

Munters creates optimal storage climate for hygroscopic fertilizer

Gemlik Gübre, Turkey

Gemlik Gübre is Turkey's largest fertilizer manufacturer. Based in Bursa, they produce various types of fertilizers, and export 65% of their production. Gemlik Gübre has recently inaugurated their 400,000m³ fertilizer storage facility.

A big production

The 240 x 85 x 20m storage building contains up to 150,000 tons of nitrogen-based fertilizer CAN. (Calcium Ammonium Nitrat). Fertilizer production takes place from September to April, with product stored in the new facility during this time of year. From May to July the product is distributed from the storage. The storage facility then closes in August, when a thorough cleaning is carried out.

Storage requirements

CAN fertilizer is a highly hygroscopic product that must be stored at low humidity and temperature, below 30% RH and 32°C. Higher humidity or warmer temperatures will cause the product to crystallize, disturbing product quality, and creating expensive waste.



The Munters solution

Bursa averages 37°C, 18g/kg (approx. 50% RH), meaning dehumidifying the warehouse was necessary. To address this issue and these conditions the Munters MDU systems were the perfect solution.

Two MDU2500 systems totally treat 95,000m³/h in an open system (100% fresh air) and the MDU system is equipped with both pre- and post-cooling, and is steam reactivated for optimized energy economy.

The DSS system (today named the DSS system) is a modular dehumidification system where sectors for pre- and post-treatment of the air are elegantly integrated in the system design. Because of the aggressive fertilizer content, all duct work and ventilation equipment is made from stainless steel.

Case study

- Munters creates optimal storage climate at Gemlik Gübre

Advantages:

- Constant storage climate all year round
- Maintaining high product quality
- Reducing waste and saving money
- Integrated pre- and post-treatment

Would you like to find out if Munters has a solution for your company too? If so, please visit our website, www.munters.com

Munters reserves the right to make alterations to specifications, quantities, etc., for production or other reasons, subsequent to publication.
© Munters AB, 2021