

CMTD62M-S , CMTD62M-F

Compact Module - Thermodynamic Trap

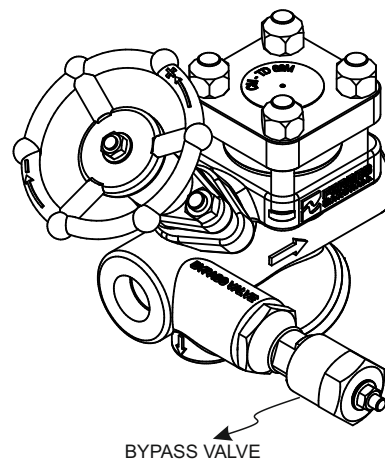
Description

The Forbes Marshall Compact Module - Thermodynamic Trap CMTD62M-S / CMTD62M-F is designed with an inbuilt bypass valve for high pressure steam applications up to 62 bar g.

Replaceable trap internals and inbuilt strainer eases inline maintenance. The CMTD62M-S / CMTD62M-F has an integral upstream piston valve which isolates the upstream piping of the steam trap.

The full version (CMTD62M-F) has added features such as a downstream piston valve that helps isolate the module from downstream piping and to check the trap condition a trap test valve is also provided.

After 24 hours in service the cover nuts should be checked for tightness. Refer installation and maintenance manual for full details.

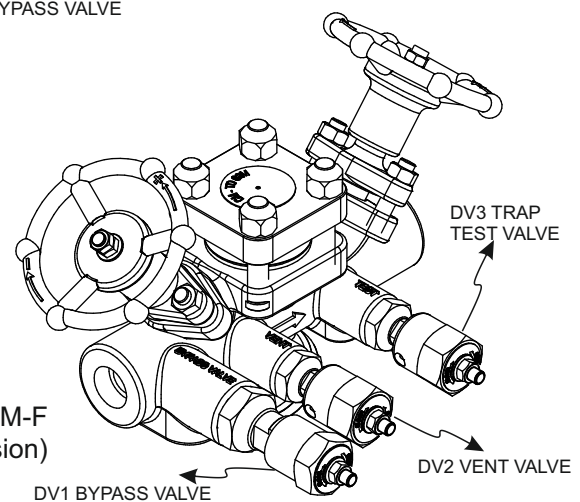


CMTD62M-S
(Standard version)

Sizes and Pipe Connections

DN 15,20 Socket weldable end connection

Note: Available with IBR certificate on request



CMTD62M-F
(Full version)

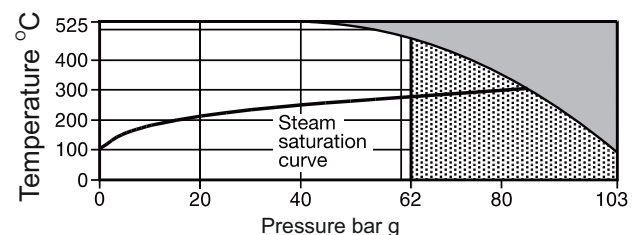
Limiting Conditions


Body design conditions	ANSI 600
PMA Max. allowable pressure	103 bar g @ 93°C
TMA Max. allowable temperature	525°C @ 37.2 bar g
PMO Max. operating pressure	62 bar g @ 482°C
TMO Max. operating temperature	525 °C @ 37.2 bar g
Minimum allowable temperature	0°C
Max. operating back pressure	80% of upstream pressure
Cold hydraulic test pressure	155 bar g


Installation

1. The CMTD62M-S / CMTD62M-F is installed with flow in the direction of the arrow. Flow to be horizontal.
2. Ensure that there is sufficient access to the hand-wheel to allow proper operation of both upstream and downstream isolation valves.
3. Ensure that there is sufficient access to the strainer to allow strainer to be cleaned periodically.
4. Allow sufficient access for the bypass valve and trap test valve to operate.
5. Ensure all the valves are either fully opened or tightly shut and never kept partially open /crack open.

