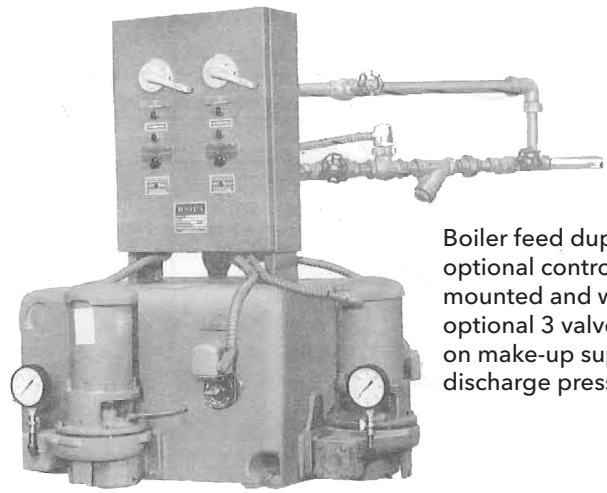
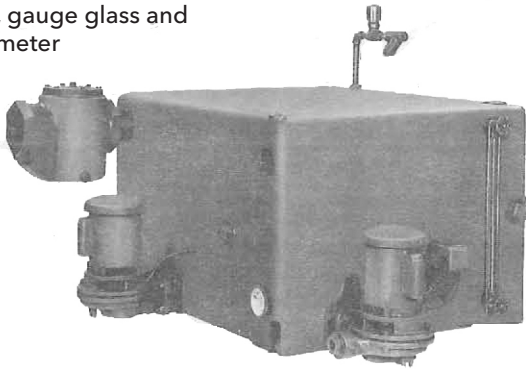


Boiler feed duplex with optional strainer, gauge glass and thermometer



Boiler feed duplex with optional control panel mounted and wired, optional 3 valve by-pass on make-up supply and discharge pressure gauges.

Cast Iron Receivers:

For years of dependable service. Warranted for 20 years from date of shipment against failure due to corrosion.

Centrifugal Pumps:

Provide generous running clearances.

Standard 3500 RPM for best hydraulic efficiencies, optional 1750.

Make-up Water:

Double pole heavy duty, externally adjustable float switch, Solenoid valve and "Y" strainer.

Optional Equipment Includes:

- Factory Mounted Control Panels
- Water Level Gauge
- Dial Thermometer
- Inlet Basket Strainer
- Suction Butterfly Valves
- Discharge Pressure Gauges
- Make up Water 3 Valve By-Pass
- Make up Water Air Gap Fitting
- Lifting Eyes

