



VPV2K - VPV13K RENTAL VAPOR-PHASE ADSORBER VESSELS

APPLICATIONS

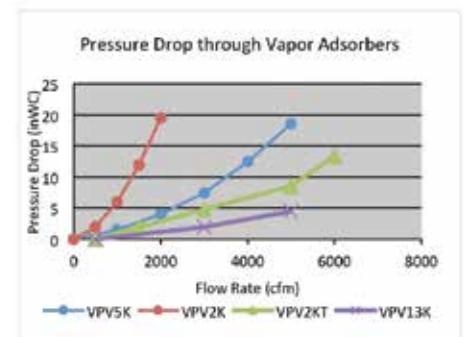
Evoqua's vapor-phase adsorption system media vessels hold granular activated carbon (GAC) or other adsorptive media designed to remove contaminants from vapor streams. These systems are used in such applications as:

- Volatile Organic Compound (VOC) control from Soil Vapor Extraction (SVE) systems
- National Emission Standards for Hazardous Air Pollutants (NESHAPS) emissions control
- Vent treatment from wastewater or product storage tanks
- Low-level hydrogen sulfide (H₂S), ammonia (NH₃), acid, and caustic vapor removal
- Odor and emission control
- Truck and rail car vapors
- Air stripper off-gas treatment
- Process air treatment
- Pilot testing

INSTALLATION, STARTUP AND OPERATION

The VPV2K, VPV3K, VPV5K, and VPV13K vessel systems are shipped as individual vessels with modular interconnecting hosing suitable for system operation in parallel and series. The systems require minimal field assembly and site connections.

Evoqua can provide a total service package that includes OSHA-trained personnel performing onsite GAC changeouts, packaging, and transportation of spent GAC. The GAC is reactivated at our RCRA-permitted reactivation facilities, where the contaminants are thermally destroyed.



Features and Benefits

- Carbon steel or stainless steel
- Corrosion-resistant acrylic polyurethane-coated exterior on carbon steel vessels
- Compact design for easy handling, drum replacement, and transportation
- Pressure and optional temperature gauges allow for process stream monitoring
- Optional hose, valve, and blower packages
- Designed to minimize pressure loss through vessel

SPECIFICATIONS / TYPICAL PROPERTIES	VPV2KT	VPV2K	VPV3K	VPV5K	VPV13K
Dimensions (dia. x sidewall height)	4' x 7'	5' x 6'6"	6' x 6'6"	8' x 6'6"	8'8" x 16' rectangle 8'8"
Overall Height	7'7"	7'2"	7'3"	7'	8'8"
Optional Process Piping	4", 6", 8", or 10"	4", 6", 8", or 10"	4", 6", 8", or 10"	12"	12"
Flanged Inlet/Outlet (150# ANSI)	8"	8"	8"	12"	12"
Material of Construction	Carbon Steel or Stainless Steel	Carbon Steel or Stainless Steel	Carbon Steel	Carbon Steel	Carbon Steel
Manway (dia., side shell location)	20"	20"	20"	20"	20"
Manway (top)	12" x 16"	12" x 16"	12" x 16"	12" x 16"	12" x 16"
Max. Flow (cfm)*	800	1,000	3,000	4,000	12,000
Interior Coating	None	None	None	None	None
Exterior Coating (not on all stainless steel vessels)	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Empty System Weight (lb.)	1,150	1,200	1,800	3,970	9,250
GAC Weight Capacity (lb.)**	2,000	2,000	3,000	5,000	13,000
Capacity (ft ³)	70	70	105	145	465
Operating Weight (lb.)	3,150	3,200	4,800	8,970	22,250
Design Pressure (psi) @ 140°F	<1	<1	<1	<1	<1

Contact your local Evoqua Sales representative to confirm vessel selection, verify appropriate flow rates and obtain detailed specifications, dimensional information or drawings.

* Maximum flow based on maximum hydraulic loading. To verify appropriate flow rates and vessel sizes, contact your Evoqua representative.

** GAC weight based on density of 28 lb./ft³. Loaded weight can vary depending on actual GAC density.

Safety Note: The adsorption of organic compounds onto GAC generates heat. In rare instances, adsorbed compounds may also react on the GAC particle surface to generate additional heat. If these heat sources are not properly dissipated, the GAC bed temperature may rise to the carbon ignition point, leading to a fire or other hazardous condition. A description of industry accepted engineering practices to assure the dissipation of heat and safe operation of the GAC bed can be provided upon request. In certain applications where the risk of ignition is significant, GAC may not be a recommended treatment technology. Please contact your Evoqua sales representative for more details.

Wet GAC readily adsorbs atmospheric oxygen. Dangerously low oxygen levels may exist in closed vessels or poorly-ventilated storage areas. Workers should follow all applicable state and federal safety guidelines for entering oxygen-depleted areas.

Reactivation Capabilities: We can provide instructions on sampling the spent GAC and completing our spent GAC profile form. Our certified laboratory can perform spent GAC acceptance testing. When requested, a certificate of reactivation will be issued.

ProAct Services Corporation is an Evoqua company.



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