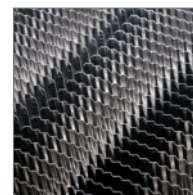
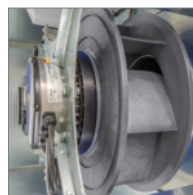


Products & Systems

AHUs
ASHPs
Chillers
CRAC Units
Fan Coil Units
Grilles + Diffusers
Silencers + Acoustics
VAV / Induction VAV / CV Boxes



ABOUT GHz SERVICES

The Directors

GHz Services was founded in 2018 by Guy Hutchins CEng FCIBSE. Guy began his career with four and a half years in architectural technology before moving into building services in 1990. His experience spans more than 35 years in HVAC, including over two decades with TROX, followed by roles with other product suppliers and two years with MEP consultant hurleypalmerflatt.

Guy and Charlotte lead GHz Services as a father-and-daughter business, combining deep HVAC and architectural understanding with analytical, commercial and operational capability. Together, they provide a responsive, technically focused service throughout the project lifecycle.

Charlotte Hutchins MChem is Co-Director of GHz Services. She is actively involved in product selections and technical application support, working closely with consultants and contractors to deliver accurate, well-coordinated solutions. Charlotte holds a Master's degree in Chemistry from the University of Oxford and developed strategic and analytical expertise during her time at PwC.

GHz Services provides a single point of contact across complementary HVAC products and systems; from early design through to delivery and after-sales support. The team specialises in commercial offices, including shell + core, and Cat A and Cat B fit-out projects, as well as high-end residential and data-centre schemes, while retaining broad multi-sector capability.



- Guy Hutchins CEng FCIBSE,

- Charlotte Hutchins MChem

- ◇ *Product performance advice*
- ◇ *Equipment selections*
- ◇ *Equipment schedules*
- ◇ *Specifications & BIM objects*
- ◇ *Minimise SFP's and PUE's*
- ◇ *Accurate system noise levels*
- ◇ *Optimise user comfort*

Design Bureau

GHz Services **Design Bureau** supported by its supplier partners, can assist at every stage of a project:

- ◇ RIBA design stages 2– 5
- ◇ Bespoke design development
- ◇ Laboratory testing & product engineering

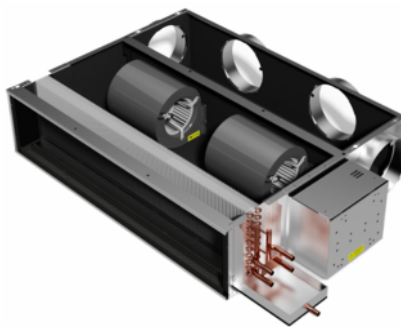
System Engineering

With complementary HVAC products at our fingertips, GHz Services Design Bureau works with clients' MEP design and installation teams to develop coordinated, multi-product solutions for the challenges of modern projects.

As early as RIBA Stage 2, we can support rooftop plant planning and the selection of ASHPs, water-to-water heat pumps and AHUs; particularly where planning, space, access, acoustic or visual constraints affect the design. At subsequent design stages, we support the selection and integration of complementary products to aid overall system performance. This includes smart controls with VAV terminal units, fan coil units and diffusers, helping to achieve seamless operation and optimised comfort.

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AIR HANDLING UNITS

EcoAirBox AHUs are manufactured at the IET Group's manufacturing and R&D centre in Bromsgrove, England. The group thrives on bringing innovative technologies to market and have carved out an enviable position for themselves with a product range that spans almost every market sector. Since the early 1980's IET have delivered over 5000 units to a prestigious list of end users.



[Research & Development Laboratory](#) - the state of the art in house test facilities underpin the group's drive to innovate and develop ground breaking solutions. Full-scale physical testing is essential to support R&D development work, client demonstrations and factory acceptance tests (FAT). When it comes to critical applications, the test cell comes into its own providing peace of mind for operational performance and failure mode analysis.

