

OPERATING MANUAL

FOR

BALL FLOAT STEAM TRAP

MODEL:G11N/G12N Series



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SAFETY INSTRUCTION

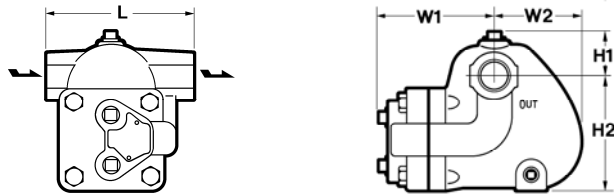
Prior to using Model G11N/G12N, read this manual thoroughly to understand the correct handling and operating procedure.

Observe the WARNING and CAUTIONS given by this manual, without failure, for safe operation of the Model G11N/G12N.

1. Introduction

Ball Float Steam Traps Model G11N/G12N are mechanical traps with Cast Iron body. This manual contains instructions for installation, trouble shooting and maintenance. Never fail to read it to the end before installing and using the traps.


2. Dimensions and Specifications



G11N/G12N

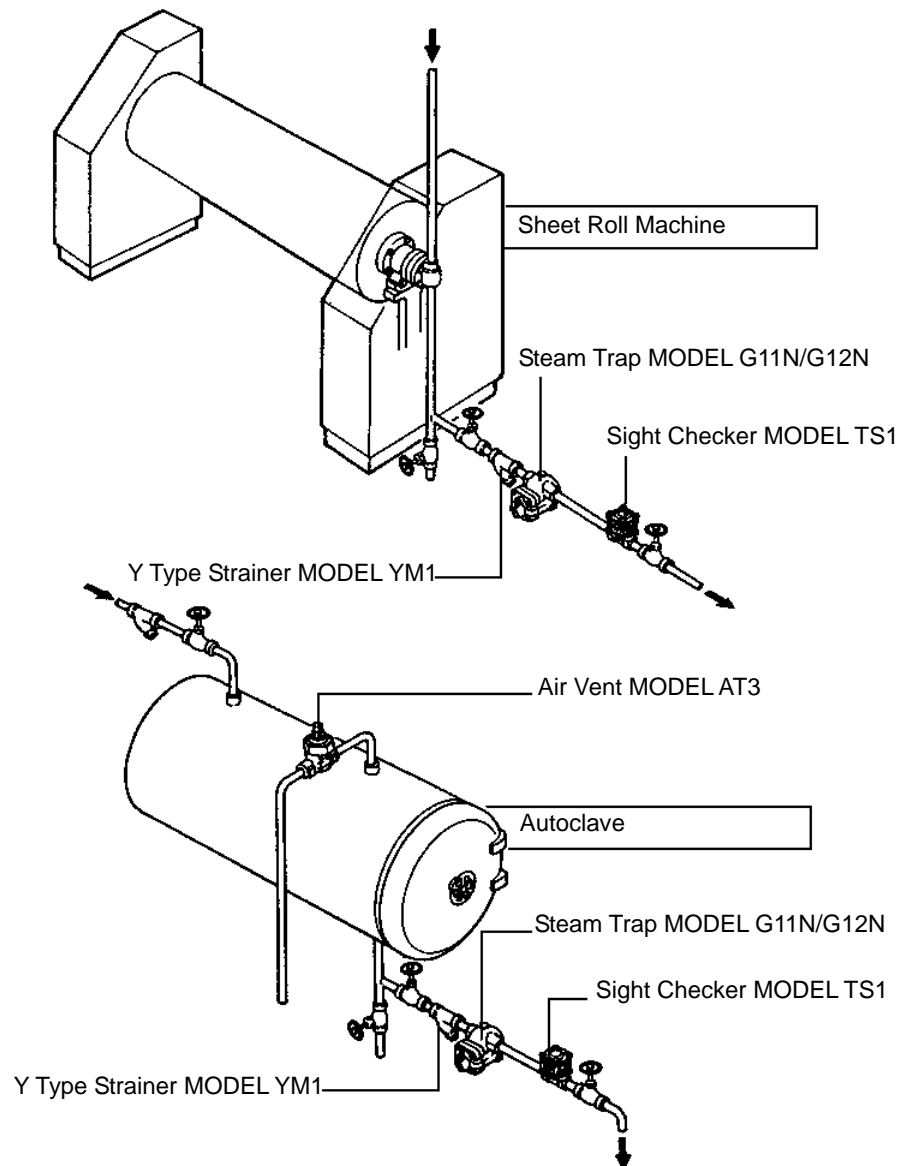
Model	Connection	Size	Operating Pressure MPa (psig)	Maximum Temperature °C (°F)	Material of Body	Dimensions mm (inch)					Weight kg (lb)
						L	H ₁	H ₂	W ₁	W ₂	
G11N-2	Screwed Rc, NPT	1/2"	0,01 to 0,2 (1.45 to 29)	220 (428)	Cast Iron (FC250)	120 (4.7)	37 (1.5)	92 (3.6)	97 (3.8)	60 (2.4)	3.9 (8.6)
G11N-8		3/4"	0,01 to 0,8 (1.45 to 116)								
G11N-16		1/2"	0,01 to 1,6 (1.45 to 232)								
		3/4"	0,01 to 0,8 (1.45 to 116)								
G12N-8		3/4"	0,01 to 1,6 (1.45 to 232)								
		1"	0,01 to 0,8 (1.45 to 116)								
G12N-16		3/4"	0,01 to 1,6 (1.45 to 232)								
		1"	0,01 to 0,8 (1.45 to 116)								

