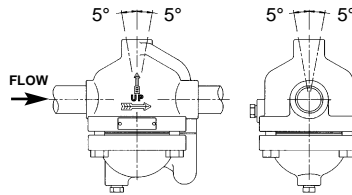
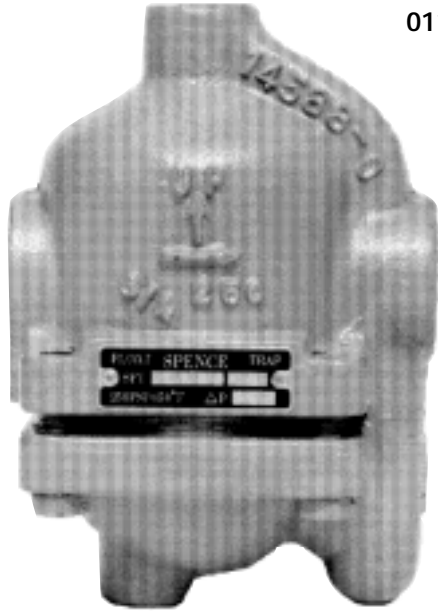


Installation and Maintenance Guide

011387



TORQUE — FT. LBS.			TORQUE IN LBS.	
TRAP SIZE	BODY BOLTS	SEAT RINGS	SEAT RINGS	
250	25/30	—	78/84	
251	60/70	—	132/134	
252	60/70	21.5/23.5	—	
253	115/135	37/41	—	

INSTALLATION

The NFT 250 Series Traps should be installed in a horizontal line with the arrow on the body pointing in the direction of flow and upright also as indicated by arrow on the body. Allowable inclination is 5° or less horizontally and 5° or less at right angles to the plane of the pipe line.

OPERATION

Condensate flow through the trap is continuous, providing smooth operation and immediate response to load variations. The stainless steel ball float acts as the valve to modulate condensate flow through the discharge orifice. The float maintains a liquid seal over the orifice to prevent the loss of live steam. Air and non-condensables are discharged automatically by the use of a Bi-metal or Balanced Pressure Thermostatic Air Vent. Body erosion is prevented by the use of a stainless steel sleeve in the discharge passage.

MAINTENANCE

The NFT 250 Series Trap may be disassembled for periodic inspection and maintenance. Remove the body bolts and drop the lower body away. Inspect the float and lower seat ring for damage and clean or replace as necessary. The float may be cleaned with a rag and steel wool. A wire brush may be used to clean the screen. Inspection of the thermostatic bellows is not recommended as disassembly generally damages the unit. Average life of the bellows is 3 to 6 years. Should replacement be required, needle nose pliers or similar tool may be utilized. Insert them into two of the three holes located in the bellows assembly and unscrew it from the upper body. A specialized socket is also available from Nicholson for this operation. Locktite or similar material should be used on the bellows assembly threads when reassembling. After inspection/ repair, reassemble trap, replacing body gasket and torquing bolts as specified.

Spence Engineering Company, Inc.
Nicholson Steam Trap
NFT 250 Series Steam Trap

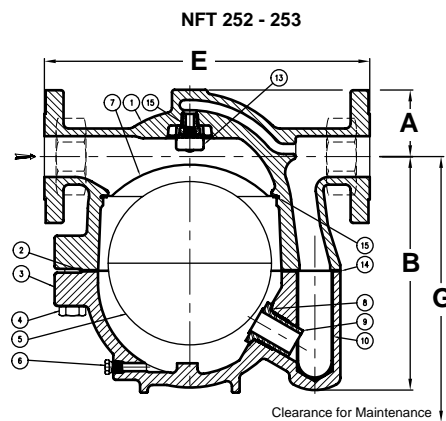
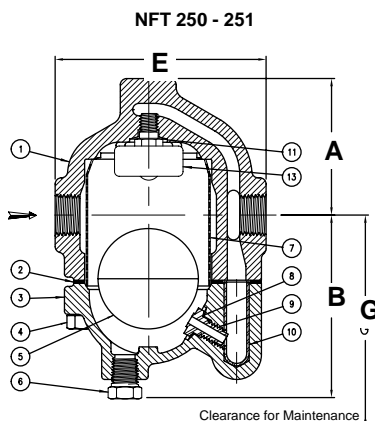
Maximum Pressure—250 PSIG (17.2 bar)
Maximum Temperature—450°F. (232°C)