[Excool](#) - are experts in indirect 'air to air' adiabatic & evaporative cooling. They deliver exceptional PUEs, a high build quality and reliability that have become a gold standard making Excool the envy of the DC indirect cooling market and truly deserving of the N°1 spot they enjoy.



[Swimming Pool AHUs](#) - tightly control air temperature and humidity, vital in harsh environments. Its small footprint delivers up to 12m³/s with 90% heat recovery. Its corrosion resistant design provides an extended life and its plate heat exchanger comes with a lifetime guarantee.

[Prefabricated Plantrooms](#) - complex plant solutions, made simple. In the ISO9001 facility IPT take difficult engineering challenges and create pre-fabricated packages for rapid site installation. The applications & designs vary widely from ground source heat pumps to roof top plant rooms.

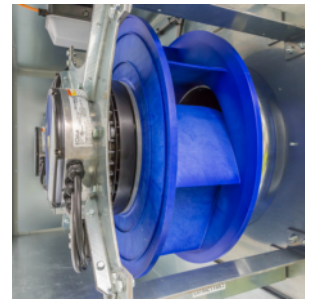


Chillers and Boilers - the EcoAirBox packaged AHU with reverse cycle heat pump keeps things simple solution. It often means there's no need for chillers or boilers.

The thermal wheel provides heating & cooling recovery and coupled with a DX heat pump that efficiently controls the RH% and temperature in the space, enabling air supplies down to 12°C making it perfect for VRF and chilled beam systems. By minimising the latent cooling and maximising the sensible cooling reduces the size of the VRF system and chiller.



Plug Fans - high specification direct drive EC plug fans by Ziehl Abegg with composite impellers for optimal performance: air volume, low noise & low resistance. Plug fans are consistent with EcoAirBox's modular design and enable bespoke solutions up to 17 m³/s.



Controls - the open protocol unit is digitally enabled for full control, real-time operating data, fault feedback and diagnostics. The software dynamically optimises the unit's energy efficiency. An intuitive touch screen provides the user with everything at their fingertips.



Digital Scroll Compressor - the reverse cycle compressor can be digitally controlled down to 10%, providing close control of the supply air temperature.

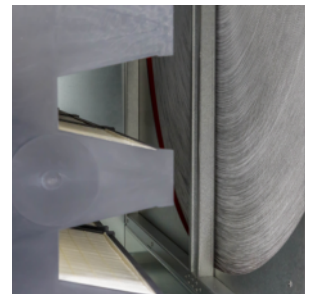


Thermal Wheel - energy recovery (heating & cooling) is optimised with variable speed control. The thermal wheel transmits moisture by pure sorption (without condensation), the moisture recovery saves up to 50% energy. Sealed for life inner bearings provide low maintenance and long life. Software auto 'purges' to clean the wheel.



Filters - supply air bag filters designed for 100% RH and ambient temperatures of -20°C means there is no need for frost protection.

The low pressure drop filters feature 'corrosion free' plastic frames. Real time pressure drop data for the washable return air filters helps support preventative maintenance.



ASHPs, CHILLERS, CRACs, DRY COOLERS



AERMEC, part of Giordano Riello International Group, was established in 1963, is one of the oldest air conditioning manufacturers in Europe. The group has 1700+ employees globally and a turnover in excess of €450Million.

Production - facilities streamlined by Porsche, span 130,000m² near Verona. The company prides itself on its innovation; applying the latest technologies, renewables integration and implementing a continuous product improvement cycle in pursuit of ever increasing energy efficiencies.

They strive to minimise refrigerant usage, optimise free cooling, as well as drive down 'total cost of ownership'.

Research & Development - engineers are underpinned by sophisticated development tools, state-of-the-art €5.0M test facilities and work in partnership with universities & technology centres.

