Contaminant extraction systems



Xylem's mobile solutions portfolio is highly configurable to meet customer needs, treatment goals and project timelines. With a wide range of liquid and vapor solutions, a treatment system can be configured based on contaminant concentration levels, contaminant phase (liquid and/or vapor) and flow rate. Xylem's enclosed and insulated extraction systems are able to be deployed in any weather condition while mitigating noise disturbances to surrounding areas. Applications include Underground Storage Tank (UST) site remediation and general groundwater remediation.

Soil Vapor Extraction (SVE)

Xylem's Soil Vapor Extraction systems connect at well-points to draw Volatile Organic Compounds (VOC), like petroleum, out of soils. The size of the system will depend on soil permeability, VOC concentration and flow rate. Some SVE units are equipped with air sparge capabilities. Depending on air permit thresholds and flow rate, vapors can be released to atmosphere, further removed through carbon beds or destroyed through a thermal destruction technology like a Catalytic Oxidizer (CatOx).

Dual- and Multi-Phase Extraction Systems (DPE / MPE)
In applications where the groundwater table nears the area of soil contamination, a dual- or multi- phase extraction system is recommended to treat contaminants in both air and water.

System configuration will depend on types of contaminants being treated, contaminant concentration and flow rate. Systems typically include a vacuum pump, a knockout tank, an oil/water separator, an air stripper to remove VOCs from the groundwater, bag filters and carbon beds to treat air and water to discharge requirements.

Ease of operation

Each system includes a separate control and process room where key parameters can be monitored to ensure the system operates as designed.

- Vacuum and pressure gauges and transducers
- Liquid and vapor flow meters
- Temperature sensors
- Sample ports
- Alarm indicator lights
- Hand Off Auto (HOA) switches for all components
- Transformers
- Heaters and fans
- All required plumbing
- Emergency-stop button

Controls and monitoring equipment are centralized on a single interface and controller. From these screens, operators can quickly view operations conditions monitored throughout the unit, adjust process setpoints or update required flow or operational mode.

Specifications

	SVE	DPE/MPE
Length of trailer	12-28'	16-32'
Height of trailer	6-8'	7-10'
Type of trailer	Double axle	Double axle
Vapor removal (acfm)	125–840	140-1000
Water removal rate (gpm)		5-50
Knockout tank (gal.)	120-220	80–220
Vacuum blower size (hp)	10–50	
Vacuum pump size (hp)	1-10	10-75
Power requirements (V)	230-480	240-480
Power requirements (A)	100-200	100-200
Other equipment included*		
Air sparge (cfm)	44	160
Air stripper (gpm)		50
Bag filter housings	2	2
Carbon vessels (lb)	180	200-2,000
Oil / water separator (gpm)		10-150

* Trailer confgurations vary by unit: not all units include various ancillary separation or filtration equipment. Speak with your sales representative about flow rate and treatment goal needs.

Note: Please refer to the unit operation and maintenance manual for specific operating and unit component information.

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