9	7.7	7.5	7.2	7.0	6.7	6.4	6.1	5.8	5.5	4.7	3.8	2.7										
			60												8.0	7.8	7.6	7.4	7.1	6.8	6.5	6.2	5.9	5.5	5.1	4.7	4.3	3.7	2.7											
			80										8.0	7.8	7.6	7.4	7.0	6.7	6.5	6.1	5.8	5.5	5.1	4.7	4.3	3.7	2.7													
1-1/2 HP 4F05A15 4F05S15	35	1 PH 3 Wire	55	0											8.9	8.7	8.5	8.3	8.2	8.0	7.8	7.6	7.4	7.2	6.8	6.3	5.9	5.5	5.0	4.6	4.1	3.5							950	411
			20												8.7	8.6	8.4	8.2	8.0	7.8	7.6	7.4	7.2	6.9	6.6	6.0	5.4	4.6	3.7	2.5										
		1 PH 2 Wire	55												8.8	8.6	8.5	8.4	8.2	8.0	7.9	7.7	7.5	7.3	7.0	6.8	6.4	6.0	5.0	4.6	4.1	3.5								
			60												8.8	8.6	8.5	8.4	8.2	8.0	7.9	7.7	7.5	7.3	7.0	6.8	6.4	6.0	5.0	4.6	4.1	3.5								
			80										8.5	8.1	8.2	8.0	7.8	7.7	7.5	7.3	7.1	6.8	6.6	6.4	6.0	5.6	5.1	4.7	4.1	3.5										

NOTE: Pipe friction loss in drop pipe is not included in chart above.
1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.



5 GPM • 1/2 - 1 1/2 HP



* Pumps marked with asterisks not to be operated at GPM flows indicated by dotted line.

For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301

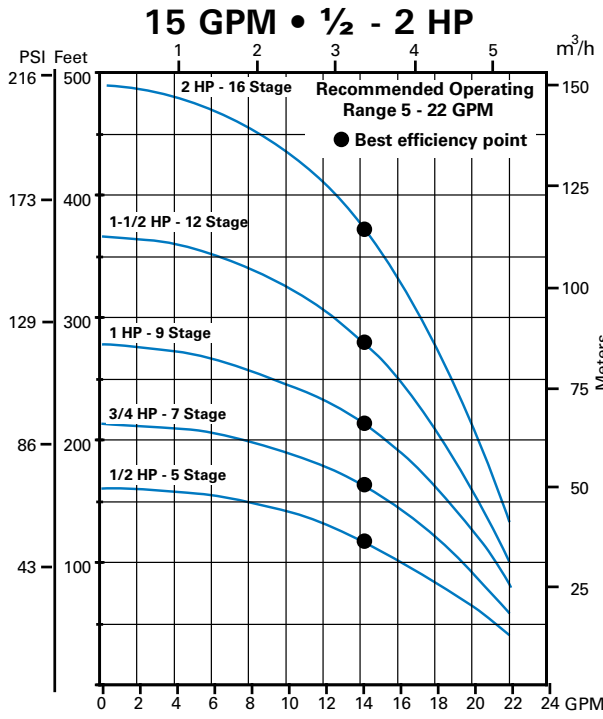


FLINT & WALLING

4" 15 GPM • 1/2 thru 2 HP • 3450 RPM • 60 Cycle

HP Size and Model No.	Stage	Weight		Discharge Pressure PSI	DEPTH TO WATER LEVEL IN FEET																		Max. Press.						
		Motor Type	Ship Wt.		CAPACITIES IN GALLONS PER MINUTE																		Ft.	PSI					
					20	40	60	80	100	120	140	160	180	200	225	250	275	300	350	400	450	500			550	600	650	700	800
1/2 HP 4F15S05	5	1 PH	28	0																								159	69
		3 Wire		20	19.8	17.7	15.5	12.7	8.8																				
		2 Wire	28	40	14.6	11.6	7.0																						
3/4 HP 4F15S07	7	1 PH	33	0																								214	93
		3 Wire		20	21.5	20.5	19.1	17.6	15.9	13.8	11.8	7.8																	
		2 Wire	33	40	18.5	17.0	15.3	13.0	9.5	9.5																			
1 HP 4F15S10	9	1 PH	36	0																								279	121
		3 Wire		20																									
		2 Wire	36	40	21.4	20.4	19.2	17.7	15.1	14.3	11.9	8.8	4.2																
1-1/2 HP 4F15S15	12	1 PH	33	0																								367	159
		3 Wire		20																									
		2 Wire	33	40	21.6	21.0	20.2	19.5	18.7	17.7	16.8	15.8	14.7	13.2	10.9	7.9													
2 HP 4F15S20	16	1 PH	36	0																								489	212
		3 Wire		20																									
		2 Wire	36	40																									

NOTE: Pipe friction loss in drop pipe is not included in chart above. 1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.



* Pumps marked with asterisks not to be operated at GPM flows indicated by the dotted line.

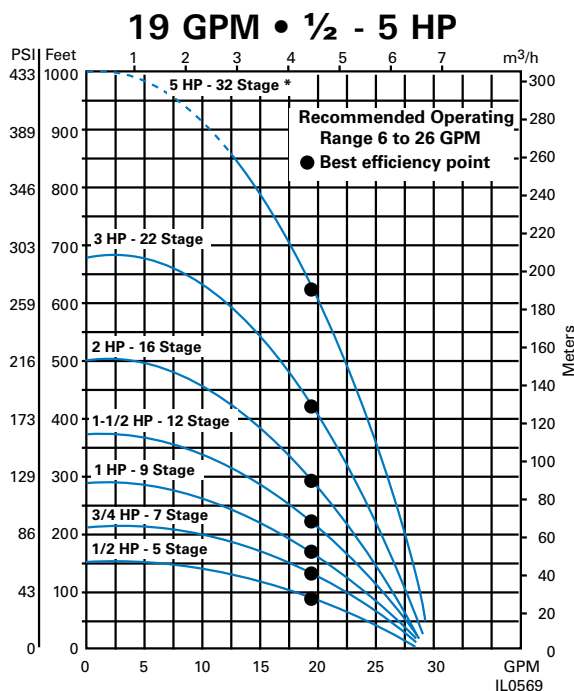


4" 19 GPM • 1/2 thru 5 HP • 3450 RPM • 60 Cycle



HP Size and Model No.	Stg.	Weight		Disch. Press. PSI	DEPTH TO WATER LEVEL IN FEET																				Max. Pressure					
		Motor Type	Ship Wt.		20	40	60	80	100	120	140	160	180	200	225	250	275	300	325	350	400	450	500	550	600	650	700	800	Ft.	PSI
		CAPACITIES IN GALLONS PER MINUTE																												
1/2 HP 4F19A05 4F19S05	5	1 PH 3 Wire	28	0		24.6	22.7	20.5	17.9	15.0	10.4																	155	67	
		1 PH 2 Wire	28	40	22.0	19.8	17.1	14.0	5.9																					
3/4 HP 4F19A07 4F19S07	7	1 PH 3 Wire	33	0		24.4	22.9	21.4	21.7	20.0	18.2	16.0	13.3	9.6														215	93	
		1 PH 2 Wire	33	40	20.6	18.7	16.6	14.3	11.0	5.5																				
1 HP 4F19A10 4F19S10 4F19G10	9	1 PH 3 Wire	36	0		25.2	24.0	25.5	24.4	23.2	22.1	20.7	19.4	17.8	16.2	13.7	10.7	5.0										283	122	
		1 PH 2 Wire	36	40	22.5	21.2	19.8	18.4	16.8	15.2	12.8	10.4	5.6																	
1-1/2 HP 4F19A15 4F19S15 4F19G15	12	1 PH 3 Wire	43	0				25.5	24.6	23.8	22.9	22.0	21.1	20.1	18.9	17.5	15.1	14.3	11.8	8.7								375	163	
		1 PH 2 Wire	43	40	24.2	23.3	22.4	21.4	20.5	19.5	18.5	17.4	16.3	14.9	12.7	9.7	5.7													
		3 PH 3 Wire	39	80	22.1	21.1	20.2	19.2	18.2	17.1	15.8	14.4	12.7	10.4	6.3															
2 HP 4F19A20 4F19S20	16	1 PH 3 Wire	59	0				25.7	25.1	24.5	23.8	23.2	22.5	21.8	20.9	19.2	18.2	17.0	15.9	14.4	14.2	10.5	3.3					500	217	
		3 PH 3 Wire	49	80	25.3	24.6	24.1	23.5	22.8	22.2	21.5	20.8	20.1	19.3	18.3	17.2	15.9	14.6	12.9	11.0	5.3									
3 HP 4F19A30 4F19S30	22	1 PH 3 Wire	75	0				26.0	25.6	25.2	24.7	24.3	23.8	23.3	22.8	22.2	21.5	20.9	20.3	19.8	18.2	16.6	14.7	12.2	8.7			685	298	
		3 PH 3 Wire	75	80	25.3	24.8	24.3	23.9	23.5	23.0	22.5	22.1	21.5	21.0	20.5	19.8	19.2	18.3	17.6	16.8	14.8	12.5	9.3							
5 HP 4F19A50 4F19S50	32	1 PH 3 Wire	117	0					25.9	25.6	25.3	25.0	24.7	24.4	24.1	23.7	23.2	22.8	22.4	21.9	21.2	20.3	19.3	18.3	17.2	15.8	14.5	1000	435	
		3 PH 3 Wire	80	80	25.7	25.3	25.1	24.8	24.5	24.2	23.8	23.5	23.2	22.8	22.5	22.2	21.7	21.3	20.8	20.4	19.4	18.4	17.3	16.2	14.7	12.9	11.2			

NOTE: Pipe friction loss in drop pipe is not included in chart above.
 1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.



* Pumps marked with asterisks not to be operated at GPM flows indicated by the dotted line.

For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301



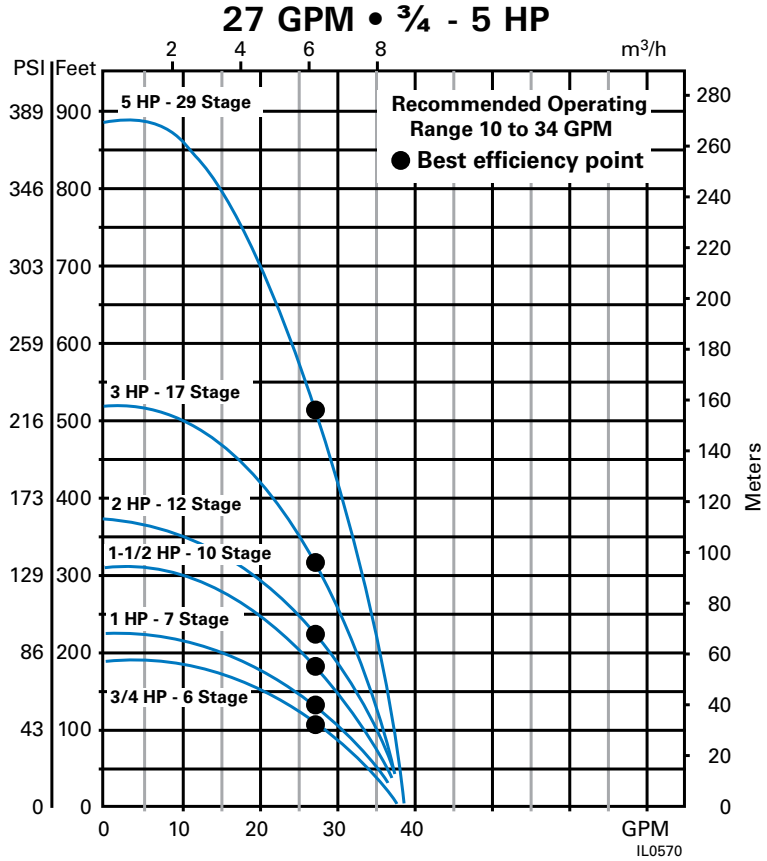
FLINT & WALLING

4" 27 GPM • 3/4 thru 5 HP • 3450 RPM • 60 Cycle

HP Size And Model No.	Stages	WEIGHT		Disch. Press. PSI	DEPTH TO WATER LEVEL IN FEET																												Max. Pressure	
		Motor Type	Shp. Weight		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	350	400	450	500	550	600	650	700	750	800	Ft.	PSI			
					CAPACITIES IN GALLONS PER MINUTE																													
3/4 HP 4F27A07 4F27S07	6	1 PH	33	0																										180	78			
		3 Wire		20	32	29	26	23	20	15	11	8																						
		2 Wire		40	25	22	18	12																										
1 HP 4F27A10 4F27S10 4F27G10	7	1 PH	35	0																										215	93			
		3 Wire		20	33	31	29	26	24	20	17	10	13																					
		2 Wire		40	28	25	23	19	15	5																								
1-1/2 HP 4F27A15 4F27S15 4F27G15	10	1 PH	43	0																										305	132			
		3 Wire		20			34	33	31	29	28	26	24	22	20	17	14	6																
		2 Wire		40	31	30	28	27	25	23	21	19	16	11																				
		3 PH		60	28	26	24	22	20	18	15	8																						
2 HP 4F27A20 4F27S20	12	1 PH	44	0																										360	156			
		3 Wire		20			34	33	32	30	29	27	26	24	22	20	18	15	9															
		3 PH		40			31	30	29	27	25	24	22	19	17	13	8																	
3 HP* 4F27A30 4F27S30	17	1 PH	73	0																										515	223			
		3 Wire		20					34	33	33	32	31	30	29	28	27	26	25	21	17	10												
		3 PH		40					32	31	30	30	29	28	27	25	24	23	21	17	11													
5 HP* 4F27A50 4F27S50	29	1 PH	116	0																										880	380			
		3 Wire		20												34	34	33	32	31	30	29	27	26	24	22	20	18	15			12		
		3 PH		40												34	33	33	32	31	31	30	29	27	26	24	22	20	18			16	12	
		3 Wire	80	60																														

NOTE: Pipe friction loss in drop pipe is not included in chart above.
 *For 3 HP and above, refer to motor manufacturer's handbook for proper flow rates to cool motor.

1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.



For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301



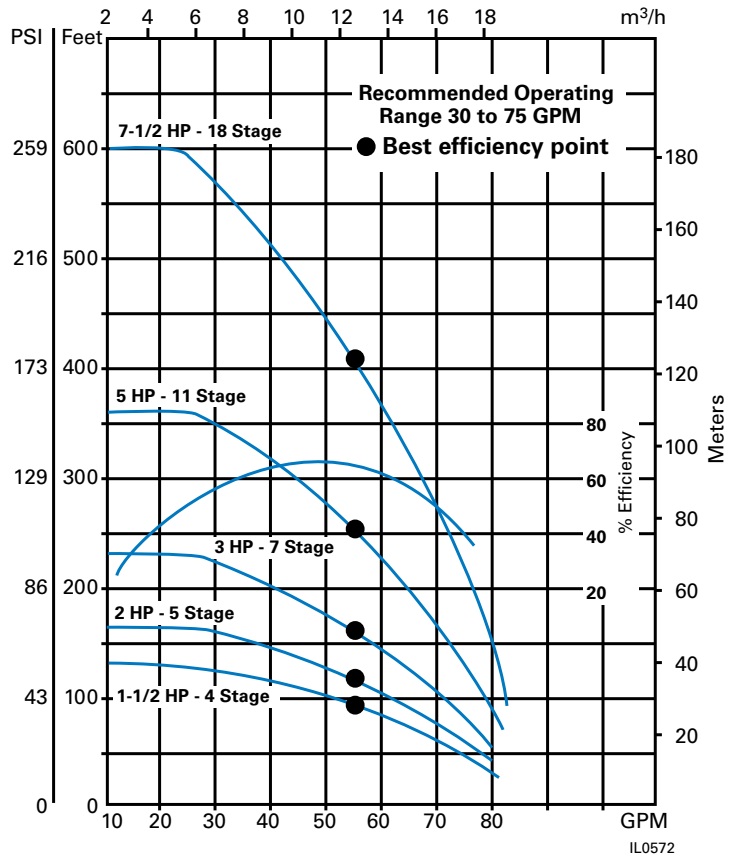
FLINT & WALLING

4" 55 GPM • 1 1/2 thru 7 1/2 HP • 3450 RPM • 60 Cycle

Table with columns: HP Size and Model No., Stages, Phase, Weight (Pump End, Motor End), Discharge Pressure (PSI), Depth to Water Level in Feet (20-550), Capacities in Gallons per Minute (20-550), Maximum Pressure (Ft., PSI).