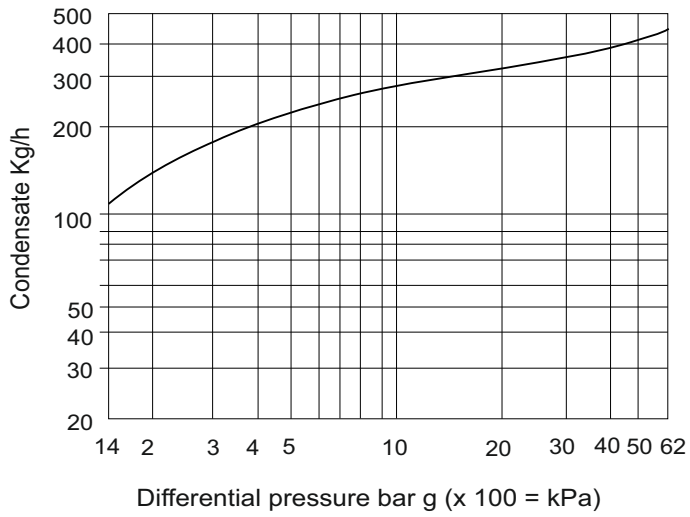
Operating Range



 The product must not be used in this region.

 The product should not be used in this region or beyond its operating range as damage to the internals may occur.

Capacity Chart



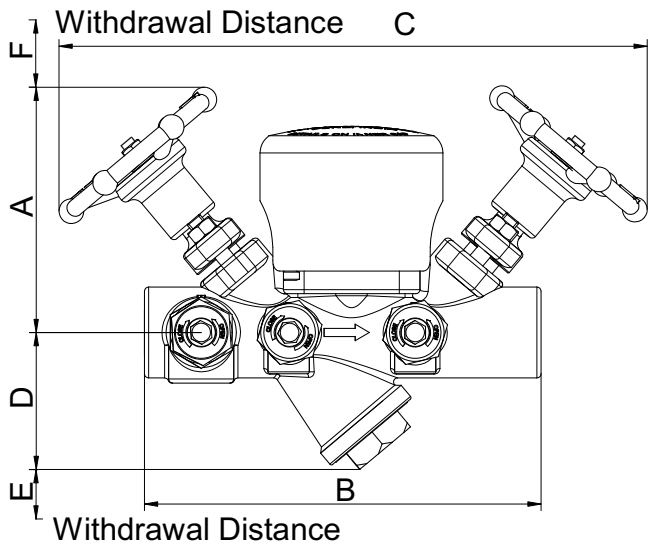
Dimensions/ Weight (approx.) in mm and Kg
(Valves in closed conditions)

CMTD62M-S Standard Version

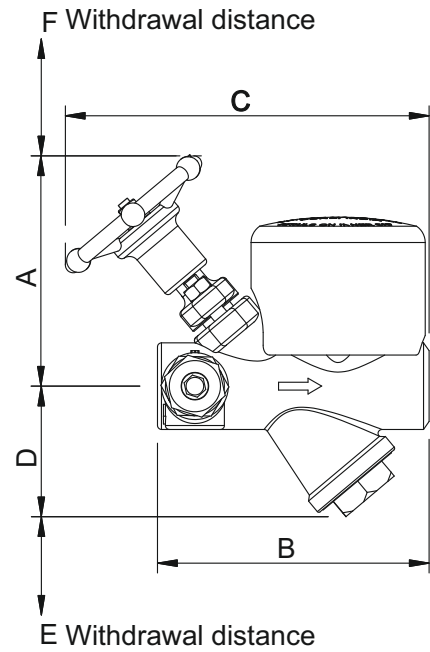
Size (DN)	A	B	C	D	E	F	G	H	Wt (kg)
15	120	140	190	66	20	51	118	44	4.5
20	120	140	190	66	20	51	118	44	4.5

CMTD62M-F Full Version

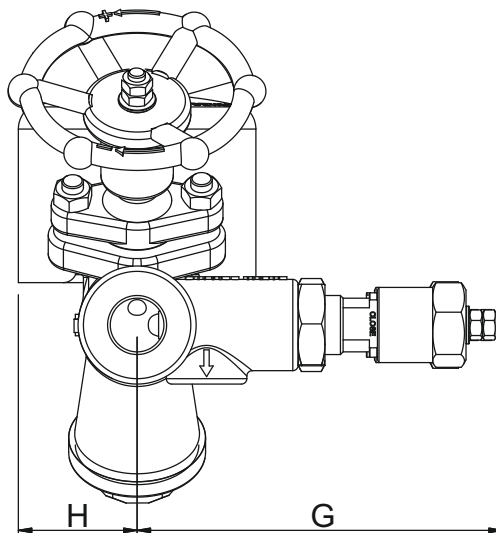
Size (DN)	A	B	C	D	E	F	G	H	Wt (kg)
15	120	235	340	66	20	51	118	44	6.5
20	120	235	340	66	20	51	118	44	6.5



