Trampa de vapor bímetalica TK1



BIMETALLIC STEAM TRAP

GENERAL FEATURES

TK-1 Bimetallic Traps is operated by metal strips made of alloys with different coefficients of expansion that are bonded together.

At start-up, the trap is cold and the bimetallic element is relaxed. The valve is wide open. When steam enters the trap, it surrounds and heats the strips, which begin to expand at different rates. The element pulls directly on the valve stem, closing the valve against the pressure differential. As heat radiates from the trap, the strips begin to cool. When the element has cooled sufficiently, it relaxes and opens the valve.

TK-1 Bimetallic Traps, specially manifactured for **SUPER HEATED STEAM** applications. Appropriate isolation valves must be installed to ensure that maintenance and drainage are safe.

Installation

TK-1 can be installed both vertically and horizontally to the pipeline.

Applications

Trace Line
Driers
Press Units
Steam Jacketed Pipes
Convector Heaters
Heaters
Steam Collectors
Condensate Pockets
Main Steam Line Ends
Super Heated Steam

WORKING CONDITIONS	
Max. Pressure	40 bar
Max. Temperature	400 °C
Max. Differential Pressure	22 bar

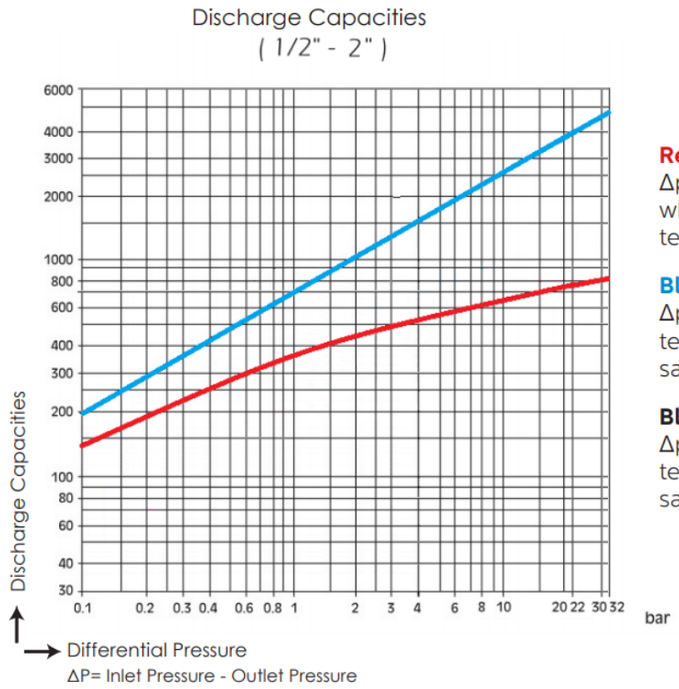
*450°C opt. with gasket changes.

DIMENSIONS	
Flanged - Threaded	Socket
DN15-DN50	DN15-DN25

CONNECTION TYPE	
Threaded	NPT acc. to ANSI B1 20.1 BSP acc. to BS 21
Socket	ANSI B 16.11
Flanged	DIN 2635 (PN 40)

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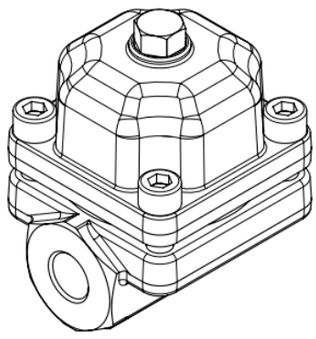
THREADED CONNECTION

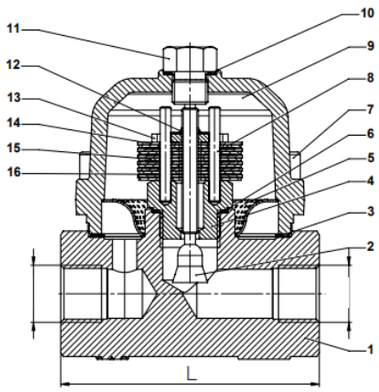


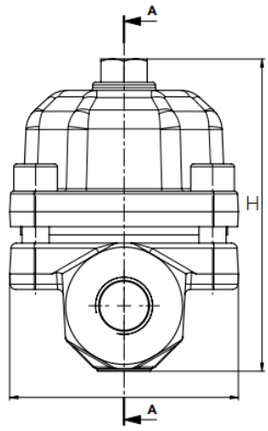
Red Chart
Δp = Condansate Discharge at the temperature which is max 10°C lower than steam saturation temperature.

