Corporate Overview
Façade Engineering, Life Safety Solutions and Product Manufacture
## Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>004</td>
<td>Foreword by Will Perkins</td>
</tr>
<tr>
<td>006</td>
<td>Our Global Reach</td>
</tr>
<tr>
<td>008</td>
<td>Our History</td>
</tr>
<tr>
<td>010</td>
<td>Our Business</td>
</tr>
<tr>
<td>012</td>
<td>Façade Automation Engineering</td>
</tr>
<tr>
<td>014</td>
<td>Our Accreditation &amp; Influence</td>
</tr>
<tr>
<td>016</td>
<td>Our UK Based Operations</td>
</tr>
<tr>
<td>017</td>
<td>Our Sustainable Growth through R&amp;D</td>
</tr>
<tr>
<td>018</td>
<td>Our Product Range</td>
</tr>
<tr>
<td>020</td>
<td>Our People</td>
</tr>
<tr>
<td>022</td>
<td>Our Sustainable Growth on Digital Platforms</td>
</tr>
<tr>
<td>023</td>
<td>Project Profiles</td>
</tr>
</tbody>
</table>
When my Father, Bill Perkins, started SE Controls in 1981, he identified a niche opportunity to import window actuators and controls into the U.K.

After a short time, the business also offered turnkey solutions and installation to its client and quickly established itself as a leading company in its field.

Since then, the business has evolved and established itself as a truly international company with manufacturing, customers, partners, projects and offices all across the globe.

Our firm belief is that our continued sustainable and profitable growth is built on the vision of developing not only technology rich products, but also by nurturing and delivering market leading skills and capabilities in the fields of fire safety and façade engineering.

Will Perkins
Group Managing Director
(1991)

An economics graduate from Lancaster University, Will joined SE Controls after working in the franchising industry nurturing new start-ups. He has been the driving force behind the evolution of SE Controls into a globally recognised brand. Will is a respected member of the global smoke ventilation industry and has spent over twenty years developing international industry standards.
CORPORATE OVERVIEW

SE CONTROLS 005

Paul Backhouse
Group Finance Director (2001)

After graduating from Oxford University in 1991, Paul qualified as an accountant and gained experience in a range of professional firms, including six years at BDO LLP. He joined SE Controls in 2002 as Finance Manager with full responsibility for the finance function and was appointed Group Finance Director in 2013. In addition to his finance role, Paul leads the Group’s Employer of Choice and Talent Management Programmes which include responsibility for the human resources and learning and development functions.

Martin Oates
Director of Global Sales (1997)

Beginning as a Quantity Surveyor, Martin has held senior positions within the architectural glazed façade industry before joining SE Controls in 1997. Becoming Commercial Director in 2003, and latterly Director of Global Sales in 2017, Martin continues to play a key role in successfully coordinating and driving the global growth of SE Controls as a manufacturer and distributor of compliant façade automation solutions.

Mark Soleil
Group Operations Director (2002)

A production engineering Graduate from Loughborough University, Mark has held positions of Works Manager, Engineering Manager and Operations Manager with various major international companies before joining SE Controls in 2002 as Operations Manager, becoming Operations Director in 2006. Mark’s technical skillset and background in supply chain management has enabled SE Controls to develop its manufacturing capabilities on a global level.

Rob Gunningham
Group Director of Contracting (2000)

Rob started his career in construction by managing external envelope packages, then specialising in the architectural glazing and curtain walling industries in a project management role for 8 years. Rob joined SE Controls in 2000 and has played a fundamental role in establishing the UK business as a market leading contracting organisation and is a well-known and well-respected figurehead of Smoke Ventilation within the UK.

Paul Backhouse
Group Finance Director (2001)

After graduating from Oxford University in 1991, Paul qualified as an accountant and gained experience in a range of professional firms, including six years at BDO LLP. He joined SE Controls in 2002 as Finance Manager with full responsibility for the finance function and was appointed Group Finance Director in 2013. In addition to his finance role, Paul leads the Group’s Employer of Choice and Talent Management Programmes which include responsibility for the human resources and learning and development functions.

