

CYCLEVENT® CV2 Sales Specifications



CYCLEVENT® CV2 – clean and simple

DESCRIPTION

The **CYCLEVENT® CV2** Service is a mobile adsorption service combining adsorber and transport vessel for the treatment of air and gas streams.

The **CYCLEVENT® CV2**, pre-loaded, is delivered to a site and placed where required by forklift truck. The units may be stacked 2 high and have crane lifting lugs. The unit is operated until saturation of the activated carbon. A second unit is normally delivered at the same time that the exhausted unit is picked to minimise transport.

Once the unit is returned to a **Chemviron Carbon** facility it is discharged of spent carbon, cleaned, checked and refilled with virgin or reactivated carbon.

The **CYCLEVENT® CV2** is suitable for immediate connection to the stream to be treated. The frame for the unit allows it to be placed on a suitable flat and hard surface.

The air or gas flows through the unit in an upflow direction and the unit is normally utilised as the end of pipe. The outlet should be monitored periodically to check the activated carbon is achieving the treatment objective. For larger flows or duties, a number of units can be used in parallel.

FEATURES

- A mobile adsorber service designed for **rapid and easy site installation** by forklift.
- Adsorbers can be shipped with carbon for immediate **start up**
- Flexible service (rental) arrangements are available to meet short campaign or long term needs, **avoiding capital investment**
- No maintenance cost
- Carbon can be exchanged by simply changing units, **eliminating on site carbon transfer**
- Spent carbon may be reactivated and recycled for reuse **to minimise waste**
- Spare units are available in **Chemviron Carbon** production facility for change out

APPLICATIONS

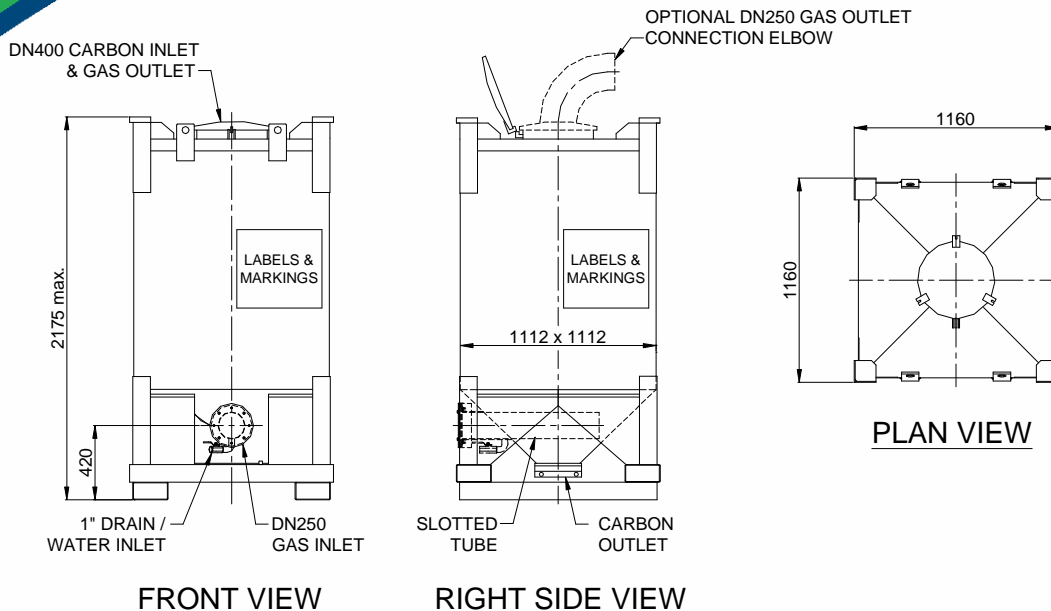
- Process exhaust and drier vents
- Soil gas extraction
- Air stripping off gas
- Tank venting
- Solvent removal
- Spray booth exhausts
- Industrial gas treatment
- Building venting

RECYCLING BY THERMAL REACTIVATION

Once granular activated carbon is saturated or the treatment objective is reached, it can be recycled, by thermal reactivation, for reuse. Reactivation involves treating the spent carbon in a high temperature reactivation furnace to over 800°C. During this treatment process, the undesirable organics on the carbon are thermally destroyed. Recycling by thermal reactivation is a highly skilled process to ensure that spent carbon is returned to a reusable quality. **Chemviron Carbon** operates Europe's largest reactivation facilities and daily recycles large quantities of spent carbon for a diverse range of customers. Recycling activated carbon by thermal reactivation meets the environmental need to minimise waste, reducing CO₂ emissions and limiting the use of the world's resource.

CARBON ACCEPTANCE

The return of the exhausted unit is subject to spent carbon acceptance procedures. For some new applications, a sample pot may be supplied with the unit to allow a small bypass stream to be treated so a representative sample can be obtained for testing prior to return of the unit.



TECHNICAL DESCRIPTION

Carbon consumption, typical	5-50 tonnes/y
Carbon volume per adsorber	Approx. 900 kg up to 2 m ³
Flow rate, maximum	2000 m ³ /h
Temperature, maximum	80°C
Pressure, maximum ¹	0.1 bar (gauge)
Surface area	1.3 m ²
Connection – Inlet ²	250 mm
Connection – Outlet ³	Manhole opening
Vessel materials	SS304
Piping material	SS304
Gaskets (pipeline)	EPDM
Footprint	1.17 x 1.17 m
Height - upright	2.2 m
Height - clearance for moving	2.4 m
Weight - shipping (dry carbon)	1350 kg
Weight - shipping (drained)	1800 kg
Weight - operating (flooded)	3000 kg

¹The unit is not vacuum rated.

² Outside diameter stud connection.

³ Option: outlet elbow DN250 for further connection similar to the inlet.

SAFETY MESSAGE

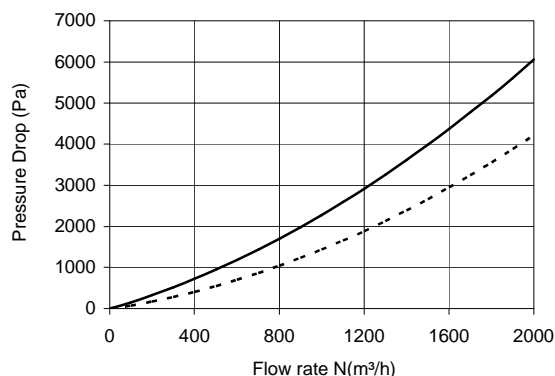
Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low-oxygen spaces should be followed.

QUALITY

Each of our worldwide operations has achieved **ISO 9001** certification for their quality management system related to activated carbon. **Chemviron Carbon** guarantees the specifications against representative sampling.

PRESSURE DROP

Typical Pressure Drop
CYCLEVENT[®] CV2 with AP3-60 & AP4-60
Dry Air at 20° C and 1.015 bar



CHEMVRON CARBON

Chemviron Carbon, the European operation of Calgon Carbon Corporation, is a global manufacturer, supplier, and developer of granular activated carbon, innovative treatment systems, value added technologies, and services for optimising production processes and safely purifying the environment.

With our experience developed since the early years of the twentieth century, facilities around the world and a world-class team of over 1,200 employees, Calgon Carbon Corporation can provide the solutions to your most difficult purification challenges.

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Visit our website at www.chemvironcarbon.com

ES2050 - E - 29.03.2007



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