

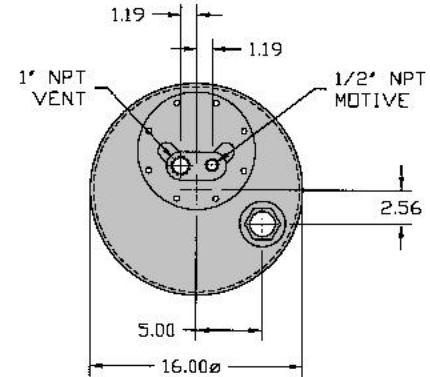
# NON-ELECTRIC CONDENSATE PUMPS

## PMPSP "The Pit Boss"

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Sump Drainer

PUMPS

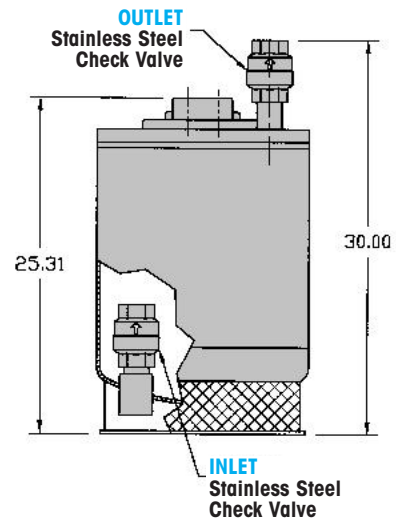


Model	<b>PMPSP</b>
Body	<b>Carbon Steel</b>
Cover	<b>Ductile Iron</b>
Check Valves	<b>Stainless Steel</b>
PMO Max. Operating Pressure	<b>150 PSIG</b>
TMO Max. Operating Temperature	<b>366°F</b>
PMA Max. Allowable Pressure	<b>150 PSIG @ 650°F</b>

Connection Sizes NPT	
Inlet	Outlet
1 1/2"	1 1/2"
2"	2"
3"	2"

### TYPICAL APPLICATIONS

The **PMPSP** Sump Drainer uses the identical internal mechanism as the standard PMP models. The piping configuration is such that the liquid is discharged vertically upwards as opposed to horizontally out the side. This allows the unit to be easily positioned inside of a sump area. Condensate or water from the sump enters the tank through a stainless steel low resistance check valve.



### FEATURES

- Equipped with our Patented "Snap-Assure" Mechanism which extends the useful life of the pump
- Mechanism incorporates heat-treated stainless steel wear items
- All stainless steel internals for ultimate corrosion resistance
- Dual compression springs made from Inconel-X-750 for high-temperature corrosive service
- Operates using steam, air, nitrogen or other pressurized gases as the motive force
- **Non-Electric** – can be used in remote locations or NEMA 4, 7, 9 & hazardous areas
- Built-in strainer screen

