

# High Volume Pressure Booster Pump Submittal Data

FW0543 0620  
Supersedes 0320

Job or Customer	
Engineer	
Contractor	
Submitted by	Date
Approved by	Date
Specification Reference	
Quote Date	Quote Number



For continuous-duty high flow, pressure boosting applications such as increasing water pressure from city mains or private water systems. Units are not self-priming but will lift water up to 25 ft. with foot valve and pump suction piping filled with

water. Heavy-duty cast-iron body, low lead brass impellers, and mechanical seal with stainless steel, Buna N and carbon-silicon carbide parts. F&W 3450 RPM motor. NEMA 56J frame with threaded shaft.

Quantity	Model Number	System Discharge Pressure (PSI)	Flow (GPM)	System Inlet Pressure (PSI)	Volts	Phase	Comments

## PERFORMANCE SPECIFICATIONS

### CJ103 SERIES CENTRIFUGAL PUMPS, LOW LEAD BRASS IMPELLERS

MODEL NO.		HP	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												
CJ103031AB		1/3	1	5 15 25	42 36 28	34 26	21							27	100psig	200° F	
CJ103051AB CJ103051TAB		1/2	1	5 15 25	50 43 33	47 40 30	37 29 15	25 9						32	100psig	200° F	
CJ103071 CJ103071T	CJ103073 CJ103073T	3/4	1	5 15 25	71 66 57	62 54 43	51 40 25	36 19	11					32	100psig	200° F	
CJ103101 CJ103101T	CJ103103 CJ103103T	1	1	5 15 25	76 73 66	69 65 57	61 54 45	50 41 29	36 24	16				39	100psig	200° F	
CJ103151 CJ103151T	CJ103153 CJ103153T	1 1/2	1	5 15 25	94 92 74	88 85 72	80 75 66	70 63 52	59 49 34	44 27	18			43	100psig	200° F	
CJ103201		3	1	5 15 25	109 109 90	103 103 89	96 94 85	86 82 71	75 67 51	61 45	39			44	100psig	200° F	
CJ103201T	CJ103203 CJ103203T	2															

\*\*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"

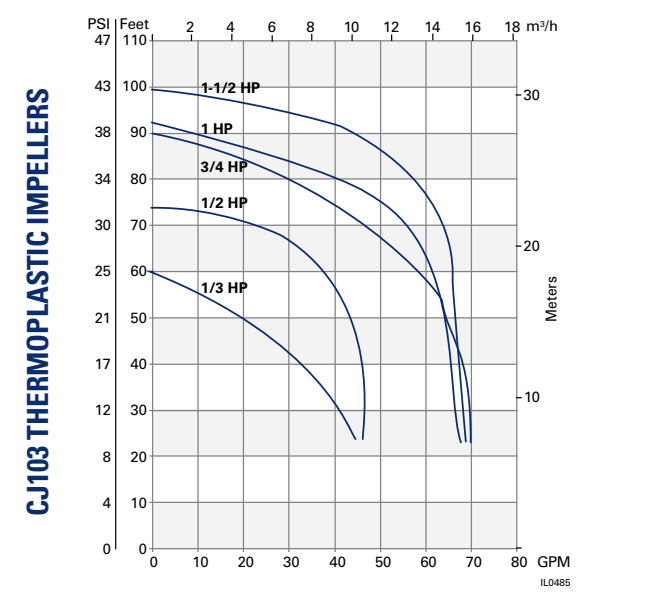
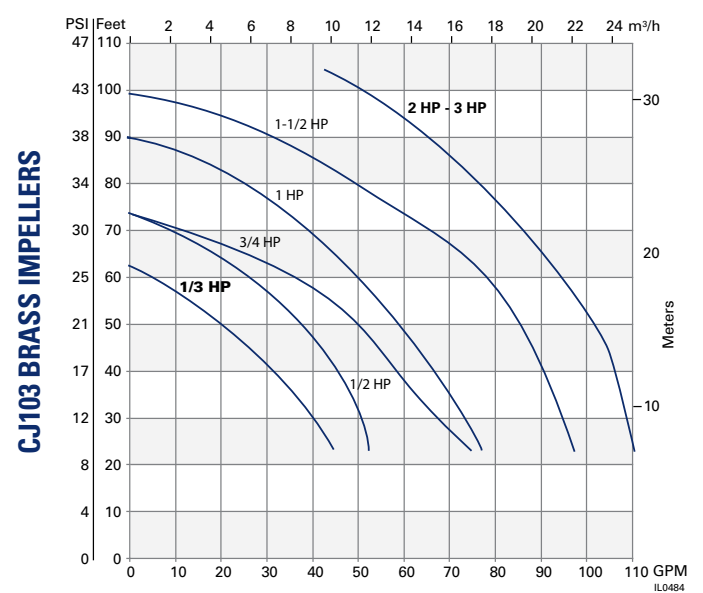


