

Mist Eliminators  
Entrainment Separators  
Liquid Coalescers...

mist eliminator



**What is Shreewire Mist Eliminator ?**

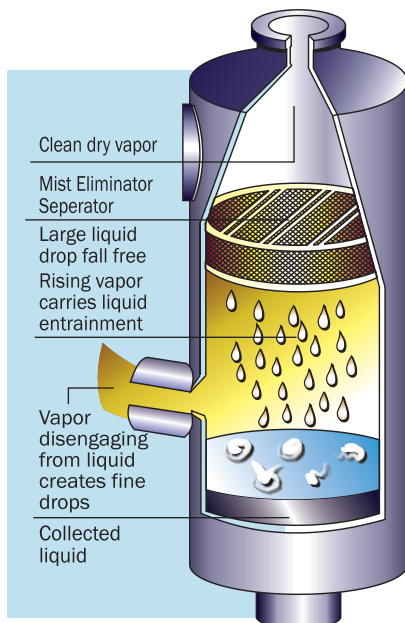
Shreewire Mist Eliminator is fabricated in pad form from symmetrical interlocking loops of knitted metal wire or plastic monofilaments. The pad with a high free volume and large impingement area, can be installed in any existing or new process vessel to provide separation efficiencies up to 99% for particles down to five microns at pressure drops in the vicinity of 25 mm WC.

The Shreewire Mist Eliminator is a static, in-line device and in majority of the cases it can be installed in the evaporator, scrubber, pressure vessel etc., without a special housing. There is practically no maintenance required except for cleaning when used in fouling services.

**How Shreewire Mist Eliminator work ?**

When vapor carrying entrained liquid droplets or mist passes through the Shreewire Mist Eliminator, the vapor passes freely through the layered mesh structure of the Shreewire Mist Eliminator but the liquid droplets, having greater inertia, contact the large wire surface exposed and are briefly held there. As more droplets collect, they coalesce and grow in size and become large enough to drain back into the system. The overhead product is pure vapour containing practically no liquid.

- SHREEWIRE MAKES ANY GOOD PROCESS BETTER
- IMPROVES PROCESS EFFICIENCY.
- ELIMINATES COSTLY LIQUID LOSS.
- SOLVES AIR POLLUTION PROBLEM.



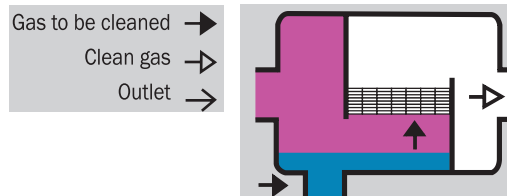
**Efficiency :**

Normally Mist Eliminator will remove droplets down to 5 microns with an efficiency upto 99%. This efficiency will very depending upon the particle size distribution and other operating conditions. Furnished in a wide variety of mesh styles, the Shreewire offers collection efficiency and pressure drop combinations that can be suited exactly to specific process requirements. Special designs are also available with higher efficiencies for specific applications.

**Application Configuration :**

**Pressure Drop :**

Pressure Drop is also a function of separator specifications and is less than 25 mm WC for a majority of applications. In vacuum service, high efficiency is routinely achieved with pressure drop of the order of 5 mm WC.



### SHREEWIRE Mist Eliminators Application :

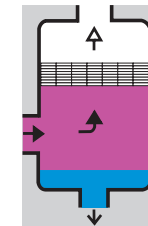
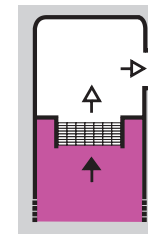
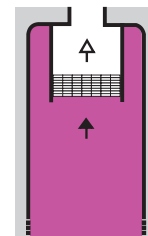
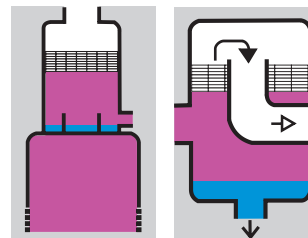
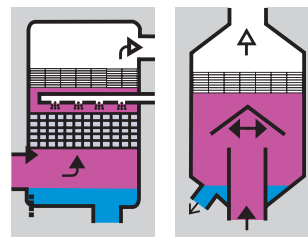
- Distillation Equipment
- Knockout Drums
- Scrubbers
- Absorbers
- Evaporators
- Vacuum Towers
- Steam Drums
- Strippers/Regenerators

### Selections and Size of an Shreewire Mist Eliminator is decided by :

- Gas or vapour flow rate and amount of liquid entrained.
- Droplet size distribution and performance requirement.
- Allowable design velocity
- Physical and chemical properties of the gas and liquid phases.
- Material of construction

### Installation Details :

The wiremesh pad of the Shreewire Mist Eliminator is sandwiched between a top hold down grid and a bottom support grid. Special grid with a high percentage of open area have been developed for this purpose. The wiremesh pad is resilient and is slightly oversize to provide a snug fit in the vessel. The purchaser should provide a 50 to 75mm wide annular support ring drilled with 3 to 6mm diameter holes and welded to the vessel wall. The wiremesh pad and grid assembly is then fastened securely to the grid using 2mm diameter tie wires (or spacer pipes specifically required with suitable fasteners). Intermediate support beams are also recommended for all spans larger than 1800 - 2000mm.





### Technical Specification :

Style	Density Kg/m <sup>3</sup>	Voids%	Contact Surface Area m <sup>2</sup> /m <sup>3</sup>	Characteristic
SW 1	80	99	160	High through put
SW 2	100	98.75	200	High through put
SW 3	144	98.2	280	Standard
SW 4	173	97.8	360	Dense
SW 5	193	97.5	360	Extra Dense
SW 6	220	97.2	905	Heavy Dense
SW 7	432	97	1960	Multi-Strand
SW 8	128	98.4	460	High Efficiency

In addition to the standard and improved styles listed here, specific designs are available for special applications. These include high pressure steam drums, natural gas dehydration plants, multiple effect evaporators, etc.

### Special Application :

Material	Liquid Product Separated
Carbon Steel	for dry noncorrosive hydrocarbons
Nickel	caustic soda, food product
Monel	caustic soda and other alkalis, dilute acids
304 stainless	water solutions, nitric acid, reduced crude, petroleum fractions, etc.
316 Stainless	fatty acids, reduced crude containing naphthenic acids, and other corrosives
430 Stainless	nitric acid, water, steam
Aluminium	nitric acid
Copper	freons, alcohol
Synthetic fibre/	for corrosive service at moderate temperature Plastics