Test Facilities - Europe's largest chiller test chambers (single unit up to 2.0MW):

- ◇ Calorimetric chambers - Eurovent and AHRI certification; controlling temperature, relative humidity and power supply
- ◇ Semi-anechoic chamber - robotic remote control; sound power level and sound intensity mapping
- ◇ Real room chamber: controlled wall & roof temperatures for air-flow, noise and comfort level tests
- ◇ Ventilation tunnel - heat exchanger testing
- ◇ Aerodynamic simulator - air-flow & pressure drop measurement
- ◇ Enthalpic tunnel - enthalpy testing



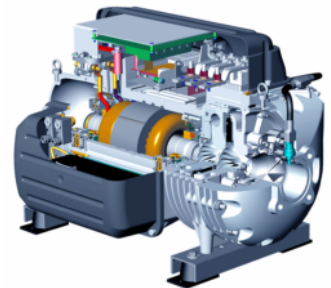
High Performance - air cooled and water cooled chillers are 'run of the mill' for AERMEC. Their equipment has been installed in all applications from Offices to Data Centres; integrating screw, scroll and centrifugal compressors. AERMEC's knowledge of refrigeration and compressor technology is second to none. So when it comes to putting the customer first and engineering the right solution, be it a standard chiller or bespoke, the customer always gets what he wants. Performance is never compromised.



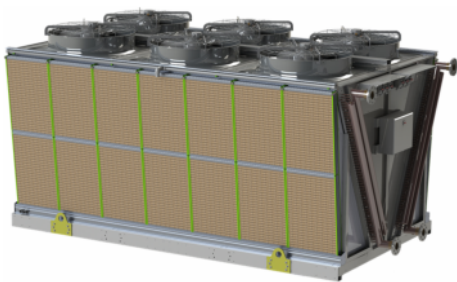
Modular Chillers - available as air or water cooled units, expandable modular packages. Their compact size makes them ideal for small basements or congested rooftops.



Turbocor - oil free centrifugal chillers with magnetic bearings are ideally suited to AERMEC's air cooled and water cooled chillers. Silent, with a low-starting current they are 'state of the art'. AERMEC have developed solutions where the refrigerant can be halved to provide not only cost savings but F-Gas benefits too.



Dry-Coolers - and hybrid units help optimise the chiller & system performance. Switching smoothly between refrigeration and the free cooling modes of the dry cooler is considered an art-form, particularly during mid-season. AERMEC have mastered it. So much so that you can be confident your system will run at its peak performance; when ambient conditions permit it will operate either partially or completely on free cooling.



CRAC Units & In-Row - AERMEC not only have solutions for central plant but for the white space in data centres and server rooms too. A wide range of CHW and DX CRAC units as well as In-Row show the strength in depth that make AERMEC the perfect partner for critical cooling applications.

The use of SmartNet allows the CRACs units to operate as a 'hive', to evenly supply cooling to the space and minimise fan power whilst matching the heat load across the space.



FAN COIL UNITS, ATTENUATION

Since their formation in 1993 Caice has quickly established themselves as the experts in acoustics; and with their team of highly trained acousticians they are widely regarded as the UK's leading acoustic manufacturer.

UK's Quietest Fan Coil Unit

Caice are the only acoustic company that manufacture FCUs. Their unique proposition combines FCU product and system knowledge together with honesty, integrity and unrivalled guaranteed performance data. Add to their experience the independence offered by their acoustic consultancy Lee Cunningham Associates and it's easy to understand why **GHZ** proudly boast that Caice manufacture the UK's quietest fan coil unit.

System Engineers

With acoustics at the heart of all HVAC systems; Caice help **GHZ** to provide end to end acoustic solutions in the most demanding applications across AHUs, chillers, fan coil units and variable air volume systems.

Selection Software

Caice's *Attenuator Selector* is an HVAC attenuator product selection and scheduling tool. Available free of charge the program has been designed, developed and is supported by Caice's in-house Microsoft certified software development team. M&E Design engineers can also download COBie compliant Revit FCU images to BIM level 2.



