

## CUSTOMER CASE



# Dragsbæk Combined Heat and Power

10 Mega Watt gas fired heat and power plant

Denmark

### IGSS Application

IGSS control and supervise the entire plant. One IGSS system with 2000 objects has been installed, servicing 6 Omron PLC's. 2 operator stations monitor and control the plant.

### System Integrator

The system integrator for the project was Xergi A/S of Aalborg, Denmark.

**Installation data:**

Engine:	3 x Ulstein Bergen KVGS-18G
Fuel:	Natural gas
Electricity production:	3 x 3,060 kW
Heat output:	3 x 3,400 kW
Electrical efficiency:	40.4%
Thermal efficiency:	47.3% (flue gas cooled to 80°C)
Total efficiency:	87.7%
Flow temperature:	115°C
Return temperature:	70°C
Storage tank:	2 x 725 m <sup>3</sup> pressure tank
Control system:	PLC/PC based (Omron/IGSS)
Building:	850 m <sup>2</sup>

The CHP cogeneration plant – built in 1995 by LR Energi as a turnkey project – produces process heat for the production of malt in one of Denmark's largest malt factories. Each of the three gas engines fired by natural gas also generates 3,060 kW of the electricity production. The plant is housed in a separate building and is based on continued production. Operating time totals approx. 7,500 hours per year, and the malt factory is self-sufficient in electricity and process heat.