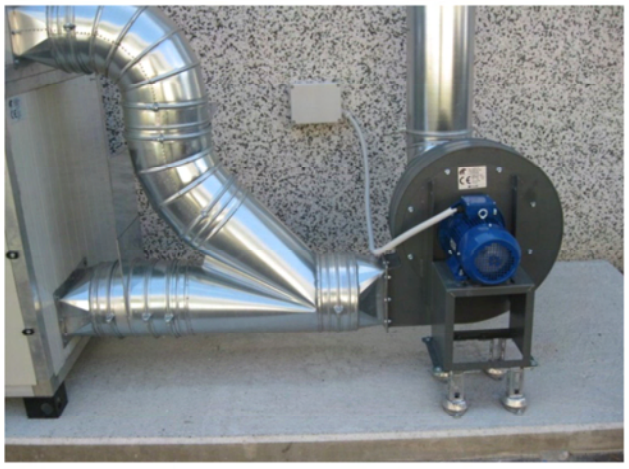
CASEHISTORY

tecnosida®



Product: CHEMSORB®
Problem: VOC
Sector: Photovoltaic panel processing

CASE HISTORY

The customer:

The customer is an Italian manufacturer of polycrystalline silicon photovoltaic modules, made with the utmost care and with the best industrial technology to achieve high efficiency and favour greater long-term performance.

The problem:

During the lamination cycle that compacts the photovoltaic cells with the protective EVA film, aerifrom pollutants called VOCs are normally released into the atmosphere.
Moreover, the fumes from the welding department, with a limited dust content, also join the same exhaust flow.
In this case, as often happens for reasons of productivity, the work cycles are continuous and active 24 hours a day.

What are VOCs:

Volatile organic compounds (VOC) consist of chemical compounds made up of molecules of various functional groups, with different chemical and physical behaviour, but characterised by a certain volatility range. Both hydrocarbons containing only carbon and hydrogen, and compounds containing oxygen, chlorine or other elements, such as aldehydes, ethers, alcohols, esters, chlorofluorocarbons (CFCs), etc. are classified as VOC.

The proposed solution:

Tecnosida® designed a two-stage system:

1. Pre-treatment with filter cells that reduce the dust concentration. This is necessary to maintain the functionality of the next stage
2. The second treatment is active carbon filtration, carried out at a controlled rate in order to bring the reduction parameters within the legal limits.

Plant data	
Year	2011
Capacity	2,000 Nm^3/h
Temperatures	5/35 °C
Installed power	3 kW
Compliant exhaust piping	h. 10 m
Operation	Continuous 24/24