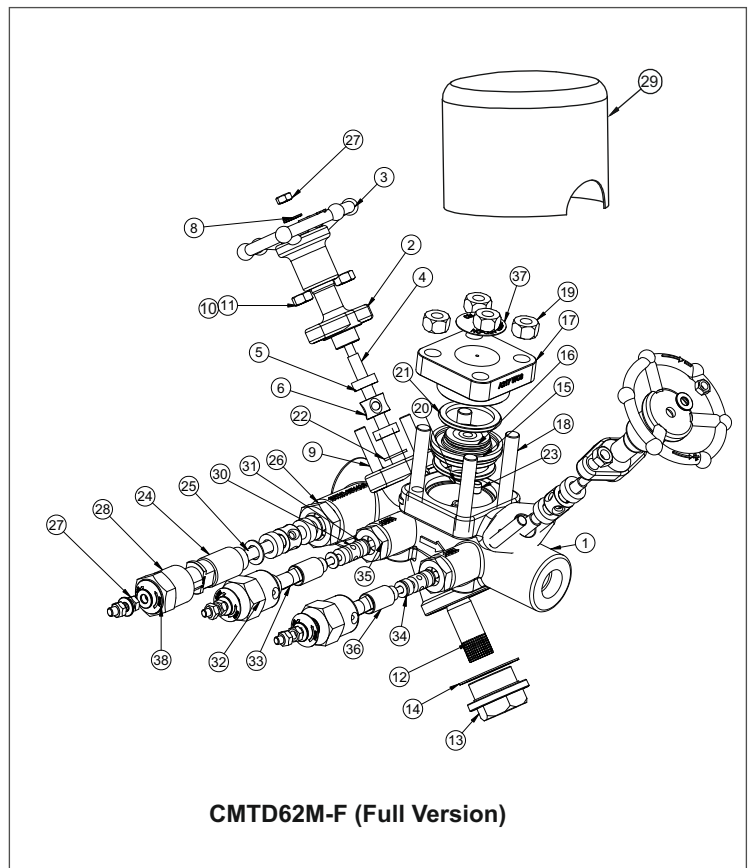
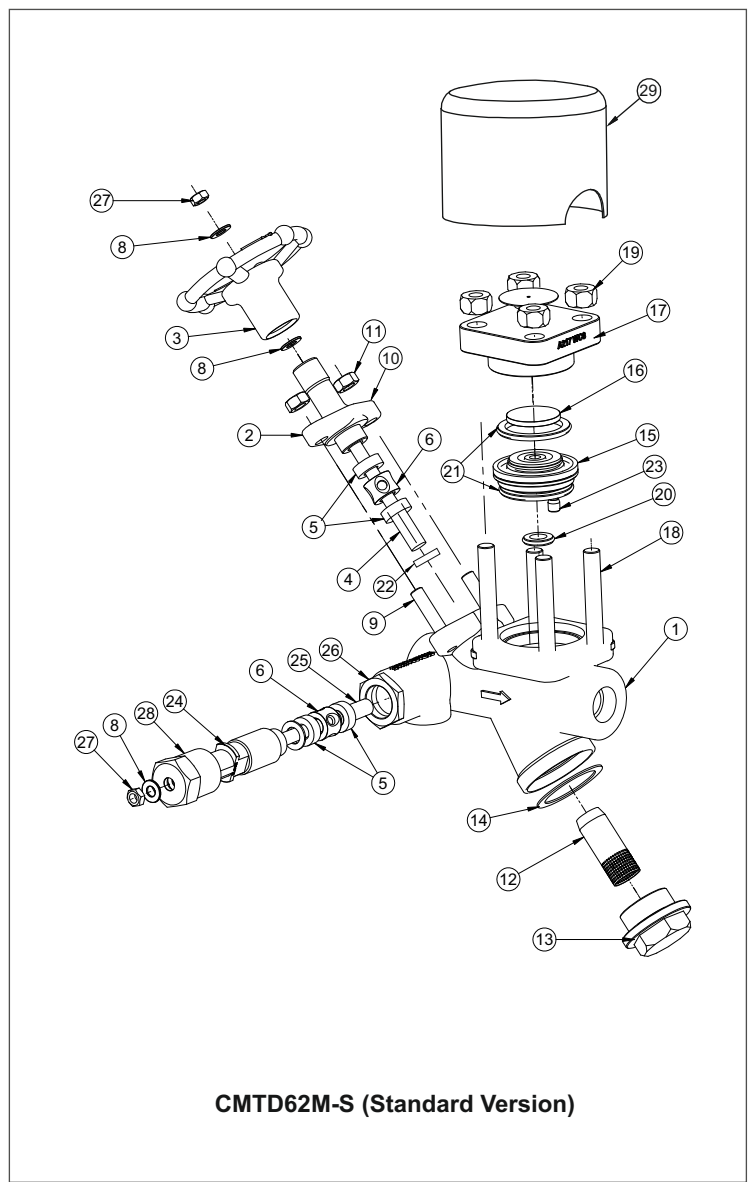
CMTD62M-F Full Version



