

Disc Type Steam Trap

TD-10NA·30NA



Why people choose Y's TD-10NA series disc trap. It's because our disc trap is "Multum in parvo" and can be used in various ways, such as heating system, general industrial use, removing steam condensate in the piping, and so on.

Features

- (1) TD-10NA series employs a bimetal ring, it can remove any air troubles, and it also immediately emits cold water and air at the time of starting the apparatus.
- (2) Disc and valve seat made of stainless steel with a special heat treatment ensure extremely long service life.
- (3) Disc and valve seat can be easily replaced without removing the body from the piping.
- (4) Containing only one moving part "the disc" and the simplicity of the disc trap makes maintenance easy.
- (5) Despite of compact, lightweight and moderate price, the operating pressure range is considerably wide and pressure adjustment is unnecessary.
- (6) The disc trap can be mounted in any position between horizontal and vertical.
- (7) The insulation cover equipped with as standard and maintains smooth function.
- (8) No additional strainer is needed because 60 mesh strainer is built-in the trap.
- (9) Even with its compact size, it features a large discharge capacity.



TD-10NA

Specification

Model		TD-10NA	TD-30NA		
Application		Steam condensate			
Operating Pressure		0.035~2.0MPa	0.035~1.0MPa	0.035~2.0MPa	
		{0.35~20kgf/cm²G}	{0.35~10kgf/cm²G}	{0.35~20kgf/cm ² G}	
Allowable Back Pressure		Less than 50% of inlet pressure			
Maximum Temperature		220°C			
Material	Body	Ductile cast iron			
	Disc / Valve Seat	Stainless steel			
Connection		JIS Rc (PT) Screwed	JIS 10KFF Flanged	JIS 20KFF Flanged	



TD-30NA

Operation

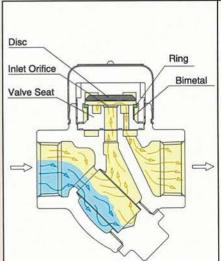
Blue

Condensate

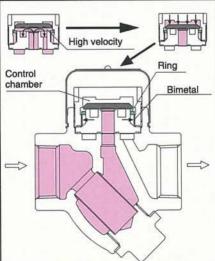
Yellow Ai

Red

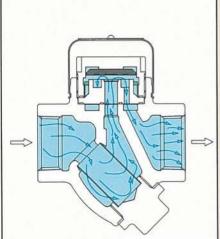
Steam



 On start-up, the bimetal and ring are cold and keep the disc open to protect from air binding, so all the condensate and air entering the trap are easily removed from the system. It also results in reducing the time to start-up of steam apparatus.



2: When steam enters through inlet side and flows under the disc, it increases the flow velocity across the face of the disc, and creates a low pressure under the disc. Hence, the pressure in control chamber will be higher than the pressure under the disc and the bimetal starts to expand with high temperature. Finally, the disc will be closed completely toward the seat.



3: With presenting condensate, the temperature will decrease and the pressure in control chamber reduced. The disc is lifted by incoming pressure and condensate will be discharged. This operation is continuously repeated.

Bi-Protection

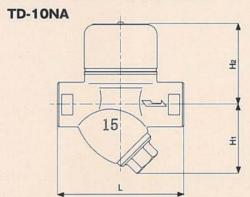
"Bimetal ring" has ability to prevent Air Binding

If the inlet pressure should rise up too fast in the starting time, due to high-speed air, a trap will be closed by the same principle as steam, and an "air binding" will occur. This big fault is cancelled with the combination of the ring, valve seat, and the bimetal starts to expand and flex with increasing temperature. Such combination enables prompt discharge of cold water and air off at starting, and also results in efficient start-up of steam apparatus.

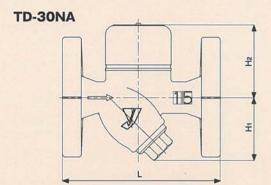
"Insulation cover" for long durability and stable operation

When installed under cold ambient conditions, steam in chamber condensates faster than usual. This could cause life of disc and valve seat shorten, due to too much wear by frequent on-off. To avoid the said fault, the insulation cover, equipped with as standard part, prolongs condensation time of steam in chamber, and the frequent on-off operation of a disc is suppressed, and long durability is maintained. In addition, stable operation is obtained despite a drop in outside temperature.

Dimensions & Weight



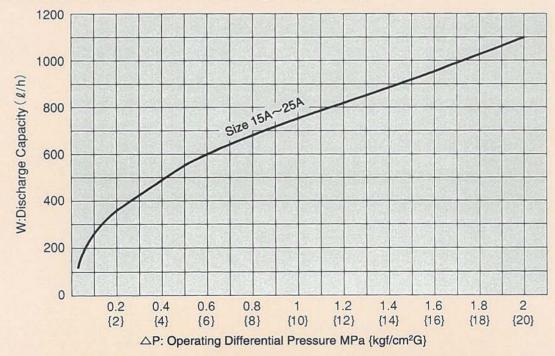
L	H ₁	H ₂	Weight(kg)
90	49	58.5	0.9
90	53	60.5	1.2
90	56	62.5	1.4
	90	90 49 90 53	L H ₁ H ₂ 90 49 58.5 90 53 60.5



		(mm)			
Size	L	H ₁	H ₂	Weight(kg)	
15A	125	51	59	2.3	
20A	140	54	63	3.4	
25A	150	65	63	4.1	

Maximum Continuous Discharge Capacity

(mm)



* Since the chart showing the maximum discharge capacity, please take sufficient safety ratio (about four to five times) in a design.



INTERNATIONAL DEPT.

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