Blue Chart
Δp = Cold Condansate Discharge at the temperature which is max 20°C lower than steam saturation temperature.

Black Chart
Δp = Cold Condansate Discharge at the temperature which is max 30°C lower than steam saturation temperature.



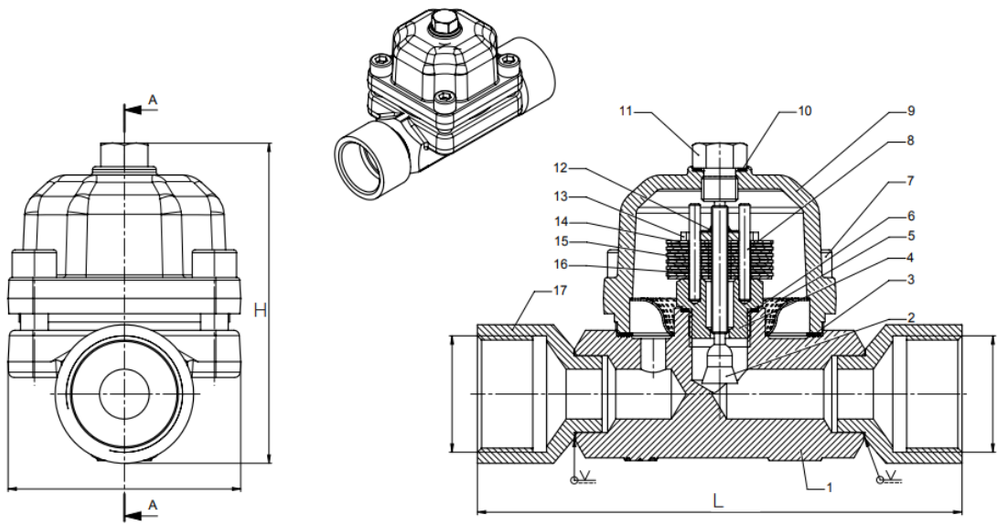




DN(mm)	H	L
15	114,5	95
20	114,5	95
25	114,5	95

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THREADED CONNECTION

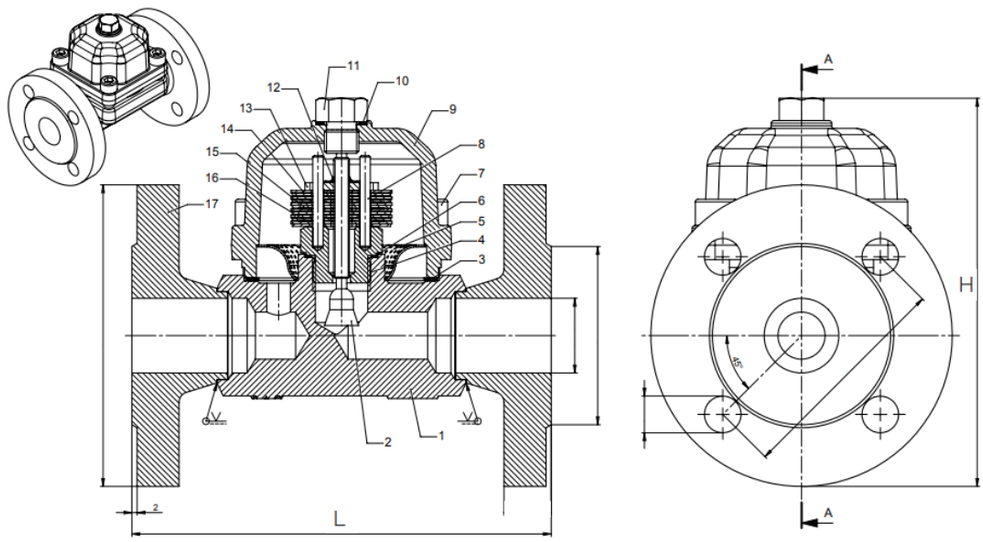


DN(mm)	H	L
32	115,5	175
40	121	185
50	125,5	195,5

PART LIST		
No	Part Name	Material
1	Body	C 22,8
2	Control Unit Seat	AISI 304
3	Gasket	Klingerit
4	Seat	AISI 304
5	Filter	AISI 304
6	Seat Gasket	AISI 304
7	Bolt	8,8
8	Bimetallic Plate Stem	AISI 304
9	Cover	C 22,8
10	Cover Set Gasket	AISI 304
11	Cover Set Stopper	9 SMn 36
12	Gasket Rove	AISI 304
13	Set Bolt Cushion	AISI 304
14	Bimetallic Plate	AISI 304
15	Bimetallic Plate	AISI 304
16	Bimetallic Plate Part	AISI 304
17	Threaded Reduction	9 SMn 36

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FLANGED CONNECTION

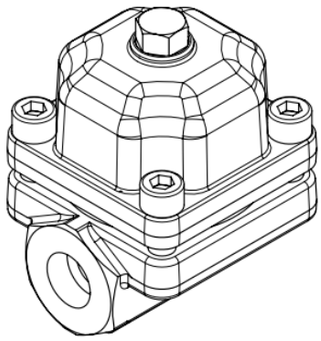


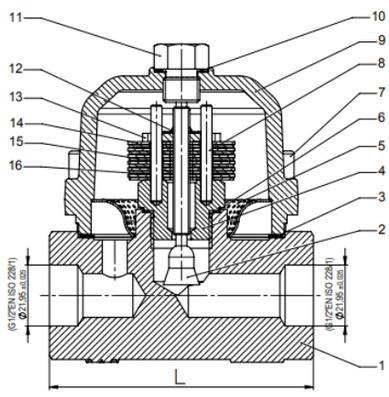
DN(mm)	H	L
15	114,5	138
20	114,5	143
