


INDUSTRY SOLUTIONS


on a Global Scale



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Win Your Trust
With Our Best

BRIEF INTRODUCTION OF ENTERPRISE

HISTORY

Sinft is located in Shijiazhuang City, Hebei Province, covering 26,658 m². We were established in 2007, now we have become an excellent manufacturer of brand-compatible spare parts in the industrial filtration with 16 years of experience accumulation and precipitation.

PRODUCT CATEGORY

- High Pressure Filter Elements
- Low Pressure Filter Elements
- Hydraulic Filter Elements
- Industry Solutions(Demister Pad/Vane Type Demister Pad/Candle Mist Eliminators/Structured Pakings/Random Packings)
- Stainless Steel Filter Elements
- Pipeline Basket Strainer (simplex&Duplex)
- Replacement filter elements for over 200 brands

VISION & MISSION

Sinft vision: High-quality, future-proof products and solutions with customer service for any need at any time. Everything we do starts with a specific need which represents our true mission. It drives us to improve continuously and build trust with our customers.

PRODUCTION

SINFT produces high quality accessories and spare parts compatible with major brands in the world market with more competitive prices. We use advanced, professional, automated and precise equipment to escort the orders, and our professional quality department from the operator to the precise control system of the machine which all ensure the safety and reliability of the quality.

CERTIFICATION

SINFT certifications: ISO 9001:2015, CE, EPR and others.



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WE CAN SUPPLY

As a full-service provider of mass transfer, mist elimination, and phase separation equipment, we can handle everything from design and fabrication to delivery while providing the long-term support you can rely on.



WHY WE NEED DEMISTER PAD

In the chemical processing industry, there are many processes in which gases and liquids come into contact with each other, and whenever this occurs, the gas will entrain some amount of liquid particles. The liquid that is carried into the gas may cause many problems, such as product loss, equipment damage, low efficiency, etc., so it needs to be eliminated.

- **Reduce loss of valuable chemicals**

Mist eliminators markedly cut glycol, amine or solvent consumption in absorption and regeneration towers.

- **Increase throughput capacity**

Mist eliminators allow significant increase in throughput anywhere gases and liquids come into contact in process equipment.

- **Improve product purity**

Mist eliminators prevent contamination of side draws and overheads in refinery atmospheric and vacuum towers and other distillation columns.

- **Eliminate contamination**

Mist eliminators prevent the poisoning of expensive downstream catalysts or provide boiler feed water quality condensate from evaporator overheads.

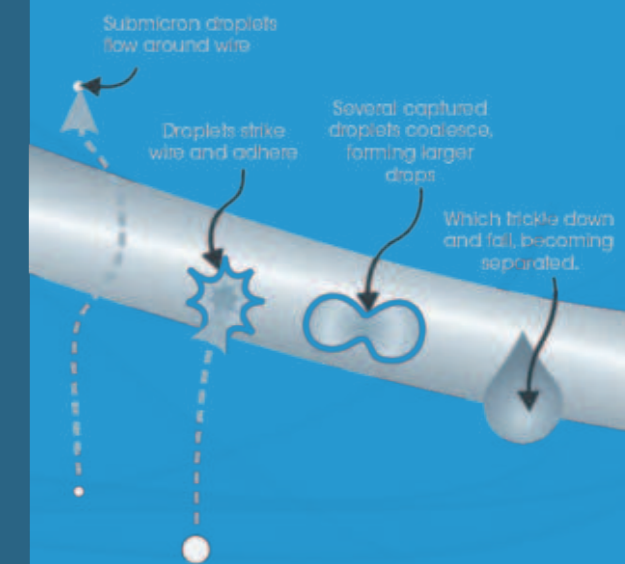
- **Provide equipment protection**

Mist eliminators protect turbine, blower and compressor blades, which eliminates serious maintenance problems.

- **Prevent air pollution**

Mist eliminators help reduce droplet emissions to environmentally acceptable levels.