With 20 Year Warranty Cast Iron Receivers

Domestic[®] Pump Series CM[™] Boiler Feed Units

SINGLE OR DUPLEX 1,000 THRU 75,000 SQ. FT. EDR
40 THRU 650 BOILER HORSEPOWER

System or Boiler Capacity	Pump Cap, (gpm)	Disch Press (psig)	Motor Horsepower		Discharge Size, (Inches)	Series CM™ Boiler Feed Units		
			3500 rpm	1750 rpm		Model No	Rec Cap, (Gals)	Inlet Size, (Inches)
1,000 Thru 6,000 Sq. Ft. EDR	6	10-15 20 25 30 40 50 60 75 90	1/3 1/3 1/2 1/2 1 1 1/2 2 3 3	1/3 1/2 3/4 1 1/2 * * * * *	3/4	61.5CM 62CM 62.5CM 63CM 64CM 65CM 66CM 67.5CM 69CM	23	2
45 BHP								
9,000 Sq. Ft. EDR	9	10-15 20 25 30 40 50 60 75 90	1/3 1/3 1/2 3/4 1 1 1/2 2 3 3	1/3 1/2 3/4 1 1/2 * * * * *	3/4	91.5CM 92CM 92.5CM 93CM 94CM 95CM 96CM 97.5CM 99CM	36	3
65 BHP								
12,000 Sq. Ft. EDR	12	10-15 20 25 30 40 50 60 75 90	1/3 1/3 1/2 3/4 1 1 1/2 2 3 5	1/3 3/4 3/4 1 1/2 * * * * *	3/4	121.5CM 122CM 122.5CM 123CM 124CM 125CM 126CM 127.5CM 129CM	52	3
85 BHP								
15,000 Sq. Ft. EDR	15	10-15 20 25 30 40 50 60 75 90	1/3 1/3 1/2 3/4 1 1 1/2 2 3 5	1/2 3/4 1 1 1/2 * * * * *	3/4	151.5CM 152CM 152.5CM 153CM 154CM 155CM 156CM 157.5CM 159CM	75	4
110 BHP								
22,000 Sq. Ft. EDR	22	10-15 20 25 30 40 50 60 75 90	1/3 1/2 3/4 3/4 1 1/2 2 3 3 5	1/2 3/4 1 1 1/2 * * * * *	3/4 1 1/2	221.5CM 222CM 222.5CM 223CM 224CM 225CM 226CM 227.5CM 229CM	75	4
160 BHP								
30,000 Sq. Ft. EDR	30	10-15 20 25 30 40 50 60 75 90	1/2 3/4 3/4 1 1 1/2 2 3 5 5	3/4 1 1 1 1/2 * * * * *	1 1/2	301.5CM 302CM 302.5CM 303CM 304CM 305CM 306CM 307.5CM 309CM	120	4
215 BHP								
37,000 Sq. Ft. EDR	37	10-15 20 25 30 40 50 60 75 90	1/2 3/4 1 1 1/2 2 3 3 5 5	3/4 1 1 1/2 1 1/2 * * * * *	1 1/2	371.5CM 372CM 372.5CM 373CM 374CM 375CM 376CM 377.5CM 379CM	120	4
270 BHP								

$$\frac{\text{Sq. Ft. EDR}}{4} = \text{Lb./hr.}$$

*3500 RPM is standard
1750 RPM is not available

System or Boiler Capacity	Pump Cap, (gpm)	Disch Press (psig)	Motor Horsepower		Discharge Size, (Inches)	Series CM™ Boiler Feed Units		
			3500 rpm	1750 rpm		Model No	Rec Cap, (Gals)	Inlet Size, (Inches)
45,000 Sq. Ft. EDR	45	15	¾	¾	1½	451.5CM	250	4
		20	1	1		452CM		
		25	1	1½		452.5CM		
		30	1½	2		453CM		
		40	2	*		454CM		
		50	3	*		455CM		
		60	3	*		456CM		
		75	5	*		457.5CM		
		90	5	*		459CM		
325 BHP								
60,000 Sq. Ft. EDR	60	15	1	1	2	601.5CM	250	4
		20	1½	1½		602CM		
		25	1½	1½		602.5CM		
		30	2	2		603CM		
		40	3	*		604CM		
		50	3	*		605CM		
		60	5	*		606CM		
		75	5	*		607.5CM		
435 BHP								
75,000 Sq. Ft. EDR	75	15	1½	1½	2	751.5CM	250	4
		20	1½	2		752CM		
		25	2	2		752.5CM		
		30	2	3		753CM		
		40	5	*		754CM		
		50	5	*		755CM		
		60	5	*		756CM		
		75	7½	*		757.5CM		
650 BHP								

*3500 RPM is standard, 1750 RPM is not available

BOILER FEED UNIT DESCRIPTION

Series CM units consist of a cast iron receiver, one or two pumps, automatic make-up valve, and overflow connection. The pumps are controlled by a pump control on the boiler (available as optional) responding to water level change in the boiler. This maintains optimum steaming level for maximum performance and safety.

The make-up valve is a float-switch-operated solenoid valve, with cushioned closing and epoxy resin encapsulated coil. Tempering the added cold water with the hot condensate in the receiver minimizes the danger of thermal shock to the boiler.

Receiver is pre-selected for 5 minute net storage based on system return rate; this is normally ample for small systems up to 650 BHP. For larger systems refer to Series CMHD & CMED units catalog section 140 or 150 or increase receiver size accordingly.

