KNIT DEMISTER MESH

Liquid & Gas Separation Mesh

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

TENDER WIRE MESH
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What is Knitted Demister Mesh?

KNITTED MESH is formed by linking metal wires into a whole through a method similar to clothing weaving.

Its internal structure and function are different from ordinary woven wire mesh.
Compared with traditional woven mesh filtration, knitted mesh is more suitable for filtering different forms of similar media, that is, gas-liquid separation.

Therefore, the greatest function of knitted mesh is demister.

Why do we need knitted demister mesh

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.

If not removed, it will result in:

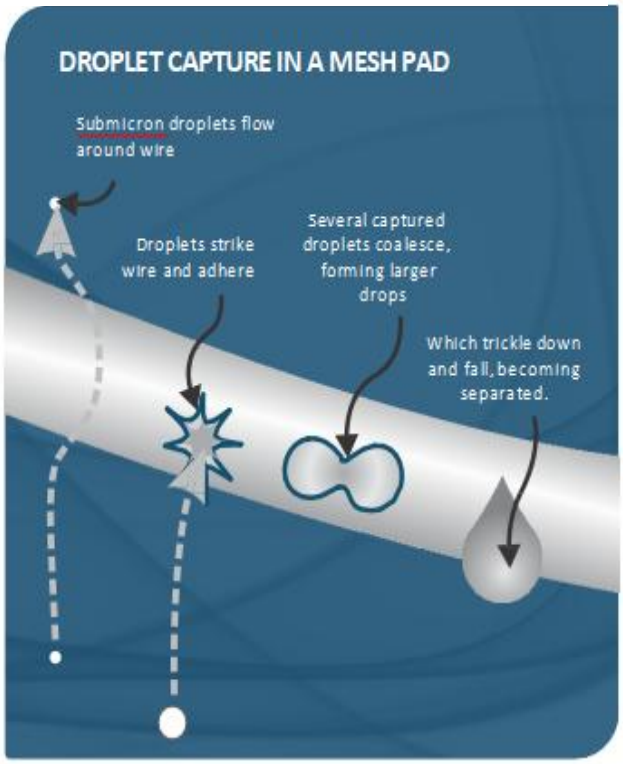
Corrosion and scaling of downstream equipment

Product purity decreases

Catalyst poisoning

Reduced system efficiency

The knitted demister mesh efficiently captures these droplets through a gas-liquid separation mechanism.



Working principle

Mechanism	Effective Droplet Size Range	Description
Inertial Impaction	> 5 μm	Larger droplets cannot follow the gas streamlines due to inertia and collide with the wire surface, where they are captured.
Direct Interception	1–10 μm	Droplets following the airflow pass close enough to the wire surface and get intercepted due to their size.
Brownian Diffusion	< 1 μm	Very fine droplets undergo random motion due to thermal energy and collide with the wire mesh through diffusion.

Knitted Demister Mesh Optional specifications

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 similar to a long knit sock. We can produce multi-filament, 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

Steel & Alloy

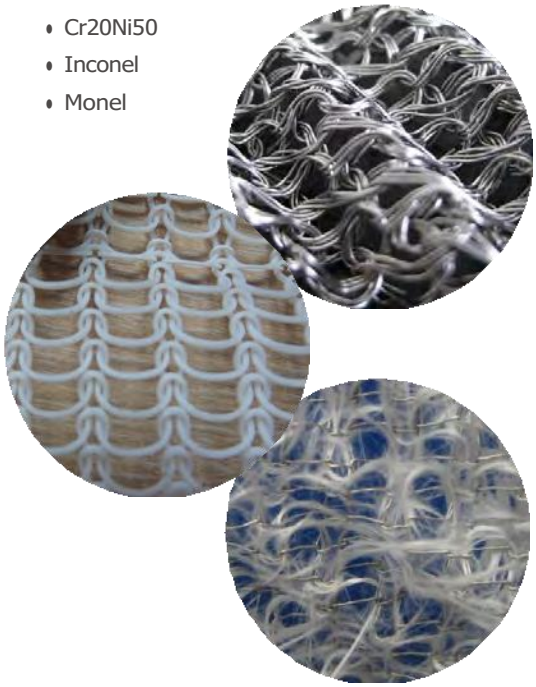
- Carbon steel
- SUS 304
- SUS 321
- SUS 316
- SUS 316L
- SUS 310S
- SUS 304M
- Nickel
- Titanium
- Brass
- Copper
- Cr20Ni80
- Cr20Ni50
- Inconel
- Monel

