

APPLICATION

The Advanced Air™ Toxic Fume Wet Scrubber is an excellent air pollution control for the removal of toxic/acidic fumes from the exhaust airstream before that air passes in to the atmosphere. (Please consult us about solvent removal).

The contaminated exhaust air is deflected through water spray and polypropelene pall rings. The toxic particles existing in a solid state, absorb water and drop out as dirty water. The dirty water can either pass to waste or to be held by the recirculating tank. A mist eleminator is incorporated in line, to remove any remaining moisture and contaminates before the air exits the outlet. Made from corrosion resistant material with no metals in the air stream.

APPLICATION

The Advanced Air Scrubber Series is an efficient and compact scrubber for the capture of Toxic Acid and Gases. The performance of the wet scrubbers depend on the industrial condition and the nature of Air pollutant involved. The following properties of the air stream have to be considered when choosing a suitable scrubber model.

1. **Chemical Properties of Scrubbing Gas/Fume stream.**
 - a. Identify the type of constituents in the gas stream. Depending on the Model, the Wet Scrubber can collect particles, gases or acid gases.
 - b. Water solubility and concentration of the Polutant. For gaseous pollutant collection, the pollutant must be soluble in the chosen scrubbing liquid. (ie. Water). But also the wet Scrubber can capture relatively small dust particles with water droplets.
2. **Physical Properties.**
 - a. Discharge Volumetric Air flow. (Cum/min)
To achieve best result, the correct air velocity through the packed bed is an important factor. So the air flow of the extraction system and the wet scrubber should be in a close range.
 - b. The Pressure Drop of the system.
With connection of the Wet Scrubber in to the existing system the total static pressure drop increases and there may be a need to re-assess the extraction fan load capacity.
 - c. Inlet/outlet size of the duct system.
Matching inlet/outlet transitions may require to connect Wet Scrubber in to the existing System.
 - d. Location, site contrans such as height restriction and other plant limitations.
 - f. Inlet/outlet Load of the System — Depending on the load capacity of extraction system, a suitable Scrubber can be chosen (ie. the Tower Scrubber has high capacity).



Fig.1: Advanced Air™ Wet Scrubber Model HS-001



Fig.2: Advanced Air™ Wet Scrubber Model HS-001RC

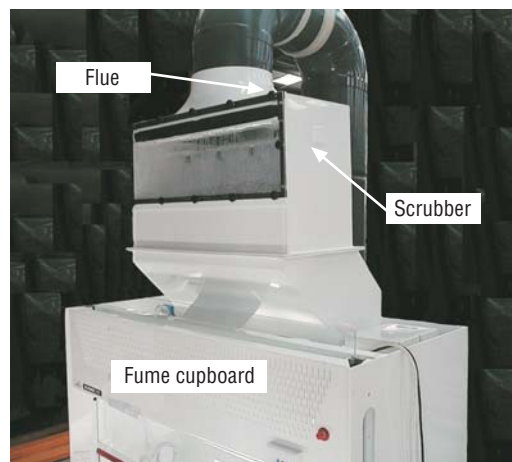


Fig.3: Advanced Air™ Wet Scrubber Model VS-001 mounted on the fume cupboard

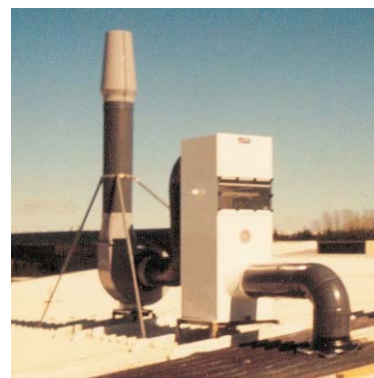


Fig.4: Advanced Air™ Wet Tower Scrubber Model TS-001

SCRUBBER SYSTEM REQUIREMENTS

To achieve the optimum removal efficiency the pressure drop and air velocity are the most important operating parameters of the system. Please refer to the selection table to choose a matching Scrubber with your fume extraction system requirements.

Model	Horizontal Scrubber HS 001	Horizontal Scrubber HS 001 RC	Vertical Scrubber VS 001	Tower Scrubber TS 001 *TS 001RC
Housing/Size	5mm Rigid PVC 1490mmL x 680mmH x 500mmW	5mm Rigid PVC 1540mmL x 1000mmH x 500mmW	5mm Rigid PVC 1200mmW x 1045mmH x 400mmD 800mmW x 1045mmH x 400mmD 500mmW x 1045mmH x 400mmD	5mm Rigid PVC 615mmL x 1840mmH x 615mmW
Location	Building Roof Mounted	Building Roof Mounted	Fume Cupboard Roof Mounted	Floor Mounted or Building Roof Mounted
Inlet/Outlet	f1315 / f1315	f1315 / f1315	f1315 / f1315	f1315 / f1315
Air Flow Requirement:	15-45 m3/min	15-45 m3/min	15-45 m3/min	15-45 m3/min
Nominal Static Pressure Drop:	165 Pa* *vary with Air velocity	165 Pa* *vary with Air velocity	165 Pa* *vary with Air velocity	165 Pa* *vary with Air velocity
Maximum Operating Temperature:	60 degree celsius	60 degree celsius	60 degree celsius	60 degree celsius
Water Spray System:	Polypropelene full spray heads. Capacity 20 Lt/min	Polypropelene full spray heads. Capacity 20 Lt/min	Polypropelene full spray heads. Capacity 20 Lt/min	Polypropelene full spray heads. Capacity 20 Lt/min
Re-circulating Tank:	Optional / Separate	Built-in Re-circulating Tank	Optional / Separate	Built-in / or Separate
Scrubber Pack Bed:	Polypropelene Pall Rings 1	Polypropelene Pall Rings 1	Polypropelene Pall Rings 1	Polypropelene Pall Rings 1
Mist Eliminator:	Polypropelene Hooked Panel Blades	Polypropelene Hooked Panel Blades	B gon 96/16 Mist Eliminator Mesh	B gon 96/16 Mist Eliminator Mesh
Removal Efficiency:	80%—90% at low micron droplet size (20 micron)	80%—90% at low micron droplet size (20 micron)	80%—90% at low micron droplet size (20 micron)	80%—90% at low micron droplet size (20 micron)
Optional:	Recycling Water pH Control Dosing System	Recycling Water pH Control Dosing System	Recycling Water pH Control Dosing System	Recycling Water pH Control Dosing System
Scrubber Controls:	Fan Button of the Fume Cupboard Control Panel	Fan Button of the Fume Cupboard Control Panel	Fan Button of the Fume Cupboard Control Panel	Fan Button of the Fume Cupboard Control Panel

* optional — model TS 001RC with separate recirculating tank.

FUME CUPBOARD	MATCHING SCRUBBER SIZE
1200mm wide	500 x 400 x 1045H
1500mm wide	800 x 400 x 1045H
1800mm wide	800 x 400 x 1045H
2000mm wide	800 x 400 x 1045H
2400mm wide	1200 x 400 x 1045H
3000mm wide	1200 x 400 x 1045H