# High Volume Pressure Booster Pump

PERFORMANCE SPECIFICATIONS																				
CJ103 SERIES CENTRIFUGAL PUMPS, PLASTIC IMPELLERS																				
MODEL NO.		HP	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 15 25	43 35 26	35 24	21									26	100psig	160° F		
CJ103P051	CJ103P053	1/2	1	5 15 25	45 41 31	45 41 29	44 38 27	36 24	19							32	100psig	160° F		
CJ103P071	CJ103P073	3/4	1	5 15 25	69 64 49	68 62 48	64 57 45	57 46 31	42 28	20						38	100psig	160° F		
CJ103P101	CJ103P103	1	1	5 15 25	67 61 47	65 59 46	64 58 45	62 55 43	51 41 23	35						40	100psig	160° F		
CJ103P151	CJ103P153	1 1/2	1	5 15 25	68 62 48	67 61 47	66 60 46	65 59 45	63 55 41	52 39	31					44	100psig	160° F		

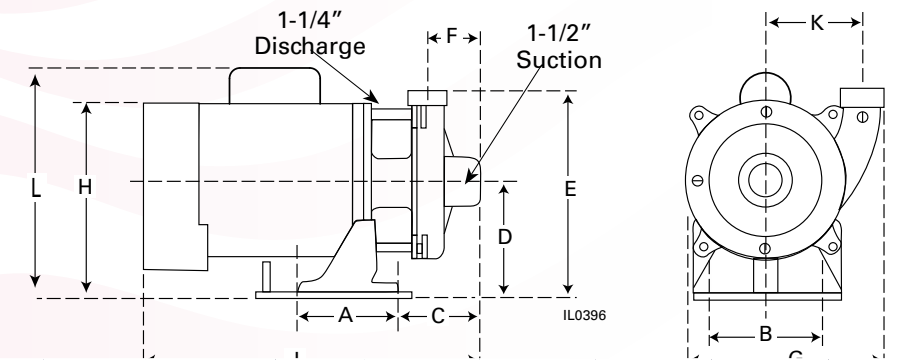
Do not exceed the maximum case pressure and maximum liquid temperature rating of the pump. Performance shown for 60Hz models. 50 Hz models also available. Models with suffix T denotes TEFC motor. All other models utilize ODP motors. Suction and Discharge Tappings 1-1/2" X 1-1/4"

## PERFORMANCE CURVES



# High Volume Pressure Booster Pump

## PUMP DIMENSIONS 60 HZ



## Dimensions in Inches for ODP Motor

HP	A	B	C	D	E	F	G	H	J	K	L	
1/3	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	13-1/4	3-7/8	-	
1/2	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	13-1/2	3-7/8	-	
3/4	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	14	3-7/8	-	
1	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	14-1/2	3-7/8	10-1/4	
1-1/2	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	15-1/8	3-7/8	10-1/4	
1 Phase	3	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	15-5/8	3-7/8	10-1/4
3 Phase	2	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	15-5/8	3-7/8	-

## PUMP DATA

Flow Range ..... 1.5 to 80 GPM  
 Pressure Boost Range ..... 27 - 45 PSI  
 Liquid Temperature ..... 34°F to 200°F  
 Maximum Case Pressure ..... 100 PSI



Agency Approvals .....  
 Duty Cycle ..... Continuous  
 Pumping Medium ..... Clear Water  
 Service/Repair Information ..... Pump and Motor Field Serviceable

