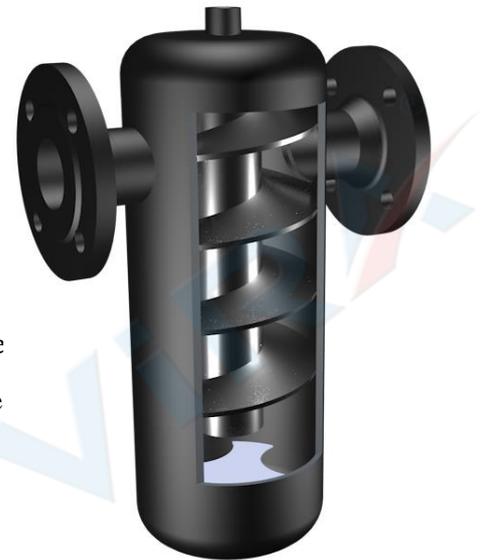


STEAM (MOISTURE) SEPARATOR

In most systems where steam is used, it is essential that steam should be as dry as possible. The quality of the steam is associated with its dryness and the drier the steam means, the better quality steam. But it is undesirable for the steam to be 100% dry. Ideal moisture content in steam systems is 2-3%.

However, as long as there is no superheated steam, all steam contains moisture immediately after leaving the boiler. While traveling through the pipes, it loses its heat and condenses. Installing steam traps, it can remove the condensate moving along the bottom of the pipes, but they cannot separate the moisture by steam trap in the steam stream, Dry steam cannot only be provided using steam traps.



Vira steam separators are Vortex type steam separators used vertically. This type of steam separator uses centrifugal force to separate the vapor and water particles, taking advantage of the difference in the specific weights of liquid and gas. In this case, the steam is channeled into a spiral flow, which causes the denser condensate droplets to separate from the flow and flow directly down the inner wall of the separator. Gravity then pulls under the separator where a steam trap is placed to drain the condensate.

Steam Separator Application Areas

- Steam boiler outlet line
- Before control devices (Control Valves, Flow Meters etc.)
- At the entrance of steam turbines
- Before heat exchangers and dryers
- Before kitchen appliances and washing machines
- Before press machines
- Before sterilizers
- Before paint machines

For non-critical applications such as drainage of general distribution lines and heat transfer equipment, it is recommended to choose a separator of the same size as the pipeline. Assuming that this line is correctly sized for the maximum load, the recommended speed for the steam lines is 30 m / s.

