ECO Project Solutions

■ SYSTEM TECHNOLOGY FOR THE DOOR

ECO System

A world of doors

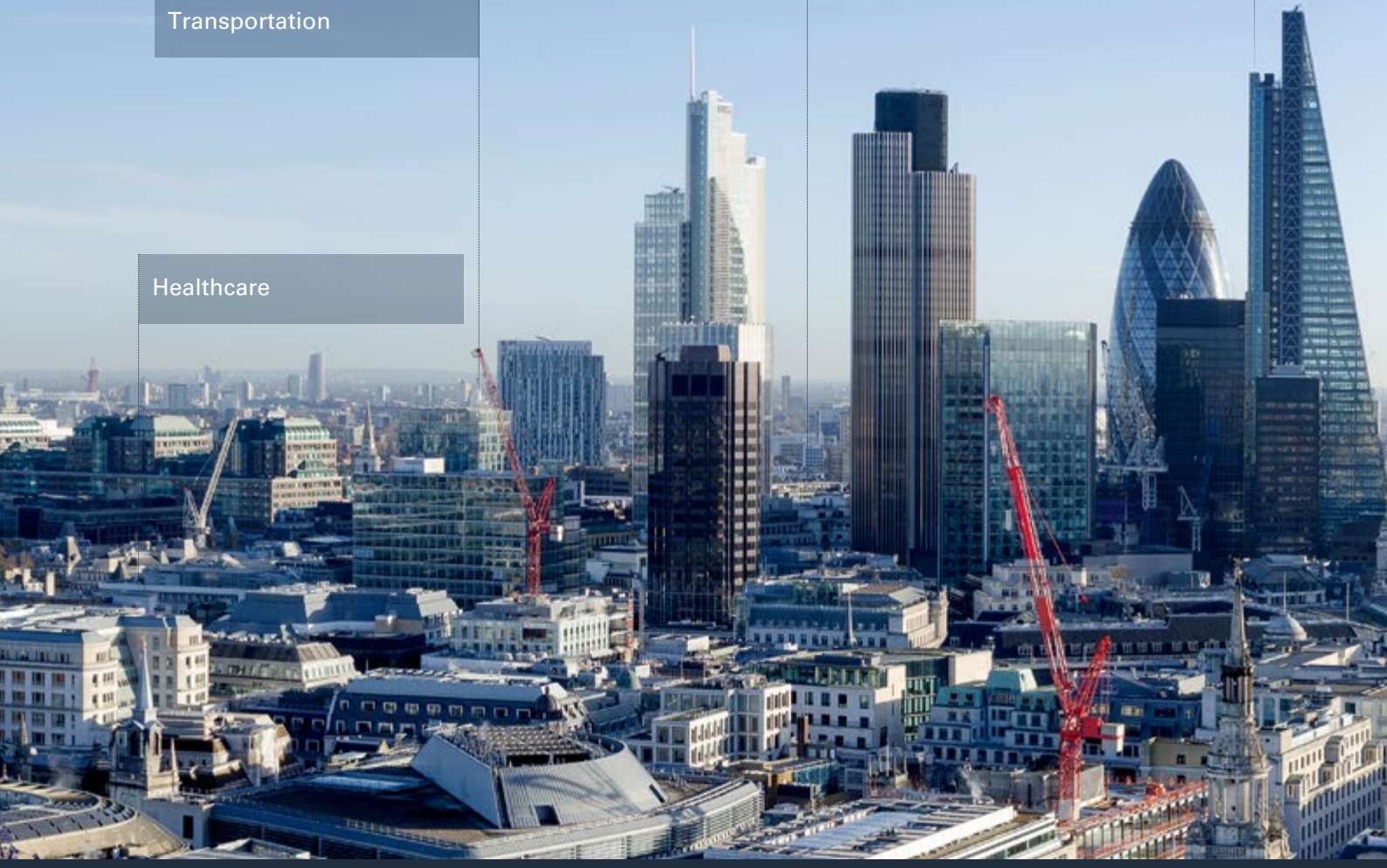
ECO system technology focuses on total hardware solutions for doors. Taking into account door leaves with different functions for different types of buildings, the access control hardware must deal with the interaction of various accessories from the macro perspective of the system, so as to implement the diverse functions to the door leaves and ensure safety and comfort of use.

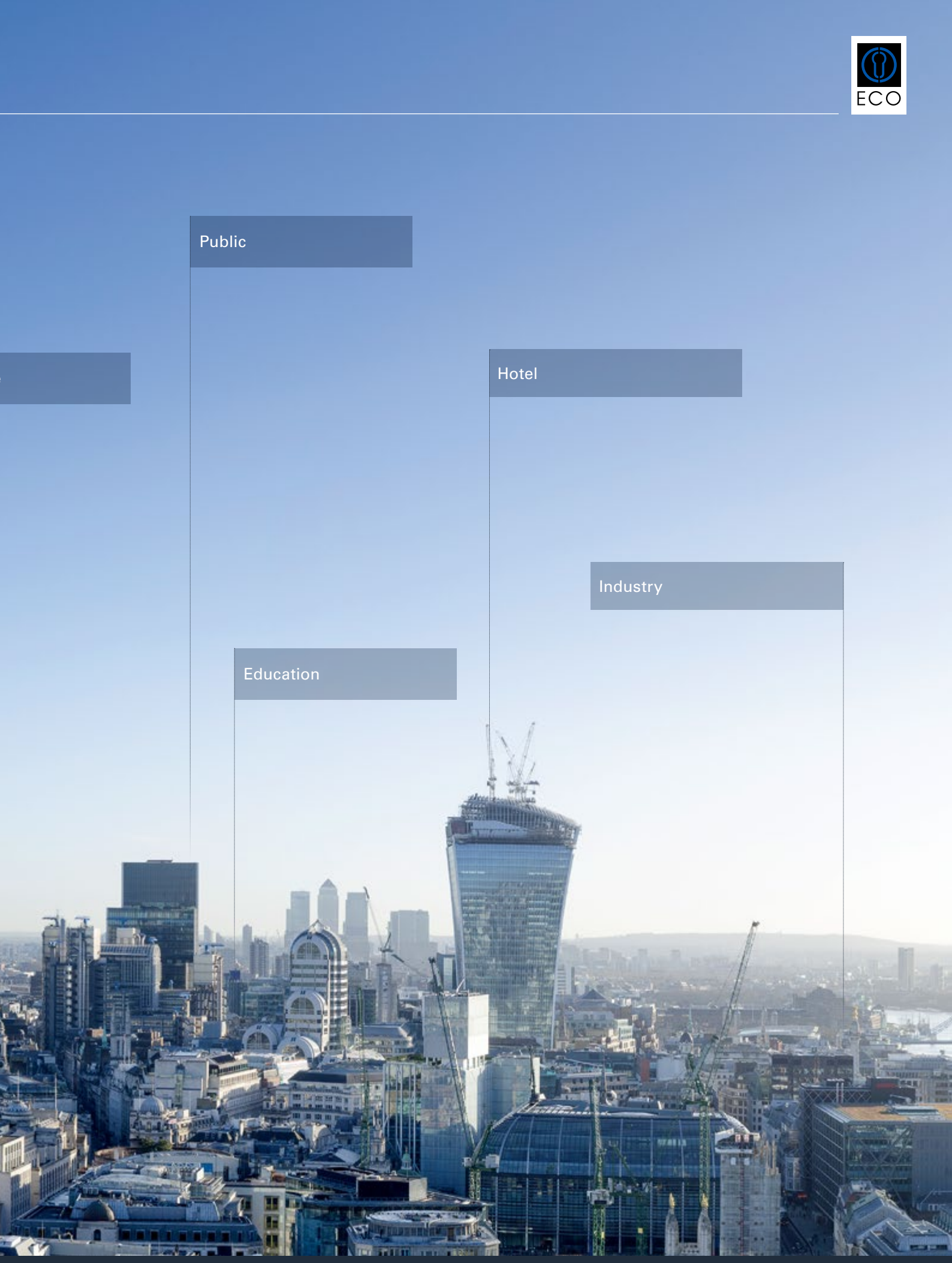
Commerce

Residential

Transportation

Healthcare




Public
Hotel
Industry
Education

Standards are Defined Safety and Security

The door and the technology that makes a door function properly form a highly complex system. The key to the functional reliability of the whole system is a standards concept which defines precise requirements and test procedures for the various products.

ECO Schulte regards standards as an unconditional guarantee which must be at least fulfilled - but which ECO often enough exceeds when it is of benefit to the processor, user or planner. The standards for door systems are recognized all over the world and help to guarantee a high level of safety, security and functionality across national frontiers and beyond the limits of individual product ranges. This applies to the individual components as well as the entire system.

The future of standards and norms is already reflected in the corporate philosophy of ECO Schulte: While it is mainly the individual functional elements that are described today, the standards of tomorrow will be dedicated more and more to conceptional units as well as the door as a complete system.

ECO **products are manufactured in accordance with the following European standards:**

DIN EN 1906:2010
Door handles and knobs

DIN EN 1125:2008
Panic door locks with a horizontal activation bar for doors in escape routes

DIN EN 1154:1996 + A1:2002
Door closing mechanisms with a controlled closing sequence

DIN EN 179:2008
Emergency exit locks with handles or impact plates for doors in escape routes

DIN EN 1158:1997 + A1:2002
Closing sequence regulators

DIN EN 1935:2002
Single axis door and window hinges

DIN EN 12209:2003
Mechanically operated locks and strike plates

Where there's a door…

Whether our own brand products or as an OEM partner product of renowned door manufacturers, ECO was able to provide solution of system technology for the door all over the world.

Around the world, builders and investors are realizing demanding projects together with architects and planners. Clever solutions for doors are always in demand. Our philosophy of system security and reliability in the door is to be found just as much in contemporary architectures.

Nowadays ECO offers solutions for all kind of project types such as Hotel, Healthcare, Commerce, Residential, Public, Industry, Transportation and Education.

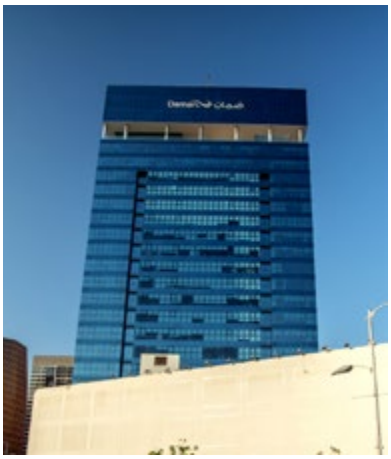
Hotel

Hotels are characterized by different kind of decorative styles. These decorative styles as well as the interior design are consistent throughout the hotel. Architectural products must perfectly blend in with the interior design. At the same time they must fulfill their purpose in securing the exits or providing a comfortable use of doors to the hotel guests.

Healthcare

A hospital provides medical services to the public and is therefore operating 24 hours a day and 7 days a week. Throughout the day a hospital deals with a high number of visitors and patients. And every 10th patient gets his infection in the hospital because of bacteria's. This means that architectural hardware must also provide protection against bacteria on top of user comfort and security.

Commerce



Commercial buildings include for example high-rise office buildings or large shopping malls. Safety is one important aspect that is influencing the choice of architectural hardware. The products must be reliable to provide a well-functioning exit in case of emergency as well as durable to cope with the daily usage. To finally connect such reliable and durable products to the Building Management System is becoming more and more a must in commercial projects.

Residential

Security is the primary need of residential buildings. Security includes the management of hundreds of different entry permits but also the safe escape in case of any emergency. Another important private need is a nice and unique handle shape on the interior doors that is in line with the latest trends.

Public

Public buildings include for instance museums or sport stadiums. Where there are lots of people the doors are facing constant usage. Often such projects are designed in a very unique way by the architect. The architectural hardware must integrate perfectly into the design of this kind of project and fulfill the safety and fire requirements.

Industry

Industry buildings cater different kind of activities and processes dependent on the company's business area. Generally industrial workspaces need larger space because of machines or other kind of equipment. The whole door system should be durable to withstand damage or violence through persons or objects. At the same time some doors lead to restricted areas where not every staff should have access to.

Education

Schools, kindergartens, universities or other student facilities are considered as education buildings. The main users are often younger people. This means the doors must be easy to open and have durable as well as long-lasting hardware.

Transportation

Transportation buildings include for example airports, railway or metro stations. A high reliability and security is a must. Additionally the product systems must be integrated into the Building Management System for an overall management of the project. The task is to bring both requirements, mechanically and electronically, together and offer the right solution in terms of security and user convenience.

Hotel

The Hotel is a commercial place that provides safety and comfort and allows users to have a short stay or sleep. When you end a long day on a business trip, or when you end a good day of travel or vacation with your family and friends, an elegant and comfortable hotel will add wonderfulness to your journey.

Popular hotels should synthesize beauty, comfort and safety, and must be able to meet demands in terms of accommodation, catering, business meeting and entertainment. Spaciousness and illumination, high-quality hardware facilities, unique architectural style, and interior environment and decoration design style, together with considerate service, affect the overall evaluation of a hotel.

Among the hardware products of ECO, the high-quality door closers and hinges can accommodate high opening frequency; the classically designed door handle and simple streamlined panic bar and other products can not only bring an aesthetic appearance to the building, but also bring comfort to guests. At the same time, ECO also provides surface treatment with different colors to harmonize door designs with the hotel's overall architectural style.

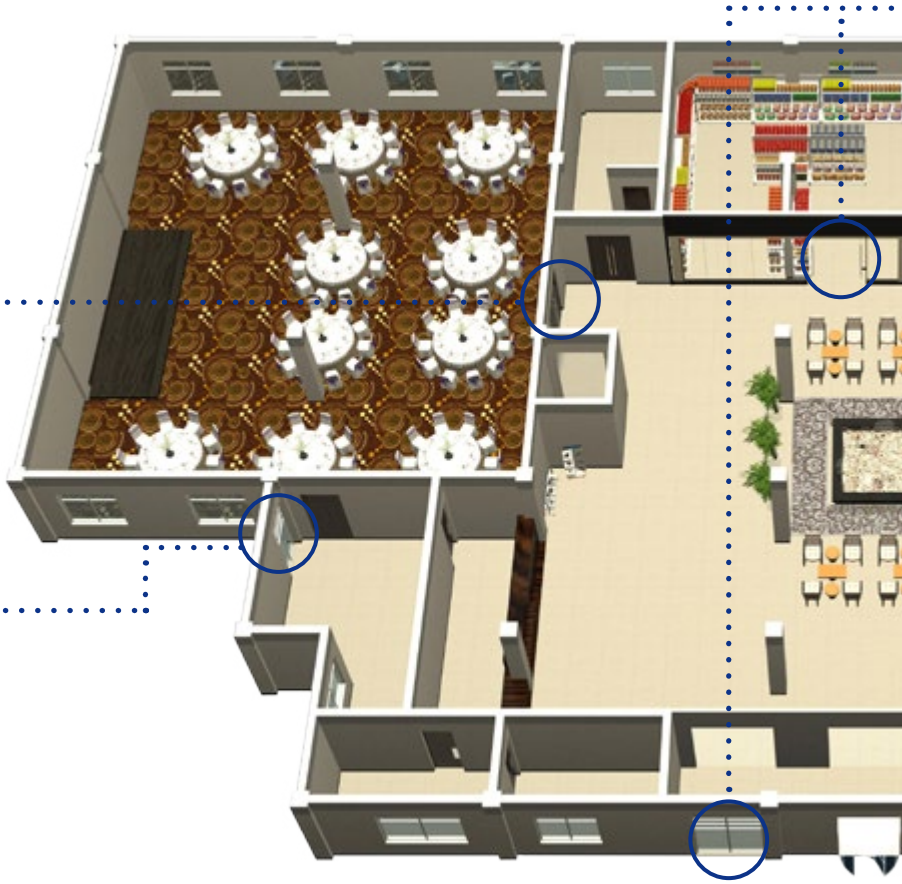
Hotel lobby

1

Timber door
Ballroom door

2

Steel door
Emergency exit door



Hotel room floor

4

Timber door
Room door

3

Glass door
Storefront door

5

Steel door
Housekeeping door

6

Steel door
Emergency exit door

Case Study — Door 1

Ballroom door

Door types:
Timber door

The function of the door:
Ballroom door

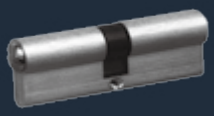
ECO products:
OBN-20 butt hinge
GBS 31 F single dead lock
CY cylinder
S-330 pull handle
PZ escutcheons

This kind of door is usually used in banquet halls and is very eye-catching. The OBN-20 hinge can perfectly match heavy duty wooden doors higher than 3-4 meters and heavier than 250 kg; the heavy-duty ball bearing hinge ensures smooth opening and closing. Compared with ordinary hinges, such a kind of hinge, with a bearing load of 300 kg, can reduce the quantity of hinges used by 50%. The seamlessly made and precisely casted stainless-steel hinge sheets and unique internal structural design help to achieve both excellent performance and an exquisite appearance.

