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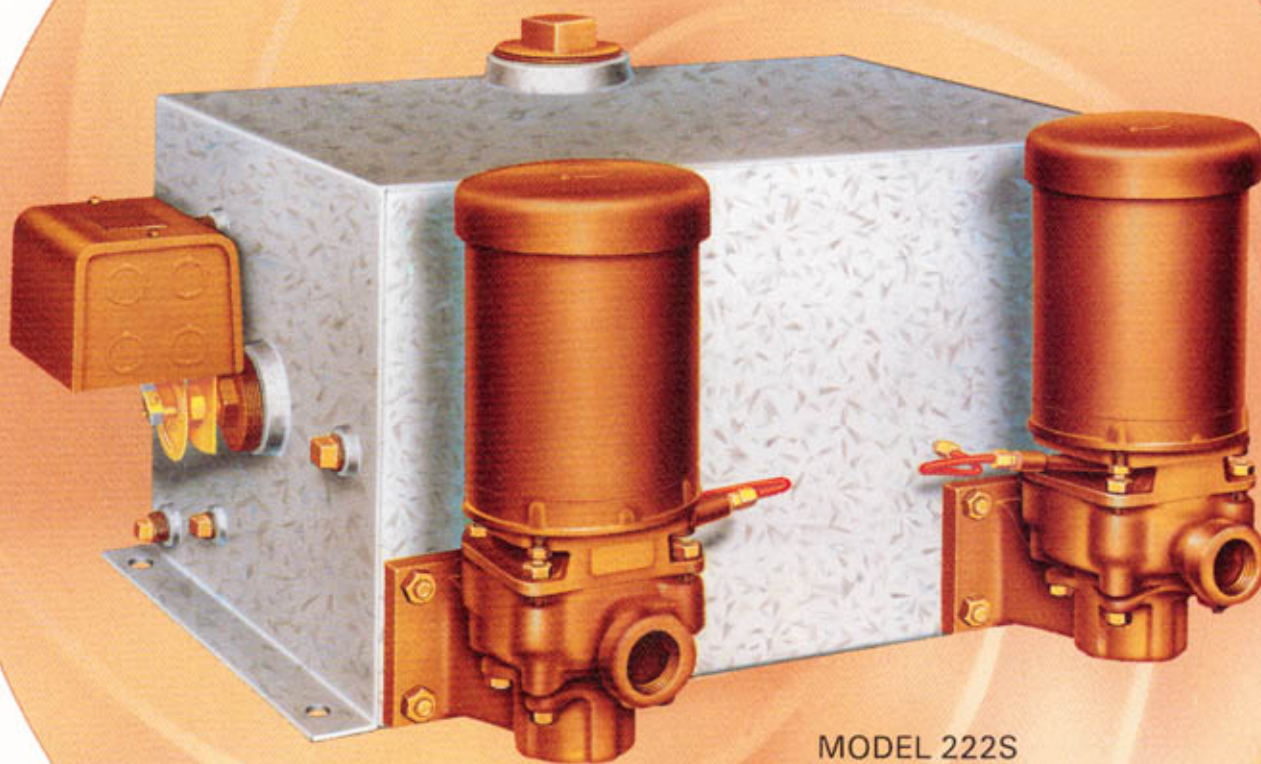
AURORA PUMP

BULLETIN 220/REV. K

220 SERIES

SINGLE STAGE CONDENSATE AND BOILER FEED PUMPS

CAPACITIES TO 180 G.P.M.
HEADS TO 170 FEET
TEMPERATURES TO 200°F.



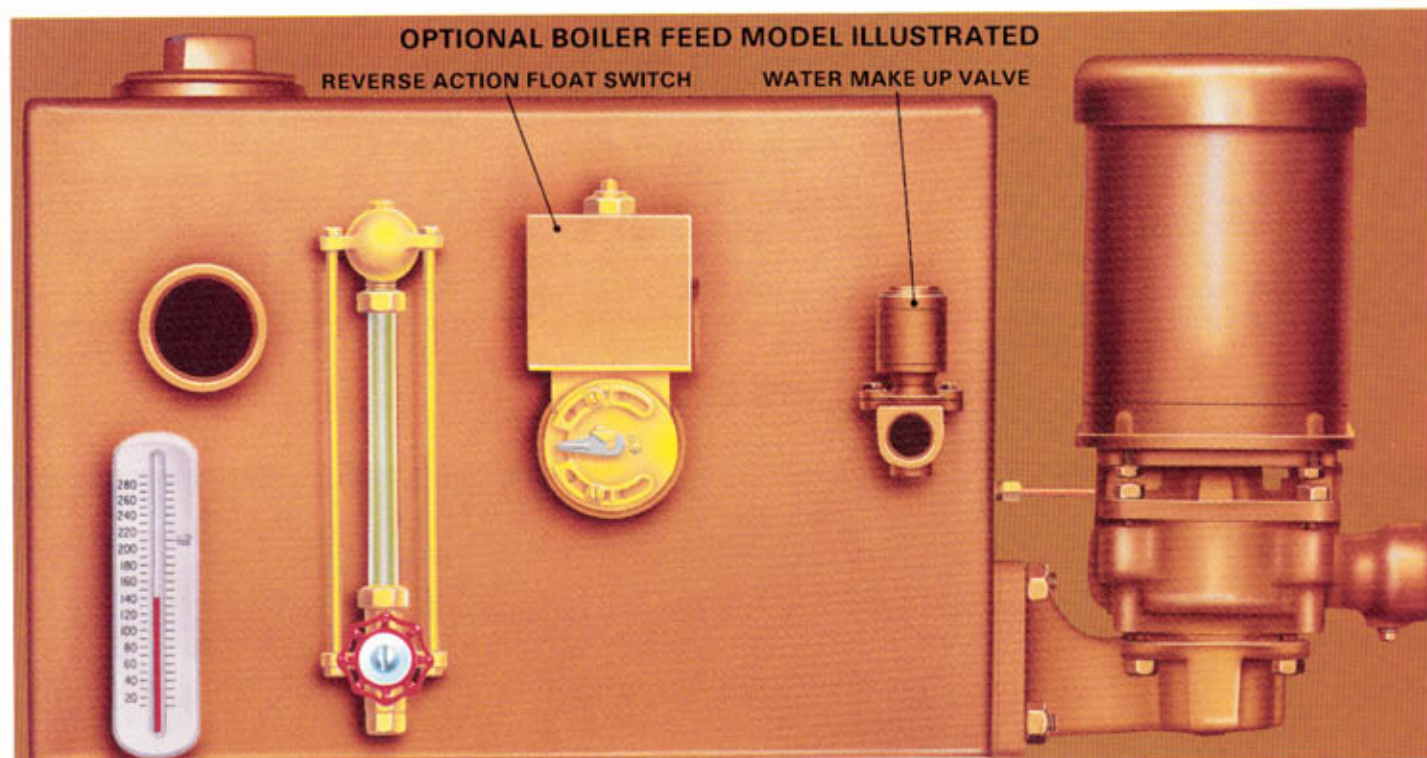
MODEL 222S
(Galvanized receiver optional)

ap AURORA®
Pentair Pump Group

motralec

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INTRODUCTION AURORA CONDENSATE PUMPS



Condensate units provide for an automatic return of hot water condensation from radiators, coils, pipe, etc., to high or low pressure boilers. They are also utilized in industrial complexes for returning liquids to overhead storage tanks of gravitational circulating systems as well as many other unique uses. In a Duplex system, single pump operation provides service when capacity and demand calls for normal service. The two Model 323 pumps used in the system operate alternately to

extend the life of both pumps. Both pumps operate simultaneously when service demands exceed the capabilities of a single pump. Walls are $3/16''$ to insure long life. Threaded inlet, vent, drain and gauge glass connections are provided. Included are mounting holes for bolting to floor or base. COMPACT DESIGN utilizes a minimum amount of floor space and will mount along a wall or in a corner. The unit bolts directly to the floor or foundation with four easy to

reach mounting holes and provide low return line connections. Both pumps on a Duplex unit mount on the front of the receiver for easy discharge piping, wiring and maintenance. Several combinations of pump discharge nozzle and inlet connections provide many variables. There are two condensate unit return pipeline inlet openings located on opposite ends. Steel receivers have an additional 4" vent on top. Corrosion resistant galvanized steel receivers are available.