- Fan coil acoustic testing



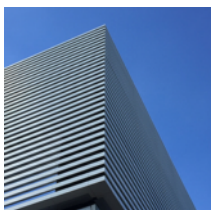
- Cornwall Energy Centre, St Austell



- Here East, Stratford



- Sheffield University, Advanced Manufacturing Research Centre



- Acoustic louvers



- Acoustic enclosures



- Acoustic screens



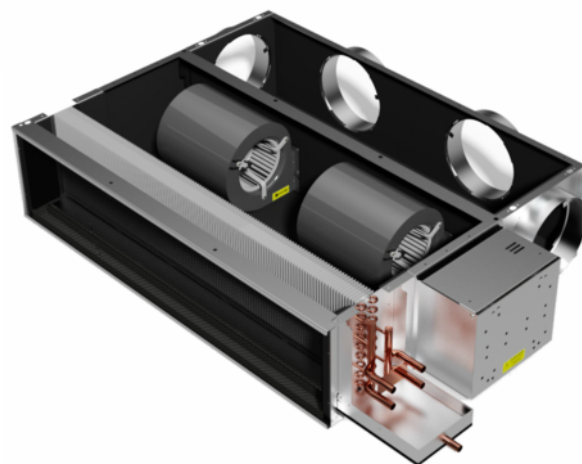
- Acoustic treatment



- Selection software

Research & Development - after 1400 hours of thermal testing Caice can proudly boast to have raised the bar with their new fan coil unit. Thermal tests were conducted at BSRIA and acoustic results ratified in real room mock-ups; the Caice data is 100% accurate.

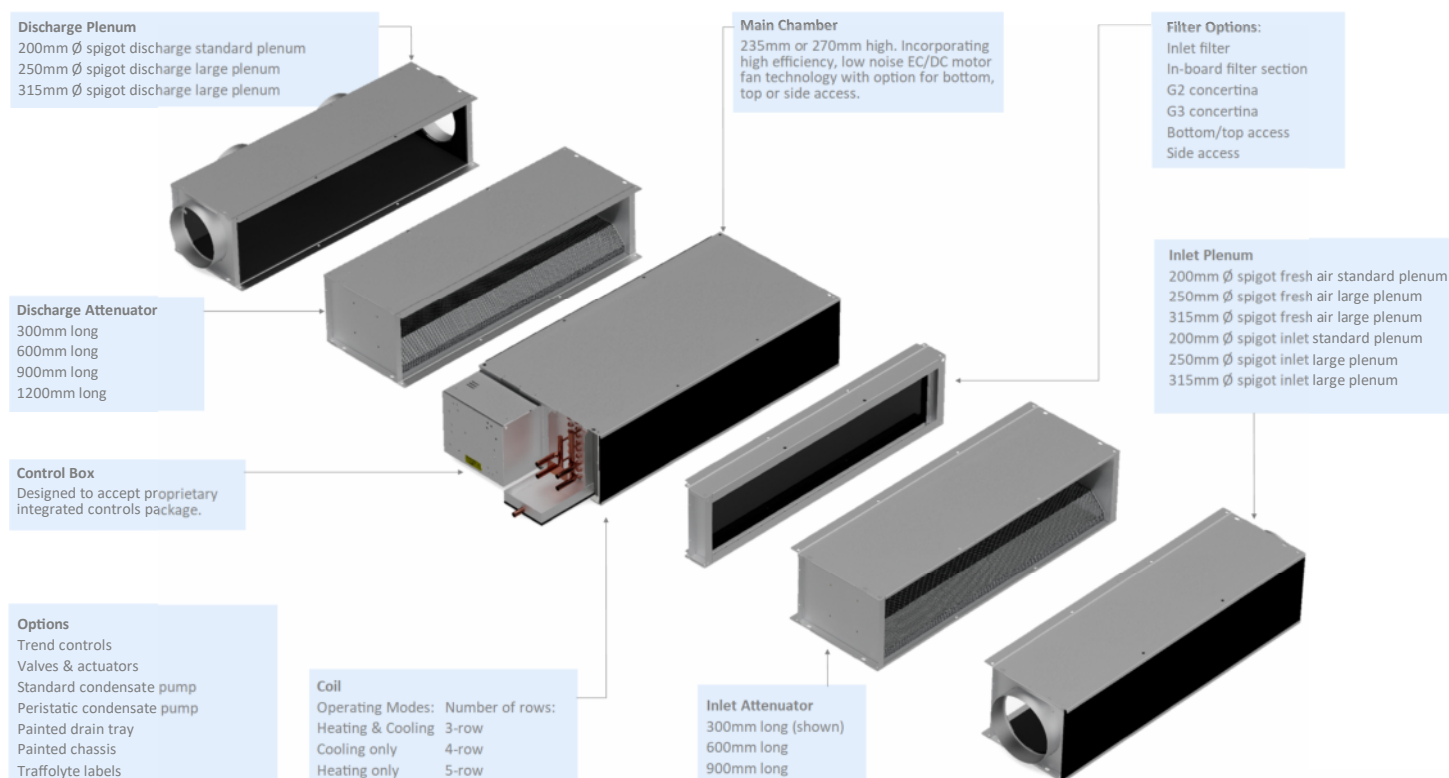
Lowest SFP's - are due to a new coil that reduces airflow resistance & increases thermal output and a new fan chamber that allows the fan to breath. All contributing to SFP's 15% lower than the industry average. By adding an optimised silencer the unit's cooling capacity can increase by up to 60%.



