

JR WEIGHT OPERATED TRAPS

Pressures To 300 PSIG (20.7 barg)
Temperatures to 750°F (400°C)

Applications

Saturated & Superheated Steam

Condensate Removal for most Steam Equipment
Superheated Steam Service

Compressed Air

Receivers
Intercoolers
Separators
Reservoirs
Drip Legs

Gas

Separators
Scrubbers
Accumulators
After-absorbers
Compressor Station Suction Lines

Model JRS Chemical Service

Corrosive Chemical Applications

Model JR & JRT Steam Service

Paper Machine Dryer Cylinders
Plastic & Rubber Moulding Machine Platens
Large Blast Heaters & Feed Water Heaters
Contaminated Steam Systems, i.e. Geothermal

Options

- Chemical Service Model JRS, with all stainless steel internals
- Air Vent Model JRT, with external thermostatic air vent for steam service only
- Oil Eliminating Screen for compressed air service
- Gage Glass Complete
- Gage Glass Tapping - 3/8" NPT, plugged
- Cartridge Heating Unit - prevents freezing or congealing of oil.
- Stellite Facing on Valves & Seats

Resists Wiredrawing — Rapid opening and closing prevents wiredrawing of valve and seat.

No Blow-through — A permanent liquid seal is maintained over the discharge valve, preventing the loss of steam, air or gas.

No Dribbling — Rapid wide opening means quick flushing of liquids and debris and tight closing prevents leakage.

Protected from Line Debris — Internal Strainer prevents most debris from reaching valve and seat (except compressed air applications).

No Sludge Build-up — Oil eliminating screen over discharge valve prevents build-up of sludge in compressed air service.

Low Maintenance — Clean-out and maintenance are reduced because dirt and oil are flushed out during each discharge.

Models

- **JR**—Cast iron for air & gas service or steam service*
- **JRT**—Cast iron body for steam service w/thermostatic vent
- **JRS**—All SS internals on JR
- **JRC**—Cast steel body on JR
- **JRTC**—Cast steel body on JRT
- **JRSC**—Cast steel body on JRS

*Specify steam or air & gas service when ordering.

Canadian Registration # 0E0591.9

Operation

The Model JR Trap operates on an entirely different principle than ordinary "float" traps. In operation, the condensate raises the float to its highest point of travel, releases the weight latch, allowing the counterweight to fall. This opens the discharge valve fully

and instantaneously through a crank mechanism. A link latch holds the valve wide open until the float descends to its low point, where the weight latch engages the counterweight. The link latch then disengages, closing the discharge valve instantaneously.

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Maximum Operating Conditions

Cast Iron

PMO: Max. Operating Pressure 250 psig (17.2 barg)
TMO: Max. Operating Temperature 450°F (232°C)

PMA: Max. Allowable Pressure 250 psig (17.2 barg)
TMA: Max. Allowable Temperature 450°F (232°C)

Cast Steel

PMO: Max. Operating Pressure 300 psig (20.7 barg)
TMO: Max. Operating Temperature 750°F (400°C)

PMA: Max. Allowable Pressure 300 psig (20.7 barg)
TMA: Max. Allowable Temperature 750°F (400°C)

Materials of Construction

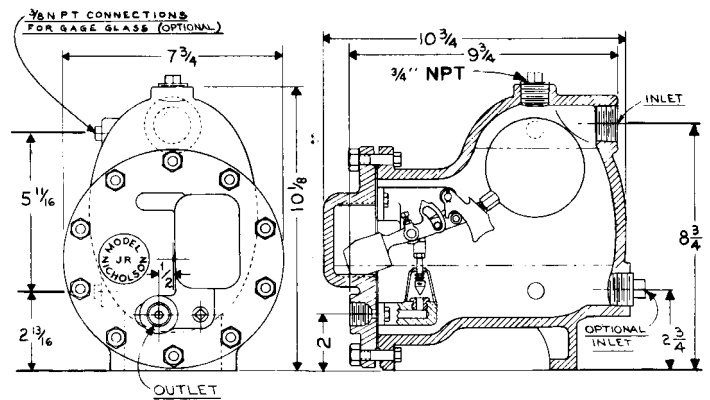
Body: Cast Iron ASTM A278 Class 30 or
Cast Steel ASTM A216 WCB

Float: Stainless Steel

Valves & Seats: Hardened Stainless Steel

Internal Linkage JR: Bronze & Stainless Steel

JRS: All Stainless Steel



WEIGHT:

Cast Iron 36 Lbs. (16.4 kg)
Cast Steel 37 Lbs. (16.8 kg)

Connections:

1/2"-1" NPT Inlet 1/2" NPT Outlet

Orifice Diameters & Maximum Capacity³—lbs/hr

Differential Pressure ¹ PSIG (barg)	Compressed Air/Gas				Steam		
	SG = 1.00 to 0.85		SG = 0.84 to 0.50		Pressure PSIG (barg)	Orifice inches (mm)	Capacity lbs/hr. (mm)
	Orifice inches (mm)	Capacity ² GPM (L) @ 60°F	Orifice inches (mm)	Capacity ² GPM (L) @ 60°F			
2 (.14)	3/8 (9.5)	2.3 (8.7)	3/8 (9.5)	2.3 (8.7)	2 (.14)	3/8 (9.5)	775 (352)
5 (.35)	3/8 (9.5)	3.5 (13.2)	3/8 (9.5)	3/5 (13.2)	5 (.35)	3/8 (9.5)	1000 (455)
10 (.69)	3/8 (9.5)	5.0 (18.9)	3/8 (9.5)	5.0 (18.9)	10 (.69)	3/8 (9.5)	1400 (636)
25 (1.7)	5/16 (8)	6.4 (24.2)	9/32 (7)	5.5 (20.8)	25 (1.7)	5/16 (8)	1750 (795)
50 (3.4)	7/32 (5.5)	5.6 (21.2)	3/16 (5)	4.6 (17.4)	50 (3.4)	7/32 (5.5)	1700 (733)
75 (5.2)	3/16 (5)	5.3 (20.0)	5/32 (4)	4.0 (15.1)	75 (5.2)	3/16 (5)	1900 (864)
100 (6.9)	5/32 (4)	4.8 (18.2)	1/8 (3)	3.0 (11.4)	100 (6.9)	5/32 (4)	1600 (727)
125 (8.6)	1/8 (3)	3.4 (12.9)	1/8 (3)	3.4 (12.9)	125 (8.6)	1/8 (3)	1180 (536)
150 (10.3)	1/8 (3)	3.7 (14.0)	3/32 (2.4)	2.1 (8)	150 (10.3)	1/8 (3)	1275 (580)
200 (13.8)	3/32 (2.4)	2.4 (9.1)	3/32 (2.4)	2.4 (9.1)	200 (13.8)	3/32 (2.4)	1075 (489)
250 (17.2)	3/32 (2.4)	2.7 (10.2)	3/32 (2.4)	2.7 (10.2)	250 (17.2)	3/32 (2.4)	1175 (534)
300 (20.7)	3/32 (2.4)	3.0 (11.4)	3/32 (2.4)	3.0 (11.4)	300 (20.7)	3/32 (2.4)	1220 (555)

¹ Trap inlet pressure minus static pack pressure, if any.

² For capacity in lbs/hr., multiply by 500 x Specific Gravity.

³ All capacities shown are for maximum pressure. For lower operating pressures, consult factory.