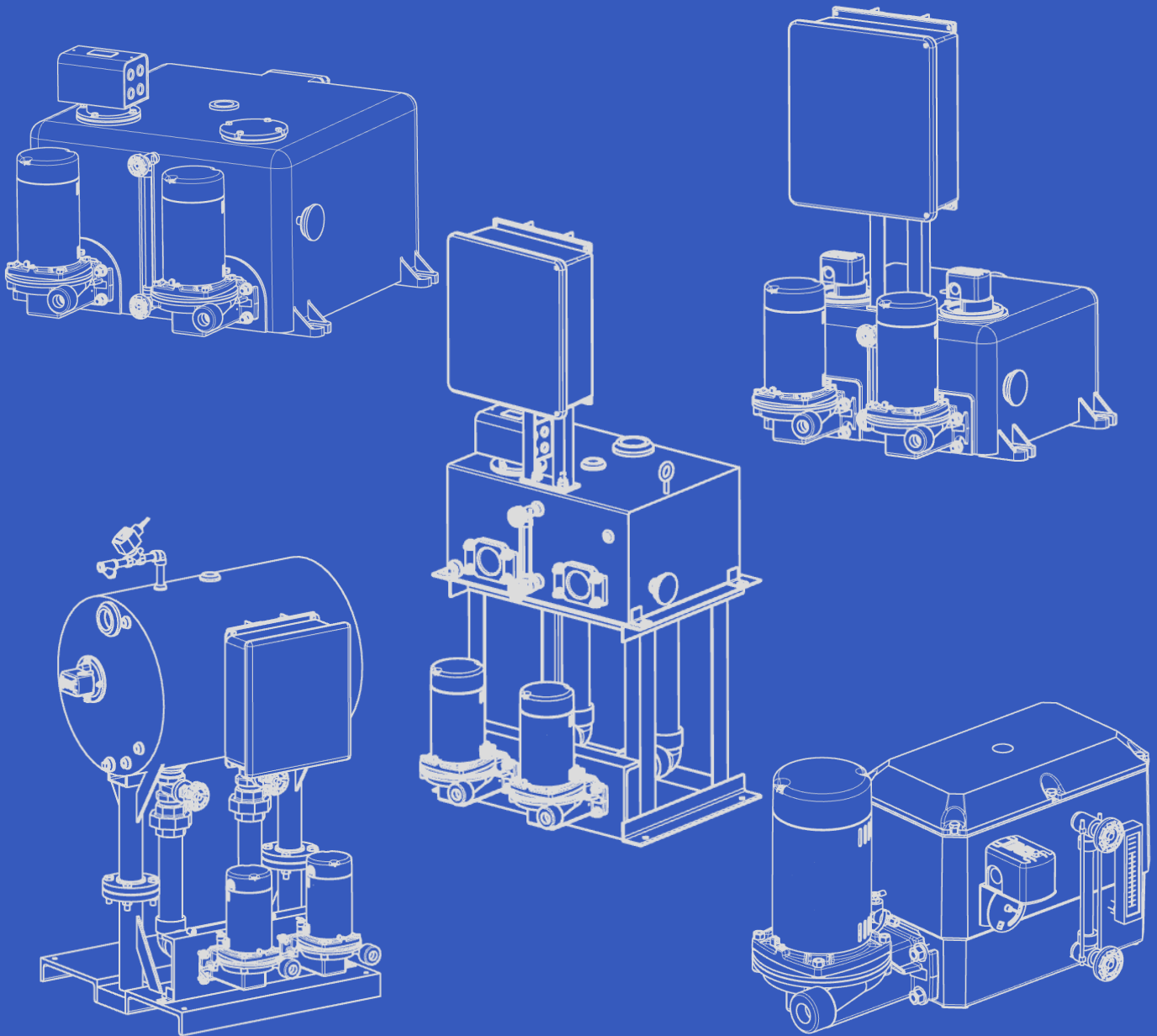


Skidmore®

A Swan Group Company



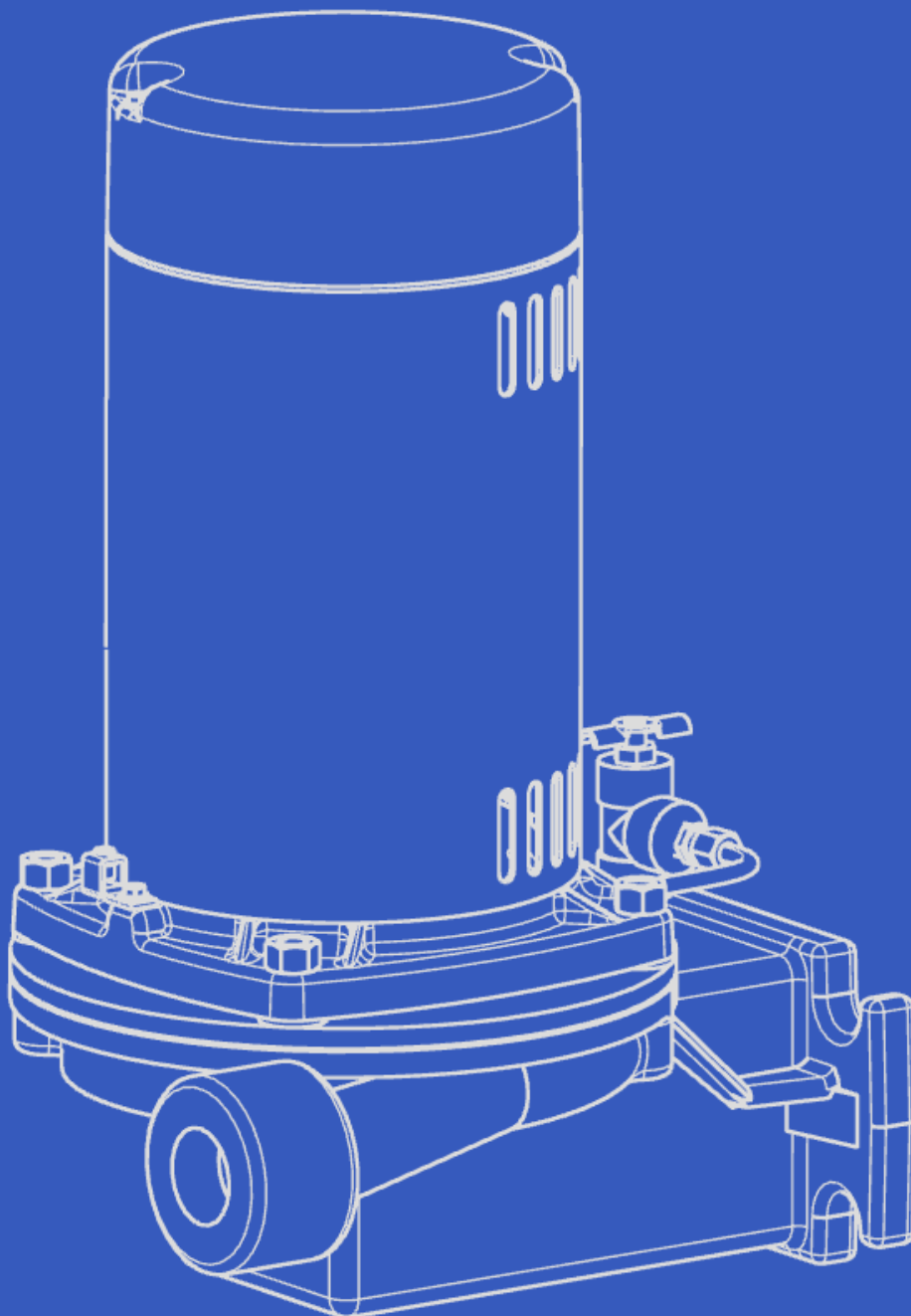
CONDENSATE, BOILER FEED
AND TRANSFER SYSTEMS

10MX

Complete Pump and Motor Assembly

10MX Features & Specifications

- Mechanical seals able to withstand temperatures up to 250°F
- Simple in-field hookup
- Easily customizable with special motors such as TEFC, explosion-proof, or wash-down
- Motors ranging from 1/3 HP to 3/4 HP are available in 115, 208, or 230 single phase or 208, 230, or 460 three phase, 3,500 RPM
- Low maintenance, easily serviceable design - any part subject to normal wear is readily accessible. Impeller and seal can be serviced without disturbing system piping or electrical connections.
- Universal 4 bolt flange



10 MX Units:

- Handles hot (210°F) or cold water.
- Available as simplex or duplex for condensate return or boiler feed.
- Low-profile options for low-headroom applications.
- Stainless Steel Receivers are available upon request.
- Custom receivers are available upon request.

