



Condensate Return and Boiler Feed Pumps “MX” Series

DESCRIPTION

Thermaflo “MX” Series condensate and boiler feed pumps are packaged units completely assembled, wired and tested at the factory. They are used in low pressure steam heating systems to collect and quickly return condensate to the boiler or boiler feed unit. Pumping action is controlled by an integral float switch on simplex (one pump) units or mechanical alternator on duplex (two pump) units. Unlike boiler feed units which are controlled by a boiler mounted control and equipped with a makeup valve mechanism, condensate pumps usually do not directly supply boiler makeup water.

AVAILABLE TYPES

Simplex units

Simplex units are equipped with vapor tight, heavy duty float switch control with stainless steel float. Easily field adjustable to provide proper pump control and operation.

Duplex units

Duplex units offer some additional distinct advantages over simplex units. They are used where an unusually heavy amount of condensate must be returned or where it is desirable to have a stand-by pump available. Equipped with a float operated, auto-matic mechanical alternator, they provide several benefits. Both pumps run on high high level.

- **System overload protection**—The second pump is activated if the rate of condensate return exceeds the limits of the first pump.
- **Extra long service life**—Each of the two pumps is activated automatically on alternating pumping cycles so the work load is evenly distributed between the two pumps.
- **Back-up system protection**—A second pump is automatically actuated if the first one fails to start. Maintenance or repairs can be made on either pump without shutting down the other one or interrupting system operation.

LIMITING CONDITIONS

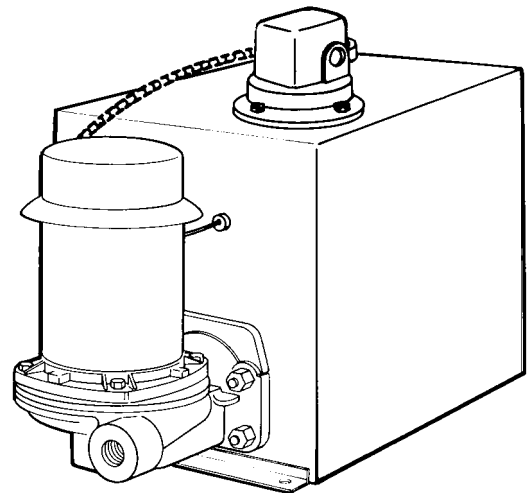
Capacity: to 18 gpm. Discharge pressures: 20, 30 and 40 psi.
Consult factory for higher flow rates 200F Max Pumping Temperature

RECEIVER (Note: Receivers are not flash tanks)

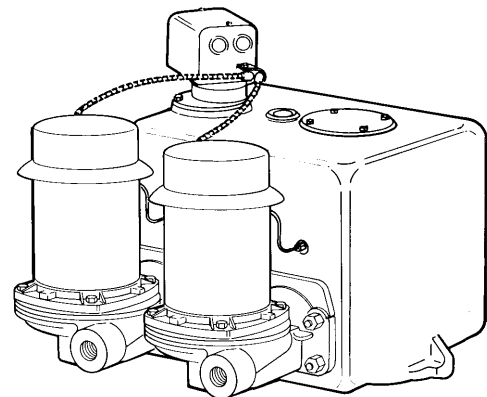
Close grained cast iron.
Simplex unit 6, 15, 21 and 45 gallon sizes.
Duplex unit 15, 21 and 45 gallon sizes.
Welded, copper bearing steel.
Simplex unit 10, 20 and 45 gallon sizes.
Duplex unit 20 and 45 gallon sizes. 65 and 110 Gallon Available

HEAVY DUTY, DRIP PROOF MOTORS

Heavy duty, drip proof motors are designed for continuous operation. Ball bearings are prelubricated and shielded. Motors have stainless steel shaft - operated at 3450 rpm 60Hz. Both single phase 115/230 volt with built-in overload protection, and three phase 230/460 volt (or 208 volt) motors are available with O.D.P. or special TEFC enclosures.
All parts of the pump and motor which are subject to normal wear are easily accessible by removal of motor and canopy, attached with universal type 4 bolt flange mounting. Service of impeller and seal is also made easy . . . entire motor can be removed without disturbing plumbing or electrical connections.