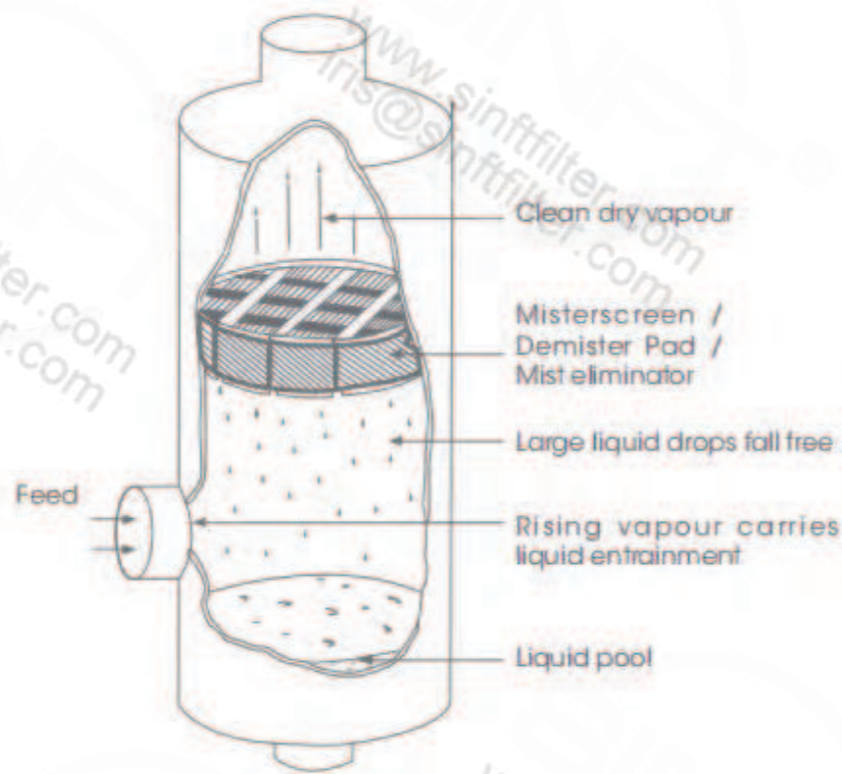
DROPLET CAPTURE IN A MESH PAD



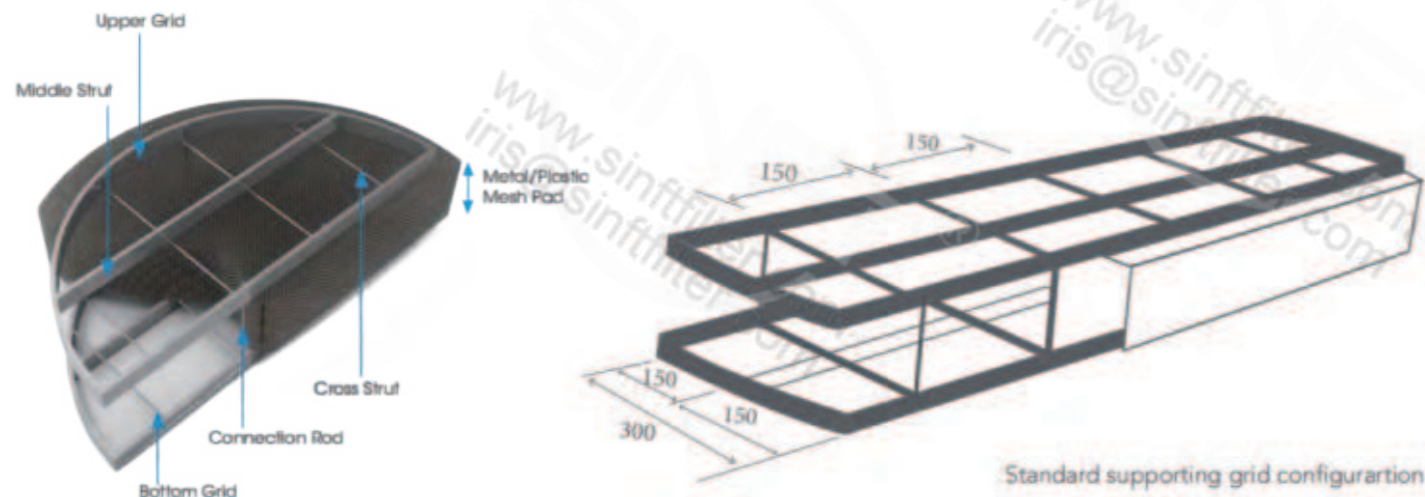
WORKING OF MIST ELIMINATORS

Mesh pad mist eliminators remove liquid droplets by impingement of the droplets on the wire surface. The droplets agglomerate and increase in a size until they are sufficiently large enough to drain from pad by gravity.

- Mesh type demisters are designed to achieve an optimum gas velocity to maximum removal efficiency.
- To high velocity will result in re entrainment of the liquid droplets whilst too low velocity will allow very small drop.



STRUCTURES



RAW MATERIAL

KNITTED MESH

Knitted wire mesh is made by knitting machine similar to jumpers and scarves machine. The final knitted mesh is in the structure of inter-connecting loops, and it's similar to a long knit sock. We can produce multifilament, co-knit and multi-strand knitted wire meshes. Our knit wire diameter is commonly range from 0.11 mm to 0.35 mm.

But for special applications, knit wire as small as 0.03 mm or as large as 0.8 mm in diameter is available.



MATERIAL

Table 1: Demister Pads Material

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 conditlons
Hostaflon PTFE	For Highly corrosve conditions
Inconel 825	For dilute acid media & alkaline solution
Inconel 625	For phosphoric and fatty acid
Polypropylene	For hydrilic acid, corrosive service at moderate temperature
PVD.F	Corrosive Service for Temperature 140 C
PTFE. / FEP / PFA / ETFE J ECTFE	For highly corrosive and high temperature
Hostaflon	Sulphuric acid plant, temperature up to 150 C
Glass Wool	For very fine mists

SPECIFICATION

Values for stainless steel, a variety of other metals are available.

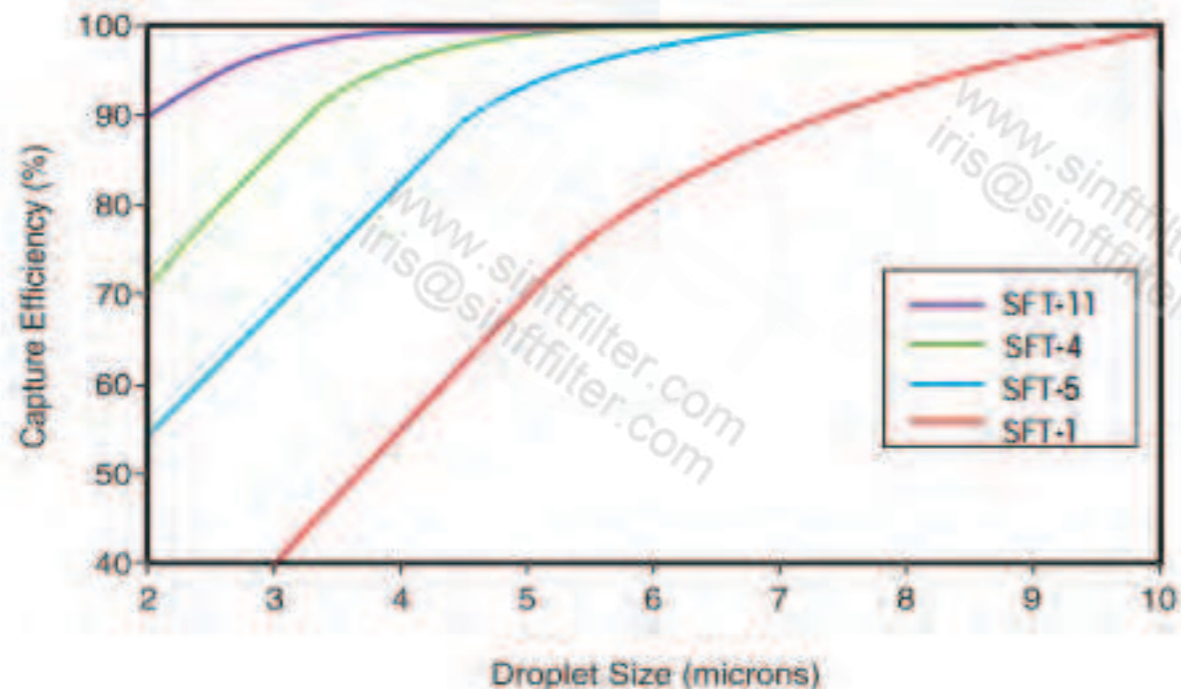
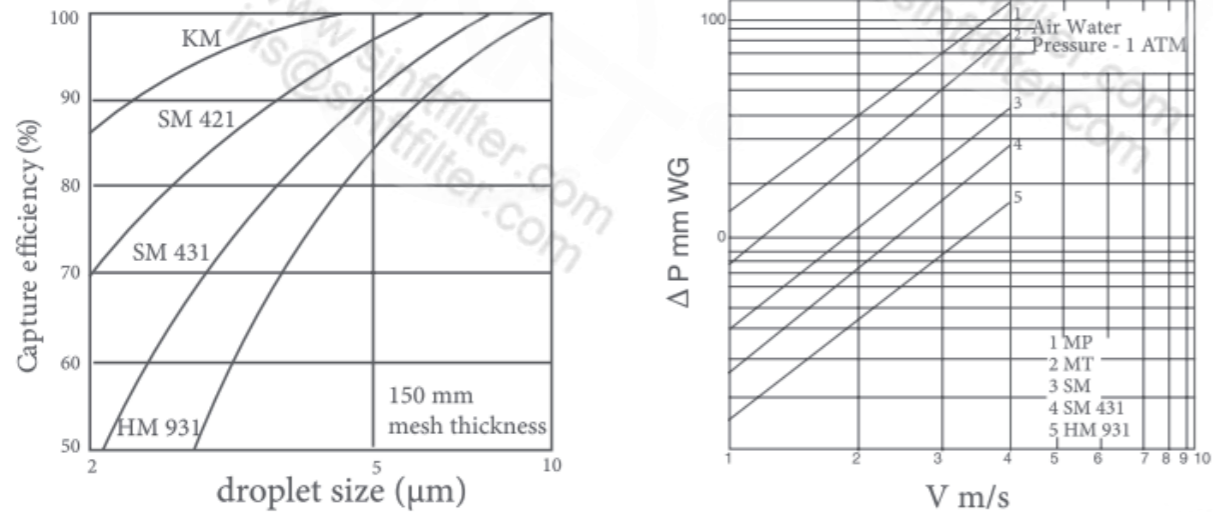
item	Density (kg/m ³)	Free Volume (%)	Surface Area (m ² /m ³)	Domestic model	Other companies model							
					Metex	York	Becoil	Knitmesh	Vico-tex	Uop	Koch	Acs
Sinft-D1	80	99.0	158	H	Hi-Thruput	931	954	4536	160	B	511	7CA
Sinft-D2	120	98.5	210	L		422						
Sinft-D3	144	98.2	280	N	Nu-standard	431		9030	280	A	911	4CA
Sinft-D4	128	98.4	460	SN		326			415		706	
Sinft-D5	193	97.5	375	SL	Xira-Dense	421	890	9033	380	C	1211	4BA
Sinft-D6	300	96.2	575	SM								
Sinft-D7	390	95.0	750	SH								
Sinft-D8	220	97.2	905	T								
Sinft-D9	432	94.5	1780	R	Multi-Strand	333			800			
Sinft-D10	220	97.2	428	w	Wound							
Sinft-D11	160	96.7	5000	GS		371						

