



CLADE

CONTINENTAL RACK //



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This range is designed to be operated on CO₂ and is offered with heat recovery options to supply store heating or hot water production.

The range features the latest technology with integrated parallel compression, manufactured in the UK and includes a two year parts warranty. Inverters adjust the compressor speed to the actual cooling demand and the EC fans on the gas cooler mean further efficiency improvement.

Key benefits

- Meets a broad range of MT / LT configurations
- Proven to be highly efficient with low energy usage
- Highly efficient through inverter controlled compressors
- Heat recovery option available
- Integrated and split skid options
- CO₂ leak emergency extract as standard on housed options
- Simple to operate and maintenance friendly



Duty range is 40-120kW at MT and 3-30kW at LT, offered as a dual temperature solution.



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Design Overview

- R744 Plant – ‘Reach in’ housing integrated gas cooler all on single skid or twin rack housed option
- Designed to 35°C ambient temperature
- Wide evaporating temperature range from -40°C to +15°C
- Possible to use different compressor brands e.g. Bitzer, Emerson or Dorin
- Carel or RDM Control – Danfoss optional
- Various inverter options available
- Parallel compressor to boost efficiency
- Up to 90 bar standstill pressure solution
- Dual PRV stations
- K65 Pipe work

Construction

- Single or skid configuration
- Heavy duty welded frame
- Reach-in or walk-in weatherproof housing

Mechanical options and overview

The Continental rack has been developed to optimise space for stores where space is at a premium. With a range of options, the range can be configured to suit various applications, whilst maintaining a service friendly environment.

- Design pressures up-to 90 bar for liquid and suction networks
- Liquid injection feature
- Hot gas bypass feature
- LT suction accumulator
- Flash gas interchangers
- Parallel compressor protecting heat exchanger
- Low vibration AV mounts optional
- Backup MPV & HPV valves
- Frame lifting eyes
- Full range of liquid receiver volumes up-to 160 litres
- Three-way PRV change over valves
- Various housing options available with noise levels from 33dBA at 10 metres





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Sustainable Heating

This simplified, intelligent heating system has been developed with extensive knowledge and experience of using CO₂ as the heating medium.

Heating efficiency is at the forefront of our design philosophy. Using our specifically developed PLC program, we dynamically control water flow conditions to extract as much heat as possible from the refrigerant, whilst maintaining constant store conditions. Compressor discharge pressures are constantly optimised to reduce running costs.

Gas cooler bypass arrangements are used to recover all the heat when required, whilst a heat pump scavenge evaporator is employed to utilise spare winter compressor capacity, thus providing a highly effective heat pump mode.

CLADE Engineering Systems Integrated heating system now incorporates a 'Low Ambient Mode' to ensure heating performance is maintained during cold snaps.

Heat Recovery option:

- Space heating
- Stainless steel plate heat exchanger
- Three-way heat recovery bypass valve and three-way gas cooler bypass valve
- PLC optimizing control

Heat Pump Mode:

- High utilised capacity
- Scavenge evaporator
- Full and integrated PLC control





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