## MOTOR DATA

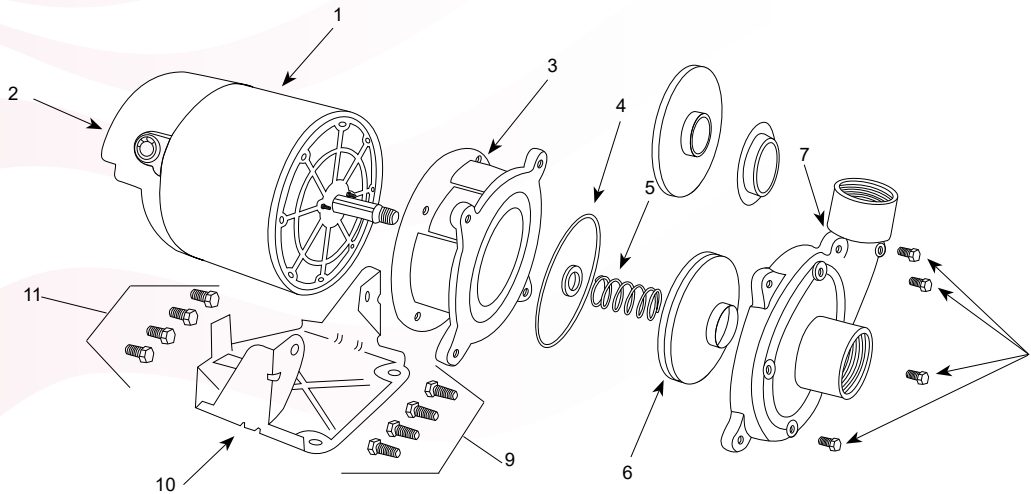
HP	Service Factor	Locked-Rotor Torque (Starting Torque)	Single Phase						3 Phase								
			Service Factor		S.F.	Max. Amb.	Max. Amb. @ SF before Overload Tripping	Breakdown Torque	Peak Output Power		Service Factor		S.F.	Max. Amb.	Breakdown Torque	Peak Output Power	
			In-Lbs.	Amps					HP	kW	Amps	Amps				In-Lbs.	HP
1/3	1.75	16	8.6	4.3	1.75	65° C / 149° F	70° C / 158° F	17	0.85	0.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/2	1.60	23	13.0	6.5	1.6	65° C / 149° F	70° C / 158° F	27	1.3	1.0	3.5	1.75	1.6	65° C	42	2.0	1.5
3/4	1.50	29	14.0	7.0	1.5	65° C / 149° F	70° C / 158° F	42	2.1	1.6	3.5	1.75	1.5	65° C	49	2.3	1.7
1	1.40	48	N/A	8.1	1.4	65° C / 149° F	66° C / 151° F	52	2.5	1.9	4.5	2.25	1.4	65° C	74	3.5	2.6
1.5	1.30	59	N/A	10.2	1.3	65° C / 149° F	66° C / 151° F	65	3.4	2.5	5.7	2.85	1.3	65° C	90	4.3	3.2
2	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.4	3.7	1.25	65° C	112	5.3	4.0
3	1.0	63	N/A	13.5	1.0	65° C / 149° F	66° C / 151° F	70	3.8	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Motor Voltage: Single Phase 1/3 - 2 HP - 115/230; 3HP - 230V 60 Hz.  
 Three Phase 1/2 - 2 HP - 208-230/460, 50/60Hz



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## CONSTRUCTION MATERIALS - PUMP AND MOTOR



ITEM NO.	DESCRIPTION	MATERIALS
1	Motor Shell	Zinc-Clad Steel
2	Motor Access Cover	Valox
3	Mounting Ring	Cast Iron
4	Gasket	Buna "O" Ring
5	Mechanical Seal Assembly	Carbon-silicon carbide, stainless steel spring, and Buna-N
6	Impeller	Low lead brass / plastic
7	Body w/Clearance Ring	Cast Iron
8	1/8" NPT Plug	Plated Steel
9	3/8 x 1" Pump End Bolts	Plated Steel
10	Base	Stamped Steel
11	3/8 x 3/4" Motor Mounting Ring Bolts	Plated Steel

### CJ103 DOE Compliance

PUMP MODEL	Impeller Dia.	P.E.I.CL	PUMP MODEL	Impeller Dia.	P.E.I.CL	PUMP MODEL	Impeller Dia.	P.E.I.CL	PUMP MODEL	Impeller Dia.	P.E.I.CL	PUMP MODEL	Impeller Dia.	P.E.I.CL
CJ103101	4.870"	0.98	CJ103103	4.870"	0.99	CJ103P101	5.000"	0.98	CJ103P153	5.090"	0.99	CJ103201T	5.090"	0.99
CJ103151	5.090"	0.99	CJ103153	5.090"	0.99	CJ103P151	5.090"	0.90	CJ103101T	4.870"	0.99	CJ103103T	4.870"	0.91
CJ103201	5.090"	0.98	CJ103203	5.090"	0.99	CJ103P103	5.000"	0.99	CJ103151T	5.090"	0.99	CJ103153T	5.090"	0.93
												CJ103203T	5.090"	0.91

