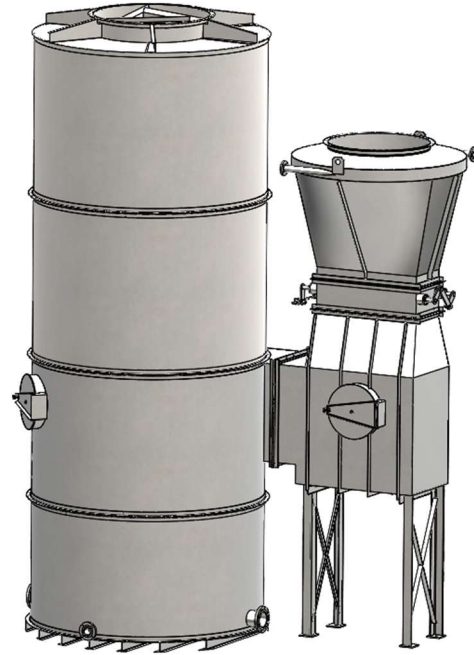


Standard Industrial Venturi Scrubber

VentilationComponents.com's venturi scrubbers are durable and cost effective.



Application

- Use to remove contaminants from an airstream
- Various sizes built to service airflows ranging from 3,300cfm to 68,500cfm available, with smaller and larger sizes available upon request
- Pressure ratings ranging from 15inWC to 50inWC headloss, with higher pressure ratings up to 100inWC available upon request

Features

- Integral reservoir tank
- Recirculated scrubbing water flow with bleed off and make up water on level control
- Wetted approach section and wetted base elbow
- Adjustable venturi throat
- High efficiency centrifugal separator with semi tangential air inlet and top axial outlet with vortex breaker
- Flanged piping connections and inspection port

Benefits

- Recirculated scrubbing water system reduces water consumption
- Potential for material recovery
- Open pipe scrubbing water inlet does not plug
- Simple, reliable, and easy to maintain
- Heavy duty construction

Function

- Relatively dry air with contaminants enters the inlet and accelerates through the venturi throat
- Water enters and breaks into a fine mist when exposed to the air stream
- The contaminants collide with the water droplets and become encapsulated
- The contaminant laden scrubbing water separates from the air stream and accumulates in the bottom of the separator tank
- A pump delivers most of the scrubbing water back into the venturi while a portion is bled off from the system
- Level controlled make up water continuously flows into the scrubber

Options

Size

Tank sizes ranging from 30.00in diameter to 138.00in diameter are available. Smaller and larger sizes are available upon request.

Pressure rating

Three different pressure ratings are offered: 15inWC, 30inWC, and 50inWC. Custom pressure ratings up to 100inWC are available upon request.

Rotation

The unit can be built with a clockwise or counterclockwise rotation, which primarily affects the inlet location.

Flange bolt pattern

The flange bolt patterns follow our standard. Different patterns are available upon request.

Drain

The drain protrudes from the tank wall and its placement is customer specified.

Tank inspection port

The placement of the inspection port on the tank, and its hinge side, are customer specified.

High level overflow

The placement of the high level overflow is customer specified. A flapper valve can be supplied.

Efficiency Rate

The efficiency of the scrubber is application dependent and is provided during the ordering stage.

Materials

The materials offered suit a variety of different applications.

Internal material

- 316 stainless steel

External material

- 304 stainless steel

Gasket material

- EPDM

Hardware material

- 316 stainless steel

Other materials not listed are available upon request.

Pump

A pump can be supplied upon request.

