

# FMTD722-M

## Forbes Marshall Thermodynamic Trap

## **Description**

The Forbes Marshall Thermodynamic Trap, FMTD722-M, is a maintainable high pressure thermodynamic steam trap with an integral strainer and a replaceable seat for ease of maintenance. It has low capacity and is specifically designed for superheated applications up to 250 bar g.

## **Sizes and Pipeline Connections**

DN 15 and DN 20 butt weld ends to suit SCH 160 pipe.

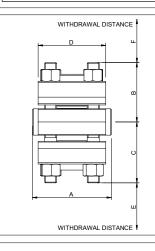
DN 15 and DN 20 socket weldable ends to ASME (ANSI). B 16.11 Class 6000.

**Note**: Available with ANSI 600 and ANSI 1500 flanges on request

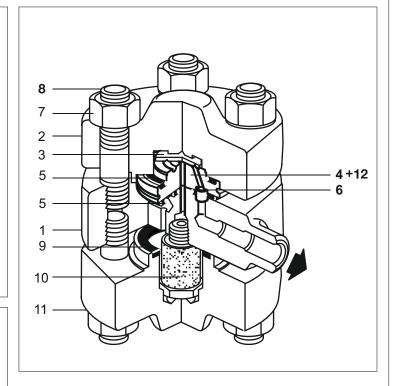
## **Limiting Conditions**

**Note**: if the product is used at pressure above 170 bar kg/cm<sup>2</sup> we recommend regular inspection of the seat.

Body design conditions	PN250		
PMA Maximum allowable pressure	250kg/cm <sup>2</sup> @300°C		
TMA Maximum allowable temperature	550°C @ 80 kg/cm²		
Minimum allowable temperature	-29°C		
PMO Maximum operating pressure	220 kg/cm <sup>2</sup> @374°C		
TMO Maximum operating pressure	550°C @ 80 kg/cm²		
Minimum operating temperature	0°C		
PMOB Maximum operating back pressure should not exceed 50%			
of upstream pressure			
Minimum operating differential	8 kg/ cm <sup>2</sup>		
temperature			
Designed for a maximum cold hydraulic	375 kg/ cm <sup>2</sup>		
test pressure			



Size	DN 15	DN20
Α	105	105
В	80	80
С	80	80
D	90	90
Е	55	55
F	55	55
Weight	8	8



Material					
No.	Part	Material	Standard		
1	Body	Alloy Steel	ASTM A182F 22		
2	Top Cover	Alloy Steel	ASTM A182 F 22		
3	Disc	Steel	AISI D2		
4	Seat	Steel	AISI D2		
5	Top Cover Gasket	Spirally wound	(ASME B16-20)		
		SS with exfoliated			
		graphite filler			
6	Inner seat Gasket	SS with exfoliated	(ASME B16-20)		
	graphite filler				
7	Cover Nuts	Steel	ASTM A194 Gr. 4		
8	Cover Studs	Steel	ASTM A193 Gr. B.16		
9	Bottom	SS with exfoliated	(ASME B16-20)		
		Cover Gasket	graphite filler		
10	Strainer Screen	Stainless Steel	BS 970 304 515/		
	Assembly		sintered stainless (ASTM A276-304)		
11	Bottom Cover	Alloy Steel	ASTM A182 F22		
12	Ferrule	Stainless Steel			

**Note:** Material specification mentioned in bracket are for reference only.

## **How to Order**

Example: 1 No. Forbes Marshall Thermodynamic Trap, FMTD722-M, with maintainable seat, butt weld ends to suit schedule 160 pipe.

# Operating Range Steam 300 400 400 400 Steam 300 50 100 150 200 250 Pressure bar g The product must not be used in this region. A - B Socket weld and Butt weld ends A - C Flanged to ASME (ANSI) Class 1500 A - D Flanged to ASME (ANSI) Class 600

# Capacity Chart (in accordance with ISO 7842) 500 400 400 100 100 200 30 40 50 100 250 Differential pressure bar g (x 100 = kPa) Hot water capacity————

## **Spare Parts**

The spares available are shown in solid outline. Parts drawn in broken line are not supplied as spares.

## Available spares

Set of cover studs and nuts	8 and 7 (pack of 8)	
Strainer screen and gasket	10, 9	
Set of gaskets	5 (2 nos), 6, 9	
	(Pack of 3)	
Set of internals	3, 5 (2 Nos.),	
	6, 9, 10, 4+12	

## Recommended tightening torques

Item	Part	Or mm	Nm
10	Spool	22 A/F	25-35
8	Stud	M 16	85-90
7	Nut	23 A/F M16	160-180

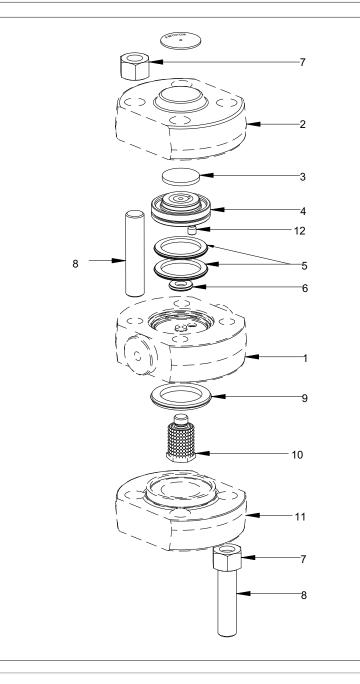
## Safety Information, Installation and Maintenance

For full details see the installation and maintenance instruction supplied with the product.

## **Installation Note**

The FMTD722-M is designed for installation with the nameplate on top, in a horizontal pipeline. For ease of maintenance, consideration should be given to fitting isolation valves upstream and downstream of the steam trap.

After 24 hours in service the cover nuts should be checked for tightness.





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