

Steam Traps, Air Trap

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Caution

- Capacity curve shows the value measured under the condition where low-temperature condensate is discharged continuously into the atmosphere under different steam pressure.
So, the required condensate flow should be multiplied by the following safety factor to select the suitable trap size.
 Membrant Traps Safety factor 2 or more
 Float Traps Safety factor 2-3
 Bucket Traps Safety factor 2-4
- For notes about installation or operation the instructions manual should be read thoroughly.

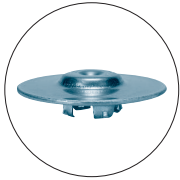
Inquiry

Please specify followings at inquiry.

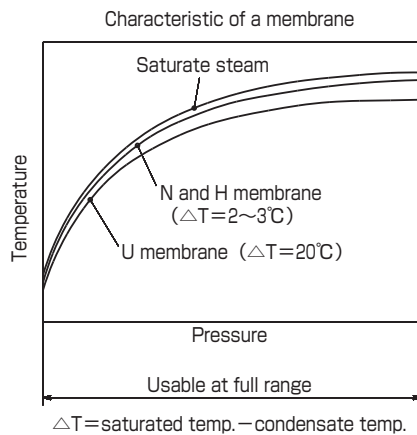
- Pressure, Temperature, Required flow rate
- Type, Size
- Use for
- Others

Features

- A membrane does not miss the steam.



The steam is not missed by the sensitive operation of a membrane.



There are three models of membrane, “N”, “U” and “H”, which are acted thermostatically at respective temperatures.

1. “N” membrane

The membrane trap will act at a temperature of 2~3°C lower than the saturate temperature.

The condensate will not be banked and the steam is hardly missed.

“N” membrane trap is suitable for the equipments which dislike stay of condensate, such as an unit heater, air conditioners, presses, autoclaves and a jacket iron pots.

It can also be used for thermal air venting.

2. “U” membrane

The membrane trap will act at a temperature of 20°C lower than the saturate temperature.

“U” membrane trap is suitable for steam pipes, steam tracings, small load equipments, etc.



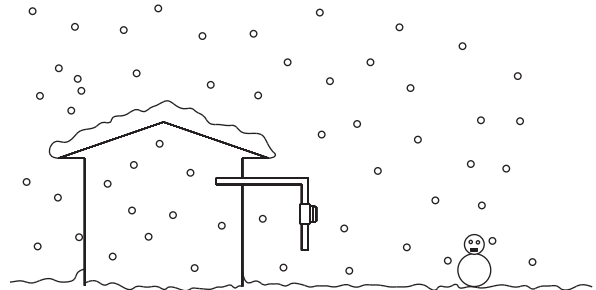
“N” membrane should be used when steam pressure is under 0.2MPa and exist back pressure of trap.

“U” membrane may make banking of condensate.

- A large pressure range can be covered with one trap. It is convenient to reduce the kind of trap as a spare.
- It is easy to replace the parts at maintenance which are membrane and/or seat.

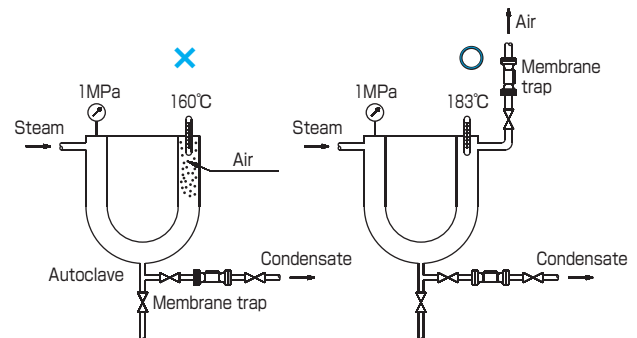
● Possible use in cold conditions

The piping which is installed in vertical piping can be prevented from freezing.



● It's in ventilation

Membrane trap is used in air ventilation since it can discharge air during use.



Function

The capsule is filled with a liquid which boils at a temperature a few degrees lower than water.

(1) At the service off or cold condensate

As long as condensate flows through the steam trap the liquid in the capsule is completely condensate due to the low ambient temperature. The pressure inside the capsule is lower than the surrounding pressure (service pressure) and the membrane with the valve disc is pushed in the open direction.



(2) During service

As the condensate temperature approaches steam temperature, the liquid filling of the capsule start to boil and evaporate. The pressure in the capsule rises and the membrane with the valve disc is moved in the closing direction.

