



Colt Project Portfolio 2015
Colt Group Limited

**Centrum Pivovar,
Děčín**

Beer was originally brewed in Děčín-Podmokly as early as 1703, but due to the construction of a railway in 1848, the building was demolished and replaced with a new brewery in 1849. The brewing area was expanded several times over the years until brewing ceased in 1993, but the building kept its Art Nouveau style and is now preserved as a protected architectural monument.

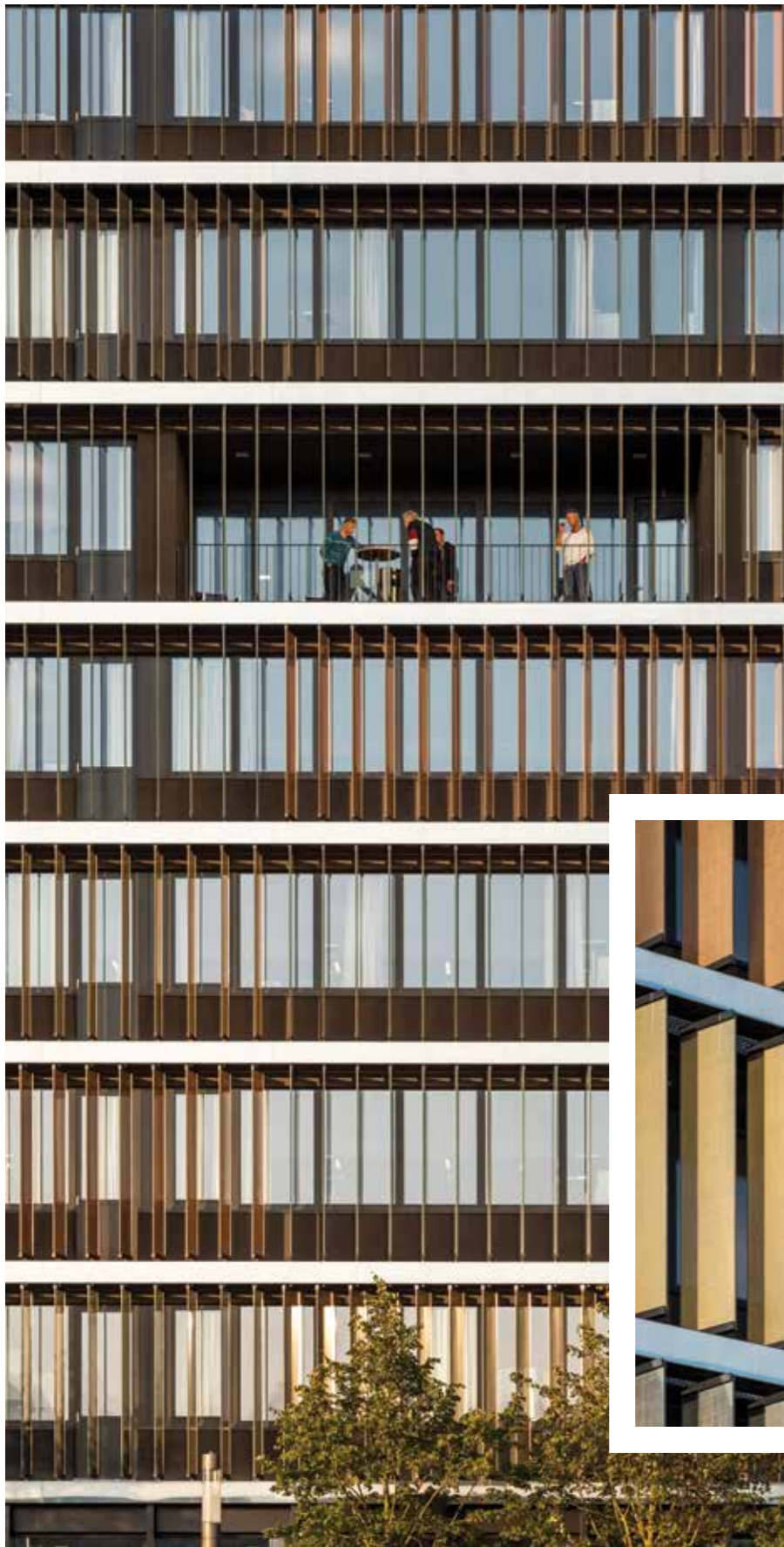
The old brewery has been refurbished as a multifunctional business centre, and the architects have sensitively remodelled the historic foundations into a modern centre, using a glass structure to connect two sections of the buildings. The buildings now offer 60 retail units, and 420 car parking spaces.

Colt designed and installed a complete natural and powered smoke and heat exhaust ventilation system. Powered ventilation through the arcades is provided by Liberator fans with EuroCO flap ventilators located in skylights, and axial fans are installed in the rental units. FCO louvred wall ventilators provide natural ventilation, and individual sections of the building are divided by glass smoke curtains to prevent the spread of smoke in the case of a fire.

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The Portfolio covers a selection of Colt projects from around the world which have been completed in recent months, or are nearing completion





**Swiss Federal Railways
(Schweizerische
Bundesbahnen) – SBB,**
Bern, Switzerland

This new complex for the SBB headquarters in Bern consists of two contemporary buildings at right angles, designed by Architects Lussi + Halter Partner AG from Lucerne. The company was keen to promote energy efficiency and environmental protection. Colt was asked to design a system which would enhance the aesthetic appearance of the buildings while optimising the use of natural light and reducing the cooling load to ensure comfortable working conditions for the inhabitants.

Colt designed and installed a sun tracking solar shading system covering all four façades of the two buildings using Shadoglass louvres controlled by a Soltronic control system. Each louvre is made of two glass louvres with a metallic fabric sandwiched in between. The louvres track the movement of the sun, ensuring ideal lighting conditions within the buildings while at the same time preventing excessive heat ingress.

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**Paul Keane
Gymnasium,
St Mary's College,**
Auckland

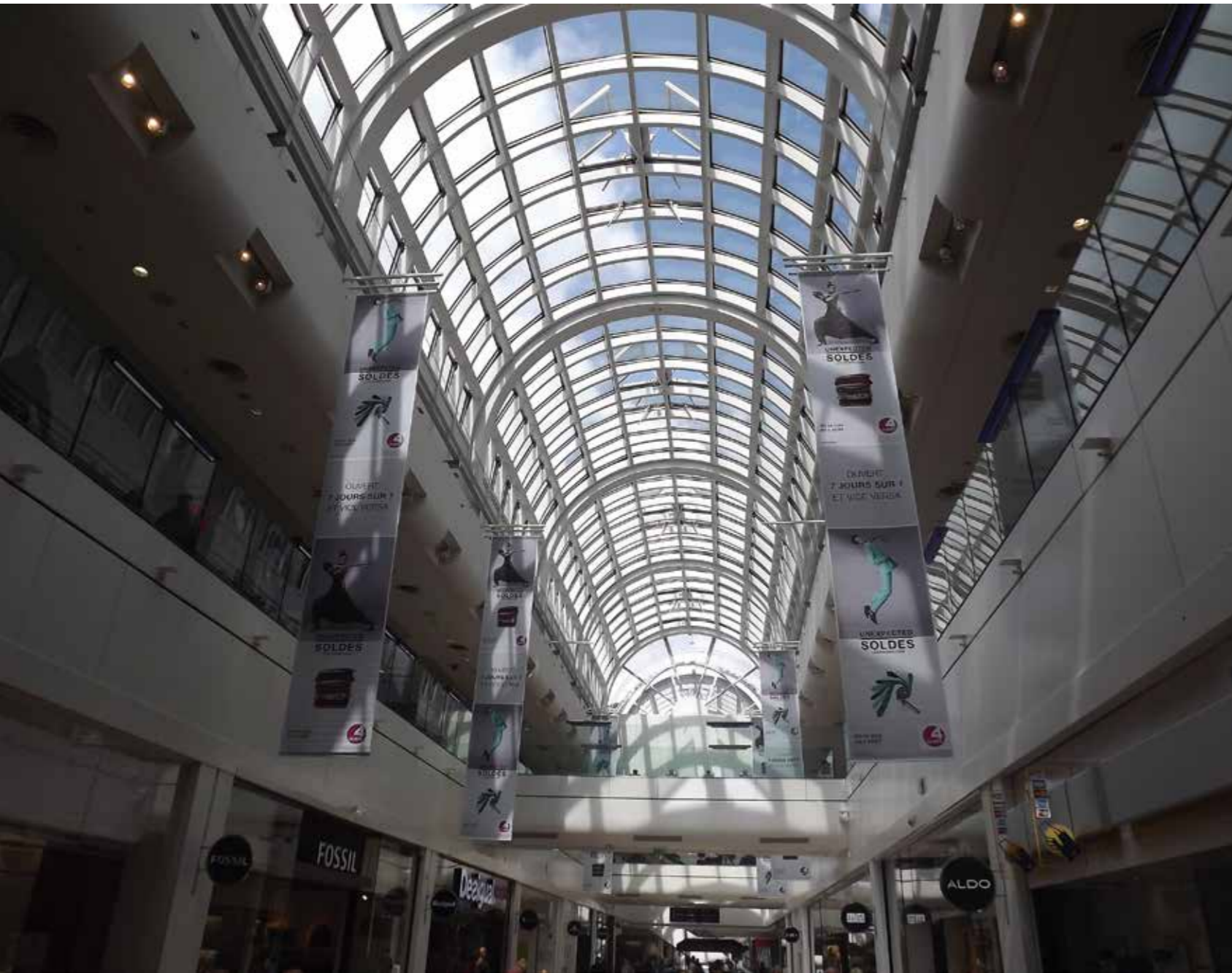
The Mercy Order established this Catholic girls' school on the site in 1863 to provide an education based on faith. The campus now contains many new buildings and excellent facilities to cater for the 950 students and celebrates outstanding academic success.