NOTE: Pipe friction loss in drop pipe is not included in chart above. **For 3 HP and above, refer to motor manufacturer's handbook for proper flow rates to cool motor. 1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

55 GPM • 1 1/2 - 7 1/2 HP



For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301

4" 85 GPM • 2 thru 7 1/2 HP • 3450 RPM • 60 Cycle



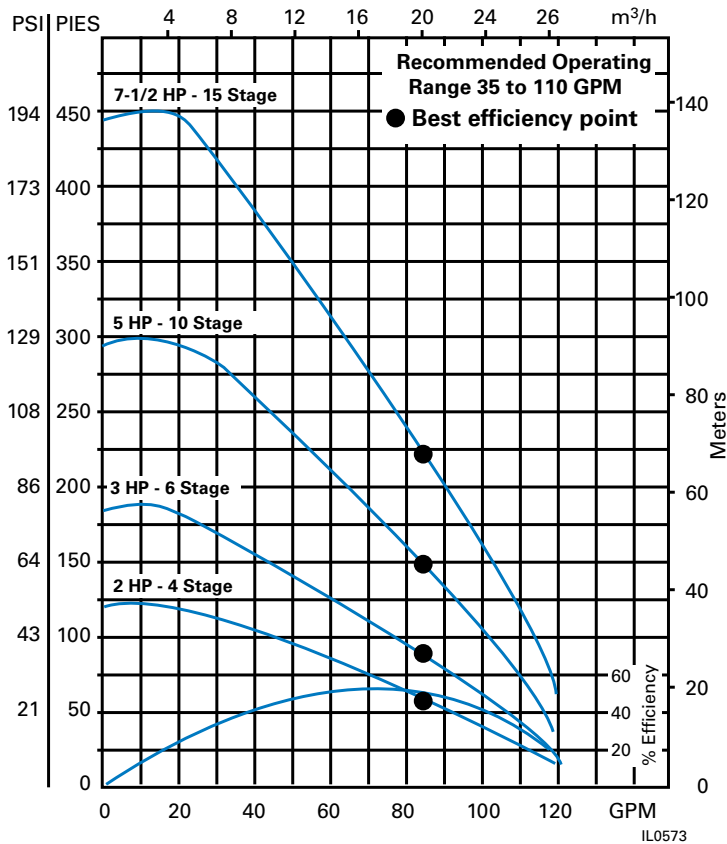
FLINT & WALLING

HP Size and Model No.	Stages	Phase	Weight		Discharge Pressure PSI	DEPTH TO WATER LEVEL IN FEET																		Max. Pressure			
			Pump End	Motor End		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	Ft.	PSI
			CAPACITIES IN GALLONS PER MINUTE																								
2 HP 4F85A20 4F85S20	4	1	13	30	0																				120	52	
		3	13	28	0	80	105	85	64	45																	
3 HP* 4F85A30 4F85S30	6	1	15	52	0																				185	80	
		3	15	43	0	101	88	103	91	77	63	51	38														
5 HP* 4F85A50 4F85S50	10	1	20	69	0																				300	130	
		3	20	53	0	100	108	102	110	103	95	87	79	71	63	55	48	40	32								
7-1/2 HP* 4F85A75 4F85S75	15	3	27	69	0																				450	195	
					0	103	109	104	110	106	101	95	106	102	97	91	85	80	74	69	64	59	53	48			43

NOTE: Pipe friction loss in drop pipe is not included in chart above.
**For 3 HP and above, refer to motor manufacturer's handbook for proper flow rates to cool motor.

1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

85 GPM • 2 - 7½ HP



**Stainless Steel
2" NPT**



← 3.72" →

**Cast Iron
2" NPT**



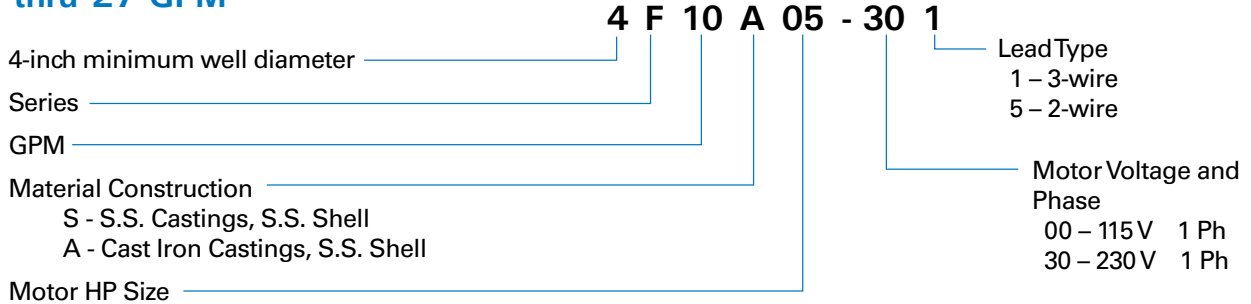
← 3.72" →

For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301

Model Number Code



5 thru 27 GPM



1/2 - 1-1/2 HP Single phase pump and motor assembly includes pump/motor unit with motor leads.

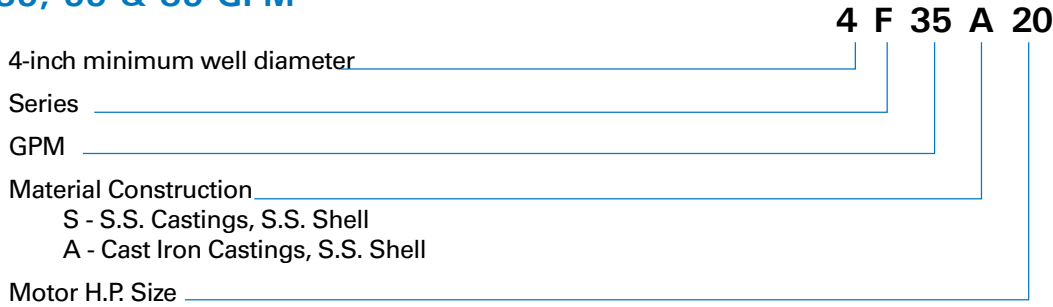
Order control box for 3-wire units separately.

On 2 - 7-1/2 HP and all 3 phase units, order pump, motor and control box separately. Magnetic starters must be purchased locally. Lead wire assembly included with motor.

1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301

35, 55 & 85 GPM



On 35, 55 & 85 GPM units order pump, motor and control box separately. Magnetic starters must be purchased locally. Lead wire assembly included with motor.

HP	Voltage & Phase	Motor Type	F&W Motor Thrust Rating	F&W Motor Order No.	F&W Control Box Order Number	Motor Thrust Rating	Motor Order Number	Control Box Order Number
1/2	115V/1PH	3-Wire	300#	137426	022875	300#	M137426	127185
	230V/1PH	3-Wire	300#	137428	022876	300#	M137428	127189
	115V/1PH	2-Wire	300#	137412	N/A	300#	M137412	N/A
3/4	230V/1PH	2-Wire	300#	137414	N/A	300#	M137414	N/A
	230V/1PH	3-Wire	300#	137430	022877	300#	M137430	127197
1	230V/1PH	2-Wire	300#	137416	N/A	300#	M137416	N/A
	230V/1PH	3-Wire	650#	137432	022878	650#	M137432	126319
	230V/1PH	2-Wire	650#	137418	N/A	650#	M137418	N/A
1-1/2	230V/1PH	3-Wire	650#	137434	022879	650#	M137434	133589
	230V/1PH	2-Wire	650#	137420	N/A	650#	M137420	N/A
	200V/3PH	3-Wire	--	N/A	N/A	650#	M137457	N/A
	230V/3PH	3-Wire	--	N/A	N/A	650#	M137458	N/A
	460V/3PH	3-Wire	--	N/A	N/A	650#	M137460	N/A
2	230V/1PH	3-Wire	650#	137435	022880	650#	M137435	137224+ 126321++
	200V/3PH	3-Wire	--	N/A	N/A	650#	M137461	N/A
	230V/3PH	3-Wire	--	N/A	N/A	650#	M137462	N/A
	460V/3PH	3-Wire	--	N/A	N/A	650#	M137464	N/A

HP	Voltage & Phase	Motor Type	F&W Motor Thrust Rating	F&W Motor Order No.	F&W Control Box Order Number	Motor Thrust Rating	Motor Order Number	Control Box Order Number
3	230V/1PH	3-Wire	--	N/A	N/A	900#	M139422	136800+ 126322++
	200V/3PH	3-Wire	--	N/A	N/A	900#	M139423	N/A
	230V/3PH	3-Wire	--	N/A	N/A	900#	M139424	N/A
5	460V/3PH	3-Wire	--	N/A	N/A	900#	M139425	N/A
	230V/1PH	3-Wire	--	N/A	N/A	1500#	M137456	135269+ 137225++
	200V/3PH	3-Wire	--	N/A	N/A	1500#	M137469	N/A
	230V/3PH	3-Wire	--	N/A	N/A	1500#	M137470	N/A
7-1/2	460V/3PH	3-Wire	--	N/A	N/A	1500#	M137472	N/A
	200V/3PH	3-Wire	--	N/A	N/A	1500#	M137473	N/A
	230V/3PH	3-Wire	--	N/A	N/A	1500#	M137474	N/A
	460V/3PH	3-Wire	--	N/A	N/A	1500#	M137476	N/A

N/A Not available
+ Deluxe control box – includes magnetic contactor. Recommended for water systems which utilize pressure switch.
++ Standard control box.



FLINT & WALLING

Zoeller Family of Water Solutions™

PATRIOT® 4" SUBMERSIBLE

"P" SERIES

1/2, 3/4 and 1 HP

2 Wire and 3 Wire 115 & 230 Volt Motors

5, 7, 11, 19 and 27 GPM Models

The PATRIOT® Series is Flint & Walling's entry level submersible pump. The proven hydraulics and precision engineering make the PATRIOT® an excellent choice for years of dependable service at an affordable price.

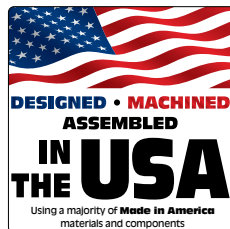
Features:

- Glass-filled Noryl® discharge and mounting ring
- Heavy-wall stainless steel pump shell
- Stainless steel hex drive pump shaft
- Internal removable check valve
- Unique floating stack
- Flint & Walling 4" submersible motors



CONTROL BOX FOR 3-WIRE MODELS

Quick-disconnect control box features replaceable snapout cover that keeps all components above ground for easy access and repair. Order control box separately. Control box not required for 2-wire models.



100% FACTORY TESTED

For F&W pump ends with Franklin motor, please add an "M" prefix to callout number when ordering. Example: M4F10A05301



FLINT & WALLING

Zoeller Family of Water Solutions™

FW1676
1115
Supersedes
0715

PATRIOT® 4" SUBMERSIBLE

"P" SERIES

1/2, 3/4 and 1 HP

2 Wire and 3 Wire 115 & 230 Volt Motors

5, 7, 11, 19 and 27 GPM Models

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Features:

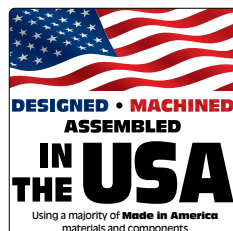
- Glass-filled Noryl® discharge and mounting ring
- Heavy-wall stainless steel pump shell
- Stainless steel hex drive pump shaft
- Internal removable check valve
- Unique floating stack
- Flint & Walling 4" submersible motors



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FLINT & WALLING

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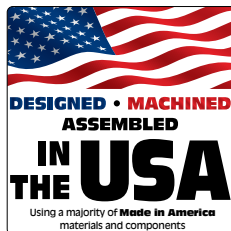
Features:

- Glass-filled Noryl® discharge and mounting ring
- Heavy-wall stainless steel pump shell
- Stainless steel hex drive pump shaft
- Internal removable check valve
- Unique floating stack
- Flint & Walling 4" submersible motors



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FLINT & WALLING

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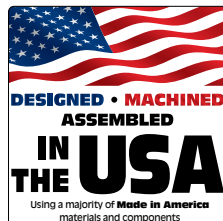
Features:

- Glass-filled Noryl® discharge and mounting ring
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- Stainless steel hex drive pump shaft
- Internal removable check valve
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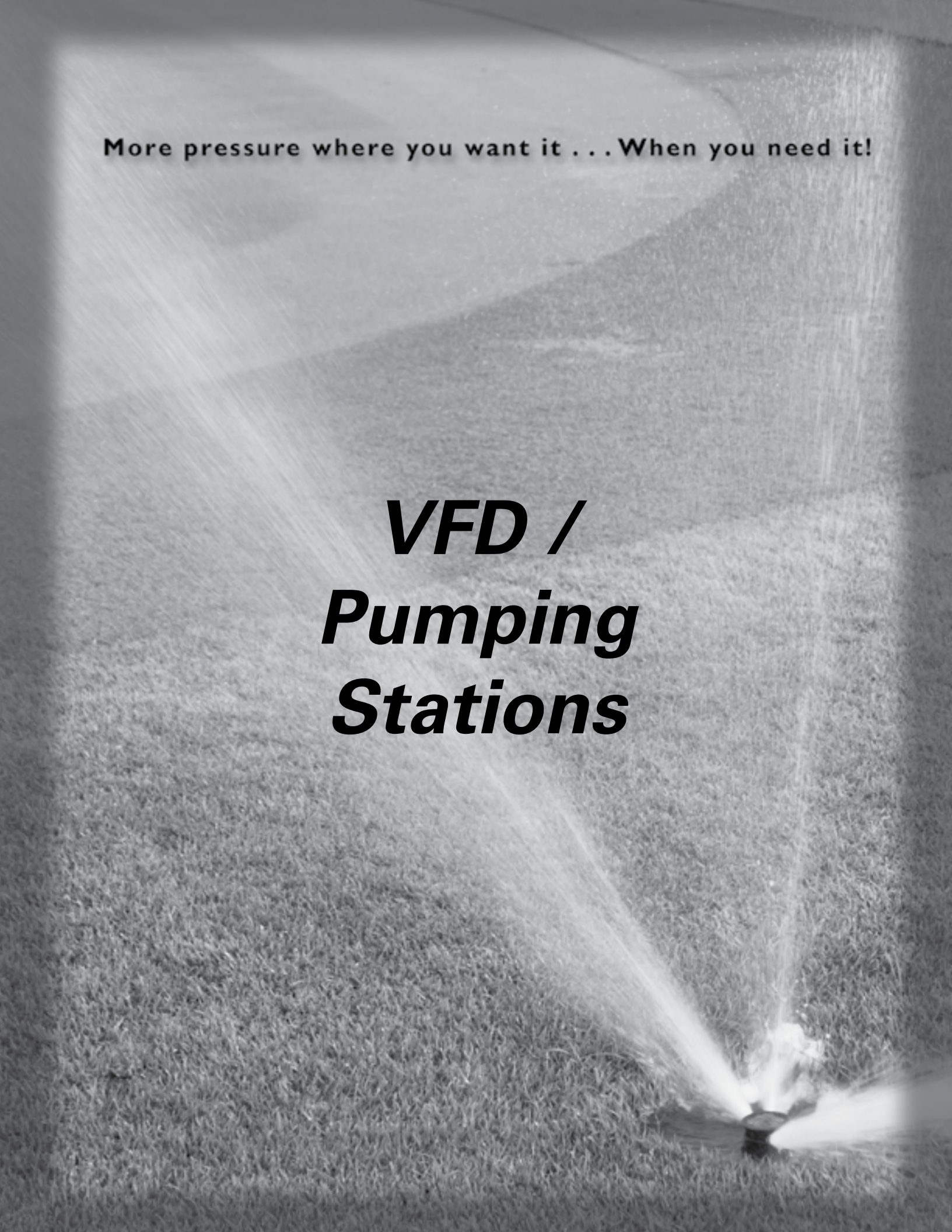
CONTROL BOX FOR 3-WIRE MODELS

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More pressure where you want it . . . When you need it!

***VFD /
Pumping
Stations***





***Because everything
that grows, needs
water.***

***Choose F&W irrigation
products for a healthy
lawn and garden.***



FLINT & WALLING

Zoeller Family of Water Solutions™

Artesian Drive®

CONSTANT PRESSURE CONTROLS FOR CENTRIFUGAL PUMP APPLICATIONS

FW1141
0512
Supersedes
0809

Artesian Drive® is a line of custom programmed Variable Speed Drives (VFD) that enhance the performance of standard centrifugal pumps. When applied correctly to three phase motor driven pumps, the Artesian Drive® eliminates pressure cycling associated with conventional pressure switch controlled water pumping systems and provides a constant output pressure by increasing or decreasing motor speed, based upon demand.

Artesian Drive® is factory programmed for F&W centrifugal pumps to provide optimum performance and motor protection. The Artesian Drive can be used with other pump brands, providing the pump is powered by a three phase motor that does not exceed the maximum current output rating of the drive.



