

Type MS Mini Scrubber

The Type MS Mini-Scrubber is designed for processing small gas flows and is available in 5 sizes from 500 to 2500 ACFM. Removal efficiency is in the range of 95-99% depending on emission specifications. The scrubber is simple in design, is fabricated in corrosion-resistant polypropylene, has no moving parts other than a built-in fan, and is easily serviced. The sparger type design eliminates the need for a liquid circulation pump and spray nozzles, which minimizes maintenance requirements.

Benefits

- Compact, fully pre-assembled unit saves installation time and cost.
- Allows installation next to a wall for additional space savings.
- Ready for connection to gas ducting, water and reagent supplies.
- Minimal electrical wiring needed at installation. All scrubber mounted electrical components are pre-wired to a frame mounted control panel.
- A supply of 3 phase power is the only electrical work required.
- The frame functions as a skid that is used to move and locate the unit.

Applications

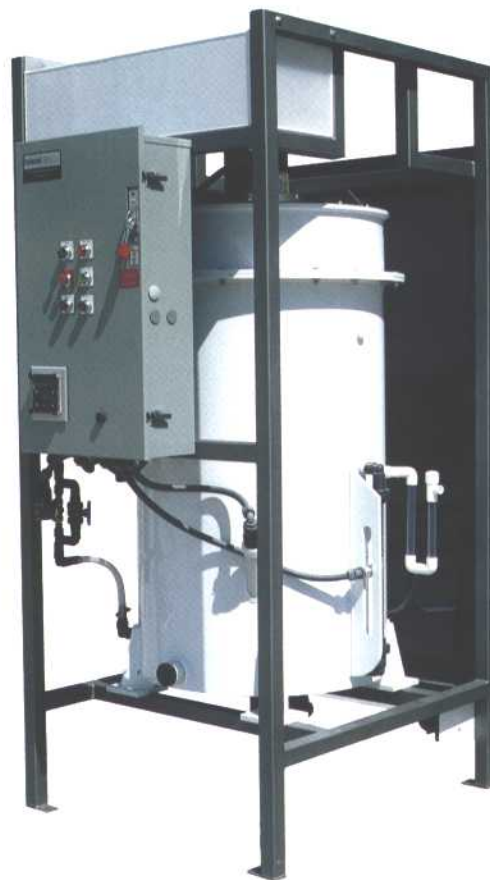
- Control of odor emissions
 - fumes from laboratory hoods
 - food preparation
 - paper coating
 - metal surface cleaning and treatment
 - plastics processing
 - foundry operations
 - chemical storage tanks
 - transfer operations
- Chlorine and HCL processing
- Scrubbing water soluble organic chemicals

Scrubbing Efficiency

The Type MS Mini-Scrubber achieves very high scrubbing efficiency, which is comparable to 6 ft. of packing in a counter current packed bed scrubber. Typical number of transfer units (NTU) is 4 to 5, resulting in absorption efficiencies over 99% for HCl, ammonia and similar gas components. The high efficiency is due to a very high gas-liquid interface area produced in the sparger section.

Features

- Scrubber body fabricated in heavy gauge corrosion resistant polypropylene, which offers excellent UV light and weather resistance and has operating temperature capability to 150°F.
- Body contains an integral liquid sump with visual liquid level site tube.
- Components internal to the body include a removable sparger tube assembly and packing for gas scrubbing and mist elimination.
- Body is mounted to the steel frame that is protected with a corrosion resistant coating. Piping and manual drain valves are included.
- A pH monitoring and control system is standard. The pH sensor can be removed for calibration without interrupting operation.
- The reagent feed package includes a reagent supply tank and pH controlled solenoid valve.
- An automatic liquid level control system is standard. This system adds water to the scrubber to make up for loss due to evaporation.
- A fully functional electrical control panel including motor starters.



- Standard fan on MiniScrubber develops 7" S.P. and is flange mounted on top of the body to minimize the footprint while eliminating all fan mechanical and electrical installation cost.

