



COMMERCIAL INSTALLATION

Kolibri Ice Cream Factory, Russia 3 x GG 402 SOKRATHERM CHP Unit

INSTALLATION COST:
€1,200,000 approx.

PROJECT:
The ice cream factory intended to expand its plant but got no approval to increase the mains power capacity from the utilities. Therefore this customer decided to provide an own on-site power supply for the new plant section. Since the utility company prohibited mains parallel operation the new power supply had to be totally independent from the public mains.

SOLUTION:
A SOKRATHERM multiple-unit CHP scheme fit for "island operation" was installed. It comprises three CHP units of the 400kW class, boilers, emergency cooler and superordinate control MaxiManager. The MaxiManager ensures that: 1, the total power production of the compact CHP units always adapts to the current power demand of the plant section 2. the units have enough for reserves peak demand and 3. always have roughly the same runtime. In combination with the low price for natural gas the ice cream factory gained a reliable, affordable power supply and needs much less energy for heating. The boilers only cover demand peaks. On top of that the quality of the electricity gained from the CHP plant is so high that now the factory would hesitate to connect the CHP power system with the mains even if it received the permission to do so.

UNIT TYPE	3 x GG 402 SOKRATHERM CHP unit 1,215kW electric & 1,614kW thermal power
FUEL TYPE	Natural Gas
FUEL SAVINGS	8,584MWh / year
TOTAL EFFICIENCY	90.3% - Electric 38.8% & Thermal 51.5%
PAYBACK TIME	4.5 years
CO ₂ SAVINGS	3,500 tonnes / year