OBN-20 butt hinge

GBS 31 F single dead lock

CY cylinder



S-330 pull handle

PZ escutcheons

Case Study — Door 2

Emergency exit door

EPN 900 IV pushbar

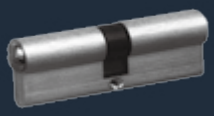
GBS 92 panic lock

TS-50 door closer

D-110 OGL handle set

OBX-18 3D hinge

CY cylinder



OBX reception element

Door types:
Steel door

The function of the door:
Emergency exit door

ECO **products:**
EPN 900 IV pushbar
GBS 92 panic lock
TS-50 door closer
D-110 OGL handle set
OBX-18 3D hinge
CY cylinder
OBX reception element

In case of fire or other emergency, the escape exit can help people escape quickly and save lives. ECO offers a perfect balance system between EPN 900IV panic bars and GBS 90 series locks. When the door is used in case of an emergency, the electromagnetic monitoring system will automatically send a signal to the building's management system. At this time, the security personnel will be able to take corresponding safety measures in response to the signal from the access control system. The OBX series 3D hinges help door leaves to be easily and perfectly opened or closed.

Case Study — Door 3

Storefront door

Door types:
Glass door

The function of the door:
Storefront door

ECO products:
BTS FH 840 floor spring
S-330 pull handle
GF patch fittings
CY cylinder

The combination of the ECO glass patch fittings and the floor spring provides a durable and aesthetic solution for frameless glass doors. The hold-open function of the floor spring allows the door to remain open during the day when people enter the hotel with luggage. The availability of hold-open function makes BTS FH 840 floor spring a perfect addition for side entrance doors at the main entrance.

BTS FH 840 floor spring

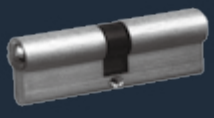
GF-0100 bottom patch

S-330 pull handle

GF-0200 top patch

GF-0400 overpanel patch

CY cylinder



GF-0500 patch lock

Case Study — Door 4

Room door

ITS-420

OBC concealed hinge

GBS 90 panic solenoid lock

SC1 door chain

DV1 door viewer

Door types:
Timber door

The function of the door:
Room door

ECO **products:**
ITS-420
OBC concealed hinge
GBS 90 panic solenoid lock
SC1 door chain
DV1 door viewer

The less you see, the better you feel. Architects particularly like making products invisible. Using the ECO OBC-series and ITS model products, we can completely conceal the hardware on the door. The ITS concealed door closer and OBC concealed hinge are the perfect match for hotel room doors. The arm of the OBC hinge is strong enough to be used in combination with the concealed ITS door closer.

* Only some products images are shown in the product configuration.

Case Study — Door 5

Housekeeping door

Door types:
Steel door

The function of the door:
Housekeeping door

ECO products:
GBS 31 F SH
TS-14 door closer
D-110 SGL handle set
CY cylinder
OBN-14 butt hinge

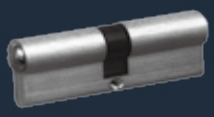
Hotel storage room doors can be used with the GBS 31F sash locks, SGL handles, europrofile cylinders as well as OBN-14 hinges. The availability of fire-protection, its durability and a classic design make it the best solution for such kind of a door.

GBS 31 F SH

TS-14 door closer

D-110 SGL handle set

CY cylinder



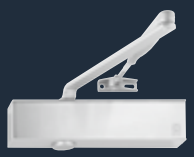
OBN-14 butt hinge

Case Study — Door 6

Emergency exit door

EPN 900 IV pushbar

TS-20 door closer

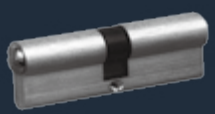


OBX-18 3D hinge

GBS 90 panic solenoid lock

D-110 OGL handle set

CY cylinder



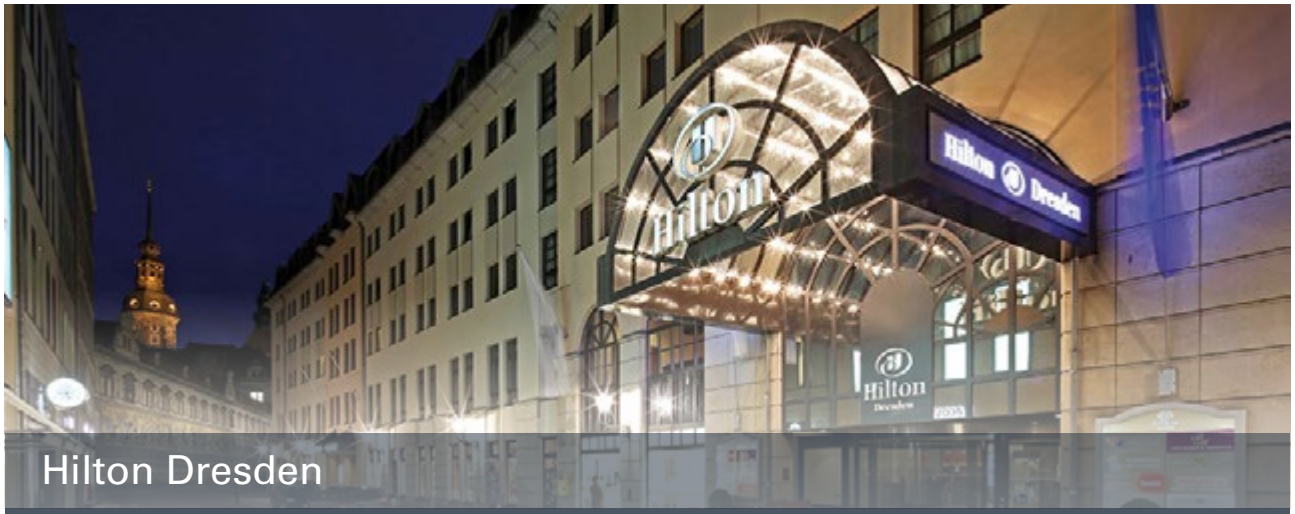
OBX reception element

Door types:
Steel door

The function of the door:
Emergency exit door

ECO products:
EPN 900 IV pushbar
TS-20 door closer
OBX-18 3D hinge
GBS 90 panic solenoid lock
D-110 OGL handle set
CY cylinder
OBX reception element

EPN 900 panic bars are used in conjunction with the GBS 90 at the emergency exits. The lock monitors the condition of the doors and emits a signal to the building management system when the door is being used. The fire protection solutions make it easier for security personnel to monitor emergency exits and abnormal usages.



Hilton Dresden

The Hilton Dresden is situated in the heart of the historical city of Dresden at the Neumarkt, between the famous "Frauenkirche" and the "Bruehlschen Terassen". It was formerly also known as "Dresdner Hof".

Mission

The hotel was already built in 1987 until 1989. In 2009 and 2011, it was completely refurbished in several steps. Current EN standards and adjustments had to be taken into account when planning the new design - especially with regard to safe escape and rescue routes.

Our solution

In the context of this refurbishment, the hotel was equipped wiht over 100 standard-conform panicsystems as well as first-class handle sets. Through this, the hotel ensures that persons can escape from dangerous areas even in panic situations safely. A slight push upon the horizontal element or the panic handle are enough to open the door - regardless of whether the door was locked or not. Lock and activation element have been developed with the aim to ensure a smooth interaction.

Hilton Dresden Refurbishment

City:
Dresden, Germany

Architect:
Architekten Ottenberg Berlin,
Walter Lewin und NCC Schweden

Year:
2010

Some hotel projects

Marriott International (e.g. St. Regis, Ritz Carlton, Bulgari Hotels & Resorts, Sheraton, Marriott)
Hilton Worldwide (e.g. Conrad Hotels & Resorts, Hilton Hotels & Resorts)
InterContinental Hotels Group (e.g. InterContinental, Holiday Inn, Staybridge Suites, Crowne Plaza)
Kempinski Hotels
AccorHotels (e.g. Fairmont, Pullman Hotels & Resorts, Novotel, Mercure, Ibis)
Radisson Hotel Group (e.g. Radisson, Radisson Blu)
. . . . . .

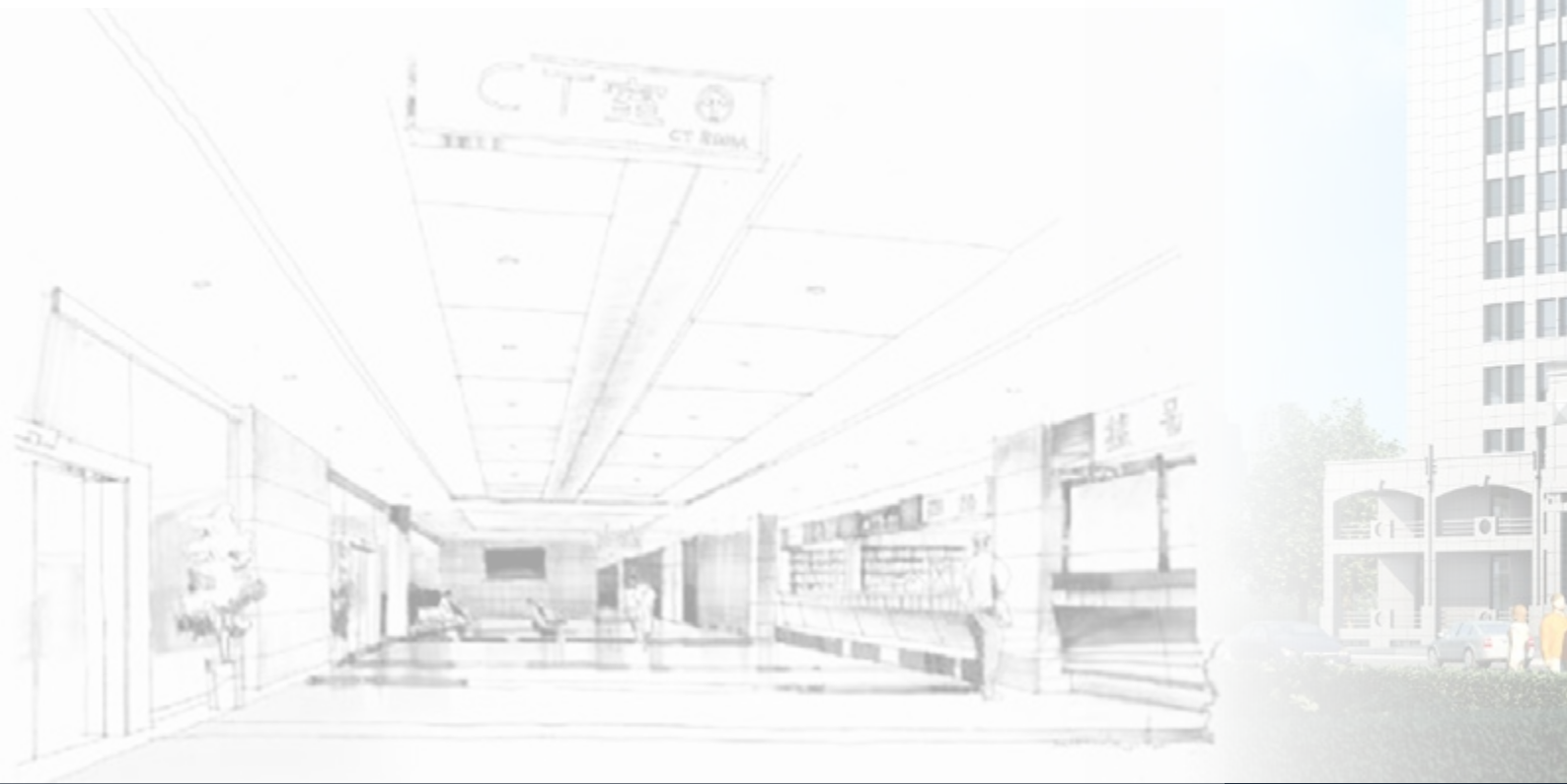
Further hotel solutions can be found on www.eco-schulte.com

Healthcare

ECO
antimikrobiell

Hospitals are medical institutions that provide medical care services as the main purpose, mostly serving the vulnerable, such as the sick or wounded. A hospital is open 24 hours per day, with a high visitor flow and disease transmission rate. Hardware facilities in medical buildings should not only guarantee the high quality and safety, but it should also meet the needs of patients and medical staff in terms of ease-of-use, comfort, hygiene, antibacterial functionalities, fire evacuation and so on.

In the ECO system, every product, from panic bars, door closers, handles to locks, complements each other and works together on the door system in perfect harmony. ECO Protect's durable antibacterial coating solution, can effectively prevent the survival of microbes in special public buildings such as hospitals, so as to achieve long-term antibacterial protection. The ETS swing door operator will provide convenience and comfort to patients, staff or guests by automatically opening doors in public areas. The special structure and higher operational flexibility of ECO hardware products can also meet the accessibility requirements of patients.