Reduced Latent Cooling - increased air flows resulting from a new coil design, drain train & fan chamber have resulted in lower latent cooling that translates into reduced chiller: capacity, physical size, weight, electrical power and cost.

Minimal Access - for maintenance is required through clever engineering with a ceiling opening of just 600 x 600mm, making it the ideal solution for residential installations and congested ceiling voids in commercial offices.

The Flexible Modular Solution



GRILLES, DIFFUSERS, LOUVRES

Colman, originally known as Barber Colman, has its roots in Trafford Park Manchester dating back to 1965. Colman have always remained true to their core values as a UK manufacturer of good quality, well engineered air distribution products. Colman continues to manufacture in the UK from its 50,000ft² Midlands manufacturing facilities. Whilst best value is achieved through the supply of standard products, the company ethos is about providing 100% customer satisfaction which frequently means supplying bespoke solutions. Colman products have been used on a variety of prestigious project across the UK and overseas.



- The Met Office, Exeter



- Presidential Palace, Abu Dhabi



- Royal Albert Dock, London



- Alder Hey Children's Hospital



- Birmingham Airport



- York Racecourse, Ebor Grandstand

Grilles and Diffusers - are available for all system types and for applications ranging from commercial offices, retail, hotel & leisure, high-end residential to data centres.



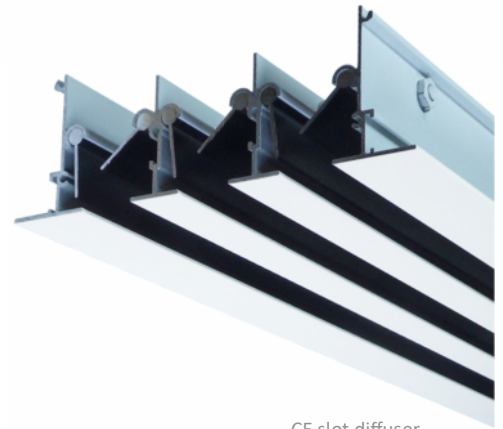
- DWV swirl



- DWT swirl

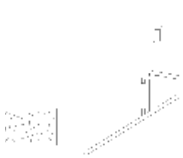


- DWS swirl

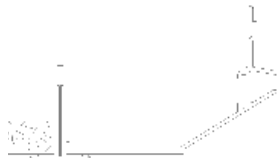


- CE slot diffuser

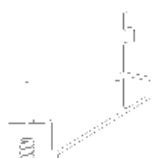
Flange Boards - diffusers have been engineered to coordinate with a range of suspended ceilings, grid types as well as plastered ceilings.