An architecturally designed, multi-purpose gymnasium building has been built at the College, and the state of the art building contains an international standard basketball court, a dance studio, offices and five new classrooms which open onto a mezzanine gallery for viewing sports fixtures. A key feature of the exterior of the new building is a large, illuminated cross which will be clearly visible on the cityscape and will be a significant landmark for Auckland.

The designer and specifier on this project was RCG Retail Consulting Group, and Colt Products & Systems installed Coltlite glazed natural ventilators, using 10 – 12mm heat strengthened glass with a frosted interlayer to reduce the risk of window breakage. Most versions of Coltlites are tested to EN 12101-2 as dual purpose smoke, heat and exhaust ventilators and are CE marked.

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**Centre Commercial
Les Quatre Temps,**
92 Paris la Défense

Les Quatre Temps is the main commercial centre of the business district of La Défense in the eastern suburbs of Paris with over 46 million visitors each year. The initial shopping centre was completed in 1981 but it has undergone an extensive renovation and expansion, and is now the largest French shopping centre (by turnover). There are four levels of shops and parking spaces for over 6,500 vehicles.

Colt installed Firelight 2 pneumatic natural casement roof ventilators into the mall areas for natural day to day ventilation and smoke control. Firelight is particularly suited for installation into glazing systems, and has high aerodynamic, acoustic and thermal performance.

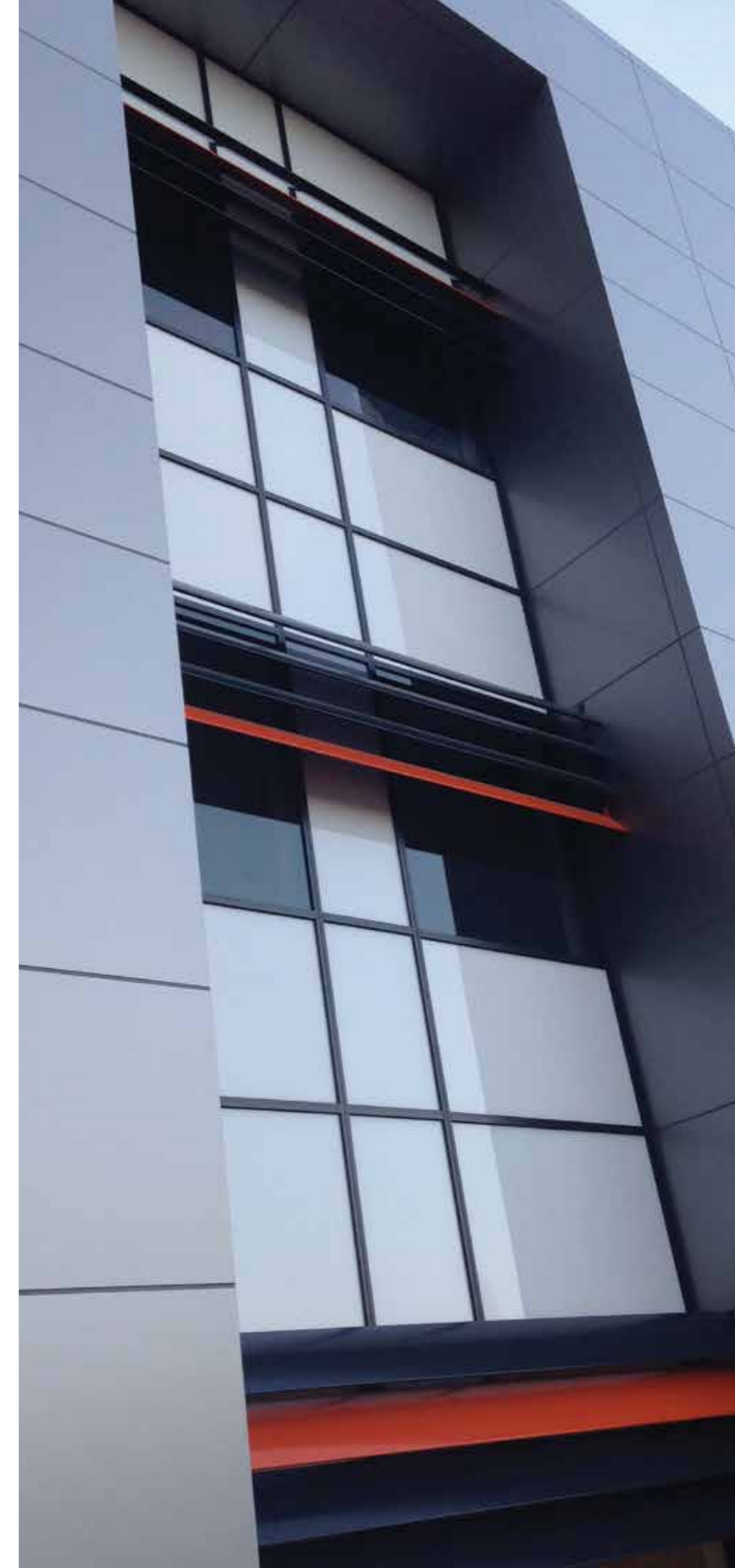
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**Hollywood Private
Hospital, Nedlands**

Hollywood Private Hospital is an acute-care private teaching hospital situated in the Perth suburb of Nedlands. This hospital commenced a \$74 million expansion programme in January 2014. Six additional operating theatres will contain some of the most innovative technologies including robotic surgery capability. This expansion will bring the total number of operating theatres to 16. The hospital is the only acute care private hospital in Western Australia with both a dedicated specialist rehabilitation unit and a freestanding inpatient mental health facility on site.

Colt installed a Solarfin solar shading system to the windows to reduce heat gain and glare in summer and reduce heat loss in winter, and 1UL/SH and 2UL/SH Universal Louvre for screening and ventilation.

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COLT HONG KONG

Kwun Tong Swimming Pool

The Kwun Tong Swimming Pool provides facilities for swimming athletes and enthusiasts to practice their skills, and is an ideal venue for holding major local competitions. It has already staged many swimming galas organised by schools and organisations, as well as the Hong Kong International Open Swimming Championships.

Occupying a total floor area of 18,000m², the Kwun Tong Swimming Pool is the largest of its kind in the district. It has a 50 metre indoor heated main pool, a 25 metre indoor heated training pool, a 50 metre outdoor secondary pool, two 25 metre outdoor teaching pools, a sunbathing area, and a spectator stand which can accommodate 1,500 people.

Colt distributor FAS Engineering Ltd provided a natural smoke ventilation system with hybrid controls via a weather station, and an extensive area of Universal Louvre with Acoustic Louvres for noise reduction.

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COLT GERMANY

WMF AG, Hayingen



WMF manufactures and sells a huge range of high quality cookware and household goods throughout Germany, Austria and Switzerland. Their range includes products for domestic and professional catering, and they sell everything from knives to juicers, for preparation, cooking, eating and drinking.

In the recent refurbishment of their premises in Hayingen, it was necessary to replace an old daylighting and man-safe system within a

northlight roof, and increase the ceiling height.

Colt provided and installed a Cosmotron barrel vault rooflight covering 65m², and Apollo natural flap ventilators for day to day ventilation and smoke control complete with a man-safe harness anchor system

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Devonport Library, Auckland

The old Devonport Library was built in 1953 and has been extended and renovated at various times. It reached the point where it would require significant structural work and was no longer fit-for-purpose.

It was decided to build a modern library on Windsor Reserve to

replace the original building, and the new design embraces sustainable principles to ensure the library is environmentally friendly, fits into its natural surroundings, and complements other buildings in the area.

Designed by Athfield Architects, the building incorporates floor to ceiling Coltlite glazed natural ventilators for both natural light and ventilation, and Colt 2UL/SH Universal Louvre,

provided by Colt Products and Systems. The ventilators are controlled by the BMS, allowing for automatic control to accommodate changing weather conditions by connecting to rain, wind and temperature sensors.