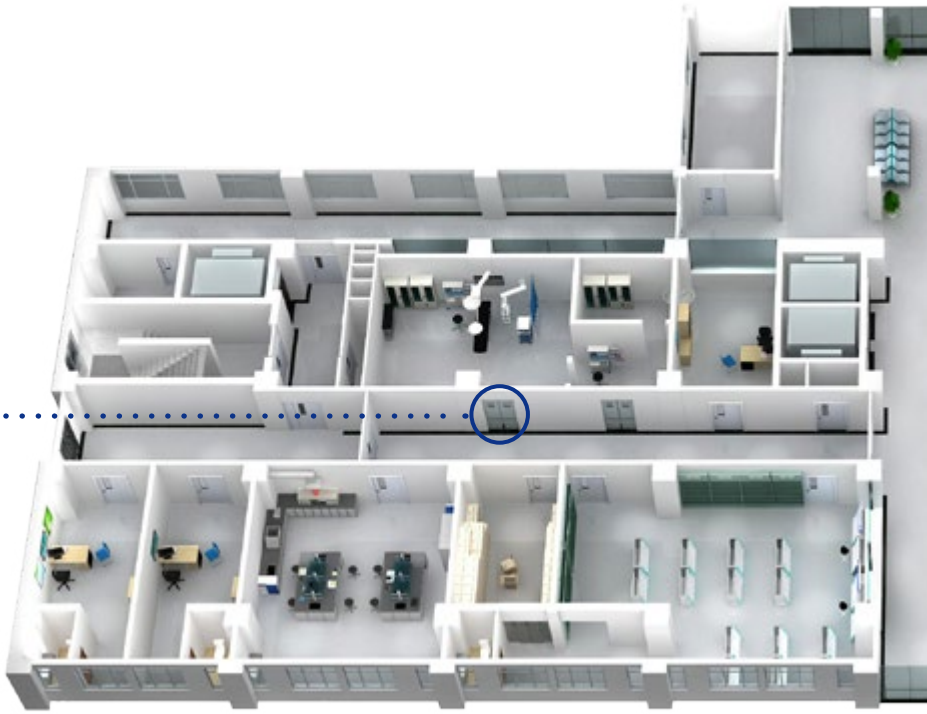


Hospital lobby

ECO
antimikrobiell

1

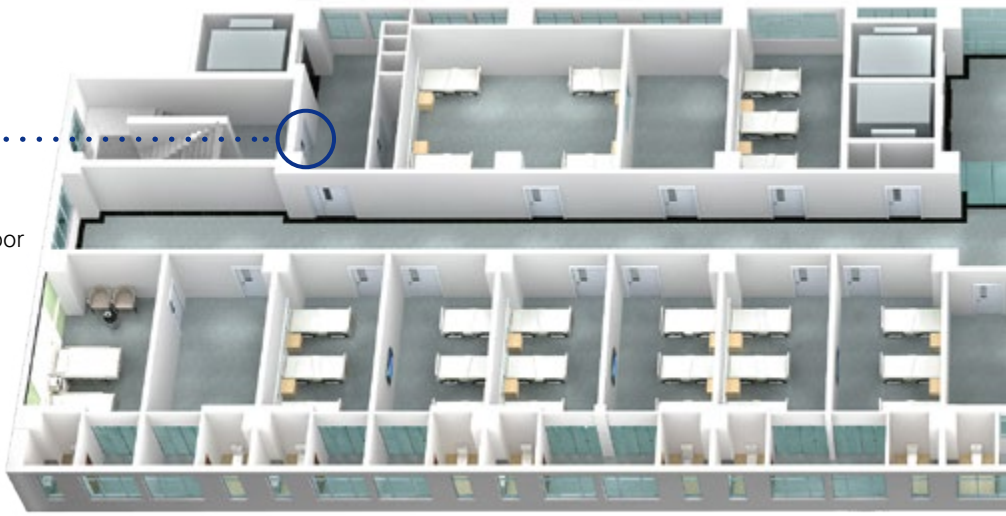
Steel door
Operation room door

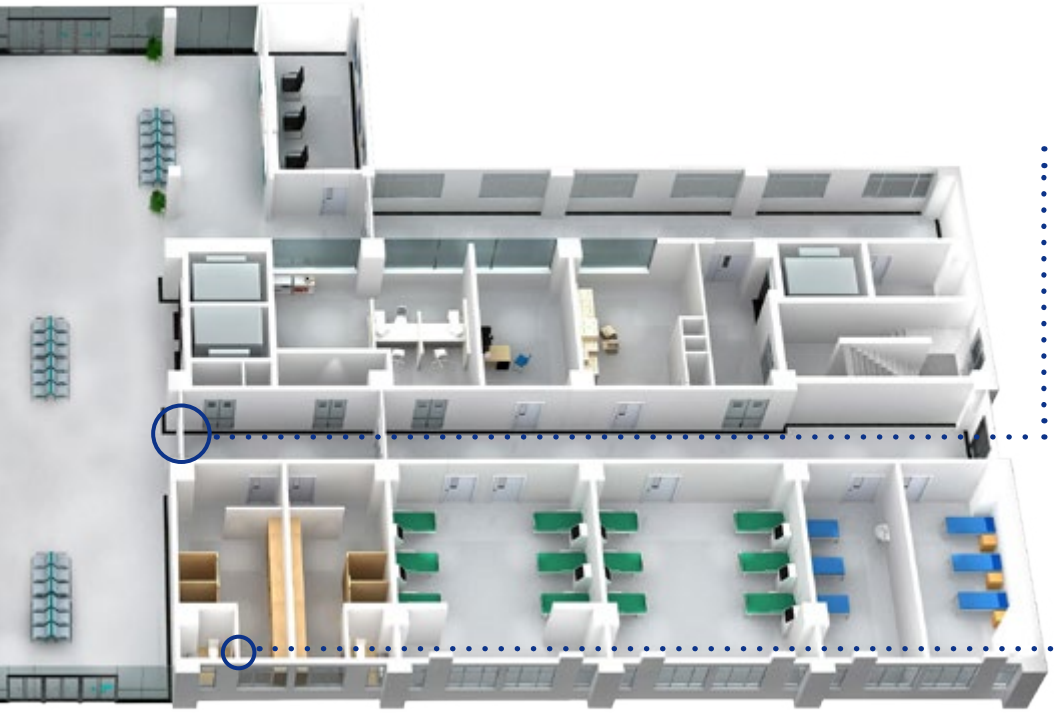


Hospital patient floor

4

Steel door
Emergency exit door



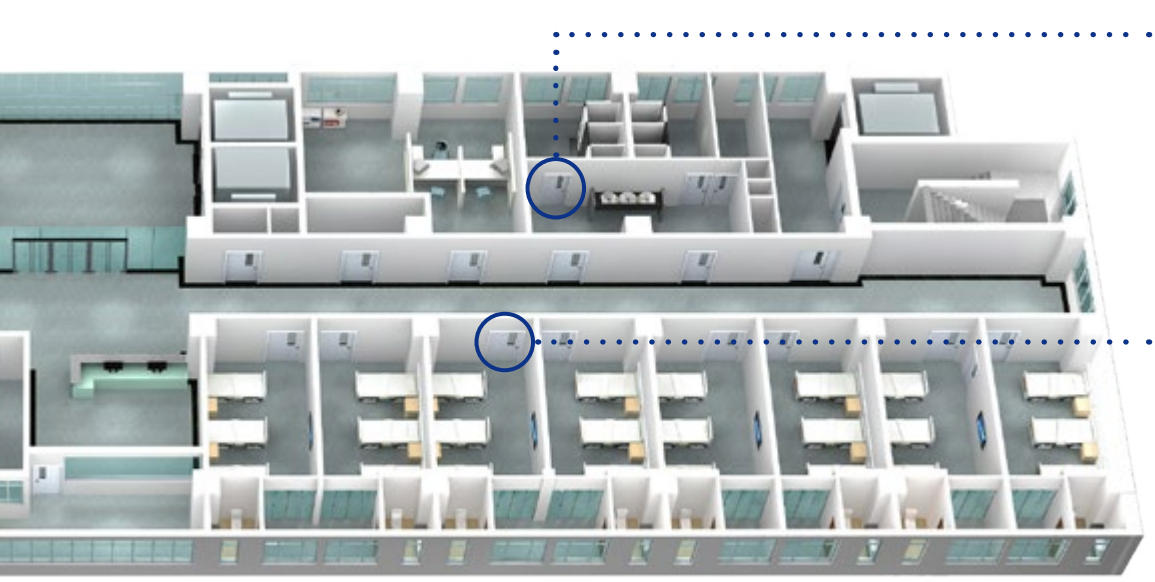


2

Profile door
Hallway door

3

Timber door
Washroom door



5

Steel door
Toilet door

6

Steel door
Patient room door

Case Study — Door 1

Operation room door

ECO antimikrobiell

Door types:
Steel door

The function of the door:
Operation room door

ECO products:
GBS 31 F SH
TS-14 door closer
D-110 OGL handle set
OBN-14 butt hinge
CY cylinder

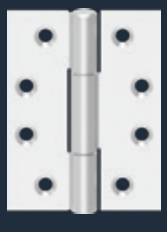
The door uses a solution with a nylon handle, a GBS 31F lock and cylinder that meet the test and fireproof standards (according to EN standards). The nylon handle has a standard version and an antiseptic version for choice. The long-term antibacterial protection solution can effectively prevent the growth and attachment of germs in the long run and has passed official tests.

GBS 31 F SH

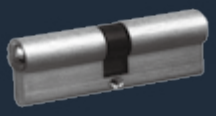
TS-14 door closer

D-110 OGL handle set

OBN-14 butt hinge



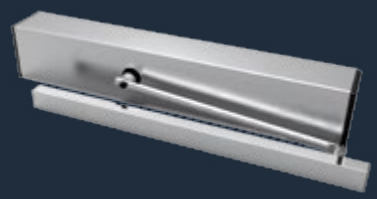
CY cylinder



Case Study — Door 2

Hallway door

ETS-73 swing door operator

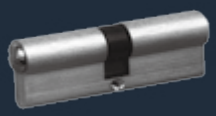


GBS 70

OBN-18 butt hinge

D-116 OGL handle set

CY cylinder



Radar "Eagle One" and sensor strip

Electric strike

* Only some products images are shown in the product configuration.

Door types:
Profile door

The function of the door:
Hallway door

ECO products:
ETS-73 swing door operator
GBS 70
OBN-18 butt hinge
D-116 OGL handle set
CY cylinder
Radar "Eagle One" and sensor strip
Sensor strip
Electric strike
Controller and power supply

This public door will be used not only by medical staff, but also by patients or guests. This door needs to be more conveniently opened by people, so ECO complement it with the ETS 73 swing door operator. The ETS 73 needs to be used in conjunction with a motion sensor mounted on the top of the door leaf. The motion sensor can identify approaching people and automatically open the door. Various accessories are available for this kind of door to suit different requirements.

Case Study — Door 3

Washroom door

Door types:
Timber door

The function of the door:
Washroom door

ECO products:
Nylon lock set WC-execution
Nylon hinge

ECO partition products applied to washrooms are mainly made of nylon material, and is comprised of handle and lock set combination plus some spring hinges. They are suitable for wet environments in washrooms, and can effectively inhibit generation of molds. There is not only a simple combination of nylon handle and lock set combination, but also a more complex solution of handle set, in which the handle set can be made of stainless steel or aluminum alloy to fit in various degrees of luxury. This handle set will be combined with a standard bathroom mortise lock.

Nylon lock set WC-execution

Nylon hinge

Case Study — Door 4

Emergency exit door

EPN 3000 R EN touchbar

EOH01 counter handle set

OBN-14 butt hinge

TS-10 D EN door closer

Door types:
Steel door

The function of the door:
Emergency exit door

ECO products:
EPN 3000 R EN touchbar
EOH01 counter handle set
OBN-14 butt hinge
TS-10 D EN door closer

The fire-protection solution for escape exit doors is the combination of EPN 3000 panic bar and TS-10 D EN door closer. A lasting solution guarantees a safe exit in any emergency circumstances. The EPN 3000 panic bar does not need a mortise panic lock and is simple screwed through to the counter handle.

Case Study — Door 5

Toilet door

Door types:
Steel door

The function of the door:
Toilet door

ECO products:
OBN-18 spring hinge
S-310 pull handle

Pull handles are installed on the entrance doors of the toilets, so that the door can be opened easily without a handle or lock. This is a very common solution, especially for hospitals, which is very convenient for elderly and children to use and pass through.

ECO can provide nylon pull handles as required to fit other door designs in the hospital. OBN-18 spring hinges are installed on the door so that it remains in the closed position when not being used.

OBN-18 spring hinge

S-310 pull handle

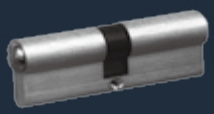
Case Study — Door 6

Patient room door

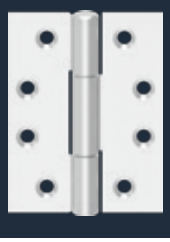
GBS 31 F SH

D-110 OGL handle set

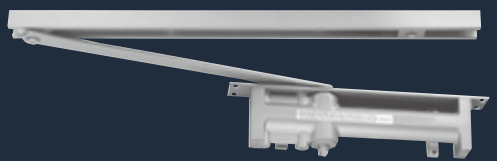
CY cylinder



OBN-14 butt hinge



ITS-380



Door types:
Steel door

The function of the door:
Patient room door

ECO **products:**
GBS 31 F SH
D-110 OGL handle set
CY cylinder
OBN-14 butt hinge
ITS-380

Patient room doors are equipped with antimicrobial nylon handles. Visitors or medical care personnel need to go in and out of these rooms frequently, which means that the handles will also be used frequently. To reduce spread of bacteria, this anti-bacterial nylon handle is the most ideal solution.

University of Hongkong - Shenzhen Hospital

The hospital was built with a total investment of about $600 Million USD, covering an area of 192,000 square meters and a total construction area of 367,000 square meters. After the whole hospital was put into use, there were nearly 2,000 beds available, with a capacity for 8,000 to 10,000 outpatients daily.

Mission

The hospital was put into trial operation on July 1, 2012, and gradually imported world-class advanced hospital management experience and medical technologies. In the ECO system solutions, every product from door closers, handles to locks and lock cylinders, complements each other and works together on the door system in perfect harmony.

Our solutions

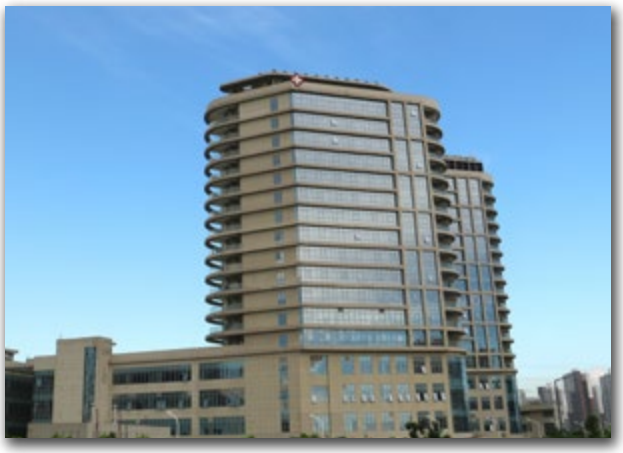
ECO provides TS-10 D EN door closers, D-110 handles, GBS 31F series locks, europrofile cylinders, door hinges and the total solution for the emergency exit doors. Even via relatively unfamiliar escape routes and under panic circumstances, people can escape speedily and easily. The special structure and higher operational flexibility of ECO hardware products can also meet the accessibility requirements for patients.

University of Hongkong - Shenzhen Hospital

City:
Shenzhen, China

Year:
2012

Some healthcare projects



Further healthcare solutions can be found on www.eco-schulte.com.

Commerce

Commercial buildings, which are usually high-rise buildings and landmarks, combine different functions of urban living space, such as commerce, office, hotel, exhibition and entertainment, and set up an interdependent and mutually beneficial relationship among the parts, thus forming a multi-functional, efficient, complex and unified whole.

The characteristics of commercial buildings, such as high visitor flow, long business hours, diverse users and passers, compounding functions and overall unity, require hardware products to have highly reliable safety and security performance. ECO hardware solutions, including high quality door handles, fireproof locks, smoke-detecting door closers and other products, are not only able to meet its evacuation and fire-protection requirements, but a minimalistic and classic design to add highlights to the overall distinctive layout. The solutions also provide corresponding door hardware products for door leaves used as function divisions, harmonizing all elements with the doors, rendering operation effortless.

At the same time, ECO adheres to the ideals of sustainable development, with particular concern for green technologies. More and more ECO products have been certified by the European Environmental Product Declaration (EPD), demonstrating the endeavors by ECO to achieve green and sustainable development!

Lobby floor

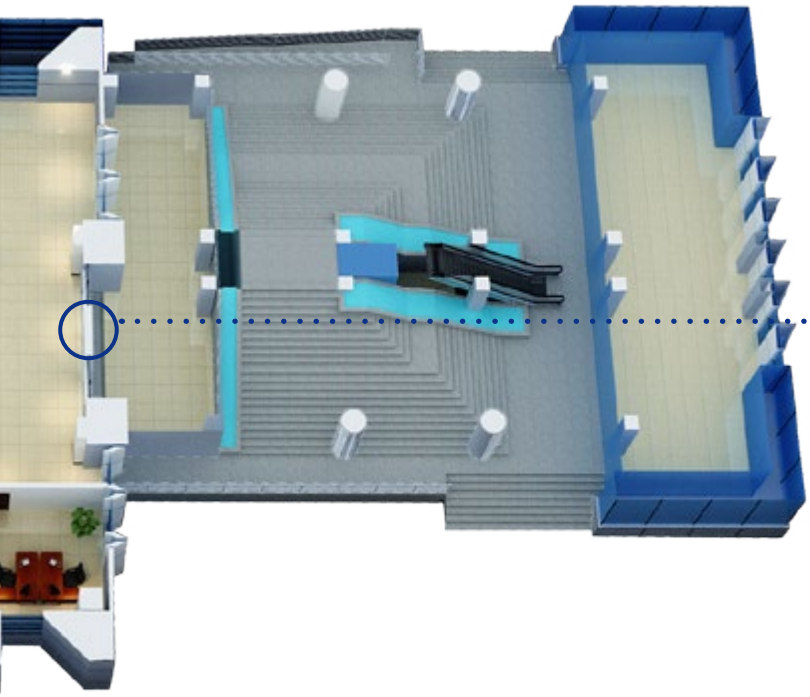
2

Timber door
Emergency exit door

Office floor

5

Profile door
Office main entrance



1

Profile door
Building entrance door

3

Timber door
Office door

4

Profile glass door
Office entrance door

6

Timber door
Emergency exit door

Case Study — Door 1

Building entrance door

Door types:
Profile door

The function of the door:
Building entrance door

ECO products:
BTS FH 840 floor spring
BTS FH accessory set
S-330 pull handle
CY cylinder
GBS 31 F DB Profile
PZ escutcheons oval

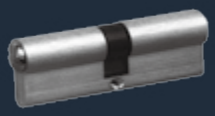
When welcoming guests, the first impression is important. Sunlight passes through glass doors, which are equipped with the BTS FH840 floor spring to enable the door leaves to open in both directions, so as to make the building entries and exits easier and more convenient. The floor spring was subject to a test of more than 500,000 times according to EN 1154 test standard. Such a high-quality product is a durable solution for frequently opened doors.

BTS FH 840 floor spring

BTS FH accessory set

S-330 pull handle

CY cylinder



GBS 31 F DB Profile

PZ escutcheons oval

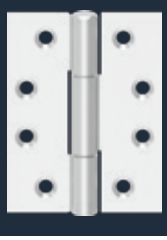
Case Study — Door 2

Emergency exit door

EPN 3000 R EN touchbar

EOH01 counter handle set

OBN-14 butt hinge



TS-41 door closer

SR2 door coordinator

Door types:
Timber door

The function of the door:
Emergency exit door

ECO products:
EPN 3000 R EN touchbar
EPN 3000 V EN touchbar
EOH01 counter handle set
OBN-14 butt hinge
TS-41 door closer
SR2 door coordinator

Emergency exit doors in public areas use the EPN 3000 panic bar system for double leaf doors. It consists of two panic bars thereof one panic bar locking the door horizontally and the other one vertically. For design reasons a TS-41 slide rail door closer is used on such panic door to simplify the design of the door.

Case Study — Door 3

Office door

Door types:
Timber door

The function of the door:
Office door

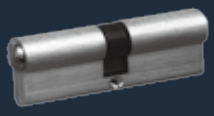
ECO products:
D-310 OGL handle set
GBS 90 panic solenoid lock
CY cylinder
OBN-18 butt hinge
TS-31 door closer
Access control keypad
Controller and power supply

For this office located in the foyer, security is very important. In order to avoid unauthorized access, ECO provides the combination of access card system and GBS 90 escape lock body. The lock body can prevent unauthorized employees or guests from entering. When the access card system is used, the lock will release the handle to enable the authorized person to enter the office area. The door will be automatically locked after passage so as to ensure safety. For safety reasons, the lock is equipped with an escape function. This means that employees can exit the office from the inside by simply using the handle. There is no need of unlocking the door.

