



People work better in Colt conditions
Colt Climate Control Products and Services



People work better in Colt Conditions - Colt Climate Control Systems

COLT CONDITIONS

We harness the natural elements to bring:

Ideal	> temperature	>	better health	>	motivated staff
	> humidity levels	>	higher productivity	>	improved profitability
	> air quality	>	for occupiers	>	for their employers
	> light quality	>	reduced absenteeism	>	energy efficiency

CUSTOM SOLUTIONS TO CREATE COLT CONDITIONS

Every building is different. Its internal climate is affected by various factors: its location, orientation, the materials used in its construction, and what it is used for.

The building interacts with the environment, so that its internal climate is affected by seasonal changes in weather conditions and temperature.

Colt's climate control experts are able to design custom solutions that take into account all these factors and variables to create a **comfortable and healthy environment** for the building's occupiers.

COMFORT AND PRODUCTIVITY

Colt climate control systems create ideal internal conditions by achieving the perfect balance of all the elements that determine the building's internal climate: temperature, humidity, air movement and solar intensity – the perfect balance that is a prerequisite for optimum comfort and productivity.

COLT CONDITIONS IN INDUSTRIAL ENVIRONMENTS

Industrial buildings present different challenges depending on their use. Colt operates in a wide variety of industries, providing tailor made climate control systems to meet the specific requirements of each.

For example, Colt designs systems for the food industry, where constant temperature and humidity levels are necessary to guarantee **food safety**.

Colt's evaporative cooling systems are often employed in production or storage facilities where conventional air conditioning systems would not be **cost-effective**. Colt's natural ventilation systems are particularly well suited to large factory buildings housing manufacturing processes that produce **high heat** levels, such as foundries. Colt climate control systems can be found in all kinds of manufacturing premises, including in the food, engineering, automobile, plastics, chemicals, metals, paper and glass industries.



Productivity is increased when comfortable working conditions exist.

