

Turning milk into cheese

AVUS 1500B EFFICIENTLY SUPPLIES ELECTRICITY, STEAM AND COLD



Lactoprot is one of the world's leading producers of caseinate from raw milk. Lactoprot's products are used in the food industry for purposes such as stabilizing the properties of dairy products. 2G provided a tri-generation plant delivering electricity, steam and cooling energy with an 2G avus series engine at its heart.

Power, steam and cooling energy for Lactoprot in Leezen

Since 2003, Lactoprot Germany has been producing casein from raw milk in a fully

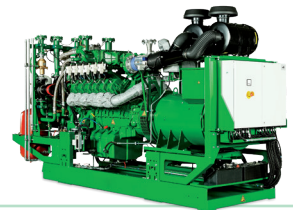
automated system at its site in Leezen. Casein makes up the majority of the proteins in cheese and curd, it also serves as a binder and pharmaceutical excipient.

Since 2014, an avus 1500b has provided electricity, steam and heat for cooling in conjunction with an absorption chiller with a cooling output of 450 kW. With an electrical output of 1,487 kW and a thermal output of 1,484 kW, it covers all of the production facility's demands.



More efficient than compression cooling

On one hand, large quantities of steam are needed to extend the shelf life of the end products through thermal treatment. On the other hand, a temperature level of 5 °C must be maintained for storage. For that reason, a portion of the exhaust heat the CHP produces is fed into a steam generator. Another portion is routed into a residual gas heat exchanger, where it is heated up to a supply temperature of 95° in order to provide a continuous process water temperature of 5° for the production process using an absorption cooling system. This technology offers considerable efficiency advantages over conventional cooling energy generation in compression cooling systems.



Lactoprot Deutschland GmbH

lactoprot.de

avus 1500b

Natural gas

1.487 kW electrical

1.484 kW thermal

Container solution

Absorption chiller

Steam generator