Density 80 is suitable for both metal materials and plastic materials.

Other models are only suitable for metal materials.

PRESSURE DROP

The separating action of sensor largely depends upon the contact surface area necessary for impingement, which must be very distributed. Generally speaking, a higher free volume leads to lower pressure drop. In critical cases, it may be necessary to decide whether pressure drop or efficiency should be sacrificed. Our demister pads allow the greatest possible efficiency at the lowest possible pressure drop.



MESH DEMISTER PAD SIZE CALCULATION

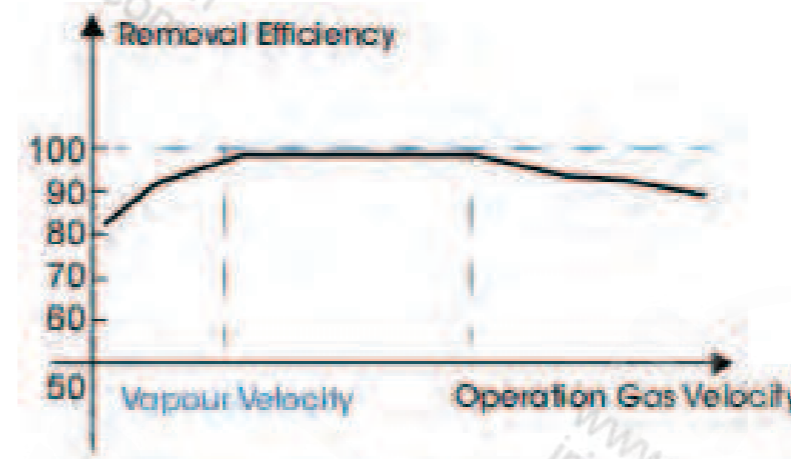
OPERATION GAS VELOCITY CALCULATION

The operating gas velocity is the speed at which the gas passes through the screen, and the operating gas velocity should be selected appropriately. If the operating gas velocity is too low, the inertia of the mist in the gas is too small, and it is in a floating state.

When the gas passing through the wire mesh demister pads, the mist floating on the air cannot be removed.

If the operating gas velocity is too high, and the collected droplets are not easy to fall off from the wire mesh. They will fill the wire mesh, and the trapped droplets are splashed again, and then trapped by the gas, causing a flooding phenomenon, thereby reducing the mist eliminating efficiency.

The relation between operating gas velocity and mist eliminating efficiency is shown in the below.



(1) Actual Vapour Velocity calculation

$$V_s = K \sqrt{\frac{\rho_L - \rho_V}{\rho_V}}$$

V_s = Actual vapour velocity (m/s)
 ρ_V = Vapour density (kg/m³)
 ρ_L = Liquid density (kg/m³)
 K = Demister pad constant.

It is related to the knitted mesh type:

Mesh Type	SP	HP	DP	HR
Constant K	0.201	0.233	0.198	0.222

(2) Operation gas velocity calculation

$$V_o = (0.2-1.0)V_s$$

(3) V_o = Operation Gas Velocity Calculation

$$V_s = \text{Actual Vapour Velocity}$$

$$D = \sqrt{\frac{4Q}{\pi \times V_o}}$$

D = knitted mesh demister pad diameter
 Q = gas handling capacity, volume of gas passing through the wire mesh demister per second, m³/s

V_o = Operation gas velocity

$$\Delta P = \frac{f V_o^2 H \rho_g (1-E)}{G_o D_o} \times 9.81$$

ΔP = pressure loss, Pa
 f = friction coefficient of knitted mesh to gas, e.g. metal demister pad, it is 1.5.

V_o = operating gas velocity, 1.584 m/s
 G_o = gravitational acceleration, 9.8 m/s²
 H = demister pad thickness, 0.15 m
 D_o = demister pad wire diameter, 0.19 × 10⁻³ m
 ρ_g = gas density, 10.57 kg/m³
 E = demister pad voidage

