

Rectangular Fintube Heat Exchangers

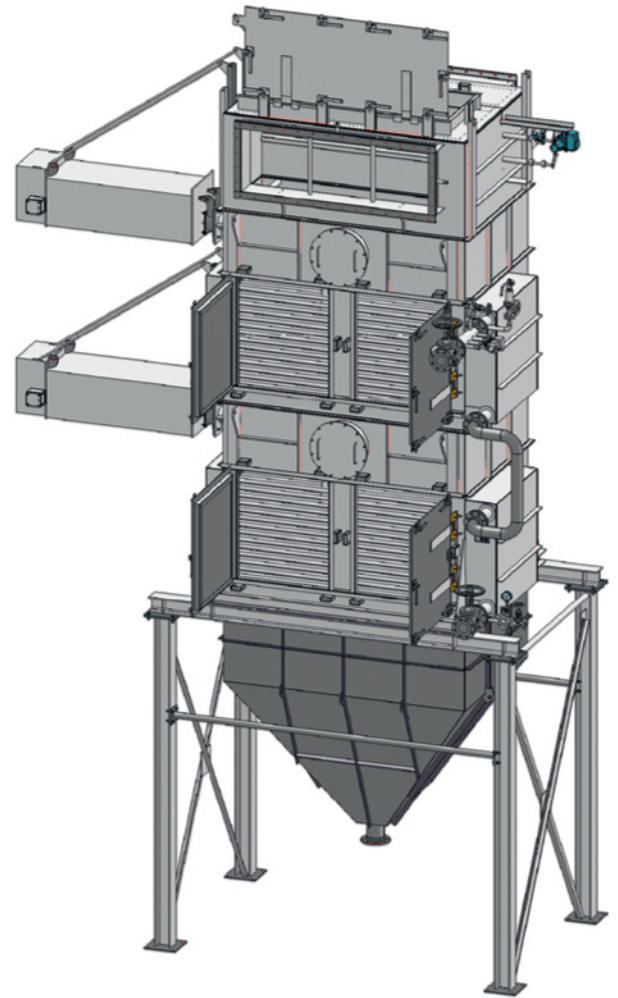
Boiler optimization from one source

SITUATION:

Many economizers in plants with polluted and dust-charged flue gases from coal, biomass, etc. are equipped with plain tubes. Within the given space these economizers have less heating surface and hence less heating capacity. To achieve the required performance these economizers require more tubes and more building room is needed. Additionally, the larger size of the tube banks requires more boiler cleaning equipment to maintain performance during operation. Whether the replacement of an old system or the planning of a new one, a cleverly designed economizer concept can solve these problems.

SOLUTION:

Tube banks equipped with rectangular double-H finned tubes have much more heating surface. This results in a larger heating capacity and thus more energy savings. Rosink offers such tailor made systems with its ECO-SEG-30. These economizers are equipped with extra-large doors for easy cleaning and maintenance of the tube bundle. Additionally the ECO-SEG-30 have soot blowers operated with compressed air for an automated cleaning during operation. Because of the inline arrangement of the tubes and fins, a channel effect will help the soot blowers to free the finned tubes from any deposits. The optional bypass-system provides additional operational safety.



EXAMPLE

Heating Capacity:	589 kW
Energy costs:	0,033 €/kWh
Efficiency:	82 %
Resulting energy price:	0,040 €/kWh

OPERATING HOURS / YEAR	Savings [€/YEAR]
5.000	117.800

Payback time ≤ 2 years

TECHNICAL DATA

Exhaust gas side:

Volume flow	12.010 Nm ³ /h
Temperature, inlet – outlet	340 – 209 °C
Pressure loss	2,5 mbar

Water side:

Volume flow	21 m ³ /h
Temperature, inlet – outlet	125 – 149 °C
Heating Capacity	589 kW