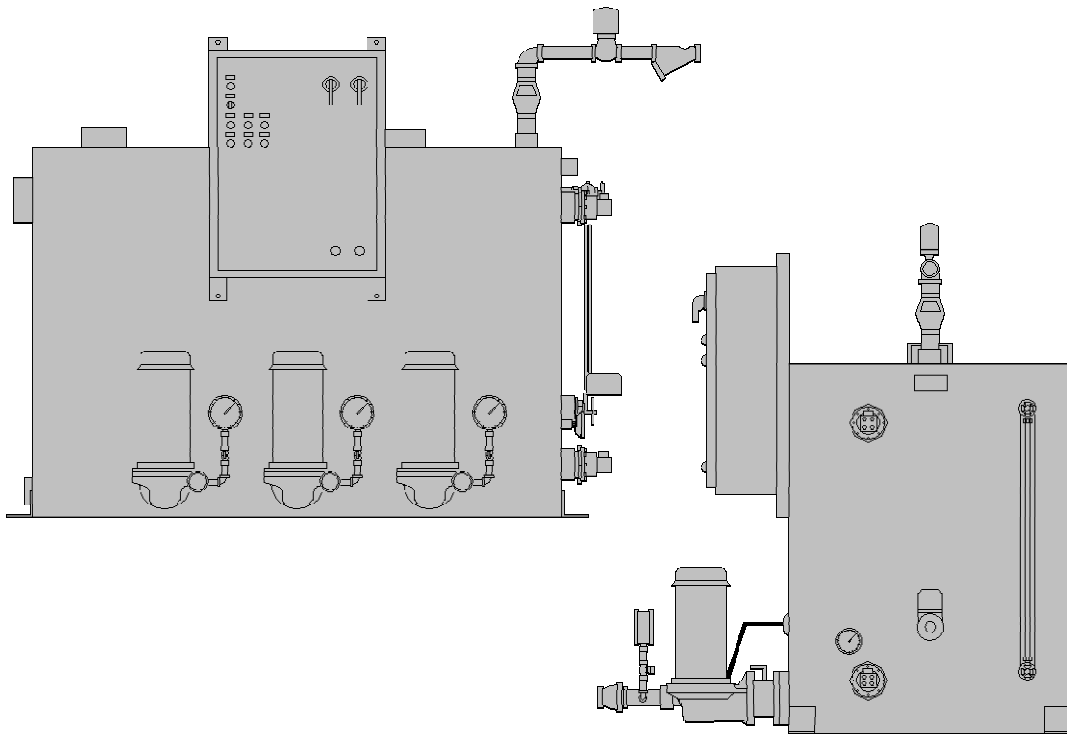


LOCKWOOD®

TYPE VCM BOILER FEED SYSTEMS



ILLUSTRATED WITH OPTIONAL EQUIPMENT

BF - VCM
11 - 08

LOCKWOOD TYPE VCM BOILER FEED SYSTEMS

OVERVIEW

RECIEVERS

Heavy duty, welded, carbon steel receivers are available in rectangular configurations with capacities ranging from 100 to 500 gallons. Consult your local representative for custom engineered receivers and rust resistant linings.

LOCKWOOD CENTRIFUGAL PUMPS

Three centrifugal models are available in a large selection of sizes to meet: your specific application requirements: VC, VJ and VMX.

The pumps are bolted directly to the receiver to provide a compact, efficient design. Their close-coupled, centrifugal design with enclosed type impeller assures smooth, efficient water passage. A mechanical seal, rated to a maximum temperature of 220°F is vented to the receiver to assure adequate lubrication at all times.

All standard selections are rated for condensate temperatures up to 200°F. Consult factory for higher temperature applications, as some pumps are available that have low NPSH capability. These pumps have advanced impeller and volute design that can provide true 2' NPSH capacity without using additional impellers and parts required by other manufacturers.

Designed for long-life, low maintenance and reliable service, the pumps are easily serviceable if necessary. Parts subject to normal wear are readily accessible. Impeller and seal can be serviced without distributing piping.

All pumps are close-coupled to heavy duty, ball bearing electric motors. Fractional horsepower single phase motors have built-in thermal overload protection.

For higher flow rates or pressures, non standard VJS, VCS and VMX pump selections are available. Please contact Lockwood Products for appropriate model numbers for special pump selections.

