

efficiency in food and energy processes.

For high system pressures and media temperatures up to 200 °C

Plate heat exchangers for CO₂ systems

CO₂ (R744) has a long tradition as a refrigerant without climatic effects. This non-combustible gas was first used as a refrigerant more than 120 years ago, but was superseded by CFC to a great extent. CO₂ is the most eco-friendly refrigerant on the market, since it has no ozone-depletion potential. Its global warming potential (GWP) is 1. Conventional refrigerants such as R410A pollute the environment much more, by a factor of up to 1890. The excellent thermodynamic properties of CO₂ also enhance economic efficiency, because its high pressure means that all plant components can have smaller pipework cross-sections – in turn enabling considerably more compact designs for implementation.

With its GML Range, GEA has now developed a compact plate heat exchanger for this future-oriented market. Stainless steel 1.4401 is used as the plate material and is brazed with copper solder. The units are designed for media temperatures of up to 200 °C. The new GML Range complies with the European Pressure Equipment Directive (PED) and will be available in two sizes.



Photo: PHE_GML_brazed.jpg

The new heat exchangers of the GML Range are outstandingly effective for the high pressures that occur in CO₂ systems, and for media temperatures up to 200 °C.