

Flue gas Condensing Economizer

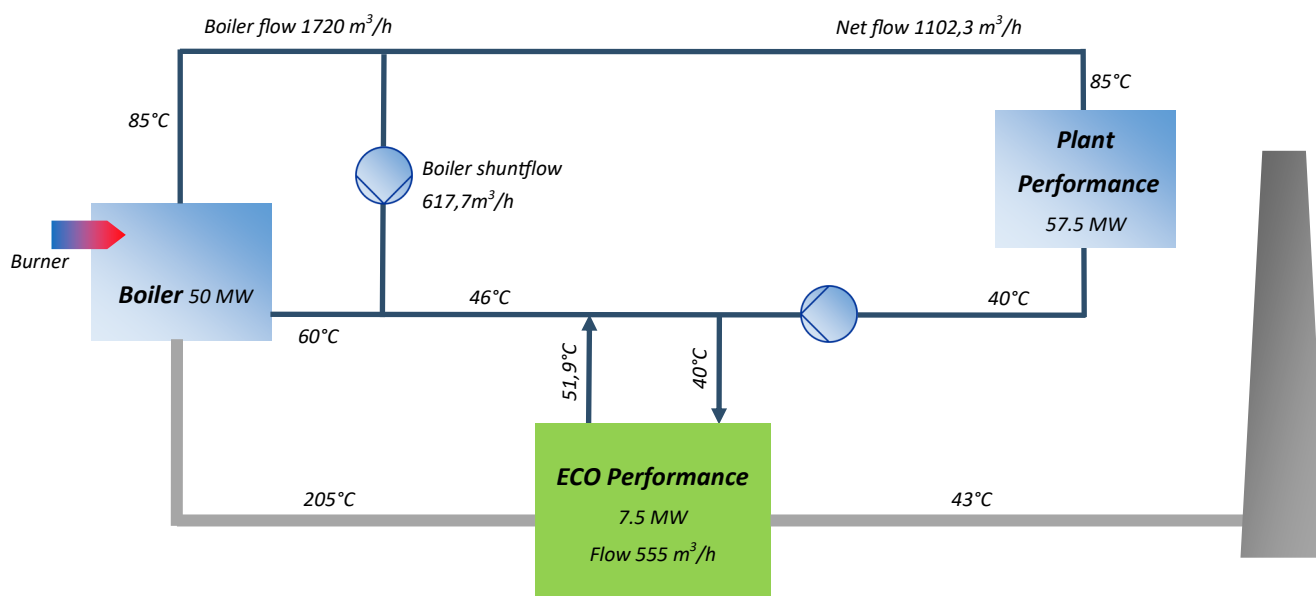
Project: DIN Forsyning Varme A/S, Esbjerg - Installation of Danstoker Flue gas Economizer for increasing the efficiency after a 50 MW district heating boiler.



Process description

The flue gas temperature after the boiler is 205°C and still contains a large amount of energy that that can be used to increase the plant's performance and efficiency.

In the economizer the flue gas is cooled from 205°C to 43°C, which is 3°C above the return temperature from the district heating, at that temperature the flue gas is condensing and the efficiency of the plant exceeds 100%



Yearly utilization of district heating:

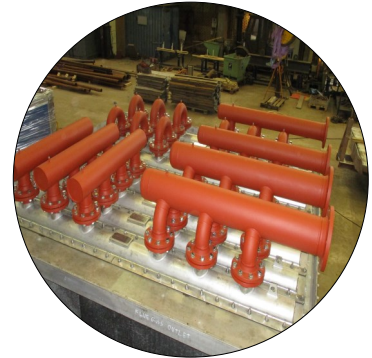
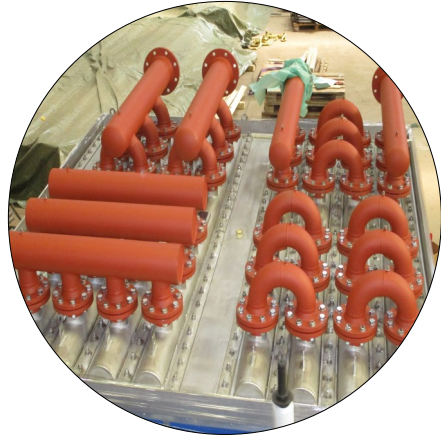
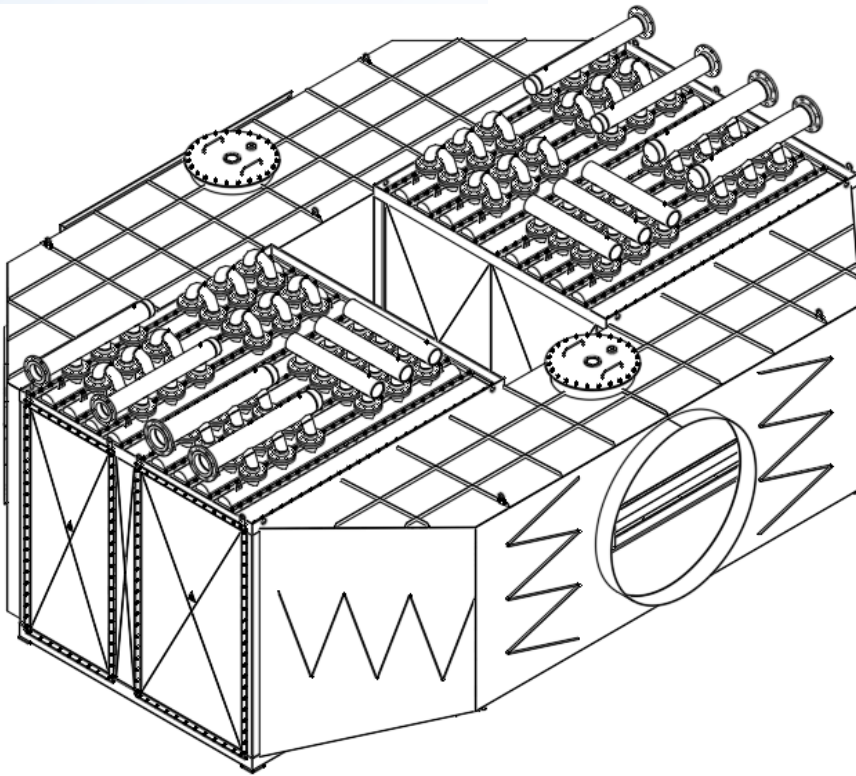
- 1200 household energy consumption
- 7,5 MW utilization from waste heat
- Increased Efficiency from app. 93 % to 105 %

Danstoker Flue gas Economizer

The Flue gas condensing Economizer is engineered, designed and manufactured by Danstoker A/S

The illustration shows the design of a Economizer for utilization of waste heat to district heating

Performance	7.5 MW
Flue gas flow	65.316 Nm ³ /h
Flue gas flow	80.992 kg/h
Flue gas temp. in	205 °C
Flue gas temp. out	43 °C
Condensate	4.920 kg/h
Water flow	555 m ³ /h
Water temp. in	40 °C
Water temp. out	51.9 °C



**Danstoker designs
after clients require-
ments.**