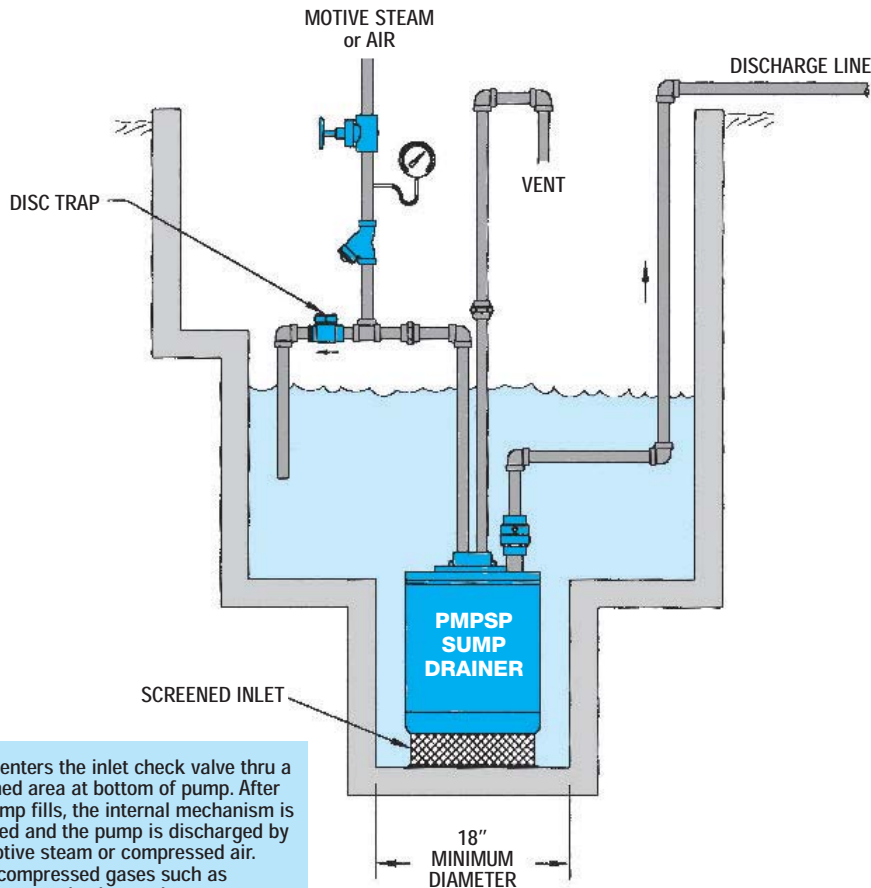
# NON-ELECTRIC CONDENSATE PUMPS

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Water enters the inlet check valve thru a screened area at bottom of pump. After the pump fills, the internal mechanism is actuated and the pump is discharged by the motive steam or compressed air. Other compressed gases such as nitrogen can also be used.

CAPACITIES – Water (GPM) for 1 1/2" x 1 1/2" Size								
Motive Pressure (PSIG)	Capacity Correction Factors		Back Pressure (PSIG)					
	2" x 2"	3" x 2"	0	10	20	40	70	100
10	2.5	3	11.7					
20	1.8	2.4	12.5	9.2				
40	1.9	2.4	13.1	10.4	8.7			
70	1.7	2.4	12.9	11.0	9.4	7.1		
100	1.6	2	12.3	10.6	9.4	7.5	5.4	
125	1.6	2	11.6	10.1	9.0	7.5	5.6	4.3
150	1.6	2	10.7	9.5	8.8	7.2	5.7	4.5

Note: Capacities in above chart are for the 1-1/2" x 1-1/2" model. To determine capacities for the 2" x 2" & 3" x 2" models, multiply capacity in chart by appropriate correction factor.

