# Venturi Scrubbers



#### **Collect Ultrafine Particles & Mists**

The Venturi Scrubber uses the differential between high velocity gases and free-flowing water to create droplets which entrap contaminants, hold them in suspension and deliver them as a slurry.

# Unsurpassed for Separating and Recovering Liquid Mists and Ultrafine Particulate

Simple in design, yet highly efficient, the Sly Venturi Scrubber incorporates features proven to maximize collection efficiency while minimizing operating and maintenance costs. The Sly Venturi Scrubber offers a non-plugging, trouble-free method of introducing scrubbing liquid, a simple, easily-adjusted throat for optimizing efficiency, and a flooded elbow arrangement that collects agglomerated particulate while providing an abrasion-resistant barrier to deter scrubber wear.

# Venturi is coupled with a cyclonic separator which provides non-clogging mist elimination.

#### **Cleans and Reclaims**

The Sly Venturi Scrubber removes pollutants present in process gas streams. This includes removing hazardous and nuisance dusts, fumes and mists from stack gases.

#### **Highlights**

- Handles combustible dusts safely, without modifications
- · Collects fine particles & mists
- Adjustable throat permits finetuning to maximize efficiency
- High efficiencies for sub-micron particulate
- Water requirements are typically 8 GPM per 1000 CFM
- Capacities from 1500 to 150,000 CFM
- Pressure drops from 12" w.g. to 40" w.g.
- · Emission warranties available

#### **Sly Venturi Scrubber Efficiencies** 100% 99% **Expected Efficiency** 98% 97% 96% 95% 939 4.0 5.0 6.0 Particle Size - Micron 100% 90% Expected Efficiency 80%

0.5 0.6 0.7

Particle Size - Sub Micron

60%

50%

0.3



## **Venturi** Scrubbers

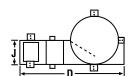


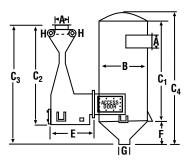
#### **Standard Equipment**

- · Wetted approach inlet
- Removable liquid distributors (no spray nozzles used)
- Manually adjustable throat
- Flooded elbow
- Adjustable cyclonic spin damper
- · Access doors (bolted)
- Carbon steel/stainless steel construction

### **Optional Equipment and Features**

- Stainless steel, high alloy, FRP or plastic construction
- Combination units (Venturi/packed tower) available
- Auto adjustable throat positioner
- · Quick opening doors
- · Recirculation tanks
- Pumps
- · Exhaust fans
- Instruments





#### **Venturi Scrubber Capacities & Dimensions**

Size	Nominal Capacity Sat. CFM	Inlet & Outlet A	Sep. Dia. B	Sep. C <sub>1</sub>	Vent C <sub>2</sub>	Vent C <sub>3</sub>	Sep C <sub>4</sub>	Overall Width D	Venturi Width E	Sep. Cone F	Drain Pipe G	Water Pipe H	Venturi Depth J
0.5	1,500/2,600	10x10	2'-2"	4'-4"	5'-8"	* 6'-0"	5'-2"	5'-6"	2'-4"	10"	2"	2"	11"
1	2,600/3,600	13x13	3'-8"	6'-6"	6'-6"	7'-3"	7'-10"	6'-8"	2'-4"	1'-4"	3"	2"	1'-5"
2	3,600/4,700	15x15	4'-1"	7'-2"	6'-9"	7'-7"	8'-7"	7'-3"	2'-6"	1'-5"	4"	2"	1'-5"
3	4,700/6,300	17x17	4'-8"	8'-2"	7'-3"	8'-3"	9'-9"	8'	2'-11"	1'-7"	4"	2"	1'-9"
4	6,300/8,500	20x20	5'-3"	9'-1"	7'-9"	8'-11"	10'-10"	8'-11"	3'-2"	1'-9"	4"	2"	1'-9"
5	8,500/11,500	23x23	5'-11"	10'-4"	8'-10"	10'-2"	12'-4"	9'-11"	3'-7"	2'	6"	3"	2'-4"
6	11,500/15,000	26x26	6'-7"	12'-1"	9'-7"	11'-1"	14'-3"	11'	3'-11"	2'-2"	6"	3"	2'-4"
7	15,000/20,000	30x30	7'-5"	14'-1"	11'-4"	13'-1"	16'-6"	12'-6"	4'-9"	2'-5"	6"	4"	3'-1"
8	20,000/27,000	35x35	8'-4"	16'-5"	11'-11"	14'-2"	19'-3"	13'-8"	5'-1"	2'-10"	8"	4"	3'-1"
9	27,000/36,000	40x40	9'-4"	19'-0"	14'-7"	16'-11"	21'-11"	15'-8"	6'-1"	2'-11"	8"	4"	4'-5"
10	36,000/48,000	46x46	10'-6"	22'-1"	15'-4"	18'-1"	25'-5"	17'-3"	6'-6"	3'-4"	10"	6"	4'-5"
11	48,000/60,000	52x52	11'-10"	25'-7"	17'-6"	20'-7"	29'-3"	19'-4"	7'-5"	3'-8"	10"	6"	5'-10"
12	60,000/76,000	58x58	13'-4"	28'-5"	17'-7"	20'-9"	32'-7"	21'-1"	7'-5"	4'-2"	12"	6"	6'-6"

\*Note: Dimension "Vent  $\mathrm{C_3}$ " for Size 0.5 only represents the overall height of the scrubber system. For all other systems, dimension "Sep.  $\mathrm{C_4}$ " represents the overall height.



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