



Chiller refrigerants: Don't get left out in the cold

European Green Deal

EU carbon neutrality by 2050

Achieve its 55 % emissions reduction target for 2030 and its 2050 climate neutrality goal.

One of the ways to get there is the

F-gas regulation

Ultimately ban HFCs in Europe by 2050.

Fluorinated gases contribute to global warming by having a warming impact many times higher than that of CO₂

HFCs (Hydrofluorocarbons) represents around **90 %** of all **F-gases**:

Refrigeration, air conditioners, electric power transmission, aerosol spray, heat pumps, insulation foams, manufacturing processes and **industrial chillers**.

Refrigerant regulations for chillers

Below the European & UK legislation as it is the most restrictive (compared to California's and US normative) and is the one that SMC decided to follow.

EU



HFC phase down begins

GWP ≥ 150
(12 kW or less)

GWP ≥ 750
(more than 12 kW)

All fluorinated gas refrigerants
(12 kW or less)

* For certain equipment used to support semiconductor manufacturing: 2030.

Measures their impact relative to one tonne of carbon dioxide (CO₂) over a certain period (usually 100 years)

The higher the GWP, the worse it is for the climate

GWP The climate impact indicator

(Global Warming Potential)

September 2024

SMC's first chiller using CO₂ as the refrigerant

SMC HRZC takes advantage of CO₂ gas and its ultra-low GWP.

CO₂'s GWP = 1



THERMO CHILLER
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CO₂
R744

SMC is not about to fail you, or the planet

Contact us to learn more

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