

PROTECT[®] L50 Sales Specifications



PROTECT[®] L50 – simple and easy

DESCRIPTION

The PROTECT[®] L50 is designed primarily to demonstrate the removal of compounds such as colour, taste, odour and pesticides from liquids.

The PROTECT[®] L50 is delivered to a site and moved by a trolley where required. The unit contains up to 50 litres of activated carbon.

The range of available carbons and the material of the vessel allow a wide range of liquids to be treated. The unit can be preloaded with activated carbon for a quicker start-up.

The PROTECT[®] L50 operates in a downflow mode. Liquid enters at the top and is then discharged from the vessel bottom via an internal underdrain. On top of the vessel the inlet and outlet are located on the same fitting. The outlet is connected inside the vessel to a strainer with a dip-pipe. The activated carbon loading is performed through the same fitting on top of the vessel. The unit can be operated in series or parallel together with other units.

If required, bags of activated carbon can be supplied to fill on site the unit via the top.

FEATURES

- A mobile pilot unit designed for **rapid and easy site installation** by trolley.
- Corrosion resistant plastic materials
- Adsorbers can be shipped with carbon such that **start up is immediate**

APPLICATIONS

The unit has been designed for pilot testing or small scale applications for corrosive liquids including waste waters not suitable to be treated by stainless steel adsorbers. The PROTECT[®] L50 can be used for following applications:

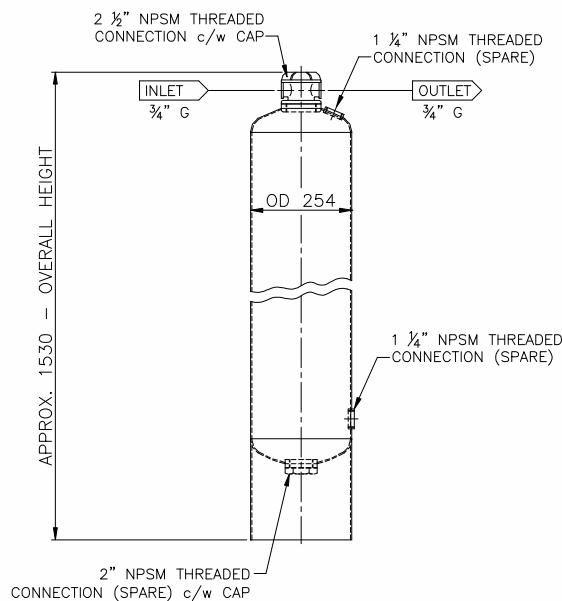
- Potable water
- Waste Water treatment
- Landfill leachate
- Groundwater remediation
- Hydrochloric acid purification
- Aluminium chloride purification
- Chemical purification

CARBON ACCEPTANCE

The return of saturated carbon is subject to spent carbon acceptance procedures. For some new applications, a representative sample can be obtained for carbon acceptance testing from the PROTECT[®] L50.

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.



TECHNICAL DESCRIPTION

Carbon volume per adsorber	Approx. 25 kg; 50 l
Flow rate, maximum	2 m ³ /h
Temperature, maximum*	45°C
Pressure, maximum**	5 bar (gauge)
Suspended solids***	Up to 10 mg/l
Diameter	254 mm
Straight side	1371 mm
Connections – Main inlet/outlet	3/4 G
Vessel materials	Polyethylene lined Fibre Reinforced
Piping material	PVC/Polypropylene
Footprint	300 mm x 300 mm
Height – upright	1.8 m
Recommended clearance	2.0 m
Vessel Shipping Wt.	10 kg
Weight – shipping (drained carbon)	35 kg
Weight – operating (flooded)	85 kg

(*) To comply with CDM regulations, when operating above 40°C, the unit should be insulated.

(**) The unit is not vacuum rated.

(***) Depending on the flow and composition.

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 **ISO9001** certification for their quality management system related to activated carbon. **Chemviron Carbon** guarantees the specifications against representative sampling.

CHEMVIRON 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

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