

# FRPT-42 Poly Vapor Scrubber System



Rental Vapor Scrubber Unit

[www.vapor-tech.com](http://www.vapor-tech.com)

Visit our website for a comprehensive listing of our products and technical information



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# FRPT-42 Poly Vapor Scrubber System

The **FRPT-42** is an all-poly wet scrubber system designed for corrosive applications. This unit is trailer-mounted and contains both an air-operated pump and an electric magnetic-drive pump. Having both types of pumps make this unit extremely versatile and offers a degree of redundancy. This unit is designed for corrosive vapor applications or where the chemical counteractant being used is corrosive. A few examples would be **HCL, HF acid, sulfuric acid, chlorine, hydrogen sulfide, ammonia, amines, and many more.** The **FRPT-42** system is rated up to 3500 CFM, making it ideal for moderate tank cleaning and process applications. However, the standard package is with a 1200-1400 CFM electric blower which is mounted to the scrubber unit. This system has a large 850 gallon reservoir which allows for extended running times. In addition, each tower is equipped with liquid flow meters which allows for precise adjustment of liquid flow to each tower.

The system is fairly simple. Vapors enter through the 10" flanged inlet (adapters available) and immediately are routed through the first tower which has approximately 5 feet of high-flow, high-efficiency poly packing media. The vapors then are re-routed back down to the next tower and experience another 4 feet of packing media. Both towers are showered with chemical media supplied by one of the available pumps (air or electric). The last tower has a full diameter mist-eliminator which helps remove liquid particulate. Vapors leave the unit via the 10" outlet 99.9% free of original contaminants in most cases.

The **FRPT-42** is **NOT** designed for hydrocarbons (organics/solvents) or products which are heated. Maximum temperature for this unit is 130F. A temperature gauge is located on the reservoir to help keep track of reservoir temperatures. In addition, this unit is not designed for much pressure or vacuum. It is designed for atmospheric applications where free-venting is possible.



# Applications

Below is a sample list of applications and an estimated removal efficiency using the FRPT-42 system

HAZARDOUS VAPOR / VOC NEEDING REMOVAL	POSSIBLE REMOVAL EFFICIENCIES
Chlorine	99%
Acids	99.9%
Amines	99%
Ammonia	99%
Phenol	99%
Hydrogen Sulfide	99%
Wastewater Odors	99%
Oxidizers	99%
Contact Vapor Tech for other applications...	

# Scrubbing Chemicals

For corrosive applications Vapor Tech manufactures many different types of chemicals to achieve high removal efficiencies. For hydrogen sulfide, Vapor Tech's Enviro-Scrub VT only requires a 2% solution to achieve 99% H2S removal. For more common vapors such as acid vapor streams, a light caustic solution will achieve excellent removal. For complex vapor streams please contact Vapor Tech at (409) 316-0173 or visit our website at [www.vapor-tech.com](http://www.vapor-tech.com).





# FRPT-42 Specifications

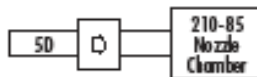
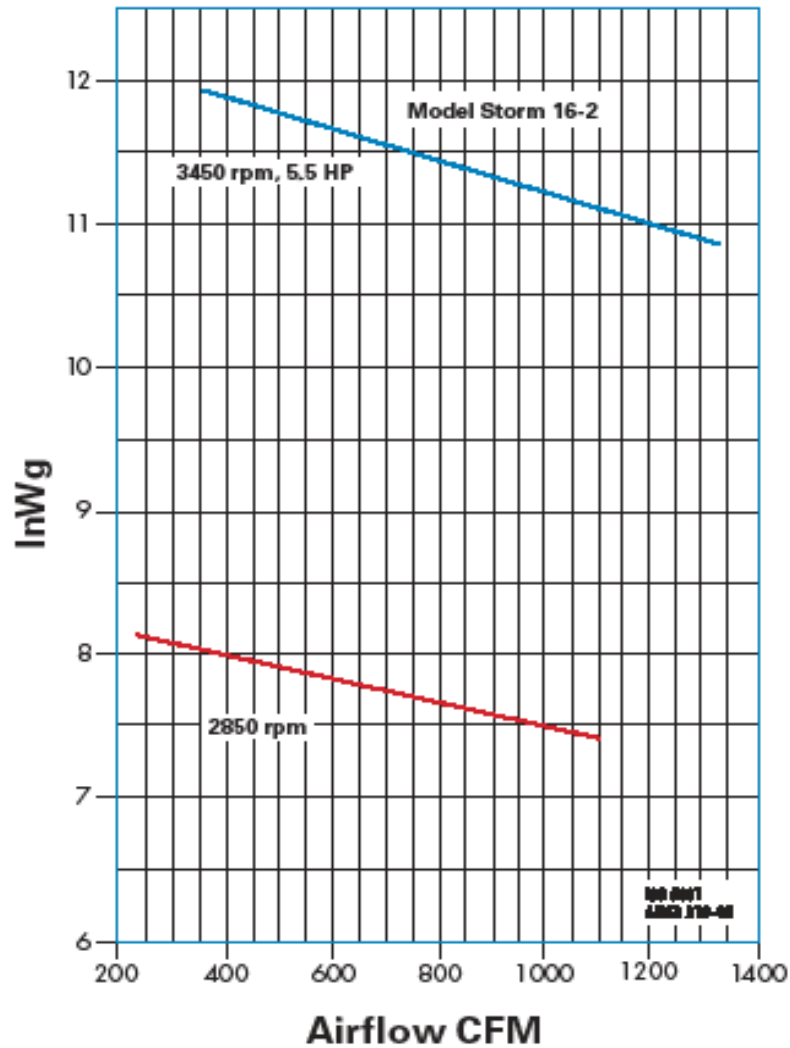
## Operational Parameters

Maximum Flow Rate (CFM)	3500
Minimum Flow Rate (CFM)	200
Maximum Pressure (PSI)	1
Maximum Temperature (°F)	130
Pressure Drop Across System (@ 1200 CFM)	Approximately 3" of water
Maximum Vacuum (in Hg)	1.5

## Vapor Scrubber Specifications

Overall Unit Footprint (Trailer Size)	8'W x 16'L
Trailer Type	Bumper-Pull
Empty Weight (Pounds)	2500
Vapor Inlet	10" Flange (150#). Reducer to 6" hose available too.
Vapor Outlet (From Scrubber Tower #2)	10" Flange
Number of Towers	2
Tower Diameter (Inches)	42
Packing Height (Feet)	9 (Total for Both Towers)
Reservoir Capacity (Gallons)	850
Re-Circulation Pump Type	1.5" Air Diaphragm & Electric Magnetic Drive (230/460)
Number of Pumps	2
Utility Required for Pumps	Compressed Air or Nitrogen / 230/460V 3 Phase Power
Pump Air Consumption (SCFM)	70
Blower	STORM 16 Blower (see attached flow chart)
Unit Equipped with Mist Eliminator?	YES

# STORM 16



Type B  
Noise Level Test type B, visit our website for details

n (T/min) R.P.M.	dB (A)	dB
1450	79,3	92,6
1720	83,3	98,2
2850	94,8	110
3300	98,2	114,2



Type D  
Ducted inlet/Ducted outlet

Housing and motor noise level when fan is running near maximum output

n (T/min) R.P.M.	Global dB	Global dB (A)
1450	90,6	77,7
1720	99,1	81,8
2850	115,8	93,8
3300	119	97

ISO 9814/1

PLASTEC VENTILATION, INC.