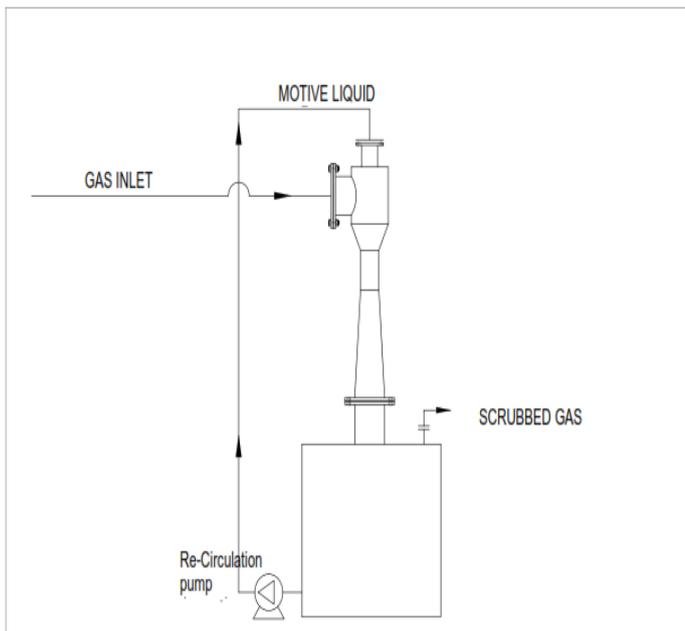
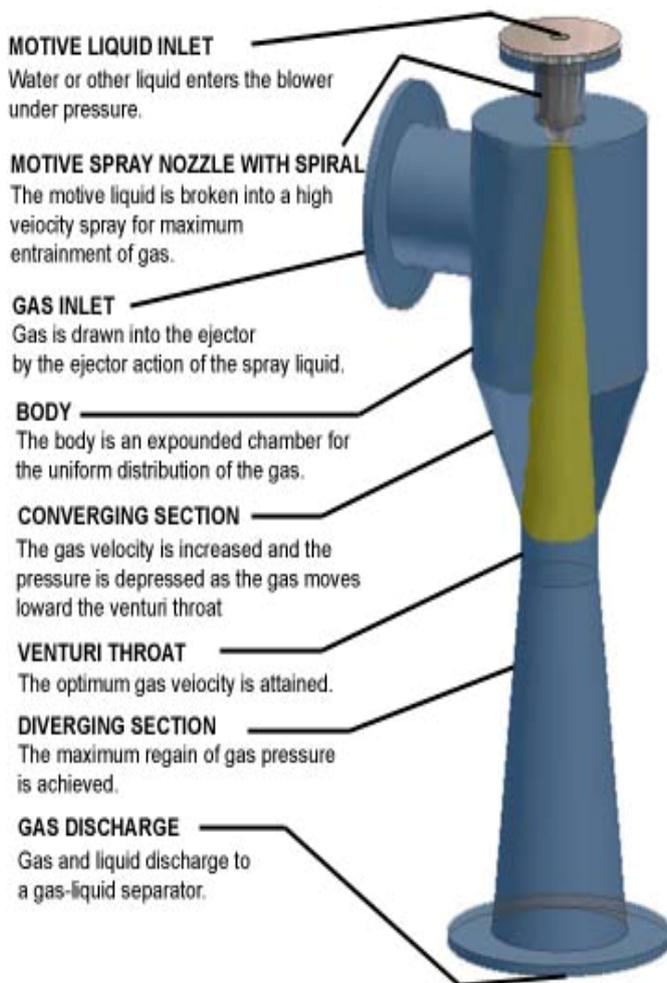


Ejector Venturi Scrubber & Blowers

E800 Series



Ejector Venturi scrubber or blower is a gas handling equipment, which utilizes the energy of a high-pressure motive liquid to effectively entrain gas. The venturi scrubber/blower is self-priming, capable of sucking large volume of gas and delivering with slight boost in pressure to few mm of water column. .

