

F4100 & C4200 ELECTRIC CONDENSATE PUMPS

THERMAFLO
ENGINEERING INCORPORATED
Manufacturers Of Steam Fired Specialty Equipment
Since 1986

Model	F4100	C4200
Tank Sizes	8/15/30/45/60/95 Gal.	6/15/24/36/50 Gal.
Connections	NPT	NPT
Tank Material	Fabricated Carbon Steel 304ssCast Iron	
Max Disch. Press.	50 PSIG *	50 PSIG *
TMO/TMA	200°F	200°F
Options	Mechanical & electrical alternators; gauge glass; thermometer; discharge pressure gauges; isolation valves; magnetic starters; 1750 RPM motors; control panels; oversized or stainless steel receivers; high temperature components, high temp 2100°F seals	

* Discharge Pressures up to 125 PSIG Available.

TYPICAL APPLICATIONS

The primary purpose of the **F4100** and **C4200** electric condensate pumps are to return condensate back to the boiler. Pumping condensate over 200°F is not recommended with these pumps due to potential mechanical seal failure.

HOW IT WORKS

The float, which is connected to the switch assembly rises when condensate enters the receiver tank. When the float rises above its set point, it energizes the motor on the pump. Once started, the pump will continue to run until the water level drops below the bottom position of the float switch. There it will de-energize the motor to shut off the pump. This cycle repeats as condensate begins to fill the receiver tank.

FEATURES

- Fabricated steel receivers (F4100) FS 4100 Stainless Steel or cast iron receivers (C4200)
- Simplex and duplex packages
- Bronze-fitted centrifugal pumps
- Energy-efficient 3450 RPM motors
- Automatic venting
- Ceramic pump seal
- Heavy-duty float switch or mechanical alternator
- All steel receivers, and iron receivers over 24 gallons include a threaded NPT overflow port
- Low NPSH and 1750 RPM available

SAMPLE SPECIFICATION

Pump(s) shall be of the centrifugal type with two-piece enclosed brass impeller, cast iron housing and stainless steel motor shaft. The float switch shall be two-pole with plastic case, stainless steel float and shafting, and double-break silver contacts. A flat perforated brass strainer shall be provided in the inlet of the pump from the tank.



INSTALLATION

Place on an elevated, level and substantial foundation in a clean, dry and accessible area. Locate receiver tank inlet below lowest point of the condensate return lines.

MAINTENANCE

At regular intervals, check the motor lubrication, unless the motor is equipped with a permanently lubricated bearing.