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Royal Palace Music Hall, Kirrwiller

The Royal Palace Music Hall is one of the three greatest music halls in France, with a 1,000 seat theatre staging ambitious productions. Originally created by Pierre Meyer and his wife as a family restaurant with small shows once a month, he invested large sums in expanding the venue and installing a hydraulic platform for the stage. He has also developed two high class restaurants, The Majestic and The Versailles, which offer lunch and dinner dances.

Colt installed Liberator powered ventilators to extract smoke and hot gases in the event of a fire. Coltlite natural glass louvred ventilators have also been integrated into the false ceiling under Liberator mechanical ventilators, providing high acoustic and thermal performance.

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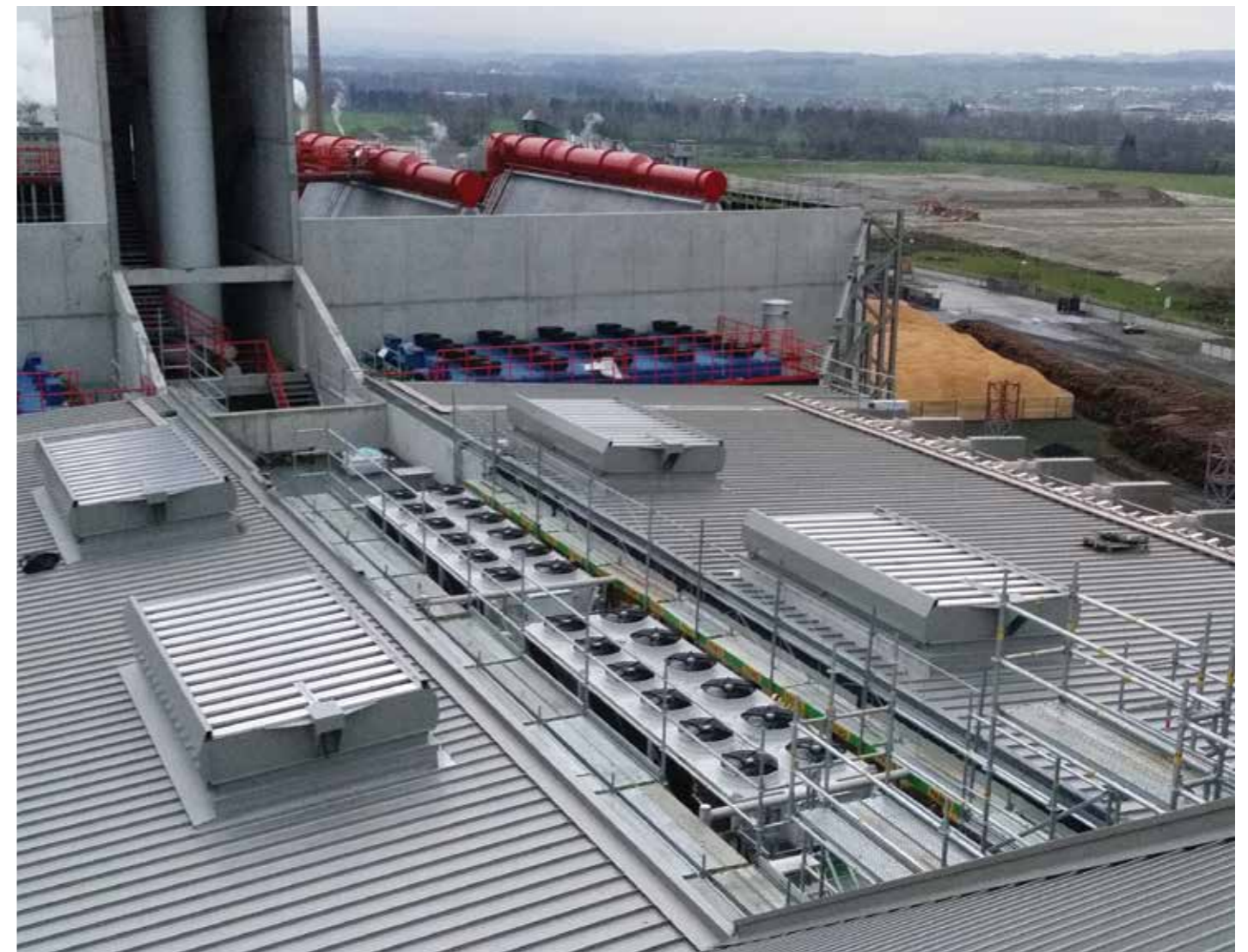


Renergia AG, Root,

Renergia is more than a municipal waste incineration plant: it is a modern and environmentally sound power station which will deliver a substantial amount of electricity and power necessary for the production of paper during a 24 hour period for 365 days each year. Renergia is a collaboration between eight waste associations in central Switzerland, making it the largest electric power station in the canton of Lucerne. The modern waste air cleaning system will ensure the reduction of emissions, and contribute to climate protection.

Colt designed and installed a natural inlet and extract ventilation system for the waste-to-energy plant. The system was designed to meet the requirement for the highest levels of sound insulation to prevent disturbance to the surrounding residential area. Labyrinth low profile natural extract ventilators provide continuous extract or inlet ventilation for most kinds of industrial buildings, providing high volume weatherproof ventilation with sound absorbers. Coltlite louvred natural ventilators provide smoke and heat exhaust.

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Messe Wels, Hall 21, Wels

Wels exhibition centre has been holding annual trade fairs for a variety of goods and services since 1873. It is one of the largest and most important exhibition centres in Austria, and the newly completed Hall 21 has created a further 10,000m² of exhibition space. The centre also hosts conferences and gala dinners.

Colt supplied and installed Cosmotron rooflights enabling work areas, foyers and entrance halls and meeting rooms to benefit from natural daylight. Colt also supplied and installed a comprehensive smoke control system comprising Apollo natural flap ventilators to provide both day to day and smoke ventilation, as well as Weatherlite ventilated upstands for rainproof ventilation.

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Queen Elizabeth University Hospital, Glasgow

The new hospital campus was built on and beside the site of the old Southern General Hospital, and began to accept patients during the early part of 2015. It was officially opened by Queen Elizabeth II in July 2015, and is expected to be fully operational by summer 2016. The adult hospital is fully integrated with the children's hospital, and linked to the maternity hospital and to the Neurosciences Institute, making it the largest hospital campus in Europe.

Colt provided a smoke control system using ColtShaft systems, a smoke extract system in the atrium in the children's hospital, and controls to a basement tunnel extract system. Colt also installed Coltlites with both glazing and insulated panels for natural day to day and smoke ventilation, and Seefire stairwell systems.

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**Heag Südhessische
Energie AG (HSE)
Gasturbinenwerk,
Darmstadt**

HSE AG is the most important independent provider of energy and water in southern Hesse, supplying nearly one million people in private households, industry, commerce and public bodies. The HSE Group is committed to a sustainable energy supply and modern public services, investing heavily in renewable energy and energy efficiency, and climate and environmental protection.

The gas turbine plant in Darmstadt is part of the forward-looking development of renewable energies, and the turbines can reach peak load in only nine minutes. Colt was fully involved in the planning, delivery, assembly and commissioning of systems for ventilation, heating, smoke and heat extraction for both the machine and the switchgear building. The ventilation system had to be soundproofed, use natural exhaust and fresh air, but also had to provide protection against the weather.

Colt installed a large range of products including EuroCO natural ventilators on Weatherlite ventilated upstands for both day to day and smoke ventilation and rain defence, and Colt FCO ventilators to provide inlet and extract ventilation as well as permit the entry of natural daylight. Securex pressure relief ventilators were installed in the event of an explosion, with Tristar powered air handling units and a pneumatic control panel for the entire plant.

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Corporate Avenue No.5, Shanghai

Corporate Avenue offers premium office space with commercial and entertainment complexes, and covers a gross floor area of approximately 254,000m² in total.

The building was designed to offer the latest in smart building services, and to the LEED Gold-level standard, which offers an intelligent and green lifestyle for its tenants. This has attracted a number of multinational companies.

Colt provided and installed ZUL/SH Universal Louvre for screening and rain defence.