INCLUDED ITEMS

- Factory programmed variable speed drive unit
- NEMA 1 enclosure
- Pressure sensor, preset at 50 PSI
- Sensor adjustment tool
- Sensor cable (10 ft.)

FEATURES

- Pre-programmed Drives: No need for field technician to program the drive at the site
- Drives are available for any 1 thru 20 HP centrifugal pump that is powered by a three phase motor
- Drives up to 3 HP permit the use of widely available 230 volt, single phase power source
- Constant water pressure with a wide range of settings (30 - 80 PSI)*
- Pressure is easily adjusted with a 7/32" allen wrench
- Works with a small pressure tank or a larger tank, already in place
- No in-rush current at startup
- Soft start reduces mechanical/electrical stress, prolonging pump and motor life
- Built-in protection and diagnostics
 - Motor overload
 - Locked or bound pump - with auto reversing torque
 - Low line voltage
 - Short circuit
 - High voltage / lightning protection
 - Dry run conditions, using intelligent load monitoring
 - Overheated drive with automatic reset

NOTE: The maximum obtainable system pressure is limited by the performance of the pump installed.

DRIVE SPECIFICATIONS AND DIMENSIONS

Model Number	AD052045	AD070059	AD096074	AD096096	AD150145	AD420210	AD220210	AD280280	AD420410	AD540530	
Input from power source	Voltage						180 -264 AC (Single or Three Phase)				
	Frequency						50/60 Hz				
	14.2 Amps 1ø (6.7 Amps 3ø)	17.4 Amps 1ø (8.7 Amps 3ø)	23.2 Amps 1ø (11.9 Amps 3ø)	23.2 Amps 1ø (11.9 Amps 3ø)	29.5 Amps 1ø (15.7 Amps 3ø)	43.1 Amps	22.6 Amps	28.3 Amps	43.1 Amps	54.3 Amps	
	Power Factor 1.0 (constant)										
Output to Motor (Three Phase)	Voltage										
	Voltage Automatically Adjust with Frequency (0 thru 230 Volts)										
	Frequency Range										
	15 - 60 Hz										
Current, Factory Programmed* (RMS, Each Phase)	4.5 Amps	5.9 Amps	7.4 Amps	9.6 Amps	14.5 Amps	20.0 Amps	20.0 Amps	28.0 Amps	41.0 Amps	53.0 Amps	
	5.2 Amps	7.0 Amps	9.6 Amps	9.6 Amps	15.0 Amps	21.0 Amps	21.0 Amps	28.0 Amps	42.0 Amps	54.0 Amps	
For Use With	Motor										
	Standard 60 Hz. Pump & 230 Volt 3 Phase Motor Combination										
Pressure Setting	Factory preset										
	Adjustable Range 30 - 80 PSI										
Operating Conditions	Temperature (@ 230 VAC input)					0° to 50° C (32° to 122° F.)		0° to 50° C (32° to 122° F.)			
	Relative Humidity										
Controller Size	Max 95% Non-condensing										
	NEMA 1 (indoor)	10.47" H x 3.35" W x 6.15" D	12.54" H x 3.94" W x 6.90" D	15.60" x 4.48" x 8.05"	14.5" H x 9.9" W x 10.4" D	14.5" H x 6.1" W x 8.6" D	14.5" H x 9.9" W x 10.4" D				
Weight	2.9 lbs.	3.1 lbs.	4.6 lbs.	4.6 lbs.	9.9 lbs.	33.1 lbs.	15.4 lbs.	15.4 lbs.		33.1 lbs.	

RMS = ROOT MEAN SQUARED

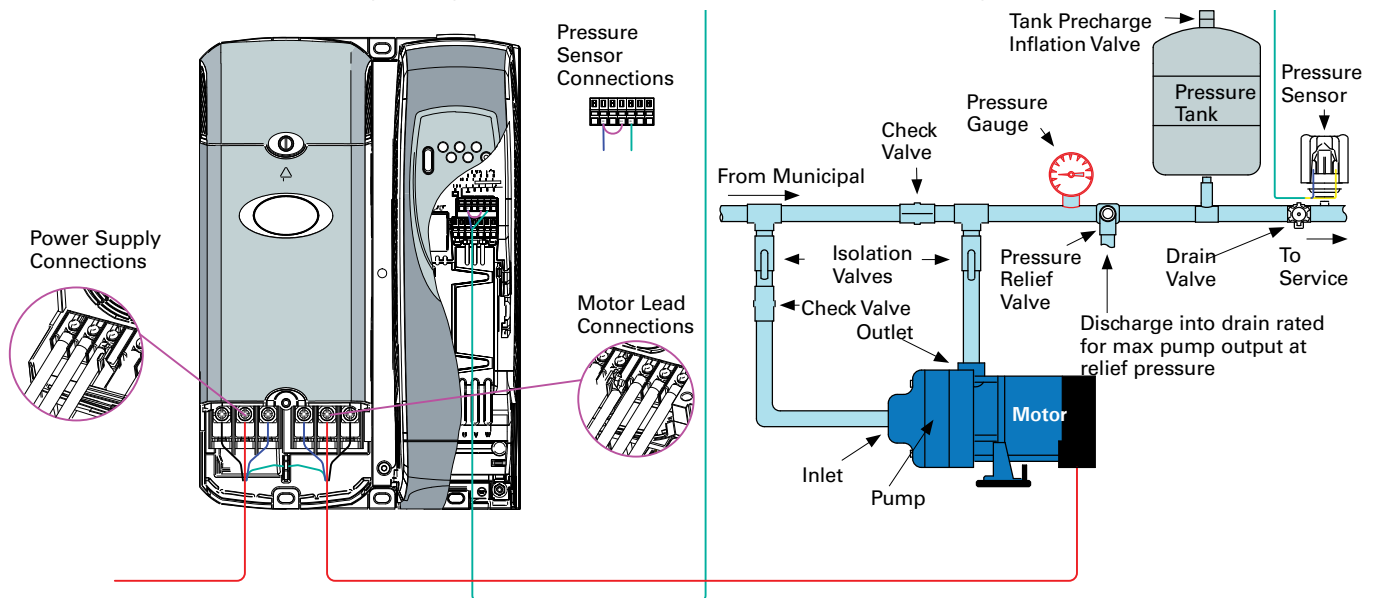
*The electrical characteristics of motors vary slightly. See Amp draw on motor nameplate. If the maximum motor current value (Amp draw) is more than 5% of the programmed value of the Drive, the Drive will need to be set to the current value of the motor to provide proper protection..

The Artesian Drive® needs only a small Captive Air pressure tank to maintain constant pressure. A larger tank can be used if desired.

MINIMUM PRESSURE TANK SIZE

TANK SIZE	PUMP CAPACITY		
	Less than 12 GPM	Greater than 12 GPM but less than 25 GPM	Greater than 25 GPM
TOTAL VOLUME	4 Gallon (AT15)	8 Gallon (AT25)	14 Gallon (AT44)

The pressure tank pre-charge setting should be 70% (± 2 PSI) of the sensor pressure setting.





FLINT & WALLING

Zoeller Family of Water Solutions™

Artesian Drive®

- Energy efficient - conserves electricity
- Pre-programmed with seven built-in self-diagnostic test features for comprehensive system protection
- Maintains consistent pressure for multiple sprinkler zone applications
- Saves water with fully adjustable pressure sensor — eliminates water fluctuation for consistent zone spray from 30 to 85 PSI
- Factory tested and preset to exact engineering specifications
- Soft start/stop technology extends pump life and reduces water hammer

Complete Variable Speed Drive Package for Centrifugal Applications

“Cruise Control for your Centrifugal Water System”



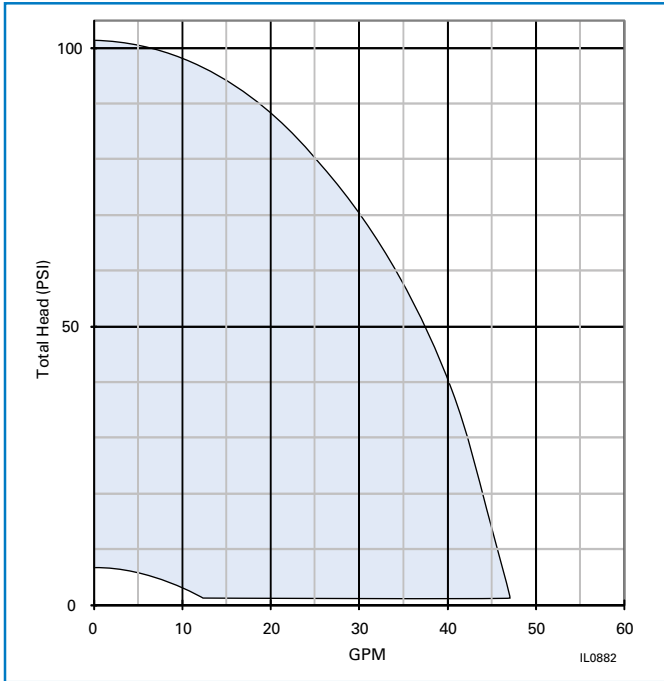
NEMA 1 Enclosure

Model	Description	System Includes		
		Pump	Drive	Tank
ADS101C203	2 HP 3 Phase with 1 phase incoming	CJ101C203	AD096074	132661 AT44
ADS101C303	3 HP 3 Phase with 1 phase incoming	CJ101C303	AD096096	132661 AT44
ADS22253	5 HP 3 Phase with 1 phase incoming	C22253	AD150145	132661 AT44
ADS22273	7.5 HP 3 Phase with 3 phase incoming	C22273	AD220210	132661 AT44

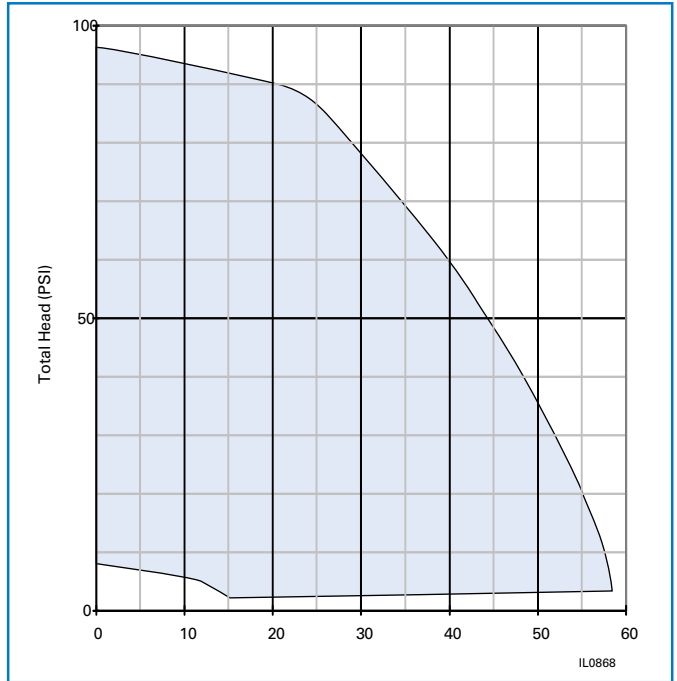
Performance Specifications



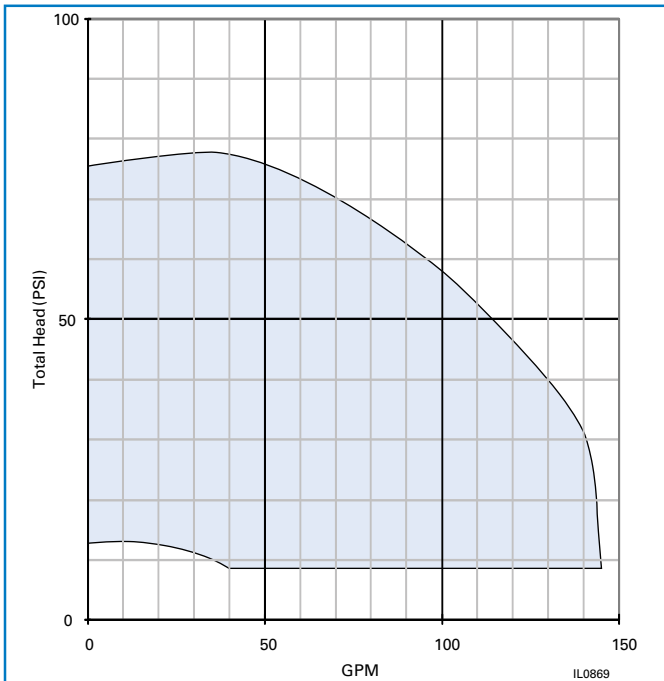
FLINT & WALLING
Zoeller Family of Water Solutions™



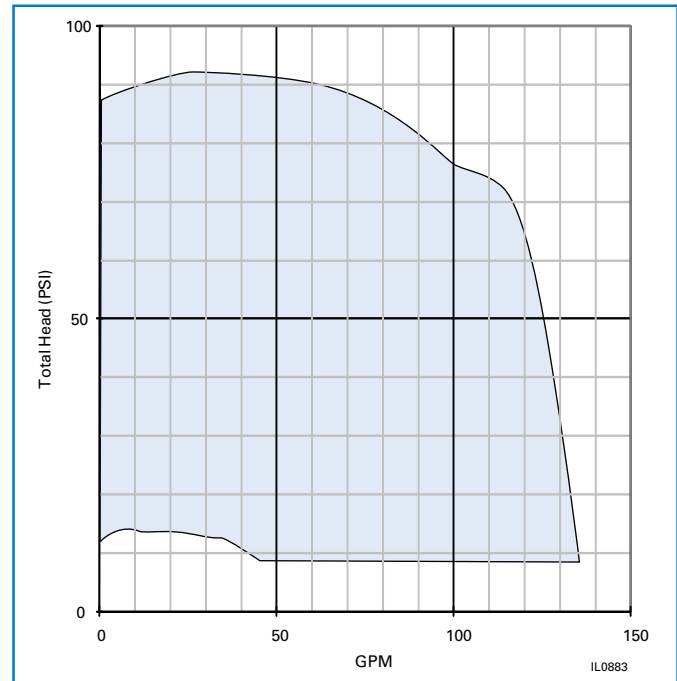
Model: ADS101C203 2 HP



Models: ADS101C303 3 HP



Model: ADS22253 5 HP



Model: ADS22273 7.5 HP



FLINT & WALLING

Zoeller Family of Water Solutions™

Artesian Drive®

Constant Pressure Pumping Stations

Deliver Flow and Pressure Where You Want It!

Artesian Drive® pumping stations adapt to your changing flow requirements, using a pump control system to deliver constant pressure at any flow required.

Significant energy savings from variable speed drives make constant speed pumps obsolete.

