



# **Scroll & Reciprocating Chillers**





## INTRODUCING GEOCLIMA CHILLERS

Whether you need to deliver comfortable and healthy environments for people, or temperature sensitive industrial processes, we provide exceptional custom designed and standardised chiller systems all underpinned by world-class engineering and technologies.

Whatever your cooling load, our intelligently controlled chiller systems can be configured and optimised according to your priorities whether they be precision temperature control, ultra-efficiency across load levels, low noise, low environmental impact, minimised footprint or a combination of all.

As a long established and trusted UK manufacturer of robust cooling coils and Dry Air Coolers, we partner with award winning Italian chiller system manufacturer Geoclima, to extend our commercial and industrial cooling system products right along the 'cooling systems continuum' from ambient to sub-ambient temperature levels.

Geoclima chillers have world-class compressor efficiency at their core delivered through a combination of rigorously developed technologies:

- Premium compressors with highly accurate load matching capacity control
- Generously dimensioned condensers
- Flooded evaporators or unsurprisingly selected plate & DX heat exchangers
- Highly precise fan speed and refrigerant expansion valve control
- 'Onboard Touch' web-based monitoring solution



## THE GEOCLIMA V RANGE: COMPACT. VERSATILE. HIGH PERFORMANCE.



19 kW to 1196 kW: Highly reliable, versatile & compact scroll or reciprocating compressor chillers that present relatively low installation & operating costs. The range incorporates Water Cooled & Air Cooled chiller models including a Free Cooling version. With low vibrations & associated noise levels, these chillers are equally suited to industrial process & commercial HVAC comfort cooling applications.



V Range offers two lines across all models each running different classes of refrigerant to accommodate customer priorities in terms of efficiency & environmental sustainability:-

**ENERGYMISER** - Optimised for efficiency using R410a, a well used & understood refrigerant in both industrial & commercial applications, & now also low GWP (Global Warming Potential) refrigerant R452b.

**GREENMISER** - With eco-sustainability at the heart of design at Geoclima, this line, with reciprocating compressors, is optimised for very low GWP refrigerants HFO-1234ze & R290.



Characterised by their compact size & light weight, these are particularly suited to smaller plants. However with the Energymiser line, larger capacities of several 000's kW can be achieved with Geoclima's innovative multi scroll compressor designs.



V Range chillers are typically Energy Class A rated (unless specified for custom applications) under EU Ecodesign Energy-Related Products & Energy Information Regulations 2021 with impressive EERs.



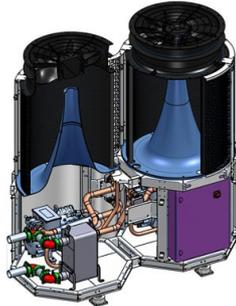
All units supplied completely wired & connection ready & equipped with proprietary, panel mounted Geotouch™ touchscreen programming & monitoring system. With strong metal structures each unit is painted with epoxy powder & anti-rust coating as standard.



## SMART CHILLER TECHNOLOGIES



The novel modular Circlmod series (VHA CM) facilitates future-proofing of cooling capacity. Each module, at up to 150kW, can be added to over time to meet an increasing cooling load demand up to 1200kW. The unique cylindrical microchannel condensers provide a 45% increase in heat exchange surface over traditional designs lowering both air inflow & condensing temperatures. A conic air-intake flow optimiser increases condenser efficiency by 10%. An additional module with tank and pump is available on request.



For environments sensitive to noise, the smart Dynamic Noise Control (DNC) system constantly measures chiller noise & "adapts" performance within permissible ranges & programmable time-slots.



The V Range provides significant scope for customisation enabling precise configuration of each model optimising for specific applications, operating conditions & priorities. Options include custom dimensions, galvanised frames with hersite coils, low speed fans & compressor sound insulation kits - Low noise (LN) or super low noise (LLN), low temp chilled water/glycol to  $-3^{\circ}\text{C}$ , extreme climate operation adaptations ( $-40^{\circ}\text{C}$  &  $+40^{\circ}\text{C}$ ), pump pressurisation units & expansion vessels, construction for explosive environments.

## G RANGE PRODUCTS



### VHA: 19kW - 1196kW

Air Cooled chillers - scroll compressors (R452b) or reciprocating (R290 or HFO-1234ze) - Dry expansion evaporator - EC axial fans



### VHA CM: ≤150kW per module

≤8 modules (≤1200kW) - Air Cooled chillers - scroll compressors - brazed plate exchanger evaporators - cylindrical condensers - EC axial fans



### VHA FC: 18kW - 1163kW

Air Cooled chillers - Free Cooling system - scroll compressors (R452b) or reciprocating (R290, HFO-1234ze) - Dry expansion evaporator - EC axial fans



### VHH: 19kW - 676kW

Water Cooled chillers - indoor install - scroll compressors (R452b) or reciprocating compressors (R290 or HFO-1234ze) - Dry expansion evaporator



### VSE: 19kW - 611kW

Condenserless unit for indoor install & connection to remote condenser (RCE) - scroll compressors (R452b) or reciprocating (R290 or HFO-1234ze) - Dry expansion evaporator



### VSA: 19kW - 1196kW

Condensing unit for outdoor install & connection to independ. evaporator - scroll compressors (R452b) or reciprocating (R290 or HFO-1234ze) - AC or EC axial fans



Burnfoot Industrial Estate  
Roxburghshire  
Scotland, TD9 8SL

[www.turnbull-scott.co.uk](http://www.turnbull-scott.co.uk)  
+44 (0)1450 372 053