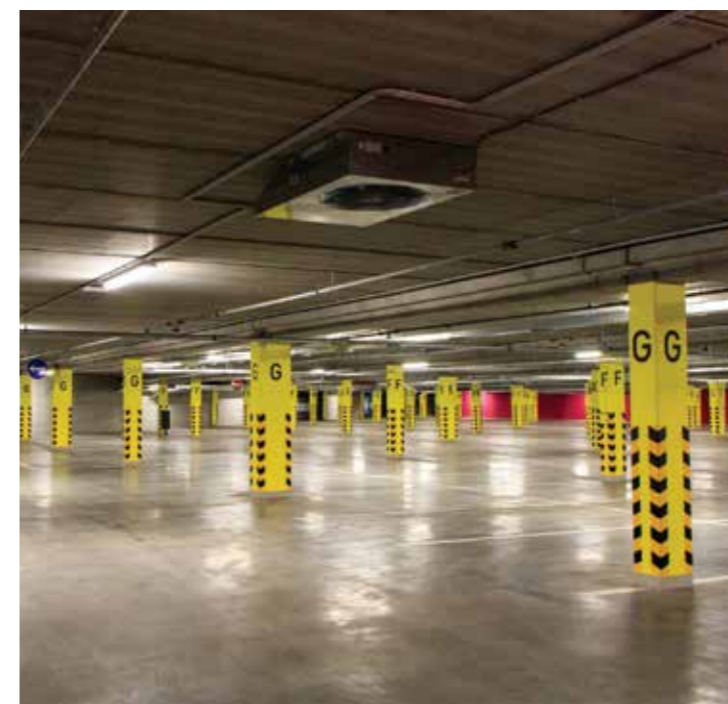
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Frýda Shopping Centre, Frýdek-Místek

The construction of the new Frýda shopping centre started in the autumn of 2013, and was completed in late 2014. Located on the right bank of the river Ostravice, the centre covers 15,000m², and offers 60 retail outlets, restaurants, fast food restaurants and other services. There is also an underground car park with 600 parking spaces, including spaces for bi-fuel vehicles using CNG (natural gas) and LPG (Autogas).

Colt supplied and installed the complete smoke and heat exhaust ventilation system for the underground car park, including induction fans, fire rated extraction fans, louvred vents installed in extraction shafts, and the control panel.

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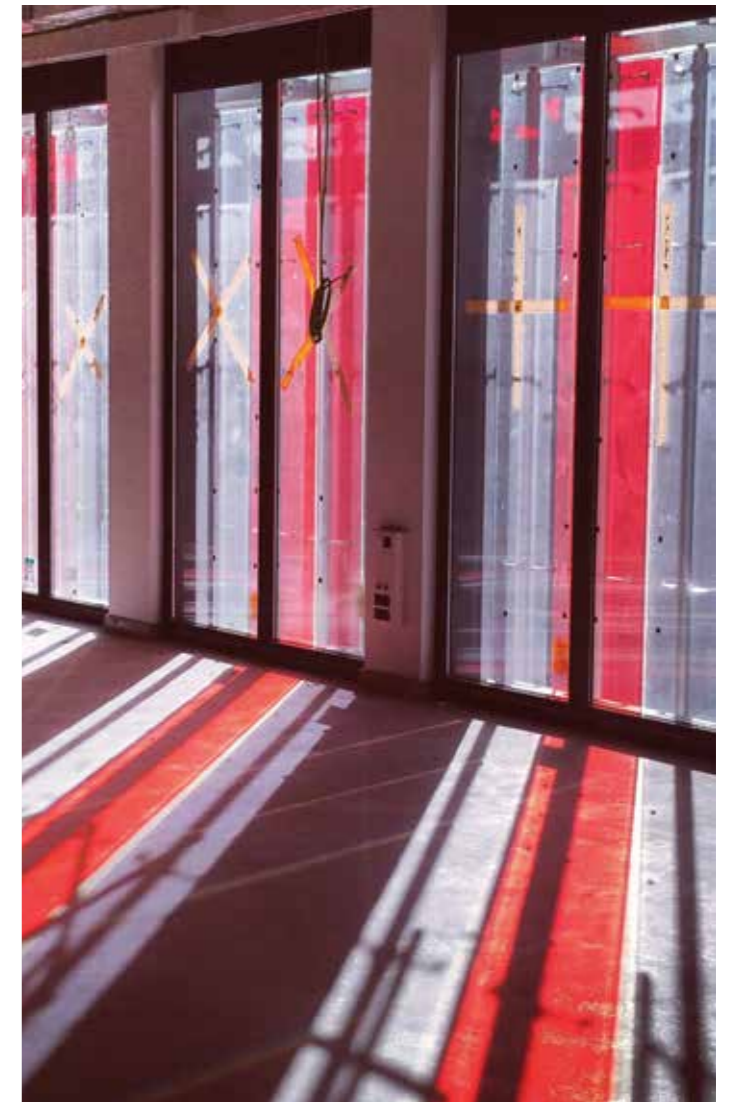


Creu Roja (Spanish Red Cross), Barcelona

The Red Cross is one of the oldest major humanitarian organisations in existence. The company was born from an idea by Henry Dunant, a Swiss businessman who was concerned to help the most disadvantaged groups in society. Having witnessed the Battle of Solferino in 1859, he had the idea of creating aid societies which would also have the task of assisting the wounded without distinguishing between nationality or religion in times of war.

Colt was asked to design and install a Shadoglass solar shading system for the new headquarters of the Red Cross in Barcelona. The façade is striking, incorporating coloured glass louvres and has been designed to reduce heat gains and glare whilst maximising the use of natural daylight.

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**Einkaufszentrum
City Gate, Vienna**

The new City Gate project in Vienna offers 1,058 flats, 107 apartments, and a new shopping centre which covers an area of approximately 20,000m² with more than 54 retail outlets. The roof of the shopping centre will be used as a recreation area for local residents, and a public park has been created which has playgrounds for children, and rest areas.

Colt supplied and installed a total of 130 linear metres of automatic

SmokeMaster SM5 smoke curtains in the entrance areas and the Interspar market within the shopping centre. Their compact and flexible design allows easy modification should the use of the building alter, to prevent the movement of smoke and heat generated by fire from one area to another by channeling or containing the smoke and heat.

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Fonterra, Heerenveen

Fonterra is a global, co-operatively-owned company based in New Zealand, with the ambition of making a difference in the lives of 2 billion people by 2025. The farmer shareholders collect 22 billion litres of milk each year and produce more than two million tonnes of dairy ingredients, speciality ingredients and consumer products, with 95% of these being exported.

During the course of the building of its new factory in Heerenveen, the company was looking for an energy efficient way of heating and cooling. Colt supplied and installed a scheme of Coolstream adiabatic cooling units supplemented by air

handling units to address the need for filtration. The system only uses 38kW compared to the 750kW that a traditional chilled water HVAC system would to maintain the same conditions, and achieves a very good total cost of ownership (TCO).

Because of the residual energy from the production plant, Colt designed a Caloris Hybrid System for the office. This is a compact water sourced heat pump system that relies on energy exchange to achieve low energy use. In this application, the climate of the offices is warmed and cooled by using the residual energy from the production plant itself.

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photography by George Meitner

Philharmonic Hall, Szczecin

The new Philharmonic Hall, designed by Spanish studio Barozzi Veiga, has won the Mies van der Rohe Award 2015. The concert hall features a zigzagging roof profile and a translucent ribbed-glass façade, and was

selected by a jury who visited all five shortlisted buildings. Named after German-American architect Ludwig Mies van der Rohe, the biennial award is the most prestigious accolade in European architecture and is awarded to a building completed in the last two years by a European architect.

The concert hall is even more spectacular than its glass façade,

illuminated with lamps which can be arranged in 20,000 different combinations. With 951 seats for orchestral concerts, the hall is the fourth largest concert hall in Poland, and one of the most modern in terms of equipment and sound systems.