Knitted Mesh Model	SP	HP	DP	HR
Voidage	0.9788	0.9839	0.9766	0.9822

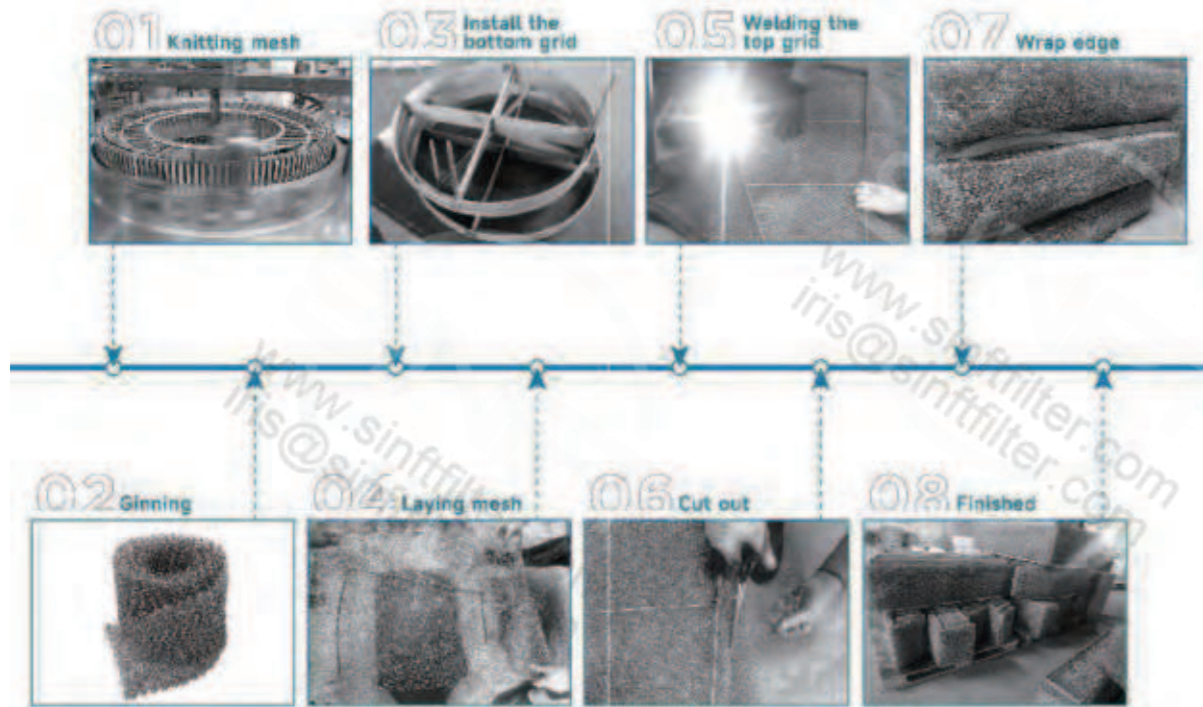
DEMISTER PAD DIAMETER CALCULATION

The calculation of the diameter of the knitted mesh demister pad is related to the gas handling capacity and the operating gas velocity. For a circular wire mesh demister, the diameter is determined by the following formula

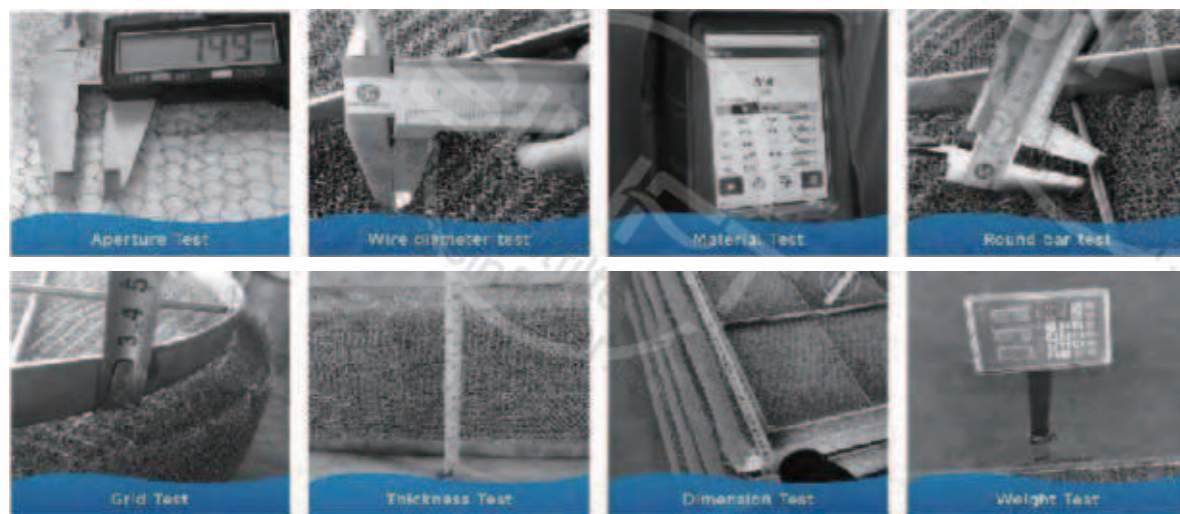
PRESSURE LOSS CALCULATION

The pressure drop loss of the gas after passing through the wire mesh demister can be calculated by the following formula. Generally, the pressure drop loss of the wire mesh demister is controlled below 250–500 Pa.