25	114,5	148
32	115,5	160,5
40	121	165,5
50	125,5	173

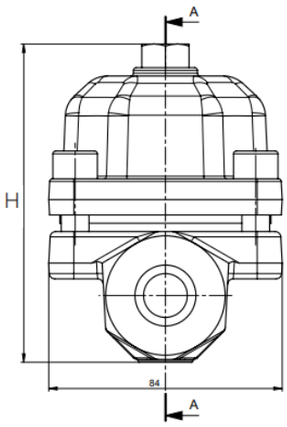
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No	Part Name	Material
1	Body	C 22,8
2	Control Unit Seat	AISI 304
3	Gasket	Klingerit
4	Seat	AISI 304
5	Filter	AISI 304
6	Seat Gasket	AISI 304
7	Bolt	8,8
8	Bimetallic Plate Stem	AISI 304
9	Cover	C 22,8
10	Cover Set Gasket	AISI 304
11	Cover Set Stopper	9 SMn 36
12	Gasket Rove	AISI 304
13	Set Bolt Cushion	AISI 304
14	Bimetallic Plate	AISI 304
15	Bimetallic Plate	AISI 304
16	Bimetallic Plate Part	AISI 304
17	Flange	C 22,8
18	Adapter	C 1030

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SOCKET CONNECTION







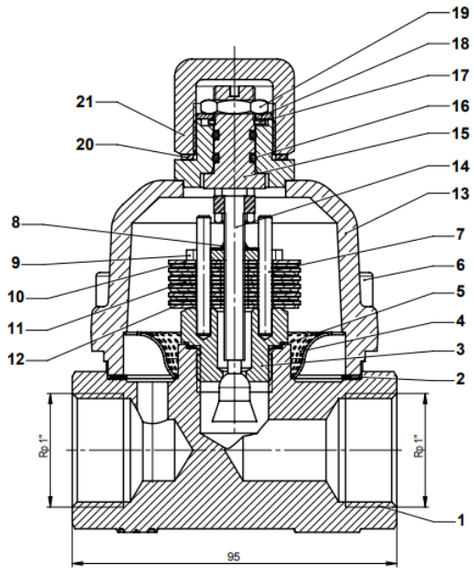
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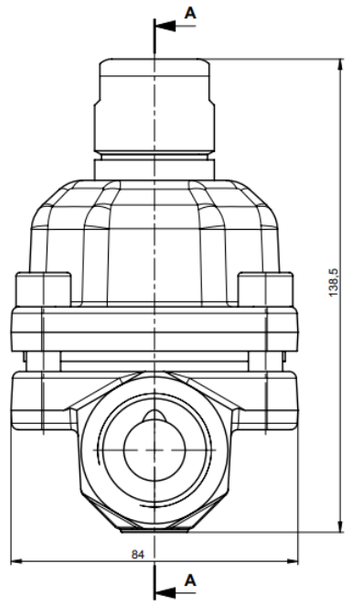
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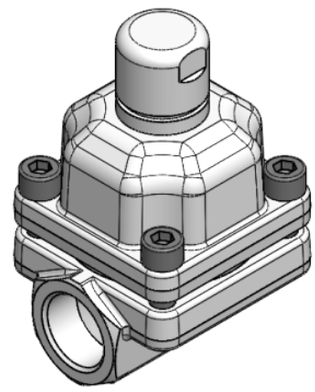
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No	Part Name	Material
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14	Bimetallic Plate	AISI 304
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16	Bimetallic Plate Part	AISI 304