Snap-Assure Patent No. 6572340

# NON-ELECTRIC CONDENSATE PUMPS

## Pumps with Receiver Tanks

Pressure Motive Pumps

PUMPS

### Standard Skid Mounted Systems

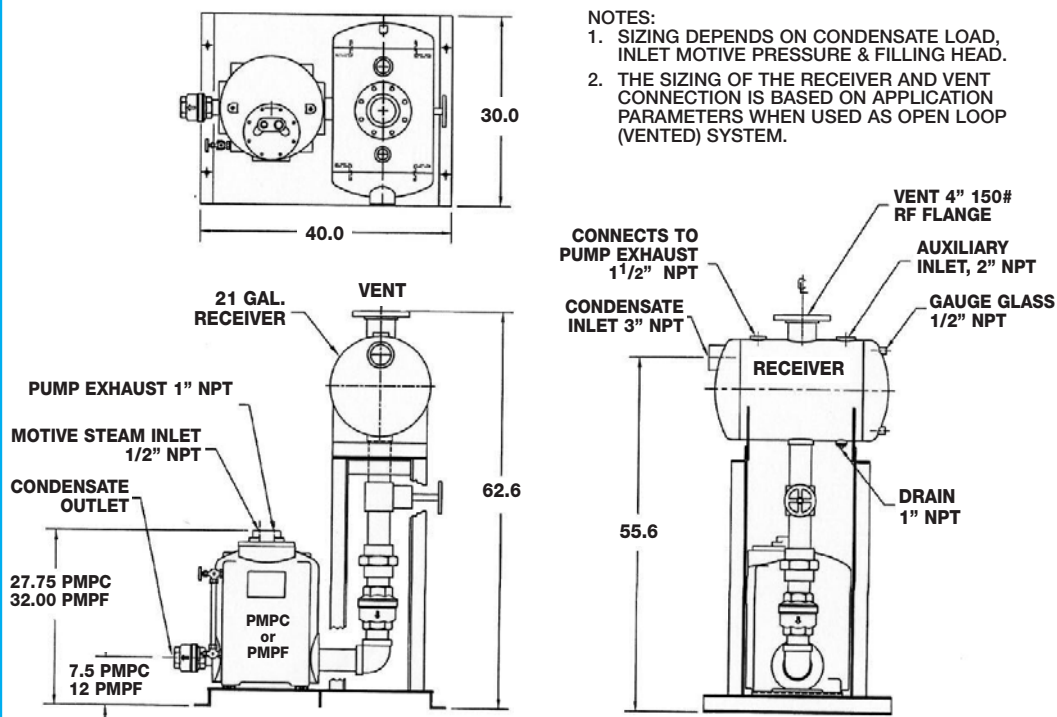
#### FEATURES

- Easy to install with only four connections to be made in the field
- Dramatically reduces installation costs with all system elements pre-piped
- Utilizing Watson McDaniel's years of experience will ensure that vented receivers or pressurized reservoirs are properly sized for optimum system performance
- Watson McDaniel's fully-qualified fabrication facility is ASME code certified. Our engineers can design and build complete custom systems to meet all your requirements

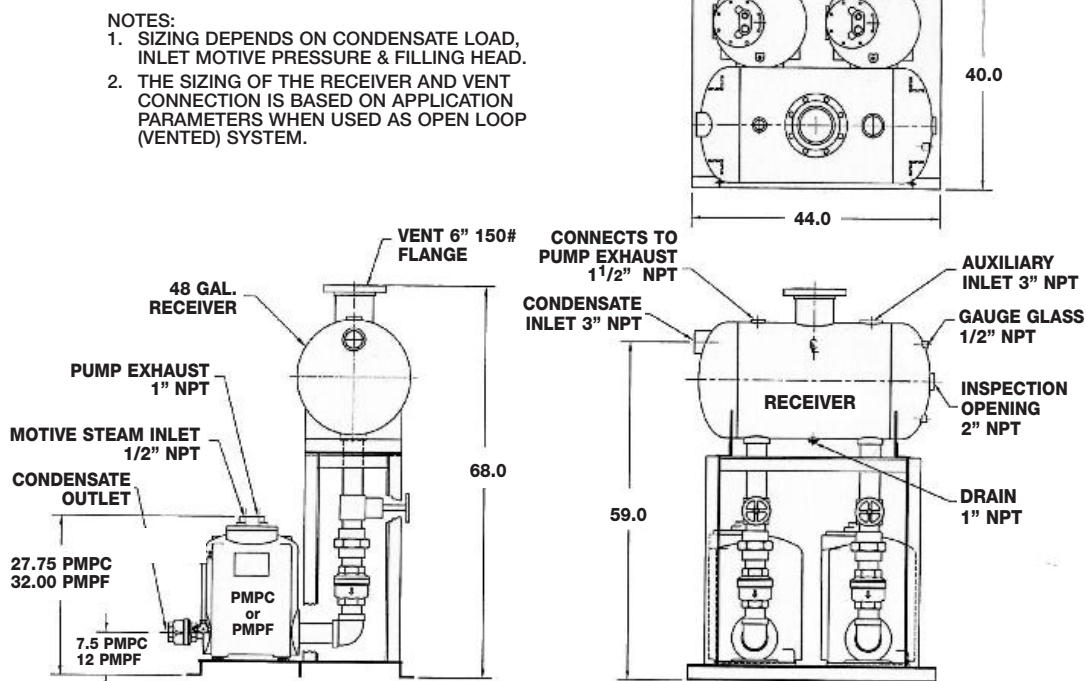
#### TYPICAL OPTIONS

- Gauge glass assembly
- Cycle counter
- Insulation covers
- Motive steam drip trap
- Overflow pipe connection
- Pressure regulator for motive supply line