QUICK REFERENCE 220 SERIES FEATURE SELECTOR

STANDARD

Quality Aurora vertical pumps, steel or cast iron receiver with inlet, vent, drain and gauge glass connections. Min. wall thickness $3/16''$.
Simplex pump with float switch
Bronze fitted pump construction
316 Stainless mechanical seal with Buna-N, Ni-Resist & carbon parts
Vacuum cast, enclosed, dynamically balanced impeller
Case wearing ring
Back pull-out casing
Factory assembled

OPTIONAL

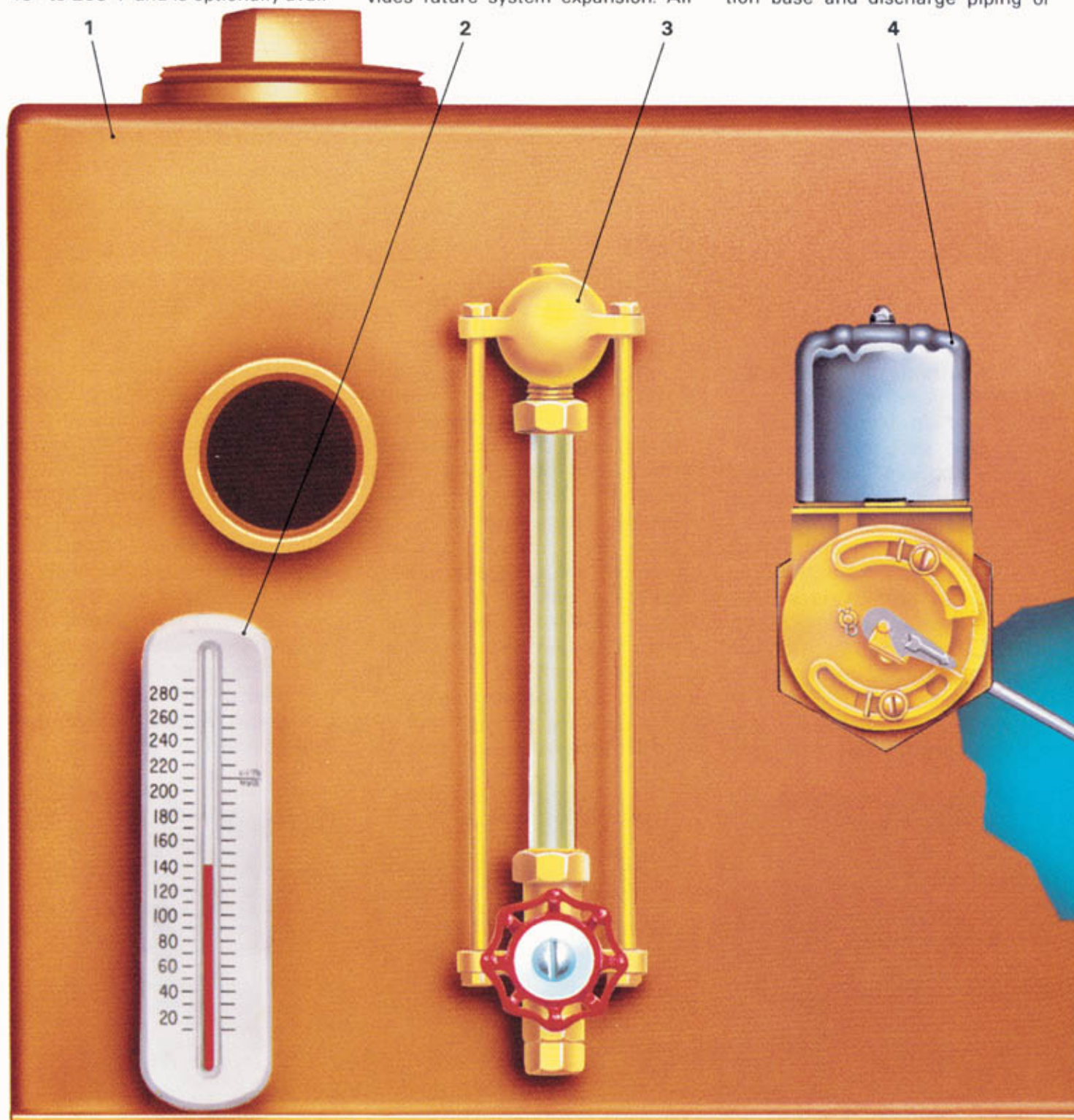
Duplex pumps with combination float switch and alternator
Control panel prewired
Alternate discharge positions
Thermometer
Gauge glass assembly. (std. BF. units)
Pressure gauges
Inlet 3-way strainer valve with on-off-by-pass adjustments
Special units
Bronze shut-off valves
CAST IRON RECEIVERS UP TO 35 GALLON CAPACITY

UNIT FEATURES

1 LONG LIFE FABRICATED STEEL RECEIVER minimizes corrosion. Galvanized steel, or cast iron receivers are optionally available. Walls are 3/16" to insure long life. Threaded inlet vent, drain and gauge glass connections are provided. Included are mounting holes for bolting to floor or base. **2 BACK ANGLE THERMOMETER** provides accurate readings from 40° to 260°F and is optionally avail-

able. **3 BRASS WATER LEVEL GAUGE** glass assembly is furnished optionally, complete with shut-off valve and protector rods. **4 TROUBLEFREE FLOAT SWITCH** has adjustable travel to permit 1-1/2 times maximum return rate between stops. Combination float switch and alternator is standard on Duplex condensate units. **5 INTERCHANGEABLE DESIGN** provides future system expansion. All