Madhava Prasad
Director Middle East (2011)

An Electronics & Communications Engineering graduate. Madhava joined the Fire and Safety industry, and has held senior positions in India and Middle East with reputed Fire companies for more than twenty years before joining SE Controls in 2011. Madhava joined SE Controls India as General Manager and moved to SE Controls Middle East in Jan 2012. Presently as Director of SE Controls Middle East, responsible and accountable for SE Controls business in the ME region.

Nikhil Parasuraman
Director India & SAARC (2012)

A graduate in Mechanical Engineering from a prestigious college in Chennai, Nikhil has been serving customers with SE Controls India and the SAARC Region since its inception in the Indian Market in 2012. Nikhil now leads a four member team in India that oversees designs for all the global offices and also handles Business Development for his region. Nikhil is renowned for his technical knowledge and customer service skills. Nikhil is also a Qualified Commercial Airline Pilot.

John Gass
Director Africa Region (2007)

After gaining multiple electrical and engineering qualifications from 1987 to 1992, John began his career as a process/systems engineer looking after 2 manufacturing facilities, with a focus on driving efficiencies through all automated production systems. John started his own electrical contracting business providing services for life safety smoke ventilation systems in the UK which operated successfully for 10 years. John returned to his home country of South Africa in 2007 as Director of SE Controls Africa.

Alex Luk
Director Asia Pacific (2018)

A Strategic Business IT graduate from Portsmouth University UK, Alex started his career in the Life Safety division of a major international business for over 8 years as Regional Manager of fire alarm and building management system and looking after the South East Asia and China market. Alex then joined a window automation specialist in Hong Kong and successfully completed various prestigious projects in Hong Kong and China. Alex joined SE Controls in 2018 as Director for South East Asia.

International Directors:

John Gass
Director Africa Region (2007)

After gaining multiple electrical and engineering qualifications from 1987 to 1992, John began his career as a process/systems engineer looking after 2 manufacturing facilities, with a focus on driving efficiencies through all automated production systems. John started his own electrical contracting business providing services for life safety smoke ventilation systems in the UK which operated successfully for 10 years. John returned to his home country of South Africa in 2007 as Director of SE Controls Africa.

Alex Luk
Director Asia Pacific (2018)

A Strategic Business IT graduate from Portsmouth University UK, Alex started his career in the Life Safety division of a major international business for over 8 years as Regional Manager of fire alarm and building management system and looking after the South East Asia and China market. Alex then joined a window automation specialist in Hong Kong and successfully completed various prestigious projects in Hong Kong and China. Alex joined SE Controls in 2018 as Director for South East Asia.

Rob Gunningham
Group Director of Contracting (2000)

Rob started his career in construction by managing external envelope packages, then specialising in the architectural glazing and curtain walling industries in a project management role for 8 years. Rob joined SE Controls in 2000 and has played a fundamental role in establishing the UK business as a market leading contracting organisation and is a well-known and well-respected figurehead of Smoke Ventilation within the UK.

Paul Backhouse
Group Finance Director (2001)

After graduating from Oxford University in 1991, Paul qualified as an accountant and gained experience in a range of professional firms, including six years at BDO LLP. He joined SE Controls in 2002 as Finance Manager with full responsibility for the finance function and was appointed Group Finance Director in 2013. In addition to his finance role, Paul leads the Group’s Employer of Choice and Talent Management Programmes which include responsibility for the human resources and learning and development functions.

Mark Soleil
Group Operations Director (2002)

A production engineering Graduate from Loughborough University, Mark has held positions of Works Manager, Engineering Manager and Operations Manager with various major international companies before joining SE Controls in 2002 as Operations Manager, becoming Operations Director in 2006. Mark’s technical skillset and background in supply chain management has enabled SE Controls to develop its manufacturing capabilities on a global level.

Rob Gunningham
Group Director of Contracting (2000)

Rob started his career in construction by managing external envelope packages, then specialising in the architectural glazing and curtain walling industries in a project management role for 8 years. Rob joined SE Controls in 2000 and has played a fundamental role in establishing the UK business as a market leading contracting organisation and is a well-known and well-respected figurehead of Smoke Ventilation within the UK.