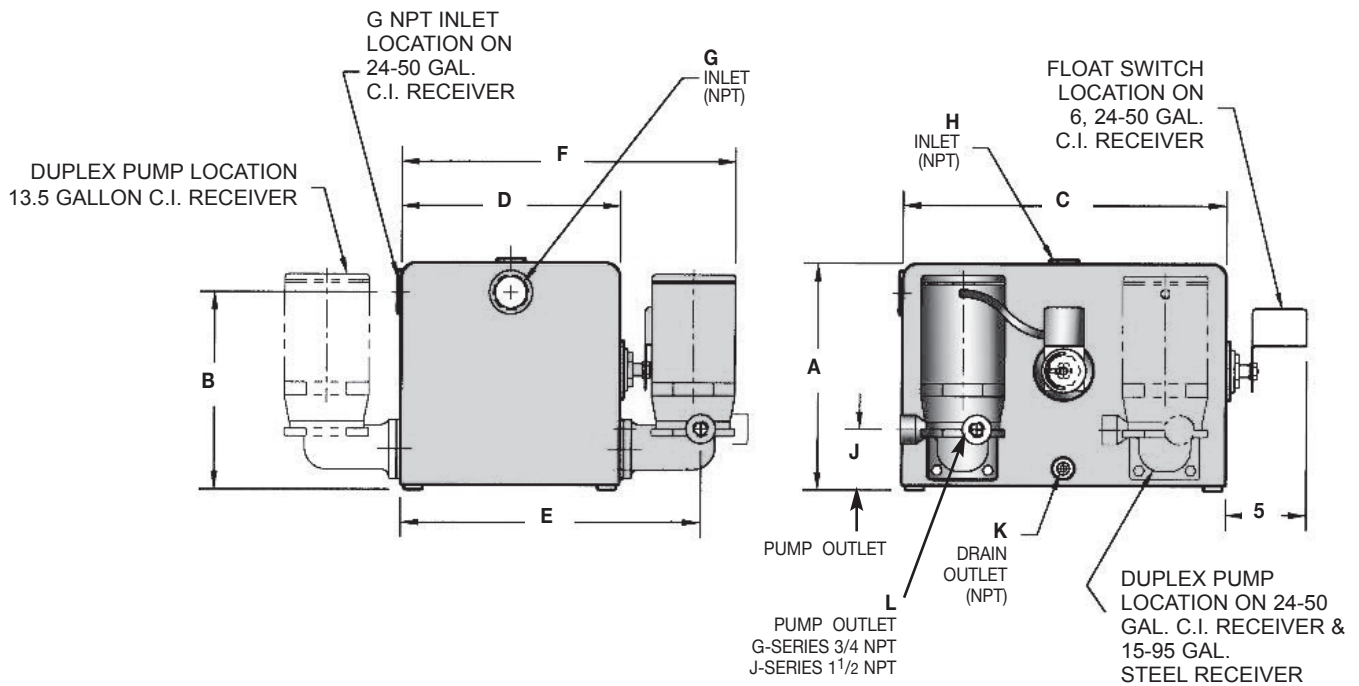
OPTIONS

- Mechanical and electrical alternators NEMA 1 or 4
- Gauge glass
- Thermometer
- Discharge pressure gauges
- Isolation valves
- Magnetic starters with HOA selector switch
- 2' NPSH 1750 RPM motors, larger pumping capacities & higher discharge pressures
- Wide variety of control panels
- Oversized receivers (4, 5, 60, 95, 125 gallons)
- Stainless Steel receivers
- High Temperature (250°F) Components

HOW TO ORDER

Specify the discharge pressure, gallons per minute and voltage requirements when ordering. FS denotes 304 Stainless Steel receiver.

F4100 & C4200 ELECTRIC CONDENSATE PUMPS



F4100 (Steel Receiver) Dimensions - inches												
Series	Receiver Size	A	B	C	D	E	F	G	H	J	K	L
G	8 gallon	12 ^{3/4}	10 ^{1/2}	12 ^{1/2}	12 ^{1/2}	18	21 ^{1/2}	2	1 1/2	4 ^{1/8}	1/2	3/4
	15 gallon	14 ^{3/8}	12 ^{3/8}	17	15	20 ^{1/2}	23 ^{1/4}	2				
	30 gallon	18 ^{3/8}	16 ^{1/8}	22	18	23 ^{1/2}	28	2 ^{1/2}				
J	45 gallon	26 ^{3/8}	24 ^{1/8}	22	18	---	29 ^{5/16}	2 ^{1/2}	1	3 ^{1/4}	1/2	1 1/2
	60 gallon	28 ^{3/8}	26 ^{1/8}	28	18	---	29 ^{5/16}	2 ^{1/2}				
	95 gallon	28 ^{3/8}	26 ^{1/8}	28	28	---	39 ^{5/16}	2 ^{1/2}				