STANDARD UNIT FEATURES:

- Cast Iron Receiver, has provision for second pump. Receiver sized for a minimum 5 minute net storage.
- Centrifugal Pump(s) with drip-proof motors. Pump capacity sized 2 times system return rate.
- Float switch, 1/2" solenoid valve and "Y" strainer make up water assembly.

OPTIONAL FEATURES AVAILABLE AS SPECIFIED:

- Water level gauge w/shut off valve
- Dial Thermometer
- Inlet Basket Strainer
- Lifting Eyes
- Discharge Pressure Gauges
- 3 Valve By Pass around Solenoid Make-up Water Valve
- Air Gap Fitting for Make-up Valve
- Suction Butterfly Valves. (Up to 75 gpm maximum)
- Explosion proof or TEFC motors and controls
- Control Panels, see page 4 for description of options

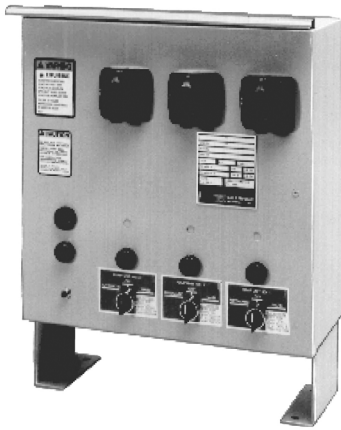
OPTIONAL DESIGN: SERIES WSC MAKE-UP SUPPLY UNITS

Series WSC units are designed to provide a detached, central make-up supply reservoir for deaerators, process loads, cooling systems or towers or any application where loss of water necessitates make-up. Series WSC units feature cast iron receivers, make-up water air gap fittings to eliminate backflow and possible contamination of the water supply, makeup water three valve by-pass for manual make-up filling, and dependable bronze fitted centrifugal pumps. All optional equipment offered on Series CM units are also applicable to the Series WSC along with Pressurized Bladder Tanks to reduce pump cycling. Pumps can be controlled by pressure switches, level controls or manual on/off switches. Consult factory for application assistance.

ORDERING INSTRUCTIONS:

Specify model no. , RPM, single or duplex, phase, operating voltage, optional and special features.

Note: Boiler feed unit wiring diagrams are based on the no. of pumps, no. of boilers, piping arrangement, and control sequence. When a control panel is ordered with the unit, this information must be explained on the order. Several of the most common piping arrangements are shown in the Boiler Feed Piping and Control Section 190.



Optional Electric Controls (See Catalog Section 190 For Suggestions)

Consolitol® Control Cabinets are available to comply with other NEMA and JIC specifications. Panels may be factory mounted and wired with liquid tight flexible conduit or furnished separately for wall mounting.

Description of Optional Panel Components:

- **Magnetic Starters** must be used on all boiler feed units.
- **Disconnect Switches and Circuit Breakers.** Either fuses or a circuit breaker is required ahead of the starters to protect against short circuits. A disconnect switch or circuit breaker also provides a means of shutting off power for service.
- **Control Circuit Disconnect** duplex boiler feed panels use an independent power supply for the control circuit. A separate disconnect switch or circuit breaker is required for the control circuit and is supplied when combination starters are ordered.
- **Selector Switches.** "Auto-Off-Hand" switches provide a means of shutting off pumps and a means of testing in the "Hand" position. "Off-Hand-Lead-Lag" selector switches may be furnished on duplex units with 2 switches set to close at different levels mounted on the boiler.
- **Electric Alternator** may be furnished on duplex units to provide automatic sequencing of lead pump. Use only when magnetic starters are provided. A 2 level switch mounted on the boiler should be provided so that the second pump can be started as required to meet boiler demand.
- **Transformers** are required by the National Electrical Code to reduce control voltage when power supply exceeds 250 volts. Transformers are recommended when voltage exceeds 130 volts.
- **Pilot Lights.** Pump running pilot lights are available to indicate pump operation.
- **Audible Alarm.** An alarm to indicate low or high water level may be furnished. A separate tank mounted level switch should be provided with an alarm.

