

# **Demister** Pads

Weave Impossible to Possible



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Brochure



## We can supply full ranges of demister pads for liquid and gas separation. We can supply drawings and installation guide for your projects.

Demister pads, also called demister, mister eliminator, vapor pad, is installed at the top of packed tower to be used for removing micron-sized liquid particles from a vapor stream. It is made of knitted wire mesh, which is woven interlocked to increase contact surface and improve separating efficiency. Stainless steel, copper, Monel and other alloy as well as polypropylene and other non-metallic materials make demister pad be used in more corrosive and high temperature applications. Generally, the demister pad is commonly used with structured packing and random packing

Demister pads can help to improve the operating condition, optimize process indicators, increase the amount of processing and recovery of valuable materials, protect the environment, and decrease air pollution.

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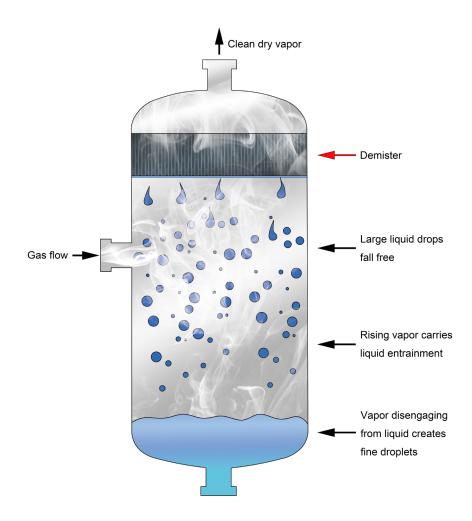
Demister

Pads

### DEMISTER PADS

# **Working Principles**

The demister (demister pads) are installed at the top of packed tower. When the vapors carrying liquid entrainment rises at a constant speed and passes through the demister surface (interlocking knitted wire mesh), the vapor can easily passing through the demister while the rising liquid entrainment will collide with the mesh filament due to the inertia effect and are captured by the woven interlocked structure. Then the liquid will grow bigger and fall free when the droplets gravity exceeding vapor rising force and liquid surface tension force. As a result, the clean vapor passes through the demister and discharge out of the packed tower.





DEMISTER PADS

# **Materials**

Material	Products Separated	
SS304	For nitric acid, water steam	
SS304L	For petroleum Fractions	
SS316	For fatty acids, reduced crude	
SS316L	Reduced crude containing acid & other corrosive	
Copper	Alcohol, Aldehyde, Amines	
Monel	For caustic soda & other alkali, dilute acid	
Nickel	For caustic soda, food product	
Alloy 20	Nitric acid, alkaline PH	
Teflon FEP	For Highly corrosive conditions	Stainless steel demister pad
Hostaflon PTFE	For Highly corrosive conditions	
Inconel 825	For dilute acid media & alkaline solution	
Inconel 625	For phosphoric and fatty acid	<u>A</u>
Polypropylene	For hydrilic acid, corrosive service at moderate temperature	
P.V.D.F.	Corrosive Service for Temperature 140 °C	
P.T.F.E. / FEP / PFA / ETFE / ECTFE	For highly corrosive and high temperature	
Hostaflon	Sulphuric acid plant, temperature up to 150 °C	
Glass Wool	For very fine mists	PP demister pad

## Technical Data of Demister Pads

Item	Density (kg/m³)	Free volume (%)	Surface area (m²/m³)	Application
BDP-80	80	99.0	158	Moderate fouling, minimum press drop, dirty service
BDP-144	144	98.2	280	Heavy duty, e.g. oil & gas separators
BDP-128	128	98.4	460	Light fouling, high velocity, dirty service
BDP-193	193	97.5	375	General purpose, optimum efficiency & pressure drop, heavy duty
BDP-220	220	97.2	905	General purpose, optimum efficiency & pressure drop, high corrosive condition

DEMISTER PADS

# **Features & Application**

## **Features**

- Large surface area and high separating and removal efficiency.
- less maintenance and service required.
- Adapt to any corrosive and temperature conditions.
- Control emissions discharge and reduce air pollution
- Eliminate or reduce equipment damage caused by corrosion
- Increase the amount of processing and recovery of valuable materials

## Application



**Chemical Process Industry** 

- Absorbers
- Distillation and Rectification Columns
- Distillation Plants for Sea Water
- Gas Compression
- Strippers
- Steam Drums



#### **Power Generation**

- Desalination Plants for Sea Water
- Flue Gas Desulphurization (FGD)
- Steam Drums
- Compressors



#### **Oil and Gas Production**

- Amine Absorbers
- Separators
- Compressors
- Glycol dehydration
- Scrubbers



#### **Refinery Operations**

- Distillation
- Catalytic Cracking
- Alykylation
- Strippers
- Compressors
- Condensors

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