PRODUCTION LINE



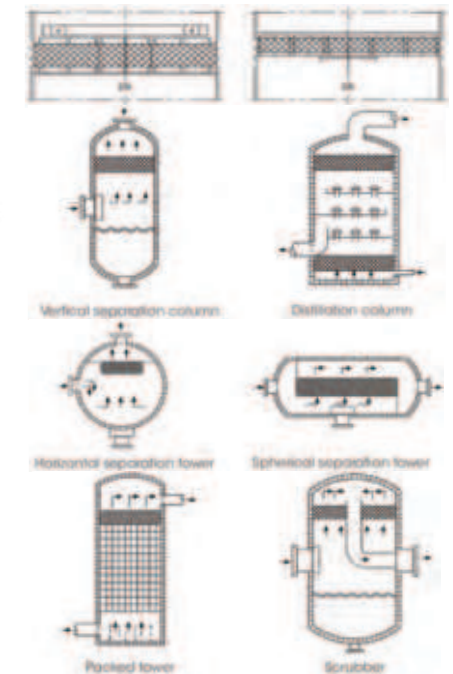
QC SYSTEM



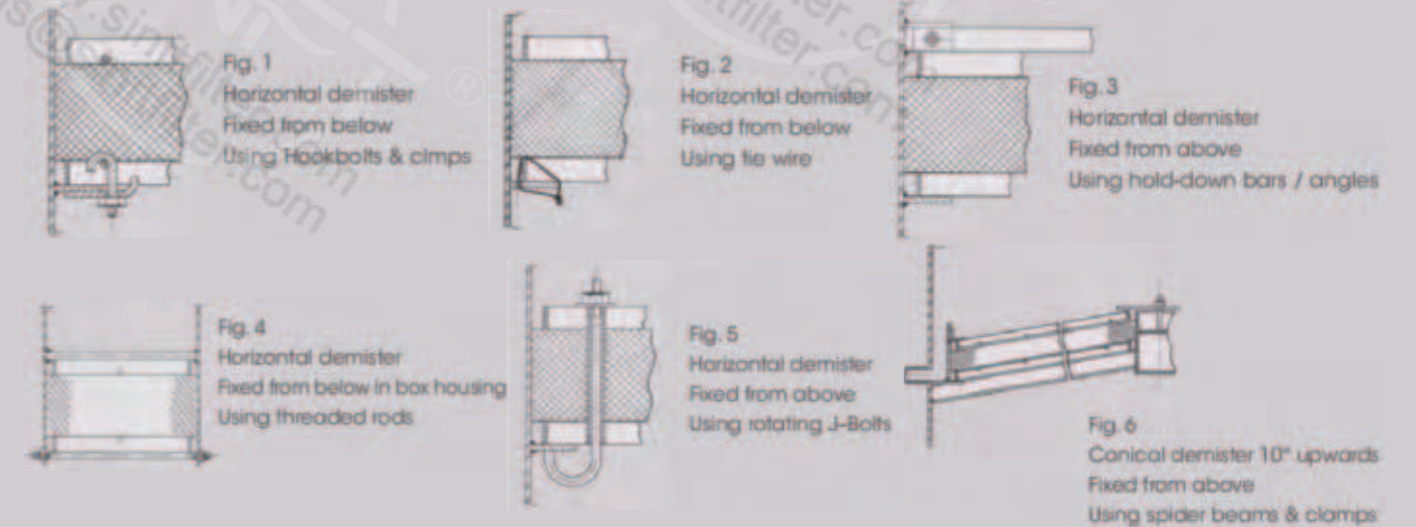
INSTALLATION

According to different using condition, it can be divided into upload type and download type.

- Upload type. When the opening is located in the above of the demister pad or when there's flange above the demister pad, you should choose the upload demister pad. Diameter of upload type ranges from 300 mm to 5200 mm.
- Download type. When the opening is in the below of the demister pad, you should choose the download type demister pad. Diameter of upload type ranges from 700 mm to 4600 mm.



DEMISTER PAD INSTALLATION FIXING OPTIONS



INSTALLATION GUIDE

Sinft Mesh Mist Eliminators are designed to provide exceptional performance in a wide range of applications. A proper installation is required to realize this performance. Proper installation involves a degree of common sense.

KEY OBSERVATIONS BEFORE YOU BEGIN

Your Mist Eliminator Mesh is oversized slightly to ensure a snug between the vessel wall and the mesh.

Grids are undersized to provide clearance from the vessel wall.

Over sizing the mesh will also compensate for a vessel's out of roundness.

Any gaps between the vessel wall and the mesh will diminish and hamper mist eliminator performance.

A tight ensures optimum mist eliminator performance.

STEP ONE: NEW MIST ELIMINATOR INSPECTION

Check the Shipment

Always make sure you have the right mist eliminator for the job prior to doing anything, especially removing the old mist eliminator.

Always check your shipment to make sure you have received the correct size and installation hardware (if ordered with the job) and for potential mist eliminator damage.

Upon receipt of a SINFT mist eliminator, inspect and verify the dimensions. Also check for any hardware and documentation that is part of the order. If drawings are presented, make sure that the mist eliminator corresponds to the drawing.

Mist Eliminator Storage

Store in a clean environment. Dust, sand and other contaminants may foul the mist eliminator. A warehouse is recommended for long term storage.

Ready to Install

Lay out the sections of the mist eliminator in a clean area close to the vessel. For dual density pads, check tags for correct orientation of direction.

By laying out the mist eliminator pieces you can confirm you have the right size, all of the pieces, etc. before you move any further forward. You can also make a better installation game plan when the time comes. Keep in mind the mesh pad will be manufactured slightly larger than the diameter of the "to be installed into" vessel.

STEP TWO: REMOVING EXISTING MIST ELIMINATOR

When replacing a mist eliminator, it is a good idea to study how the existing one was installed prior to any actual removal procedures. Compare the existing pad to the pad you have laid out on the ground. Some installers even like to orient or turn the new pad into the exact position as the pad that is to be removed for reference purposes later on. This is also an opportunity to inspect the old pad for indications of excessive corrosion or fouling, which can cause dislodged sections. Your Sinft engineer can assist you with recommendations to upgrade the materials and implement process improvements.

If the existing pad was built in sections, pull the center section area first. Remove one section at a time and remove section by section to avoid accidentally dropping anything. Remember that a properly installed mist eliminator is going to snug so pulling the center section may require a more aggressive tug. Once the center section is removed, the other sections should remove much more easily. After removing all of the mist pad sections, it is important to carefully inspect all of the support structures. Look for cracks, excessive corrosion, and damaged support hardware.

Repair all defects that might impair the proper installation and operation of the new mist eliminator. Make certain the existing supports are suitable for your new mist eliminator, taking note as to what hold down hardware you will be employing.

STEP THREE: INSTALLATION

One Piece Mist Eliminators

Any fastening method except J-bolts can be used for one piece mist eliminators. For new vessels make sure the vessel walls are smooth and free of weld splatter and other debris before pushing the mist eliminator into the vessel. Keep in mind the mesh diameter should slightly exceed the vessel diameter to ensure a snug fit.

Installing Multi-Section Mist Eliminators in Vertical Vessels

Vessels with Single Support Rings

1. Before installing any sections, mark lines on the support ring that indicate where each section edge should sit. Align the sections in accordance to your marks as you install each section.
2. Work from the outside on each side by placing the end sections on top of the support ring.
3. Compress the installed sections to your measurements and keep opposing sections parallel.
4. Use a hold down to secure each section after it is properly in place.
5. Move toward the center as you add sections until only one section remains. Use sheet metal or cardboard to facilitate installation.
6. If you are installing from below, lift the entire last section through the void space between the opposing pad sections, position it carefully and then pull it down into place.
7. If you are installing from above, simply push the section into place after a careful alignment.

TROUBLESHOOTING

Monitoring pressure drop across the mist eliminator may be the best option for determining acceptable operation. It is a good practice to record initial pressure drop at start-up under clean conditions for future observation.

If pressure drop increases more than an inch of water column above start-up conditions, some sort of plugging is most likely taking place. To rectify the situation, clean the mesh pad.

When pressure drop decreases across the mist eliminator, there are likely holes or voids in the pad or significantly reduced mesh density. Corrosion over time will reduce the mesh wire diameter, mesh density and in turn reduce pressure drop. Gaps in the mesh pad will cause channeling and a significant reduction in collection efficiency.