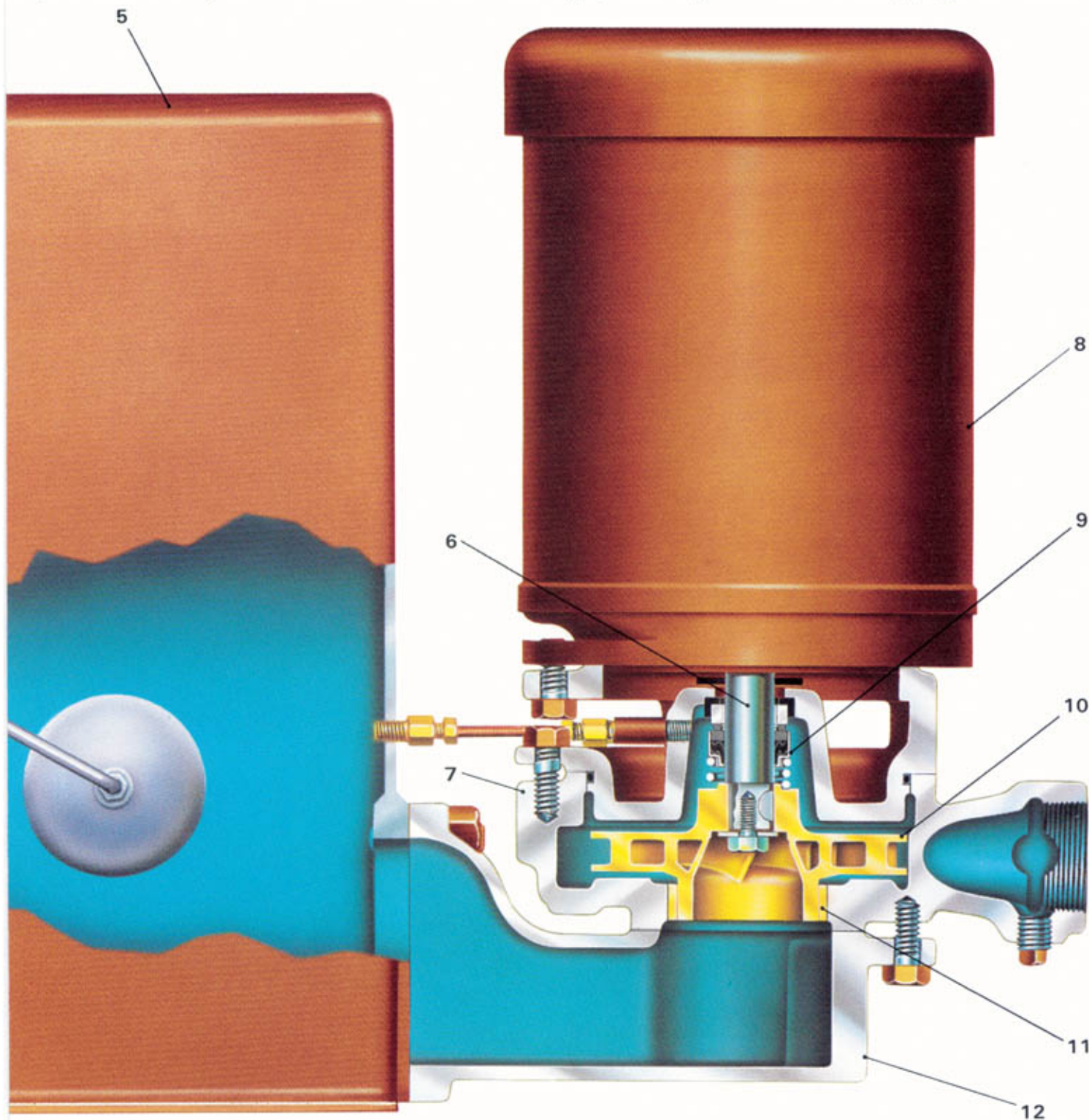
receivers are fitted for Duplex operation. If requirements change, the second pump can be easily added without receiver modification. **6 STAINLESS STEEL SHAFT** is designed for minimum deflection, not to exceed .002" at the sealing faces at maximum load. Average bearing life is 10 years. **7 BACK PULL-OUT CASE DESIGN** simplifies disassembly. The suction base and discharge piping or



alignment is not disturbed as the casing remains in the pipe line. An "O" ring seals the casing to assure maximum trouble-free sealing. **8 LOW NOISE LEVEL** operation vertical close coupled motors are built to Aurora Pump's exacting quality control specifications. **9 HIGH TEMPERATURE** mechanical seal has carbon against Ni-Resist face for optimum hot water performance. Long life is assured

with 316 stainless steel metal parts and "Buna-N" elastomers. A relief line provides adequate venting of the seal chamber and circulation to the seal faces. **10 DYNAMICALLY BALANCED IMPELLER** is keyed to the shaft and secured by a capscrew and washer. Vacuum casting and quality controlled manufacturing process assures consistently high performance. Enclosed design provides high-

est efficiency and lowest wear for long trouble-free service life. **11 BRONZE WEAR RING** provides a positive seal, minimizes leakage losses, and in case of wear, ring is easily and inexpensively replaced. **12 COMPACT VERTICAL PUMPS** provide a low suction inlet and protect the motor from flooding. Centerline discharge minimizes pipe strain and is available in four alternate piping combinations.



CONDENSATE SELECTION TABLES

3500 RPM				Receiver Capacity		INLET		Simplex (Note 1) MODEL 221		Duplex (Note 1) MODEL 222		
EDR	PSIG	GPM	Mtr. H.P.	Spx. 221	Dup. 222	Disch.			Unit No.	Wgt. (Lbs.)	Unit No.	Wgt. (Lbs.)
500 TO 3,000	10	6	3/4	6	10	1	2	2	3C10S2	160	3C10D2	275
	15	6	1/2	6	10	1	2	2	3C15S2	160	3C15D2	275
	20	6	1/2	6	10	1	2	2	3C20S2	160	3C20D2	275
	25	6	1/2	6	10	1	2	2	3C25S2	170	3C25D2	290
	30	6	1/2	6	10	3/4	2	2	3C30S2	165	3C30D2	285
	40	6	3/4	6	10	3/4	2	2	3C40S2	165	3C40D2	285
	50	6	1	6	10	3/4	2	2	3C50S2	185	3C50D2	320
	60	6	1	6	10	3/4	2	2	3C60S2	190	3C60D2	330
	75	6	2	6	10	3/4	2	2	3C75S2	225	3C75D2	400
	4,000 TO 6,000	10	12	1/2	10	10	1	2	2	6C10S2	210	6C10D2
15		12	1/2	10	10	1	2	2	6C15S2	210	6C15D2	275
20		12	1/2	10	10	1	2	2	6C20S2	210	6C20D2	275
25		12	1/2	10	10	1	2	2	6C25S2	220	6C25D2	290
30		12	1/2	10	10	3/4	2	2	6C30S2	210	6C30D2	285
40		12	3/4	10	10	3/4	2	2	6C40S2	215	6C40D2	290
50		12	1	10	10	3/4	2	2	6C50S2	230	6C50D2	320
60		12	1 1/2	10	10	3/4	2	2	6C60S2	260	6C60D2	375
75		12	2	10	10	3/4	2	2	6C75S2	270	6C75D2	400
8,000 TO 10,000		10	15	1/2	15	15	1	2	2	10C10S2	260	10C10D2
	15	15	1/2	15	15	1	2	2	10C15S2	260	10C15D2	325
	20	15	1/2	15	15	1	2	2	10C20S2	260	10C20D2	325
	25	15	1/2	15	15	1	2	2	10C25S2	265	10C25D2	340
	30	15	1/2	15	15	3/4	2	2	10C30S2	260	10C30D2	335
	40	15	3/4	15	15	3/4	2	2	10C40S2	265	10C40D2	340
	50	15	1	15	15	3/4	2	2	10C50S2	280	10C50D2	370
	60	15	1 1/2	15	15	3/4	2	2	10C60S2	310	10C60D2	425
	75	15	2	15	15	3/4	2	2	10C75S2	320	10C75D2	450
	15,000 (Note 1)	10	22.5	1/2	25	25	1	2	2	15S10S2	193	15S10D2
15		22.5	1/2	25	25	1	2	2	15S15S2	193	15S15D2	243
20		22.5	1/2	25	25	1	2	2	15S20S2	193	15S20D2	243
25		22.5	1/2	25	25	1	2	2	15S25S2	216	15S25D2	289
30		22.5	3/4	25	25	3/4	2	2	15S30S2	224	15S30D2	305
40		22.5	1	25	25	3/4	2	2	15S40S2	224	15S40D2	305
50		22.5	1 1/2	25	25	3/4	2	2	15S50S2	233	15S50D2	323
60		22.5	1 1/2	25	25	3/4	2	2	15S60S2	243	15S60D2	343
75		22.5	3	25	25	3/4	2	2	15S75S2	259	15S75D2	375
20,000 (Note 1)		10	30	1/2	25	25	1	2	2	20S10S2	193	20S10D2
	15	30	1/2	25	25	1	2	2	20S15S2	193	20S15D2	243
	20	30	1/2	25	25	1	2	2	20S20S2	216	20S20D2	289
	25	30	1/2	25	25	1	2	2	20S25S2	216	20S25D2	289
	30	30	1	25	25	3/4	2	2	20S30S2	224	20S30D2	305
	40	30	1 1/2	25	25	3/4	2	2	20S40S2	233	20S40D2	323
	50	30	1 1/2	25	25	1	2	2	20S50S2	237	20S50D2	331
	60	30	2	25	25	3/4	2	2	20S60S2	258	20S60D2	373
	75	30	3	25	25	3/4	2	2	20S75S2	259	20S75D2	375
	25,000 (Note 1)	10	37.5	1/2	35	35	1	3	3	25S10S2	193	25S10D2
15		37.5	1/2	35	35	1	3	3	25S15S2	193	25S15D2	243
20		37.5	1/2	35	35	1	3	3	25S20S2	240	25S20D2	313
25		37.5	3/4	35	35	1	3	3	25S25S2	250	25S25D2	333
30		37.5	1	35	35	1	3	3	25S30S2	250	25S30D2	333
40		37.5	1 1/2	35	35	1	3	3	25S40S2	261	25S40D2	355
50		37.5	1 1/2	35	35	1	3	3	25S50S2	261	25S50D2	355
60		37.5	3	35	35	3/4	3	3	25S60S2	283	25S60D2	399
75		37.5	5	35	35	1 1/4	3	3	25S75S2	300	25S75D2	433
30,000 (Note 1)		10	45	1/2	35	35	1	3	3	30S10S2	217	30S10D2
	15	45	1/2	35	35	1	3	3	30S15S2	240	30S15D2	313
	20	45	1/2	35	35	1	3	3	30S20S2	243	30S20D2	313
	25	45	3/4	35	35	1	3	3	30S25S2	250	30S25D2	333
	30	45	1	35	35	1 1/4	3	3	30S30S2	250	30S30D2	333
	40	45	1 1/2	35	35	1	3	3	30S40S2	261	30S40D2	355
	50	45	3	35	35	2	3	3	30S50S2	283	30S50D2	399
	60	45	3	35	35	3/4	3	3	30S60S2	283	30S60D2	399
	75	45	5	35	35	1 1/4	3	3	30S75S2	300	30S75D2	433