ITEM	PART NAME	TRAP	20 ΔP	50 ΔP	100 ΔP	150 ΔP	250 ΔP
9	Seat Ring, Lower	NFT 250	04-14598-01	04-15693-00	04-14597-01	04-15685-00	04-14596-01
		NFT 251	04-14613-00	04-15694-00	04-14612-00	04-15690-00	04-14611-00
		NFT 252	04-14626-00	04-15695-00	04-14625-00	04-15691-00	04-14624-00
		NFT 253	04-14645-00	04-15696-00	04-14644-00	04-15692-00	04-14643-00

When ordering parts, it is important that the trap type and size be stated.
Specify complete part number when ordering.

STANDARD PARTS

ITEM NO.	PART NAME	MATERIAL	VALVE SIZE							
			250		251		252		253	
			1/2	3/4	3/4	1	1	1 1/2	1 1/2	2
1	Body, Upper, Screwed	Cast Iron	04-14590-00	04-14588-00	04-14604-00	04-14606-00	04-14616-00	04-14618-00	04-14636-00	04-14635-00
	Body, Upper, Flanged	Cast Iron	—	—	—	—	—	—	04-14634-00	04-14639-00
2	Gasket, Body	Non-asbestos	05-13402-00	04-13402-00	05-13403-00	05-13403-00	05-13404-00	05-13404-00	05-13405-00	05-13405-00
3	Body, Lower	Cast Iron	04-14586-01	04-14586-01	04-14605-00	04-14605-00	04-14617-00	04-14617-00	04-14633-01	04-14633-01
4	Bolt, Body	Steel	05-14650-00	05-14650-00	05-14649-00	05-14649-00	05-14647-00	05-14647-00	05-14641-00	05-14641-00
5	Float	17-7 SS	05-17318-00	05-17318-00	05-16149-00	05-16149-00	05-17321-00	05-17321-00	05-14638-00	05-14638-00
6	Pipe Plug, 1/4 NPT	Steel	04-03772-00	04-03772-00	04-03772-00	04-03772-00	04-03772-00	04-03772-00	04-03772-00	04-03772-00
7	Screen	304 SS	05-14594-00	05-14594-00	05-14609-00	05-14609-00	05-14621-00	05-14621-00	05-14639-00	05-14639-00
8	Gasket, Lower Seat Ring	Copper	05-14599-00	05-14599-00	05-14614-00	05-14614-00	05-14627-00	05-14627-00	05-14646-00	05-14646-00
9	Seat Ring, Lower	416 SS	see above	see above	see above	see above	see above	see above	see above	see above
10	Sleeve	316 SS	05-14595-00	05-14595-00	05-14610-00	05-14610-00	05-14623-00	05-14623-00	05-14642-00	05-14642-00
11	Gasket, Vent	Copper	05-14599-00	05-14599-00	05-14599-00	05-14599-00	—	—	—	—
12	Retaining Ring, Screen	Steel	—	—	—	—	05-14622-00	05-14622-00	05-14640-00	05-14640-00
13	Air Vent - Standard	SS	05-14603-00	05-14603-00	05-14603-00	05-14603-00	05-14936-00	05-14936-00	05-14956-00	05-14956-00
	Air Vent - SLR	SS	05-15601-00	05-15601-00	05-15601-00	05-15601-00	05-15602-00	05-15602-00	05-15602-00	05-15602-00
14	Gasket, Sleeve	SS/Graphite	—	—	—	—	—	—	05-16147-00	05-16147-00
15	Reducing Bushing	Steel	—	—	—	—	05-01088-00	05-01088-00	05-01088-00	05-01088-00