Paul Backhouse
Group Finance Director (2001)

After graduating from Oxford University in 1991, Paul qualified as an accountant and gained experience in a range of professional firms, including six years at BDO LLP. He joined SE Controls in 2002 as Finance Manager with full responsibility for the finance function and was appointed Group Finance Director in 2013. In addition to his finance role, Paul leads the Group’s Employer of Choice and Talent Management Programmes which include responsibility for the human resources and learning and development functions.

International Directors:

Nikhil Parasuraman
Director India & SAARC (2012)

A graduate in Mechanical Engineering from a prestigious college in Chennai, Nikhil has been serving customers with SE Controls India and the SAARC Region since its inception in the Indian Market in 2012. Nikhil now leads a four member team in India that oversees designs for all the global offices and also handles Business Development for his region. Nikhil is renowned for his technical knowledge and customer service skills. Nikhil is also a Qualified Commercial Airline Pilot.

Alex Luk
Director Asia Pacific (2018)

A Strategic Business IT graduate from Portsmouth University UK, Alex started his career in the Life Safety division of a major international business for over 8 years as Regional Manager of fire alarm and building management system and looking after the South East Asia and China market. Alex then joined a window automation specialist in Hong Kong and successfully completed various prestigious projects in Hong Kong and China. Alex joined SE Controls in 2018 as Director for South East Asia.

Mark Soleil
Group Operations Director (2002)

A production engineering Graduate from Loughborough University, Mark has held positions of Works Manager, Engineering Manager and Operations Manager with various major international companies before joining SE Controls in 2002 as Operations Manager, becoming Operations Director in 2006. Mark’s technical skillset and background in supply chain management has enabled SE Controls to develop its manufacturing capabilities on a global level.

Rob Gunningham
Group Director of Contracting (2000)

Rob started his career in construction by managing external envelope packages, then specialising in the architectural glazing and curtain walling industries in a project management role for 8 years. Rob joined SE Controls in 2000 and has played a fundamental role in establishing the UK business as a market leading contracting organisation and is a well-known and well-respected figurehead of Smoke Ventilation within the UK.

Paul Backhouse
Group Finance Director (2001)

After graduating from Oxford University in 1991, Paul qualified as an accountant and gained experience in a range of professional firms, including six years at BDO LLP. He joined SE Controls in 2002 as Finance Manager with full responsibility for the finance function and was appointed Group Finance Director in 2013. In addition to his finance role, Paul leads the Group’s Employer of Choice and Talent Management Programmes which include responsibility for the human resources and learning and development functions.

Rob Gunningham
Group Director of Contracting (2000)

Rob started his career in construction by managing external envelope packages, then specialising in the architectural glazing and curtain walling industries in a project management role for 8 years. Rob joined SE Controls in 2000 and has played a fundamental role in establishing the UK business as a market leading contracting organisation and is a well-known and well-respected figurehead of Smoke Ventilation within the UK.

Paul Backhouse
Group Finance Director (2001)

After graduating from Oxford University in 1991, Paul qualified as an accountant and gained experience in a range of professional firms, including six years at BDO LLP. He joined SE Controls in 2002 as Finance Manager with full responsibility for the finance function and was appointed Group Finance Director in 2013. In addition to his finance role, Paul leads the Group’s Employer of Choice and Talent Management Programmes which include responsibility for the human resources and learning and development functions.

International Directors:

Nikhil Parasuraman
Director India & SAARC (2012)

A graduate in Mechanical Engineering from a prestigious college in Chennai, Nikhil has been serving customers with SE Controls India and the SAARC Region since its inception in the Indian Market in 2012. Nikhil now leads a four member team in India that oversees designs for all the global offices and also handles Business Development for his region. Nikhil is renowned for his technical knowledge and customer service skills. Nikhil is also a Qualified Commercial Airline Pilot.

Alex Luk
Director Asia Pacific (2018)

A Strategic Business IT graduate from Portsmouth University UK, Alex started his career in the Life Safety division of a major international business for over 8 years as Regional Manager of fire alarm and building management system and looking after the South East Asia and China market. Alex then joined a window automation specialist in Hong Kong and successfully completed various prestigious projects in Hong Kong and China. Alex joined SE Controls in 2018 as Director for South East Asia.