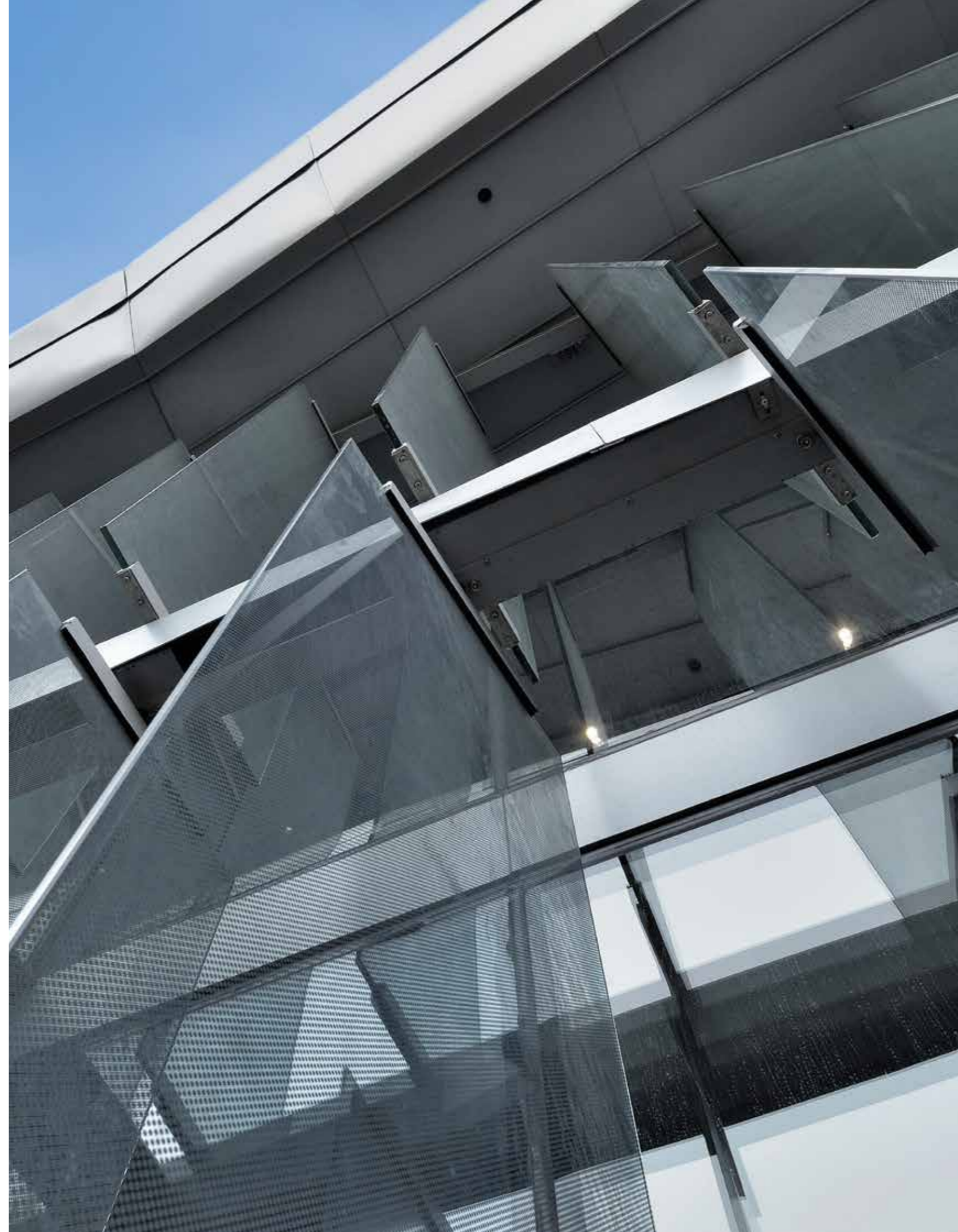
Colt installed ECO natured louvred ventilators for smoke exhaust.

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photography by Filip Kacalski



photography by George Meitner



BMW Head Office, Midrand, Johannesburg

The BMW Head Office is an example of BMW's world renowned brand image of design, passion, technology, innovation and their attention to the finest detail.

The original head office was designed by Hans Hallen, and has recently been refurbished and modernised in keeping with BMW's corporate identity. Conceptually, the design focuses on revitalising an architecturally iconic structure – maintaining the spirit of the original Hans Hallen building, but implementing green principles. Thermal comfort and energy efficiency were addressed with lighting, ventilation, hot water supply and back-up solutions which required the construction of a satellite Energy Centre. The building achieved the 5-star 'As Built' GSSA (Green Star South Africa) rating.

The outer façade of the circular building has retained its elegant and modern lines and dark brick appeal, but the inner façade has been extensively modified and extended into the courtyard. Dynamic use of Colt solar tracking glass louvres, designed, manufactured and installed as a fully-glazed façade by Colt distributor Robertson Ventilation Industries, allows increased natural light, efficient circulation and greatly improved levels of comfort for those using the building.

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Alder Hey Children's Hospital, Liverpool

Alder Hey hospital is a major national children's hospital and NHS foundation trust in Liverpool. It is one of the largest children's hospitals in the UK and Europe, and one of several specialist hospitals located within the Liverpool City Region. Originally founded in 1914, children and young people were invited to comment on the design of a new hospital building, which was completed in the summer of 2015. The original buildings are scheduled to be demolished and the land reclaimed as new parkland.

Colt was involved at an early stage with the design team, and installed performance louvre, screening louvre, mechanical smoke ventilation and staircase smoke ventilation. The project for the louvre element involved specially shaped functional louvre panels, for which application the Universal Louvre system is ideal. Products included 3UL/SH, 2UL/SH, 1UL/SH Universal Louvre, louvre doors, Seefire natural louvred ventilators, and control systems.

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Fanling South Government Complex

The Fanling South Government Complex is in the vicinity of the Wo Hing Sports Centre and a bus terminus, where a variety of services and facilities are available for residents.

There are older rural areas in North District with a long history as well as rapidly developing new areas. To complement the development of the district, the Government endeavours to provide facilities for residents to gather together and participate in community activities.

This community hall is equipped with a multi-purpose hall and stage with a seating capacity for 450 people, a conference room and barrier-free access. Its design is people-oriented and infused with environmentally friendly concepts. The glass wall at the entrance and the skylights save energy by allowing the penetration of natural light, while the walls inside the hall are covered by bamboo tiles.

FAS Engineering Ltd, the Colt distributor in Hong Kong, provided 1,000m² of Universal Louvre to allow ventilation but prevent rain ingress.

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**Centre Commercial
Qwartz, Villeneuve
la Garenne**

The Qwartz shopping centre is ideally located 15 minutes from La Défense and Paris. With its 165 shops and restaurants, it is one of the largest shopping centres in the Ile de France. It offers a huge retail space of 86,000m², with a Carrefour hypermarket covering an area of 12,000m².

Colt supplied and installed Firelight Duo natural flap ventilators in the mall areas, providing high performance day to day and natural smoke extraction.

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**Novartis Campus,
Shanghai**

The Novartis Institute of BioMedical Research (NIBR) announced in 2009 an investment of \$1bn for expanding its research facilities in China over a five year period, and the expansion of the NIBR. The expansion necessitated the relocation of the facility to a newer, larger and state-of-the-art facility

in Shanghai. This expansion makes the facility Novartis' third largest R&D centre after its Cambridge facility in Massachusetts, USA, and its Basel facility in Switzerland. The new facility will manufacture drugs for the Chinese market as well as global markets.

Novartis designed the Shanghai centre with a zero carbon emission goal. The facility features an energy centre powered by Tri-Generation

or combined production of electricity, heat and cooling which results in high efficiency. The gas required by the facility is supplied by the nearby municipal waste landfill. Electricity is supplied from a wind farm and the site is compatible with solar energy.

Colt supplied and installed 2UL/SH Universal Louvre for screening, ventilation and rain defence.

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**Gerdau Ameristeel,
Jacksonville**



Gerdau Ameristeel is the second largest minimill steel producer in North America, with a number of minimills, scrap recycling facilities and downstream operations serving customers throughout the United States and Canada.

The company recently undertook a major capital project to expand its Jacksonville Steel Mill, to add approximately 400,000 tons to the rolling mill, and matching the facility's expanded melting capacity of more than 1,000,000 tons.

Moffitt Corporation, the Colt distributor, had provided a ventilation solution for the process area of the plant, and having been very satisfied with the service, the facility then approached Moffitt again to find

a ventilation solution for the coil handling area. This area reaches temperatures over 1700°F (more than 900°C) and Moffitt proposed the installation of three Labyrinth natural ventilators to replace the existing cooling fans. These ventilators allow for a greater volume of air to move more quickly through the facility, and result in a cooler and more comfortable environment for the plant personnel.

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**Sportpark Olten,
Olten**

This refurbished sports park is a classic family resort, and offers all kinds of ice sport, with curling, ice stock sport (Bavarian curling), skating and ice hockey, and the appropriate equipment and instructors are available on request. In August 2013 work began on a

new annex building and renovations to the existing building, and the final stage of renovation to the north wing has recently been completed. The original ice rink was reduced in size, and covered with a light membrane film, and the windward side of the rink is protected with an air permeable grid. The wooden structure around the rink encompasses a walk-through meeting and service area.

Colt installed Coltlite CLT natural ventilators, some of which are used as doors, a number of Apollo natural flap ventilators on the roof, as well as EuroCO ventilators and their associated controls.

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EBM Thermique,
St Louis

Elektra Birseck, Münchenstein (EBM) is a pioneer in sustainable development. The city council in St Louis decided on a new system of urban heating and EBM Thermique offered a solution which combined cogeneration and biomass to develop sustainable heating using wood and corn cob biomass. The boiler operating today provides one-third of the heating needed for the town, and the biomass plant alone provides heating and hot water for over 3,500 homes.

Colt installed FCO natural day to day and smoke control ventilators with acoustic baffles which provide highly efficient natural inlet or extract ventilation through the walls of the turbine hall. A second installation in the wood storage hall incorporates EuroCO dual purpose ventilators for natural day to day ventilation and smoke control ventilation.