D-310 OGL handle set

GBS 90 panic solenoid lock

CY cylinder



OBN-18 butt hinge

TS-31 door closer

Access control keypad

Controller

Case Study — Door 4

Office entrance door

S-420 pull handle

BL 150 floor pivot

BTS FH accessory set

Door types:
Profile glass door

The function of the door:
Office entrance door

ECO **products:**
S-420 pull handle
BL 150 floor pivot
BTS FH accessory set

Another solution for office partition is a floor pivot which is not adjustable in closing or latching speed, manifesting sophistication and commercial taste. It is much smaller than a floor pivot and a big cover plate can be avoided. The three-dimensional and adjustable top pivot makes installation and adjustment easier. The all-glass door adopts door closer installation splint to realize the installation of door closer on the all-glass door, so as to enhance the security, energy saving and soundproof performance of the office entrance door.

Case Study — Door 5

Office main entrance

Door types:
Profile door

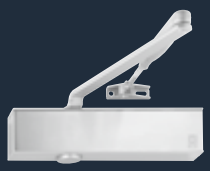
The function of the door:
Office main entrance

ECO products:
S-420 pull handle
TS-20 door closerr
EM02 TDS
Exit switch
Access control keypad
OBN-14 butt hinge
Controller and power supply

For offices with high access frequency and high density, in addition to the security functions, the ease of operation is also very important. There is no doubt that ECO's surface mounted electromagnetic lock system with ECO Newton door closer is the best choice. To enter from the outside, a card needs to be swiped, while opening from the inside only takes a push on the bottom. This can achieve effective risk management for external access, safeguard the security of the work environment. Even in case of emergency, just a slight push on the button can release the magnetic force to open the door and escape easily.

S-420 pull handle

TS-20 door closer



EM02 TDS

Exit switch

Access control keypad

OBN-14 butt hinge

Controller

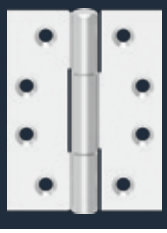
Case Study — Door 6

Emergency exit door

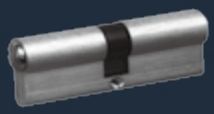
GBS 92 panic lock

D-410 OGL handle set

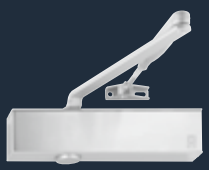
OBN-14 butt hinge



CY cylinder



TS-20 door closer



Door types:
Timber door

The function of the door:
Emergency exit door

ECO **products:**
GBS 92 panic lock
D-410 OGL handle set
OBN-14 butt hinge
CY cylinder
TS-20 door closer

According to European standards, there are two different standards for emergency exits. Users familiar with emergency exits know that the combination of escape lock and door handle is sufficient to pass the EN 179 test. However, users who do not have any knowledge of escape exits will consider it necessary to use panic bars that have passed EN 1125 test. For the office area, we use the combination of handle and escape lock, which is a cost-saving and easy-to-install solution for this exit. As per EN 179 the handle must be curved to avoid people getting stuck on the handle with clothes or bags.

Hong Kong Science & Technology Park, Phase 3

The Hong Kong Science and Technology Park is leading the transformation of Hong Kong into Asia's hub for technology innovation.

Mission

Green technology is one of the key technology clusters, and Phase 3, the new eco-friendly development in the Science Park. The development is itself one of the largest showcases of sustainable construction practice in Hong Kong. Phase 3 has been designed to be carbon neutral over its lifetime, using the key design principles of reduction, efficiency and generation.

Our solutions

The Phase 3 development is using ECO door handles and ECO Newton door closer as well as coordinators. The handles and door closers have been certified with the "Environmental Product Declaration (EPD)". The EPD is a standardized way quantifying the environmental impact of a product.

Hong Kong Science & Technology Park, Phase 3

City:
Hong Kong, China

Architect:
Simon Kwan & Associates Ltd., Hong Kong

Year:
2013 / 2014

Some commerce projects

Further commerce solutions can be found on www.eco-schulte.com.

Residental

Housing is a kind of building in which people live in, such as villas, estates, apartments and so on. A harmonious living environment involves not only architectural design, interior design and decoration, equally important are internal functionality and quality hardware, let alone a durable, reliable security system, which is the priority of residential buildings.

The door hardware products of ECO system can provide the best escape and evacuation solution for residential buildings; the lock cylinder management system makes the security system more reliable and effective; the products with a variety of design styles can also meet different aesthetic needs, harmonizing the products with the interior design, thus beautifying the space.

Lobby floor

Standard floor

4

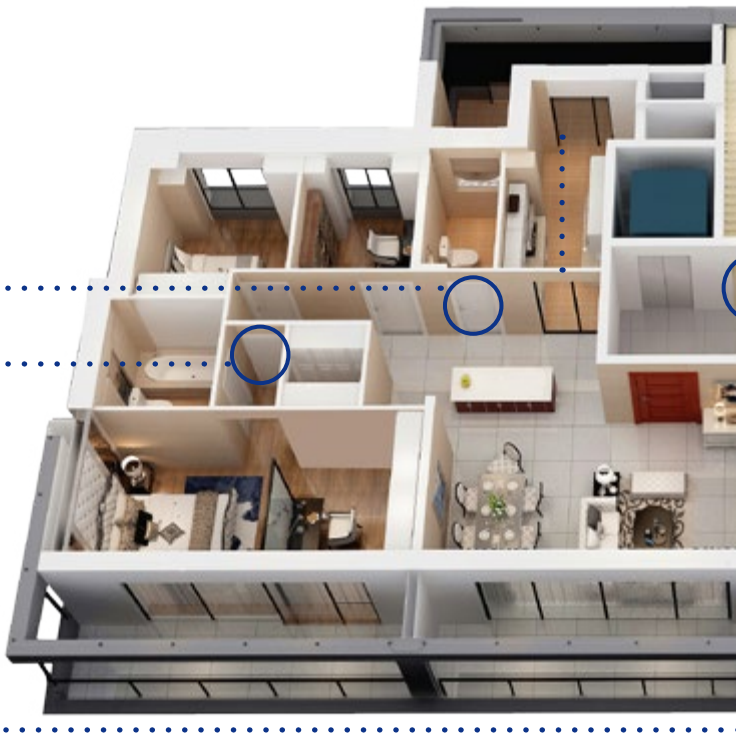
Timber door
Washroom door

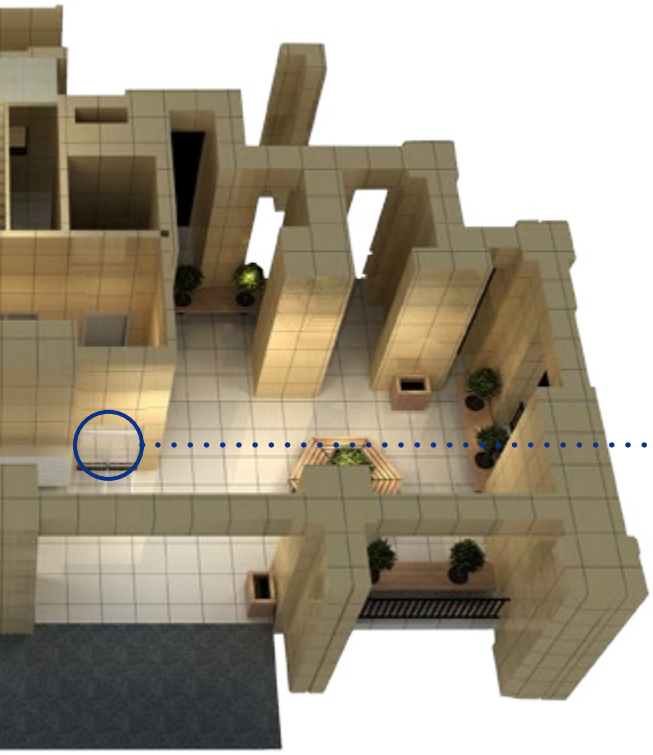
5

Timber door
Bedroom door

6

Steel door
Emergency exit door



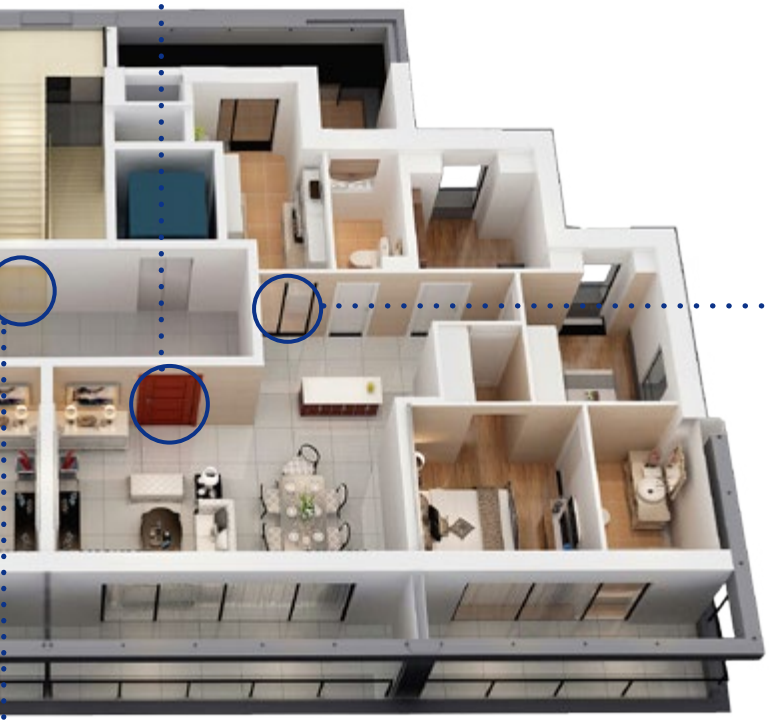


1

Glass door
Entrance door

2

Timber door
Apartment entrance door



3

Glass door
Kitchen door

Case Study — Door 1

Entrance door

Door types:
Glass door

The function of the door:
Entrance door

ECO products:
BTS FH 840 floor spring
GF-0200 top patch
GF-0100 bottom patch
GF-0400 overpanel patch
EM01 TDS
Magic switch AP
Access control keypad
Controller and power supply

Glass doors are used as entrance door for residential buildings. ECO recommends using BTS FH 840 series in conjunction with GF glass patch fitting series. In addition, we use access card system and electromagnetic lock to prevent random people from entering the building. Inside, an "open button" is installed so that when people inside want to leave the building, they can release the electromagnetic lock to open the door. This is a cost-saving and easy-to-install solution for this exit.

BTS FH 840 floor spring

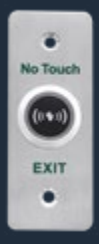
GF-0200 top patch

GF-0100 bottom patch

GF-0400 overpanel patch

EM01 TDS

Magic switch AP



Access control keypad

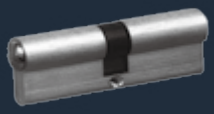
Controller

Case Study — Door 2

Apartment entrance door

D-110 OGL ES1 handle set

CY cylinder



GBS 187 security lock

OBN-18 butt hinge

Accessory GBS 187

DV2 door viewer

Door types:
Timber door

The function of the door:
Apartment entrance door

ECO **products:**
D-110 OGL ES1 handle set
CY cylinder
GBS 187 security lock
OBN-18 butt hinge
Accessory GBS 187
DV2 door viewer

Entrance doors of the apartment buildings are sensitive products. A "safe home" should meet specific safety standards. ECO's ES1 security handle uses a thickened stainless-steel panel and a cylinder pull-off protection. The system also consists of a security lock with multiple locking points (additionally top and bottom). Many owners would like to have special designs on the entrance door, but extra security features add significant weight to the door. Therefore, ECO makes OBN-18 series hinges available for heavy duty doors. The advantage of this hinge series is that its ball bearing is concealed inside the hinge body. It is not possible to pry the door open and remove the pin.

Case Study — Door 3

Kitchen door

Door types:
Glass door

The function of the door:
Kitchen door

ECO products:
HR SL-80G
Sliding door handle

In order to facilitate daily use, the kitchens of the apartments may use sliding doors to save some space. For glass sliding doors, ECO provides the optimal solutions for sliding door hardware system with different weights and its corresponding hardware accessories.

HR SL-80G

Sliding door handle

Case Study — Door 4

Washroom door

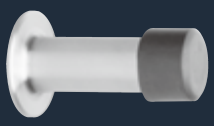
Randi 7065 handle set

Randi 7140 bathroom indicator

GBS 31 F BT

OBN-14 butt hinge

WS 76 wall stop



Door types:
Timber door

The function of the door:
Washroom door

ECO products:
Randi 7065 handle set
Randi 7140 bathroom indicator
GBS 31 F BT
OBN-14 butt hinge
WS 76 wall stop

The combination of a Randi handle, bathroom indicator and GBS 31F bathroom lock body does not require a cylinder. The design of this indicator is consistent with the style of other Randi products - simple and classic. A wall stopper is still required on the door leaf to prevent damage to the door or wall.

Case Study — Door 5

Bedroom door

Door types:
Timber door

The function of the door:
Bedroom door

ECO products:
OBN-14 butt hinge
GBS 31 F SH
Randi 7065 handle set
TCY thumbturn cylinder
Randi 7146 escutcheons

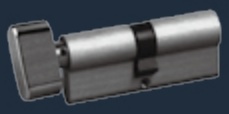
The entrances of bedrooms are equipped with wooden doors. ECO provides OBN-14 hinge and GBS 31F lock series in conjunction with a minimalistic Randi handle, which is the optimal solution for bedroom doors. The use of thumbturn cylinder facilitates locking and unlocking from the inside of the bedroom.

OBN-14 butt hinge

GBS 31 F SH

Randi 7065 handle set

TCY thumbturn cylinder



Randi 7146 escutcheons

Case Study — Door 6

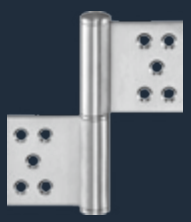
Emergency exit door

EPN 3000 R EN touchbar

EOH01 counter handle set

TS-10 door closer

OBN-13 flag hinge



FB2 Flush bolt

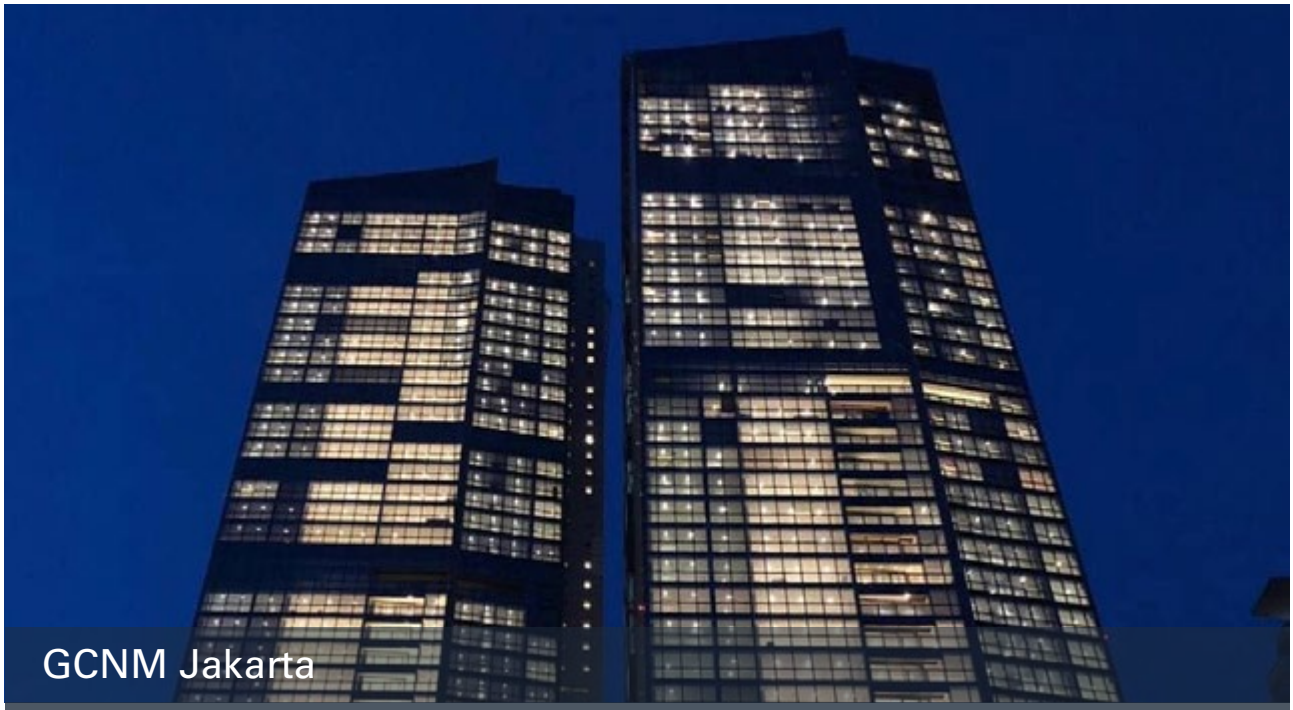
SR2 door coordinator

Door types:
Steel door

The function of the door:
Emergency exit door

ECO products:
EPN 3000 R EN touchbar
EOH01 counter handle set
TS-10 door closer
OBN-13 flag hinge
FB2 Flush bolt
SR2 door coordinator

EPN 3000 panic bar devices are used at emergency exits, which, in conjunction with the external handle, can realize emergency escape function. With the combination of TS-10 door closer and OBN-13 flag hinge, it is an excellent fire protection solution for emergency exits. The flag hinge provides an easy installation because the door can be easily hung into place.