Golf Course Irrigation



Poultry Operations



Nurseries



Commercial Kitchens



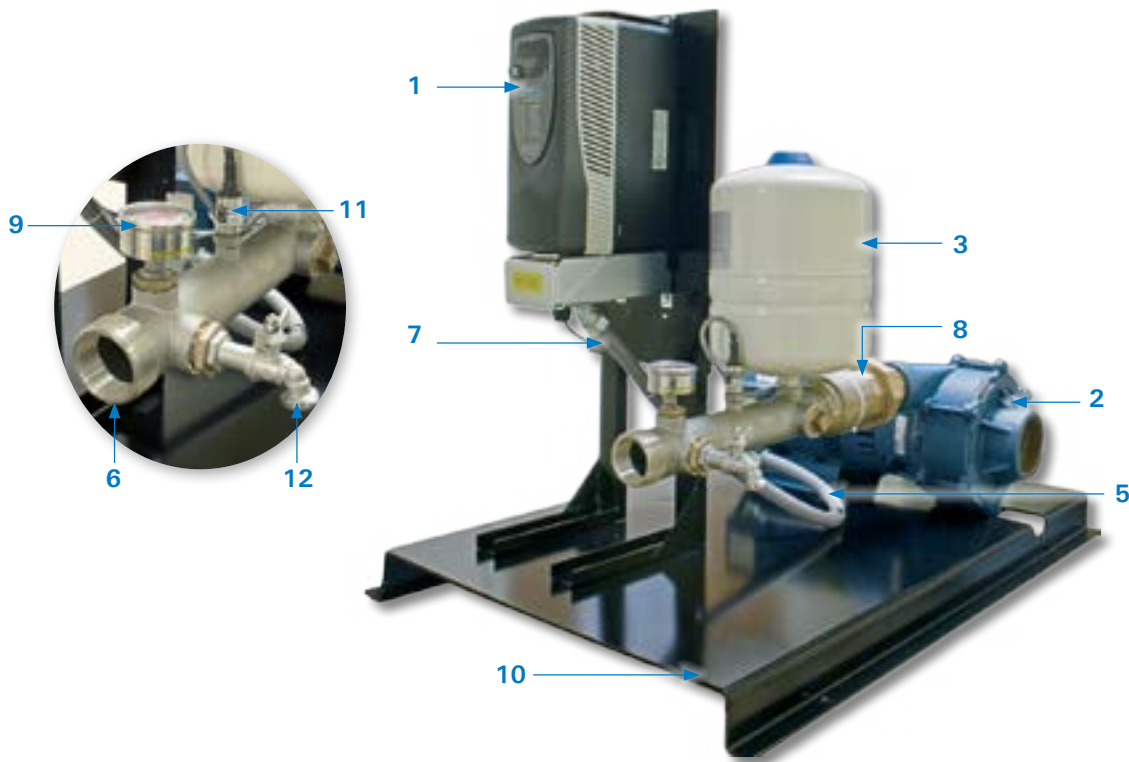
System dimensions:
26"W x 37"L x 32"H



Artesian Drive® Constant Pressure Pumping Stations

Features and Benefits:

- Artesian Drive constant pressure pumping stations provide constant water pressures
- Pre-plumbed, pre-wired, pre-programmed and pressure tested. Typical installation time takes less than 1 hour
- Models available up to 145 gallons per minute in 3 HP, 5 HP, and 7.5 HP
- Variable frequency drive operates on 230 volt single or three phase power – With three phase output to motor
- Advanced ‘on board’ diagnostics and pump protection
- Energy efficient – uses significantly less electricity than conventional centrifugal pump applications
- 3” suction with 2” discharge for easy installation
- Includes check valve, gauges and unions for easy serviceability
- ‘Powder Coated Tough’ skid, panel, and supports to resist rust and corrosion. Efficient in size - Fits through any 27” access door



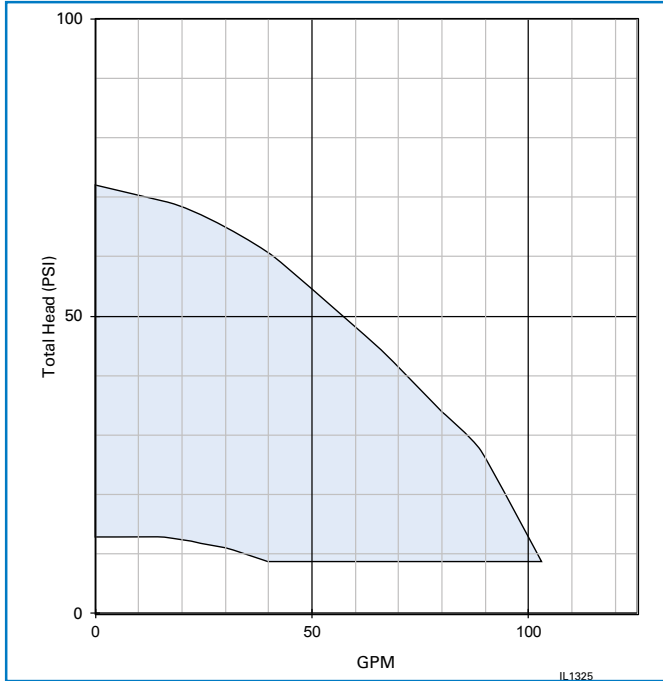
Systems Include:

1. Artesian Drive® variable speed controller drive assembly can rotate 90° for flexibility
2. Centrifugal pump with brass impellers and ‘Power Plus’ motor
3. Air-E-Tainer diaphragm tank
4. Thermal sensor (not shown)
5. Sealtight conduit
6. 2” Stainless steel manifold for gauge, transducer and hose bib
7. 3 Phase output to motor
8. 2” brass outlet check valve
9. Premium liquid filled gauge
10. “Powder-coated tough” skid
11. Pressure transducer
12. Hose bib

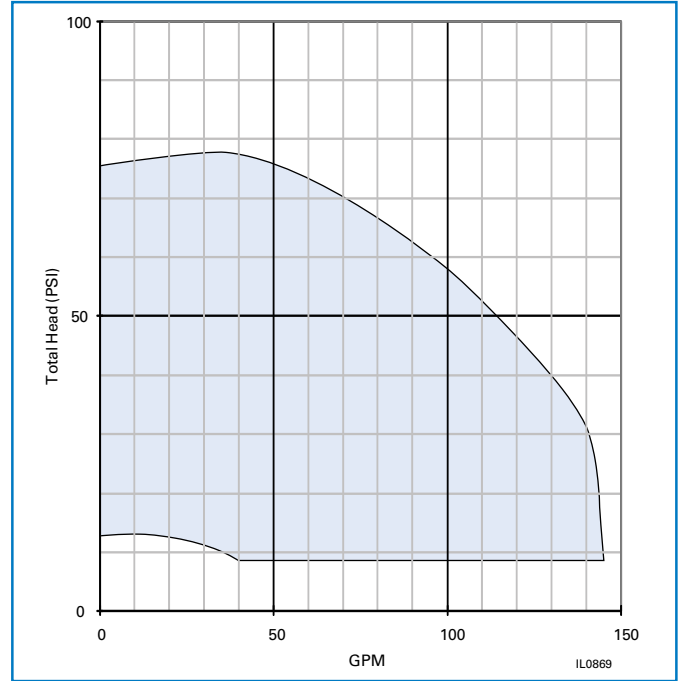
Artesian Drive® Constant Pressure Pumping Stations



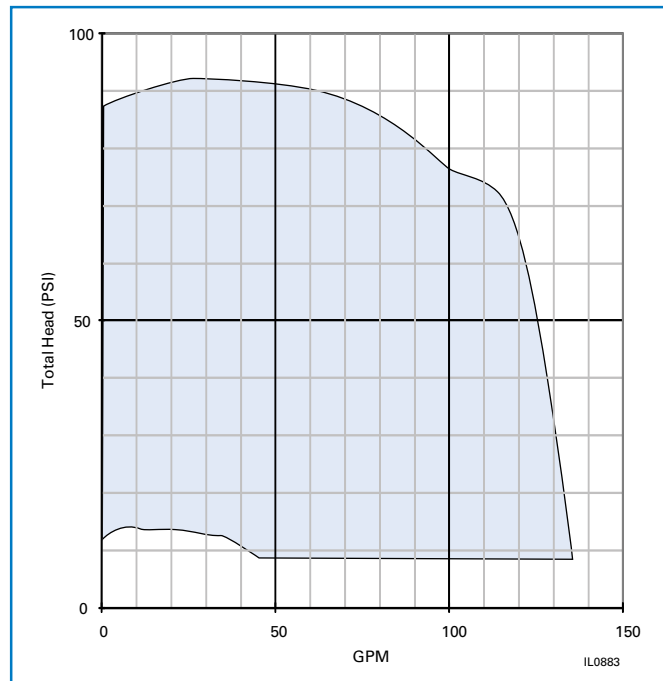
Performance Specifications



Models: ADW2W31 3 HP Single Phase or Three Phase



Models: ADW2W51 5 HP Single Phase or Three Phase



Models: ADW2W71 7.5 HP Single Phase, ADW2W73 7.5 HP Three Phase

Artesian Drive® Constant Pressure Pumping Stations



Standard Controls

Artesian Drive®



- Artesian Drive® Variable Speed Controller for Constant Pressure
- Pre-programmed Drives: No need for field technician to program the drive at the site
- Constant water pressure with a wide range of settings (30 - 80 PSI)
- Eliminates in-rush surge current at startup
- Soft start reduces mechanical/ electrical stress, prolonging pump and motor life
- Factory programmed variable speed drive unit
- Pressure transducer, preset at 50 PSI
- Built-in protection and diagnostics protect against:
 - Motor overload
 - Low line voltage
 - Short circuit
 - High voltage / lightning protection
 - Dry run conditions, using intelligent load monitoring
 - Overheated drive with automatic reset

F&W Artesian Drive® pumping stations are fully tested and preset. Just add water and power up system. No complicated startup procedures, special training, or expensive on-site technicians needed. Systems are ideal for municipalities, golf courses, nurseries, industrial plants and much more. All benefit from the easy installation and years of service from an Artesian Drive® pumping station.



NEMA 1 Enclosure for indoor use only



FLINT & WALLING

Zoeller Family of Water Solutions™

Commander® Pro Variable Speed Controllers

FW1677 0815
Supersedes 0615

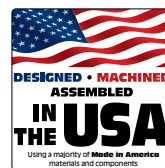
DESIGNED FOR THE PROFESSIONAL PUMP INSTALLER

FEATURES:

- *Easy to read diagnostic display*
- *Increases flow as demand increases*
- *Available with pressure switch or pressure transducer*
- *Adjustable constant pressure*
- *Automatic pump and motor protection*
- *Superior cooling and dust protection*
- *Meets Part 15 Class A FCC electronic interference standards*
- *Programming lockout for secure operation*
- *Tamper proof cover*
- *Automatic fan designed to maximize cooling*
- *NEMA 3R for indoor/outdoor use*



FCC
Part 15
Class A



Your Peace of Mind is Our Top Priority®

Commander® Pro Variable Speed Controllers

Shrouded venting for superior cooling

Key hole mount for fast, easy installation

Stored memory for effective troubleshooting analysis

Metal shielding, in conjunction with filtering, facilitates meeting FCC Part 15 Class A requirement

Heat baffle design efficiently directs air flow to maximize cooling for longer electronic component life.

Spacious wiring area for easy installation

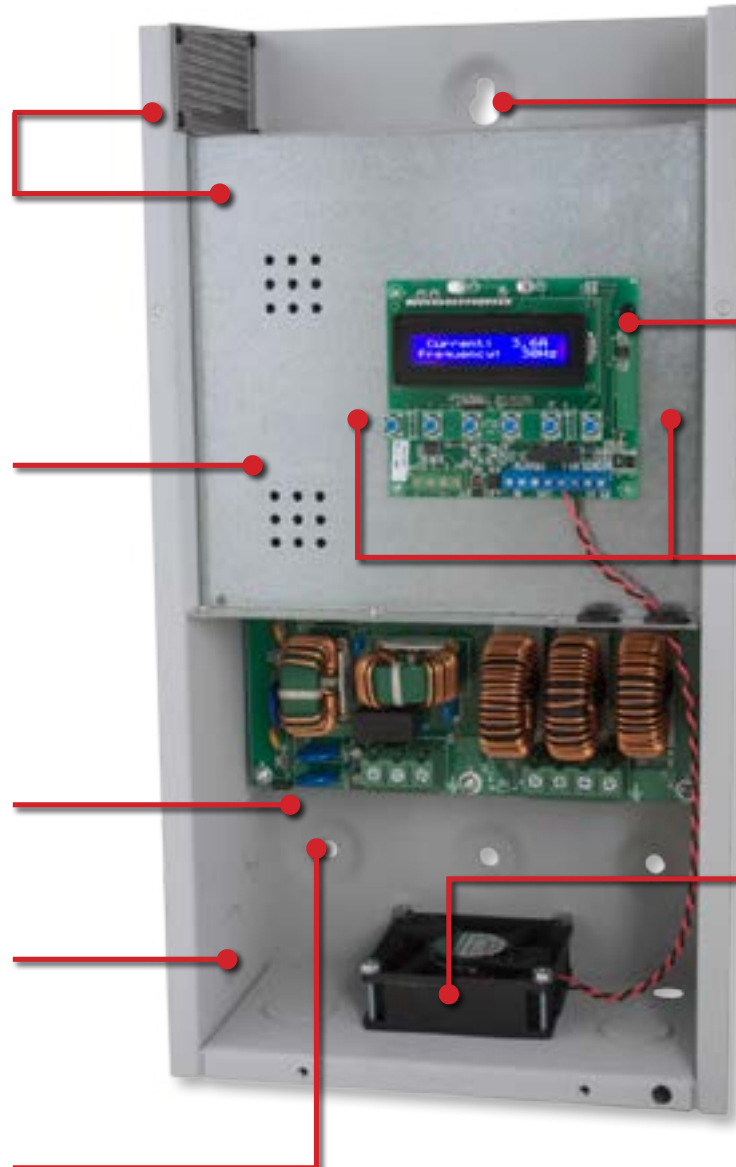
Temperature sensitive intelligent fan operates as necessary for quieter operation, energy conservation and reduced maintenance costs.

Bottom and side knockouts support 3/4" and 1" conduit

Additional holes for easy mounting on studs, poles, etc. with easy-access hardware

Status indication in easy-to-understand text (not codes)

Easy to use programming buttons



Commander® Pro Variable Speed Controllers



1.5, 2 and 3 HP Constant Pressure Systems for Home, Irrigation & Deep Well Applications

The Commander Pro VS and TVS series of pre-packaged constant pressure water systems are designed specifically for demanding applications. These models are engineered to provide a constant pressure water supply from as deep as 950' or at flows from 2 to 125 GPM.

These systems feature Flint & Walling 4" submersible pump end, pressure transducer or pressure switch, single phase input and NEMA 3R enclosures

Applications include:

Residential Water Systems

- "City-like" water pressure
- Smaller tank saves space

Geothermal Systems

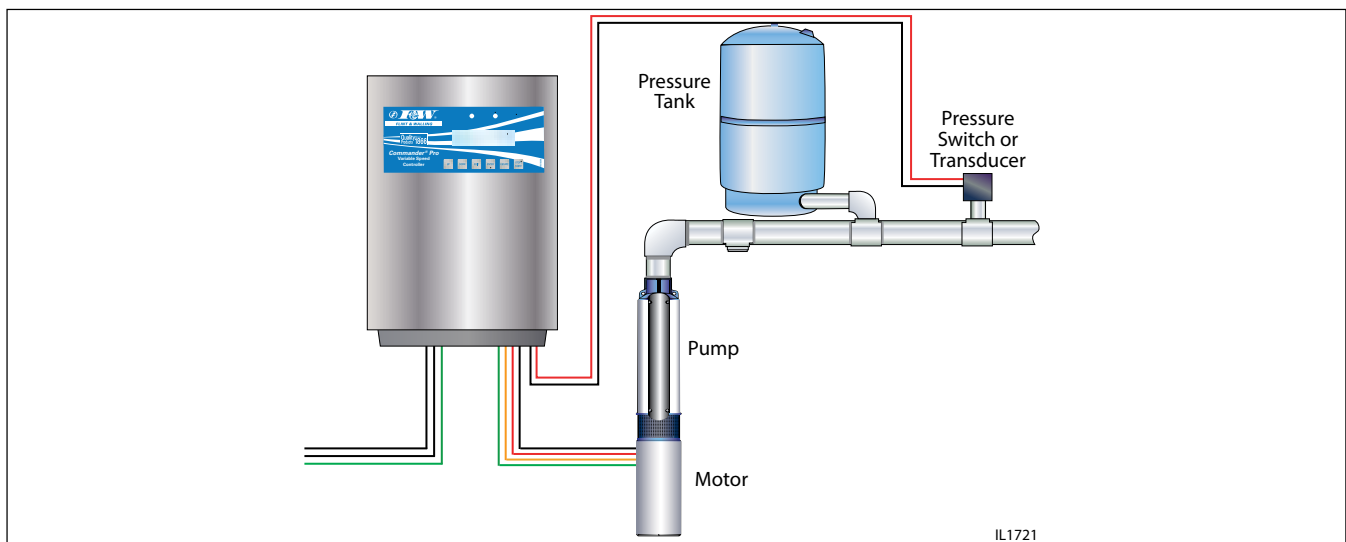
- No need for large buried tanks
- Eliminates pressure cycling

Lawn Irrigation Systems

- Even distribution of water in zones
- Eliminates need for separate system

Water Treatment Systems

- More efficient back flushing
- No need for multiple pumps



WIRE SIZING

The maximum allowable wire lengths for connection of motor to the controller are given in the following table.

System	HP	Max. Length	AWG Copper Wire Sizes, 140F/60C Insulation				
			14	12	10	8	6
VS15 TVS15	1.5	Feet	420	670	1060	1670	-
		Meters	128	204	322	508	-
VS20 TVS20	2	Feet	320	510	810	1280	2010
		Meters	97	155	246	390	612
VS30 TVS30	3	Feet	240	390	620	990	1540
		Meters	73	119	189	302	469



FLINT & WALLING

Zoeller Family of Water Solutions™

Commander® Pro Variable Speed Controllers

		GENERAL SPECIFICATIONS		
		Commander Pro 15 VS and TVS Series	Commander Pro 20 VS and TVS Series	Commander Pro 30 VS and TVS Series
Input (From Power Source)	Voltage	200-250 V/Single Phase		
	Frequency	60/50 Hertz		
	Amps (RMS)	11 Amps	19 Amps	23 Amps
	Power (Idle)	35 Watts	65 Watts	65 Watts
	Power	2400 Watts @ 80 Hz	3800 Watts @ 80 Hz	4600 Watts @ 80 Hz
	Power Factor	1 (Constant)		
Output (To Motor)	Voltage	Variable V /Three Phase		
	Frequency	Variable (30-80 Hz)		
	Amps (RMS)	5.9 Amps (6.5A Max.)	8.1 Amps (8.5A Max.)	10.9 Amps
	Start	High Torque - Soft Start		
Pressure		25 - 80 PSI (preset at 50 psi)		
Controller Enclosure		NEMA 3R (Indoor/outdoor)		

“City-like” water pressure for rural water systems in one complete package. Systems include:



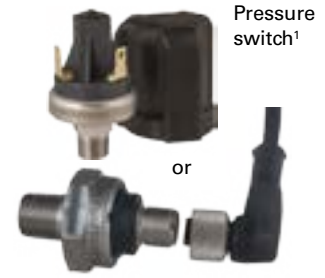
Flint & Walling VS 15, 20 or 30 Controller with advanced electronics. NEMA 3R enclosure. Adjusts 25 to 80 PSI constant pressure. Includes pressure switch.



