The Chemsorb® purifier is designed and dimensioned by Tecnosida according to data provided by the customer in order to maximise the retention of the substance to be treated.

Tecnosida offers both circular and rectangular models. The circular one is composed of robust carbon sheet steel elements, a rolled and painted structure, and support legs. The rectangular type is made of press formed galvanized panels, assembled and bolted to each other. Alternatively, they can be made of other materials.

This type of construction makes future expansion of the purifier simple. Chemsorb® consists of compact elements that allow the spent carbon to be easily replaced with new refills.

It is therefore a very simple plant to manage, both in operation and for maintenance.
Con il termine di carboni attivi vengono indicati i carboni che hanno subito un trattamento di attivazione, il quale conferisce al carbone una porosità eccezionale e conseguentemente, un potere adsorbente. L’adsorbimento consiste nel captare e trattenere le molecole di gas ed altre sostanze inquinanti all’interno delle cavità esistenti sul carbone, e ciò grazie a legami di natura elettrostatica.

L’efficacia dell’adsorbimento è influenzata da molteplici fattori: umidità relativa, temperatura, punto di ebollizione degli inquinanti, velocità di attraversamento, superficie dei carboni attivi, peso molecolare e concentrazione delle sostanze inquinanti da captare.

E’ consigliabile l’impiego dei comuni carboni attivi fino ad una temperatura massima di 50-60°C. Per evitare una saturazione rapida del carbone attivo è necessario operare con umidità relativa inferiore al 60%.

La quantità e qualità del materiale adsorbente effettivamente utilizzato dipende dalla concentrazione e dalla tipologia dei solventi (COV) da trattare. Sulla base del grado di retentività di tale materiale e dei parametri progettuali di prodotto, l’efficienza tipica di un filtro a carboni attivi Chemsorb® può arrivare al 95%.

The term active carbon refers to carbon that has been subjected to an activation treatment, giving it exceptional porosity and consequently making it adsorbent. The adsorption consists of capturing and retaining the molecules of gas and other pollutants in the carbon’s cavities, thanks to electrostatic bonding.

The carbon’s adsorbent effectiveness depends on many factors: relative humidity, temperature, boiling point of the pollutants, speed at which the flow passes through, active carbon surface area, molecular weight and concentration of the pollutants to be captured.

The use of common active carbon is recommended for temperatures up to a maximum of 50-60°C. To prevent rapidly saturating the active carbon, it is necessary to work with a relative humidity of less than 60%.

The quantity and quality of adsorbent material effectively used depends on the concentration and type of the solvents (VOCs) to be treated. The typical efficiency of a Chemsorb® active carbon filter can reach 95%, depending on the material’s degree of retention and design parameters.
A wide range of accessories is available: any dust or spray pre-filters, guardrails, galleries, foot irons and other supplementary options such as anti-explosion panels and non-return valves for ATEX zone applications.

Tecnosida designs and builds plants according to the procedures of its EN ISO 9001:2008 quality management system. The values related to atmospheric emissions are within the limits allowed by the Italian standards, including Legislative Decree no. 152 of 3 April 2006 and the resolution passed by the Lombardy region, Regional Council Resolution IX/3552 of 30/05/12 giving authorisation for projects, in accordance with the best available technologies and meeting the limit values established by the competent authorities. Installation and maintenance carried out on site, is completely compliant with Italian Legislative Decree no. 81 of 9 April 2008.

Ideal for all production processes in general and specific applications that generate emissions containing VOCs such as:

Dry cleaning with VOCs (volatile organic compounds) or COCs (chlorinated organic compounds)

Printing, painting, impregnation, glue spreading, resin coating, laminating, pad printing and lithography of various substrates with solvent-based products.

Production of paints, glues, adhesives and/or related products with solvents.

Other processes with VOC emissions.

Operazioni di lavaggio a secco con COV (composti organici volatili) o COC (composti organici clorurati)

Operazioni di stampa, verniciatura, impregnazione, spalmatura, resintatura, adesivizzazione, accoppiatura, tampografia e litografia di substrati di vari tipo con prodotti a solvente.

Operazioni di produzione vernici, collanti, adesivi, pitture e/o prodotti affini con solventi.

Altre operazioni con emissioni di COV

Ideal for all production processes in general and specific applications that generate emissions containing COVs, such as:

Dry cleaning with VOCs (volatile organic compounds) or COCs (chlorinated organic compounds)

Printing, painting, impregnation, glue spreading, resin coating, laminating, pad printing and lithography of various substrates with solvent-based products.

Production of paints, glues, adhesives and/or related products with solvents.

Other processes with COV emissions.

Operazioni di lavaggio a secco con COV (composti organici volatili) o COC (composti organici clorurati)

Operazioni di stampa, verniciatura, impregnazione, spalmatura, resintatura, adesivizzazione, accoppiatura, tampografia e litografia di substrati di vari tipo con prodotti a solvente.

Operazioni di produzione vernici, collanti, adesivi, pitture e/o prodotti affini con solventi.

Altre operazioni con emissioni di COV
Tecnosida designs, builds and installs plants for treating airborne pollutants for all the major industrial sectors. Tecnosida manufactures complete plants starting from pollutant catchment at the individual emission points, to expelling the duly treated flow into the atmosphere.

Thanks to many years of experience and hundreds of plants currently in operation, Tecnosida is a reliable, high-quality partner for design and production projects in Italy and abroad.

DUSTDOWN® TURBOVORTEX® CHEMSORB® DUSTDOWN® Biomass SCRUBBERS PWS®