

Mist Eliminator Construction



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CECO Filters mesh style mist eliminator can be made of any material which is ductile enough to be drawn into wire. CECO Filters knits and maintains inventory of 300 series stainless steel, Alloy 20, Inconel, SX, other alloys and plastics. Exotic materials are available upon special request.

CECO Filters mist eliminators are made of layers of knitted mesh which are individually crimped to proper height to maintain density and specific surface area requirements. In alloys, standard 0.011" and 0.006" wire is used, while co-knits of various materials and wire diameters are also available.

A mist eliminator typically consists of an upstream support grid, mist eliminator, and downstream support grid. The purpose of the upstream and downstream grids is to provide the required structural support, and to preserve the integrity of the internal mist eliminator. These pieces are often segmented to allow insertion through a manway.

Some important factors in designing the support grids are: the structural properties of the internal mist eliminator, the mist eliminator orientation, and the maintenance support requirements (support of maintenance personnel.)



Mist Eliminator Installation

Mesh pads are made in one piece for body flanged vessels or segmented in numerous sections to facilitate handling and passage through a vessel manway. Standard grids using 1" x 1/8" flat bar and nominal 1/4" rod are typically used. Grating or expanded metal grids is also offered. For smaller mesh pads or in cases in which overall mist eliminator height is restricted, rod-only grids may be used on top and/or bottom faces.

Mesh pads are fabricated to meet virtually any vessel geometry and orientation. Vertical, horizontal and angled pads can be used to meet specific site requirements. Multiple pads can be installed in "V" or "Z" bank configurations to increase surface area and provide optimal use of available space.

Once the mist eliminator is in-place, there are several methods for securing the mist eliminators such as j-bolts, latch keys, and tie wire, the selection of which depends on the application and access requirements.

CECO Filters engineering team can determine the size and style of mist eliminator required to meet process requirements and customer specifications.