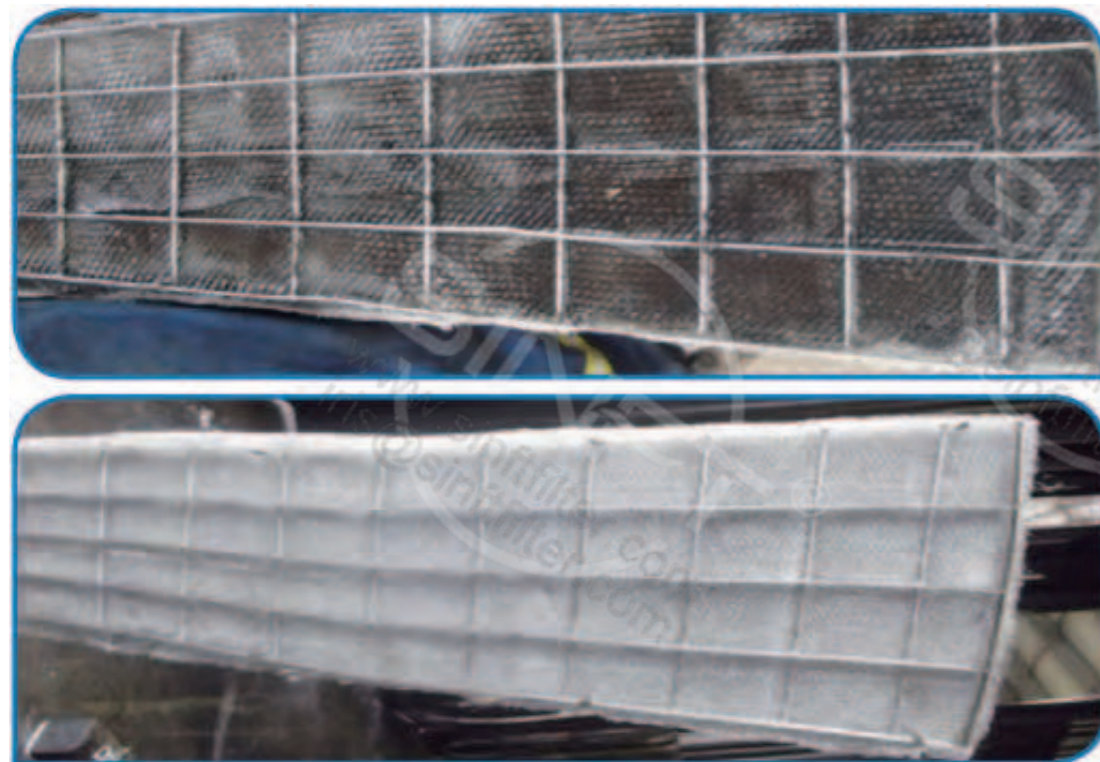
In addition to pressure drop, monitor downstream process conditions, particularly after an upset. Increased liquid accumulation in downstream low points or vessels may indicate bypassing through the mist eliminator. Decreased pressure drop may indicate holes in the mist eliminator. SINFT mist eliminators are manufactured under strict conformance and quality control guidelines. They are designed to provide optimum performance in a variety of process applications. If you are experiencing chronic plugging problems or frequent maintenance, contact your Sinft separations specialist. Alternative mesh selections may extend your maintenance intervals.

MAINTENANCE AND CLEANING

After being used for a period of time, the wire mesh demister pad is easy to be blocked by the particles entrained by mists. The pressure drop will increase and the liquid flooding will occur easily, so it need to be maintained regularly.

Besides, during the use of wire mesh demister pads, air enters the tower and the moisture in the air is easily neutralized with the acid foam in the demister pad to form sweet acid, which may corrode the demister pad, it need to be cleaned regularly.

The maintenance of demister pad is easy. Just wash the demister pads with cleaning water. But the drying process can not be ignored, otherwise the residual dilute acid will decrease the service life of demister pads.



APPLICATIONS

Mesh demister pads are used to separate the droplet entrained in the gas to ensure the mass transfer efficiency, reduce valued material loss and improve the operation of the post-column compressor.

Generally, the mesh demister pads are arranged at the top of tower to effectively remove 3–5 μm mist droplets. The mesh demister pads can be arranged in the middle of tower trays to increase the mass transfer efficiency and reduce the board spacing.

Demister pads can not only be used for gas and liquid filtration in towers, they can also be used for gas separation in air filters. In addition, the demister pads can be used as a buffer for various types of instruments in the instrument operation to prevent electronic interference caused by radio waves.

<p>OIL AND GAS PRODUCTION</p> <ul style="list-style-type: none"> • Separators • Scrubbers • Compressor System • Cold Separators • Glycol Dehydration • Amine Absorption 	<p>POWER GENERATION</p> <ul style="list-style-type: none"> • Steam Drums • Desalination Plant For Sea Water • Flue Gas Desulphurisation • Compressor
<p>CHEMICAL INDUSTRY</p> <ul style="list-style-type: none"> • Distillation • Gas Absorption and Compression • Condensation • Dehumidification and Drying • Desalination • Spray Removal 	<p>REFINERIES</p> <ul style="list-style-type: none"> • Crude Oil Distillation • Catalytic Cracking • Alkylation • Compression Operations • Natural Gas Processing • Sulphur Condensers

VANE TYPE DEMISTER PAD

LOWEST PRESSURE DROP AND HIGH LIQUID CAPACITY

Mist eliminators are baffle or zigzag blade modules tailored for either vertical or horizontal flow installations.

Depending on design parameters, operating conditions, and blade characteristics, these mist eliminators collect essentially 100% of all particles greater than 8 microns in diameter.

Manufactured in virtually any size from a wide range of metal alloys, thermal-set plastics, and fiber-reinforced plastic (FRP), many styles are available for custom-designed solutions.

APPLICATIONS FOR MIST ELIMINATORS ARE IDEAL

- Scrubbers in utility flue gas desulfurization (FGD) systems
- Phosphoric and sulfuric acid plants
- Crude oil refinery vacuum towers
- Pulp mill, sugar refinery, and chemical plant evaporators
- Upstream gas processing
- LNG plants

CHARACTERISTICS OF MIST ELIMINATORS

- Ideal for applications where solids or viscous, sticky liquids negatively affect the longevity of a wire mesh type mist eliminator much faster than desired
- Vertical (upward) or horizontal flow designs
- Lowest pressure drop of any type mist eliminator
- Able to handle high liquid loads
- Good turndown



CANDLE MIST ELIMINATORS

REDUCE VISIBLE STACK GAS PLUMES AND PROVIDE UNLIMITED TURNDOWN

The custom designed and fabricated mist eliminators consist of a special media contained between either two concentric screens or two flat parallel screens.

Depending upon design parameters, FLEXIFIBER mist eliminators can achieve high separation efficiency of all submicron liquid particles.

THIS MIST ELIMINATOR IS IDEAL FOR USE IN THE FOLLOWING APPLICATIONS

- Sulfuric, nitric, and thermal phosphoric acid plants
- Chlorine and other chemical plants
- Pulp Mills

HOW A MIST ELIMINATOR WORKS

- 1 Mist-laden gases enter the vessel and pass horizontally through the fiberbed.
- 2 Separated liquids drain downward on the inside surface of the element.
- 3 Liquids pass through the drain leg and are collected at the bottom of the vessel.
- 4 Clean gases exit at the top of the vessel.