• VJS PUMPS

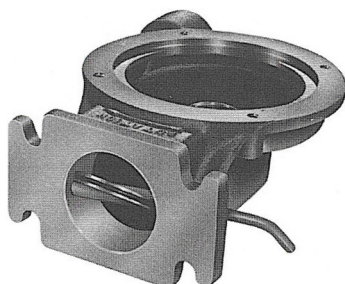
Cast iron, bronze fitted construction
Available motors: 1/2 thru 2 hp
3500 RPM only
Discharge pressures: 20, 30, 40 psi
Flow rates to 18 GPM
Motors: ODP, TEFC, Explosion Proof
Single phase, 115/230 v, 60 Hz
Three phase, 208 or 230/460V, 60Hz

• VCS PUMPS

Cast iron, bronze fitted construction
Available motors: 1/3 thru 10 hp
Flow rates to 75GPM
1725 rpm, discharge pressures 10, 15 or 20 psi
3500 rpm, discharge pressures 30, 50, 60 psi
Motors: ODP, TEFC, Explosion Proof
Single phase, 115/230 v, 60 Hz
Three phase, 208 or 230/460V, 60Hz

• VMX PUMPS

Cast iron, bronze fitted construction *
Available motors: 1/3, 1/2 or 3/4 hp
3500 RPM only
Discharge pressures are 20, 30 or 40 psi
Motors: ODP, TEFC, Explosion Proof
Single phase, 115/230 v, 60 Hz
Three phase, 208 or 230/460V, 60Hz
* Non-ferrous impeller standard for 1/3HP VMX pump, 20 psi



VMX SUCTION ISOLATION VALVE



VJ & VC SUCTION ISOLATION VALVE

An optional suction isolation valve is available. When installed between the pump and receiver, it allows the pump motor assembly to be removed without draining the receiver.

LOCKWOOD TYPE VCM BOILER FEED SYSTEMS

STANDARD SELECTION DATA

BOILER HP	PUMP GPM		PUMP DISCHARGE PRESSURE (PSIG)			TANK CAP. GALLONS	MAKE-UP VALVE
			20	30	40		
40	6	MODEL NO. PUMP NO. MOTOR HP	VCM100-6-20 VMX-20 1/3	VCM100-6-30 VMX-30 1/2	VCM100-6-40 VMX-40 3/4	100	1/2" ELECT.
60	9	MODEL NO. PUMP NO. MOTOR HP	VCM100-9-20 VMX-20 1/3	VCM100-9-30 VMX-30 1/2	VCM100-9-40 VMX-40 3/4	100	1/2" ELECT.
80	12	MODEL NO. PUMP NO. MOTOR HP	VCM100-12-20 VMX-20 1/2	VCM100-12-30 VMX-30 1/2	VCM100-12-40 VMX-40 3/4	100	1/2" ELECT.
100	18	MODEL NO. PUMP NO. MOTOR HP	VCM100-18-20 VMX-20 1/3	VCM100-18-30 VMX-30 1/2	VCM100-18-40 VMX-40 3/4	100	1/2" ELECT.
125	18	MODEL NO. PUMP NO. MOTOR HP	VCM100-18-20 VMX-20 1/3	VCM100-18-30 VMX-30 1/2	VCM100-18-40 VMX-40 3/4	100	1/2" ELECT.
150	22.5	MODEL NO. PUMP NO. MOTOR HP	VCM150-22.5-20 VJS-153 1/2	VCM150-22.5-30 VJS-154 3/4	VCM150-22.5-40 VJS-155 1	150	3/4" ELECT.
200	30	MODEL NO. PUMP NO. MOTOR HP	VCM200-30-20 VJS-202 3/4	VCM200-30-30 VJS-203 1	VCM200-30-40 VJS-204 1-1/2	200	3/4" ELECT.
250	37.5	MODEL NO. PUMP NO. MOTOR HP	VCM250-37.5-20 VJS-252 3/4	VCM250-37.5-30 VJS-253 1	VCM250-37.5-40 VJS-254 1-1/2	250	3/4" ELECT.
300	45	MODEL NO. PUMP NO. MOTOR HP	VCM300-45-20 VJS-302 1	VCM300-45-30 VJS-303 1-1/2	VCM300-45-40 VJS-304 2	300	3/4" ELECT.
350	45	MODEL NO. PUMP NO. MOTOR HP	VCM350-45-20 VJS-302 1	VCM350-45-30 VJS-303 1	VCM350-45-40 VJS-304 2	350	3/4" ELECT.
400	60	MODEL NO. PUMP NO. MOTOR HP	VCM500-60-20 VJS-402 1-1/2	VCM500-60-30 VJS-403 1-1/2	VCM500-60-40 VCS-404 3	500	1" ELECT.
500	75	MODEL NO. PUMP NO. MOTOR HP	VCM500-75-20 VJS-502 1-1/2	VCM500-75-30 VJS-503 2	VCM500-75-40 VCS-504 3	500	1" ELECT.

DESIGN SELECTION

SIMPLEX: one pump system to serve one boiler.

DUPLEX: two pump system to serve one boiler (with one stand-by); or two boilers (with one pump per boiler).
If system is to serve two boilers.