- Plasterboard

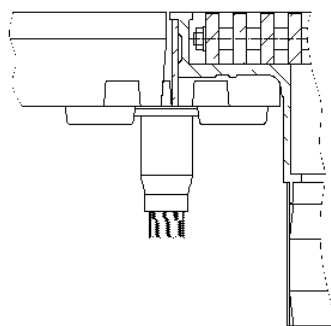
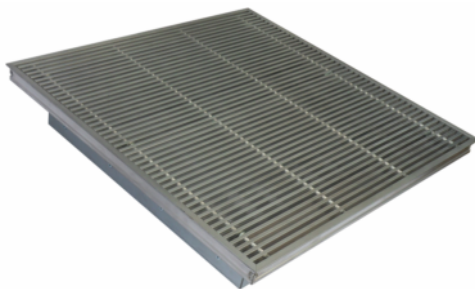


- Flat T-bar



- Rectangular T-bar

Computer Room Floor Grilles (Heavy Duty) - designed to suit all types of computer halls, from large scale data centres to commercial office MERs and SERs. The extruded aluminium grilles are purpose made to suit a wide range of floor depths and types of raised floor.



- CE plank tile



- S 4-way diffuser



- G adjustable grille



- T fixed blade grille

Architectural Louvres

Colman's reputation as a manufacturer of high quality architectural louvres spans the length and breadth of the UK. Their standard and custom made solutions suit standard openings, louver screening and penthouses louver applications.



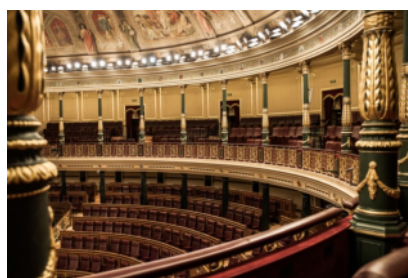
- Penthouse louver

HIGH INDUCTION DIFFUSERS, AIR/WATER PRODUCTS

Founded in 1882, Krantz has a tremendous history and well earned expertise spanning every market sector and a product range which includes: air distribution, cooling & heating systems, filtration and dampers. Applications are diverse from commercial offices, art galleries to nuclear facilities. From its German headquarters and world renowned research & development laboratories in Aachen, Krantz designs & engineers equipment for export worldwide through its global coverage and distribution network.



- Krantz HQ, Aachen, Germany



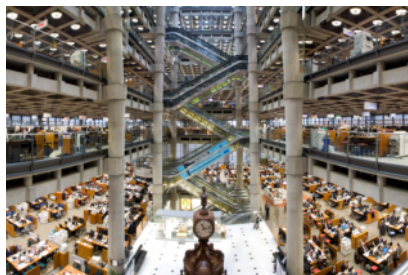
- Spanish Parliament



- Bombardier



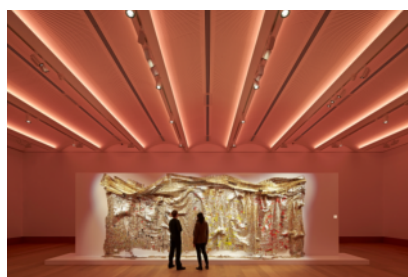
- Aachen Research & Development Centre



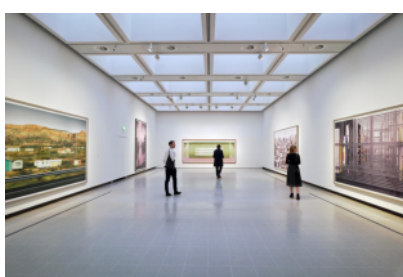
- Lloyd's Building



- Angel Court



- Bonhams



- Southbank



- Wallace Collection



- Buckingham Palace Road



- The Shard

Krantz boasts the number one spot in many fields of air distribution including: underfloor air, displacement ventilation, high induction and invisible diffusers (OptiClean®) to name just a few.