CHARACTERISTICS OF MIST ELIMINATORS

- Reduce or eliminate visible stack gas plumes
- Provide unlimited turndown from design capacity for type BD elements
- Can be designed for very low pressure drop

MATERIALS OF CONSTRUCTION - CAGES

- Wide variety of metal alloys
- Thermal-set plastics and plastics
- FRP

MATERIALS OF CONSTRUCTION - FIBERBED MEDIA

- Special glass
- PTFE
- Polyester fiber
- Special carbon fiber media is available for those applications that contain fluorides, high pH, or steam.



STRUCTURED PACKINGS

FOR ABSORPTION, SEPARATION AND REACTIVE DISTILLATION

Structured packing is a kind of a geometrically shaped and corrugated packing.

Differing from random packing, structured packing is neatly piled in the tower. A series corrugated layers make up each packing element, so that gas/liquid is spread and distributed radially from layer to layer within the element and creates a large contact area between the gas/liquid and the packing.

Structured packing features large surface area, low pressure drop, uniform fluids, high efficient thermal and mass transfer, etc. It is widely used for the rectification, absorption and extraction in various fields. According to the corrugated angle, it is divided into X type and Y type. X type stands for the 30° angle and the Y type stands for the 45° angle. X type structured packing has low pressure drop and Y type structured packing has better mass transfer property.

1. METAL STRUCTURED PACKING

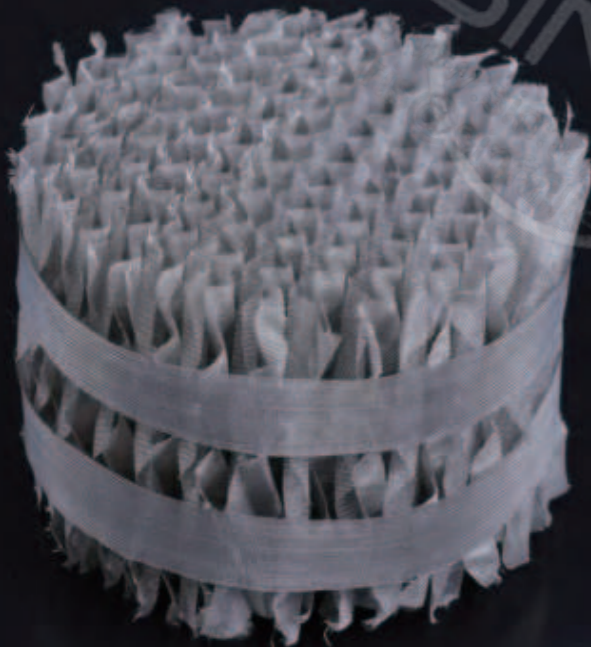
The stainless steel structured packing is the most widely used due to its excellent corrosion and rust resistance and durable properties. Metal structured packing has different packing types, which can be divided into woven structured packing, perforated structured packing and protruded structured packing.

Material:

- Low carbon steel
- Stainless steel
- Duplex stainless steel
- Monel
- Titanium alloy
- Others

Classification

(1) Metal woven structured packing (is used for distillation of thermosenstive products)



Wire gauze packing is a type of newly popular structured packing. It is widely used and more and more popular since it is developed.

The wire gauze packing is made of several pieces of woven wire cloth. The woven wire cloth pieces are corrugated and then assembled into structured packings.

The neighbor packing pieces are assembled oppositely.

Corrugation angel can be 30° and 45°. According to different corrugation angle, wire gauze packing is divided into BX and CY types. When installing them into packing, the upper and lower packings are placed stacked in 90°.

Features:

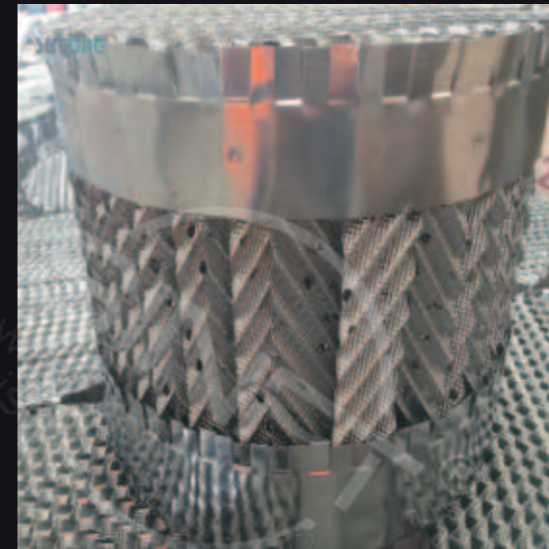
- High efficiency
- Low pressure drop
- Large flux

Application

It is widely used for vacuum distillation, atmospheric distillation and absorbing process of hardly separating element and thermosenstive substance.

Model	Mould	Surface Area m ² /m ³	Bulk Density kg/m ³	Voidage %	Pressure Drop Pa/m ³	Theoretical Plate Number m-1
SFT-M1-250X	250x	250	125	95	100-400	2.5-3
SFT-M1-500X	500x	500	250	90	400	4-5
SFT-M1-700Y	700Y	700	280	85	600-700	8-10

(2) Metal perforated structured packing (Is used for rectification and absorption applications.)



Perforated plate packing is assembled with several metal plate.

The plates are perforated with several continuous round holes.

The plates are corrugated and assembled into structured packing blocks.

Features:

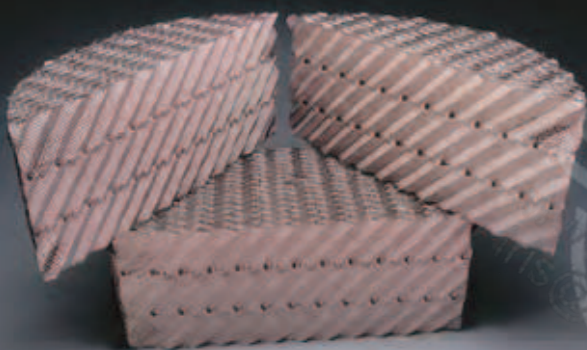
- Small resistance
- Even distribution of gas and liquid
- High efficiency
- Large flux

Application:

Perforated plate packing is widely used under negative pressure, atmospheric pressure and pressurized condition for distillation and separation.

Model	Mould	Surface Area m ² /m ³	Bulk Density kg/m ³	Voidage %	Pressure Drop Pa/m ³	Theoretical Plate Number m ⁻¹
SFT-M2-125Y	125Y	125	100	98	200	1-1.2
SFT-M2-250Y	250Y	250	200	97	300	2-2.5
SFT-M2-350Y	350Y	350	280	94	350	3.5-4
SFT-M2-500Y	500Y	500	360	92	400	4-4.5
SFT-M2-125X	125X	125	100	98	140	0.8-0.9
SFT-M2-250X	250X	250	200	97	180	1.6-2
SFT-M2-350X	350X	350	280	94	230	2.3-2.8
SFT-M2-500X	500X	500	360	92	280	2.8-3.2

(3)Metal protruded structured packing(Improves its lubricating property and ensures efficient filtration.)



