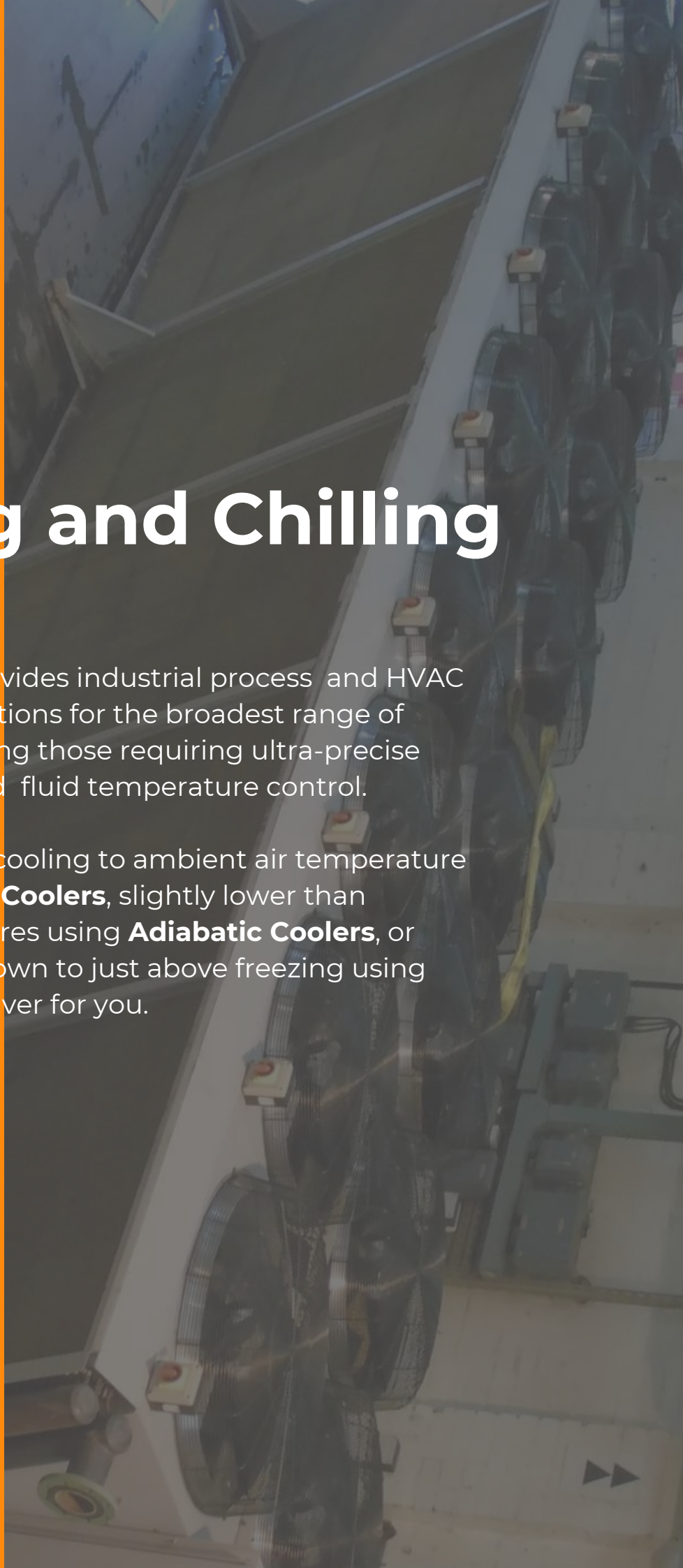


# Cooling and Chilling

Turnbull & Scott provides industrial process and HVAC related cooling solutions for the broadest range of applications including those requiring ultra-precise sub-ambient air and fluid temperature control.

Whether you need cooling to ambient air temperature levels using **Dry Air Coolers**, slightly lower than ambient temperatures using **Adiabatic Coolers**, or even cooler, right down to just above freezing using **Chillers**, we can deliver for you.





# Introduction

Turnbull & Scott provide customers with cooling solutions that extend fully along the 'industrial cooling continuum' to sub-ambient levels using chiller technology. We took time to identify technology partners that had sufficient depth of understanding of industrial cooling requirements to satisfy the needs of the industrial base we serve.

We are proud to announce our partnership with Italian manufacturers with a distinguished reputation in cooling technology, and the expertise to design and manufacture ultra-efficient chillers for a diverse range of applications. With precision temperature control as well as efficiency right through the load spectrum, our technology is found across industries including food and pharmaceutical production, coal mining, optoelectronics manufacture, data centres and extreme temperature locations such as air-conditioning in the Middle East, and even submarine environments.

The products are:

## Chillers

- **General Utility Industrial Chillers**
- **High-performance chillers**

## Coolers

- **Commercial/Light Industrial dry air coolers**
- **Custom Heavy Duty Industrial dry air coolers**







High  
Efficiency

## GENERAL UTILITY INDUSTRIAL CHILLERS



**COM40** general utility industrial chillers, are designed for customers who require straightforward, reliable, easy to install & manage, smaller capacity process chillers. These ErP 2021 compliant scroll compressor chillers provide precise and accurate temperature control for a wide variety of industrial applications. All units optimised from +23°C to -10°C dependent on application and cooling capacity.

### Industrial Process Chillers from 14kW to 250kW

Standard units are designed for precision cooling of low viscosity industrial cooling fluids, including water and water glycol mixes. With a wide range of accessories and options they are customisable to accommodate exacting requirements of specific applications.