Simplex MX Unit



Duplex MX Unit

PUMP AND MOTOR ASSEMBLY

Pump and motor assembly is close coupled centrifugal design with enclosed type bronze impeller and wearing ring. The bronze impeller is designed to assure smooth, efficient water passage. No close clearances that are subject to rapid wear and reduced efficiency.

Mechanical shaft seal designed for temperatures to 250 °F. Seal is vent-ed to receiver to insure adequate lubrication at all times.

OPTIONAL EXTRAS

Suction Isolation Valve

When installed between the pump and receiver on simplex units, it allows the pump motor assembly to be removed without draining the receiver. On duplex units, it permits one pump to be removed while the other one continues to operate without interrupting system operation. Highly recommended.

Thermaflo Engineering Inc. Manufacturing Facilities 2880 Fair Avenue Newberry, S.C. 29108 Made in USA Products

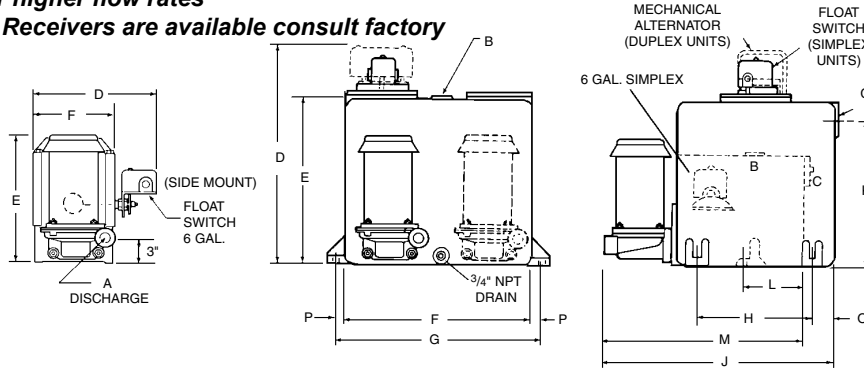
In the interests of development and improvement of the product, we reserve the right to change the specification.

Condensate Return and Boiler Feed Pumps "MX" Series

ORDERING CODES AND MODELS

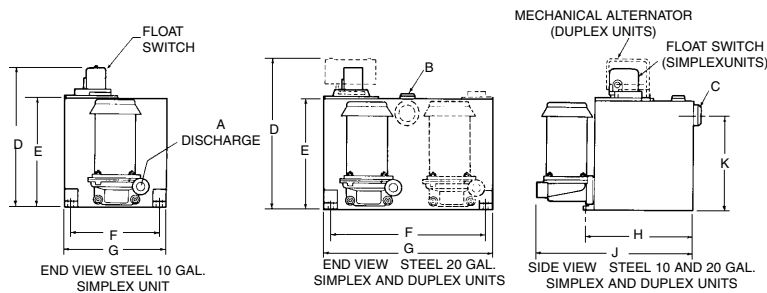
Motor		Pump		Cast Iron Receiver Sizes						Welded Steel Receiver Sizes							
Phase and Voltage	HP	Discharge Pressure psi	gpm	6 Gallon 8000 EDR		15 Gallon 12000 EDR		21 Gallon 12000 EDR		45 Gallon 12000 EDR		10 Gallon 8000 EDR		20 Gallon 12000 EDR		45 Gallon 12000 EDR	
				Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
Single 115/230 V.	1/3	20	18	XC2S61	XC2D151	XC2S151	XC2D151	XC2S211	XC2D211	XC2S451	XC2D451	XS2S101	XS2S201	XS2D201	XS2S451	XS2D451	
	1/2	30	18	XC3S61	XC3D151	XC3S151	XC3D151	XC3S211	XC3D211	XC3S451	XC3D451	XS3S101	XS3S201	XS3D201	XS3S451	XS3D451	
Three 230/460 V.	3/4	40	18	XC4S61	XC4D151	XC4S151	XC4D151	XC4S211	XC4D211	XC4S451	XC4D451	XS4S101	XS4S201	XS4D201	XS4S451	XS4D451	
	1/3	20	18	XC2S63	XC2D153	XC2S153	XC2D153	XC2S213	XC2D213	XC2S453	XC2D453	XS2S103	XS2S203	XS2D203	XS2S453	XS2D453	
	1/2	30	18	XC3S63	XC3D153	XC3S153	XC3D153	XC3S213	XC3D213	XC3S453	XC3D453	XS3S103	XS3S203	XS3D203	XS3S453	XS3D453	
	3/4	40	18	XC4S63	XC4D153	XC4S153	XC4D153	XC4S213	XC4D213	XC4S453	XC4D453	XS4S103	XS4S203	XS4D203	XS4S453	XS4D453	

