

Heat transfer from combustion gas to water

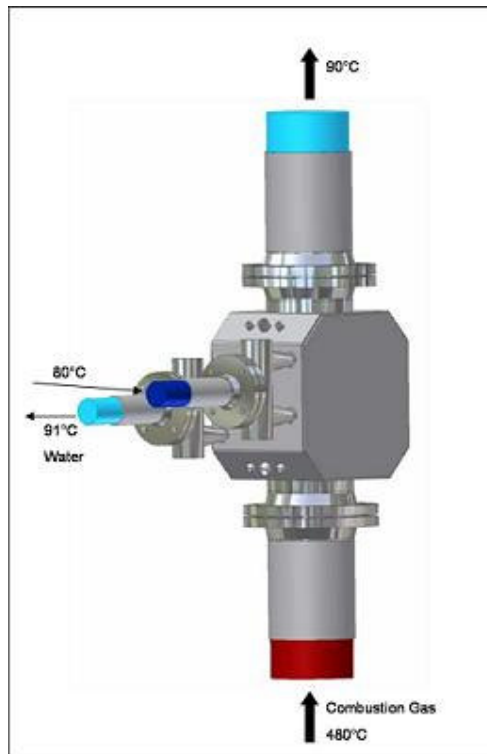
The problem

Beloved child has many names: Co-generation, CHP, "total energy" or in German "Kraft Wärme Kopplung" or "BHKW". All stands for the simultaneous generation of heat and power. It encompasses a range of technologies, but will always include an electrical generator and a heat recovery system. The principle behind cogeneration is simple. Conventional power generation on average is only 35% efficient – up to 65% of the energy potential is released as waste heat. Cogeneration reduces this loss by using the heat for industry, commerce and home heating/cooling.

A key component in the cogeneration systems is the combustion gas heat exchanger that transfers the energy from the hot combustion gas to water.



The solution - AirCross 21, "the largest revolution in our industry the last decade"



Many experts say that AirCross 21 is a superior heat transfer solution for the combustion gas with a potential to revolutionize the whole cogeneration industry.

Compared to traditional shell-and-tubes heat exchangers AirCross 21 offers up to 40% higher heat transfer capacity despite that weight and size is reduced up to 90%.

Example: 400 kW Gas motor with natural gas fuel

New
AirCross 21-
124/2/C

395 x 450 mm



Old Solution
Shell-and-tube

325 x 3000 mm



Weight:
Pressure drop, combustion gas:
Heat transfer:
Total efficiency:

90 kg
9 mbar
245 kW
95%

340 kg
16 mbar
190 kW
80%

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