GCNM Jakarta

Two residential towers of up to 55 storeys, standing 230 metres tall, add a variation to the growing central business district of Jakarta by virtue of their stepped, folding crowns.

Mission

The challenge was to bring all required door hardware for the different door types under one brand and guarantee a perfectly balanced door system which also fulfills the EN requirements.

Our solutions

ECO has provided a total solution for different door types in the project (e.g. glass doors, timber doors, steel doors or profile doors). This guarantees quality as well as a standard-conform and well-balanced door system starting from the entrance doors, interior doors or the emergency exits.

GCNM Jakarta

City:
Jakarta, Indonesia

Architect:
SCDA, Singapore

Year:
2017/2018

Some residental projects

Further residental solutions can be found on www.eco-schulte.com.

Industry

Industry buildings cater different kind of activities and processes dependent on the company's business area. Generally industrial workshops need larger space because of machines or warehousing equipment. The whole door system should be durable to withstand damage or violence through persons or objects. At the same time a few doors may lead to restricted areas so that controlled access is important.

The comprehensive hardware products of ECO system can meet the demands of complex internal structures of industrial buildings. Considering the fact that workshop buildings usually accommodate many people at the same time, ECO hardware takes into full account special evacuation and security requirements.

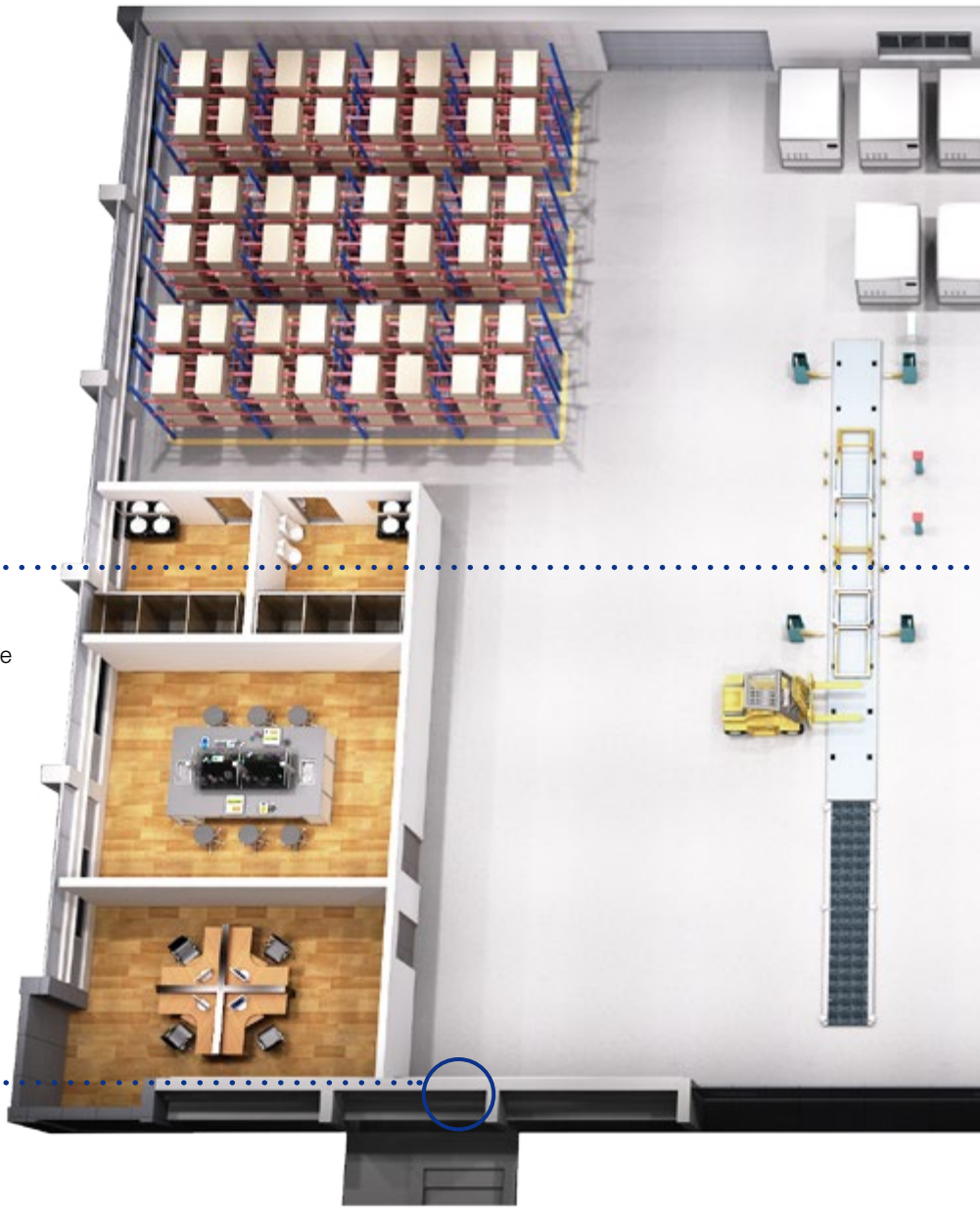
Factory internal partition

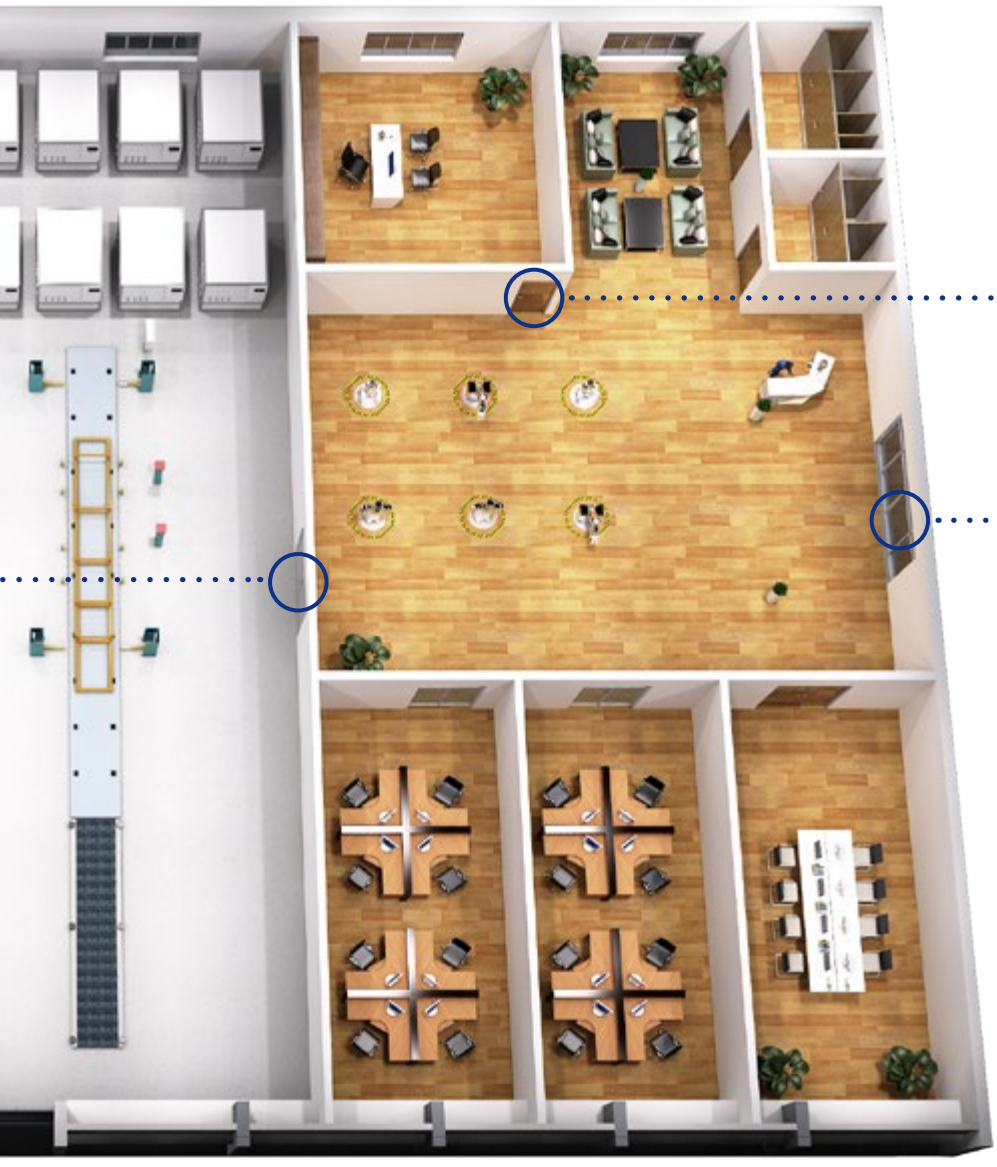
1

Steel door
Production entrance door

2

Profile glass door
Side entrance door





3

Timber door
Office door

4

Profile glass door
Main entrance door

Case Study — Door 1

Production entrance door

Door types:
Steel door

The function of the door:
Production entrance door

ECO products:
D-110 OGL handle set
OBX-18 3D hinge
TS-50 door closer
GBS 140 panic lock
GBS 152 panic lock with e-strike
Access control keypad
OBX reception element
SR1 door coordinator
Rods
Switch lock
Controller and power supply

The access door between the office area and the production area is one of the most frequently used doors in a factory. OBX-18 laser welding hinges impresse with a maintenance-free feature, ensuring constant operation performance. The double leaf door features the new GBS 140 escape lock with upper locking function and GBS 152 e-strike lock that ensures the safe escape of personnel and fulfills the security requirements of the production area.

D-110 OGL handle set

OBX-18 3D hinge

TS-50 door closer

GBS 140 panic lock

GBS 152 panic lock with e-strike

Access control keypad

SR1 door coordinator

* Only some products images are shown in the product configuration.

Case Study — Door 2

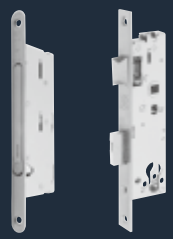
Side entrance door

EPN 950 pushbar

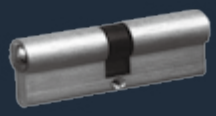
OBN-14 butt hinge

K-116 OGL knob

GBS 94F + 96 Panic lock



CY cylinder



TS-62 door closer

* Only some products images are shown in the product configuration.

Door types:
Profile glass door

The function of the door:
Side entrance door

ECO **products:**
EPN 950 pushbar
OBN-14 butt hinge
K-116 OGL knob
GBS 94F
GBS 96 Panic lock
CY cylinder
TS-62 door closer
Accessories GBS 94 F

The EPN 950 push bar is specially designed for narrow-framed profiles through the cranked arms and covers. It is used in combination with the GBS 96 panic lock. The passive leaf features the GBS 94F which is a flush bolt mortise lock with automatic locking when the door is closed. Such fire rated profile framed doors are usually quite heavy which is the reason why we use the TS-62 cam action door closer for a lower opening force when the door is being used.

Case Study — Door 3

Office door

Door types:
Timber door

The function of the door:
Office door

ECO products:
Randi 1073 RW handle set
GBS 31 F SH
Randi 1116 escutcheons
OBN-14 butt hinge
CY cylinder

The decoration of the office area in factories is advisable to adopt a simple and rugged style. RANDI RAW handle, in its original and unpolished form, shows the bold and generous temperament of the manufacturing industry. The handle is robust and durable, maintaining functionality and service life even under the operation of strong workers.

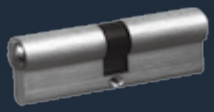
Randi 1073 RW handle set

GBS 31 F SH

Randi 1116 escutcheons

OBN-14 butt hinge

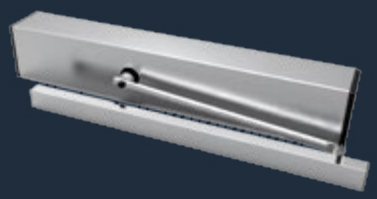
CY cylinder



Case Study — Door 4

Main entrance door

ETS-73 swing door operator



OBN-14 butt hinge

GBS 31 F SH Profile

Electric strike

Magic switch AP

Access control keypad

Flatscan

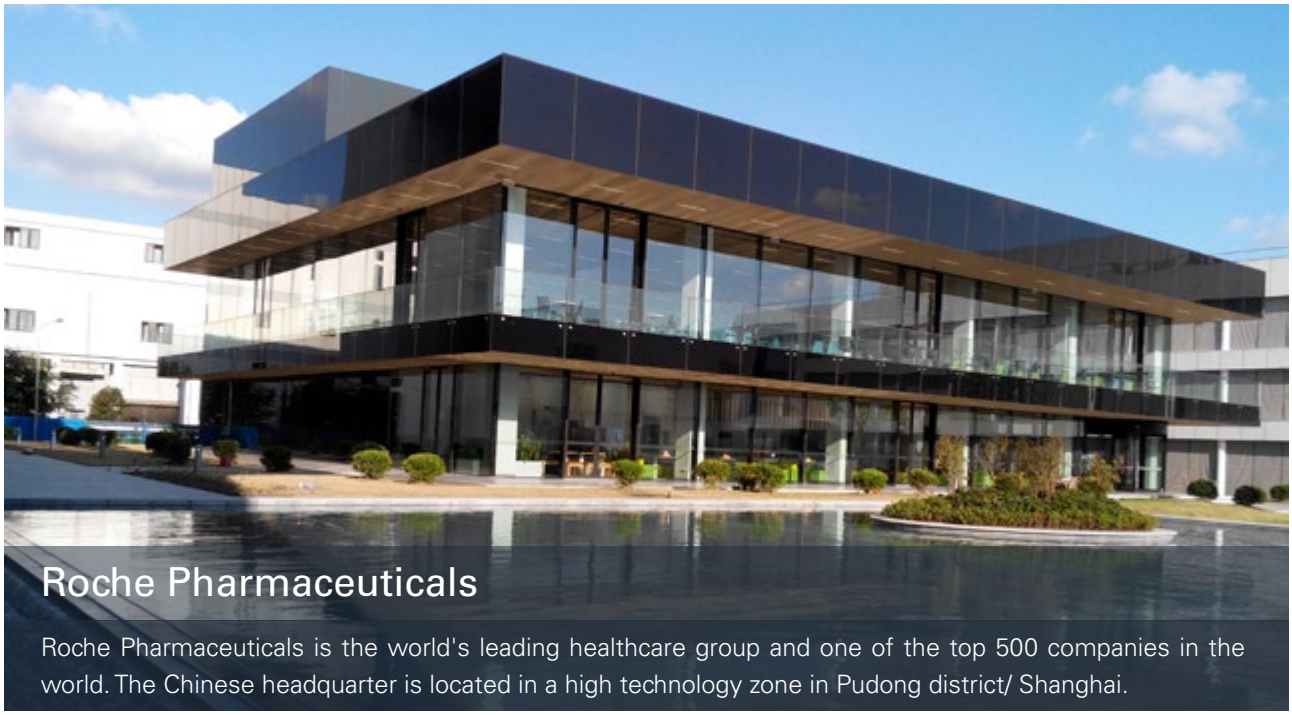
* Only some products images are shown in the product configuration.

Door types:
Profile glass door

The function of the door:
Main entrance door

ECO **products:**
ETS-73 swing door operator
OBN-14 butt hinge
GBS 31 F SH Profile
Electric strike
Magic switch AP
Access control keypad
Flatscan
Radar "Eagle One"
S-310 pull handle
CY cylinder

The entrance and exit doors of the office area should be easy to pass through and should allow access management in the daytime and the nighttime. The ETS-73 swing door operator can easily achieve this through a simple time setting. The OBN-14 can firmly support the entrance of the company, ensuring its efficient and flexible operation. An infrared radar which is installed on the door frame can be connected to the day- and nighttime operation of the ETS. The radar opens the door when movement is detected in front of the door.



Roche Pharmaceuticals

Roche Pharmaceuticals is the world's leading healthcare group and one of the top 500 companies in the world. The Chinese headquarter is located in a high technology zone in Pudong district/ Shanghai.

Mission

The mission was to deliver a solution that is matching with their Swiss identity (high quality and minimalism). Further to this all local as well as international standards had to be fulfilled.

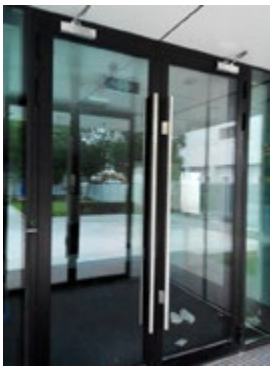
Our solutions

Emergency exits are equipped with EPN 900 III panic bars, TS- 61 door closers, GBS 90 panic lock series and OGL handles. From panic systems, door closers, handles, each item complements each other and works together in perfect harmony. The panic bar conforming to Europe's standard can facilitate speedy and easy escape, even via relatively unfamiliar escape routes and under panic-prone circumstances. This not only fulfils Roche's high requirements, but also basic requirements to ensure the safety of people's lives.

