

OPERATING MANUAL

GPF SERIES VENTURI-STYLE BLOWER



OVERVIEW

Venturi style air blowers (air horns/movers) function by utilizing the Venturi principle in which a small volume of high velocity air is forced through small openings (e.g. nozzle jets in the base of the blowers) in order to produce large volumes of low velocity air (See: flow chart on page 3). A minimum ½" I.D. hose is recommended from the air supply source to the side inlet connection on the blower base. The maximum inlet pressure for these units is 140 psi (9.7 bar).

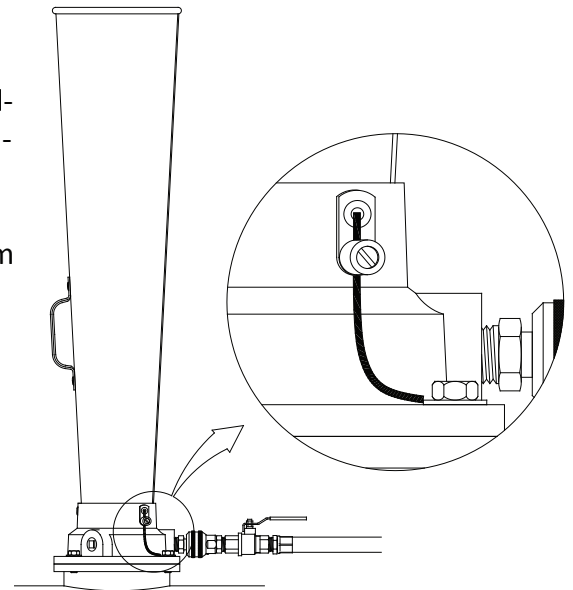
PRECAUTIONARY NOTES

Strict precautions must be taken when using Venturi style air blowers during applications that require gas freeing, tank entry, tank collapse prevention, or tank cleaning where volatile and/or toxic vapors are present. For informational purposes, please consult the American Petroleum Institute's (API) publications 2015 and 2016 prior to performing any of the aforementioned applications. These publications may be obtained from:

American Petroleum Institute
1220 L. St. NW
Washington, D.C. 20005
(202) 682-8000

Venturi air blowers have no moving parts, making them ideal for ventilating hazardous areas. To remove static electricity, a grounding lug is attached to the base of all of our Venturi air blower models. When in use in a volatile atmosphere, connect a ground wire to discharge any static electricity that may develop. The Venturi bases are made of a high quality aluminum alloy. When aluminum is scraped across rusty steel, it may create a smear which has potential to cause an incendiary spark. Be sure to take precautions not drag the base along steel tanks or other steel surfaces.

All performance ratings in this manual were measured on a unit supplied with clean, filtered air, with nozzle jets of the proper diameter and with no clogs in any manner. Precautionary steps should be taken to prevent clogging of the nozzle jets. Periodic steam cleaning is recommended. NOTE: Brass bolts and nuts should be used when securing the base assembly to the blower if used in hazardous environments. Refer to the API guidelines on proper grounding procedures.



Install desired air inlet fitting (not supplied) and attach ground wire from ground lug to base.

SETUP PROCEDURE

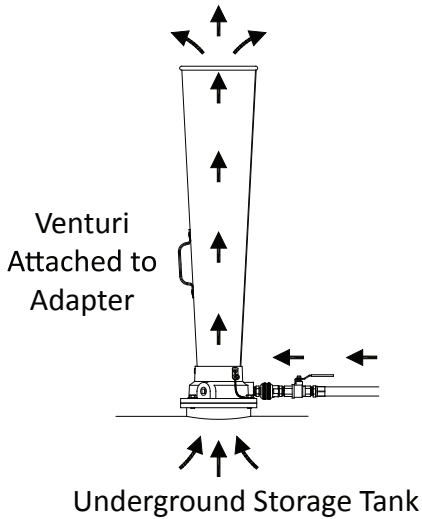
When the Venturi air blower is used to supply fresh air in a confined space, the air supply compressor must use a Grade-D air filtration package with sufficient capacity (cfm). A carbon monoxide monitor with alarm should be installed inline. Consult factory for details: 1-800-369-6671.

1. Install desired inlet fitting no less than ½" in diameter.
2. Attach grounding wire between the base of the unit and the tank.
3. Tightly secure the air blower in place prior to turning on the air supply. Be sure not to restrict the internal diameter of the air blower base as severe output flow loss will result.
4. Attach compressed air source.

Note: Venturi style air blowers are NOT meant to be used with ducting on the inlet or outlet as severe flow loss will occur.

STORAGE TANK ADAPTER MODELS GPF-1422-SP9000 AND GPF-1580

This flange has been developed specifically to thread onto the 4" vent pipe found on most storage tanks. (NOTE: Model GPF-1422-SP9000 fits models GPF-1422 AND GPF-1580 Venturi style air blowers. Model GPF-1580 fits model GPF-3752 Venturi style air blower.)



1. Using the supplied hardware, bolt Venturi air blower onto adapter.
2. Attach grounding wire between the base of the unit and the tank.
Do not restrict the internal diameter of the air blower base as severe output flow loss will result.
3. Screw storage tank adapter into 4" vent pipe on tank, and tightly secure the air blower in place prior to turning on the air supply.
4. Attach compressed air source.

Note: Venturi style air blowers are NOT meant to be used with ducting on the inlet or outlet as severe flow loss will occur.

AMERICAN STANDARD MEASUREMENTS "VENTURI STYLE AIR BLOWERS" VARIOUS INLET PRESSURES

Venturi Model	50 psig	70 psig	90 psig
	Total Air Flow	Total Air Flow	Total Air Flow
GPF-1422	935 cfm	1274 cfm	1422 cfm
GPF-1580	1211 cfm	1429 cfm	1580 cfm
GPF-3752	2770 cfm	3340 cfm	3752 cfm
	Air Consumed	Air Consumed	Air Consumed
GPF-1422	38 cfm	53 cfm	64 cfm
GPF-1580	38 cfm	53 cfm	64 cfm
GPF-3752	76 cfm	99 cfm	127 cfm

VENTURI DIMENSIONS

Venturi Model	Overall Length	Diameter of Base	Diameter of Top of Horn	NPT Size	Bolt Pattern	Base Slot Diameter	Net Weight
GPF-1422	16.31"	7.38"	6.19"	1/2"	6.75"	0.31"	5.3 lb.
GPF-1580	32.12"	7.38"	7.37"	1/2"	6.75"	0.31"	8.1 lb.
GPF-3752	44.00"	11.16"	13.00"	1"	10.28"	0.43"	22.1 lb.