Factory specified pump end for optimal performance and efficiency. Specifically factory engineered to be compatible with VS15, 20 and 30 controllers.



Proven water-lubricated motor. Performance matched for long life. Specified to avoid overload.



- ¹024545 - Pressure switch kit w/lead
- ¹023049 - Pressure switch only
- ²024586 - Pressure transducer kit (0-100PSI), factory installed
- ²024577 - Pressure transducer only 0 - 100 PSI
- ²024587 - Pressure transducer kit (0-300 PSI)
- ²024585 - Pressure transducer only (0-300 PSI)

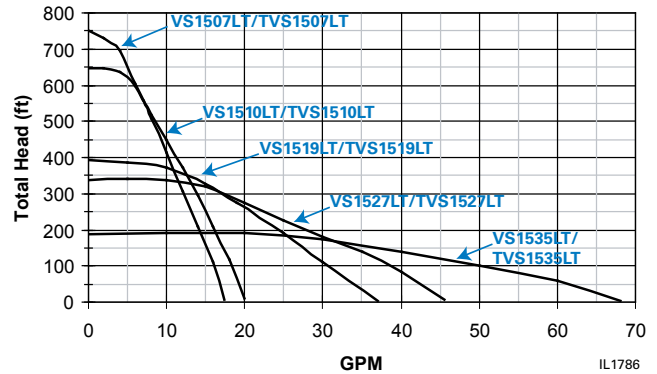
Commander® PRO15



FLINT & WALLING
Zoeller Family of Water Solutions™

Model	Disch.	Pump Dia. *	Pump Length	Motor Dia.	Motor Length	Total Length
VS1507LT TVS1507LT	1-1/4"	3.88"	19.4"	3.75"	11.8"	31.2"
VS1510LT TVS1510LT	1-1/4"	3.88"	18.9"	3.75"	11.8"	30.7"
VS1519LT TVS1519LT	1-1/4"	3.88"	17.0"	3.75"	11.8"	28.8"
VS1527LT TVS1527LT	1-1/4"	3.88"	15.3"	3.75"	11.8"	27.1"
VS1535LT** TVS1535LT**	2"	3.88"	11.8"	3.75"	11.8"	23.6"

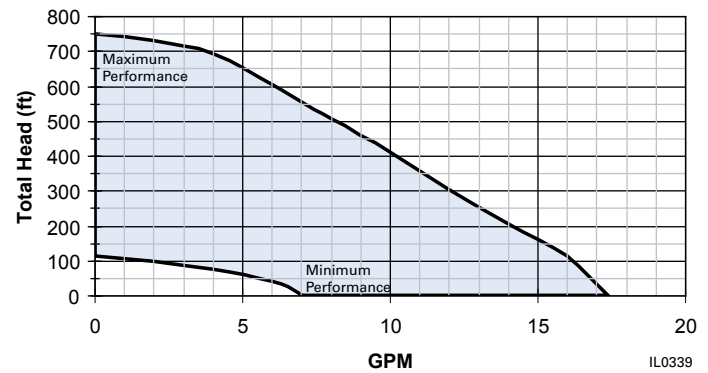
* Including Cable Guard
 **VS1535/TVS1535 does not include an internal check valve.
 For models with pressure transducer, add a "T" prefix to the model, i.e. TVS1507LT.
 NEMA 3R.



Pumping Depth in Feet	GPM @ Pressure Sensor Setting					Max. Shut-Off (PSI)
	30	40	50*	60	70	
						324
20	16.3	16.0	15.6	15.1	14.6	
40	16.1	15.6	15.1	14.6	14.1	
60	15.7	15.2	14.7	14.2	13.7	
80	15.3	14.8	14.2	13.8	13.3	
100	14.8	14.3	13.8	13.3	12.9	
120	14.4	13.9	13.4	12.9	12.5	
140	14.0	13.5	13.0	12.5	12.1	
160	13.5	13.1	12.6	12.1	11.7	
180	13.1	12.7	12.2	11.8	11.3	
200	12.7	12.3	11.8	11.4	10.9	
220	12.3	11.9	11.5	11.0	10.6	
240	12.0	11.5	11.1	10.6	10.2	
260	11.6	11.1	10.7	10.3	9.8	
280	11.2	10.8	10.3	9.9	9.4	
300	10.8	10.4	9.9	9.5	9.0	
350	9.9	9.4	8.9	8.4	7.9	
400	8.9	8.3	7.9	7.4	6.9	
450	7.8	7.3	6.8	6.4	5.9	
500	6.7	6.3	5.8	5.4	5.0	
550	5.8	5.3	4.9	4.4	3.7	
600	4.8	4.3	3.5	1.5	-	
650	3.3	.8	-	-	-	

* Factory preset 50 PSI

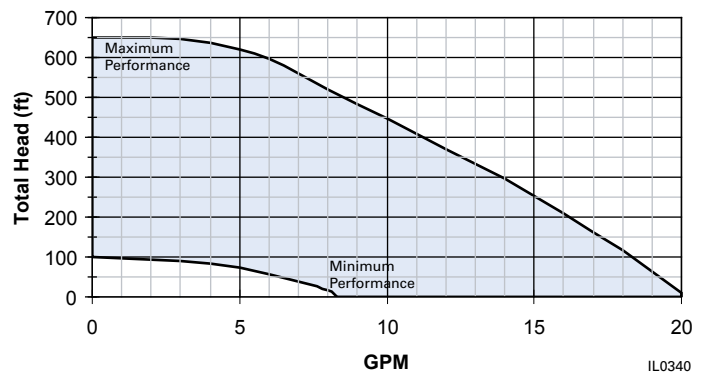
Model VS1507LT, TVS1507LT



Pumping Depth in Feet	GPM @ Pressure Sensor Setting					Max. Shut-Off (PSI)
	30	40	50*	60	70	
						280
20	18.6	18.1	17.8	17.2	16.8	
40	18.2	17.7	17.2	16.7	16.2	
60	17.8	17.2	16.8	16.2	15.8	
80	17.3	16.8	16.3	15.8	15.3	
100	16.9	16.4	15.8	15.3	14.8	
120	16.4	15.9	15.4	14.9	14.4	
140	16.0	15.5	14.9	14.4	13.8	
160	15.6	15.0	14.4	13.9	13.4	
180	15.1	14.6	14.0	13.4	12.8	
200	14.8	14.1	13.5	12.9	12.2	
220	14.1	13.8	12.9	12.3	11.8	
240	13.6	13.0	12.4	11.8	11.2	
260	13.1	12.5	11.9	11.3	10.7	
280	12.6	12.0	11.4	10.8	10.2	
300	12.0	11.4	10.8	10.3	9.6	
350	10.8	10.1	9.5	8.8	8.2	
400	9.4	8.8	8.1	7.5	7.0	
450	8.2	7.4	6.3	6.3	5.5	
500	6.8	6.2	4.0	3.9		
550	5.1	3.8				

* Factory preset 50 PSI

Model VS1510LT, TVS1510LT





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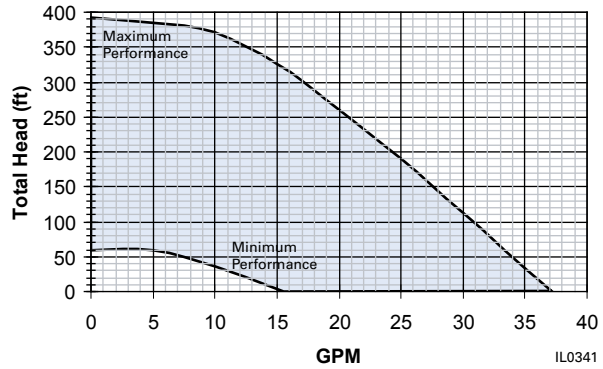
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Commander® PRO15

Pumping Depth in Feet	GPM @ Pressure Sensor Setting					Max. Shut-Off (PSI)
	30	40	50*	60	70	
						169
20	31.8	30.0	28.5	27.2	26.3	
40	30.2	28.7	27.4	26.0	24.2	
60	29.0	27.5	26.0	24.5	22.7	
80	27.7	26.3	24.6	23.0	21.2	
100	26.5	25.0	23.1	21.5	19.5	
120	25.2	23.0	21.6	20.0	18.0	
140	23.7	22.0	20.0	18.5	16.8	
160	22.1	20.2	18.5	17.0	15.2	
180	20.6	18.7	17.2	15.2	13.5	
200	19.0	17.5	15.7	13.9	11.4	
220	17.7	16.0	14.0	11.9	7.0	
240	16.3	14.4	12.0	9.9		
260	14.6	12.5	9.0			
280	12.7	9.9				
300	10.3					

* Factory preset 50 PSI

Model VS1519LT, TVS1519LT

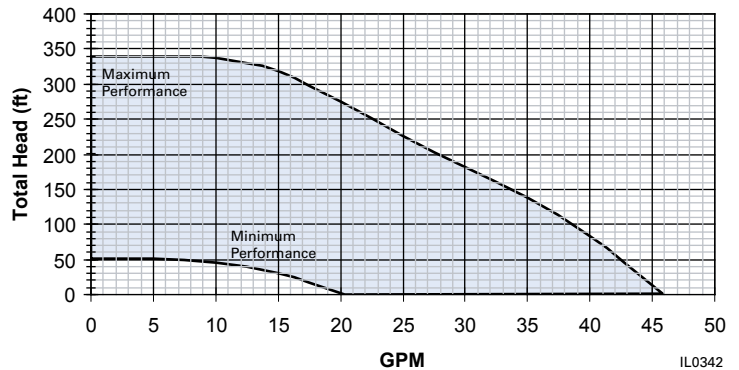


IL0341

Pumping Depth in Feet	GPM @ Pressure Sensor Setting					Max. Shut-Off (PSI)
	30	40	50*	60	70	
20	39.5	37.5	35.4	33.0	30.0	146
40	37.9	35.6	33.2	30.5	27.4	
60	36.0	33.5	30.9	28.0	25.0	
80	34.0	31.2	28.2	25.3	22.8	
100	31.5	28.6	25.6	23.1	20.6	
120	29.1	25.6	23.5	21.2	18.9	
140	26.4	23.8	21.4	19.2	16.9	
160	24.2	21.8	19.5	17.2	14.4	
180	22.1	19.8	17.5	15.1		
200	20.0	17.9	15.3	14.5		
220	18.2	15.9	10.3			
240	16.2	11.8				
260	13.0					

* Factory preset 50 PSI

Model VS1527LT, TVS1527LT



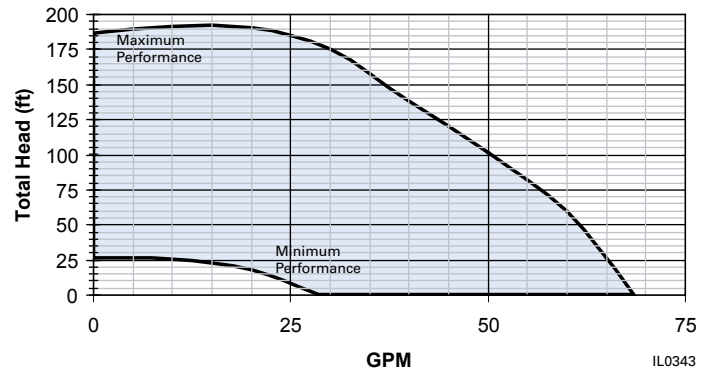
IL0342

Pumping Depth in Feet	GPM @ Pressure Sensor Setting					Max. Shut-Off (PSI)
	30	40	50*	60	70	
20	53.0	47.0	40.8	34.9	27.0	81
40	47.9	41.5	35.8	28.5		
60	42.3	36.4	30.0			
80	37.0	31.0				
100	32.0					
120	21.0					

* Factory preset 50 PSI

**VS1535 does not include an internal check valve.

Model VS1535LT, TVS1535LT



IL0343

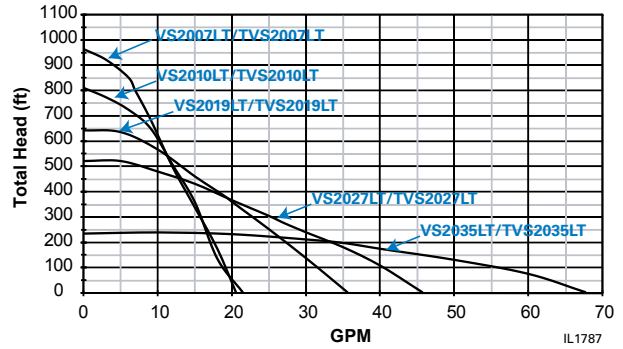
DIMENSIONS						
Model	Disch.	Pump Dia.*	Pump Length	Motor Dia.	Motor Length	Total Length
VS2007LT TVS2007LT	1-1/4"	3.88"	22.60"	3.75"	13.62"	36.22"
VS2010LT TVS2010LT	1-1/4"	3.88"	20.25"	3.75"	13.62"	33.87"
VS2019LT TVS2019LT	1-1/4"	3.88"	18.25"	3.75"	13.62"	31.87"
VS2027LT TVS2027LT	1-1/4"	3.88"	16.85"	3.75"	13.62"	30.47"
VS2035LT** TVS2035LT**	2"	3.88"	12.56"	3.75"	13.62"	26.18"

* Including cable guard

** VS2035LT/T VS2035LT does not include an internal check valve

For models with pressure transducer, add a "T" prefix to the model, i.e. TVS2007LT

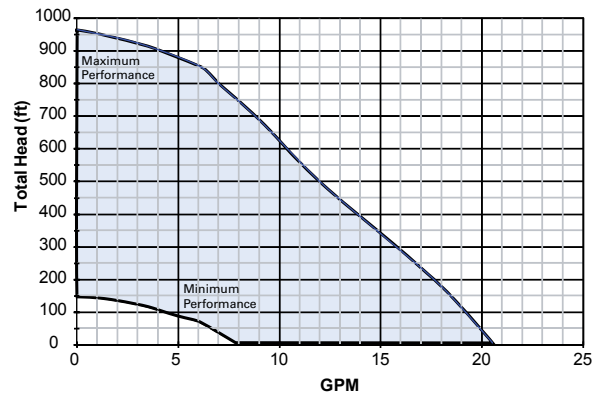
NEMA 3R.



Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Max. Shut-Off (PSI)
	40	50*	60	70	
					417
50	18.5	18.2	17.8	17.4	
100	17.7	17.3	16.9	16.4	
150	16.8	16.4	15.9	15.5	
200	15.9	15.4	15.0	14.5	
250	14.9	14.5	14.0	13.6	
300	13.93	13.5	13.0	12.6	
350	12.95	12.6	12.1	11.7	
400	12.05	11.7	11.3	11.0	
450	11.24	10.9	10.5	10.2	
500	10.46	10.1	9.7	9.4	
550	9.65	9.3	9.0	8.6	
600	8.87	8.5	8.1	7.7	
650	7.99	7.6	7.1	6.8	
700	7.05	6.7	6.4	5.7	
750	6.31	5.6	4.6	3.5	
800	4.44	3.3	1.9		
850	1.74				

*Factory preset to 50 PSI

Model VS2007LT, TVS2007LT

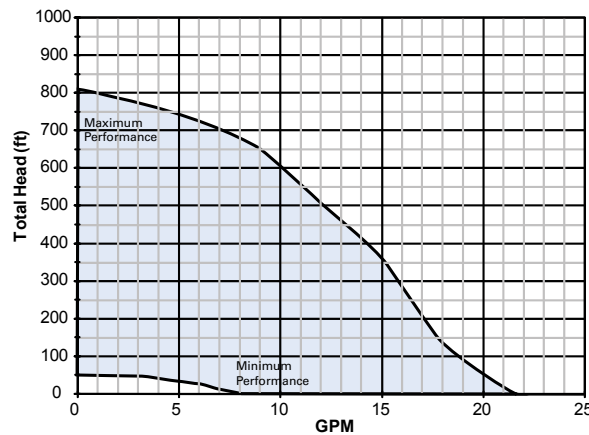


IL0872

Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Max. Shut-Off (PSI)
	40	50*	60	70	
					351
50	17.9	17.5	17.2	16.9	
100	17.1	16.9	16.6	16.3	
150	16.5	16.3	15.9	15.7	
200	15.9	15.6	15.3	14.9	
250	15.3	14.9	14.5	14.0	
300	14.37	13.9	13.4	13.0	
350	13.43	12.9	12.4	11.9	
400	12.25	11.8	11.4	10.9	
450	11.31	10.8	10.4	9.9	
500	10.33	9.8	9.3	8.7	
550	9.17	8.6	7.7	6.7	
600	7.56	6.5	5.4		
650	5.01				

*Factory preset to 50 PSI

Model VS2010LT, TVS2010LT



IL0873



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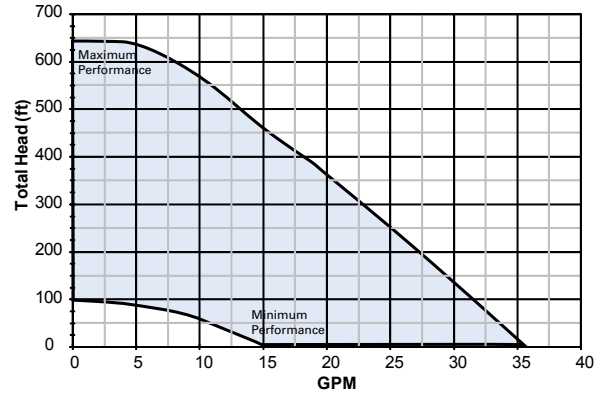
Zoeller Family of Water Solutions™

Commander® PRO20

Model VS2019LT, TVS2019LT

Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Max. Shut-Off (PSI)
	40	50*	60	70	
					278
50	29.8	28.8	27.8	26.8	
100	27.6	26.5	25.6	24.5	
150	25.4	24.4	23.4	22.3	
200	23.2	22.1	21.0	19.9	
250	20.9	19.7	18.7	17.5	
300	18.5	17.3	16.1	15.0	
350	15.9	14.8	13.7	12.7	
400	13.6	12.5	11.5	10.3	
450	11.2	10.0	8.8	7.3	
500	8.5	7.0			

*Factory preset to 50 PSI

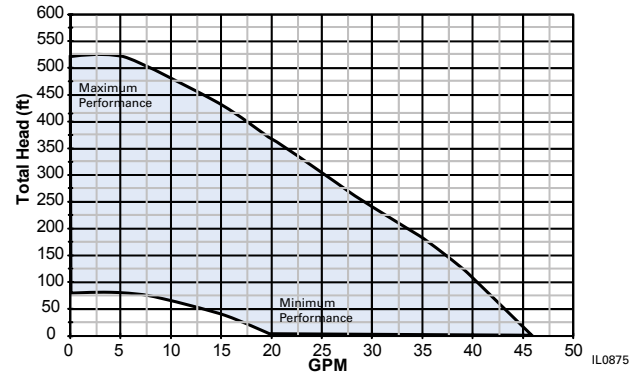


IL0874

Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Max. Shut-Off (PSI)
	40	50*	60	70	
					226
50	37.9	36.3	34.6	32.4	
100	34.1	32.1	30.1	28.2	
150	29.8	28.0	26.1	24.6	
200	26.0	24.1	22.2	20.4	
250	21.9	20.0	18.5	16.7	
300	18.18	16.4	14.5	12.1	
350	14.15	11.8	9.2	6.7	
400	8.75	6.2			

*Factory preset to 50 PSI

Models VS2027LT, TVS2027LT



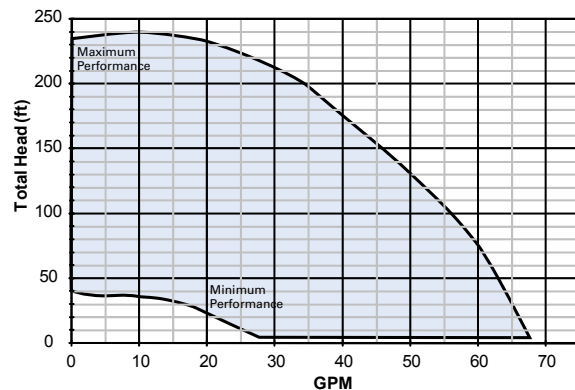
IL0875

Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Max. Shut-Off (PSI)
	40	50*	60	70	
					102
25	52.9	48.0	42.8	37.5	
50	47.8	42.2	37.1	30.2	
75	41.8	36.9	29.4	16.6	
100	36.4	28.6	14.3		
125	28.5	9.8			

*Factory preset to 50 PSI

**VS2035LT does not include an internal check valve

Models VS2035LT, TVS2035LT



IL0876

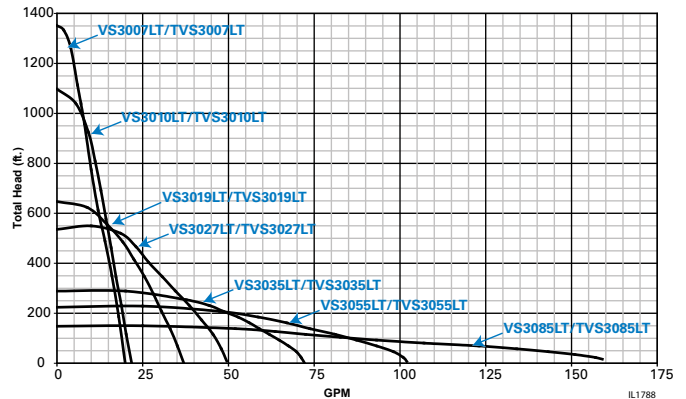
DIMENSIONS

Model	Disch.	Pump Dia.*	Pump Length	Motor Dia.	Motor Length	Total Length
VS3007LT TVS3007LT	1-1/4"	3.88"	26.00"	3.75"	16.06"	42.1"
VS3010LT TVS3010LT	1-1/4"	3.88"	24.25"	3.75"	16.06"	40.3"
VS3019LT TVS3019LT	1-1/4"	3.88"	18.25"	3.75"	16.06"	34.3"
VS3027LT TVS3027LT	1-1/4"	3.88"	18.90"	3.75"	16.06"	35.0"
VS3035LT** TVS3035LT**	2"	3.88"	14.25"	3.75"	16.06"	30.3"
VS3055LT** TVS3055LT**	2"	3.88"	14.50"	3.75"	16.06"	30.6"
VS3085LT** TVS3085LT**	2"	3.88"	14.50"	3.75"	16.06"	30.6"

* Including Cable Guard

**VS3035LT, VS3055LT & VS3085LT do not include an internal check valve.

For models with pressure transducer, add a "T" prefix to the model, i.e. TVS3007LT NEMA 3R.

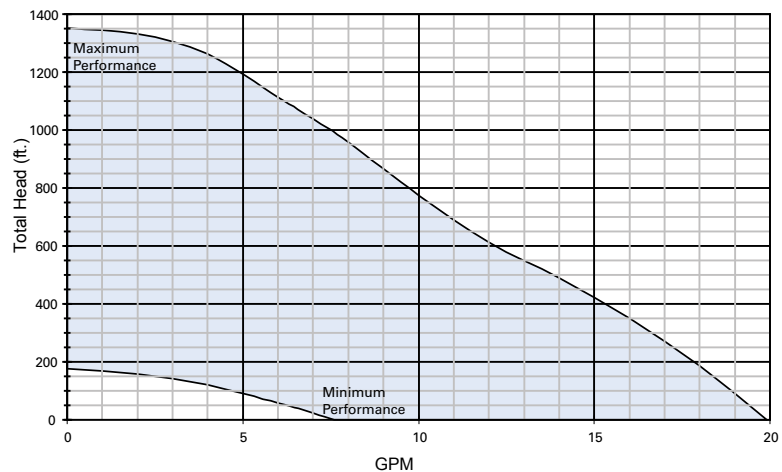


IL1788

Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Maximum Shut Off (PSI)
	40	50*	60	70	
					585
100	18.0	17.7	17.4	17.2	
150	17.4	17.1	16.8	16.5	
200	16.8	16.5	16.2	15.8	
250	16.1	15.8	15.5	15.1	
300	15.4	15.1	14.7	14.4	
350	14.7	14.3	13.9	13.6	
400	13.9	13.5	13.2	12.8	
450	13.1	12.8	12.4	12.1	
500	12.4	12.1	11.7	11.4	
550	11.7	11.4	11.1	10.8	
600	11.0	10.7	10.4	10.2	
650	10.4	10.1	9.8	9.6	
700	9.8	9.5	9.2	9.0	
750	9.2	8.9	8.7	8.4	
800	8.6	8.4	8.1	7.9	
850	8.1	7.8	7.6	7.3	
900	7.5	7.3	7.0	6.7	
950	7.0	6.7	6.4	6.1	
1000	6.4	6.1	5.8	5.5	
1050	5.8	5.5	5.1	4.8	
1100	5.1	4.7	4.4	4.0	
1150	4.3	3.9	3.4	2.8	
1200	3.3	2.7	1.7		
1250	1.4				

*Factory preset to 50 PSI

Model VS3007LT, TVS3007LT



IL0845



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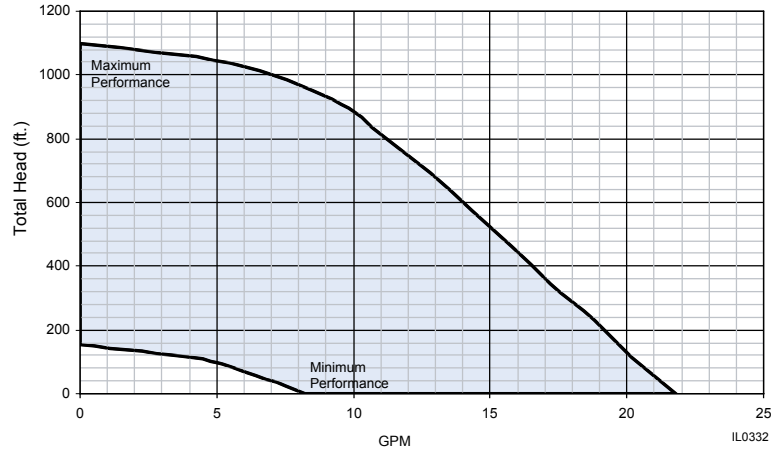
Zoeller Family of Water Solutions™

Commander® PRO30

Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Maximum Shut Off (PSI)
	40	50*	60	70	
					473
100	19.2	18.8	18.6	18.4	
150	18.4	18.2	17.8	17.7	
200	17.8	17.7	17.3	17.1	
250	17.3	16.9	17.2	16.3	
300	16.7	16.2	16.0	15.8	
350	16.1	15.8	15.3	15.2	
400	15.3	15.1	14.9	14.5	
450	14.8	14.4	14.1	13.9	
500	14.1	13.8	13.6	13.1	
550	13.5	13.1	12.8	12.6	
600	12.8	12.5	12.3	11.9	
650	12.2	11.8	11.5	11.2	
700	11.3	11.1	10.7	10.3	
750	10.6	10.2	10.0	9.5	
800	9.9	9.4	8.9	8.1	
850	8.7	8.1	7.5	6.5	
900	7.2	6.5	5.3		
950	5.3	4.5			

*Factory preset to 50 PSI

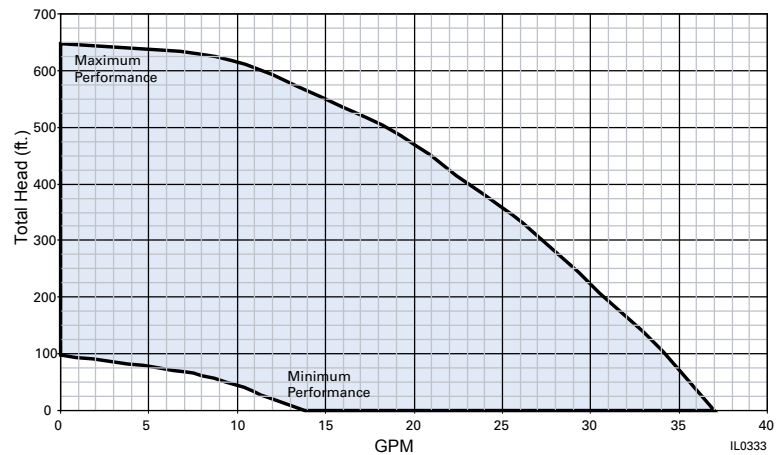
Model VS3010LT, TVS3010LT



Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Maximum Shut Off (PSI)
	40	50*	60	70	
					280
25	33.8	32.7	32.2	31.3	
50	32.7	32.0	31.2	30.3	
75	32.3	31.2	30.5	29.1	
100	30.9	30.3	29.3	28.6	
150	29.2	28.4	27.7	26.8	
200	27.4	26.6	25.8	24.8	
250	25.7	24.6	23.8	22.5	
300	23.5	22.4	21.5	20.5	
350	21.3	20.2	19.2	17.6	
400	18.9	17.3	15.6	13.9	
450	15.6	13.8	12.4	10.0	
500	12.0	9.9			

*Factory preset to 50 PSI

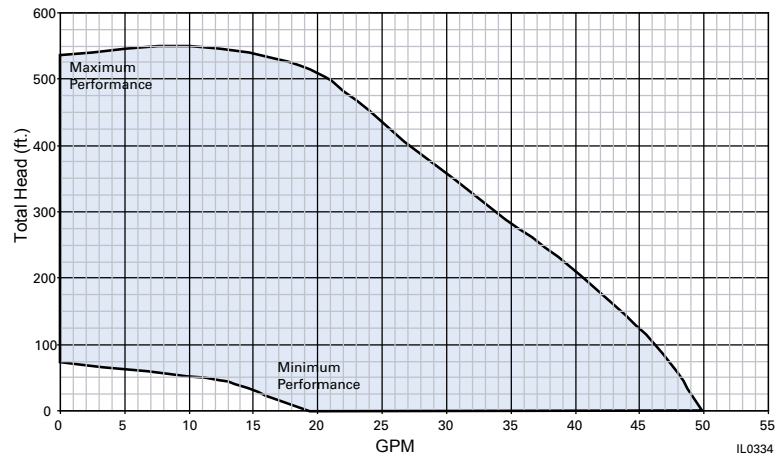
Model VS3019LT, TVS3019LT



Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Maximum Shut Off (PSI)
	40	50*	60	70	
					233
25	45.3	43.9	42.6	41.3	
50	43.8	42.5	41.2	39.9	
75	42.4	41.1	39.8	37.3	
100	41.0	39.7	38.2	36.5	
150	37.9	36.1	34.6	33.0	
200	34.4	32.6	31.2	29.7	
250	31.0	29.5	27.7	26.2	
300	27.4	25.8	24.7	23.5	
350	24.4	23.2	21.5	19.7	
400	21.3	19.0			

*Factory preset to 50 PSI

Model VS3027LT, TVS3027LT

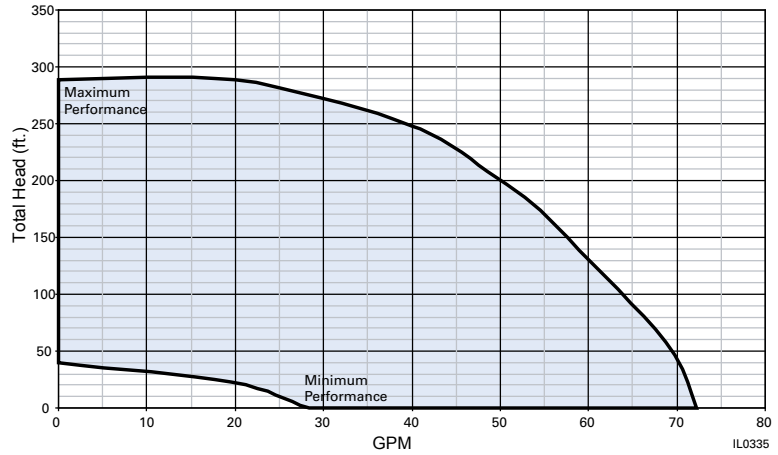


Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Maximum Shut Off (PSI)
	40	50*	60	70	
					122
25	62.0	58.0	56.0	52.0	
50	58.0	56.0	52.0	47.0	
75	56.0	52.0	47.0	42.0	
100	52.0	47.0	42.0	33.0	
125	47.0	42.0	33.0	21.0	
150	42.0	32.0	19.0		
175	32.0	15.0			

