Fume Scrubber

Sorry, this machine is no longer available

We might be able to meet your requirements with other Fume Extraction Fans & Scrubbers machines.

Stock No	ES1153
Model	vertical packed tower
Approx Duty CFM / M³/Hr	4000 / 6800
Filter Area ft² / m²	N/A
Other Info	Chemical and fume abatement plant
External Dimensions (WxDxH mm)	Ø1210 x 6550mm*

Description

Wet scrubbers.

Designed to remove waste particles, chemicals and liquids from a gas stream such as those generated from such processes as pickling, plating, curing, chemical processing plant and process equipment.

There is a large variety of wet scrubbers; however, all have one of three basic configurations:

1. Gas-humidification - The gas-humidification process agglomerates fine particles, increasing the bulk, making collection easier.

2. Gas-liquid contact - This is one of the most important factors affecting collection efficiency. The particle and droplet come into contact by four primary mechanisms:
a) Inertial impaction - When water droplets placed in the path of a dust-laden gas stream, the stream separates and flows around them. Due to inertia, the larger dust particles will continue on in a straight path, hit the droplets, and become encapsulated. b) Interception - Finer particles moving within a gas stream do not hit droplets directly but brush against and adhere to them. c) Diffusion - When liquid droplets are scattered among dust particles, the particles are deposited on the droplet surfaces by Brownian movement, or diffusion. This is the principal mechanism in the collection of submicrometre dust particles. d) Condensation nucleation - If a gas passing through a scrubber is cooled below the dewpoint, condensation of moisture occurs on the dust particles. This increase in particle size makes collection easier.

3. Gas-liquid separation - Regardless of the contact mechanism used, as much liquid and dust as possible must be removed. Once contact is made, dust particulates and water droplets combine to form agglomerates. As the agglomerates grow larger, they settle into a collector.

A single source solution for fume abatement offered by the highly durable and efficient Packed Bed Scrubber.

This vertical column assembly is a counter-flow design with contaminated gas flowing upwards and recirculating liquid spraying downward across the packing media and eliminator plates. Gaseous contaminants are then absorbed or nuetralised by the liquid due to solubility levels and or by chemical reaction.

The vertical counter-flow design typically provides the best scrubbing efficiency of vapors and is the most common design found in most industries. The Vertical Packed Bed Scrubber is normally not used when solid particulate is in the air stream..

Common contaminates removed by a Packed Bed Fume Scrubber include:

H2S
HCl
HCN
NH3
SOx - SO2, SO3, SO4
Cl2, F2
Formaldehyde
And many others

Originally employed in the removal obnoxious fumes from a rubber curing heat treatments process.
Supplied with the original steel fan, but a suitably sized and matching chemical resistant fan can be viewed in throughout this section for chemical abatement processes.

Construction and dimensions

PVC / GRP coated

Stack dims - Ø610 x 6550mm
Re-circulation base tank Ø1210 x 1220 mm
1 x Serfilco chemical pump fitted to tank
inlet/outlet dims (on towers) - Ø405 mm

Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.