Optional Features

- Increased static pressure on fan to 10" S.P.
- Reagent pump and blowdown indicator
- Waste liquid transfer pump
- FRP fan for increased corrosion resistance for HCl and Chlorine
- Sump heaters for outdoor installation
- Exhaust gas noise control muffler

Custom Options

Ceilcote Air Pollution Control will custom build a scrubber to your specifications. These may include:

- Explosion proof components
- Additional instrumentation
- A second reagent supply tank
- Particulate and sand separation equipment

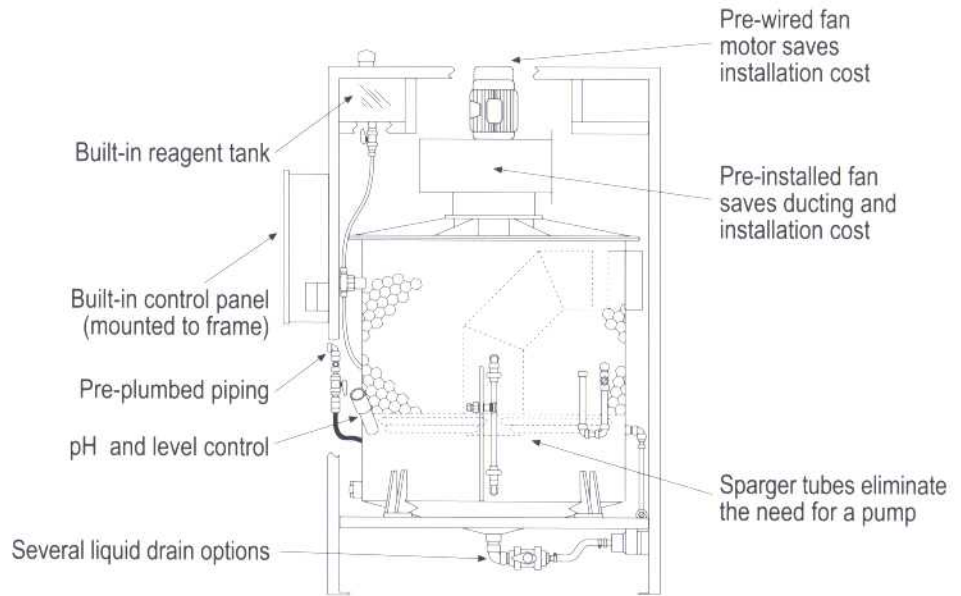
Features

- Corrosion resistant and cost-effective polypropylene.
- Pre-tested (before shipment).
- All components are factory mounted saving installation cost.

Operating Principle

The gas to be cleaned is finely dispersed into the scrubbing liquid by sparger tubes immersed in the liquid. The mixture of liquid and gas bubbles is carried into the packed bed section, which serves first as gas-liquid contactor and in the upper zone as mist eliminator. The clean gas exits through the fan. The scrubbing liquid returns into the sump by gravity flow.

Different reagent solutions are used depending on type of absorption reaction. A pH sensor and controller regulate the desired pH of the scrubbing liquid by automatic addition of reagent solution from a supply tank mounted on the frame. A liquid level controller and visual level indicator are provided to control the addition of water lost by evaporation. Exhausted scrubbing liquid is drained periodically by a manually operated valve, or optional transfer pump.



Specifications

Model	Gas Vol. ACFM	Diameter In.	Reagent Tank, Gal.	Sump Cap. Gallons	Fan Motor HP	Frame Dim. Ft.	Shipping Wt. Lbs.
MS 500	500	31	19	50	1.5	3.7 sq. x 8.0	700
MS 850	850	31	19	50	2	3.7 sq. x 8.0	700
MS 1200	1200	31	19	50	3	3.7 sq. x 8.0	700
MS 1750	1750	48	23	135	5	5.0 sq. x 8.0	900
MS 2500	2500	48	23	135	5	5.0 sq. x 8.0	900

Specifications are subject to change without notice.

Contact us today for more information



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14955 Sprague Rd., Ste. 250
Strongsville, OH 44136-1758
Tel: 800-554-8673 or 440-243-0700
Fax: 440-243-9854
E-mail: sales@ceilcoteapc.com
www.ceilcoteapc.com

Canada:
1195 Meyerside Dr. Unit 6
Mississauga, Ontario L5T 1H3
Tel: 905-795-0520
Fax: 905-795-0530

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