



# Confined Space Ventilation Safety

## Venturi Style Blowers (Air Horns or Eductors) Hazardous Locations

**Issue:** Underground chemical and petroleum storage tanks are required to be periodically cleaned out and inspected for leaks and/or repainted. Prior to entry, tanks must be degassed, the process of removing the toxic or explosive gases. A ventilation device must be used to perform the degassing operation and must be approved for work in hazardous locations. **The device must also be grounded to the tank in order to remove potential static charges.**

**Application:** The Venturi blower was developed in the 1940's to meet the petroleum industry's requirements for tank degassing. The base assembly of the Venturi is designed to meet API (American Petroleum Institute) standardized tank opening sizes. The Venturi is bolted to the top of the tank and a ground wire is installed from the blower to an approved ground connection on the tank. The blower operates on compressed air from a compressor or steam via a connect hose from a compressed air source. The Venturi creates a large volume (CFM) of air suction to extract gases and fumes from the tank and discharge the air out through a large galvanized exhaust cone. The Venturi can also be used to blow positive pressure in a tank, however, the air being forced into the tank should be clean breathing air if workers will be entering the tank. Installing a ventilation duct on the end of the Venturi will severely reduce the discharged air volume of the device as there is no blower wheel or moving parts to create static pressure.

**Recommendation:** Choose a Venturi size based on the size of the tank or confined space to be ventilated. Use the specifications and performance chart to select the correct blower for the confined space size. Always ground the Venturi to the tank or earth ground to remove the potential for static electricity build-up and prevent possible ignition of the hazardous vapors or dust. When performing work on chemical or petroleum tanks, consult ANSI/API (American Petroleum Institute) 2015 and 2016 Procedures for recommended safe work practices.



### Ideal For Exhausting Hazardous Vapors From Below Ground Locations

#### Venturi Blower Specifications and Performance

	50 PSIG		70 PSIG		90 PSIG		
Model	Total Air Flow		Total Air Flow		Total Air Flow		
ASI-1000	935 CFM		1274 CFM		1422 CFM		
ASI-1200	1211 CFM		1429 CFM		1580 CFM		
ASI-2900	2770 CFM		3340 CFM		3752 CFM		
ASI-4100	3785 CFM		4562 CFM		5041 CFM		
Model	Air Consumed		Air Consumed		Air Consumed		
ASI-1000	38 CFM		53 CFM		64 CFM		
ASI-1200	38 CFM		53 CFM		64 CFM		
ASI-2900	76 CFM		99 CFM		127 CFM		
ASI-4100	117 CFM		152 CFM		197 CFM		
Model	Overall Length	Diameter of Base	Diameter of Horn	NPT	Bolt Circle	Base Slot	Weight
ASI-1000	16.31"	7.38"	6.19"	1/2"	6.75"	0.31"	5.3 lbs
ASI-1200	32.12"	7.38"	7.37"	1/2"	6.75"	0.31"	8.1 lbs
ASI-2900	44.00"	11.16"	13.00"	1"	10.28"	0.43"	22.1 lbs
ASI-4100	46.50"	14.31"	14.37"	1"	13.18"	0.56"	32.3 lbs

#### Venturi Style Blowers

Description	ASI Item #
Venturi Blower, 16.31" length	ASI-1000
Venturi Blower, 32.12" length	ASI-1200
Venturi Blower, 44.00" length	ASI-2900
Venturi Blower, 46.50" length	ASI-4100

Note: Order air inlet fitting(s) separately.

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