TYPICAL MODEL NUMBER

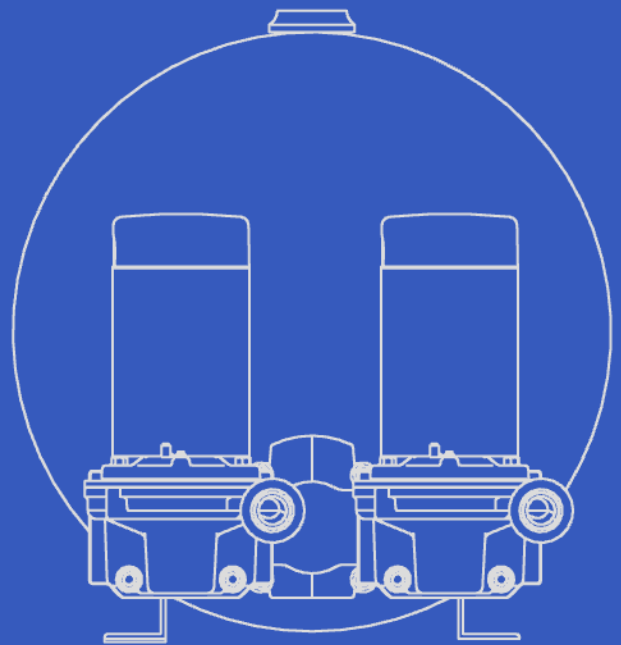
X C 2 D 21 1

10MX	C: Cast Iron S: Steel	2- 20 PSI (1/3 HP) 3- 30 PSI (1/2 HP) 4-40 PSI (3/4 HP)	D- Duplex S-Simplex	6- 10- 15- 20- 21- 45- GAL	1-115/230 Single 3-208-230/460 Three Phase
Pump Line	Receiver Material	Discharge Pressure	Configuration	Receiver Size	Voltage Phase

TYPICAL MODEL NUMBER

X M 3 D 49 3

10MX	M: Boiler Feed	2- 20 PSI (1/3 HP) 3- 30 PSI (1/2 HP) 4-40 PSI (3/4 HP)	D- Duplex S-Simplex	49- 71- 117- 209- GAL	1-115/230 Single 3-208-230/460 Three Phase
Pump Line	Service	Discharge Pressure	Configuration	Receiver Size	Voltage Phase



10MX

10MX Condensate Return

Capacity: 12,000 sq. ft. EDR or 18 GPM
Discharge Pressures: 20, 30, and 40 PSI

The 10MX condensate return quickly collects and returns condensate back to a boiler feed unit. The pump action is controlled by either a float switch (simplex) or a mechanical alternator (duplex) designed to energize the pump motor when liquid levels get too high. Various sizes of cast iron or carbon steel receivers are available to meet just about any installation requirement.

ACCESSORIES AND OPTIONAL EQUIPMENT

Condensate Pumps -Standard Equipment

- Simplex units have opening blanked-off for the addition of a second pump at a later date.
- One float switch (simplex units)
- Mechanical alternator (duplex units -equalizes running time between the two pumps and provides emergency backup)
- Gauge glass and thermometer tapings

Condensate Pumps -Optional Equipment

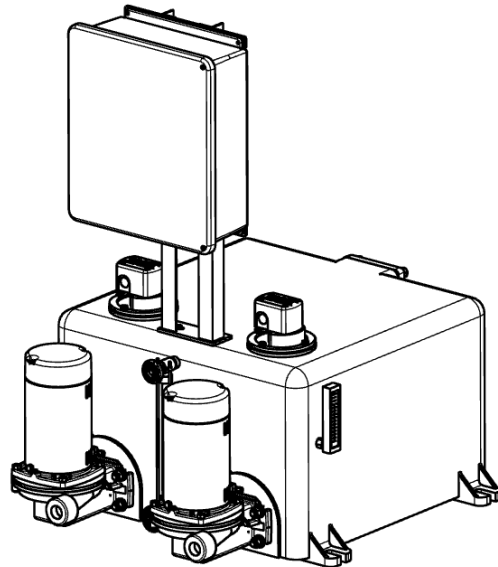
- Electrical control panel -factory mounted and wired
- Thermometer
- Two float switches (duplex units)
- Electric alternator with Two Float Switches - mounted on unit and factory-wired (panel required)
- Suction isolation valves
- Inlet strainers -"Y" or basket type
- Gauge glass
- High temperature Viton Seals (up to 300deg F)
- Elevated receivers
- Magnesium corrosion inhibitor (21 Gallons or greater)
- Corrosion-resistant receiver linings (steel receivers)
- Discharge pressure gauges
- Discharge check valves
- Discharge gate valves
- Pre-assembled Discharge manifolds available, contains pressure gauge, check valve, ball valve, gate valve.
- Special motors -T.E.F.C., explosion-proof, wash-down duty
- Available in simplex, duplex, triplex, and quadruplex units
- Easily customizable with special motors such as TEFC, explosion-proof, or wash- down
- Steel and stainless steel receivers can be modified to fit just about any installation.

