



## GAS-LIQUID & LIQUID-LIQUID SEPARATION TECHNOLOGIES

Our solutions are suitable for a very wide range of applications in various markets around the globe.

With our team of highly experienced separation specialists we are able to offer the optimal solution for existing problems, or an affordable and competitive replacement of existing equipment.

Omega Separations' European headquarters are strategically located in Antwerp, with engineering and production facilities serving clients both in the European and in the African markets.

Local representation in the Eastern European markets is assured by DAWCUL, in order to handle the shortest deadlines. This can be for unforeseen emergency situations requiring immediate assistance and urgent replacement of separators; or for planned turnarounds where clients on beforehand decide not to take the mist eliminators on stock.

Omega Separations core business activities are:

### ENGINEERING SERVICES

Custom-tailored service packages as to suit specific requirements including:

- Feasibility studies
- Process and mechanical design
- Retrofitting existing equipment
- Optimization of performance.

To complete its product range, Omega Separations works closely together with selected suppliers for:

- Fiberbed Mist Eliminators
- Plate Packs
- Vane Type Inlet Devices
- Liquid Distribution Baffles
- Slotted T-shaped Inlet Devices.

### PRODUCT PORTFOLIO

Mist elimination systems provided by Omega Separations prove to be highly effective solutions to liquid entrainment problems in many types of equipment:

- Wire Mesh Mist Eliminators & Coalescers
- Vane Pack Mist eliminators.

### WIRE MESH MIST ELIMINATORS & COALESCERS

#### Characteristics

Wire Mesh Mist Eliminators are easy to install cost effective separators that are able to collect liquid particles 2 to 10 microns in diameter with essentially 100% efficiency if designed properly to the process conditions. They are available in almost any size or shape and can be manufactured in a broad range of metals or plastics. They are produced as multiple layers of knitted mesh making it a dense pack and presenting a large surface area to the droplets entrained in the gas stream. The separation of the droplets is achieved by impingement on, and capture by, the wires of the mesh where the droplets coalesce and drain.

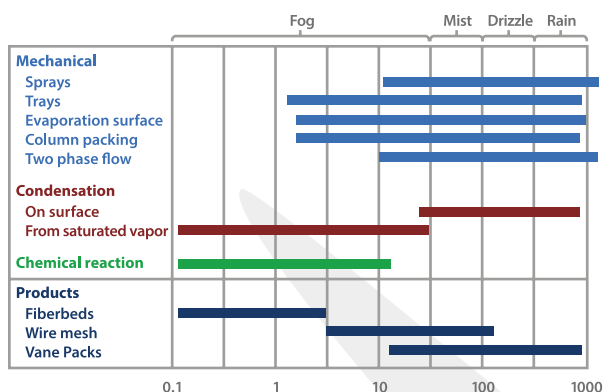


#### Construction Materials

- Stainless steels, duplex steel
- Alloy C276, 400, 625, 825, 20, etc...
- Plastics (PP, FEP, ETFE, ECTFE)
- Fibrous components (PTFE, Polyester, Glass fibres).

## DESIGN, PRODUCTION AND SUPPLY OF EQUIPMENT & SHUT DOWN DELIVERY SERVICE

Omega Separations can supply a wide range of gas-liquid and liquid-liquid separation equipment suitable for most applications in the market. The below table gives an overview of the different sources of droplet formation and an indication on the respective range of droplet size, as well as an overview of the efficiency of the different types of mist eliminators.



### Typical Applications

- Knock-out drums
- Evaporator systems
- Scrubbing systems and absorbers
- Glycol dehydration
- Gas processing
- Inert gas scrubbers
- Sulphuric acid drying towers
- Sulphur condensers
- Steam drums
- Inlet separators
- Turbo-expander suction drums
- Dew-point separators
- Compressor suction drums
- MSF/MED desalination.

### Benefits of Omega Separations' Wire Mesh Mist Eliminators

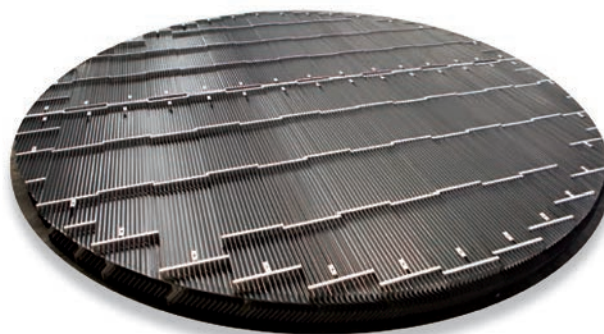
- High collection efficiency
- Low installed cost
- Low pressure drop
- Fast delivery and service.



## VANE PACK MIST ELIMINATORS

### Characteristics

Vane Pack Mist Eliminators are high capacity separators; they collect essentially 100% of all particles greater than 8 to 40 microns in diameter, depending on design parameters. They are assembled as banks of parallel vane profiles. This design causes the gas to change direction a number of times from inlet to outlet of the separator. The inertia of the liquid droplets forces the entrained liquid droplets to impinge on the vane surfaces where they form a liquid film and drain. Simple Vane Pack profiles are particularly suitable for applications with a significant risk of fouling due to solid particles or high viscosity liquids in the feed.



### Characteristics

- Stainless steels, Duplex Steels
- Alloy C276, 400, 625, 825, 20, etc...
- Thermal-set plastics, FRP.

### Typical Applications

- Low Pressure Evaporators
- Refinery Vacuum towers
- Scrubbers in flue gas desulfurization systems
- Pulp and Paper mills
- Sugar refineries.

### Benefits of Omega Separations' Vane Pack Mist Eliminators

- Suitable for applications where solids or sticky and viscous liquids are present and would plug a wire mesh mist eliminator
- Good collection efficiency in low pressure drop and vacuum applications
- Suitable for both vertical and horizontal gas flow
- Suitable for higher liquid and gas loads.



For additional information  
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