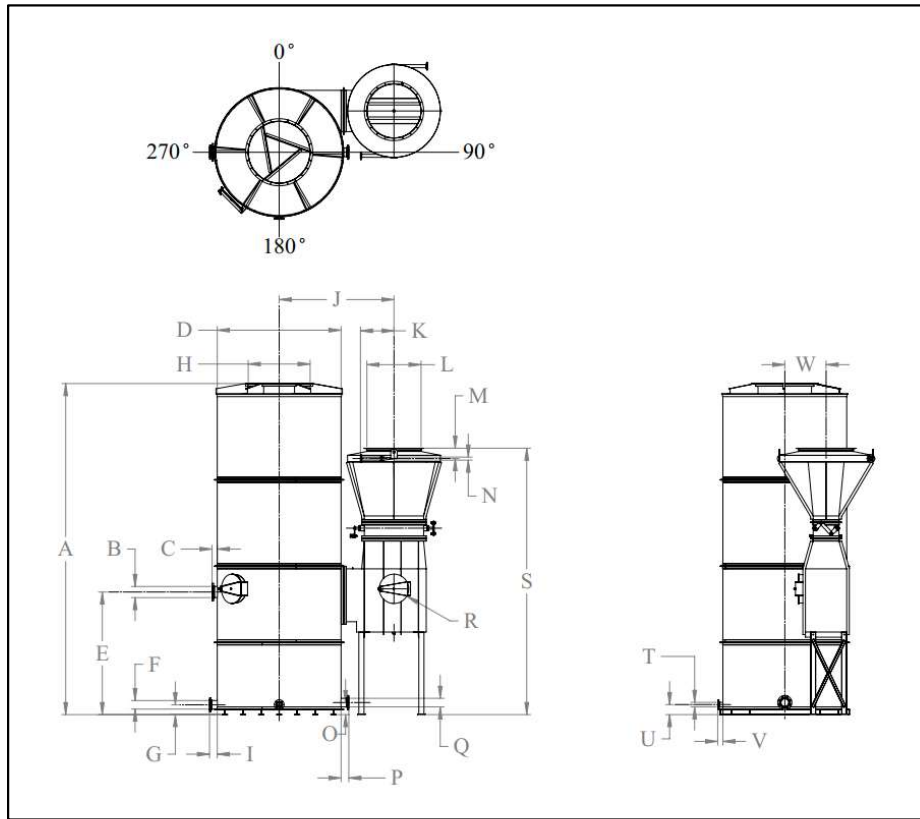
Pump accessories

The valves and piping associated with the pump can be supplied upon request.

Level transmitter

A level transmitter can be supplied upon request.