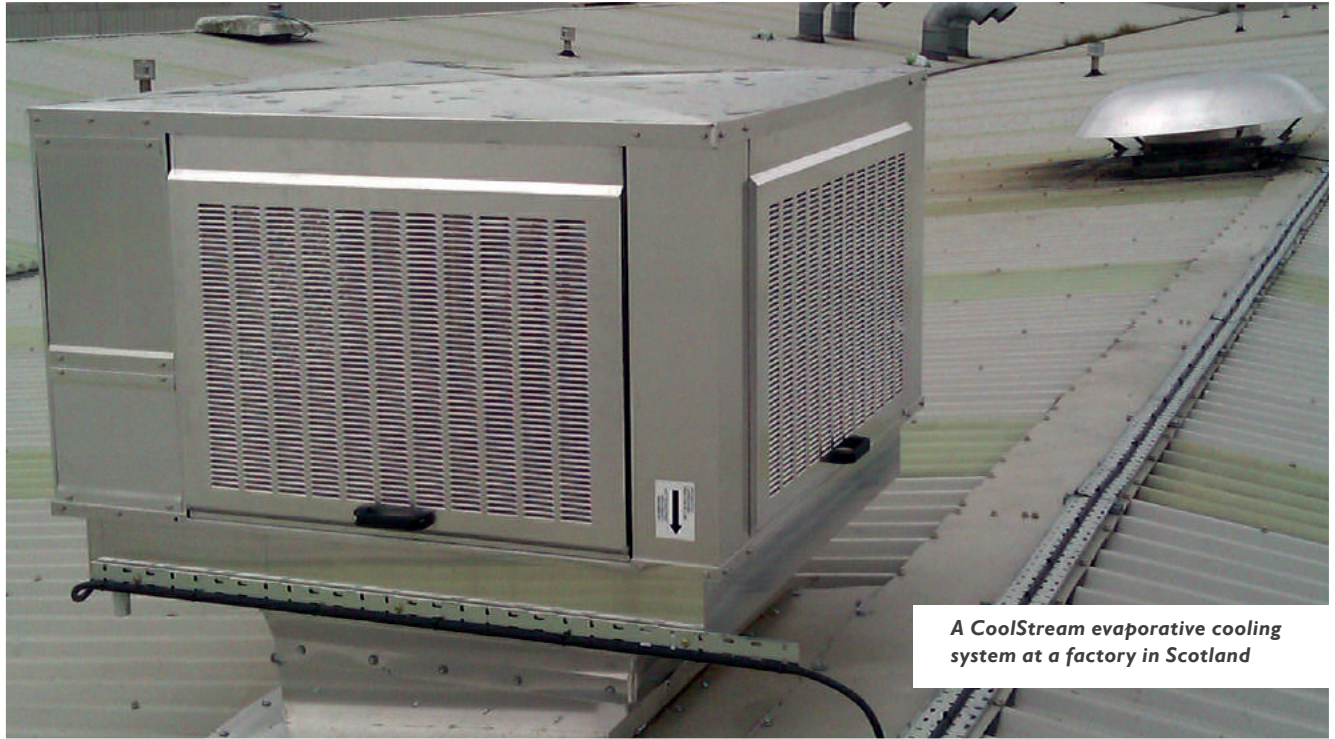


Dovercourt Garage, London - mechanical inlet and natural extract ventilation



Meteorology for Interiors

The definition of climate is the average condition of the atmosphere above a specific region. It is defined by temperature, humidity, air movement and solar intensity. Internal climate is defined by these same parameters, but with a difference: they are determined artificially by the building's climate control system.



A CoolStream evaporative cooling system at a factory in Scotland

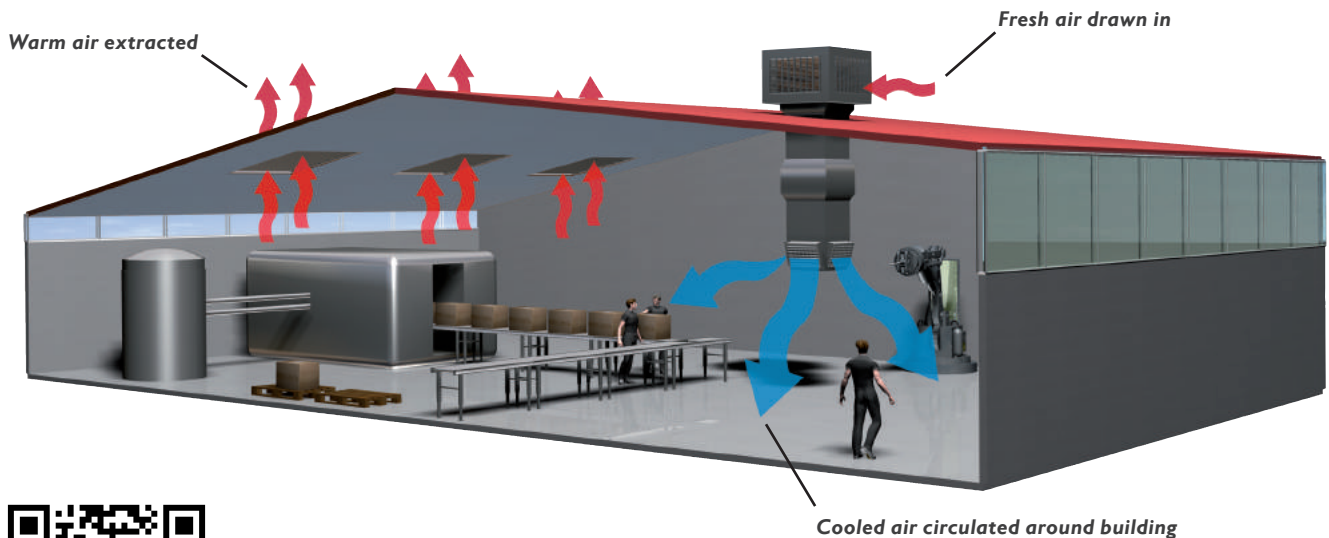
A WHOLE BUILDING APPROACH

We think outside the box when developing a climate control solution. By looking at the whole building, rather than just the area causing concern, we are able to identify methods to reduce the problem before it occurs. This approach allows us to propose solutions with lower capital and running costs.