CONDENSATE/BOILER FEED SELECTION TABLES AND OPTIONAL EQUIPMENT

1750 RPM										Receiver Capacity		Disch.	* IN LET	* VENT	Simplex (Note 1) MODEL 221		Duplex (Note 1) MODEL 222	
EDR	PSIG	GPM	Mtr. H.P.	Spx. 221	Dup. 222										Unit No.	Wgt. (Lbs.)	Unit No.	Wgt. (Lbs.)
500 TO 3,000	10	6	1/2	6	10	3/4	2	2							3C10S4	165	3C10D4	280
	15	6	1/2	6	10	3/4	2	2							3C15S4	180	3C15D4	310
	20	6	1/2	6	10	3/4	2	2							3C20S4	185	3C20D4	315
	25	6	1/2	6	10	1 1/4	2	2							3C25S4	225	3C25D4	395
4,000 TO 6,000	30	6	3/4	6	10	1 1/4	2	2							3C30S4	225	3C30D4	395
	10	12	1/2	10	10	3/4	2	2							6C10S4	210	6C10D4	280
	15	12	1/2	10	10	3/4	2	2							6C15S4	225	6C15D4	310
	20	12	1/2	10	10	3/4	2	2							6C20S4	225	6C20D4	315
8,000 TO 10,000	25	12	3/4	10	10	1 1/4	2	2							6C24S4	265	6C25D4	390
	30	12	3/4	10	10	1 1/4	2	2							6C30S4	265	6C30D4	390
	10	15	1/2	15	15	3/4	2	2							10C10S4	260	10C10D4	330
	15	15	1/2	15	15	3/4	2	2							10C15S4	275	10C15D4	365
15,000 (Note 1)	20	15	1/2	15	15	3/4	2	2							10C20S4	295	10C20D4	400
	25	15	3/4	15	15	1 1/4	2	2							10C25S4	315	10C25D4	440
	30	15	3/4	15	15	1 1/4	2	2							10C30S4	315	10C30D4	440
	10	22.5	1/2	25	25	1	2	2							15S10S4	201	15S10D4	259
20,000 (Note 1)	15	22.5	1/2	25	25	1	2	2							15S15S4	207	15S15D4	271
	20	22.5	3/4	25	25	1 1/4	2	2							15S20S4	226	15S20D4	309
	25	22.5	3/4	25	25	1 1/4	2	2							15S25S4	236	15S25D4	329
	30	22.5	1	25	25	1 1/4	2	2							15S30S4	251	15S30D4	359
25,000 (Note 1)	10	30	1/2	25	25	1	2	2							20S10S4	201	20S10D4	259
	15	30	1/2	25	25	1	2	2							20S15S4	224	20S15D4	305
	20	30	1/2	25	25	1 1/4	2	2							20S20S4	226	20S20D4	309
	25	30	3/4	25	25	1 1/4	2	2							20S25S4	236	20S25D4	329
30,000 (Note 1)	30	30	1	25	25	1 1/4	2	2							20S30S4	251	20S30D4	359
	10	37.5	1/2	35	35	1 1/4	3	3							25S10S4	233	25S10D4	299
	15	37.5	1/2	35	35	1 1/4	3	3							25S15S4	250	25S15D4	333
	20	37.5	3/4	35	35	1 1/4	3	3							25S20S4	260	25S20D4	353
40,000 (Note 2)	25	37.5	1	35	35	1 1/4	3	3							25S25S4	275	25S25D4	383
	30	37.5	1 1/2	35	35	1 1/4	3	3							25S30S4	275	25S30D4	383
	10	45	1/2	35	35	1 1/4	3	3							30S10S4	233	30S10D4	299
	15	45	1/2	35	35	1 1/4	3	3							30S15S4	250	30S15D4	333
50,000 (Note 2)	20	45	3/4	35	35	1 1/4	3	3							30S20S4	265	30S20D4	363
	25	45	1	35	35	1 1/4	3	3							30S25S4	275	30S25D4	383
	30	45	1 1/2	35	35	1 1/4	3	3							30S30S4	275	30S30D4	383
	10	60	1/2	55	55	1 1/4	3	3							40S10S4	277	40S10D4	360
60,000 (Note 2)	15	60	3/4	55	55	1 1/4	3	3							40S15S4	287	40S15D4	380
	20	60	1	55	55	1 1/2	3	3							40S20S4	288	40S20D4	382
	25	60	1 1/2	55	55	1 1/4	3	3							40S25S4	302	40S25D4	410
70,000 (Note 2)	10	75	3/4	70	70	1 1/2	3	3							50S10S4	331	50S10D4	425
	15	75	3/4	70	70	1 1/2	3	3							50S15S4	331	50S15D4	425
	20	75	1	70	70	1 1/2	3	3							50S20S4	331	50S20D4	425
	10	90	3/4	70	70	1 1/2	3	3							60S10S4	331	60S10D4	425
80,000 (Note 2)	15	90	1	70	70	1 1/2	3	3							60S15S4	331	60S15D4	425
	20	90	2	70	70	2	3	3							60S20S4	355	60S20D4	473
	10	105	1	125	125	1 1/2	3	3							70S10S4	426	70S10D4	520
	15	105	1 1/2	125	125	1 1/2	3	3							70S15S4	435	70S15D4	538
90,000 (Note 2)	20	105	2	125	125	2	3	3							70S20S4	450	70S20D4	568
	10	120	1	125	125	1 1/2	3	3							80S10S4	426	80S10D4	520
	15	120	1 1/2	125	125	1 1/2	3	3							80S15S4	435	80S15D4	538
	20	120	2	125	125	2	3	3							80S20S4	450	80S20D4	568
100,000 (Note 2)	10	135	1 1/2	125	125	1 1/2	3	3							90S10S4	435	90S10D4	538
	15	135	1 1/2	125	125	2	3	3							90S15S4	447	90S15D4	562
	20	135	2	125	125	2	3	3							90S20S4	450	90S20D4	568
	10	150	1 1/2	125	125	2	3	3							100S10S4	447	100S10D4	562
	15	150	2	125	125	2	3	3							100S15S4	450	100S15D4	568
	20	150	3	125	125	2	3	3							100S20S4	453	100S20D4	574