TYPICAL APPLICATIONS

Condensate Pump Packages:

Skidmore® 10MX systems are complete, compact assemblies for returning water from a gravity steam condensate return system to a boiler feed system. These pumps will quickly and automatically lift condensate from extremely low to high return lines.

Cast Iron, Steel, and Stainless Steel receivers are available in 15 through 110-gallon capacities.



Cast Iron Receiver (Duplex Unit shown)

10MX Boiler Feed

Capacity:

12,000 sq. ft. EDR or 18

GPM

Discharge Pressures: 20, 30,
and 40 PSI

The 10MX boiler feed is used to pump condensate and makeup water directly into the boiler(s). Pump action is controlled by a boiler-mounted level controller that senses boiler water level requirements. Each V-Series boiler feed pump comes equipped with a float-operated makeup valve to bring in makeup water. Various sizes of cast iron and carbon steel receivers are available to meet just about any installation requirement.

ACCESSORIES AND OPTIONAL EQUIPMENT

Boiler Feed or Makeup Pumps-Standard Equipment

- Simplex units have opening blanked-off for the addition of a second pump at a later date
- Float-operated makeup valve
- Gauge glass and thermometer tappings

Boiler Feed or Makeup Pumps - Optional Equipment

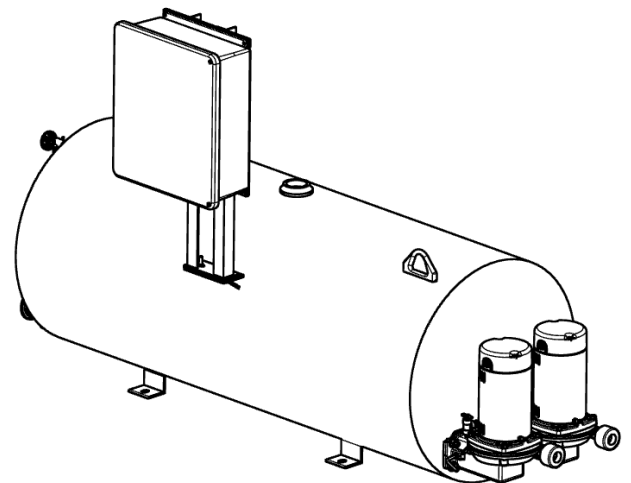
- Electrical control panel - factory mounted and wired
- Thermometer
- Makeup feeders - external type, or reverse acting float switch and solenoid valve type
- Magnesium corrosion inhibitor
- Corrosion-resistant receiver linings (steel receivers)
- Suction isolation valves
- Inlet strainers - "Y" or basket type
- Electric alternator available for duplex units
- Low Water Cut Out
- Elevated receivers
- Gauge glass
- Three valve bypass and "Y" strainer assembly
- Feedwater pre-heaters
- Discharge pressure gauges
- Discharge check valves
- Discharge gate valves
 - ✓ Pre-assembled Discharge manifolds available, contains pressure gauge, check valve, ball valve, gate valve.
- Low Water/ High Water Alarms
- Available in simplex, duplex, triplex, and quadruplex units
- Easily customizable with special motors such as TEFC, explosion-proof, or wash- down
- Steel and stainless steel receivers can be modified to fit any application
- High temperature Viton Seals (up to 300deg F)

TYPICAL APPLICATIONS

Boiler Feed Pump Packages:

Boiler feed pump systems pump and precisely control the condensate and make up water required by the boiler(s) in low-pressure steam applications. The fluid level in the boiler controls the pump action.

Heavy-duty, welded carbon and stainless steel receivers are available in rectangular or cylindrical configurations with capacities of 10 to 110 gallons and 49 to 209 gallons, respectively. Consult your local representative for custom-engineered receivers and rust-resistant linings.