Protruded plate packing is made of several metal plates. The metal plates are perforated with continuous tinny holes in high density.

Then they are corrugated and assembled into structured packings. The special hole pattern improves lubricating property and ensure the high filtering performance.

Features:

Excellent lubricating property

Large flux

High filtering/separating efficiency

2.CERAMIC STRUCTURED PACKING

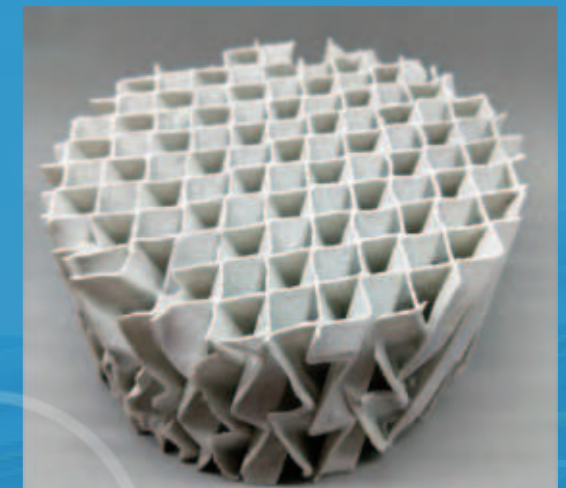
It consists of many similar geometric design packing units. The geometric design is a series of corrugated sheets, which are placed in parallel.

Ceramic structured packing has high filtering and separating efficiency to suit the complex applications.

It also has low pressure drop,increased operating elasticity, and maximum liquid treatment.

Ceramic structured packing can be made into round or rectangular shapes to suit different applications.

It can be made into various independent units to facilitate the transportation and assembly of structured packing with large diameters.



Model	Mould	Voidage %	Bulk Density kg/m ³	Corrugation Distance%	Peak Height mm	Theoretical Plate Number m ⁻¹
SFT-C-125Y	125Y	85	490	42	23	1-1.5
SFT-C-150Y	150Y	84	520	30	17	1.5-2
SFT-C-250Y	250Y	82	580	22	13	2-3
SFT-C-350Y	350Y	80	590	15	9	3.5-4
SFT-C-450Y	450Y	76	630	11	6.5	4-5
SFT-C-500Y	500Y	72	650	10-10.5	6	5-6
SFT-C-550Y(X)	550Y(X)	74	680	10	5	5-6
SFT-C-700Y(X)	700Y(X)	72	700	8	4.5	6-7

3.PLASTIC STRUCTURED PACKING

It is generally plastic perforated structured packing. The perforated structured packing is made of PP and PE materials and the plate packing is made of PP or PVDF materials.

Openings can be added onto the plate to improve the mass transfer efficiency.

Plastic wire gauze packing made of PP or PE materials are also available.

Similar to the ceramic structure packing and metal structured packing, the plastic structured packing can also be made into round or rectangular shapes.

Special shapes can be customized.



Model	Mould	Voidage %	Bulk Density kg/m ³	Corrugation Distance%	Peak Height mm	Theoretical Plate Number m-1
SFT-P-125Y	125Y	125	37.5	0.2-100	200	1.0-2.0
SFT-P-125X	125X	125	37.5	0.2-100	140	0.8-0.9
SFT-P-250Y	250Y	250	75	0.2-100	300	2.0-2.5
SFT-P-250X	250X	250	75	0.2-100	180	1.5-2.0
SFT-P-350Y	350Y	350	105	0.2-100	200	3.5-4.0
SFT-P-350X	350X	350	105	0.2-100	130	2.3-2.8
SFT-P-550Y	550Y	550	150	0.2-100	300	4.0-4.5
SFT-P-550X	550X	500	150	0.2-100	180	2.8-3.2

RANDOM PACKINGS

Random packings are the process of randomly pouring filter material into a dispersing column. Random packing is designed to maximize the surface-to-volume ratio and minimize pressure drop.

The efficacy of random packaging depends upon a few factors efficiency, pressure drop and capacity.

For distillation, stripping, carbon dioxide scrubbing, and liquid-liquid extraction.

Random packings are available in different materials such as metal, plastic, ceramic, etc. They allow contact between two fluids, such as liquid and gas or liquid. The selected packing should provide a large surface area for optimal mass transfer.

Below are some of the main random pack types, just refer to them and find the perfect one for your needs.



RANDOM PACKINGS

Specifications of metal pall ring					
Item	Size (D x T x H) (mm)	Bulk density (kg/m ³)	Filling quantity	Surface area (m ² /m ³)	Voidage (%)
SFTPR-01	16 x 0.3 x 16	360	201000	346	95.5
SFTPR-02	25 x 0.4 x 25	302	5100	212	96.2
SFTPR-03	25 x 0.5 x 25	400	54000	216	95
SFTPR-04	25 x 0.6 x 25	461	5400	219	94.2
SFTPR-05	38 x 0.4 x 38	262	15180	145	96.7
SFTPR-06	38 x 0.6 x 38	328	15000	146	95.9
SFTPR-07	50 x 0.5 x 50	194	6500	106	97.5
SFTPR-08	50 x 0.7 x 50	285	6500	108	96.4
SFTPR-09	50 x 0.9 x 50	365	6500	109	95.4
SFTPR-10	76 x 0.6 x 76	205	183	69	97.4
SFTPR-11	90 x 1.0 x 90	229	1160	62	97.1

Technical Specification of Metal Raschig Ring					
Size (Inch/mm)	Bulk density (304, kg/m ³)	Number (per m ³)	Surface area (m ² /m ³)	Free volume (%)	Dry packing factor -1
1/4" 6*6*0.3	900	4000000	904	88.6	1307.4
3/8" 10*10*0.3	480	768000	482	93.8	583.8
1/2" 13*13*0.3	420	410000	415	4.8	489.2
5/8" 16*16*0.3	348	201000	344	95.5	393.2
1" 25*25*0.4	288	53500	212	96.2	229.8
1" 25*25*0.5	367	53500	216	95	237.2
1" 25*25*0.6	439	53500	219	94.2	244.1

Technical Specification of Metal Raschig Ring					
Size (Inch/mm)	Bulk density (304, kg/m ³)	Number (per m ³)	Surface area (m ² /m ³)	Free volume (%)	Dry packing factor -1
1.5" 38*38*0.4	193	15000	143	97.2	148.4
1.5" 38*38*0.5	246	15180	145	96.7	151.7
1.5" 38*38*0.6	328	15000	146	95.9	154.6
2" 50*50*0.5	191	6500	106	97.5	115.2
2" 50*50*0.8	300	6500	108	96.4	120.9
2" 50*50*1.0	380	6500	109	95.4	125
3" 76*76*1.0	265	1920	69	97.4	79.6
3.5" 89*89*1.0	224	1220	61	97.1	66.2

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