* 6 gallon receiver has 3/4" inlet, 1 1/2" vent.

† "S" model numbers (steel receivers) have additional 4" vent.

(1) 25 and 35 gallon receivers are also available in cast iron. Substitute a "C" for the first "S" in the unit number required. Example: 25S10S4 would be 25C10S4 for cast iron. Add approx. 150 lbs. to unit weight.

(2) Cast iron receivers not available.

LOW PRESSURE BOILER FEED SELECTIONS STEEL RECEIVERS ONLY

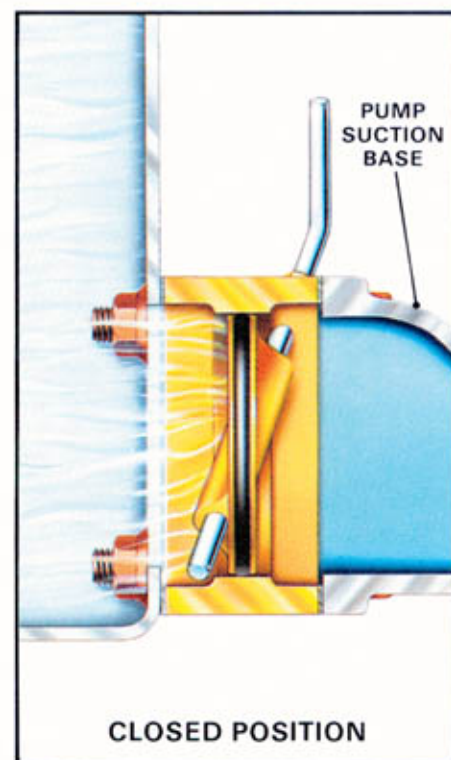
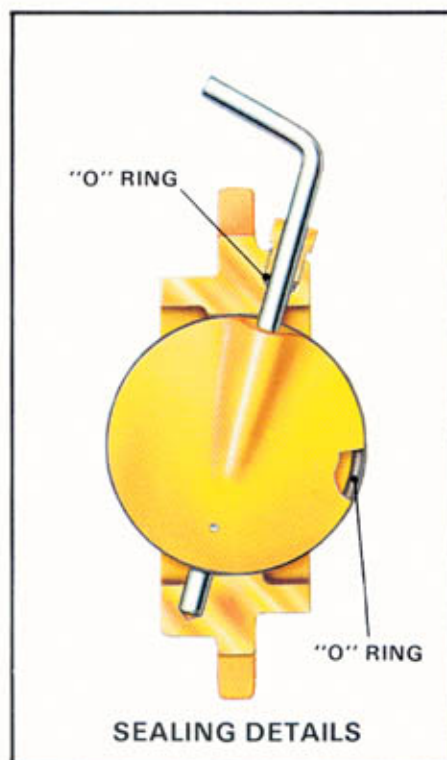
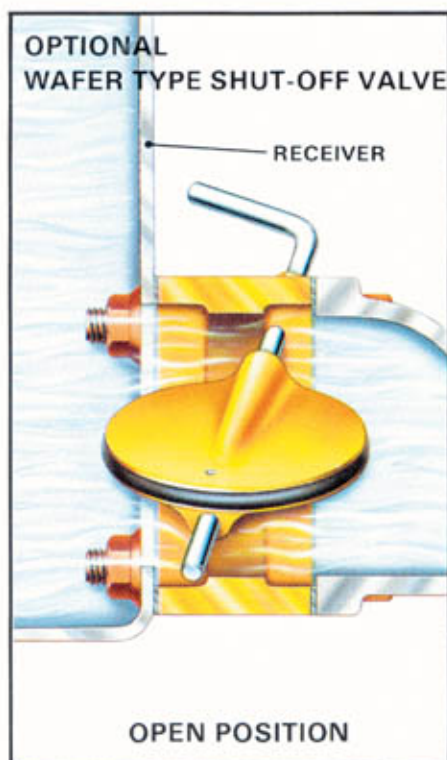
1750 RPM 15 PSIG MODEL 323 — 3/4 x 1 x 78

Boiler H.P. Size	Evap. Rate GPM	Pump Cap. GPM	Mtr. H.P.	Simplex		Duplex		Dual		Receiver Cap. — Gals.		
				Unit No.	Wgt.	Unit No.	Wgt.	Unit No.	Wgt.	Simplex	Duplex	Dual
15	1.0	6	1/3	BFSX15S4	199	BFDX15S4	257	BFDL15S4	281	25	25	35
20	1.4	6	1/3	BFSX20S4	199	BFDX20S4	257	BFDL20S4	308	25	25	55
25	1.7	6	1/3	BFSX25S4	223	BFDX25S4	281	BFDL25S4	308	35	35	55
30	2.1	6	1/3	BFSX30S4	223	BFDX30S4	281	BFDL30S4	308	35	35	55
40	2.8	6	1/3	BFSX40S4	223	BFDX40S4	281	BFDL40S4	351	35	35	70
50	3.5	12	1/2	BFSX50S4	250	BFDX50S4	308	BFDL50S4	446	55	55	125
60	4.2	12	1/2	BFSX60S4	250	BFDX60S4	308	BFDL60S4	446	55	55	125
70	4.8	12	1/2	BFSX70S4	293	BFDX70S4	351	BFDL70S4	610	70	70	200
80	5.5	12	1/2	BFSX80S4	293	BFDX80S4	351	BFDL80S4	610	70	70	200
100	6.9	15	1/2	BFSX100S4	388	BFDX100S4	446	BFDL100S4	610	125	125	200
125	8.6	15	1/2	BFSX125S4	388	BFDX125S4	446	—	—	125	125	—
150	10.7	22.5	1/2	BFSX150S4	552	BFDX150S4	610	—	—	200	200	—
200	13.8	30	3/4	BFSX200S4	552	BFDX200S4	610	—	—	200	200	—