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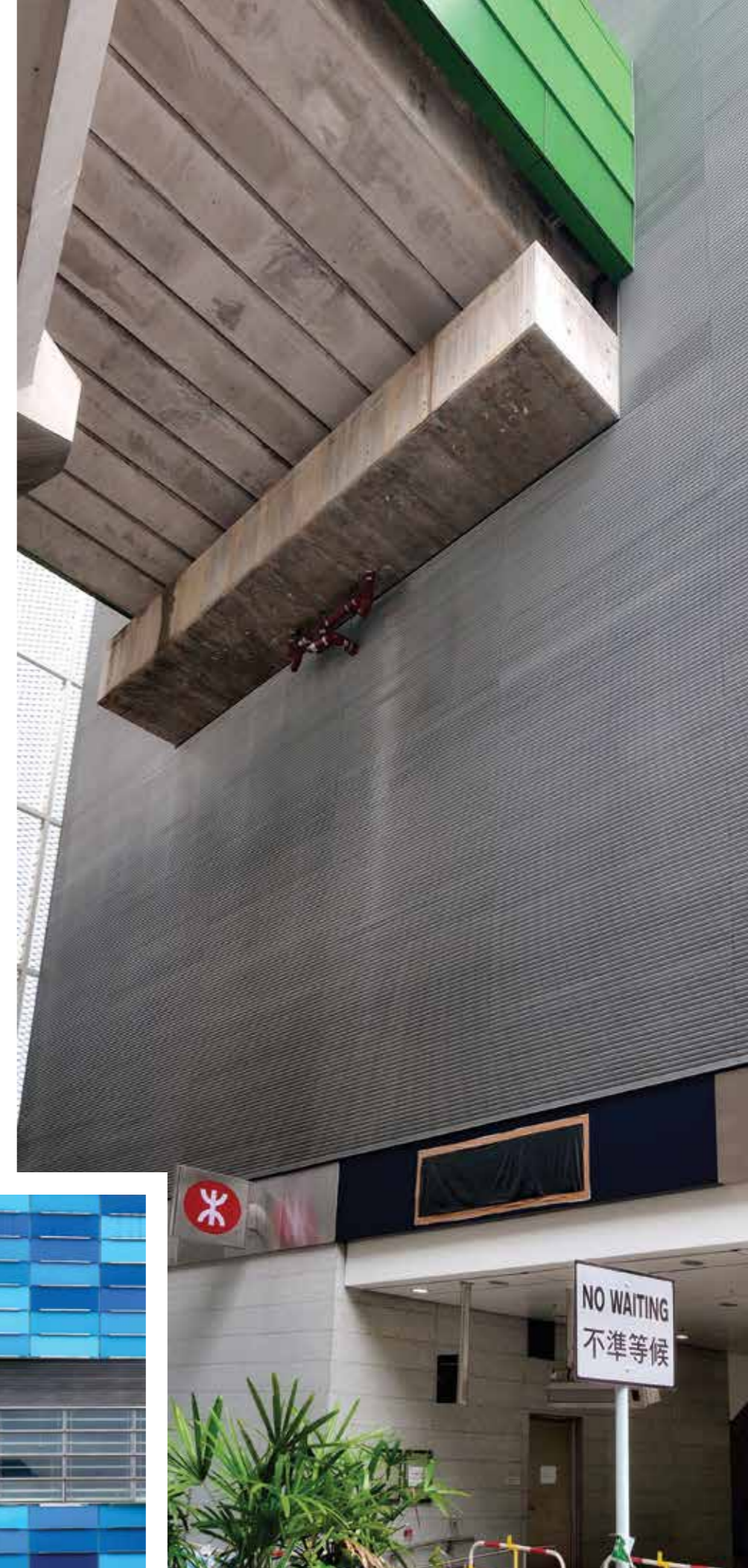
MTRC,
Ocean Park Station

Construction of the South Island Line (East) project commenced in May 2011 and to date, approximately 50% of the works have been completed. The line runs 7 kilometres from Admiralty to South Horizons with three intermediate stations at Ocean Park, Wong Chuk Hang and Lei Tung. Comprising tunnel and viaduct sections, the medium capacity railway will operate trains at a frequency of approximately every 3 minutes during peak travel periods.

Ocean Park has grown with the Hong Kong population and is now one of the city's most important tourist attractions. Transport to the theme park is expected to be further enhanced with the opening of the Ocean Park Station in the coming year.

FAS Engineering Ltd, the Colt distributor in Hong Kong, provided a massive area of Universal Louvre for weatherproof ventilation. The majority of the façades along both sides of the concourse are covered by a Shadoglass system with individual louvre widths as large as 700mm. The complete system is operated by pneumatic controls.

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**Stichting Studenten
Huisvesting (SSH),
Zwolle**

SHH (Foundation for Student Housing) specialises in student housing, and since 1956 they have been building, renting out and managing accommodation for students and special groups of young people. They currently house more than 19,000 tenants.

This particular SHH project in Zwolle consists of three almost identical buildings. Each building has a staircase, and for each staircase Colt supplied and installed an AXC mechanical extract ventilator mounted at high level in the staircase, with a Coltlite CLT mounted in front of the AXC and a Coltlite CLT air inlet ventilator mounted at low level.

A control box with frequency inverter, cabling and a fire alarm system with smoke detectors were also part of the system. It is not common practice to fit this kind of SHEV in a staircase in the Netherlands: normally a staircase is fitted with a pressurisation system, but with CFD we were able to prove that in this instance our system would work.

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**EA Networks
Centre, Ashburton**

The EA Networks Centre is a state-of-the-art indoor sports, aquatic and recreational facility that offers something for everyone all year round. The impressive new 8,000m² building is located in the heart of the South Island in Ashburton – just a one hour drive from Christchurch and Timaru.

Opened in May 2015, the Centre boasts four indoor pools, as well as a relaxing spa and steam room, four indoor courts, two outdoor courts and offers a broad range of aquatic and fitness facilities. In addition to the aquatic and sports facilities, the impressive new complex also features two modern meeting rooms available for hire and retail products for adults and children. The indoor stadium houses four competition-sized courts and spectator seating and a sports house provides administration space for local sports organisations.

Warren and Mahoney Architects specified Colt products, and Colt Products & Systems supplied and installed Coltlite natural glazed ventilators into the façade for natural ventilation and smoke control, and 3UL Universal Louvre and Proteus PR75 louvre for screening, ventilation and rain defence.

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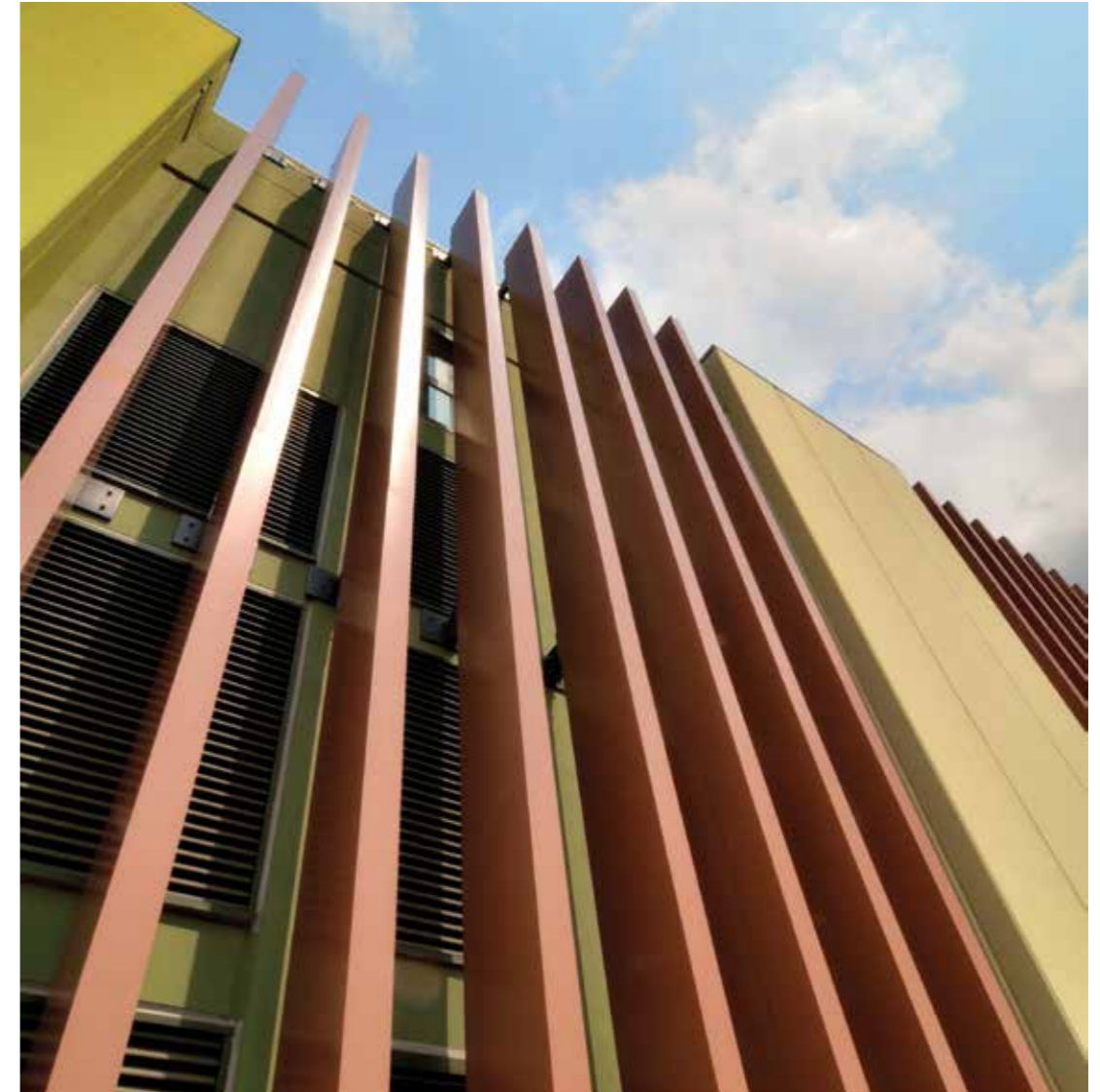