#### SIMPLEX SYSTEMS – Models PMPC & PMPF



#### DUPLEX SYSTEMS – Models PMPC & PMPF



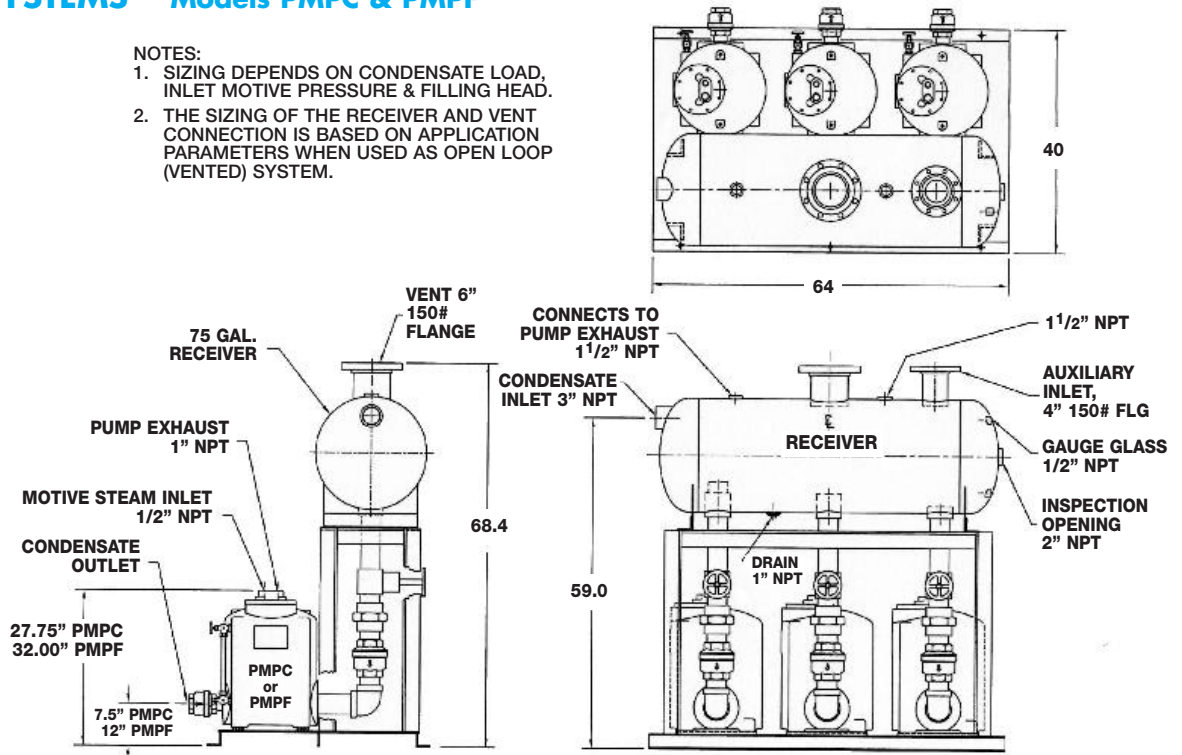
# NON-ELECTRIC CONDENSATE PUMPS

## Pumps with Receiver Tanks

Pressure Motive Pumps

### TRIPLEX SYSTEMS – Models PMPC & PMPF

- NOTES:
1. SIZING DEPENDS ON CONDENSATE LOAD, INLET MOTIVE PRESSURE & FILLING HEAD.
  2. THE SIZING OF THE RECEIVER AND VENT CONNECTION IS BASED ON APPLICATION PARAMETERS WHEN USED AS OPEN LOOP (VENTED) SYSTEM.



### QUADRAPLEX SYSTEMS – Models PMPC & PMPF

- NOTES:
1. SIZING DEPENDS ON CONDENSATE LOAD, INLET MOTIVE PRESSURE & FILLING HEAD.
  2. THE SIZING OF THE RECEIVER AND VENT CONNECTION IS BASED ON APPLICATION PARAMETERS WHEN USED AS OPEN LOOP (VENTED) SYSTEM.