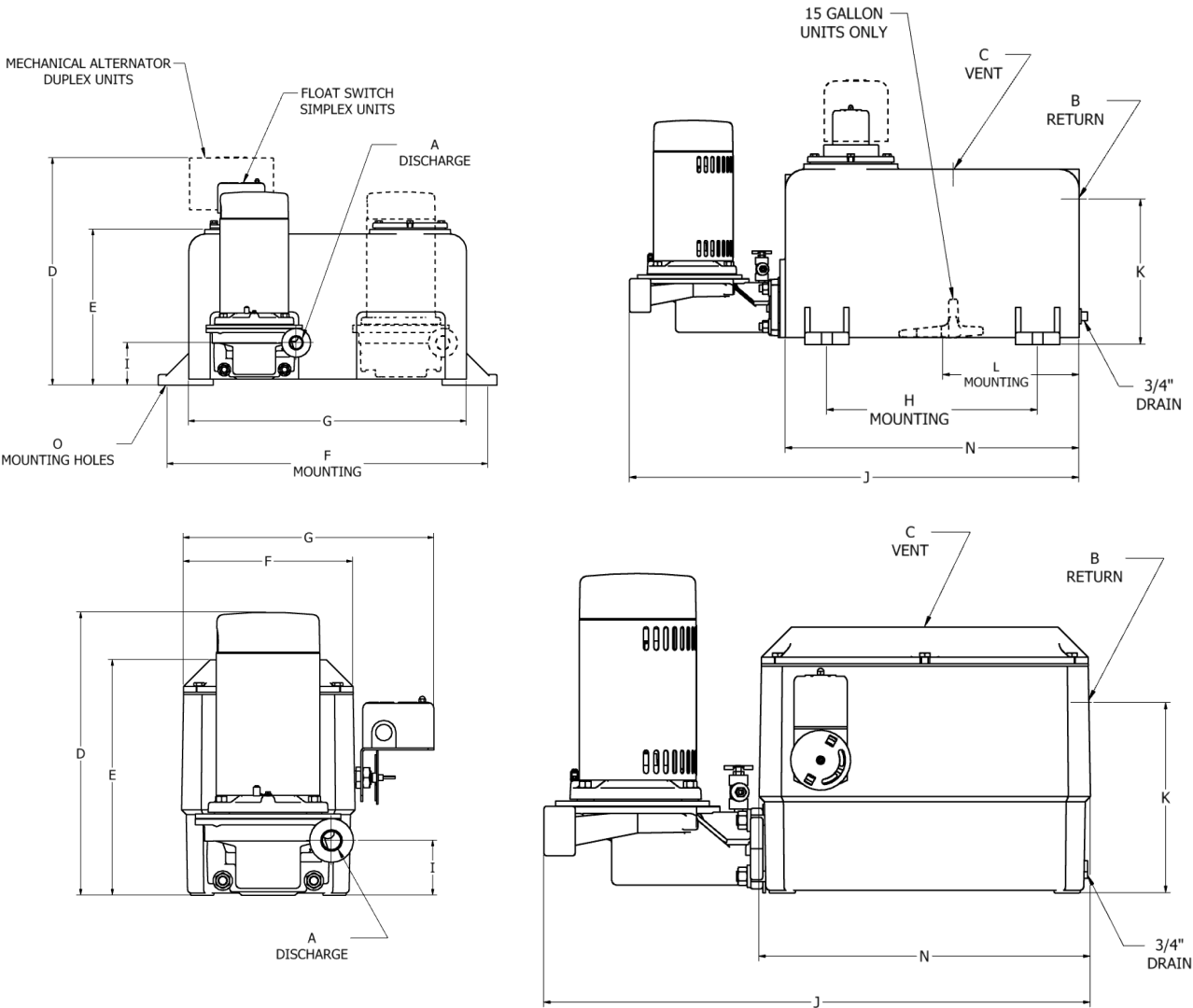


Carbon Steel and Stainless Receiver (Duplex Unit shown)

