

efficiency in food and energy processes.

Valve sets optimized for use in CO₂ compressors

New safety valves with 63-bar set pressure

GEA is contributing to the trend toward environmentally friendly refrigerants, with its latest series of AWP safety valves. They offer set pressure up to 63 bar (the predecessor series was only up to 28 bar). This makes the new valve sets optimal for use in CO₂ refrigeration systems. In comparison to machines with conventional refrigerants, compressors with the natural refrigerant CO₂ operate at significantly higher pressure and therefore require valves that are especially designed for this use.

But it is not only the set pressure that makes these valves ideal for use in CO₂ circulation systems. GEA developers also placed great value on a high degree of tightness: after all – and in contrast to safety valves in the chemical sector – 100 % tightness is absolutely critical with CO₂ refrigeration systems. This is the only way over the long run to ensure safe operations and, in turn, a high degree of efficiency. The selection of materials here also takes full account of this natural refrigerant, which means that media-caused wear to material and resulting long-term damage will not occur.

GEA developers have oriented their design of safety-relevant valve sets to conventional dimensions typically offered on the market. Nominal diameters of DN 15/15, 15/25, 20/32, and 25/40 (the inlet and outlet diameters, respectively) virtually cover all cases of application. The valves are available in two versions: backpressure-dependent valves (SVA models) and backpressure-independent valves (SVU models).

These new safety valves will be presented to the public in their world premiere at Chillventa 2010.



Photo: AWP_safety_valve.jpg

Owing to their set pressure of up to 63 bar, these new AWP safety valves are especially effective in use with CO₂ refrigeration plants.