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SOCKET CONNECTION



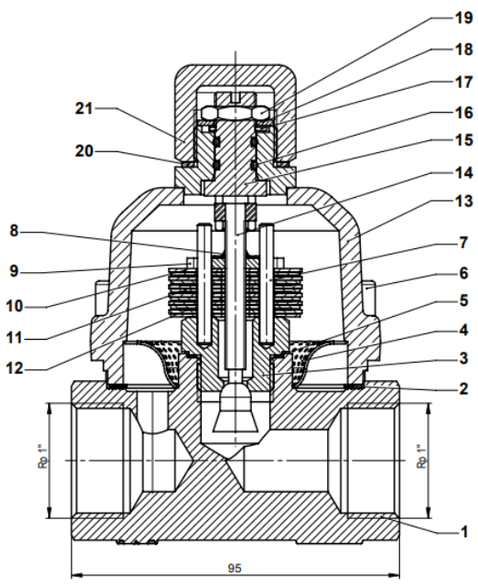


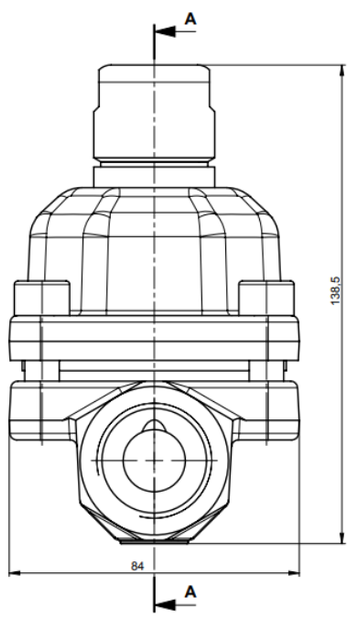


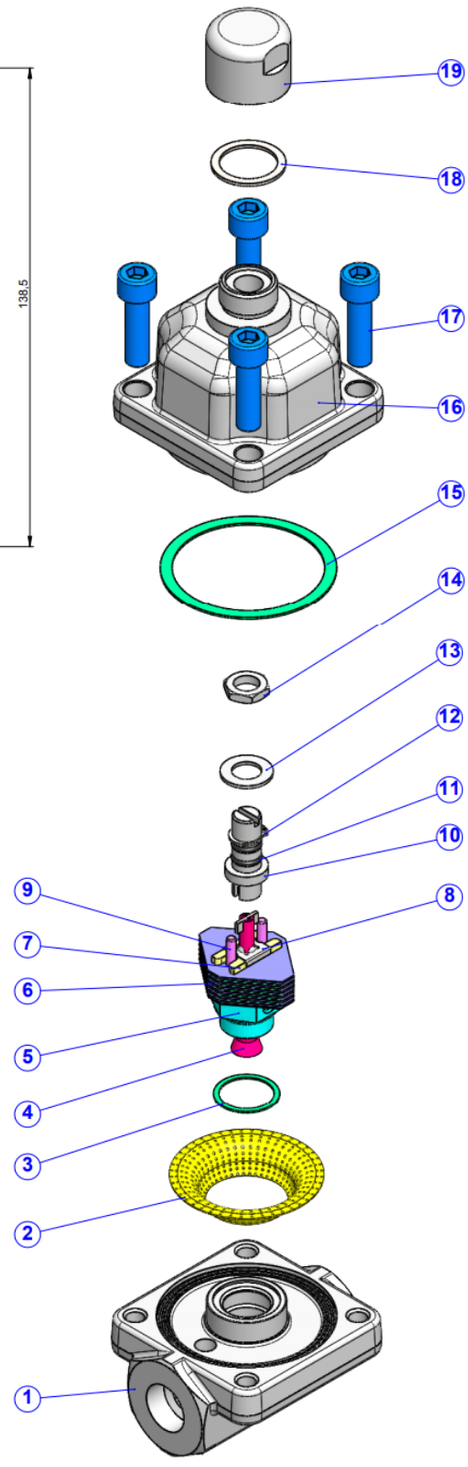
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No	Part Name	Material
1	Body	C 22,8
2	Gasket	Klingerit
3	Seat	AISI 304
4	Filter	AISI 304
5	Seat Gasket	AISI 304
6	Imbus Bolt	8,8
7	Bimetallic Plate Stem	AISI 304
8	Bolt Ring	AISI 304
9	Adjustment Nut Bearing	AISI 304
10	Bimetallic Plate	AISI 304
11	Bimetallic Plate	AISI 304
12	Bimetallic Plate	AISI 304
13	Cover & Seat Welding Connection	
14	Stem & Flap Welding Connection	AISI 304
15	Adjustment Bolt	AISI 304
16	O-ring	Viton
17	Bolt Ring	
18	Ring	1.0482
19	Nut	
20	Gasket	AISI 304
21	Adjustment Handle	1.0482