CMTD62M-S Standard Version



No.	Part	Material
1	Body	ASTM A 217 Gr. WC6
2	Bonnet	ASTM A 217 Gr. WC6
3	Hand wheel	SG IRON 400/15A
4	Stem-Piston	ASTM A 276 Type 316
5	Sealing stack	Graphite +SS304
6	Spacer	ASTM A 276 Type 410
7	Rivet*	-
8	M6 plain washer	SS304
9	M8 studs	ASTM A 193, B16
10	Belleville washer	Spring steel
11	M8 hex nuts	ASTM A 194 Gr. 8M
12	Screen	SS 316 screen with 100 mesh
13	Strainer cap	ASTM A 217 Gr. WC6
14	Strainer cap gasket	SS exfoliated graphite
15	Seat	BS 4659 Gr. BD2
16	Disc	BS 4659 Gr. BD2
17	Top cover	ASTM A 217 Gr. WC6
18	Stud M10 x 1.5 x 55L	ASTM A 193 Gr. B16
19	M10 nuts	ASTM A194 Gr. 8M
20	Spiral wound gasket	Spiral wound (SS / Graphite)
21	Spiral wound gasket	Spiral wound (SS/ Graphite)
22	Plain washer	SS304
23	Ferrule	SS304
24	DV bonnet	ASTM A 276 Gr. SS410
25	Steam piston - DV1	ASTM A 276 Gr. SS316
26	Lock nut M22 x1.5	ASTM A276 Gr. SS410
27	Cleeve Lock Nut	SS304
28	Hex knob-DV1	SG iron 400/15 A
29	Isotub	SS304
30	Dv2 Spacer	ASTM A 276 Type 410
31	Dv2 Sealing stack	Graphite + SS304
32	DV2 hex knob	SG iron 400/15 A
33	Dv2 Stem-piston	ASTM A 276 Gr. SS316
34	Dv2 Plain washer	SS304
35	Dv2 M15x1 lock nut	ASTM A 276 Gr. SS410
36	Dv2 Bonnet	ASTM A 217 Gr. Wc6
37	Name plate for CMTD62M-F	SS304
38	Direction plate	SS304



Maintenance

To Clean or Replace Strainer Screen

Access to the strainer screen can be obtained by removing strainer cap. Remove strainer screen fit new or cleaned strainer screen into recess of the cap. A new gasket should be fitted and the cap screwed into the body. The use of a thread lubricant is recommended.

To Replace the Cover Studs

After removing old cover studs, fit new cover studs until the studs bottom out. The use of a thread lock (high temperature grade) is recommended.

Bypass Valve and Trap Test Valve Maintenance

Lubricate the valve frequently with Molykote M30 oil or equivalent. Lubricate the stem piston and bonnet threading of drain valves DV1. Operate the valves after lubrication.

How to Order

Example. 1 no. DN 15 CMTD62M-S Compact Module Thermodynamic Trap - Standard Version (with 1 valve) with action body socket weldable end connection, IBR

Recommended Tightening Torques

Description	Torques (Nm)
M8 Nuts (11)	10
M6 LH (7)	0.1
32 A/F (13)	142-158
M10x1.5 Studs (18)	20-25
17 A/F Nuts (19)	45-50

Spares List (Refer diagram on previous page)

S.No.	Description	Part No.(fig 2)
1.	Spare Isolation Valve Internals Set (Sealing Stack, Spacer, Stem-Piston)	4, 5, 6
2.	DV1 Spare Kit (Dome Nut, M6 Plain Washer, M6 Hex Nut, Sealing stack, Spacer ,Stem Piston)	4,5,6,7, 22,27
3.	Seat and Disc	15, 16
4.	Strainer Screen	12
5.	Spare gasket kit	20, 21
6.	Cover stud and nut set	18, 19



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