*Factory preset to 50 PSI

**Does not include an internal check valve

Model VS3035LT, TVS3035LT

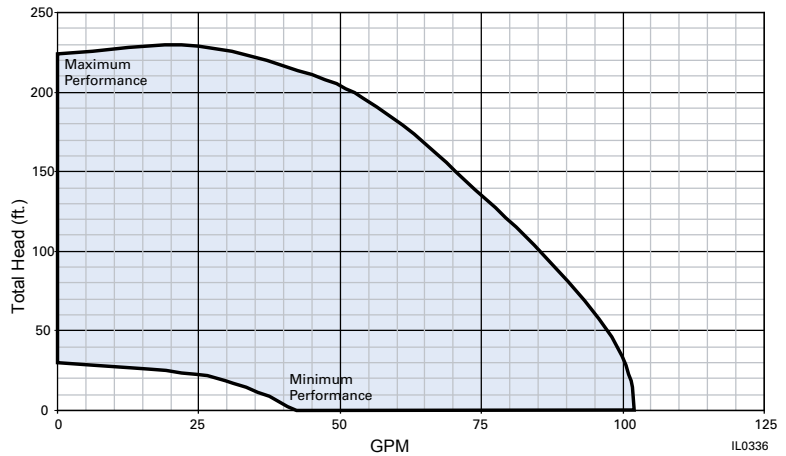


Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting				Maximum Shut Off (PSI)
	40	50*	60	70	
					98
25	81.0	73.0	66.0	57.7	
50	72.0	65.0	56.7	44.1	
75	64.3	56.0	43.0		
100	55.4	42.0			
125	40.9				

*Factory preset to 50 PSI

**Does not include an internal check valve

Model VS3055LT, TVS3055LT

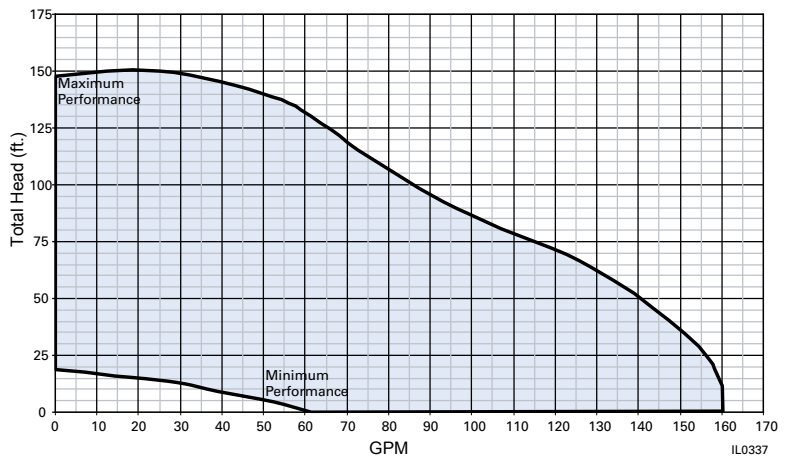


Pumping Depth in Feet	Maximum GPM @ Pressure Sensor Setting			Maximum Shut Off (PSI)
	30	40	50*	
				64
0	122.0	95.0	73.0	
5	117.0	87.0	69.0	
10	108.0	83.0	64.0	
15	103.0	78.0	60.0	
20	97.0	75.0	54.0	
25	92.0	72.0	46.0	
30	86.0	68.0	38.0	
35	82.0	63.0		
40	78.0	55.0		
50	68.0	45.0		

*Factory Preset to 50 PSI

**Does not include an internal check valve

Model VS3085LT, TVS3085LT



Commander® Pro Variable Speed Controllers



FLINT & WALLING

Zoeller Family of Water Solutions™



On controls purchased separately



On package systems

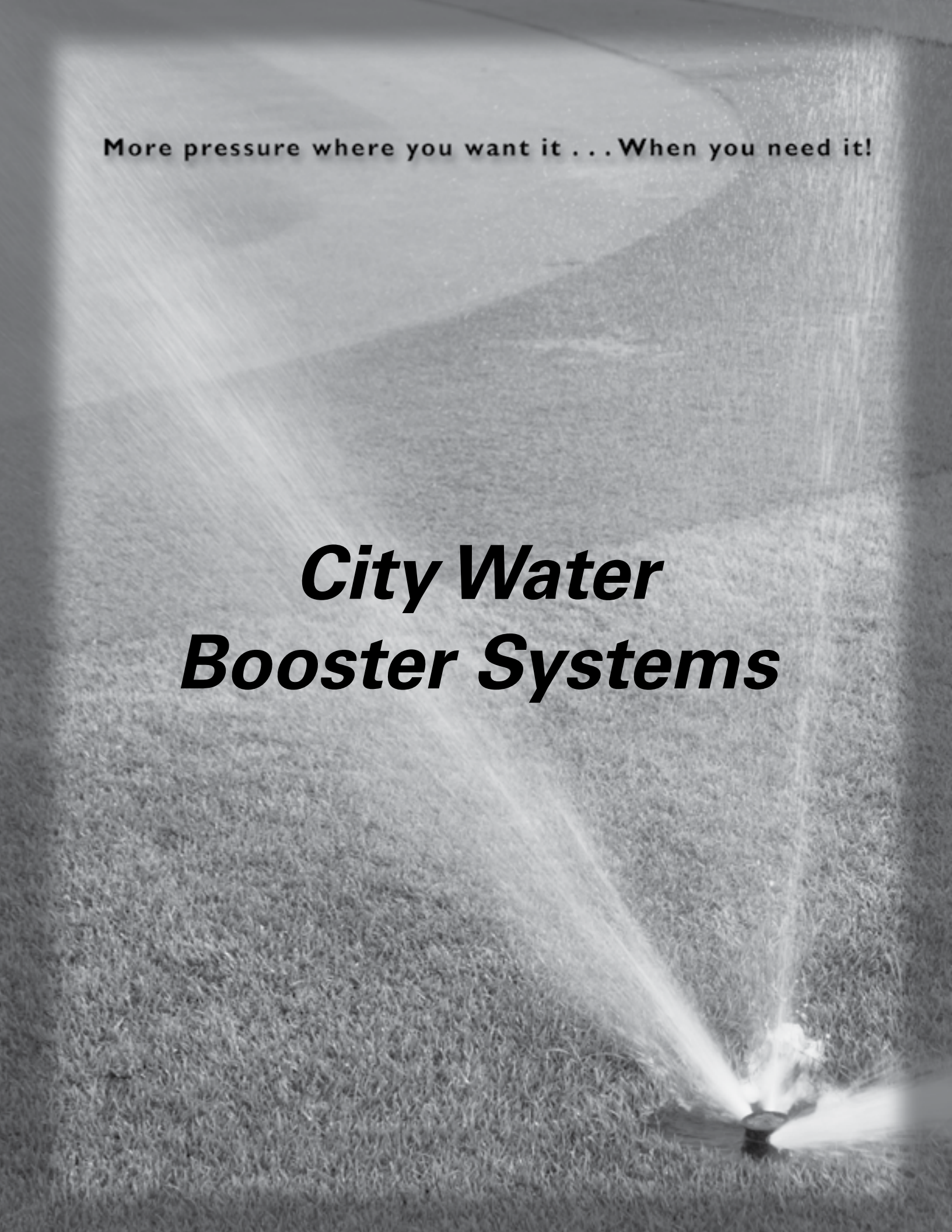


“LT” System less tank

VS PACKAGE		VS CONTROLLER		PUMP END			MOTOR		SWITCH/ TRANSDUCER
MODEL	GPM	MODEL	GPM	DESIGN	PART #	STAGES	PART #	HP	
VS1507LT	7	VS15	07	SS	4F07S07	14	M137458	1.5	024545
TVS1507LT		TVS15							024586*
VS1510LT	10	VS15	10	SS	4F10S07	12	M137458	1.5	024545
TVS1510LT		TVS15							024586*
VS1519LT	19	VS15	19	SS	4F19S10	9	M137458	1.5	024545
TVS1519LT		TVS15							024586*
VS1527LT	27	VS15	27	SS	4F27S10	7	M137458	1.5	024545
TVS1527LT		TVS15							024586*
VS1535LT	35	VS15	35	SS	CP7535RP	3	M137458	1.5	024545
TVS1535LT		TVS15							024586*
VS2007LT	7	VS20	07	SS	4F07S10	18	M137462	2	024545
TVS2007LT		TVS20							024586*
VS2010LT	10	VS20	10	SS	4F10S10	15	M137462	2	024545
TVS2010LT		TVS20							024586*
VS2019LT	19	VS20	19	SS	4F19S15	12	M137462	2	024545
TVS2019LT		TVS20							024586*
VS2027LT	27	VS20	27	SS	4F27S15	10	M137462	2	024545
TVS2027LT		TVS20							024586*
VS2035LT	35	VS20	35	SS	4F35S10	4	M137462	2	024545
TVS2035LT		TVS20							024586*
VS3007LT	7	VS30	07	SS	4F07S15	24	M139424	3	024545
TVS3007LT		TVS30							024586*
VS3010LT	10	VS30	10	SS	4F10S15	20	M139424	3	024545
TVS3010LT		TVS30							024586*
VS3019LT	19	VS30	19	SS	4F19S20	16	M139424	3	024545
TVS3019LT		TVS30							024586*
VS3027LT	27	VS30	27	SS	4F27S20	12	M139424	3	024545
TVS3027LT		TVS30							024586*
VS3035LT	35	VS30	35	SS	4F35S15	5	M139424	3	024545
TVS3035LT		TVS30							024586*
VS3055LT	55	VS30	55	SS	4F55S15	4	M139424	3	024545
TVS3055LT		TVS30							024586*
VS3085LT	85	VS30	85	SS	CP15085RP	3	M139424	3	024545
TVS3085LT		TVS30							024586*

*024586 - Factory installed pressure transducer kit (0-100PSI).
Optional 0-300PSI pressure transducer kit available (P/N 024587)

- All complete Commander® Pro Packages carry a **5 YEAR** limited warranty on pump & motor, and **3 YEAR** limited warranty on control.
- For models with pressure transducer, add a “T” prefix to the model, i.e. TVS1507LT



More pressure where you want it . . . When you need it!

***City Water
Booster Systems***

CITY WATER BOOSTER PUMP



FLINT & WALLING

More pressure where you want it . . . When you need it!



Model VP05 1/2 HP
Model VP10 1 HP

- All-in-one unit.
- Compact design and quiet operation.
- 1 in. stainless steel inlet and outlet.
- Built-in diagnostics protect against:
 - Run Dry
 - Dead Head
 - Rapid Cycling



Inlet PSI	VP05 System Pressure (PSI) at Flow Rates (GPM)						
	3	6	9	12	15	18	21
10	44	39	32	25	17	-	-
20	54	49	42	35	27	-	-
30	64	59	52	45	37	-	-

Inlet PSI	VP10 System Pressure (PSI) at Flow Rates (GPM)						
	3	6	9	12	15	18	21
10	66	61	54	46	37	29	18
20	76	71	64	56	47	39	28
30	86	81	74	66	57	49	38
40	96	91	84	76	67	59	48
50	106	101	94	86	77	69	58



FLINT & WALLING

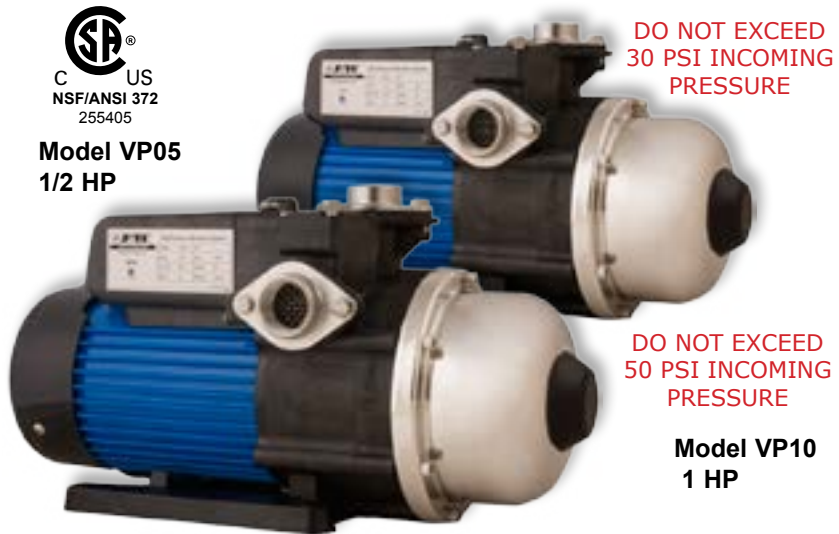
Zoeller Family of Water Solutions™

City Water Booster Pump

FW1492
0814
Supersedes
0214

More pressure where you want it . . . when you need it!

- All-in-one unit, consisting of pump, motor, stainless steel pressure tank and electronic controller
- Compact design and quiet operation make it suitable for many applications
- System has automatic built-in diagnostics to protect against:
Run Dry
Dead Head
Rapid Cycling
- Impeller constructed of thermo plastic with stainless steel bearing and shaft sleeve
- 1 in. stainless steel inlet and outlet flanges



PERFORMANCE

Inlet PSI	VP05 System Pressure (PSI) at Flow Rates (GPM)							HP
	3	6	9	12	15	18	21	
10	44	39	32	25	17	-	-	1/2
20	54	49	42	35	27	-	-	
30	64	59	52	45	37	-	-	

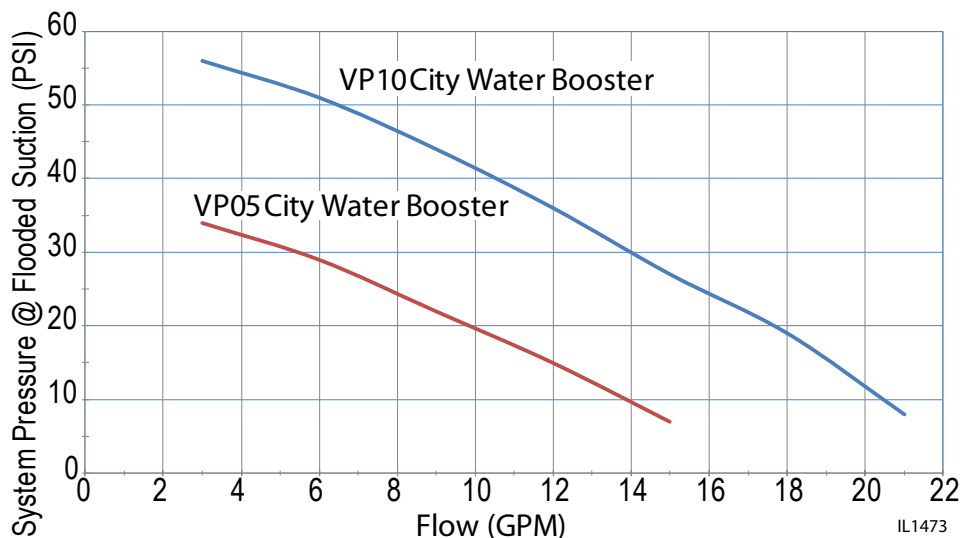
Inlet PSI	VP10 System Pressure (PSI) at Flow Rates (GPM)							HP
	3	6	9	12	15	18	21	
10	66	61	54	46	37	29	18	1
20	76	71	64	56	47	39	28	
30	86	81	74	66	57	49	38	
40	96	91	84	76	67	59	48	
50	106	101	94	86	77	69	58	