**Pfinder Chemie AG,
Böblingen**

Pfinder Chemie is a family business, first established in 1884, and has become the market leader in Europe in the development of speciality products for the automotive industry. Pfinder products are used worldwide for the cleaning, and anti-corrosion protection in more than nine million vehicles.

Colt installed AZUR daylighting to reduce the need for artificial lighting, and a Solar C fixed aluminium C section as a simple and effective brise-soleil solar shading system to reduce heat gains and glare.

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Contract 823B,
Shek Kong Stabling
Sidings and Emergency
Rescue Siding

This facilities depot of the Express Rail Link – Hong Kong Section – connects with the 16,000km National High Speed Rail Network which is the largest high-speed rail network in the world. It is estimated that a population of 60 million will reside within a four-hour journey zone from the heart of Hong Kong territories, and the improved rail facilities between Hong Kong and the Mainland will bring many social and economic benefits to both Hong Kong and the Mainland.

Colt distributor FAS Engineering Ltd provided 180 Meteor flap smoke ventilators, over 2,000m² of Universal Louvre for smoke and natural ventilation, more than 1,000m² of Solarfin external metal solar shading louvres, and 500m² of Acoustic Louvres.

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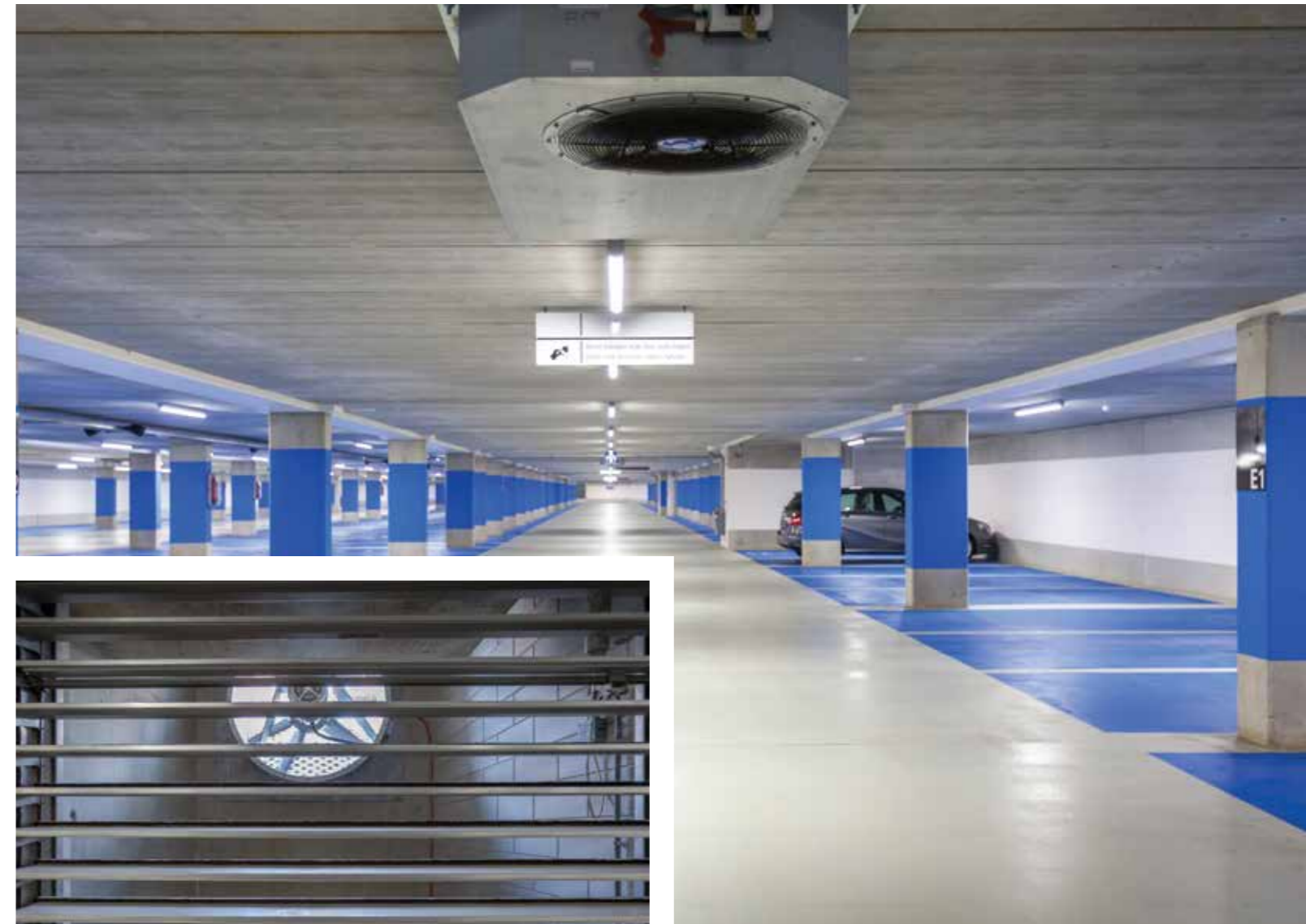


voestalpine Austria Draht GmbH, Leoben (Styria)

The voestalpine Group is based in Austria. It is a steel-based technology and capital goods group that operates worldwide. With its top-quality products, the Group is one of the leading partners to the automotive and consumer goods industries in Europe and to the oil and gas industries worldwide. The Linz hot strip mill is a fully integrated steel works, and in addition to Linz, the most important plants are in Leoben in Styria and in Krems in Lower Austria. The Leoben plant produces around 550,000 tons of quality wire rod each year.

Colt created a comprehensive fire protection plan for the Hall A, covering 20,000m² in area, and supplied and installed Cosmotron rooflights, EuroCO natural ventilators for both inlet and extract smoke ventilation as well as natural daylight, with Weatherlite ventilated upstands which provide rainproof ventilation.

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PKG Stationspark, Roermond

The station park in Roermond offers 350 parking spaces for vehicles.

Colt installed a fire and day to day ventilation system using axial mechanical smoke extract fans, Jetstream impulse fans to direct the air

towards the extract points and Cyclone induction fans to reduce levels of polluted air and to assist with the extract of smoke in the event of a fire.

