



Bock Australia Pty Ltd | CO₂ compressor racks

Subcritical compressor racks engineered to your requirements.

Based on our current semi-hermetic product range, with its outstanding advantages and features, as well as the derived and long-used basic range, there is now a perfectly matched compressor series available for use with CO₂ in sub-critical cascade systems. They are particularly suited to supermarket applications and industrial cooling systems.

Features

- Subcritical cascade CO₂ system condensing from MT R134A systems
- 3x GEA BOCK HGX semi-hermetic subcritical CO₂ compressors
- 2x SWEP cascade PHEs
- 1x SWEP sub-cooler PHE
- 1 x SWEP Backup PHE
- 1 x Heldon Oil Separator
- 1x Heldon Liquid Receiver
- Valves and accessories are supplied by Heldon

CO₂ Refrigeration

The refrigerant R744:

Within refrigeration technology, carbon dioxide (CO₂) is known by the name R744 and has a long history.

It is a colourless gas which liquefies under pressure and has a slightly acidic smell and taste. Carbon dioxide has no ozone depletion potential (ODP = 0) and a negligible direct effect on global warming (GWP = 1) when used as a refrigerant in closed systems.

It is not combustible, is chemically inactive and heavier than air. Carbon dioxide has a narcotic and asphyxiating effect on humans only at higher concentrations.

CO₂ has a higher working density which results in a smaller necessary volume. This results in smaller pipework (capital cost), and a greatly reduced compression ratio (higher COP) as compared with other refrigerants.

Carbon dioxide is available naturally in large quantities and is not affected by the carbon tax.

Subcritical CO₂ systems are no different to normal pumped or DX systems. They are simple in operation and service, and the only difference would be slightly higher operating pressures.



GEA Refrigeration Technologies

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