DIMENSION DATA

10MX PUMPS WITH RECTANGULAR CAST IRON RECEIVERS

Simplex or Duplex Condensate



Rectangular Cast Iron Receivers

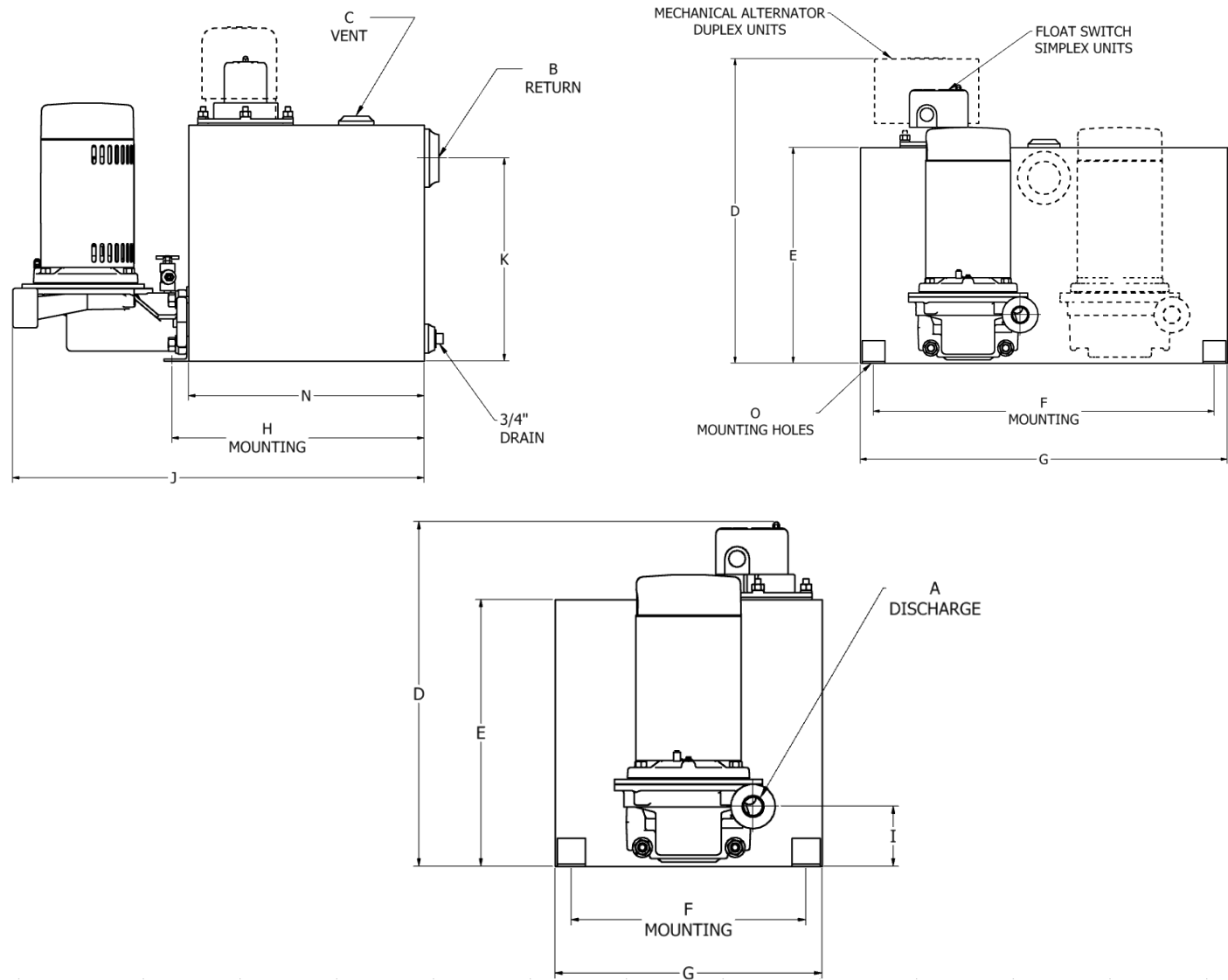
APPROXIMATE DIMENSIONS (in)														
UNIT STYLE	A	B	C	D	E	F	G	H	I	J	K	L	N	O
Simplex 6 Gallon	1	2	1	15.3	12.8	9.4	13.7	/	3.0	26.2	9.1	/	15.9	/
Simplex 15 Gallon	1	2	1	19.7	15.2	19.9	17.3	/	3.0	25.6	13.0	8.8	15.0	Ø0.5
Duplex 15 Gallon	1	2	1	21.5	15.2	19.9	17.3	/	3.0	25.6	13.0	8.8	15.0	Ø0.5
Simplex 21 Gallon	1	2	1.25	16.9	12.8	25.5	22.8	14.9	3.5	31.8	10.3	/	20.8	Ø0.75
Duplex 21 Gallon	1	2	1.25	18.7	12.8	25.5	22.8	14.9	3.5	31.8	10.3	/	20.8	Ø0.75
Simplex 45 Gallon	1	2.5	1.5	21.1	17.2	28.8	26.8	20	4	36.7	14.4	/	27.8	Ø0.75
Duplex 45 Gallon	1	2.5	1.5	23	17.2	28.8	26.8	20	4	36.7	14.4	/	27.8	Ø0.75