Nonmetal

- PP
- PTFE

Steel & Fiber

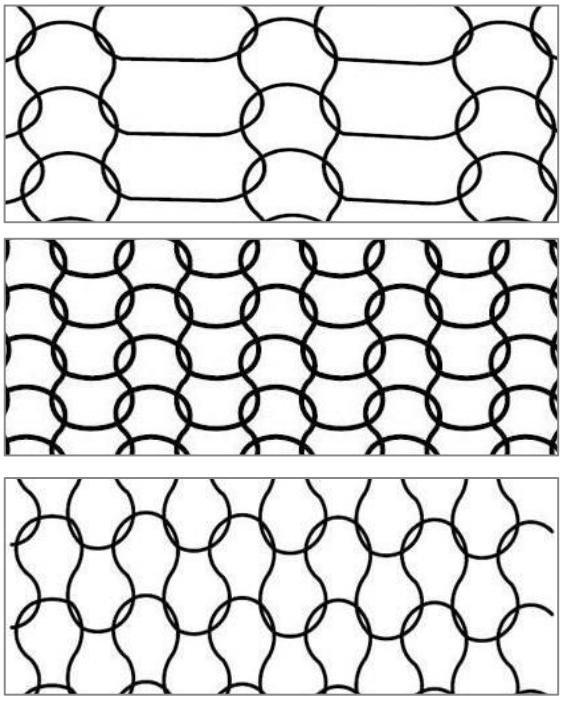
- SUS & Fiberglass
- SUS & PP
- SUS & PVC
- SUS & F46



Specification

Type		Wire diameter (mm)	Bulk Density (kg/m^3)	Specific Surface Area (m^2/m^3)	Voidage
SP	Flat Wire	0.1× 0.4	168	475	0.9788
	Round Wire	0.23		320	
DP	Flat Wire	0.1 × 0.3	186	626	0.9765
	Round Wire	0.19		484	
HR	Flat Wire	0.1 × 0.4	134	313	0.9875
	Round Wire	0.23		217	
HP	Round Wire	0.08–0.22	128	403	0.9839

Density



Application And Shape Of Knitted Demister Mesh

Typical Applications for Knitted Demister Mesh

- Engine crankcase breather elements.
- Automotive air bag filters.
- Air intake filters for automotive, agricultural and marine engines.
- Oil filler cap breathers.
- Fuel injector filters.
- Lint filters on washing machine outlet pipes.
- Filters for paint spray plant air outlets.
- Intake filters on air compressors.
- Bag separator layers or elements in dust collection systems.
- Noise attenuating filters in pneumatic tools.
- Coarse dust pre-filters in heating and ventilating systems.
- Grease filters above kitchen ranges, cookers and charcoal grills.
- Pre-filters and retaining/reinforcing cores in composite filters.
- Permanently sprayed dust filters for coal mines and quarries, etc.
- Silencer packings for engine exhausts.
- Air inlet/outlet filters for gas turbines and compressors.

Customized Service

If you don't know what kind of product to choose, you can contact us.

Our experienced engineers can specify the correct mesh for your application taking into account the environment, particle size, filter cleaning interval, efficiency and pressure drop requirements. As a general guide, metal meshes are used where strength and resistance to heat and corrosion are important.

TENDER WIRE MESH, It is the largest manufacturer of metal woven wire mesh in China.

The factory covers an area of 58000 square meters, with 600 sets of various automated machines, over 200 workers, and 20 professional doctoral engineers.We serve over 3000 customers annually and generate sales of 40 million US dollars.

Search for information on other wire mesh products

www.tender-wiremesh.com

Please contact for quotation

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