

# Crossflow Wet Scrubbing System

## Specifications

### Single Stage Chamber and Fan

Height:	6' to 8'
Width:	5' to 11'
Length:	23' to 26'
Velocity:	2,300 fpm
Static Pressure Loss:	1.4"
Weight:	5,000 to 11,000 lbs.
Recirc Pump Operating Pressure:	15 psi
Fan Motor Size:	40 to 150 hp
Recirculation Pump Size:	10 to 40 hp

### Exhaust Stack

Height:	12'
Velocity:	3,000 fpm

### Utilities

Electrical :	460V, 3Ø, 60 hz, 70 to 230 amps
Make-up Water Requirement:	4.5 to 9.5 gpm, 45 psi, Potable
Drain:	Sanitary Floor Drain

### Operating Costs

Vapor Phase Chemistry Cost:	\$.025 to \$.050 per cfm/yr
Electrical Usage:	50 to 158 kw/h



## Applications - 38,000 to 150,000 cfm

### Municipal Wastewater Sites

- • CSOs
- • Transfer Stations
- • Aerobic Processing Areas
- • Sludge Dewatering Process Areas
- • Sludge Storage Buildings
- • Grit & Screenings Facilities

### Industrial Sites

- • Solid Waste Receiving Areas
- • Solid Waste Processing Areas
- • Process Areas
- • Fish Meal Facilities
- • Animal Rendering Facilities
- • Food Processing Facilities

### Companion Chemical Feed System

- • Series 2000 Chemical Injection System
- • Chemical Oxidant Feed System

## System Overview

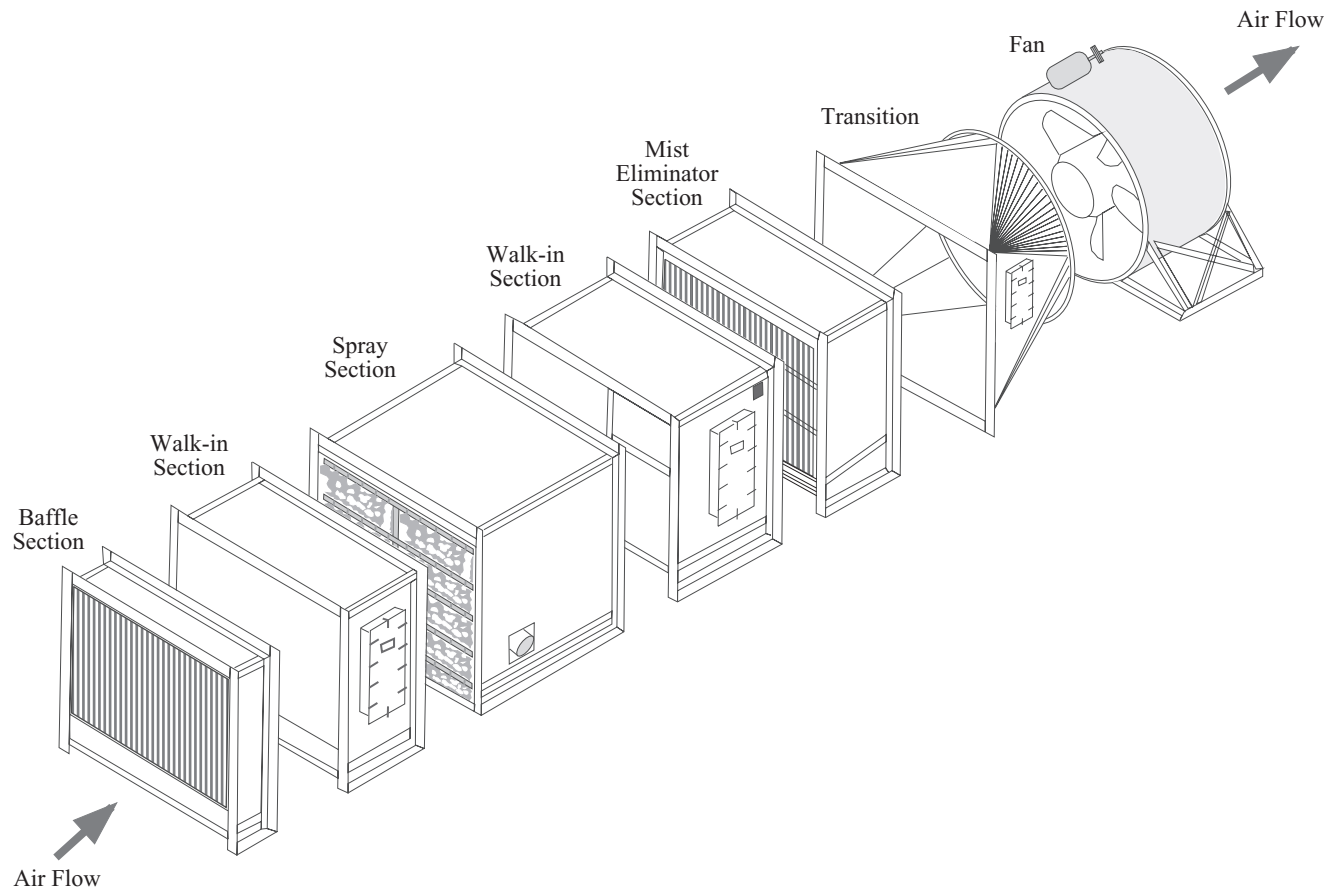
The Crossflow is the most cost effective scrubber for high volumes of low intensity odors. The system operates at a velocity of 2300 fpm using a unique patented chevron type mist eliminator. This allows for a smaller system size per volume of air treated, resulting in a lower capital cost per cfm. With a pressure drop of only 1.4 inches, this scrubber requires less power than a carbon system, biofilter or conventional scrubber providing tremendous energy cost savings.