Consult factory for higher flow rates
65 and 110 Gallon Receivers are available consult factory



DIMENSIONS (NOMINAL) IN INCHES & MILLIMETERS

Receiver Size	A	B	C	D	E	F	G	H	J	K	L	M	O	P
Simplex 6 gallon	1	1	2	14.5	14.5	9.5	-	-	-	9.0	-	27	-	-
	25	25	50	368	368	241	-	-	-	229	-	686	-	-
Simplex 15 gallon	1	1	2	21	15.6	17.6	19.8	-	26.5	13.3	9.3	-	-	1
	25	25	50	533	396	447	503	-	673	338	236	-	-	25
Duplex 15 gallon	1	1	2	21.5	15.6	17.6	19.8	-	26.5	13.3	9.3	-	-	1
	25	25	50	546	396	447	503	-	673	338	236	-	-	25
Simplex 21 gallon	1	1-1/4	2	17	12.4	22.7	27.7	18	31.8	10.2	-	-	1.5	1.5
	25	32	50	432	315	576	704	457	808	259	-	-	38	38
Duplex 21 gallon	1	1-1/4	2	18	12.4	22.7	27.7	18	31.8	10.2	-	-	1.5	1.5
	25	32	50	457	315	576	704	457	808	259	-	-	38	38
Simplex 45 gallon	1	1-1/2	2-1/2	21.8	17.3	26.7	28.7	20	36.7	15	-	-	2.85	1
	25	38	63	554	439	678	729	508	932	381	-	-	72	25
Duplex 45 gallon	1	1-1/2	2-1/2	22.8	17.3	26.7	28.7	20	36.7	15	-	-	2.85	1
	25	38	63	579	439	678	729	508	932	381	-	-	72	25



DIMENSIONS (NOMINAL) IN INCHES & MILLIMETERS

Receiver Size	A	B	C	D	E	F	G	H	J	K
Simplex 10 gallon	1	1	2	18.2	14.2	12.5	14.3	15.2	25.2	12.7
	25	25	50	462	361	318	363	386	640	323
Simplex 20 gallon	1	1	2	18.2	14.2	22.5	24.3	15.2	25.2	12.7
	25	25	50	462	361	572	617	386	640	323
Duplex 20 gallon	1	1	2	19.7	14.2	22.5	24.3	15.2	25.2	12.7
	25	25	50	500	361	572	617	386	640	323
Simplex 45 gallon	1	1.5	3	22.4	18.4	24.4	26.4	24.4	35.4	15.7
	25	40	75	569	467	620	671	620	899	399
Duplex 45 gallon	1	1.5	3	24.4	18.4	24.4	26.4	24.4	35.4	15.7
	25	40	75	620	467	620	671	620	899	399