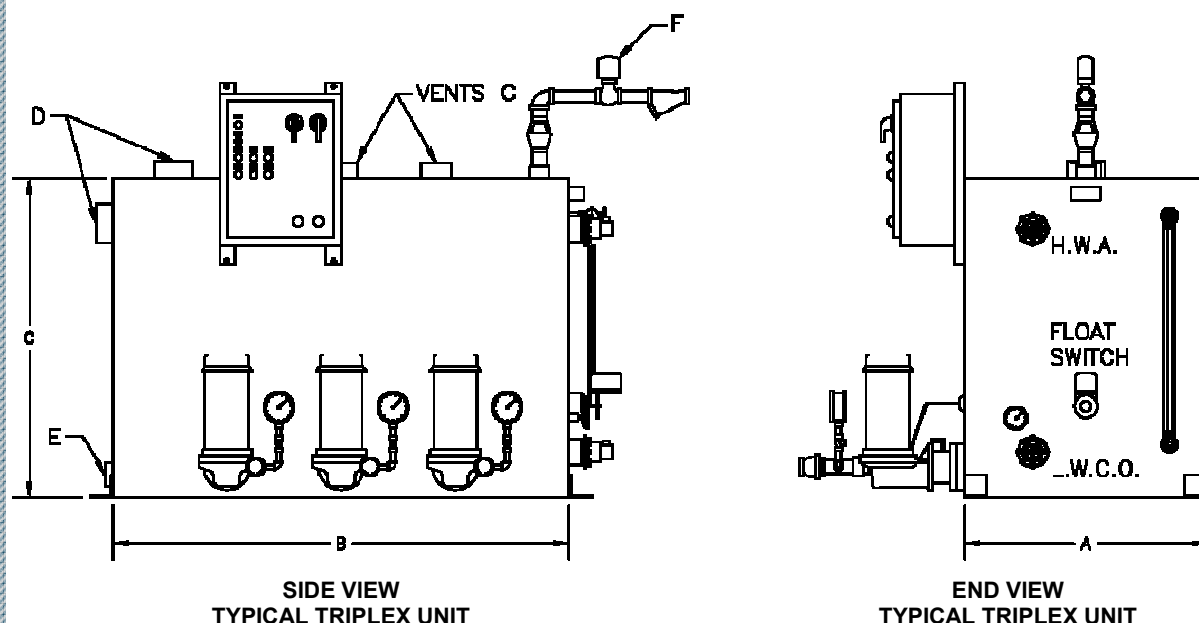
TRIPLEX: three pump system to serve two boilers (with one stand-by pump); or three boilers (with one pump per boiler).

QUAD: four pump system to serve three boilers (with one stand-by pump); or four boilers (with one pump per boiler).

Select pumps for individual boiler size, and select tank and make-up valve for boiler load.

LOCKWOOD TYPE VCM BOILER FEED SYSTEMS

DIMENSIONS



DIMENSIONAL DATA

NOMINAL RECEIVER SIZE (GALLONS)	A	B	C	D	E	F	VENTS G
100	30	30	30	3	1-1/4	1/2	1-1/2
150	30	36	36	3	1-1/4	1/2	1-1/2
200	30	48	36	4	1-1/2	3/4	2
250	30	48	42	4	1-1/2	3/4	2-1/2
300	30	60	42	4	1-1/2	3/4	3
350	30	60	48	4	1-1/2	3/4	3
500	30	72	60	4	1-1/2	1	3

STANDARD FEATURES

Lockwood VCM boiler feed systems are offered as standard for boilers up to 500 HP, 20, 30 AND 40 PSIG pump pressures in simplex, duplex, triplex and quad configurations. Custom systems are also available.

Receivers are constructed of heavy steel plate with necessary reinforced tank connections, including two vents (one internally un-restrictable for added safety). For general applications, receiver capacity is sized to allow a minimum of 1 gallon of gross capacity per boiler horsepower (smaller receivers may be utilized for high make-up water conditions; larger receivers are recommended for high condensate return conditions). Each system includes a gauge glass with protection rods and shut-off cocks, individual pump suction connections, and a solenoid make-up assembly with air gap fitting. Pumps are selected for intermittent service unless otherwise requested.

AVAILABLE ACCESSORIES/ OPTIONS

- TEFC/Explosion Proof Motors
- Magnetic Starters/Custom Panels
- H-O-A Switches
- Pilot Lights
- Control Circuit Transformers
- Electrical Alternators
- Level Alarm Switches
- High Water Alarm Switches
- Thermometers
- Internal Tank Linings
- Tank Insulation
- Suction Isolation Valves

The specifications contained in this bulletin were effective at the time of publishing. Lockwood Products, Inc. reserves the right to discontinue products at any time or to change specifications or design without incurring any obligation.