- Q-B (floor swirl)



- DB-D (floor swirl)



- IN-V (barrel slot)



- DB-E (floor swirl)



- DD-N (ceiling swirl)



- Krantz airflow studio



- WL (linear whirl)



- SKS (chilled ceiling)



- DW-V2 (jet nozzle)



- OC-Q (OptiClean)



- RA-V2 (adjustable ceiling swirl)



- RL-C (adjustable ceiling swirl)

VAV, Induction VAV, CAV

TERMINAL UNITS

Customer satisfaction is at the heart of everything for Barcol-Air BV. With a prestigious global track record for their VAV, Induction VAV and CAV terminal units that dates back to 1932 through the Barber Colman Company (USA) and a UK legacy dating back to long before the '80s heyday for VAV, they remain a market leading manufacturer of VAV terminal units. Their R+D and climate laboratory test chambers comply with the latest ISO 7726, ISO 7730 and EN 1751 standards, providing accurate performance data measurements, evaluation and attainment of user comfort in the occupied space.



- 40 Leadenhall Street, London



- Kaplan House, London



- White City Place, London



- EBRD, 5 Bank Street



- International Quarter, London



- R&D test laboratory



- 22 Bishopsgate, London

- Image by Martin Richardson for Riverfilm

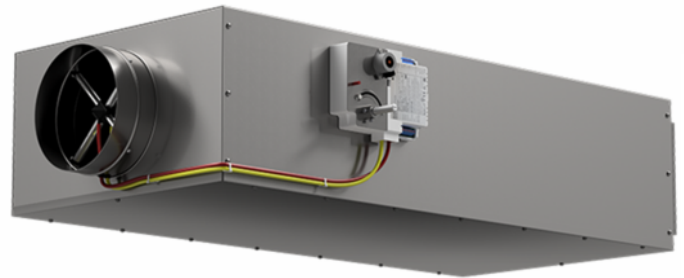
Barcol-Air BV terminal units are designed to suit pressure independent and system powered applications, from commercial offices to laboratories. NS, NL and NK boxes boast industry leading low noise levels due to their aerodynamic opposed blade control damper. They take a pride in offering not just a standard range but can supply bespoke non-standard sizes and shapes as well.

The VAV units key features to provide excellent control:

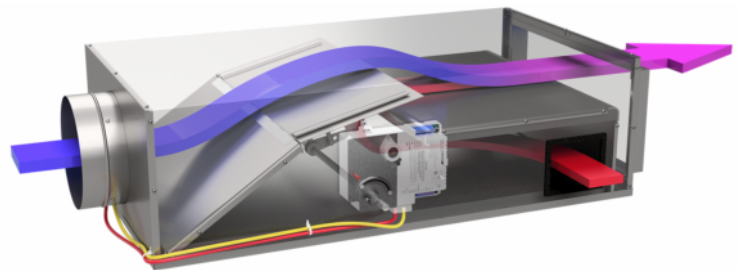
- Accurate control from 100 - 10%
- Low leakage damper, <2% at 750Pa
- Flo-Cross® multipoint sensor, better than 2.5% accuracy

The units can be supplied with accessories such as:

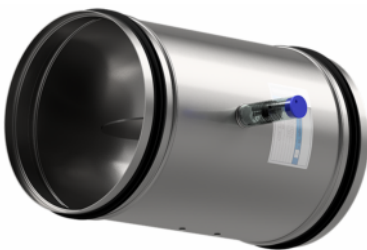
- DDC control packages, supply and fit or free issued
- LTHW and Electric reheat
- Multi-outlet connection boxes & secondary silencers



- Variable air volume (VAV) box - type NS



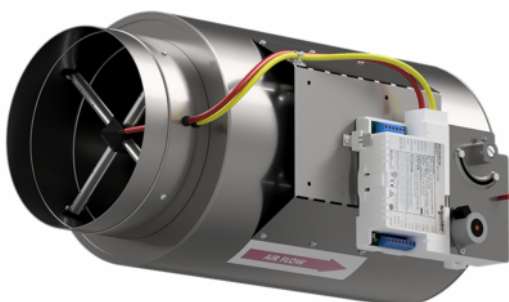
- Induction VAV box—type NV



- Constant air volume (CAV) controller—type NR



- Double skin VAV controller - type NL



- Variable air volume (VAV) controller—type NB



- Single skin VAV controller—type NK

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Silencers + Acoustics
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