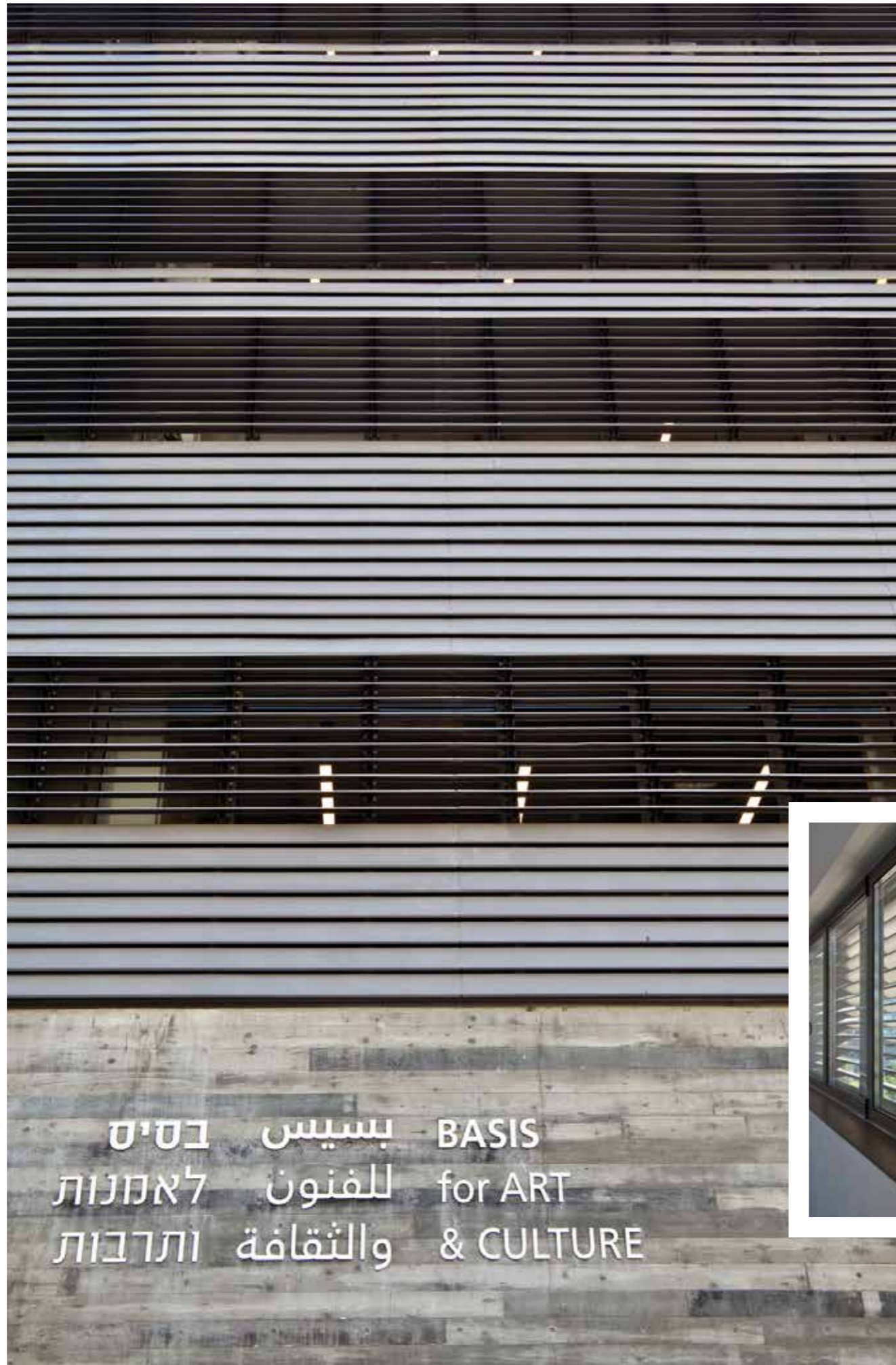
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**Basis for Art
and Culture,**
Hertzalia

This school was founded in 1993 by David Zundelevich, and teaches sculpture, painting and photography. It remains an independent school, and the curriculum is put together by senior artists with an emphasis on practical in-depth learning and intensive studio work.

The architects were looking for a proven and long lasting cladding system which would give this restored building a clean and contemporary appearance. Colt IUL/DH Universal Louvre was specified and installed at two different, bespoke angles.

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Fagor Ederlan Group, Guipúzcoa

Fagor Ederlan Group is a leading supplier of complete solutions for the automotive industry, specialising in chassis and powertrain applications, with factories in Europe, America and Asia. Their technology centre responds to the latest challenges

the automotive section is facing, and they are experts in the complete product value chain, offering the best product solutions in different technologies and materials.

Colt used CFD models to investigate the various options for achieving efficient ventilation and low energy usage. The initial design of the system aimed to reduce the heat load inside the factory buildings by extracting heat. Colt carried out

design work including CFD models over two years, and its expertise and knowledge ensured it was awarded the contract to install three air handling units incorporating evaporative cooling and insulated ductwork, and four Labyrinth 5S natural louvred ventilators.

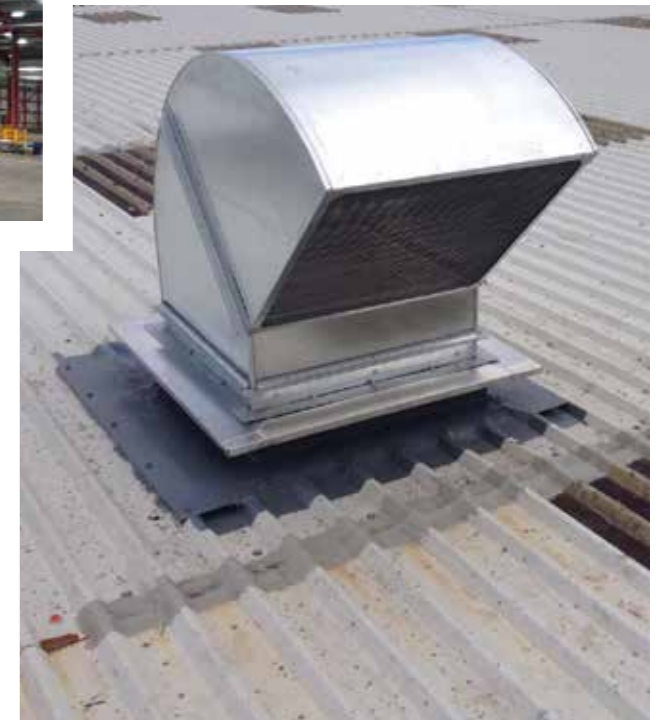
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ParcelForce Distribution Centres, Nationwide

The Royal Mail's ParcelForce sorting and distribution centres are converted warehouses, and have to deal with up to 150 vans at any one time entering and exiting the buildings, with large variations in the levels of diesel exhaust.

Colt developed a scheme to ensure cross flow ventilation using natural inlet air and mechanical extract with a combination of axial fans and natural ventilators, comprising Seefire louvred ventilators. These are triggered by CO detectors when emissions reach a pre-determined level, ensuring that the mechanical extraction fans only operate as needed to cut operating costs. The system has been installed in a variety of ParcelForce locations.

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Wirtgen GmbH,
Windhagen

Wirtgen offers a full range of mobile machines and high-quality services on everything relating to road construction and mining. In their headquarters in Windhagen, their engineers develop products and technologies for cold milling, soil stabilisation, cold recycling, hot recycling, concrete paving and surface mining. All machine models in their comprehensive product divisions are manufactured in their plant in accordance with state-of-the-art production methods, and they are the market leader worldwide in the cold milling machine business.

Colt installed Apollo natural ventilators and Cosmotron rooflights with Weatherlite ventilated upstands for smoke control and day to day ventilation.

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**Midland Gate
Shopping Centre,**
Midland

Midland has been occupied by settlers since 1832. However, little development occurred until 1886, when the Midland Railway Company commenced operations.

In the 1980s the development of Midland Gate Shopping Centre completely changed the focus of the community, with businesses traditionally within walking distance of the Post Office and Railway Station closing down or shifting over

the following decades. The recent re-development of the Midland Gate Shopping Centre includes additional retail outlets, a cinema complex and decked car parking.

Colt Australia designed and installed bespoke vertical box sections, anodised in various colours, to form a feature around the building.

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The Colt Foundation was established as a charitable trust by the O'Hea family in 1978 with a donation of part of their ownership of the Colt Group. I J (Jack) O'Hea and his immediate family had become concerned about the social responsibility implicit in the ownership of an industrial organisation of the size of Colt, and wished to support and encourage research into social, medical and environmental problems created by commerce and industry. His four children became the founder Trustees, and Alan O'Hea, Jerome O'Hea and Patricia Lebus still remain on the Board.

Grants of more than £15 million have been awarded since 1978, with a particular emphasis on research into the effects of commerce and industry on health and the environment. A criteria for selecting suitable projects is that the results of the research should have a practical and beneficial application, and make a difference to working practices and legislation.

The Trustees are always looking for good and exciting new projects to support, and agreed to fund a study into occupational kidney disease in Pacific Coast Central America. Chronic kidney disease in this region is the major cause

of death amongst working age men, with over 20,000 unexplained premature deaths in sugarcane workers in Nicaragua over the last 20 years. It is therefore an extremely pressing public/occupational health issue. The team leading the research is from the London School of Hygiene & Tropical Medicine in London, and University College London. Work started in October 2014 with interviews and recruitment of workers to take part in the study, and a follow up site visit took place in summer 2015. A third site visit will be made at the end of 2015, with field researchers taking water samples, clinical measurements (blood pressure, weight), blood and urine samples, and the team is following up patients with abnormal kidney function.

The findings will be of great importance not only to Nicaragua, but further afield in other countries with similar climates and exposure to potential toxins, for example paddy field workers in Asia.

Further information on the work of the Foundation and current projects can be found on the website, www.coltfootion.org.uk or contact Jackie Douglas on jackie.douglas@uk.coltfootion.com, or telephone +44 (0)23 9249 1400.





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