

DIN PN 100 — DN 10 to 25 mm
ANSI 600 — 3/8" to 1"

TC 54 N
TC 54 C

Application

For drainage of the condensate in saturated steam lines and heat exchangers where the intermittent operation, which is typical of thermodynamic steam traps, does not harm the system performance.

Main characteristics

- It works in any position;
- Opening frequency varies according to condensate load;
- Material of high resistance to the wear and corrosion;
- Possibility of replacing the disk without need of removing the steam trap from the line;
- Insensitive to waterhammer and temperature overload.

Presentation

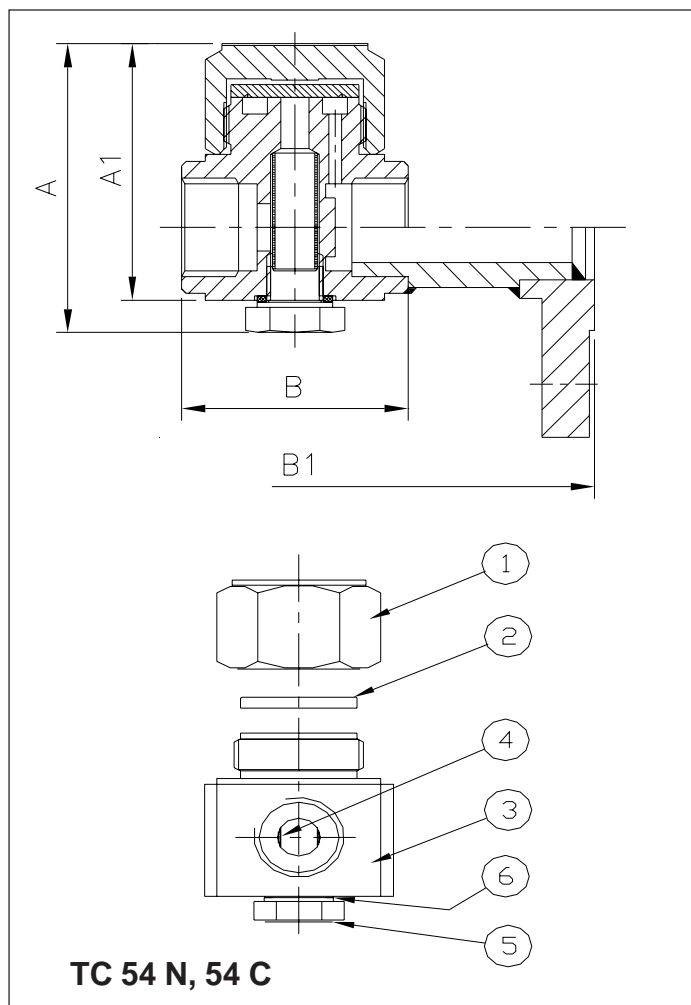
The TC 54 N thermodynamic steam traps from ASCA are composed of three main parts: body, cover and disk. The TC 54 C model has still incorporated screen. The design of the steam trap, with control chamber of reduced volume and sealing surfaces (disk and seat) with lapped finish, gives to these steam traps smaller constructive sizings and minimizes the losses of alive steam, without causing condensate banking up or endangering its flow capacity. In the TC 54 C the screen is easily removable for cleanness.

Operation

The beginning of the TC steam traps operation is like of the conventional thermodynamic steam traps. The regulator device, with reduced volume control chamber an orifice of extended inlet, allows the obtaining of a marvelous frequency of opening and closing.

Measure sand weights

Model	TC 54 N, 54 C			
Nominal Diameter (mm) (pol)	10 3/8"	15 1/2"	20 3/4"	25 1"
Measures (mm)				
A (TC 54 C)	62	62	73	87
A ₁ (TC 54 N)	55	55	65	77
B (THREADED)	40	48	56	68
B ₁ (FLANGED)	160	160	160	160
Approx. weight (Kg)				
Threaded	0,8	1,0	1,2	2,0
Flanged (600 lbs)	—	1,9	2,7	3,9