Although building construction has improved significantly, reducing air leakage and increasing insulation to save energy use, our systems maximise effectiveness through energy recovery and system optimisation to ensure the best possible working conditions are achieved with minimal running cost. In existing buildings it can be possible to make a reduction of 20 – 30% in energy used for ventilation or heating.



Good ventilation in your factory improves productivity



Scan the QR code to arrange a free, no-obligation survey of your premises.

OUR PRODUCT RANGE

Wherever possible, we will design solutions that make use of natural ventilation. The many advantages of this approach include minimal energy consumption and CO₂ emissions, virtually no maintenance, silent in operation, self-regulating, very low operating costs, and the fact that such equipment has a long life span and has proven reliability.

In some cases natural ventilation is insufficient to provide the required conditions on its own. Accordingly we also offer evaporative cooling and mechanical ventilation, often combined with natural ventilation, to achieve the desired result.



Coltlite highly insulated natural louvred inlet/extract ventilator

- *Elegant ventilation of the façade*
- *Dual purpose for both natural day-to-day and smoke control ventilation*
- *Suitable for either inlet or extract*

Options

- *Glass or aluminium louvres*
- *Insulated aluminium*
- *Pneumatic, electric or hand controls.*



Labyrinth natural extract ventilator

- *Lightweight and low profile - ideal for retrofits*
- *Continuous weatherproof ventilation for continuous extraction*
- *Suitable for inlet or extract*

Options

- *Shutter to reduce heat losses or to regulate airflow*
- *Sound baffles to reduce noise.*



Airlite natural ventilator

- *Highly insulated*
- *Low air leakage*
- *Polycarbonate or aluminium louvres.*



Firelight natural ventilator

- *Thermally broken*
- *Aluminium, glass or polycarbonate lids*
- *Acoustic version.*

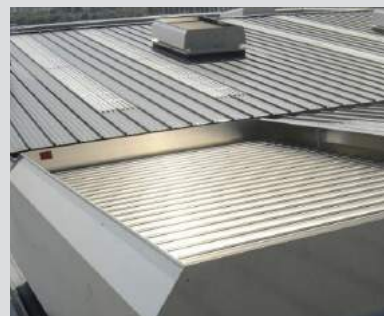


Seefire natural louvred extract ventilator for roof or wall

- *Suitable for either inlet or extract*
- *Dual purpose for both natural day-to-day and smoke control ventilation*

Options

- *Polycarbonate, glass or aluminium louvres*
- *Sheet or insulated aluminium*
- *Pneumatic, electric or hand controls.*



WCO natural ventilator

- *Suitable for weathered extract ventilation*

Options

- *Polycarbonate or aluminium louvres*
- *Pneumatic or electric controls.*



CoolStream S evaporative cooler

- Cost effective
- Flexible
- Low noise
- Low energy use
- Hygiene certified to VDI 6022
- ErP compliant.



CoolStream N evaporative natural inlet ventilator

- Large face area = large volume of cooled air
- Highly efficient low level air supply unit
- Hygiene certified to VDI 6022
- ErP compliant.



CoolStream R evaporative package rooftop unit

- Cooling, heating, heat reclaim, air filtration for year round use
- Energy recovery
- Hygiene certified to VDI 6022
- ErP compliant.



Tornado mechanical roof extract unit

- Low profile
- Efficient variable speed fans
- Lightweight
- Robust.



Coltair air handling system

- Modular, flexible system
- Variable speed fans
- Recirculation module
- Heater batteries.



Tristar air handling unit

- Packaged air handling unit
- A range of sizes
- Many filtration options
- Heater module.



Cortiva control system

- For evaporative cooling systems
- Maximises the efficiency of the ventilation system
- A wide range of options
- Modbus compatible as standard, other protocols available
- Control and monitor your ventilation system from your smart phone or tablet.