Data and dimensions

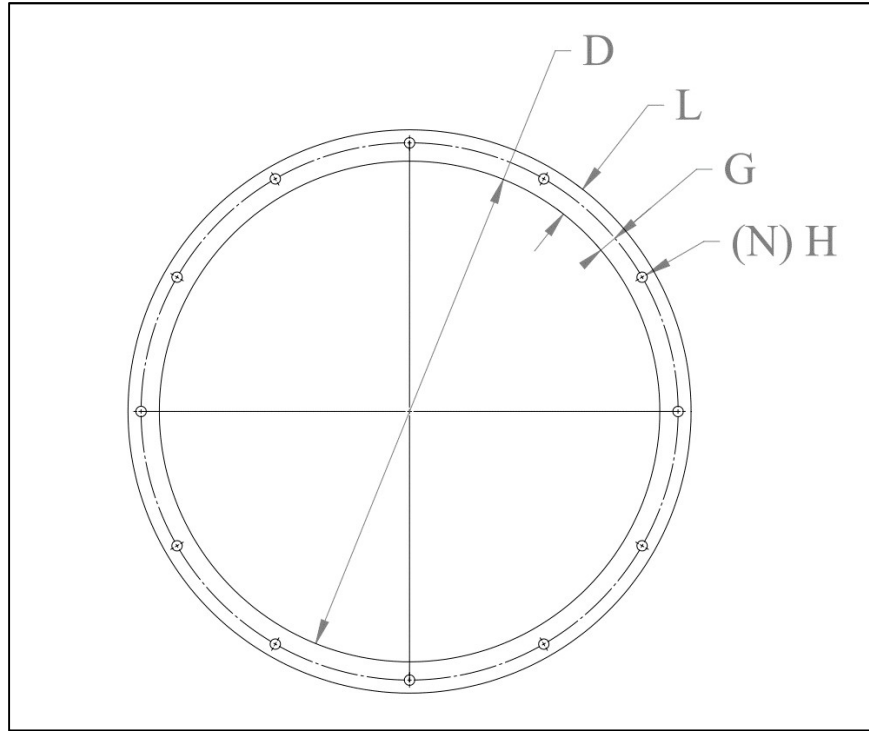


Item Number	"1" Nozzle Tank Size	Normal Capacity	Normal Process Flow	Spray Shower Pump Capacity (GPM)	"A" Diameter (Inch)	"B" Diameter (Inch)	"C" Overall Length (Inch)	"D" Overall Height (Inch)	"E" Drive Size (nominal) (in)	"F" Drive Size (Inch)	"G" Drive Size (Inch)	"H" Drive Size (Inch)	"I" Drive Size (Inch)	"J" Drive Size (Inch)	Total Number of Shower Pipes	"K" Shower Pipe Length (Inch)	"L" Tank Size (Inch)	"M" Shower Pipe Height Location (Inch)	"N" Shower Pipe Size (nominal) (in)	"O" Shower Pipe Size (Inch)	"P" Shower Recirculation Inlet Height (Inch)	"Q" Shower Recirculation Outlet Height (Inch)	"R" Shower Recirculation Inlet Size (nominal) (in)	"S" Inlet Height (Inch)	"T" Level Transmitter Nozzle Size (nominal) (in)	"U" Level Transmitter Nozzle Height (Inch)	"V" Level Transmitter Nozzle Length (Inch)	"W" Level Transmitter Nozzle Length (Inch)
S1-01-11	12.00	1.20	13	15	43.00	FA	4.00	30.00	FA	2.50	15.00	4.00	12.00	1	13.00	15.00	11.00	1.50	PT 1/2	1.00	4.00	PT 1/2	10.00	4.00	PT	1.00	4.00	11.00

Notes

1. 3D model files and general arrangement drawings with installation details available upon order.
2. Counterclockwise rotation shown.
3. For units with only one shower pipe, the shower pipe closest to the tank is the one that remains.
4. Tank inspection port hinge side specified at order.

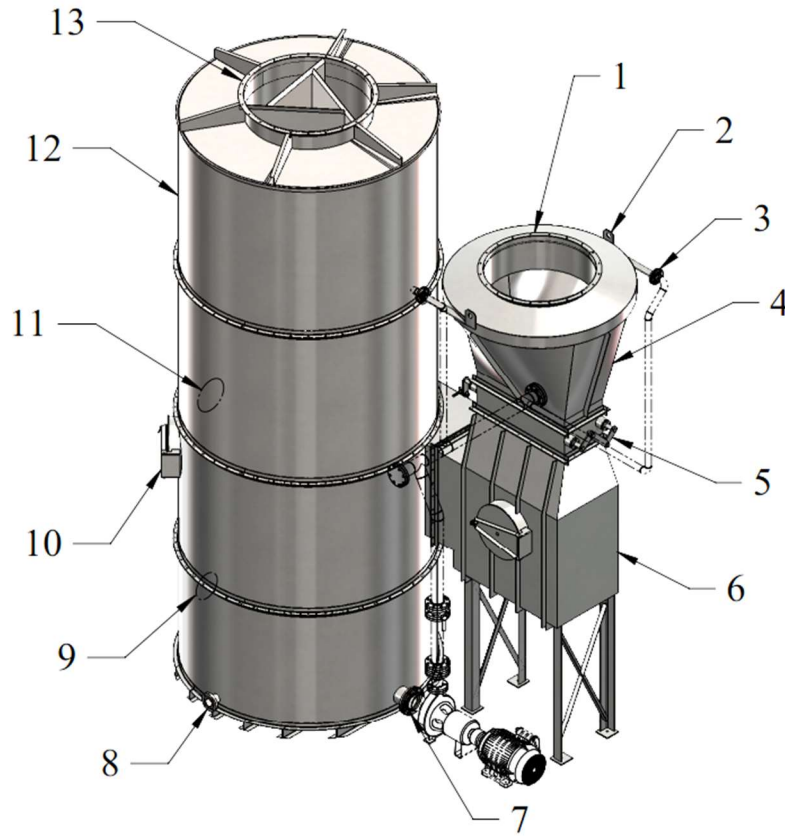
Standard round flange details



"D" Nominal Size		"L" Flange Leg	"G" Gauge	"N" Number of Holes	"H" Hole Diameter	Bolt Size
D _{LOWER}	D _{UPPER}					
inches	inches	inches	inches	quantity	inches	inches
0	8.00	1.50	0.875	4	0.500	3/8
8.01	16.00	1.50	0.875	8	0.500	3/8
16.01	24.00	1.50	0.875	12	0.500	3/8
24.01	31.00	1.50	0.875	16	0.500	3/8
31.01	39.00	2.00	1.125	20	0.500	3/8
39.01	46.00	2.50	1.375	24	0.625	1/2
46.01	54.00	2.50	1.375	28	0.625	1/2
54.01	62.00	2.50	1.375	32	0.625	1/2
62.01	70.00	2.50	1.375	36	0.625	1/2
70.01	78.00	2.50	1.375	40	0.625	1/2
78.01	86.00	3.00	1.750	44	0.625	1/2
86.01	94.00	3.00	1.750	48	0.625	1/2
94.01	101.00	3.00	1.750	52	0.625	1/2
101.01	108.00	4.00	2.250	56	0.625	1/2
108.01	120.00	4.00	2.250	60	0.625	1/2