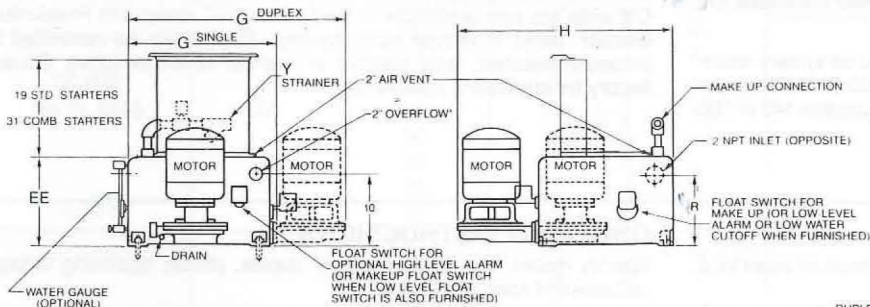
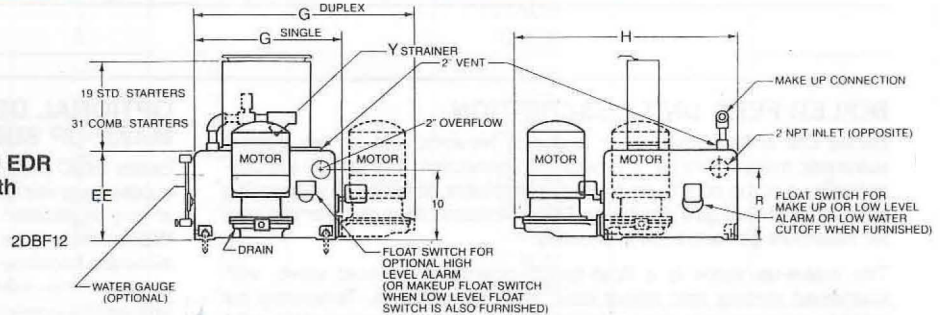
Specified Panel Components to be furnished with unit at extra cost.

NEMA 2 - U.L. Listed panels are the standard option when specified.

Roughing-in Dimensions

Not to be used for installation-
CERTIFIED DIMENSIONS ON REQUEST.

**Configuration of 1000 thru 15,000 EDR
10, 15, 20 psi; 3500 RPM Units with
23 gallon receivers.**

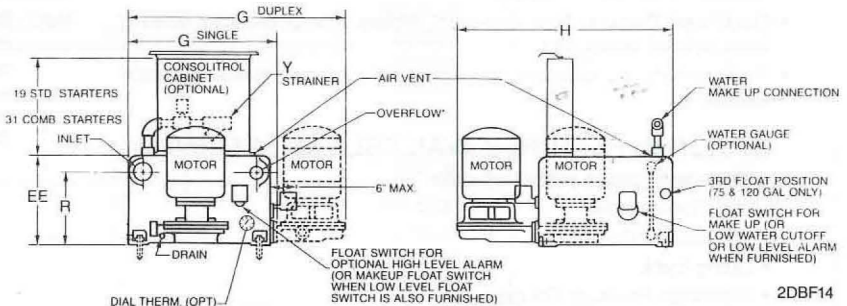


2DBF13
**Configuration of 1000 thru 15,000 EDR
Units other than above with 23 gallon receivers.**

Rec. Cap.		EE	G-Max.		H	Inlet		Air Vent
Gross	Net		Single	Duplex		R		
23	16	13 1/16	23	35	37	2	10	2
36	25	16	26	39	38	3	13	2
52	33	17	29	42	42	3	14	2
75	48	20	33	46	46	4	16	2 1/2
120	91	24	41	54	46	4	20	2 1/2

All dimensions are in inches.

Note: For 250 gallon dimensions consult your Bell & Gossett Representative.



2DBF14
Configuration of 36-120 gallon receiver.

xylem
Let's Solve Water

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