Technical competence, materials and connections

Model		TC 54 N	TC 54 C	
Nominal Diameter	(mm)	10 15 20 25		
	(pol)	3/8" 1/2" 3/4" 1"		
Maximum service pressure	(bar man)	42		
Max. correspondent temperature	(°C)	450		
Maximum backpressure	(bar man)	80% of the service pressure		
Minimum pressure	(bar man)	0,25		
Materials	1	Cover	AISI 304	
	2*	Disk	AISI 420	
	3	Body	AISI 420	
	4*	Screen	—	AISI 304
	5	Plug	—	AISI 304
	6*	Body-plug gasket	—	AISI 304
Connections	Thread	BSP / NPT		
	Flange DIN	PN 10/16, 25/40, 63		
	Flange ANSI	150, 300, 600		
	Weld (Under consultation)	SW / BW		

*Recommended spare parts

Optionals

The TC 54C steam traps can be supplied with valve or drain, for cleanness of the screen. When it is equipped with the valve, the steam trap can have its screen cleaned, just with little turn in the valve. The own steam pressure does the cleanness. When the drain is used is totally necessary to remove it.

Flow chart

The chart indicates the maximum flows of hot condensate. These capacities can be influenced by the several service conditions, depending on the pressure upstream, which nor always, corresponds to the nominal pressure of the boiler, and of the occasional established backpressures by the condensate discharge, causing variations in the differential pressure.

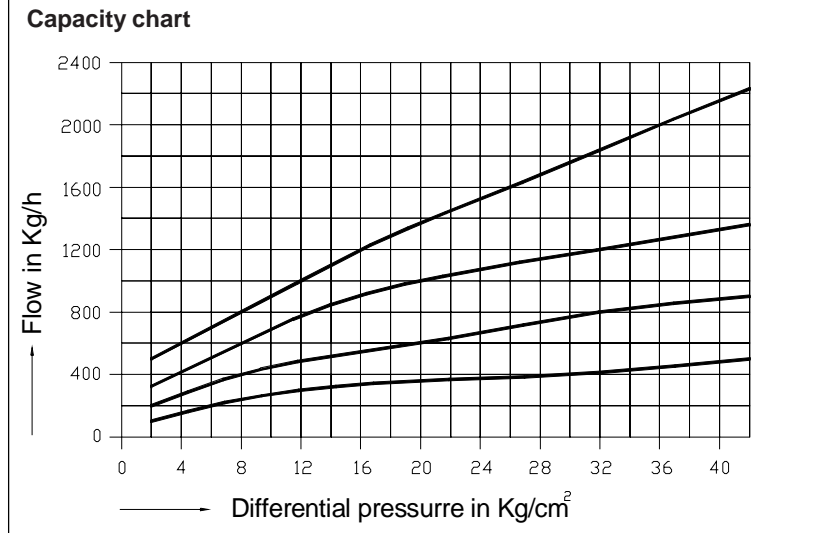
If there is elevation of the condensate for a higher level, don't disdain the backpressure about 1 bar for each 7 meters high of elevation.

Example: DN 1/2"

Service pressure	20 bar
Backpressure	2 bar
Differential pressure	18 bar

Note: The capacity of flow of the steam traps with cold water, as occurs at the beginning of the process, is roughly 2,5 wider than hot condensate flow indicated on the chart above.

Flow of hot condensate 600 kg/h.

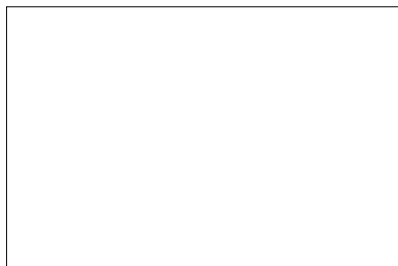


Data for sizing

- ASCA will make pleasure the sizing. For this purpose must be supplied:
- Service pressure;
 - Backpressure;
 - Condensate flow blowdown;
 - Type of heat exchanger and location of the steam trap in relation to the same.

Standard specification

Thermodynamic steam traps for steam Model TC 54 C from ASCA
 According to prospect PR-01.40.20-I
 Connections.....
 As per norm
 Pressure class
 Nominal diameter
 Optionals.....



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