Roche Pharmaceuticals

City:
Shanghai, China

Year:
2012



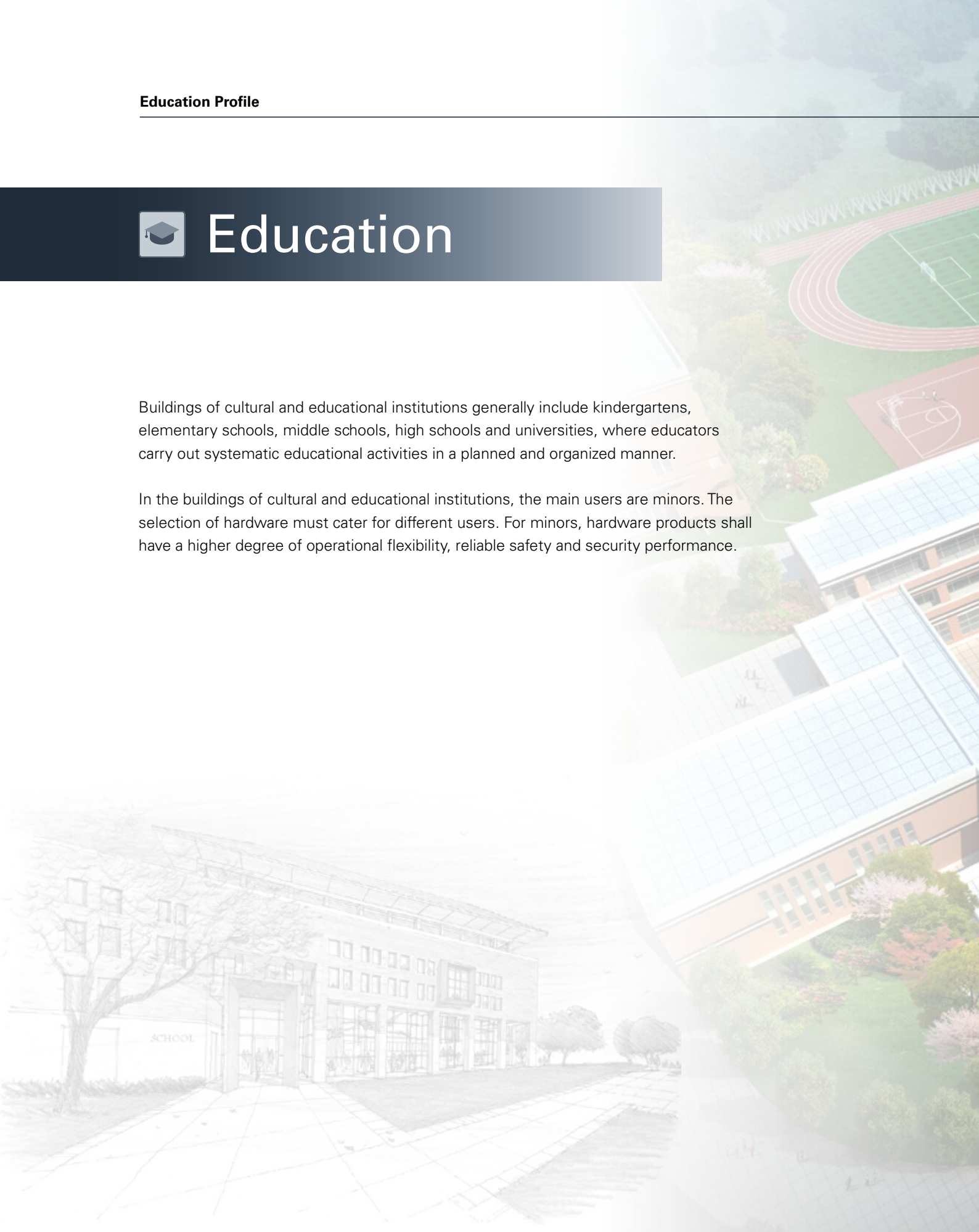
Some industry projects

Further industry solutions can be found on www.eco-schulte.com.

Education

Buildings of cultural and educational institutions generally include kindergartens, elementary schools, middle schools, high schools and universities, where educators carry out systematic educational activities in a planned and organized manner.

In the buildings of cultural and educational institutions, the main users are minors. The selection of hardware must cater for different users. For minors, hardware products shall have a higher degree of operational flexibility, reliable safety and security performance.



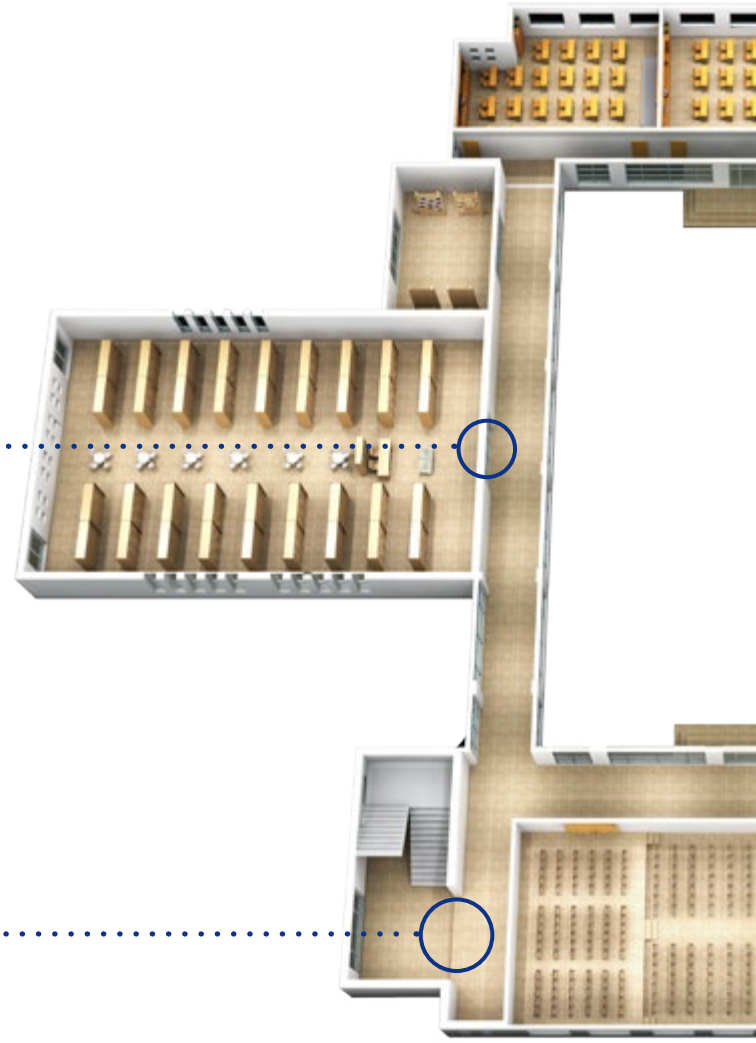
Teaching area

1

Timber door
Library door

2

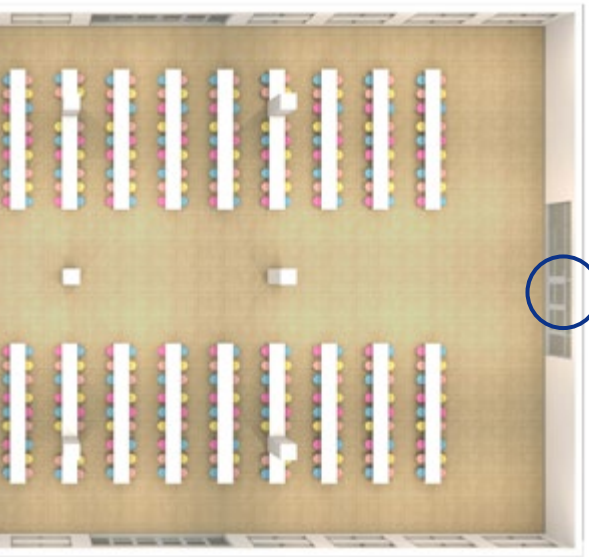
Steel door
Emergency exit door



Campus dining area

3

Steel door
Laboratory door



4

Profile glass door
Entrance door

Case Study — Door 1

Library door

Door types:
Timber door

The function of the door:
Library door

ECO products:
ITS-630
OBN-14 butt hinge
Randi 422 pull handle
Push/pull signs

Thick and high library doors safeguard the harvest of knowledge. The heavy-duty OBN-14 hinges with ECO's patented ball bearing structure can firmly support the door to the temple of knowledge. In order to create a quiet reading environment and keep the library door in a closed state, ITS-630 heavy duty concealed door closer is adopted. While it is installed in a concealed manner without affecting the facade of the door leaves, it can also effectively ensure that the thick door can be easily closed. The Randi pull handle 422 is available up to a length of 2.6m and can therefore cover various door heights of the library entrance door.

ITS-630

Randi 422 pull handle

OBN-14 butt hinge

* Only some products images are shown in the product configuration.

Case Study — Door 2

Emergency exit door

EPN 3000 R EN touchbar

EOH01 counter handle set

OBN-14 butt hinge

SR-Basis 1 door coordinator

TS-20 door closer

Door types:
Steel door

The function of the door:
Emergency exit door

ECO **products:**
EPN 3000 R EN touchbar
EPN 3000 V EN touchbar
EOH01 counter handle set
OBN-14 butt hinge
SR-Basis 1 door coordinator
TS-20 door closer

The escape doors of public places which do not require fancy decoration can use an easy to install panic bar that is installed on the surface. In this case no mortise panic lock is required inside the leaf. The panic function is integrated into the panic bar and counter handle.

Case Study — Door 3

Laboratory door

Door types:
Steel door

The function of the door:
Laboratory door

ECO products:
GBS 90 panic solenoid lock
D-110 OGL handle set
Access control keypad
TS-14 door closer
OBN-14 butt hinge
Controller and power supply
CY cylinder

Laboratory doors need to guarantee both secure locking and access convenience. More importantly, in the event of an accident, personnel in the laboratory shall be able to utilize the handle to unlock and escape. The solenoid panic lock GBS 90 is connected to the card reader system. If access is permitted the GBS 90 releases the handle and the door can be opened. From the inside the door can be always used without any keys or key cards.

GBS 90 panic solenoid lock

D-110 OGL handle set

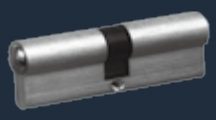
Access control keypad

TS-14 door closer

OBN-14 butt hinge

Controller

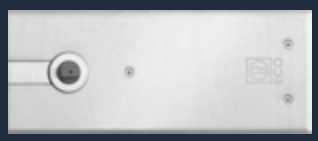
CY cylinder



Case Study — Door 4

Entrance door

BTS FH 840 floor spring



S-330 pull handle

BTS FH accessory set

Door types:
Profile glass door

The function of the door:
Entrance door

ECO **products:**
BTS FH 840 floor spring
S-330 pull handle
BTS FH accessory set

Entrance and exit doors for cafeterias are usually not locked. In winter and summer, they need to be closed to prevent wind and save energy; in spring and autumn, they need to be kept open to facilitate ventilation. The floor spring, which can automatically close the door or simply keep it hold-open, is the best choice here. The floor spring allows the door to be double action, means openening inwards and outwards making passage for the users easier.

Shantou University- Medical College

The modern and innovative design of the Medical College is one of the highlights at the University. Shantou, with a population of 5 million, was the center of the latest project by the Swiss architect firm Herzog de Meuron. This futuristic building is inspired by the human brain stem.

Mission

User-friendliness, outstanding design with reference to the architecture of the project in combination with the durability of the systems neccesarry for the high daiily traffic at the university.

Our solutions

System technology for the door - ECO has supplied a total solution for the door hardware such as door closers, handles, locks and hinges but also glass door fittings and various electronic products for the access control system in some areas.

Shantou University- Medical College

City:
Shantou, China

Architect:
Herzog & de Meuron , Switzerland

Year:
2015

* Photos from Key Technologies HK.

Some education projects

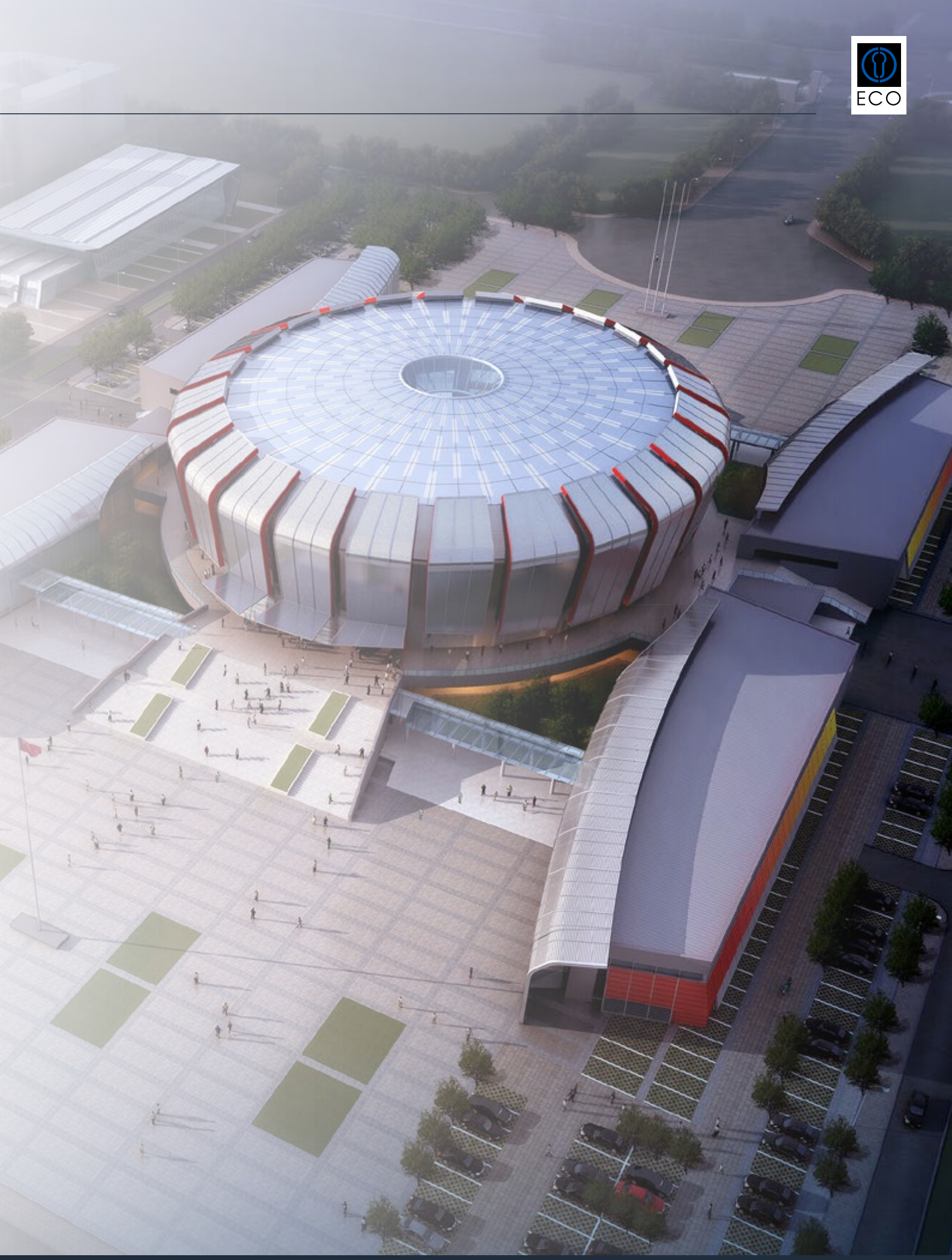
Further education solutions can be found on www.eco-schulte.com.