DIMENSIONS AND WEIGHTS*

Model	Size	Connection	Inches				Wt. Lbs.
			E	A	B	G	
250	1/2 & 3/4	NPT	4 1/4	2 3/4	3 5/8	5 1/2	6
251	3/4 & 1	NPT	5 1/2	2 15/16	4 9/16	6 3/4	13
252	1 & 1 1/2	NPT	11	2 15/16	7 3/4	10	41
253	1 1/2 & 2	NPT	13 3/4	2 15/16	11 5/8	15 3/8	120
		250# Flg.	15 3/4	2 15/16	11 5/8	15 3/8	130

*Dimensions and Weights are approximate.

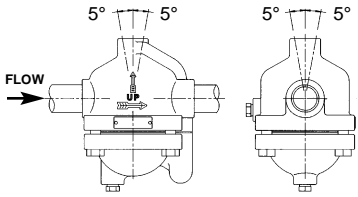


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Installation and Maintenance Guide



TORQUE — FT.LBS.		TORQUE IN LBS.	
TRAP SIZE	BODY BOLTS	SEAT RINGS	SEAT RINGS
250	25/30	—	78/84
251	60/70	—	132/134
252	60/70	21.5/23.5	—
253	115/135	37/41	—

INSTALLATION

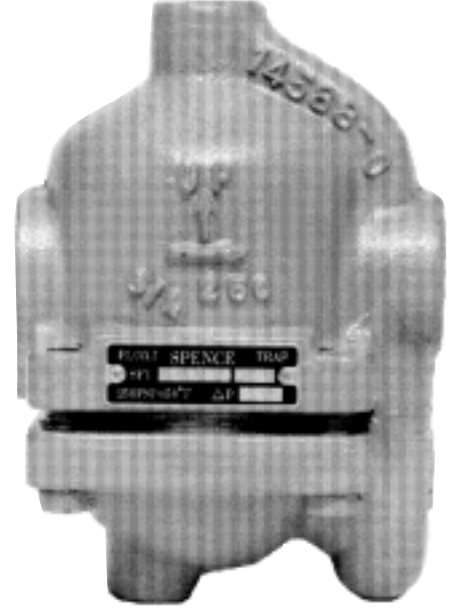
The NFT 250 Series Traps should be installed in a horizontal line with the arrow on the body pointing in the direction of flow and upright also as indicated by arrow on the body. Allowable inclination is 5° or less horizontally and 5° or less at right angles to the plane of the pipe line.

OPERATION

Condensate flow through the trap is continuous, providing smooth operation and immediate response to load variations. The stainless steel ball float acts as the valve to modulate condensate flow through the discharge orifice. The float maintains a liquid seal over the orifice to prevent the loss of live steam. Air and non-condensables are discharged automatically by the use of a Bi-metal or Balanced Pressure Thermostatic Air Vent. Body erosion is prevented by the use of a stainless steel sleeve in the discharge passage.

MAINTENANCE

The NFT 250 Series Trap may be disassembled for periodic inspection and maintenance. Remove the body bolts and drop the lower body away. Inspect the float and lower seat ring for damage and clean or replace as necessary. The float may be cleaned with a rag and steel wool. A wire brush may be used to clean the screen. Inspection of the thermostatic bellows is not recommended as disassembly generally damages the unit. Average life of the bellows is 3 to 6 years. Should replacement be required, needle nose pliers or similar tool may be utilized. Insert them into two of the three holes located in the bellows assembly and unscrew it from the upper body. A specialized socket is also available from Nicholson for this operation. Locktite or similar material should be used on the bellows assembly threads when reassembling. After inspection/repair, reassemble trap, replacing body gasket and torquing bolts as specified.