NOTE: All Dimensions Are Approximate

DIMENSION DATA

10MX PUMPS WITH RECTANGULAR STEEL AND STAINLESS STEEL RECEIVERS

Simplex or Duplex Condensate

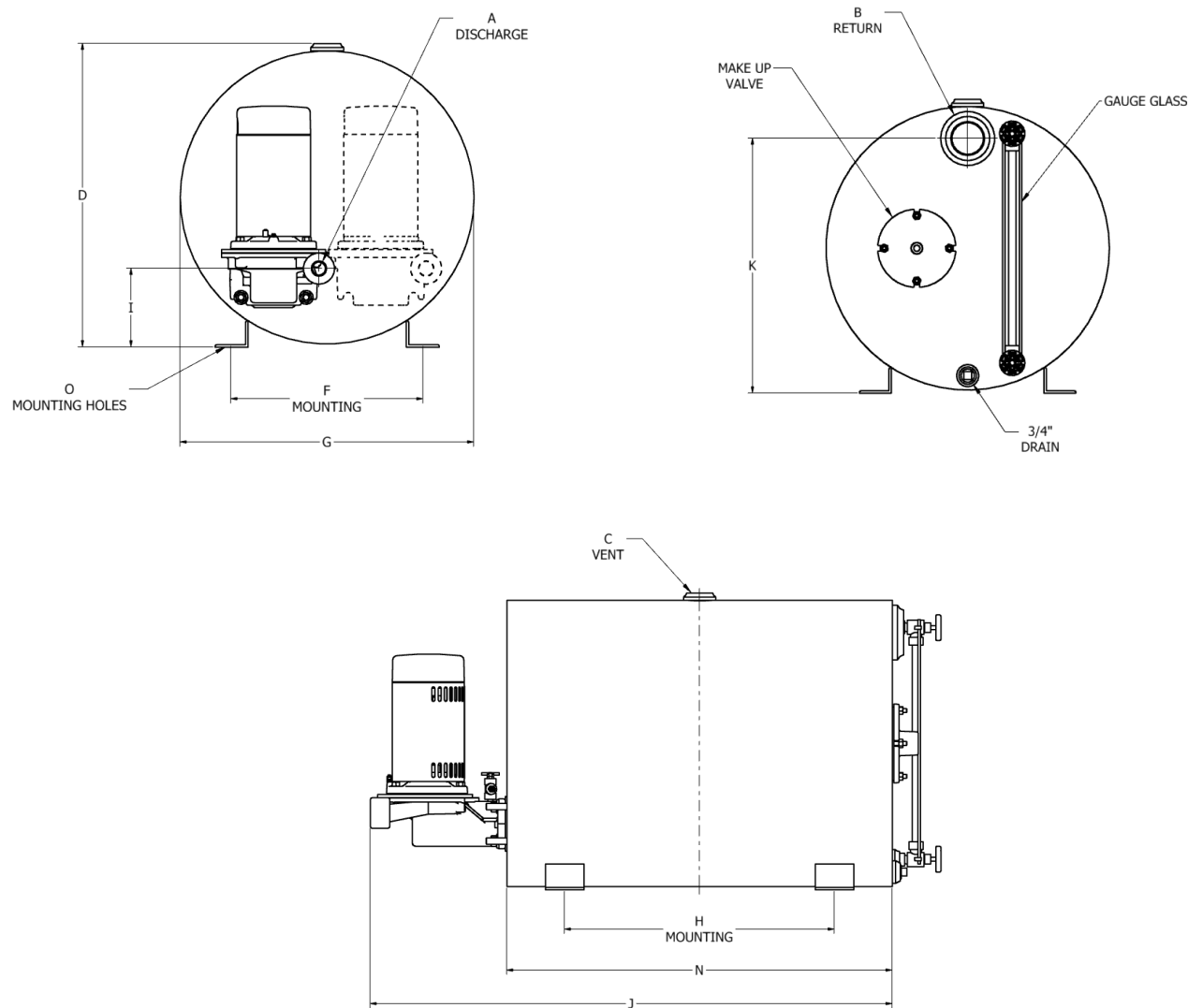


Rectangular Steel Receivers													
APPROXIMATE DIMENSIONS (in)													
UNIT STYLE	A	B	C	D	E	F	G	H	I	J	K	N	O
Simplex 10 Gallon	1	2	1	18.4	14.2	12.5	14.2	15.2	3.2	24.8	12.2	14.2	Ø0.6
Simplex 20 Gallon	1	2	1	18.4	14.2	22.5	24.2	15.2	3.2	24.8	12.2	14.2	Ø0.6
Duplex 20 Gallon	1	2	1	20.1	14.2	22.5	24.2	15.2	3.2	24.8	12.2	14.2	Ø0.6
Simplex 45 Gallon	1	3	1.5	22.4	18.4	26.4	24.4	22.1	4	35	15.7	24.4	Ø0.6
Duplex 45 Gallon	1	3	1.5	24.1	18.4	26.4	24.4	22.1	4	35	15.7	24.4	Ø0.6

NOTE: All Dimensions Are Approximate

DIMENSION DATA

10MX PUMPS WITH CYLINDRICAL STEEL RECEIVERS Simplex or Duplex Condensate or Boiler Feed Units