Public

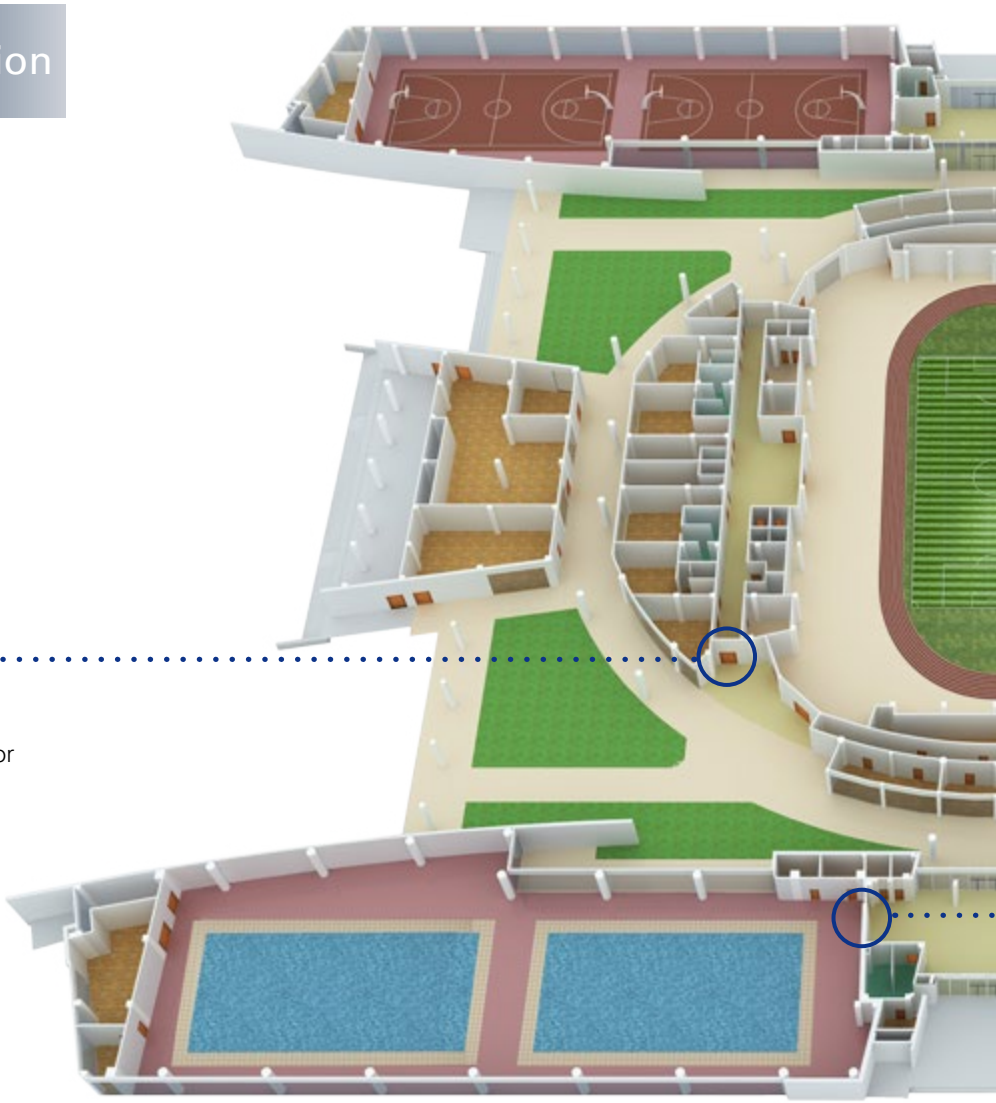
A stadium is a kind of public building for sports competitions, training or concerts. They can be classified into large, medium and small ones, according to its size and the number of seats in the audience.

In designing large-scale stadiums, not only the geographical location and the conflict between visitor flow and traffic flow should be considered, but also the crowd evacuation policy.

Since the stadium is a representative, large public building with diverse visitors and users, the selection of hardware products shall not only consider the combination of design and overall style, but also the ease-of-use and safety for different groups of people and shall not ignore the evacuation and security requirements.



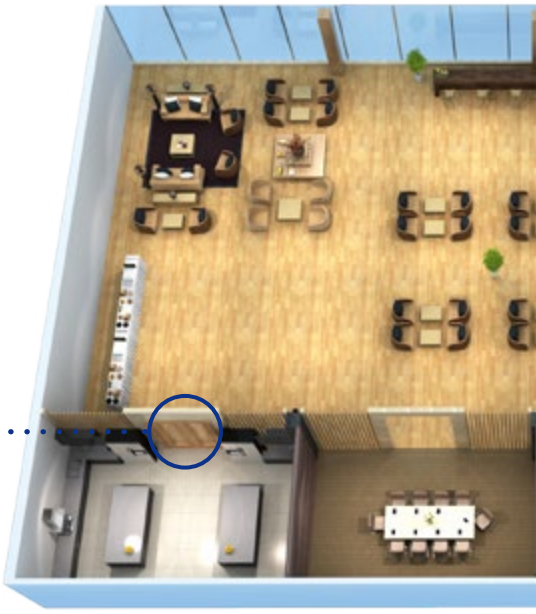
Stadium cross section



1

Steel door
Emergency exit door

VIP lounge



4

Timber door
Kitchen door

2

Steel door
Emergency exit door

3

Profile glass door
Pool entrance door

5

Timber door
Washroom door

6

Profile door
Entrance door

Case Study — Door 1

Emergency exit door

Door types:
Steel door

The function of the door:
Emergency exit door

ECO products:
GBS 130 panic lock
D-110 OGL handle set
TS-50 door closer
OBN-14 butt hinge
Rods
Switch lock
CY cylinder

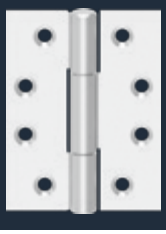
In stadiums, for the reason of architectural design, some doors will be taller than conventional ones. In this case, additional locking points will be required to ensure effective locking. The escape lock with upper locking points cannot only ensure a firm locking, but also ensure the safety escape of people. The snap lock used at the top makes sure the door is locked at the top when the door is closed. The bolt and snap lock retracts automatically when the handle is used.

GBS 130 panic lock

D-110 OGL handle set

TS-50 door closer

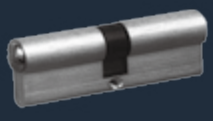
OBN-14 butt hinge



Switch lock

Rods

CY cylinder



Case Study — Door 2

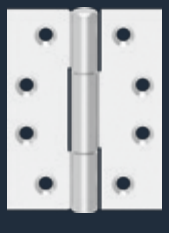
Emergency exit door

EPN 900 IV pushbar

SR door coordinator

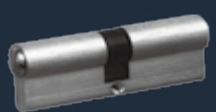
GBS 93 + 94 panic locks

OBN-14 butt hinge



D-110 OGL handle set

CY cylinder



* Only some products images are shown in the product configuration.

Door types:
Steel door

The function of the door:
Emergency exit door

ECO products:
EPN 900 IV pushbar
SR door coordinator
GBS 93 + 94 panic locks
OBN-14 butt hinge
D-110 OGL handle set
CY cylinder
Accessories GBS 94

The number of people through the safe evacuation gates of sports buildings is very large. The average number of evacuees per safe evacuation gate is about 400-700 people. The OBN-14 hinges with high load-bearing performance ensures durable and smooth rotations. The highly reliable panic bar EPN 900 IV ensures the smooth escape of all persons. The sliding rail type door closer used in conjunction with the SR door coordinator has a beautiful appearance and can perfectly control the closure of the door.

Case Study — Door 3

Pool entrance door

Door types:
Profile glass door

The function of the door:
Pool entrance door

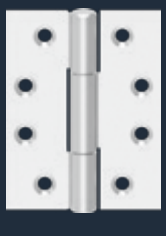
ECO products:
TS-41 marine door closer
Randi 122 pull handle, SS316
OBN-14 butt hinge, SS316

The doors of swimming and diving venues are constantly exposed to humidity and therefore their hardware have higher requirements for corrosion resistance. TS-41 marine door closers perform far better than regular door closers in terms of corrosion resistance and scoring up to 1000h in a salt spray test. Compared with SUS 304, pull handles made with SUS 316 material perform significantly better in terms of corrosion resistance. The OBN-14 hinge is available in SUS 316 on special request to provide a complete solution for such environments.

TS-41 marine door closer

Randi 122 pull handle, SS316

OBN-14 butt hinge, SS 316



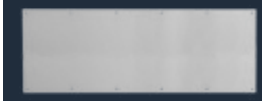
Case Study — Door 4

Kitchen door

BTS FH 650 floor spring

Push plate

Kick plate



BTS FH accessory set

Door types:
Timber door

The function of the door:
Kitchen door

ECO **products:**
BTS FH 650 floor spring
Push plate
Kick plate
BTS FH accessory set

Kitchen doors need to be opened in two-directions and must be closed during normal operation. The BTS FH 650 floor spring ensures that the doors open into both directions and automatically close the door. Equipped with push- and kick-plates door leaves are adequately protected.

Case Study — Door 5

Washroom door

Door types:
Timber door

The function of the door:
Washroom door

ECO products:
GBS 31 F SH
TS-14 door closer
OBN-14 butt hinge
D-2640 BGL handle
BCY bathroom cylinder

Washroom doors are equipped with door closers to protect the privacy. The door itself is operated with one of the latest ECO handle shapes with a square design.

GBS 31 F SH

TS-14 door closer

OBN-14 butt hinge

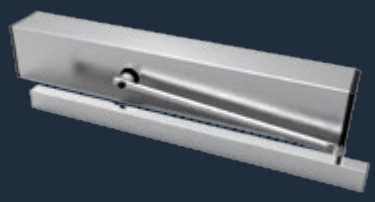
D-2640 BGL handle

BCY bathroom cylinder

Case Study — Door 6

Entrance door

ETS-73 swing door operator



Autotronic 834 motorized lock

Radar "Eagle One"

OBN-14 butt hinge

Flatscan

D-Bedix control panel

Door types:
Profile door

The function of the door:
Entrance door

ECO products:
ETS-73 swing door operator
Autotronic 834 motorized lock
Radar "Eagle One"
OBN-14 butt hinge
Flatscan
D-Bedix control panel
CY cylinder
D-310 OGL handle set
Cable transition

For the entrance door of the VIP lounge the most important thing is to delight guests with a sophisticated design and convenience. Equipped with a motor lock and an automatic door opener, the approach of a guest is sensed and the door automatically opens. The flatscan ensures safe passage and stops when obstacles or persons are recognized during the opening or closing process. The new motorozied lock secures the VIP hall and automatically unlocks the door to make access easy and convenient.

* Only some products images are shown in the product configuration.

Singapore Sports Hub

The Singapore Sports Hub is a state-of-the-art fully integrated sports, entertainment and lifestyle hub. Its existence provides a platform to elevate the Singapore sporting ecosystem on a regional and global scale and offer world-class facilities for sports, events, concerts, exhibitions and international trade shows.

Mission

In a sport stadium with a capacity of 55,000 people an important role comes to the emergency exits. The panic bars used on the escape routes must function at all time but also provide an aesthetic look to match with the design of the buildings.

Our solutions

The ECO panic and locking solutions provide an aestehtic as well as functional solution to cope with the emergency exit requirements in such a big, multi complex facility like the Sportshub.ECO produced special handles with a higher corrosion resitance to match with humid conditions in the project and in Singapore.

Singapore Sports Hub

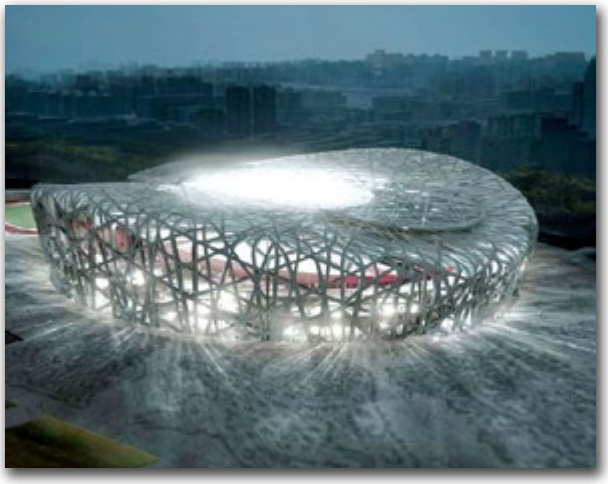
City:
Singapore

Architects:
DP Architects, Singapore

Year:
2014

* Photos by Key Technologies HK.

Some public projects



Further public solutions can be found on www.eco-schulte.com.

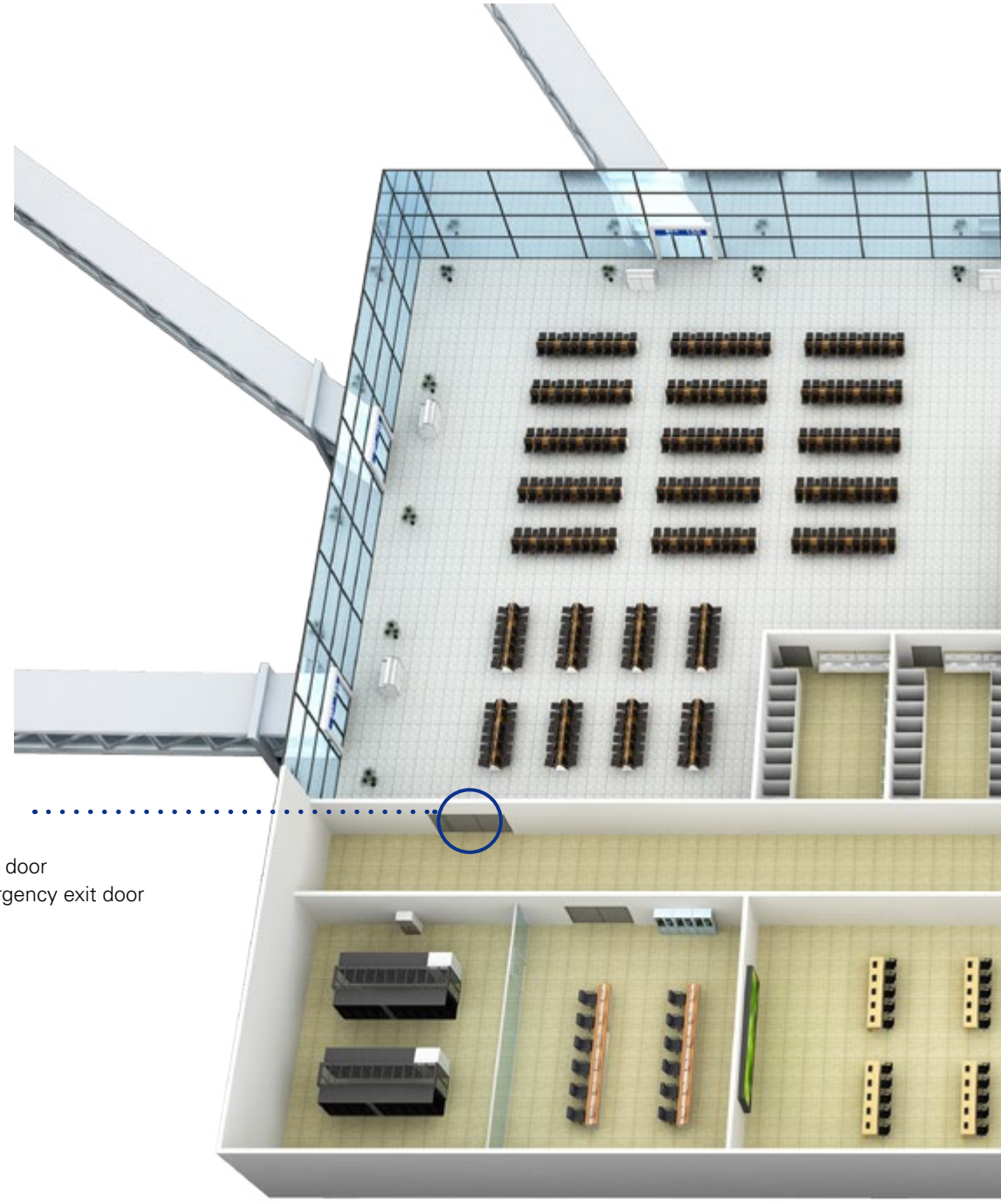
Transportation

Transportation buildings include for example airports, railway stations or bus stations, which mainly undertake the task of passenger and cargo transportation. No matter what kind of transportation building, they all share some characteristics: long operational hours, high visitor flow, diverse groups of visitors, and so on.

In transportation buildings, the choice of hardware products should first consider safety and security, evacuation and escape function. At the same time, due to frequent usage, durability.