Universal Louvre fixed inlet louvre

- Highly aerodynamically efficient
- Third party performance tested
- Enhanced rain defence performance

Options

- Aluminium, galvanised steel or stainless steel
- Either mill finish, polyester powder painted, pre-coated or anodised blades. Louvre panels can incorporate mitred corners, special shapes and louvre doors.
- Bird and insect guards
- Sound baffles.



GSE Heaters and Wastemaster fans

- High efficiency modulation burner technology
- Energy recovery de-stratification fans.



Arla Foods, The Netherlands -
CoolStream evaporative cooling unit



Vendespace, France -
Coltite natural ventilators



Airbus North Factory, Flintshire -
Seefire, WCO and FCO natural ventilators



Parcelforce, UK - Seefire and Coltite natural
ventilators and extract fans



Uniplast, Germany -
CoolStream evaporative cooling unit



Stölzle Oberglas, Austria -
CoolStream evaporative cooling units with air socks



Automotive supplier, Scotland -
CoolStream evaporative cooling units



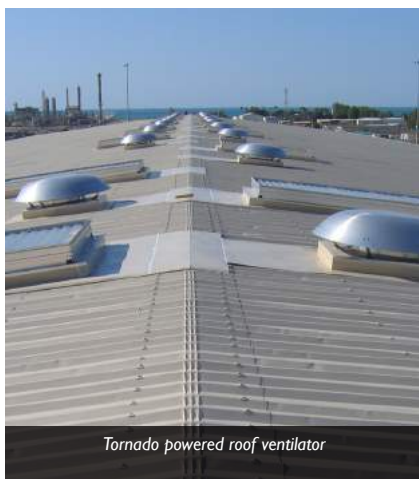
Stuart Turner Pumps, Henley-on-Thames -
Coltair input units and Tornado extract units



Friesland Campina, the Netherlands -
CoolStream units



Belvedere Riverside Resource Recovery, London -
Labyrinth ventilators



Tornado powered roof ventilator



Budmouth College, Weymouth -
Universal Louvre turrets and Firelight ventilators

Testing and product quality

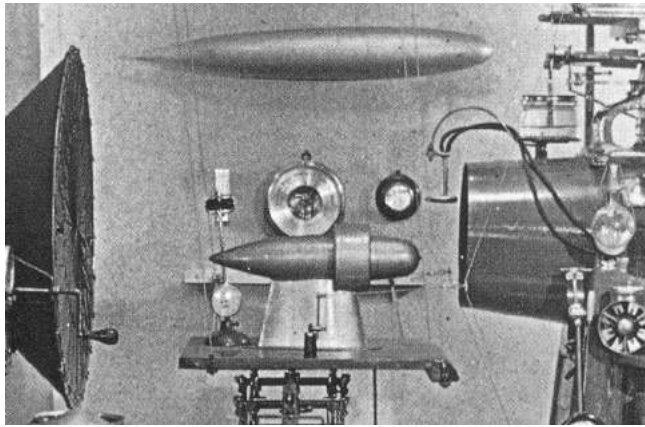
TESTING FOR OPTIMUM COLT CONDITIONS

TESTING HISTORY

Colt built its first wind tunnel in 1931, the first year of its existence, to support research in vehicle ventilators. Subsequently Colt has developed test facilities in the UK and Germany.

TESTING FOR INNOVATION

Throughout the years these facilities have supported Colt's Research and Development activities, analysing the performance of its products in all conditions to identify possible improvements and developments.



The Colt Wind Tunnel in the 1930s

PRODUCT QUALITY AND THIRD PARTY TESTING

Our products are manufactured under Quality Standard EN ISO9001 or 9002 and the environmental standard EN ISO 14001.

This provides our customers with peace of mind, since they know that any such equipment is state of the art, with regards to all aspects of safety and meets all relevant regulations.

We have a history of working in partnership with the leading independent test houses throughout Europe.



