

CASE HISTORY



Product: OILSCREEN®
Problem: Oily mist emissions
Sector: Non-Woven Fabric Production

The customer:

The customer is a leading manufacturer of non-woven fabric (NONWOVEN) for various uses, including personal hygiene, industrial use, clothing, wallpaper, agriculture, etc.

In short, NONWOVEN, rather than being woven on a loom, is made of a polymer (generally polypropylene / PP or polyester / PET), which is melted, spun and distributed as a continuous thread by the extruders in such a way that the threads cross over in a random fashion. Finally, a heated cylinder (roll stack) makes the fibres bind together and gives them the characteristic square or oval "pitting" that makes the fabric soft and at the same time durable.

The problem:

During the production process, synthetic monomers such as polypropylene are used at high temperature, creating emissions that can be defined "polymeric vapours", or oily mist emissions that are difficult to treat as their physical properties change with the temperature.

The proposed solution:

Tecnosida® inspected the customer site and made the following proposal :

- To use the Oilscreen® filter with coalescence technology. The version for outside use in low temperature environments is equipped with a temperature regulator and special insulation to minimise the impact of the cold winter temperatures on the physical state of the effluent to be treated.
- The air to be treated is passed through insulated oil-tight external piping made of Aisi 304 stainless steel sheet with flanges.
- Installation of a jib hoist allows maintenance/replacement of the coalescent filter cartridges, which have an overall weight of more than 250 kg each in operation.



Figure 1: detail of the protection railing

Plant data	
Year	2015
Capacity	3,800 m ³ /h at about 40° C
Installed power	4 kW