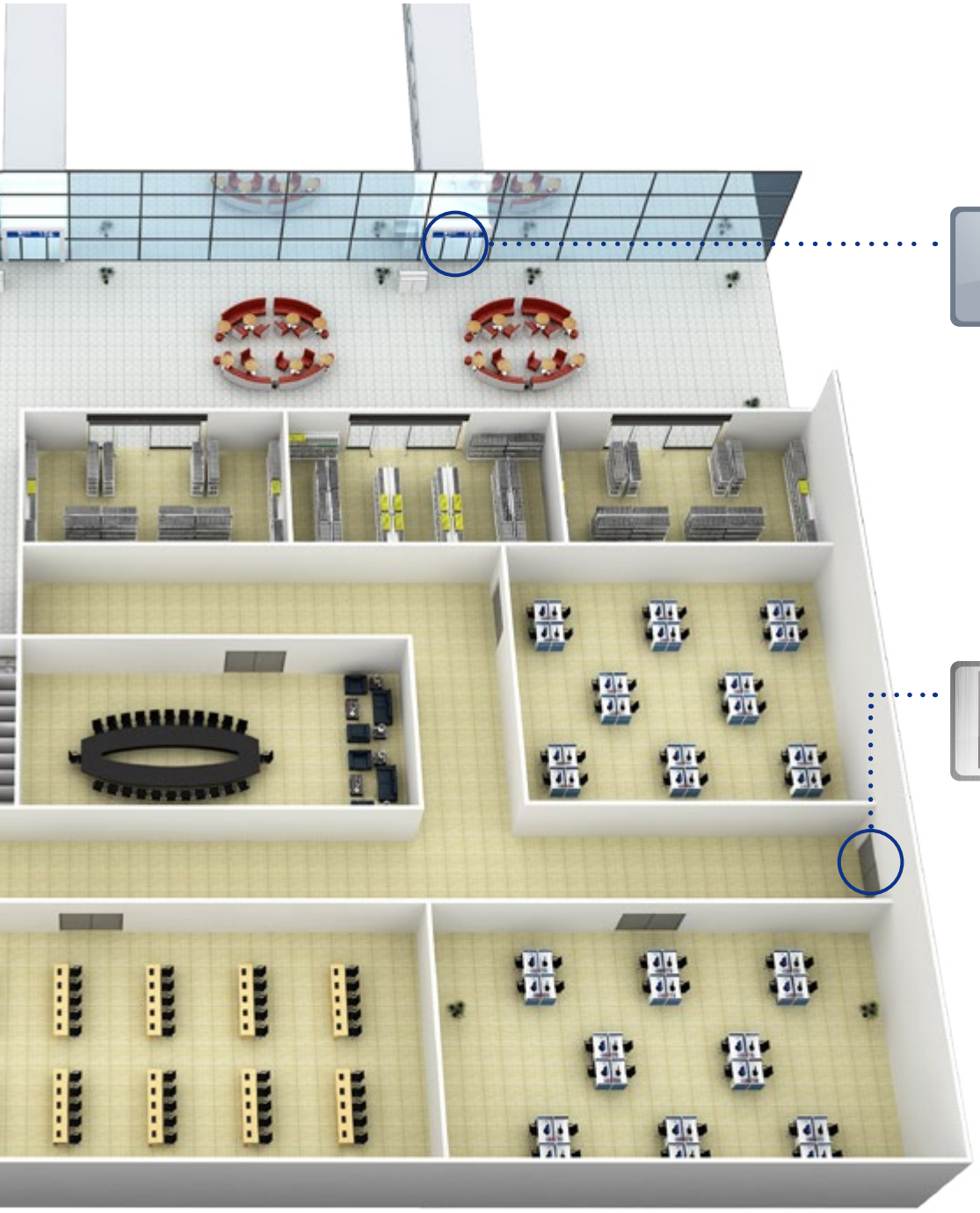
The ECO product range, including high-quality door handles, panic bars, and the patented ball bearing hinges, etc., provide the overall solution for airports, railway stations, bus stations and their diverse functional areas, while their classic and minimalistic style harmonizes with a diverse range of architectural design styles.

Boarding gates and office area



1

Steel door
Emergency exit door



2

Profile glass door
Boarding gate

3

Steel door
Fire partition door

Case Study — Door 1

Emergency exit door

Door types:
Steel door

The function of the door:
Emergency exit door

ECO products:
EPN 2000 touchbar
GBS 93 + 94 panic locks
Accessories GBS 94
EM02 TDS
FT3-BASIS
TS-20 door closer
OBN-14 butt hinge
Access control keypad
D-110 OGL handle set
SR1 door coordinator
CY cylinder
Controller and power supply

In conventional access control systems, the door can only open when a card is swiped or a switch is turned on. In emergency situations, when a card cannot be swiped, the panic bar can be activated by the FT3-Basis. When the red button on the device is pressed the panic bar becomes operable and sends at the same time a signal to the fire and alarm system. Personal safety can thus be ensured.

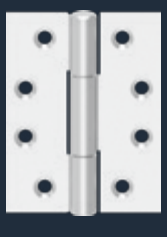
EPN 2000 touchbar

GBS 93 + 94 panic locks

FT3-BASIS

TS-20 door closer

OBN-14 butt hinge



Access control keypad

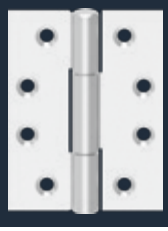
SR1 door coordinator

* Only some products images are shown in the product configuration.

Case Study — Door 2

Boarding gate

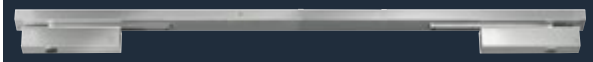
OBN-14 butt hinge



S-330 pull handle

EM02 TDS

SR-EFR door coordinator



Access control keypad

Controller

Door types:
Profile glass door

The function of the door:
Boarding gate

ECO **products:**
OBN-14 butt hinge
S-330 pull handle
EM02 TDS
SR-EFR door coordinator
Access control keypad
Controller and power supply

Boarding gates must be controlled and opened by authorized personnel. They usually remain close, while during boarding they should remain open. The access control device can realize authorization to open and the door closer ensures that the door is kept closed when not needed. In combination with the magnetic lock the door is locked in the close position; and the door closer with electromechanical hold-open keeps the door open while boarding. The intelligent smoke detector system provides fire safety 24 hours a day.

Case Study — Door 3

Fire partition door

Door types:
Steel door

The function of the door:
Fire partition door

ECO products:
EPN 2000 touchbar
OBX-18 3D hinge
GBS 140 panic lock
GBS 152 panic lock with e-strike
Controller and power supply
Access control keypad
D-110 OGL counter handle
TCY thumbturn cylinder
SR1 door coordinatorr
Rods
OBX reception element

People outside can enter the escape door by swiping a card; people inside do not need any action other than pushing the bar to unlock the door to escape. The EPN 2000 panic touchbar with electronic control function can send out sound signal after being triggered and report the status of the door or the lock to the building management system.

EPN 2000 touchbar

OBX-18 3D hinge

GBS 140 panic lock

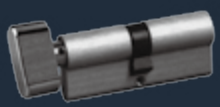
GBS 152 panic lock with e-strike

Controller

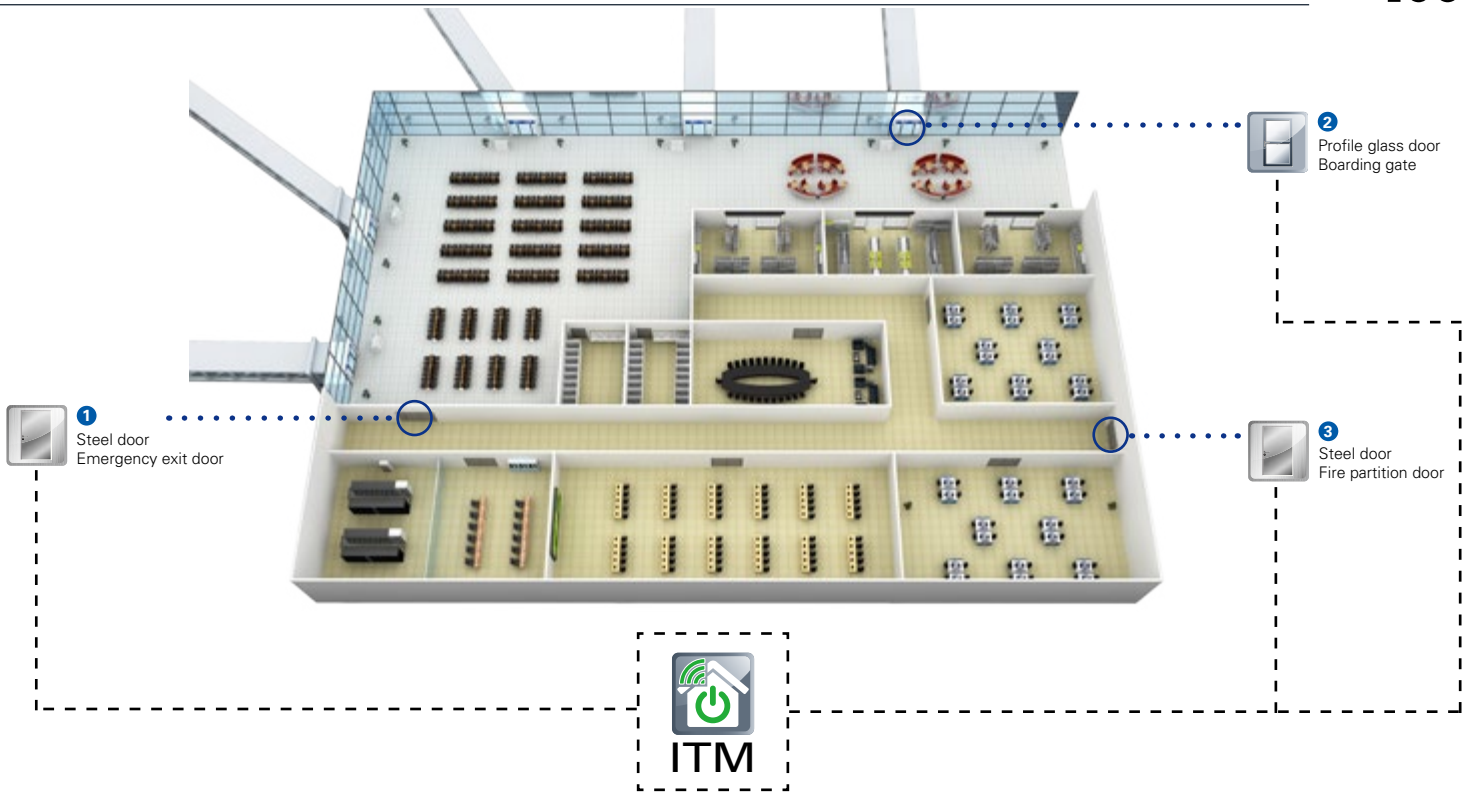
Access control keypad

D-110 OGL counter handle

TCY thumbturn cylinder



* Only some products images are shown in the product configuration.



Floor:	Ground Floor
Location:	Exit Gate 23
Leaf:	Double leaf
Locking:	Panic with e-magnet
Ext. alarm:	FT3 Basis
Access:	Access control system

Control

Floor:	Ground Floor
Location:	Boarding Gate 19
Leaf:	Double leaf
Locking:	E-magnet lock
Ext. alarm:	Smoke detector
Access:	Access control system

Control

Floor:	Ground Floor
Location:	Emergency Exit 25
Leaf:	Double leaf
Locking:	Panic with e-strike
Ext. alarm:	Smoke detector
Access:	Access control system

Control

ECO Intelligent door management

Cities are full of smart doors. Hardware, mechanical and electrical integration and software work together to form a fire alarm system. Access can be granted or denied, and the doors would respond accordingly; Personal and property safety are protected by creating an escape route and a safe fireproof zone. Users can be identified through fingerprint or RFID cards and their access record can be obtained to monitor the security management of buildings The intelligent access control management system protects our property, enables safe and convenient authorized access, and more importantly, saves our lives.

For more information or solutions about intelligent door management by ECO, please do not hesitate to contact us.

Hong Kong-Zhuhai-Macau Bridge

The Hong Kong-Zhuhai-Macau Bridge is among the longest fixed-links in the world and already a major landmark in South China.

Mission

The Hong Kong–Zhuhai–Macau Bridge (HKZMB) is a bridge–tunnel system, which consists of a series of three cable-stayed bridges and one undersea tunnel, as well as 3 artificial islands, spanning the Lingdingyang channel, that connects Hong Kong with Macau and Zhuhai, three major cities on the Pearl River Delta in China. The link has a total length of 55km.

Our solution

ECO has delivered a total solution for the 3 artificial islands including ECO Newton door closer, mortise locks, handles, hinges as well as glass door handle sets. The products fulfill Chinese as well as European standards to comply with the requirements of every participant (China, Hong Kong and Macau) in this project.

Hong Kong-Zhuhai-Macau Bridge

City:
China

Year:
2018

Some transportation projects

Amsterdam International Airport (AMS)
Beijing International Airport (PEK)
Düsseldorf International Airport (DUS)
Hamburg International Airport (HAM)
Hong Kong International Airport (HKG)
Istanbul New Airport (IST)
King Abuldaziz Intertational Airport Jeddah (JED)
Munich International Airport (MUC)
. . . . . .

Doha Metro
Jakarta MRT
Shenzhen Metro
Stockholm Metro

Further transportation solutions can be found on www.eco-schulte.com

Project	Project highlights	Why is this interesting?
	A tested system of invisible products (e.g. concealed door closer, concealed hinge)	Invisible products achieve in certain areas a better decorative result.
	A customized finishing of the products by PVD coating or electroplating (e.g. black, brass, bronze, champagne)	The products blend in perfectly into the design environment created by the architect without disturbing the atmosphere.
	Patented and heavy duty ball bearing hinges which are oil as well as maintenance-free (e.g. OBN 14, OBN 18 or OBN 20)	A big design advantage because the doors stay "clean" and guests or visitors don't see dirty/oil leaking hinges on the door.
	Shower hardware for guest room doors	A complete package for the doors can be provided (one stop shop).
	The ECO ETS 73 swing door operator for automatic opening and closing of the door	Especially in hospitals it is a must to make life as convenient as possible for the patients and visitors. The ETS works with a motion detector and opens the doors automatically.
	An anti-bacteria nylon handle	It guarantees that germs on the door handle are killed, thus further infections by germs on handles are avoided.
	Different bearing technologies to cope with various durability requirements (e.g. OKL, OGL, SGL, BGL)	The wide range of handle bearings give options to the different doors and their usage for a long-lasting solution with the right value for money.
	An access control system integrated into the ECO hardware range	The system is perfectly balanced on all products involved plus is defines access rights to certain areas in the project.
	Masterkeying for a total access control inside the project	This guarantees that certain group of people only have access to the areas relevant for them (e.g. shops).
	Glass hardware solutions for interior doors (e.g. patch fittings)	The glass creates an open environment inside the building.
	Patented and heavy duty ball bearing hinges which are oil as well as maintenance-free (e.g. OBN 14, OBN 18 or OBN 20)	Many residential entrance doors are heavy (security or fire rating reasons) and therefore need special hinges to work with the door.
	The Scandinavian hand- unique handles designed by famous Danish architects	The Scandinavian design approach is minimalistic and timeless and therefore the right choice for many interior doors.

Project	Project highlights	Why is this interesting?
	A very durable system in terms of locks, handles, hinges, closer and panic bars.	No one can guarantee that the doors are used properly in production areas (e.g. workshops) and therefore powerful hardware is needed to cope with the thoughest requirements.
	The ECO ETS 73 swing door operator for automatic opening and closing of the door.	Office or factory entrance doors need to fulfill certain security and fire requirements which will influence the door weight. The ETS can be used up to a door weight of 250kg and provides at the same time convenience for visitors since the doors don't need to be opened manually.
	A smart and secure entrance door lock which is motorized.	The motor lock can be connected to the access control system and allows automatic locking and unlocking.
	Surface mounted panic bars for emergency exits (e.g. EPN 3000)	The product provides the right balance of value for money and safety inside the project.
	Panic lock with auto-locking	Authorized entry is always assured in combination with an easy exit function to leave the room or building.
	On request hardware in SUS 316 can be done to have a higher corrosion protection	This helps in special environments such as coastal areas or swimming pool areas (chlorine) to keep the hardware corrosion free.
	A very durable system in terms of locks, handles, hinges, closer and panic bars	No one can guarantee that the doors are used properly in public places and therefore powerful hardware is needed to overcome abuse by third persons.
	ITM- intelligent door management	A smart and completely connected system of hardware for the doors to also have the control and overview of what is happeing inside the project.
	The FTA ECO-Vent- a combination talent for smoke and heat extraction systems.	In projects there are many challenges, especially if exit security with smoke/heat ventilation requirements and security must be combined. The FTA ECO-Vent meets all challenges in one unique system.
	Smoke detection systems connected to the doors	Safety is a must and in case of fire the doors must be closed. ECO door closers are available with integrated smoke detectors or can be connected to external smoke detectors to be always on the safe side.

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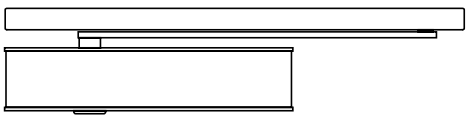
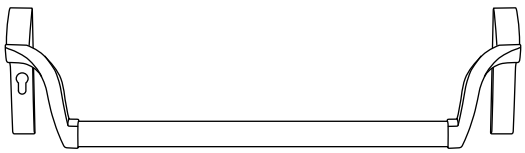
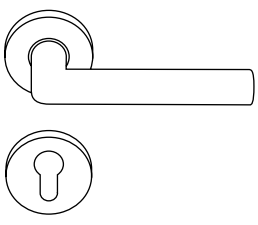
Door closer technology



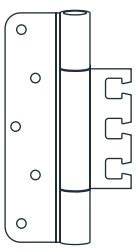
Panic, lock and bolting technology



Handle technology



Hinge technology



German Headquarter and Production

ECO Schulte GmbH & Co. KG
Iserlohner Landstraße 89, D-58706 Menden

Phone +49 2373 9276 - 0
Fax +49 2373 9276-40
info@eco-schulte.de

German Production

ESB Schulte GmbH & Co. KG
Industriestraße 2, D-14943 Luckenwalde

Austria Sales Office

ECO Schulte Austria GmbH
Obervellach 91, A-9620 Hermagor

Poland Sales Office

ECO Schulte Sp. zo. o.
Ul. Wspólna 26, PL-05-090 Janki / Raszyn

Asia Sales Office

ECO Schulte Doorsystems Zhuhai Co. Ltd.
No.31 Zhuhai Free Trade Zone, CN-Zhuhai, Guangdong

Member Of ECO Group

Randi A/S
Mirabellevej 3 DK-8930 Randers NØ

■ SYSTEM TECHNOLOGY FOR THE DOOR

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