Cylindrical Steel Receivers												
APPROXIMATE DIMENSIONS (in)												
UNIT STYLE	A	B	C	D	F	G	H	I	J	K	N	O
49 Gallon	1	2.5	1.25	23.1	15	22.3	21	6	40.6	20.0	30	Ø0.6
71 Gallon	1	3	1.5	25.2	15	24.3	21	5.8	46.6	21.5	36	Ø0.6
117 Gallon	1	4	2	25.6	15	24.3	30	5.8	70.6	21.5	60	Ø0.6
209 Gallon	1	5	2	34.8	28	32.5	48	6	70.5	29.2	60	Ø0.6

NOTE: All Dimensions Are Approximate

TYPICAL ENGINEERING SPECIFICATIONS

1. Duplex Condensate Pump with Cast Iron, Steel or Stainless Steel Receiver

- 1.1 Furnish and install according to plans and manufacturer's instructions the quantity of condensate pump units as shown on the drawings. Each unit shall consist of one (1) condensate receiver, (2) condensate pumps, and (1) mechanical alternator.
- 1.2 The condensate pumps shall be centrifugal design; permanently aligned and driven by vertical close coupled drip proof motors with drip covers. The motor and rotating parts shall be removable without disturbing suction or discharge piping. Pumps shall be bronze fitted with enclosed bronze centrifugal impeller, stainless steel shaft, dripless mechanical seals suitable for 250°F, mechanical seal face flushing line with vent to volute. Capacities and electrical characteristics shall be as scheduled on the drawings.
- 1.3 The receiver shall be manufactured of rust resisting steel, stainless steel, or cast iron and shall have a capacity of not less than that shown on the drawings. Receiver shall be equipped with water level gauge glass, and one (1) mechanical alternator. Factory provided and wired Nema I UL electrical control panel with: (1) disconnect, (1) fuse block or circuit breaker per pump, (1) magnetic starter with overload per pump, (1) HOA selector switch per pump, (1) control circuit transformer on all 3-phase.

Skidmore® Model No.	Pump Capacity (GPM)	Pump Discharge Pressure (psig)	Motor Power (HP)	Motor Speed (RPM)	Motor Voltage (V)	Motor Phase	Motor Frequency (HZ)	Tank Capacity	Tank Material

2. Duplex Boiler Feed with Cast Iron, Stainless Steel or Steel Receiver

- 2.1 Furnish and install according to plans and manufacturer's instructions the quantity of boiler feed units as shown on the drawings. Each unit shall consist of one (1) stainless steel or steel boiler feed receiver, two (2) boiler feed pumps, one (1) water make-up assembly, electrical controls, and accessories.
- 2.2 The boiler feed pumps shall be centrifugal design, permanently aligned and driven by vertical close coupled drip proof motor with drip cover. The motor and rotating parts shall be removable without disturbing suction or discharge piping. Pump shall be bronze fitted with enclosed bronze centrifugal impeller, stainless steel shaft, dripless mechanical seals suitable for 250°F, mechanical seal face flushing line with vent to volute. Capacities and electrical characteristics shall be as scheduled on the drawings.
- 2.3 The receiver shall be manufactured of rust resistant stainless steel or steel and shall have a capacity of not less than that shown on drawings. Receiver shall be equipped with water level gauge glass, two (2) isolation valves between pump and receiver, dial thermometer, and Skidmore® makeup water valve with capacity equal to one (1) boiler feed pump. Factory provided and wired Nema I UL electrical control panel with: (1) disconnect, (1) fuse block or circuit breaker per pump, (1) magnetic starter with overload per pump, (1) HOA selector switch per pump, (1) control circuit transformer on all 3-phase.

Skidmore® Model No.	Pump Capacity (GPM)	Pump Discharge Pressure (psig)	Motor Power (HP)	Motor Speed (RPM)	Motor Voltage (V)	Motor Phase	Motor Frequency (HZ)	Tank Capacity	Tank Material

Makeup Water Supply Pressure (psig)	Number of Boilers Serving	Number Standby

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MANUFACTURING AND DESIGN OF QUALITY HVAC SYSTEMS SINCE 1921

The specifications contained in this bulletin were effective at the time of publishing. We reserve the right to discontinue products at any time or to change specifications or design without incurring any obligation. For most current information, contact your Skidmore® representative.

Skidmore has been building the highest-quality condensate return pumps, boiler feed systems, vacuum systems, and accessories since 1921. From custom designs to compact solutions—our skilled representatives are armed with the knowledge and expertise to assist you in the selection, design, installation and service of your pump system. They are backed by a highly skilled team of application specialists who will provide solutions to custom engineering questions or special building capabilities and are committed to developing the most energy efficient pump to fulfill your needs. Every pump that leaves our factory has been carefully crafted and tested against the strictest standards, ensuring you receive the highest-quality product possible.

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