## Common Applications

Typical applications for these industrial chillers include use in processing systems such as: Plasma & other coatings, plastics processing, medical imaging, electroplating, chemical & pharmaceutical, thermoforming, biogas treatment, compressed air treatment, flexographic printing, extruding and many more.

## There are two COM40 ranges:



### HYDRA RANGE

High efficiency, versatile air-cooled liquid chillers for outdoor installation. Single scroll on/off compressors with brazed plate heat exchangers & EC fans. Refrigerant R410A (R454b Optional). All units optimised from +23°C to -10°C dependent on application and cooling capacity. Ranging from 15kW to 44kW.

### GALAXY RANGE

High efficiency, versatile air-cooled liquid chillers for outdoor installation. Multi scroll on/off compressors. Brazed plate heat exchangers & EC fans. Refrigerant R410A (or R454b option). All units optimised from +23°C to -10°C dependent on application and cooling capacity. Ranging from 40kW to 175kW.



## Superb Value, High Reliability and Efficiency

COM40 equipment is aimed at the 'small end' of the industrial chiller sector and has been designed to be 'valued engineered' from conception to build whilst maintaining highly dependable quality and reliability.

- Machines can be supplied with the most common accessories requested for this sector of the market, such as pumps and buffer vessels.

For customers who require technologically advanced, ultra-efficient, large capacity chillers, we offer the award winning Geoclima chillers.





## HIGH PERFORMANCE CHILLERS



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

### **Intelligent Chiller Systems from 19kW to 2500kW**

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.



## Our ranges are:



### V-RANGE

Highly reliable, durable, compact & light-weight **scroll or reciprocating compressor chillers** providing lower running & maintenance costs. Ideal for smaller plants. Ranging from 19kW to 1196kW.

### G-RANGE

Highly efficient & reliable inverter driven **screw compressor** chillers characterised by a simple structure with few moving parts, minimising vibrations & associated noise. Ranging from 67kW to 1900kW.



### TURBOCOR SMART

Ultra-efficient chillers with unparalleled intelligent load matching capability & water temperature control designed around **Turbocor™** oil-free centrifugal compressors. Ranging from 200kW to 2500kW.

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 unsparingly selected plate & DX heat exchangers
- Highly precise fan speed and refrigerant expansion valve control
- 'Onboard Touch' web-based monitoring solution

With three ranges of chillers, each range is centred around a different compressor type & each offers standard, low and the very low GWP refrigerant options HFO 1234ze or Propane R290.



## DRY AIR COOLERS

ALITHERMO

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

### **Dry Air Coolers – Commercial/Light Industrial Grade**

Highly resilient & efficient this range includes the novel space saving round modular dry cooler as well as traditional V-shape and Table style dry coolers to provide cooling for data centres, water-cooled chillers, gas or diesel fired gensets, air compressors, and industrial process fluids. Ranging from 30kW-2300kW.





## V-SHAPE DRY COOLERS

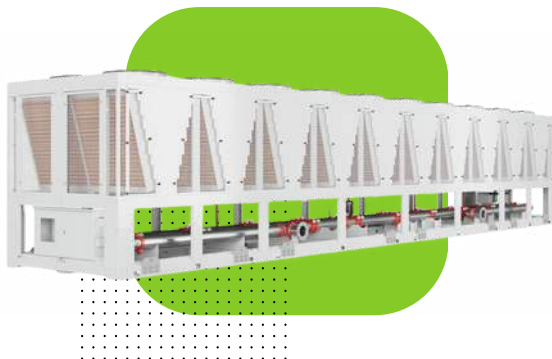
Our cooling solutions include three models tailored for diverse needs. The DGV model offers maximum cooling capacity and a compact, robust design.

The DIV model balances power with ease of installation and minimal visual impact. The DSV model maximizes efficiency in a compact footprint, ideal for tight spaces.

Cooling capacity: 140 to 2060 kW

## FLATBED DRY COOLERS

The Flatbed dry cooler also known as Table type has a very wide power range and the HV bi-flow design means the same device can be installed both with vertical air flow and horizontal air flow. This feature gives the designer greater flexibility in his project layout.



## 'INTELLIBATIC' DRY COOLER

This innovative modular Dry Cooler, with automatic adiabatic functionality, can be transported by standard lorry or container and installed in sections and assembled on-site. This means a one megawatt plus Dry Cooler can be installed with an 800 kg load-bearing crane with enormous benefits in terms of logistics and installation costs.

The modular design also allows you to increase the cooling capacity by adding sections at a later date.

- Cooling capacity: from 50 to 1500 kW
- Fan diameter: 800 and 910 mm
- Number of fans: from 1 to 22

# Round Modular Dry Cooler

## Model: DMR

The DMR is a revolutionary modular dry air cooler that, with its microchannel heat exchanger and novel cylindrical shape, has a 50% greater heat exchange surface than a traditional dry cooler configuration with the same physical footprint.

The cylindrical shape and 360° heat exchange surfaces mean that it can be installed very close to walls resulting in up to a 75% reduction in the required installation surface, providing an ideal cooling solution in space constrained and difficult to access environments.



A single module can dissipate up to 61kW heat (at ambient air 25 °C; water-in 35°C & water-out 30°C) with a total footprint of only 1.21 m2.

The DMR Air Dry Cooler can be used as a single module, or can be combined with other modules in line, or in a perpendicular configuration, to meet the required cooling capacity.

Cooling capacity: from 30 to 2,300kW

Fan diameter: 800 and 910 mm

Number of fans: from 1 to 20







## CONTACT US

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