HEAT RECOVERY

BIOMASS
PRIMARY FUELS
SOLID RESIDUES
LIQUID & GASEOUS RESIDUES

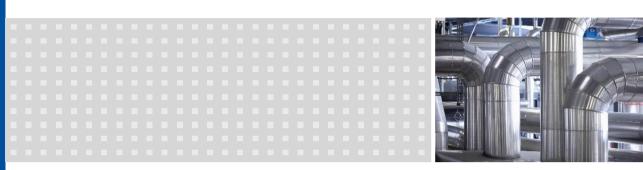


CCP PLANT HÖCHST FRANKFURT AM MAIN, GERMANY





CCP PLANT HÖCHST, FRANKFURT AM MAIN, GERMANY





Number of Lines	2
Energy Source	GT Exhaust Gas
Type of Gas Turbine	GE 6F.03
GT-Exhaust Gas Flow	221 kg/s
GT-Exhaust Gas Temperature	615 °C
GT-Electrical Output	88.7 MW
Steam Capacity	200 t/h
Steam Temperature	512 °C
Steam Pressure	123.2 bar
Feedwater Temperature	72 °C
FG Temp. Boiler Outlet	95 °C
Fuel for Auxiliary Firing	Natural Gas
Type of Boiler	Natural Circulation
Year of Commissioning	2022

WINTER PRINCIPLE REGISTER

THE TASK

In the Höchst Industrial Park the supply infrastructure with process steam and electricity is being further developed. For that purpose, INFRASERV GmbH & Co. Höchst KG is constructing two new gas turbine plants, as well as two downstream waste heat steam generators. Standardkessel Baumgarte secured the order for the supply and erection of the two waste heat steam generators (K7 + K8) incl. the ancillary plants.

THE SOLUTION

The boiler plant is of suspended vertical design and is arranged in natural circulation. The two heat recovery steam generators were designed as a 2-pressure boiler with an additional firing system arranged after two upstream gas turbines. The two new gas turbine plants have a capacity of 88 MWel each. The heat recovery steam generators will each generate up to 200 t/h of high-pressure steam and – depending on the load case – up to 22 t/h of low-pressure steam.

The waste heat steam generators are additionally equipped with a firing system that can be operated both in GT waste heat operation as an additional firing system and in operation without a gas turbine with fresh air. Switchover between the two modes of operation takes place in the so-called "change on-the-fly" within a few seconds and, hence, ensures continuous steam production also during the changeover from one mode of operation to the other.

SCOPE OF SUPPLY

- 2-Pressure Waste Heat Steam Generator with Flying-takeover
- Feed Water Tanks and Pumps
- Additional Firing System
- Main Stacks, Bypass System with Bypass Stacks
- Steelwork incl. Facades and Technical Building Equipment, Concrete Staircase
- Gas Pressure Control Stations, Compressed Air Station
- Fail-safe Control Technology, Electrical Engineering and Cabling

ENGINEERING SERVICES

- Engineering
- Assembly
- Commissioning