

BUSCH PPS

Low Maintenance Mist Eliminator for Rolling Mills



For control of fine liquid particulate

The BUSCH PPS Unit was developed specifically to meet the increasingly stringent VOC or PM-10 environmental regulations for metal rolling operations. The quantity and particle size of liquid mist generated from rolling mills are a function of many variables including coolant type, coolant flow rate, metal temperature, strip speeds and saturation dew point. Rolling mills have several mist generation mechanisms such as hydraulic pressure sprays and surface boiling followed by condensation. For this reason, the size and character of liquid particulate varies greatly.

A multiplicity of coolants and rolling methods mandate the use of multiple stages to achieve low maintenance,

low pressure drop and high collection efficiency. The PPS Unit employs cleanable media, disposable media or a combination of both.

The PPS eliminator mechanically removes and drains liquid particulate using several mechanisms. Mists are removed by inertial impaction, direct interception and, to a lesser extent, Brownian capture depending on the droplet diameter and liquid density. The PPS Unit provides removal of liquid particulate down to 1.0 micron. When vapor phase emission control is not required, the PPS mist eliminator offers excellent collection efficiency at low operating pressure drops.

DESIGN AND CONSTRUCTION

The **PPS** Unit is custom designed to suit each system requirement. Capacity, Unit arrangement and dimensions, number of eliminator stages, location and sizes of duct connections and materials of construction can be varied to assure proper installation and operation.

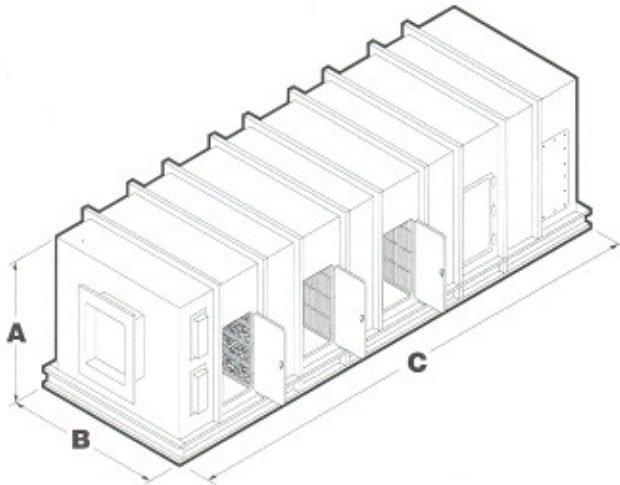


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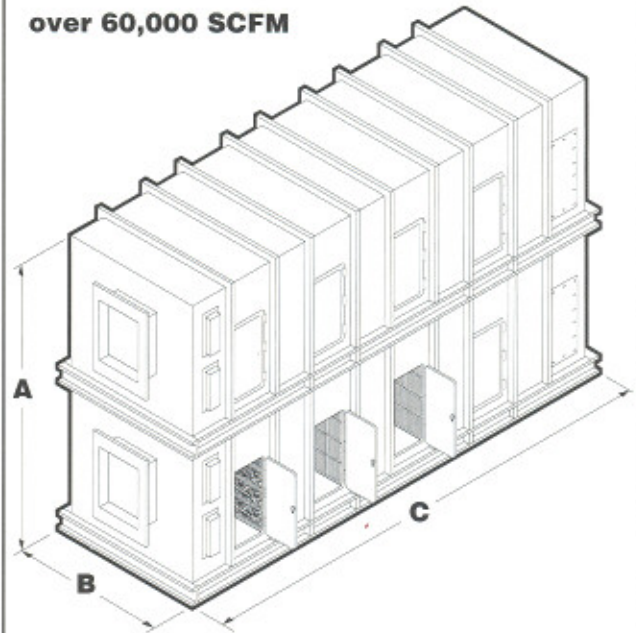
Construction of the **PPS** Unit includes a heavy structural base, sloped steel floor plate with multiple drain ports and reinforced housing, inspection and maintenance access panels. Critical welds are kerosene and chalk tested to detect pinhole leaks. If lighting is required, electrical wiring is in rigid, liquid-tight conduit in accordance with the plant's electrical standards.

DIMENSIONAL DATA

under 60,000 SCFM



over 60,000 SCFM



| SCFM | A | B | C |
|--------|--------|--------|--------|
| 10,000 | 7'-0" | 7'-0" | 34'-0" |
| 20,000 | 9'-6" | 9'-6" | 34'-0" |
| 30,000 | 12'-0" | 11'-0" | 34'-0" |
| 40,000 | 12'-0" | 13'-0" | 34'-0" |
| 50,000 | 14'-6" | 15'-0" | 34'-0" |

| SCFM | A | B | C |
|---------|--------|--------|--------|
| 60,000 | 24'-0" | 11'-0" | 34'-0" |
| 70,000 | 24'-0" | 13'-0" | 34'-0" |
| 80,000 | 28'-6" | 13'-0" | 34'-0" |
| 90,000 | 28'-6" | 13'-0" | 34'-0" |
| 100,000 | 28'-6" | 15'-0" | 34'-0" |

ACCESSORIES AND OPTIONS

- Support steel and platforms
- Duct and transitions
- Condensing coils
- Drainage units
- Alternate paint systems
- Special gasket material
- Volume control and/or CO₂ containment dampers