Spence Engineering Company, Inc.
Nicholson Steam Trap
NFT 250 Series Steam Trap

Maximum Pressure—250 PSIG (17.2 bar)
Maximum Temperature—450°F. (232°C)



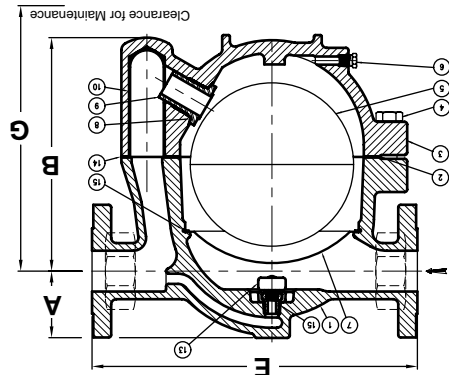
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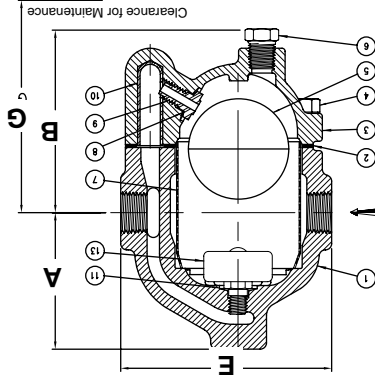


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011387/0601



NFT 252 - 253



NFT 250 - 251

*Dimensions and Weights are approximate.

Model	Size	Connection	Inches			Weight
			E	A	B	
250	1/2 & 3/4	NPT	4 1/4	2 3/4	3 5/8	5 1/2
251	3/4 & 1	NPT	5 1/2	2 15/16	4 9/16	6 3/4
252	1 & 1/2	NPT	11	2 15/16	7 3/4	10
253	1 1/2 & 2	NPT	13 3/4	2 15/16	11 5/8	15 3/8
			15 3/4	2 15/16	11 5/8	15 3/8

DIMENSIONS AND WEIGHTS*

ITEM	PART NAME	TRAP	20 ΔP	50 ΔP	100 ΔP	150 ΔP	250 ΔP
9	Seat Ring, Lower	NFT 250	04-14598-01	04-15683-00	04-14597-01	04-15685-00	04-14596-01
		NFT 251	04-14613-00	04-15694-00	04-03772-00	04-14611-00	04-14611-00
		NFT 252	04-14626-00	04-15695-00	04-14625-00	04-15691-00	04-14624-00
		NFT 253	04-14645-00	04-15696-00	04-14644-00	04-15692-00	04-14643-00

ITEM NO.	PART NAME	MATERIAL	250	251	252	253
1	Body, Upper, Screwed	Cast Iron	04-14588-00	04-14604-00	04-14616-00	04-14635-00
2	Gasket, Body	Non-asbestos	05-17340-00	05-17340-00	05-17340-00	05-17340-00
3	Body, Lower	Cast Iron	04-14586-01	04-14605-00	04-14617-00	04-14633-01
4	Bolt, Body	Steel	05-14650-00	05-14649-00	05-14647-00	05-14641-00
5	Float	17-7 SS	05-17318-00	05-16149-00	05-17321-00	05-14638-00
6	Pipe Plug, 1/4 NPT	Steel	04-03772-00	04-03772-00	04-03772-00	04-03772-00
7	Screen	304 SS	05-14594-00	05-14609-00	05-14621-00	05-14639-00
8	Gasket, Lower Seat Ring	Copper	05-14599-00	05-14614-00	05-14627-00	05-14646-00
9	Seat Ring, Lower	416 SS	see below	see below	see below	see below
10	Sleeve	316 SS	05-14595-00	05-14610-00	05-14623-00	05-14642-00
11	Gasket, Vent	Copper	05-14599-00	05-14599-00	05-14622-00	05-14640-00
12	Retaining Ring, Screen	Steel	—	—	—	—
13	Air Vent - Standard	SS	05-14603-00	05-14603-00	05-14936-00	05-14956-00
14	Gasket, Sleeve	SS/Graphite	—	—	—	—
15	Reducing Bushing	Steel	—	—	—	—

When ordering parts, it is important that the trap type and size be stated. Specify complete part number when ordering.