The scrubber has no packing, is fabricated from stainless steel, and consists of three sections; an air inlet baffle; a spray chamber, and the mist eliminator section. There are two walk-in sections for inspection and maintenance of the three operating sections. The remote recirculation system supplies a high volume of liquid to the spray manifold tree with 100 or more polypropylene nozzles creating a wall of water that washes the air. This light-weight unit, is normally roof-mounted, reducing the cost of the air collection ducting. The discharge stack, at 25-30 feet above the roof, provides better dispersion and dilution of the treated air stream.

NuTech's DeAmine™ or Chi-X® Odor Eliminators work well with the short contact time of this scrubber to eliminate organic odor complaints. Independent testing confirms the powerful odor removal capabilities of this excellent scrubbing option.

*Technical Experts in Odor Control*





## Crossflow Wet Scrubbing System Single Stage Components

### Fan and Motor

- • Placite Coated Housing, Anodized Aluminum Fan Blades
- • TEFC Motor—40 to 150 hp
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### Recirculation Pump

- • Recirculation Pump—stainless steel wetted parts
- • TEFC Motor—10 to 40 hp

### Control Panel

- • Nema 4X, Stainless Steel
- • Panel Disconnect
- • Fan Motor Controls
- • Recirculation Pump Controls
- • Optional Panel Tie-in and Alarms Available

### Chamber, Remote Recirculation Tank, and Skid

- • Stainless Steel Chamber, Sectional □ □
- • Polypropylene Spray Nozzle Tree and Nozzles
- • Chevron Mist Eliminator, Stainless Steel
- • Stainless Steel Recirculation Tank
- • Recirculation & Make-up Water Piping, PVC—within 25'
- • Stainless Steel Exhaust Stack
- • Steel Skid or Support Structure

### Chemical Feed System

- • Series 2000 Chemical Injection System
- □ - pH or ORP Controls
- • Optional Oxidizing Compound Delivery System—delivery of □
- □ oxidizing compounds such as chlorine dioxide