C4200 (Cast Iron Receiver) Dimensions - inches												
Series	Receiver Size	A	B	C	D	E	F	G	H	J	K	L
G	6 gallon	14 ^{1/2}	12 ^{1/2}	14 ^{1/2}	12 ^{5/8}	18 ^{1/4}	20 ^{7/16}	2	3/4	4 ^{3/32}	3/4	3/4
	15 gallon	14 ^{7/8}	13 ^{1/8}	18 ^{1/2}	13 ^{1/2}	19 ^{1/8}	24	2	1	3 ^{3/4}	1/2	3/4
	24 gallon	19 ^{1/8}	15 ^{5/8}	25 ^{7/8}	15	20 ^{1/32}	22 ^{13/16}	2	1	4 ^{1/8}	3/4	3/4
	36 gallon	18 ^{5/8}	15 ^{1/8}	27 ^{21/64}	22 ^{1/2}	27 ^{17/32}	31 ^{3/4}	3	1	4 ^{1/8}	3/4	3/4
J	36 gallon	18 ^{5/8}	15 ^{1/8}	27 ^{21/64}	22 ^{1/2}	---	35 ^{3/8}	3	1	4 ^{3/8}	3/4	1 1/2
	50 gallon	18 ^{5/8}	15 ^{1/8}	27 ^{21/64}	31	---	43 ^{7/8}	3	1	4 ^{3/8}	3/4	1 1/2

NOTE: 316 stainless steel receiver available.

F4100 Electric Condensate Return Pumps with Fabricated Steel or Stainless Steel Receiver

CAPACITIES								
EDR	Discharge Pressure (PSIG)	Flow Rate (GPM)	Motor HP	Receiver Capacity (gallons)	Simplex Model #	Weight (lbs)	Duplex Model #	Weight (lbs)
8000	20	12	1/3	8	F4028G	90	N/A	N/A
2000	20	3	1/3	15	F4122G	125	F4122GD	185
4000	20	6	1/3	15	F4124G	125	F4124GD	185
6000	20	9	1/3	15	F4126G	125	F4126GD	185
8000	20	12	1/3	15	F4128G	125	F4128GD	185
10000	20	15	1/2	30	F41210G	190	F41210GD	240
15000	20	22.5	1/2	30	F41215G	190	F41215GD	240
20000	20	30	3/4	30	F41220G	200	F41220GD	250
25000	20	37.5	3/4	45	F41225J	285	F41225JD	350
30000	20	45	1	45	F41230J	285	F41230JD	350
40000	20	60	1 1/2	60	F41240J	335	F41240JD	405
50000	20	75	2	95	F41250J	385	F41250JD	460
2000	30	3	1/2	15	F4132J	180	F4132JD	250
4000	30	6	1/2	15	F4134J	180	F4134JD	250
6000	30	9	1/2	15	F4136J	180	F4136JD	250
8000	30	12	1/2	15	F4138J	180	F4138JD	250
10000	30	15	3/4	15	F41310J	185	F41310JD	250
15000	30	22.5	1	30	F41315J	230	F41315JD	300
20000	30	30	1	30	F41320J	230	F41320JD	300
25000	30	37.5	1	45	F41325J	285	F41325JD	350
30000	30	45	1 1/2	45	F41330J	290	F41330JD	355
40000	30	60	2	60	F41340J	340	F41340JD	410
50000	30	75	3	95	F41350J	395	F41350JD	470
2000	40	3	1	15	F4142J	190	F4142JD	270
4000	40	6	1	15	F4144J	190	F4144JD	270
6000	40	9	1	15	F4146J	190	F4146JD	270
8000	40	12	1	15	F4148J	190	F4148JD	270
10000	40	15	1	15	F41410J	190	F41410JD	270
15000	40	22.5	1 1/2	30	F41415J	240	F41415JD	310
20000	40	30	1 1/2	30	F41420J	240	F41420JD	310
25000	40	37.5	1 1/2	45	F41425J	290	F41425JD	355
30000	40	45	2	45	F41430J	295	F41430JD	360
40000	40	60	2	60	F41440J	240	F41440JD	410
50000	40	75	3	95	F41450J	395	F41450JD	470
2000	50	3	2	15	F4152J	195	F4152JD	275
4000	50	6	2	15	F4154J	195	F4154JD	275
6000	50	9	2	15	F4156J	195	F4156JD	275
8000	50	12	2	15	F4158J	195	F4158JD	275
10000	50	15	2	15	F41510J	195	F41510JD	275
15000	50	22.5	2	30	F41515J	245	F41515JD	320
20000	50	30	3	30	F41520J	255	F41520JD	330
25000	50	37.5	3	45	F41525J	305	F41525JD	385
30000	50	45	3	45	F41530J	305	F41530JD	385
40000	50	60	5	60	F41540J	370	F41540JD	500
50000	50	75	5	95	F41550J	430	F41550JD	500

- Notes: 1) EDR = Square Feet of Equivalent Direct Radiation
 2) Capacity of Steam (lbs/hr) = EDR x 0.25
 3) Receivers are not sized to be flash tanks.