3. Installations

 CAUTIONS	<ul style="list-style-type: none">● Before installing the trap always blow off the slugges, scales, etc. from the piping.● This trap must be installed horizontally.
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- 1) Never confuse inlet with outlet.
- 2) Install the steam trap at the lowest point of the steam using equipment.


Samples of installation:



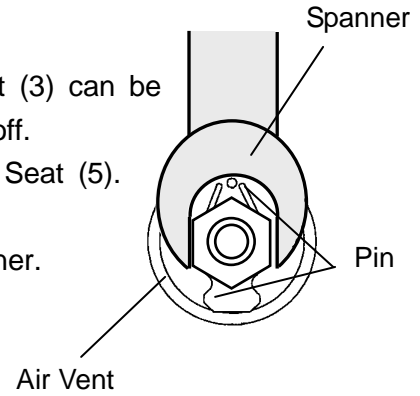
4. Trouble Shooting


Symptom	Causes	Remedy
Steam blowing	Piece of scale lodged between Valve (7) and Valve Seat (5).	Remove scale or dirt.
	The Air Vent (15) may be damaged.	Repair or replace the Air Vent (15).
	Piece of scale lodged between Valve and Seat of the Air Vent (15).	Remove scale or dirt at source.
	Opened by-pass valve.	Close it.
	Worn Valve (7) and/or Valve Seat (5).	Repair or replace.
	Loose or uneven tightness of the Valve Seat(5).	Re-tighten the Valve Seat (5).
	Loose or uneven tightness of the Set Bolt (11).	Re-tighten the Set Bolt (11).
	Loose Air Vent (15).	Re-tighten the Air Vent (15).
	Worn gasket (12) and/or (6).	Repair or replace the gasket.
	Loose or uneven tightness of the Bolt (13).	Re-tighten the Bolt (13).
Water logging	The Valve Seat (5) may be clogged.	Check to see if the Valve Seat (5) is clogged with dirt.
	The Float (3) may be damaged or filled up with water.	The Float should be replaced.
	Inlet valve is closed.	Open the inlet valve.
	The Strainer may be clogged.	Check to see if the strainer is clogged with dirt.
	The Pressure may be too high.	Change the pressure for the installation or select a trap for higher pressure.
	The Trap may be too small.	Re-check operating conditions and select a trap for higher capacity.
Condensate logging	Scales etc. lodged between Valve and Seat (5).	Clean the Valve Seat (5).
	The Float(3) may be damaged or filled up with water.	The Float should be replaced.
	The Inlet valve is closed.	Open the inlet valve.
	Condensate cannot flow n naturally into the trap.	Changes the piping.
	Lack of differential pressure.	Re-check operating conditions

5. Maintenance, Disassembling and Assembling

 WARNING	When disassembling a hot trap, be sure to release the pressure inside to atmospheric pressure, and cool the trap before the work.
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- 1) Dismantle the Cover Bolt (13). Remove all inner parts together with the Cover (2).
- 2) Take out the Pin (9). Then the Lever (4) with the Float (3) can be removed. The Valve (7) and the Spring (8) will come off.
- 3) Firm the Cover (2) with a vice and unscrew the Valve Seat (5). The Set Bolt (11) and the Bracket (10) will come off.
- 4) The Air Vent (15) can also be dismantled with a spanner. (Refer to the right picture)
- 5) After inspection of each part and cleaning, assemble in the opposite way of disassembling.



 CAUTIONS	<ul style="list-style-type: none"> ● The Bolts (13) must be tightened crosswise evenly. ● When reassembling always replace the Gaskets (6) & (12) to new ones.
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Model	No.	Parts	Size	Shape	Clamp Torque
G11N · G12N	5	Valve Seat	17mm	Hexagon	25 Nm (250kgf·cm)
G11N	11	Set Bolt	5mm	Hexagon	11 Nm (110kgf·cm)
G12N	11	Set Bolt	10mm	Hexagon	11 Nm (110kgf·cm)
G11N	13	Bolt	13mm	Hexagon	30 Nm (300kgf·cm)
G12N	13	Bolt	17mm	Hexagon	50 Nm (500kgf·cm)
G11N · G12N	15	Air Vent	17mm	Hexagon	25 Nm (250kgf·cm)

