

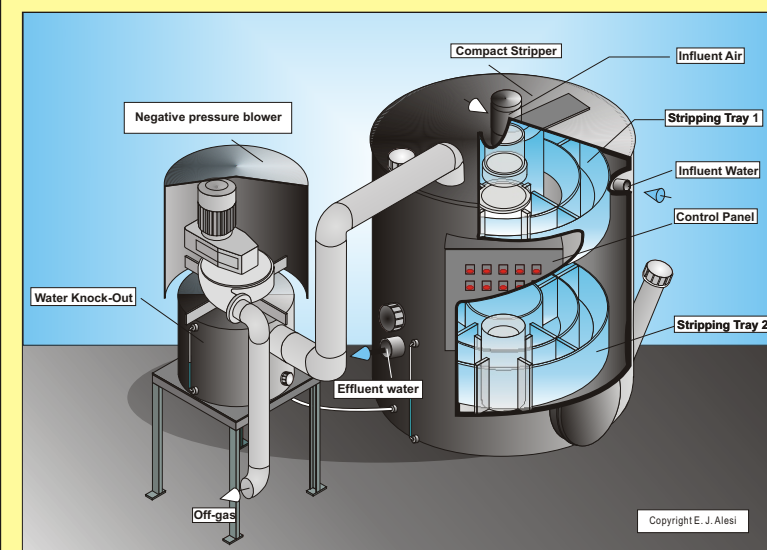
# IEG Technical Briefing Note No. 10

## KS 1000 Compact Vacuum Stripper™ - IEG CVS 1000™

IEG's **Compact Vacuum Stripper™** (IEG CVS 1000™) is an innovative system for the removal of volatile organic compounds (VOCs) from contaminated groundwater. Highly efficient in its design and effective in operation, the system is capable of receiving and treating up to a maximum of 15 m<sup>3</sup>/h of highly contaminated water, with a VOC removal efficiency of up to 99.5%.

The key element of the system is a patented IEG two-stage stripping reactor located within a sealed HDPE treatment chamber. During operation, a low negative pressure is applied by means of an explosion-proof blower to create a small vacuum within the treatment chamber. An air inlet tube allows atmospheric air into the treatment chamber, which flows with the contaminated water, reducing the vacuum pressure and flushing through the stripping reactors to remove the volatile components from the water.

During treatment, contaminated water is pumped into the treatment chamber by a pump and transported via a distributing pipe to the uppermost of two coaxial stripping trays. Water flow is enhanced by a series of guide plates located on the upper stripping tray. Partially treated, the water descends into the second stripping tray where the cleansing process is repeated. The VOCs are desorbed from the contaminated water via the stripping air and are removed with the off-gas and adsorbed on to granular activated carbon contained within a high efficiency patented **IEG GAC-Sorb™** system. The treated water drains along contained flow channels within the system and is pumped to a separate GAC polishing system (if required) by means of a liquid discharge pump.



IEG KS 1000 Compact Vacuum Stripper™ System  
for treatment of contaminated groundwater  
(IEG CVS 1000™ Process)

The IEG CVS 1000™ system is capable of continuous operation, 24/7, over extended periods providing reliable and effective VOC stripping capability without the need for regular disruptive maintenance. When required, maintenance can be completed faster and for less cost. For cleaning, stripping trays can be removed separately and simply jet-washed with proprietary cleaning agents.

- **Patented design - proven engineering**
- **Quicker, Smaller, Smarter, Greener**

The IEG CVS 1000™ method is a process patented by IEG.



**To discuss your in situ soil and groundwater remediation requirements, or for a free remediation concept and quotation, please contact us**

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### Specification

- Maximum influent flow rate 15 m<sup>3</sup>/h
- Stripping efficiency (for most VOCs) 98% to 99.5 %
- Off-gas air volume approx. 800 m<sup>3</sup>/h
- Required space 1.4 x 3.0 m
- Height 2.2 m
- Weight of Equipment (operational) approx. 1,250 kg
- Operating noise level (undamped) 80 dB(A)
- Power Take-Up (3-phase) approx. 4 kW

### Advantages

- Simple, modular construction design; can be retrofitted to existing extraction systems.
- Low profile system, no tower packing required.
- Self-contained system in insulated enclosure, complete with control panel and hook-ups.
- Easy installation, easily moved.
- The system produces dry off-gas (negative pressure stripping does not require conditioning of the off-air).
- Dry off-gas permits optimal use of the adsorption capacity of Granular Activated Carbon.