C4200 Electric Condensate Return Pumps with Cast Iron Receiver

CAPACITIES								
EDR	Discharge Pressure (PSIG)	Flow Rate (GPM)	Motor HP	Receiver Capacity (gallons)	Simplex Model #	Weight (lbs)	Duplex Model #	Weight (lbs)
2000	20	3	1/3	6	C4222G	150	N/A	N/A
4000	20	6	1/3	6	C4224G	150	N/A	N/A
6000	20	9	1/3	15	C4226G	260	C4226GD	295
8000	20	12	1/3	15	C4228G	260	C4228GD	295
10000	20	15	1/2	15	C42210G	260	C42210GD	295
15000	20	22.5	1/2	24	C42215G	300	C42215GD	335
20000	20	30	3/4	36	C42220G	410	C42220GD	445
25000	20	37.5	3/4	36	C42225J	350	C42225JD	420
30000	20	45	1	36	C42230J	355	C42230JD	430
40000	20	60	1 1/2	50	C42240J	420	C42240JD	500
50000	20	75	2	50	C42250J	425	C42250JD	510
2000	30	3	1/2	6	C4232J	165	N/A	N/A
4000	30	6	1/2	6	C4234J	165	N/A	N/A
6000	30	9	1/2	15	C4236J	295	C4236JD	360
8000	30	12	1/2	15	C4238J	295	C4238JD	360
10000	30	15	3/4	15	C42310J	300	C42310JD	365
15000	30	22.5	1	24	C42315J	305	C42315JD	380
20000	30	30	1	36	C42320J	355	C42320JD	430
25000	30	37.5	1	36	C42325J	355	C42325JD	430
30000	30	45	1 1/2	36	C42330J	360	C42330JD	440
40000	30	60	2	50	C42340J	425	C42340JD	510
50000	30	75	3	50	C42350J	435	C42350JD	525
2000	40	3	1	6	C4242J	170	N/A	N/A
4000	40	6	1	6	C4244J	170	N/A	N/A
6000	40	9	1	15	C4246J	295	C4246JD	360
8000	40	12	1	15	C4248J	295	C4248JD	360
10000	40	15	1	15	C42410J	295	C42410JD	360
15000	40	22.5	1 1/2	24	C42415J	310	C42415JD	390
20000	40	30	1 1/2	36	C42420J	360	C42420JD	440
25000	40	37.5	1 1/2	36	C42425J	360	C42425JD	440
30000	40	45	2	36	C42430J	365	C42430JD	450
40000	40	60	2	50	C42440J	425	C42440JD	510
50000	40	75	3	50	C42450J	435	C42450JD	525
2000	50	3	2	6	C4252J	175	N/A	N/A
4000	50	6	2	6	C4254J	175	N/A	N/A
6000	50	9	2	15	C4256J	315	C4256JD	395
8000	50	12	2	15	C4258J	315	C4258JD	395
10000	50	15	2	15	C42510J	315	C42510JD	395
15000	50	22.5	2	24	C42515J	330	C42515JD	415
20000	50	30	3	36	C42520J	370	C42520JD	460
25000	50	37.5	3	36	C42525J	370	C42525JD	460
30000	50	45	3	36	C42530J	370	C42530JD	460
40000	50	60	5	50	C42540J	445	C42540JD	535
50000	50	75	5	50	C42550J	445	C42550JD	535

- Notes: 1) EDR = Square Feet of Equivalent Direct Radiation
 2) Capacity of Steam (lbs/hr) = EDR x 0.25
 3) Receivers are not sized to be flash tanks.