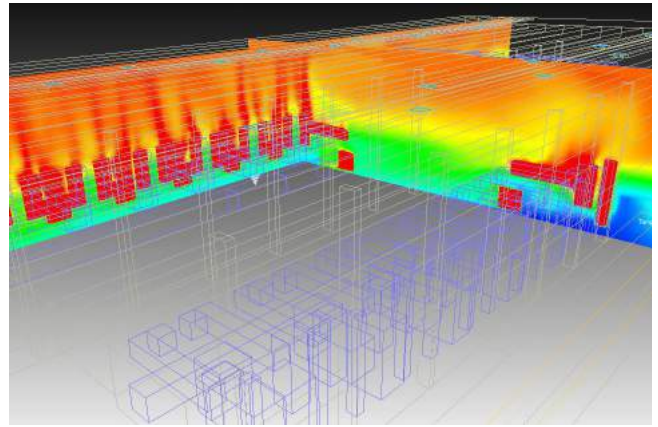
CUTTING EDGE FACILITIES FOR TOP PERFORMANCE

Colt technicians test the products' air permeability, water tightness under static pressure and aerodynamic performance.

Technicians also perform freeze testing, "fall through" tests and structural wind testing. The test facilities include a fire test rig, an acoustic facility and a life cycle area.

SIMULATION AND MODELLING

We have developed our own CFD and energy modelling packages optimised to help design better climate control solutions for buildings.



Colt CFD modelling verifies scheme designs

BESPOKE TESTING

Colt's test facilities are also used to verify the effectiveness of its products when integrated into a customer's existing building or a new development, analysing their performance under different conditions.

This in-depth understanding of how products perform ensures that Colt solutions are reliable and efficient, both now and in the future.



THE BIGGER PICTURE

To ensure that our solutions offer the best performance and peace of mind to customers, our technical staff work closely with leading research institutes, universities and professional bodies.



Colt joined with Arup and SSC to create the Bioreactor Façade, a dynamic façade system for the production of renewable energy using algal biomass and solar thermal heat, here shown in its prototype house in Hamburg

THE COLT FOUNDATION: IMPROVING PEOPLE'S WORKING CONDITIONS

Founded in 1978 by Jack O'Hea (the founder of Colt) and members of his immediate family, the Colt Foundation is a charitable trust which was established by a gift of shares in Colt. The Foundation currently own 22% of the business and dividends from this provide part of its income.

The Foundation finances medical research into occupation and environmental health, especially looking at causes of illness resulting from conditions in the workplace.

Projects include childhood asthma, colour vision loss and airborne ultrasound effects, to name but a few. For further info please visit www.coltfoundation.org.uk.



WHY CHOOSE COLT?

We can provide a complete turnkey package of scheme design, manufacture, installation, commissioning and maintenance.

When you work with Colt, you can count on full peace of mind in every phase of the project and for the full life cycle of your system because our experts understand the engineering and architectural challenges of different buildings, as we:

- Look at the complete picture: we know how a building works and have extensive in-house expertise in a broad range of technologies.
- Design the most cost-effective, no-nonsense solution engineered to meet your needs and any prevailing regulations, relying on our own technical resources such as CAD, CFD and HVAC design.
- Customise our products to fit the exact requirements of your project and, where necessary, have them specially tested at our R&D facility.
- Supply our high quality products, manufactured under quality standards and third party tested to rigorous standards.
- Install and commission your system: our experienced, professional project management teams will take care of everything.
- Maintain and service your system to ensure it keeps working at its most efficient throughout its life cycle.
- Train and advise through all phases of the process.

SERVICING FOR TOP PERFORMANCE

We offer customers tailored maintenance regimes to keep their buildings performing at their best over time.

Our service technicians offer support for all climate control systems and their associated controls.

COLT INTERNATIONAL LIMITED

Colt House | Ridgeway Office Park | Bedford Road | Petersfield | GU32 3QF

02392 451111 | info@coltinfo.co.uk | www.coltinfo.co.uk

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