

Fidel Dreher GmbH, Stockach

Tradition since 1924.

Fidel Dreher GmbH is an owner-managed company situated in the area of Lake Constance, Germany and looks back on a long tradition.

Currently it is managed in third generation by Hans-Peter Dreher. The company's philosophy focuses strongly on highest quality and innovation as a fundament for long-standing client relationships. The product spectrum encompasses **fruit juices, fruit juice concentrates and purees** which are sold throughout Europe. Fidel Dreher GmbH relies on state-of-the-art facilities and points toward a continued healthy economic growth.

The **task** was given in assuring a possibility to supply energy using heat, steam, power and cold under the conditions of being environmentally friendly and economically.

The innovative solution has been realised in combining a high efficient cogeneration unit, a NH₃-absorption chiller, a steam generation by firing exhaust gas and an economical recooling plant that are connected to an intelligent control system.

A call for flexible plant technology caused by changing operational requirements has been fulfilled with the fully automatic combined heat and power system. Therefore can be reached an overall degree of efficiency of 90 %.

Technical data of the combined cold heat and power system:

electrical power: 1200 kW
 thermal output: 1300 kW at 98/78 °C
 cooling capacity: 600 kW at -6 °C

savings: the annual emission of CO₂ is reduced by approx. 30 % compared to conventional methods of construction. The foresight of this energy concept is shown in using ammonia as a natural refrigerant.