City Water Booster Pump

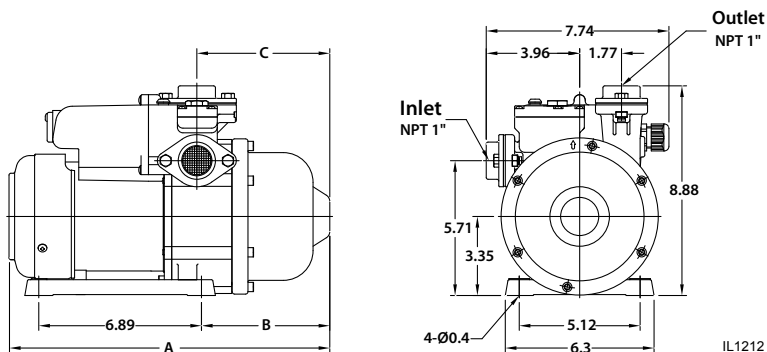


FLINT & WALLING
Zoeller Family of Water Solutions™

PERFORMANCE



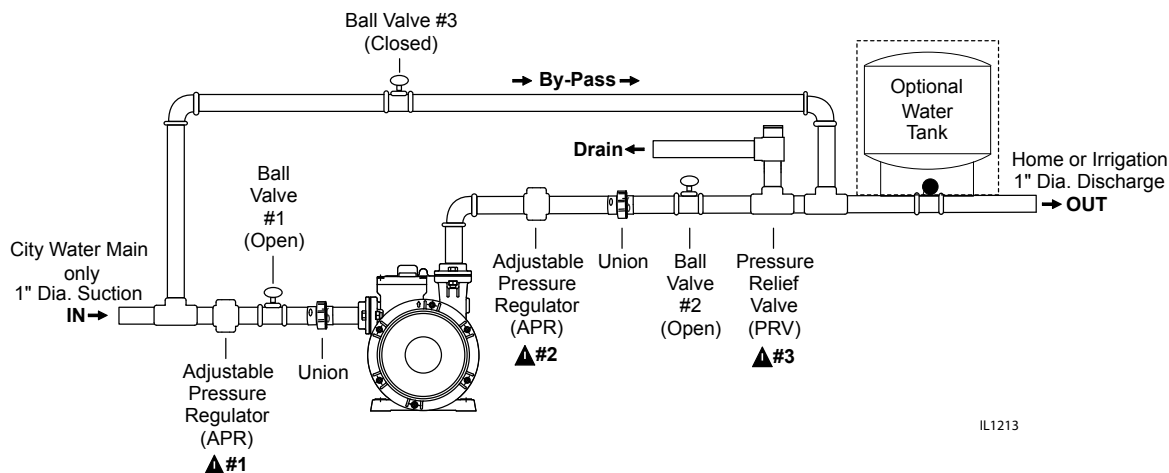
OUTLINE / DIMENSIONAL SIZE



DIMENSIONS CHART C

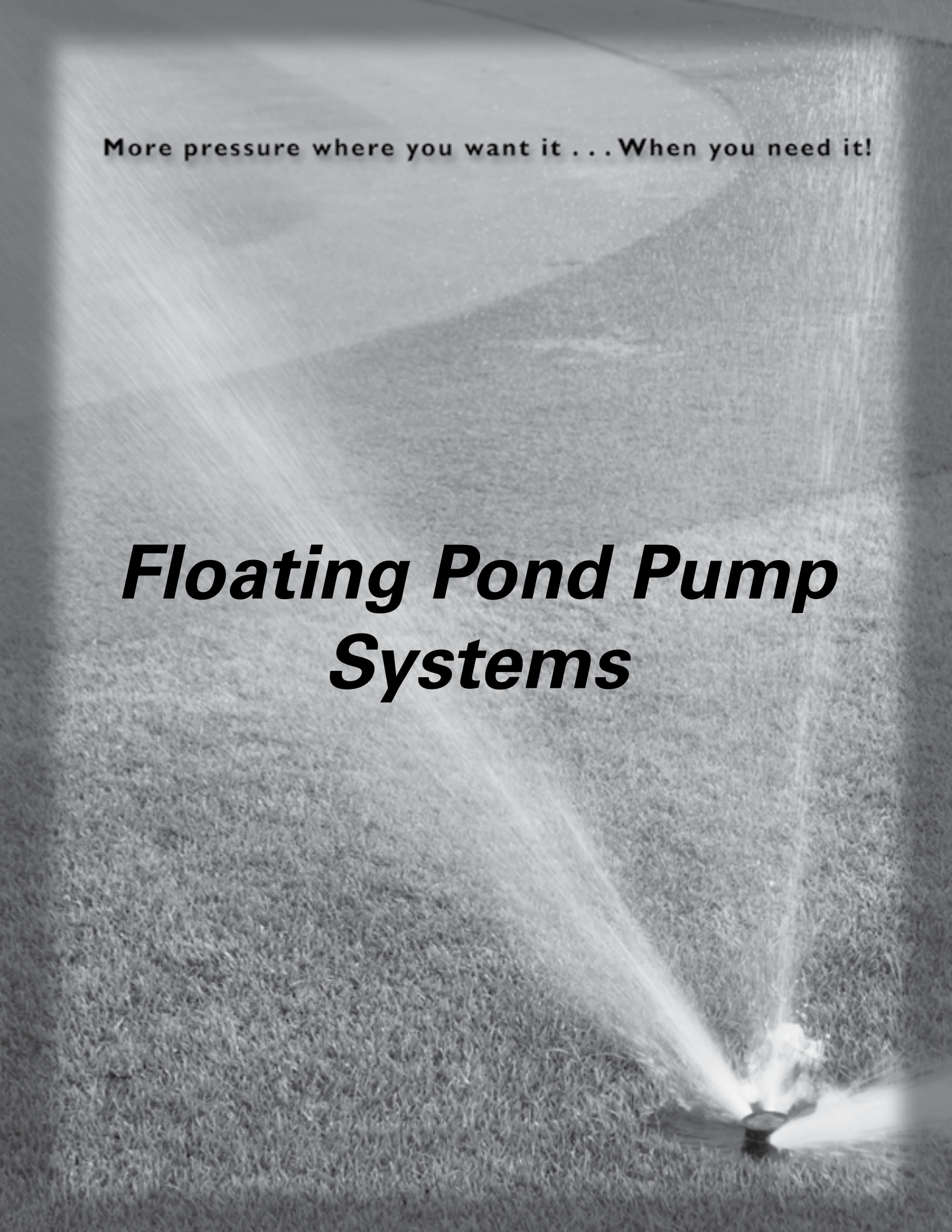
Model	A (in.)	B (in.)	C (in.)
VP05	13.56	5.43	5.63
VP10	16.42	6.46	6.65

TYPICAL INSTALLATION



More pressure where you want it . . . When you need it!

Floating Pond Pump Systems







FLINT & WALLING

Zoeller Family of Water Solutions™

Fountain Systems for Beautiful Waterscapes

FW1145
1014
Supersedes
0410

APPLICATIONS

- Private residential ponds
- Golf courses
- Apartment complexes
- Waterscapes
- Industrial centers
- City parks

THREE EASILY INTERCHANGEABLE PATTERNS INCLUDED



Factory Installed Pattern

Water Lily - An eye-catching combination spray



Sky Cannon - A dramatic single plume of water



Water Trumpet - A symmetrical inverted bell shape



230V model shown

115V Model: FPS0501

230V Models: FPS05021, FPS07021, FPS10021

LIGHT UP THE NIGHT WITH THE OPTIONAL "NightBright" SYSTEM

Now available for all models



Specifications

SYSTEM SPECIFICATIONS

MODEL NO.	HP	PHASE	VOLTS	RUNNING AMPS	SYSTEM CABLE LENGTH	MAX. CABLE LENGTH
FPS0501	1/2	1	115V	12	100 FT.	100 FT.
FPS05021	1/2	1	230V	6	100 FT. ‡	250 FT. †
FPS07021	3/4	1	230V	8	100 FT. ‡	250 FT. †
FPS10021	1	1	230V	9.8	100 FT. ‡	250 FT. †

‡ Optional cable available in 50 ft. increments up to 150 ft additional.

† Maximum cable length from fountain to control. For wire specifications and size from the control panel to the fuse disconnect box, consult a licensed electrician. A licensed electrician should perform electrical installation in accordance with national and local electrical codes.

FOUNTAIN NOZZLE SPECIFICATIONS

MODEL NO.	HP	WATER LILY			SKY CANNON		WATERTRUMPET		
		"A"	"B"	Flow	"A"	Flow	"A"	"B"	Flow
		HT.	DIA.	GPH*	HT.	GPH*	HT.	DIA.	GPH*
FPS0501 / FPS05021	1/2	15	30	4900	15	3300	13	15	2700
FPS07021	3/4	22	32	5825	35	4100	20	25	3400
FPS10021	1	24	46	6150	41	4200	22	35	3600

*Water displacement gallons per hour.

THREE EASILY INTERCHANGEABLE PATTERNS INCLUDED



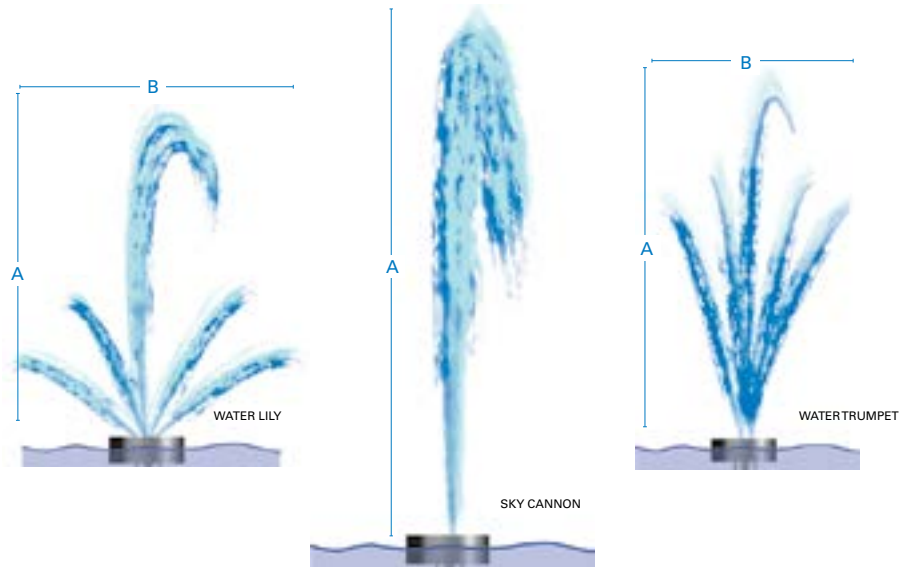
Water Lily



Sky Cannon



Water Trumpet



WARNING: Not tested or approved for use in swimming areas

Specifications






FLINT & WALLING

Zoeller Family of Water Solutions™

ADDITIONAL PUMP CABLE PACKAGES FOR 230V "FPS" FOUNTAIN SYSTEMS

CABLE	CABLE LENGTH FT.	50'	100'	150'
14 GA. SOOW	PART NO.	022923	022924	022925
12 GA. SOOW		022920	022921	022922



Cable packages include 022919 heat shrink splice kit

OPTIONAL QUICK DISCONNECT		HEAT SHRINK SPLICE KITS			
The optional Quick disconnect for the motor electrical connection enables disconnecting the unit for cleaning and winter storage. Part No. 022918		For use on 14 and 12 gauge pump cable. Part No. 022919			For use on 18 GA. light cable. Part No. 022933
					

OPTIONAL FOUNTAIN "NIGHT BRIGHT" LIGHTING SYSTEM

Flint & Walling floating fountains are even more dramatic at night with the addition of a "Night Bright" lighting system. The three light, 120V, 120 watt equivalent system includes stainless steel housings that can easily be installed onto the float. The fountain control center includes an adjustable 24 hour timer for controlling the "Night Bright" lighting system.

OPTIONAL 120V LIGHT KITS

PART NO.	STANDARD LIGHT KIT PACKAGE COMPONENTS		
023069	<ul style="list-style-type: none"> • Three white LED lamps † • 100 Ft. of 18 GA. AWG SOOW underwater cable ‡ • Stainless steel mounting brackets and hardware • Heat shrink splice kit 		
023369	Light kit with GFI connector for fountain systems without control box		

† Optional colored lamps are available in red, green and blue sets of 3.

‡ Optional cable available in 50 ft. increments up to 150 ft additional.

ADDITIONAL LIGHT CABLE PACKAGES FOR OPTIONAL LIGHTING SYSTEM

CABLE	CABLE LENGTH FT.	50'	100'	150'
18 GA. SOOW	PART NO.	022930	022931	022932

Cable packages include 022933 heat shrink splice kit

COLORED LED LAMP SETS FOR OPTIONAL "NIGHT BRIGHT" LIGHTING SYSTEM

Part No.	Description			
023059	Red			
023058	Green			
023057	Blue			

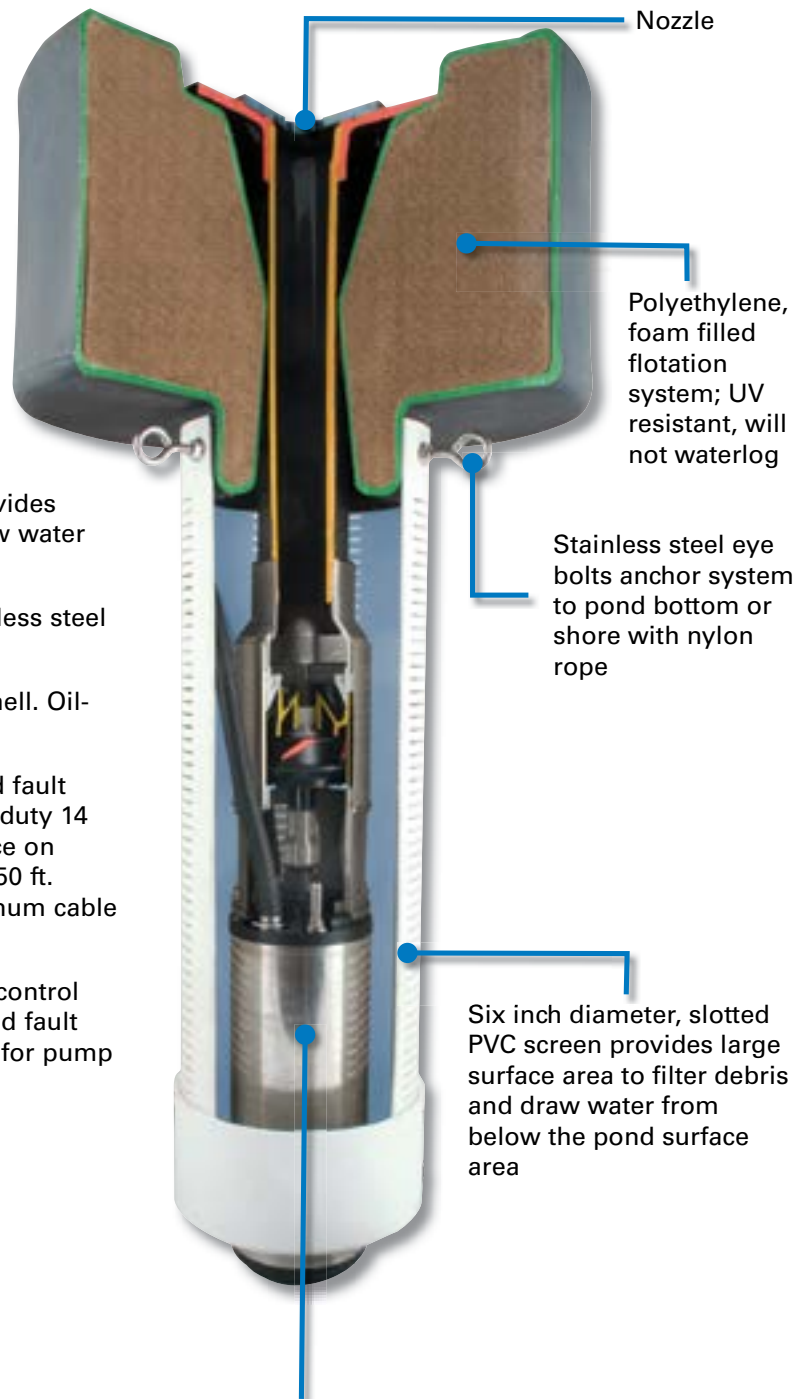
Features and Benefits



FLINT & WALLING

Zoeller Family of Water Solutions™

- Available in 1/2 HP 115V or 230V single phase models and 3/4 and 1 HP, 230V, single phase models
- Operates in 5 ft. of water or deeper
- Easily interchangeable nozzles to achieve three different spray patterns
- Polyethylene, foam-filled flotation system: UV resistant, will not waterlog
- Stainless steel eye bolts anchor system to pond bottom or shore line with nylon rope
- Six inch diameter, slotted PVC screen provides large surface area to filter debris and draw water from below the pond surface area
- Four inch diameter pump fitted with stainless steel and thermal plastic components
- Water-cooled motor with stainless steel shell. Oil-free design. Single phase, 230V
- 100 ft. S00W waterproof cord with ground fault interruptor on 115V models. 100 ft. heavy duty 14 Ga. waterproof cord with heat shrink splice on 230V models. Optional cable available in 50 ft. increments up to 150 ft. additional. Maximum cable length 250 ft.
- 230V models include rain-proof, lockable control center. Includes internally mounted ground fault interrupter and 24 hour adjustable timers for pump and optional lights.



Four inch diameter pump and motor fitted with stainless steel and thermal plastic components for maximum corrosion resistance



FLINT & WALLING

95 North Oak Street
Kendallville, IN 46755

Phone: (800) 345-9422 or (260) 347-1600

Fax: (260) 347-0909

flintandwalling.com

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Toll-Free Service	(800) 742-5044
Toll Free Water Conditioning	(800) 545-2206
Toll-Free Sales Department.	(800) 927-0360
Toll-Free Sales Fax	(800) 848-2535
International Phone	+ 1 (260) 347-1600
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International Correspondence Fax	+ 1 (260) 347-6664



FLINT & WALLING

Irrigation Catalog

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Kendallville, IN 46755

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