VANTERM
Passion for excellence in clean air solutions.

CASE STUDY NAME

STENTER EXHAUST FILTRATION

Case Study Facts

Products:	ESP-600 Electrostatic Filter units	Process:	Stenter frames in textile industry.

Customer: Akdem Tekstil - BURSA , TURKEY

Requirements & Challenges

The company, AKDEM, is producing various types of fabrics: Fabrics made of natural fibers up to fabrics made of synthetic fibers or so-called chemical fibres. During this fabric production, **a heat treatment is carried out** in order to provide different physical properties to the fabric. This heat treatment is done at AKDEM, in **Brückner Stenter frames**. The operating temperature of the Brückner Stenter frame **can reach up to 210°C**, or even higher depending on the fabric type. On the **exhaust outlet of the stenter frame**, there is a high amount of **smoke, wax and mist**, which creates severe odor-intensive problem around the production plant. Therefore, AKDEM was looking for a filter unit to solve this exhaust gas problem.

SOLUTION

VANTERM observed carefully the operating conditions, investigated the parameters of the project and calculated the required capacity. The **exhaust gas temperature was too high**, which was one of the challenges. However, this challenge was also the key for **energy saving potential**. It was very important to save this heat energy on the outlet, by providing an effective heat recovery together with the **effective filtration**.

Since the exhaust gas was composed of mist, wax and fume, it was obvious for VANTERM to use **electrostatic filtration technology** to provide an effective separation. Therefore, VANTERM installed ESP-600 electrostatic precipitator units (so-called electrostatic filter units) together with the integrated in-house heat exchangers. After the first day of installation, AKDEM has started to save valuable heat energy, and solve the odor problem at the exhaust of its stenter frames.

- **Visit www.vanterm.com for more information.**