Notes

1. Holes always land on centerlines.



Parts list

Number	Quantity	Description
1	1	Air inlet
2	Varies	Lifting lug
3	1	Scrubbing water inlet connection
4	1	Wetted approach
5	1	Adjustable venturi throat
6	1	Wetted base elbow
7	1	Scrubbing water recirculation outlet from tank
8	1	Level transmitter connection
9	1	Drain
10	2	Inspection port
11	1	Overflow drain
12	1	Centrifugal separator tank
13	1	Air outlet with vortex breaker

Notes

1. All hardware provided. Unit assembly varies dependent upon shipping requirements.

How to order

To fully specify the VS-01 Venturi Scrubber, make a selection from the code boxes below.

Example: VS-01-90-1-1-1-1-30-CCW-C-C-C-C-C-V-V, shown below, is a venturi scrubber with a 90in diameter tank, 316 stainless steel as the primary material, 304 stainless steel as the external material, EPDM gaskets, 316 stainless steel hardware, a 30inWC pressure rating, a counterclockwise rotation, our standard bolt pattern, supplied pump accessories, and a supplied level transmitter. The customer has provided a document that details the pump for its accessories to suit.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VS	01	90	1	1	1	1	30	CCW	C	C	C	C	C	V	V
Specifications															
Please provide a drawing for our approval of the specified venturi scrubber with the tank inspection port at 180° and an observer's left hand hinge, an overflow drain at 90° with a flapper valve, and a drain at 90°. Please provide piping and valves to match the pump in the attached document.															

1	Equipment type		
VS	Venturi Scrubber		
2	Equipment sub-type		
01	Venturi Scrubber		
3	Nominal tank size		
30	Nominal ø30.00in [ø762mm] 3,300cfm	90	Nominal ø90.00in [ø2286mm] 28,900cfm
36	Nominal ø36.00in [ø914.4mm] 4,700cfm	96	Nominal ø96.00in [ø2438.4mm] 32,900cfm
42	Nominal ø42.00in [ø1066.8mm] 6,400cfm	102	Nominal ø102.00in [ø2590.8mm] 37,200cfm
48	Nominal ø48.00in [ø1219.2mm] 8,300cfm	108	Nominal ø108.00in [ø2743.2mm] 41,600cfm
54	Nominal ø54.00in [ø1371.6mm] 10,500cfm	114	Nominal ø114.00in [ø2895.6mm] 46,400cfm
60	Nominal ø60.00in [ø1524mm] 12,900cfm	120	Nominal ø120.00in [ø3048mm] 51,400cfm
66	Nominal ø66.00in [ø1676.4mm] 15,600cfm	126	Nominal ø126.00in [ø3200.4mm] 56,600cfm
72	Nominal ø72.00in [ø1828.8mm] 18,600cfm	132	Nominal ø132.00in [ø3352.8mm] 62,200cfm
78	Nominal ø78.00in [ø1981.2mm] 21,800cfm	138	Nominal ø138.00in [ø3505.2mm] 68,500cfm
84	Nominal ø84.00in [ø2133.6mm] 25,200cfm	C	Customer Specified Size
4	Internal material		
1	316 Stainless Steel	C	Customer Specified Material
5	External material		
1	304 Stainless Steel	C	Customer Specified Material
6	Gasket material		
1	EPDM	C	Customer Specified Material
7	Hardware material		
1	316 Stainless Steel	C	Customer Specified Material
8	Pressure rating		
15	15inWC, Up to 700fpm	50	50inWC, Up to 700fpm
30	30inWC, Up to 700fpm	C	Customer Specified Pressure Rating
9	Rotation		
CW	Clockwise	CCW	Counterclockwise
10	Flange bolt patterns		
S	Standard	C	Customer Specified Flange Bolt Pattern
11	Tank inspection port placement and hinge side		
C	Customer Specified		
12	Overflow drain placement and optional flapper valve		
C	Customer Specified		
13	Drain placement		
C	Customer Specified		
14	Pump supply		
C	Customer	V	VentilationComponents.com
15	Pump accessories supply		
C	Customer	V	VentilationComponents.com
16	Level transmitter supply		
C	Customer	V	VentilationComponents.com

Many types of customizations are available upon request.

Note: There are various factors which should be considered when selecting a venturi scrubber for a specific application. Some of these factors are outside of the scope of this data sheet. If you have any questions regarding the application, compatibility, or use of this venturi scrubber, contact VentilationComponents.com for more information.

Contact@VentilationComponents.com