3500 RPM 15 PSIG MODEL 323 — 1 x 1-1/4 x 4

Boiler H.P. Size	Evap. Rate GPM	Pump Cap. GPM	Mtr. H.P.	Simplex		Duplex		Dual		Receiver Cap. — Gals.		
				Unit No.	Wgt.	Unit No.	Wgt.	Unit No.	Wgt.	Simplex	Duplex	Dual
15	1.0	6	1/3	BFSX15S2	175	BFDX15S2	209	BFDL15S2	233	25	25	35
20	1.4	6	1/3	BFSX20S2	175	BFDX20S2	209	BFDL20S2	260	25	25	55
25	1.7	6	1/3	BFSX25S2	199	BFDX25S2	233	BFDL25S2	260	35	35	55
30	2.1	6	1/3	BFSX30S2	199	BFDX30S2	233	BFDL30S2	260	35	35	55
40	2.8	6	1/3	BFSX40S2	199	BFDX40S2	233	BFDL40S2	303	35	35	70
50	3.5	12	1/3	BFSX50S2	226	BFDX50S2	260	BFDL50S2	398	55	55	125
60	4.2	12	1/3	BFSX60S2	226	BFDX60S2	260	BFDL60S2	398	55	55	125
70	4.8	12	1/3	BFSX70S2	269	BFDX70S2	303	BFDL70S2	572	70	70	200
80	5.5	12	1/3	BFSX80S2	269	BFDX80S2	303	BFDL80S2	572	70	70	200
100	6.9	15	1/3	BFSX100S2	364	BFDX100S2	398	BFDL100S2	572	125	125	200
125	8.6	15	1/3	BFSX125S2	364	BFDX125S2	398	—	—	125	125	—
150	10.7	22.5	1/2	BFSX150S2	533	BFDX150S2	533	—	—	200	200	—
200	13.8	30	1/2	BFSX200S2	533	BFDX200S2	533	—	—	200	200	—

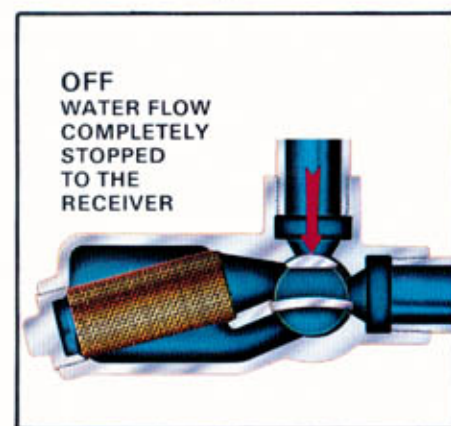
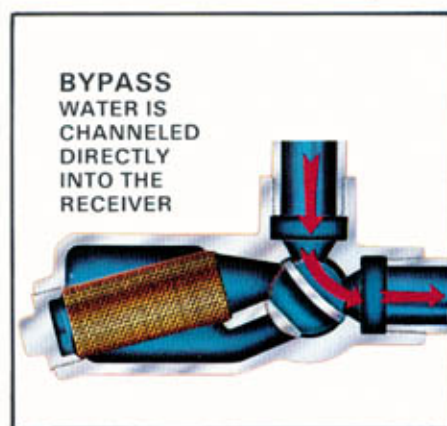
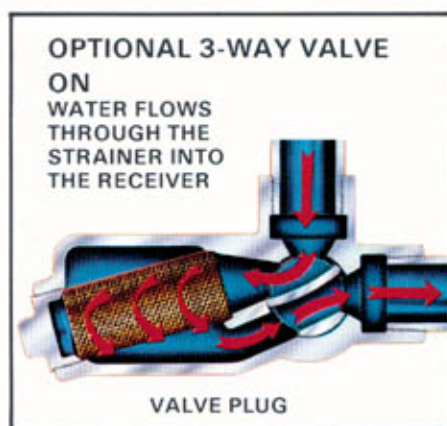
OPTIONAL SHUT-OFF VALVE FEATURES



3-WAY VALVE provides for greater pump protection, easier, faster maintenance, and de-

pendable operation. With just a turn of the plug the water flow can be channeled through the

strainer, bypassed around the strainer (to allow the strainer to be cleaned), or be shut-off.



MOTOR SPECIFICATIONS

Drip-proof NEMA rated . . . stainless steel shaft, 3500 or 1750 R.P.M., dual voltage, single or three phase.

THREE PHASE — 60/50 Hertz, 200-230/460 volt
SINGLE PHASE — 60 Hertz, 115/230 volt. All 1-1/2 H.P. and smaller equipped with thermal overload protection.

Explosion-proof and totally enclosed motors also available.

NOTE: All motors used with 220 Series Condensation Return Units are built to Aurora Pump's specifications and must not exceed our specified vibration rating for low noise level operation. Not all motors available meet these rigid specifications — so, for best operating characteristics, make of motor will be selected by Aurora Pump only from approved sources.

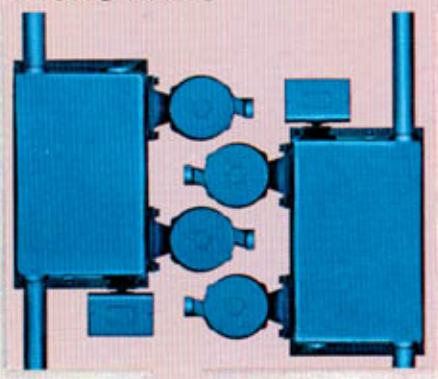
MATERIAL OF CONSTRUCTION

PUMP PART	MATERIAL	
CASING	CAST IRON	ASTM A48
CASE WEARING RING	BRONZE	ASTM B62
IMPELLER	BRONZE	ASTM B62
MECHANICAL SEAL	316 ST. STL. METAL PARTS "BUNA-N" ELASTOMER PARTS, NI-RESIST SEAT & CARBON WASHER	
MOTOR BRACKET	CAST IRON	ASTM A48
MOTOR SHAFT	STAINLESS STEEL	AISI 416
RECEIVER	CAST IRON	ASTM A48
	STEEL	ASTM A569
SUCTION BASE	CAST IRON	ASTM A48

LIMITATIONS

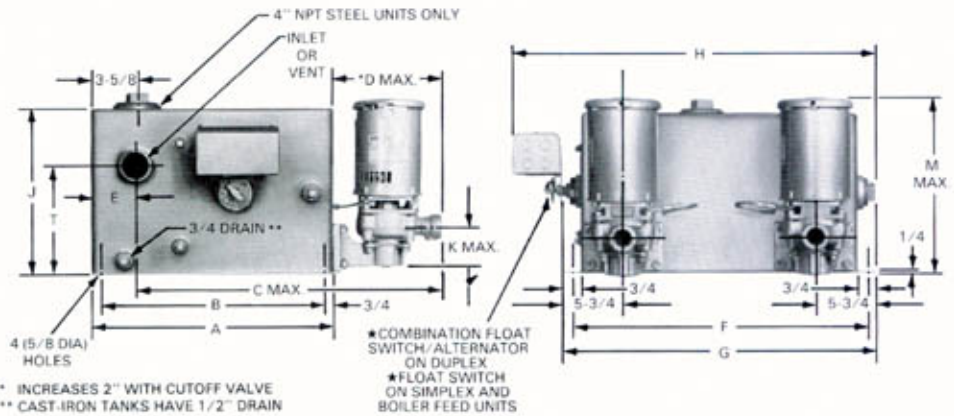
MAX. RECEIVER INTERNAL PRESSURE 5 P.S.I.G.	MAXIMUM DISCHARGE PRESSURE 75 P.S.I.G.	MAX. TEMP. LIMIT ON PUMP SUCTION 200° F.
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FITS IN CORNERS OR ALONG WALLS



