



Heat transfer from steam to air

The problem

In demanding dryer applications the heat exchanger must heat a large air-flow to a high temperature close to the condensation temperature for the steam. This problem can be solved either with a large traditional steam coil and high steam pressure, or the compact high efficient AirCross 21 that even perform perfectly by a considerably lower steam pressure.

The solution - AirCross, the saver for the designer

Getinge Disinfection AB, Sweden, is the world leading producer of washers disinfectors for infection control systems within health care industry and research laboratories.

The new larger Cart Washer Disinfecter-9100 for bulky goods includes a dryer function which requires a steam-to-air heat exchanger. The task is to heat 750 Nm³/h from 40 to 130°C (104 to 266°F) and the demands are high efficiency, compact design and a low pressure drop.



AirCross 21-140/C

285 x 130 x 500 mm



Traditional Steam Coil

350 x 150 x 1500 mm



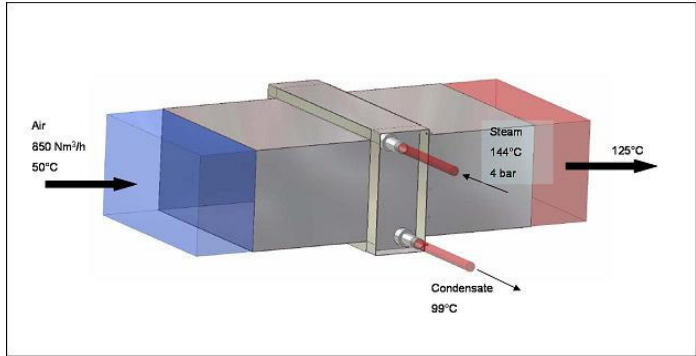
This is the result of their comparison.

Required steam press./temp.
Heat transfer
Pressure drop, air

4 Bar/144°C
22kW
180Pa

6 Bar/159°C
22kW
180 Pa

The mechanical load on a steam coil, particularly on plate heat exchanger, is very large. So far have we delivered 100 systems/year from 2004. We have had no reclamations or breakdown what so ever.



More information about the Getinge Case Story.
<http://www.getinge.com/>