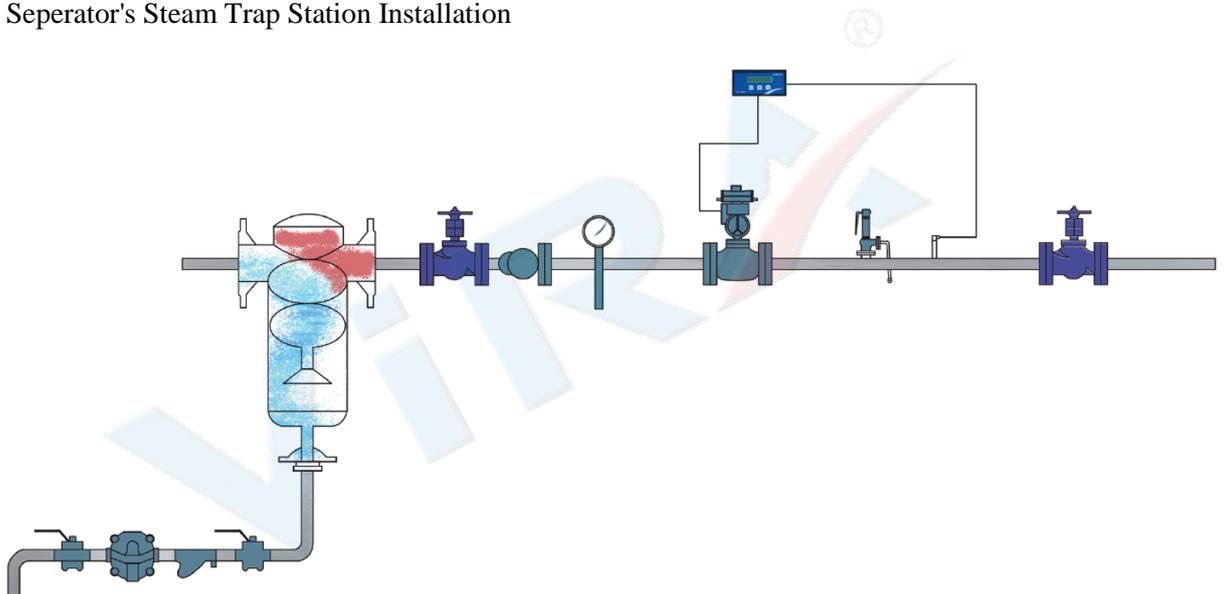
STEAM (MOISTURE) SEPARATOR

Separator Selection

If the separator encounters a higher velocity or mass flow than designed for its operation, its performance may decrease. For critical applications, it is important to consider all factors that can affect its performance to achieve the best results, rather than choosing a separator based on size compatibility with the existing piping. Always check if the pressure loss and flow rate range is within acceptable limits.

What to Consider When Choosing a Separator

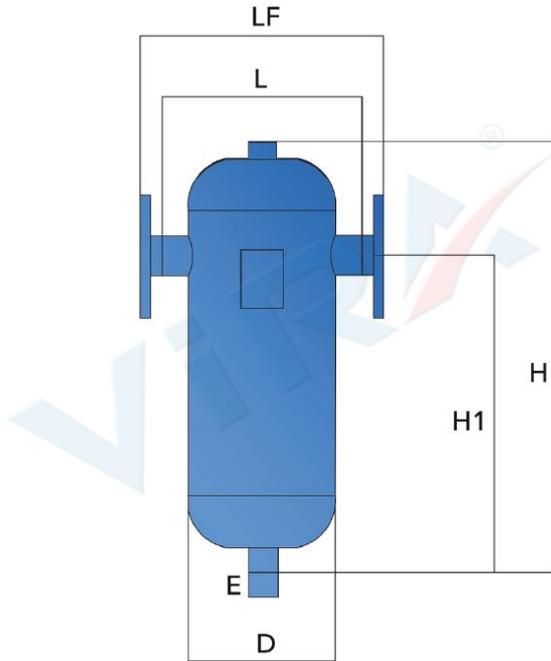
- Max. Steam Flow Rate
- Min. Steam Flow Rate
- Pressure Drop in Separator
- Inlet Steam Quality
- Desired Steam Quality at the Outlet
- Separator Material
- Separator's Steam Trap Station Installation



Vertical Type Vortex Steam Separator is recommended for critical applications where flowmeters or control valves need to be accurate and maintained.

STEAM (MOISTURE) SEPARATOR

Steam Separator Materials and Sizes



Body: Carbon Steel (Optional Stainless Steel)

Interior: Carbon Steel (Optional Stainless Steel)

Connection: Vertical – Threaded and Flanged

Diameter: Threaded 1/2"-4" - Flanged DN15-DN300

Max. Operating Pressure: 16 Bar, 25 Bar, 40 Bar

Max. Operating Temperature: 300 °C

DN	D (mm)	H (mm)	H1 (mm)	E (inch)	LF (mm)	L (mm)
15	114,3	300	210	1/2"	230	180
20	114,3	300	210	1/2"	230	180
25	114,3	350	210	1/2"	230	180
32	139,7	435	300	1"	260	240
40	139,7	435	300	1"	260	240
50	168,3	500	370	1"	300	270
65	219,1	570	410	1 1/2"	380	340
80	219,1	610	460	1 1/2"	400	360
100	273	905	660	1 1/2"	485	450
125	323,9	905	660	2"	550	500
150	350	1000	710	2"	585	535
200	400	1285	1005	2"	650	600