PRINCIPLE OF OPERATION:

VENTURI BLOWER:

When a high velocity liquid jet spray passes through the Venturi throat, it induces a draft action. This ejector draft action draws gas/air from source in to the blower. The sucked gas is entrained in the high velocity liquid spray flow and attains a good velocity at Venturi throat. The gas liquid mixer then passes thro' the Venturi-divergent section where in velocity energy is regained as moderate pressure energy. Also in this section of Venturi the sprayed motive liquid droplets gets together for subsequent gas liquid separation.

VENTURI SCRUBBER:

This ejector Venturi also functions as a scrubber effectively when the scrubbing liquid entrains and removes the toxic noxious gases, fumes, odor, particulates and dusts from the gas drawn into it. Venturi throat is a high turbulence zone, where in drawn gas & scrubbing liquid mixes intimately and intensively which results in effective scrubbing. As a scrubber, it performs the following unit operations effectively

- Absorption of gases odors.
- Aiding chemical reaction between gas & liquid.
- Air moving.
- Static pressure boosting of handled air/ gas.

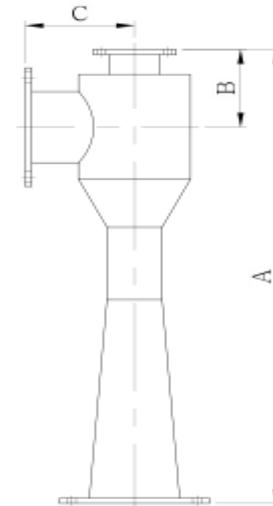


Ejector Venturi Scrubber & Blowers

E800 Series

APPLICATIONS:

- The chemical industry for the removal of dust and aerosols.
- The metallurgy for several types of degasses.
- Waste combustion installations.
- Gasification process
- Potato industry for the disposal of starch
- Glass industry
- Sinter processes



DIMENSIONS&CAPACITY TABLE:

MODEL	Nominal Air Handling capacity in m ³ /hr @ Motive water@27°C Motive pressure@4.5kg/cm ² Suction draft@25mmwc	Motive liquid inlet size in NB	Dimensions in mm		
			A	B	C
EVS-03	92.71	40NB	490	125	145
EVS-04	168.57	50NB	625	150	150
EVS-05	278.135	50NB	725	165	170
EVS-06	421.42	50NB	825	175	180
EVS-08	775.4	65NB	1025	215	225
EVS-10	1298.0	80NB	1165	250	280
EVS-12	2022.8	80NB	1310	290	320
EVS-14	2865.6	80NB	1430	325	475
EVS-16	3961.3	80NB	1610	360	525
EVS-18	5225.57	80NB	1780	400	555
EVS-20	6742.67	80NB	1930	430	600
EVS-24	10114.0	100NB	2265	500	700
EVS-30	16519.5	150NB	2725	600	900
EVS-36	34387.6	150NB	3200	700	1075
EVS-42	46355.87	150NB	3635	800	1270
EVS-48	60347.0	200NB	4120	925	1400

Ejector Venturi Scrubber & Blowers

E800 series

MATERIAL OF CONSTRUCTION:

Various materials can be employed for the ejector depending on the type and nature of the fluids used.

- Steel
- Stainless steel
- Inconel
- Hastelloy
- Titanium MS Rubber lined
- Fiber glass

END CONNECTIONS: Flanged to ANSI-B16.5-150#

OPERATING CONDITIONS:

S.No	Pollutants	Pressure drop (ΔP)	Liquid to gas ratio (L/G)	Liquid inlet pressure (P_L)	Removal efficiency
1	Gaseous	13-250 cm of water (5-100 in of water)	2.7-5.3 l/m ³ (20-40 gal/1,000 ft ³)	< 7-100 kPa (< 1-15 psig)	30-60 % per venturi, depending on pollutant solubility
2	Particles	50-250 cm of water (50-150 cm of water is common) 20-100 in of water (20-60 in. of water is common)	0.67-1.34 l/m ³ (5-10 gal/1,000 ft ³)		90-99 % is typical

ADVANTAGES:

- Relatively little maintenance
- High disposal efficiency
- Simple and compact construction
- No mechanical components
- Gaseous components are absorbed
- Insensitive for fluctuating gas flows
- Aerators are not required