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SOCKET CONNECTION







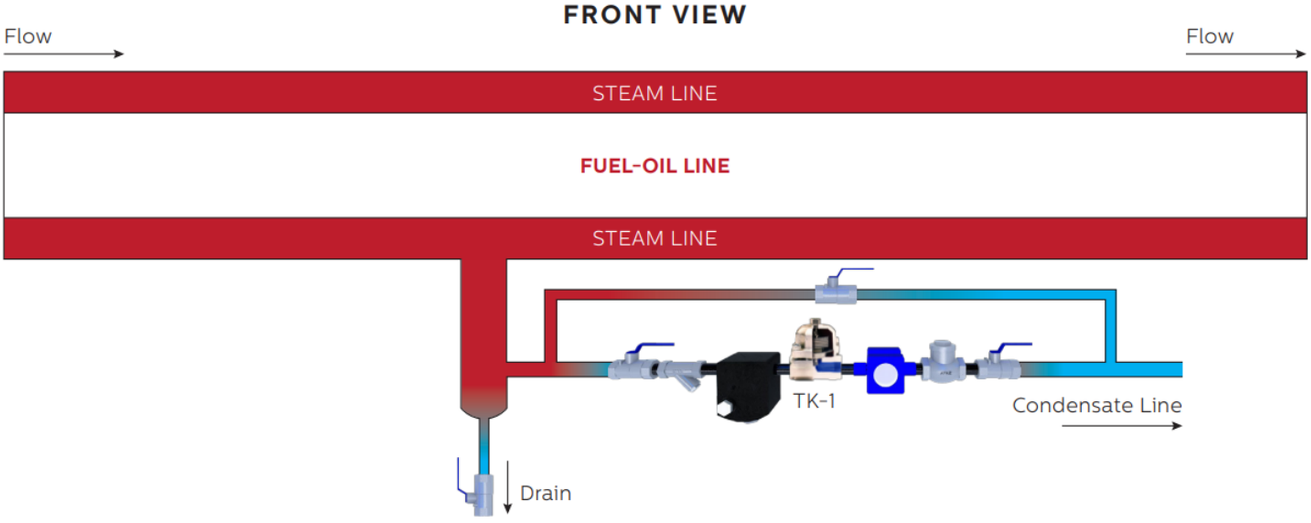
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17	Bolt Ring	
18	Ring	1.0482
19	Nut	
20	Gasket	AISI 304
21	Adjustment Handle	1.0482

TK-1/TK1-A BIMETALLIC STEAM TRAP

SIDE VIEW



FRONT VIEW



The thermal energy of the steam line is utilized to prevent heat loss in the fuel-oil line. Thus, heat loss in the fuel-oil line is prevented. Bimetallic steam trap is used in these lines due to the working principle. To benefit from the energy of the steam, bimetallic plates should be used to open at the lowest point of the saturated steam temperature.