ENGINEERING SPECIFICATIONS

The contractor shall furnish (and install in location as shown on the plans) an Aurora 220 Series (Model 221 Cast Iron) (Model 221S Steel) (Simplex) — (Model 222 Cast Iron) (Model 222S Steel) (Duplex) (Condensate Return Unit) (Model BFSX (Simplex) — BFDX (Duplex) — BFDL (Dual) Low Pressure Boiler Feed Unit). Condensate unit for handling condensate returns from square feet of direct radiation, when discharging against a pressure of PSI at the pump. Boiler Feed Unit for handling boiler BHP of (..... GPM), when discharging against a pressure of 15 PSI at the pump. The unit shall consist of vertical flange mounted bronze fitted pump(s) with a bronze case wearing ring and a mechanical seal with 316 stainless steel metal parts, "Buna-N" bellows, Ni-resist seat and carbon washer. The pump(s) to be close coupled to NEMA motor(s) of HP, phase, hertz, voltage, RPM, (D.P.) (T.E.) (Ex. Pr.) enclosure with stainless steel motor shaft. The motor(s) shall be designed to Aurora Pump specifications for vibration limits. The pump-motor combination(s) to be flange mounted to one (steel) (galvanized steel) (cast iron — condensate service only) receiver of gal. capacity. All receivers shall include inlet, vent, drain and gauge glass connections. BOILER FEED units include a reverse action float switch operating a solenoid controlled water make-up valve (3/4"), (T") and a brass water level gauge glass assembly complete with shut-off valve and protector rods mounted to the receiver. One optional back angle thermometer shall be mounted to the receiver. A water type shut-off valve shall be secured between each pump suction base and the receiver. Optional brass water level gauge glass assembly and/or back angle thermometer shall be mounted to condensate receiver. **SIMPLEX CONDENSATE UNIT** to be furnished with one enclosed float switch assembly, connected to motor (single phase, 3/4 HP or less) or connected to a magnetic starter or optional combination starter for motor (single phase, 1 HP or larger and all three phase motors). **DUPLEX CONDENSATE UNIT** to be furnished with one combination float switch and mechanical alternator connected to motor (single phase, 3/4 HP or less) or two magnetic starters or one optional dual controller for motors (single phase, 1 HP or larger and all three phase motors). **SIMPLEX OR DUAL BOILER FEED UNIT** to be furnished without motor controls (single phase, 3/4 HP or less). **SIMPLEX (BFSX) unit** to be furnished with a magnetic starter or optional combination starter for motor (single phase, 1 HP or larger and all three phase motors). **DUAL (BFDL) unit** to be furnished with two magnetic starters or one optional dual controller for motors (single phase, 1 HP or larger and all three phase motors). **DUPLEX (BFDX) unit** to be furnished with electric alternator only in a NEMA 1 enclosure as standard for motors (single phase, 3/4 HP or less). **DUPLEX (BFDX) unit** to be furnished with one optional duplex controller, with electric alternator, for motors (single phase, 1 HP or larger and all three phase motors). The starters (controllers) shall be mounted in a (gasketed) NEMA 1 enclosure which is attached to the receiver.



* INCREASES 2" WITH CUTOFF VALVE
** CAST-IRON TANKS HAVE 1/2" DRAIN

* COMBINATION FLOAT SWITCH/ALTERNATOR ON DUPLEX
* FLOAT SWITCH ON SIMPLEX AND BOILER FEED UNITS

	UNIT NO. SIMPLEX		UNIT NO. DUPLEX		UNIT NO. DUAL		A	B	C	D	E	F	G	H	J	K	M	T	Inlet and Vent	Rec. Gal. Cap.
	3500 RPM	1750 RPM	3500 RPM	1750 RPM	3500 RPM	1750 RPM														
CAST IRON CONDENSATE	3C1052 TO 3C7552	3C1054 TO 3C3054	N/A	N/A	N/A	N/A	11 1/2	10 1/2	28 1/2	10 1/4	5 1/4	18 1/4	13 1/4	17 1/4	11	4 1/4	23 1/4	9	1 1/2	6
	6C1052 TO 6C7552	6C1054 TO 6C3054	N/A	N/A	N/A	N/A	15 1/2	14 1/2	32 1/2	16 1/4	7 1/4	20 1/4	15 1/4	21 1/4	13	4 1/4	23 1/4	9	2	10
	N/A	N/A	3C1052 TO 3C7502	3C1054 TO 3C3054	N/A	N/A	15 1/2	14 1/2	49 1/2	16 1/4	7 1/4	20 1/4	15 1/4	21 1/4	13	4 1/4	23 1/4	9	2	10
	N/A	N/A	6C1052 TO 6C7502	6C1054 TO 6C3054	N/A	N/A	15 1/2	14 1/2	49 1/2	16 1/4	7 1/4	20 1/4	15 1/4	21 1/4	13	4 1/4	23 1/4	9	2	10
	19C1052 TO 19C7552	19C1054 TO 19C3054	19C1052 TO 19C7502	19C1054 TO 19C3054	N/A	N/A	14	12 1/2	36 1/2	16 1/4	7	20 1/4	12 1/2	28 1/4	12 1/2	4 1/4	21 1/4	10 1/4	2	15
	19C1052 TO 19C7552	19C1054 TO 19C3054	19C1052 TO 19C7502	19C1054 TO 19C3054	N/A	N/A	20	18 1/2	36 1/2	16 1/4	10	24 1/4	26	32 1/4	12	4 1/4	21 1/4	10 1/4	2	25
	29C1052 TO 29C7552	29C1054 TO 29C3054	29C1052 TO 29C7502	29C1054 TO 29C3054	N/A	N/A	20	18 1/2	36 1/2	16 1/4	10	24 1/4	26	32 1/4	12	4 1/4	21 1/4	10 1/4	2	25
	29C1052 TO 29C7552	29C1054 TO 29C3054	29C1052 TO 29C7502	29C1054 TO 29C3054	N/A	N/A	22	20 1/2	38 1/2	16 1/4	11	26 1/4	28	34 1/4	14 1/4	4 1/4	21 1/4	12	3	35
	39C1052 TO 39C7552	39C1054 TO 39C3054	39C1052 TO 39C7502	39C1054 TO 39C3054	N/A	N/A	22	20 1/2	38 1/2	16 1/4	11	26 1/4	28	34 1/4	14 1/4	4 1/4	21 1/4	12	3	35
	55C1052 TO 55C7552	55C1054 TO 55C3054	55C1052 TO 55C7502	55C1054 TO 55C3054	N/A	N/A	21 1/2	18 1/2	38 1/2	16 1/4	8	28	29 1/2	34	15 1/4	4 1/4	18 1/4	10	2	25
	205C1052 TO 205C7552	205C1054 TO 205C3054	205C1052 TO 205C7502	205C1054 TO 205C3054	N/A	N/A	21 1/2	18 1/2	38 1/2	16 1/4	8	28	29 1/2	34	15 1/4	4 1/4	18 1/4	10	2	25
	255C1052 TO 255C7552	255C1054 TO 255C3054	255C1052 TO 255C7502	255C1054 TO 255C3054	N/A	N/A	24	20 1/2	40 1/2	16 1/4	10	30 1/4	31 1/2	36	16 1/4	4 1/4	18 1/4	10 1/4	3	35
STEEL CONDENSATE	305C1052 TO 305C7552	305C1054 TO 305C3054	305C1052 TO 305C7502	305C1054 TO 305C3054	N/A	N/A	24	20 1/2	40 1/2	16 1/4	10	30 1/4	31 1/2	36	16 1/4	4 1/4	18 1/4	10 1/4	3	35
	405C1052 TO 405C7552	405C1054 TO 405C3054	405C1052 TO 405C7502	405C1054 TO 405C3054	N/A	N/A	28	26 1/2	44 1/2	18 1/4	4 1/4	30 1/4	31 1/2	36	17 1/4	5	19 1/4	14	3	55
	505C1052 TO 505C7552	505C1054 TO 505C3054	505C1052 TO 505C7502	505C1054 TO 505C3054	N/A	N/A	32 1/2	29 1/2	47 1/2	18 1/4	4 1/4	33 1/4	38	38 1/4	18 1/4	5 1/4	19 1/4	15 1/4	3	70
	605C1052 TO 605C7552	605C1054 TO 605C3054	605C1052 TO 605C7502	605C1054 TO 605C3054	N/A	N/A	32 1/2	29 1/2	45 1/2	18 1/4	4 1/4	33 1/4	38	38 1/4	18 1/4	5 1/4	19 1/4	15 1/4	3	70
	705C1052 TO 705C7552	705C1054 TO 705C3054	705C1052 TO 705C7502	705C1054 TO 705C3054	N/A	N/A	37 1/2	34 1/2	50 1/2	18 1/4	4 1/4	38 1/4	39 1/4	44	23	5 1/4	20 1/4	19 1/4	3	125
	805C1052 TO 805C7552	805C1054 TO 805C3054	805C1052 TO 805C7502	805C1054 TO 805C3054	N/A	N/A	37 1/2	34 1/2	50 1/2	18 1/4	4 1/4	38 1/4	39 1/4	44	23	5 1/4	20 1/4	19 1/4	3	125
	905C1052 TO 905C7552	905C1054 TO 905C3054	905C1052 TO 905C7502	905C1054 TO 905C3054	N/A	N/A	37 1/2	34 1/2	50 1/2	18 1/4	4 1/4	38 1/4	39 1/4	44	23	5 1/4	20 1/4	19 1/4	3	125
	1005C1052 TO 1005C7552	1005C1054 TO 1005C3054	1005C1052 TO 1005C7502	1005C1054 TO 1005C3054	N/A	N/A	37 1/2	34 1/2	51 1/2	18 1/4	4 1/4	38 1/4	39 1/4	44	23	5 1/4	20 1/4	19 1/4	3	125
	1105C1052 TO 1105C7552	N/A	1105C1052 TO 1105C7502	N/A	N/A	N/A	48	45 1/2	64 1/2	18 1/4	4 1/4	50 1/4	51 1/4	56	23 1/4	7 1/4	23 1/4	19 1/4	4	200
	1205C1052 TO 1205C7552	N/A	1205C1052 TO 1205C7502	N/A	N/A	N/A	48	45 1/2	64 1/2	18 1/4	4 1/4	50 1/4	51 1/4	56	23 1/4	7 1/4	23 1/4	19 1/4	4	200
	1305C1052 TO 1305C7552	N/A	1305C1052 TO 1305C7502	N/A	N/A	N/A	48	45 1/2	64 1/2	18 1/4	4 1/4	50 1/4	51 1/4	56	23 1/4	7 1/4	23 1/4	19 1/4	4	200
	1405C1052 TO 1405C7552	N/A	1405C1052 TO 1405C7502	N/A	N/A	N/A	48	45 1/2	64 1/2	18 1/4	4 1/4	50 1/4	51 1/4	56	23 1/4	7 1/4	23 1/4	19 1/4	4	200
	1505C1052 TO 1505C7552	N/A	1505C1052 TO 1505C7502	N/A	N/A	N/A	48	45 1/2	64 1/2	18 1/4	4 1/4	50 1/4	51 1/4	56	23 1/4	7 1/4	23 1/4	19 1/4	4	200
STEEL BOILER FEED	BFDL1552 TO BFDL2052	BFDL1554 TO BFDL2054	BFDL1552 TO BFDL2052	BFDL1554 TO BFDL2054	N/A	N/A	21 1/2	18 1/2	35 1/2	14 1/4	4	28	29 1/2	33 1/2	15 1/4	3 1/4	17 1/4	10	2	25
	BFDL2552 TO BFDL3052	BFDL2554 TO BFDL3054	BFDL2552 TO BFDL3052	BFDL2554 TO BFDL3054	N/A	N/A	24	20 1/2	38 1/2	14 1/4	4 1/4	30 1/4	31 1/2	35 1/4	16 1/4	3 1/4	17 1/4	10 1/4	3	35
	BFDL3552 TO BFDL4052	BFDL3554 TO BFDL4054	BFDL3552 TO BFDL4052	BFDL3554 TO BFDL4054	N/A	N/A	28	26 1/2	42 1/2	14 1/4	4 1/4	30 1/4	31 1/2	35 1/4	17 1/4	3 1/4	17 1/4	14	3	55
	BFDL4552 TO BFDL5052	BFDL4554 TO BFDL5054	BFDL4552 TO BFDL5052	BFDL4554 TO BFDL5054	N/A	N/A	32 1/2	29 1/2	47 1/2	14 1/4	4 1/4	33 1/4	38 1/4	38 1/4	18 1/4	3 1/4	17 1/4	15 1/4	3	70
	BFDL5552 TO BFDL6052	BFDL5554 TO BFDL6054	BFDL5552 TO BFDL6052	BFDL5554 TO BFDL6054	N/A	N/A	37 1/2	34 1/2	51 1/2	14 1/4	4 1/4	38 1/4	39 1/4	43 1/4	23	3 1/4	17 1/4	19 1/4	3	125
	BFDL6552 TO BFDL7052	BFDL6554 TO BFDL7054	BFDL6552 TO BFDL7052	BFDL6554 TO BFDL7054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL7552 TO BFDL8052	BFDL7554 TO BFDL8054	BFDL7552 TO BFDL8052	BFDL7554 TO BFDL8054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL8552 TO BFDL9052	BFDL8554 TO BFDL9054	BFDL8552 TO BFDL9052	BFDL8554 TO BFDL9054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL9552 TO BFDL10052	BFDL9554 TO BFDL10054	BFDL9552 TO BFDL10052	BFDL9554 TO BFDL10054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL10552 TO BFDL11052	BFDL10554 TO BFDL11054	BFDL10552 TO BFDL11052	BFDL10554 TO BFDL11054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL11552 TO BFDL12052	BFDL11554 TO BFDL12054	BFDL11552 TO BFDL12052	BFDL11554 TO BFDL12054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL12552 TO BFDL13052	BFDL12554 TO BFDL13054	BFDL12552 TO BFDL13052	BFDL12554 TO BFDL13054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200
	BFDL13552 TO BFDL14052	BFDL13554 TO BFDL14054	BFDL13552 TO BFDL14052	BFDL13554 TO BFDL14054	N/A	N/A	48	45 1/2	62 1/2	14 1/4	4 1/4	50 1/4	51 1/4	55 1/4	23 1/4	3 1/4	17 1/4	19 1/4	4	200

NOTES:

- All dimensions in inches.
- Not for construction purposes unless certified.
- Duplex unit with mechanical alternator and steel receiver illustrated.
- All connections are threaded.
- Conduit box and/or capacitor not shown as location and dimensions vary with each motor manufacturer.
- A.N.S.I. suction flanges are furnished as standard with centrifugal 320 Series Model 323 vertical pumps. Write for Bulletin 320 for additional pump details.
- All simplex receivers have a blanked off suction opening available for possible future conversion to duplex construction.
- Add 2" to both these dimensions when the bronze isolation valve is used.

NOTE: Aurora Pump reserves the right to make revisions to its products and their specifications, and to this bulletin and related information without notice.

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