International Directors:

Nikhil Parasuraman
Director India & SAARC (2012)

A graduate in Mechanical Engineering from a prestigious college in Chennai, Nikhil has been serving customers with SE Controls India and the SAARC Region since its inception in the Indian Market in 2012. Nikhil now leads a four member team in India that oversees designs for all the global offices and also handles Business Development for his region. Nikhil is renowned for his technical knowledge and customer service skills. Nikhil is also a Qualified Commercial Airline Pilot.

Alex Luk
Director Asia Pacific (2018)

A Strategic Business IT graduate from Portsmouth University UK, Alex started his career in the Life Safety division of a major international business for over 8 years as Regional Manager of fire alarm and building management system and looking after the South East Asia and China market. Alex then joined a window automation specialist in Hong Kong and successfully completed various prestigious projects in Hong Kong and China. Alex joined SE Controls in 2018 as Director for South East Asia.
Whilst our roots are firmly in the UK, we are a truly international business.

With international subsidiaries and global export partners we operate and grow as one organisation through our mantra: ‘Think Global, Act Local’

**International subsidiaries**

SE Controls Asia Pacific (SECAP)  
Hong Kong  
(Established 2007)

SE Controls Africa (SECAF)  
Durban  
(Established 2009)

SE Controls India (SECIN)  
Chennai  
(Established 2011)

SE Controls Middle East (SECME)  
United Arab Emirates  
(Established 2012)

Our Global Reach
Mighty oaks from little acorns grow...

The continued success and growth of SE Controls is based on the belief that to stand still is to fall behind.

With the end of every business cycle comes an opportunity to re-evaluate, diversify, innovate and grow.

1981
Started Trading
Loanguard Ltd. trading as SE Controls is established by William “Bill” Perkins selling Ships Engine Controls and Smoke Extraction Controls.

1994
Sales Growth £1m
Company exceeds £1m annual sales revenue.

2006
25th Anniversary
SE Controls celebrates 25th anniversary.

2010
Sales Growth £10m
Company exceeds £10m annual sales revenue.

2012
Recruits 100th Employee
Company achieves milestone by recruiting the 100th member of staff.
**1981**
First Installation
First ever natural smoke ventilation system is installed in Wolverhampton.

**1985**
Product Development
Developed SEPO pneumatic failsafe cylinder which was used extensively in the shopping centre boom of the late 1980's and 1990's.

**1991**
Family Business
Bill's son, William "Will" Perkins, joins SE Controls increasing the team to 4 employees.

**1996**
First Overseas Project
First significant overseas project undertaken. Chek Lap Kok Airport, Hong Kong.

**2003**
Product Development
Acquires Chalice Electronics and subsequently manufactures its first OS Control panel.

**2005**
New UK Head Office
Moves to new Lancaster House office in Lichfield.

**2007**
SECAP Office
Opens SE Controls Asia Pacific (SECAP) offices in Hong Kong.

**2008**
Major Global Project
Completes largest naturally ventilated commercial project in Asia - Park View, Beijing.

**2009**
SECAF Office
Opens SE Controls Africa (SECAF) offices in Durban, South Africa.

**2011**
SECIN Office
Opens SE Controls India (SECIN) offices in Chennai, India.

**2011**
New R&D Facility
Opens Hood Innovation Centre, Lichfield.

**2012**
SECME Office
Opens SE Controls Middle East (SECME) office in United Arab Emirates.

**2014**
First Actuator Manufacture
SE Controls manufactures its first actuator.

**2016**
50,000 OS2 Controllers
October 2016 saw the shipment of the 50,000th OS2 Controller.

**2017**
Sales Growth £20m
Company exceeds £20m annual sales revenue.
SE Controls has evolved into an international and multi-faceted organisation.

From product design to façade engineering to complete system installation, we are involved in almost every stage of the building process.
What we do

- Fire Safety Solutions
- Façade Automation Engineering
- Product Manufacture

How we deliver it

- Supply
- Commissioning
- Design
- Maintenance
- Installation
- Contracting
- Manufacturing
- Export
- Remote Services

Our market sectors

- Residential
- Commercial
- Infrastructure
- Education
- Healthcare
Our belief is that form shouldn’t suffer at the hands of function.

Life safety and environmental systems are an integral element of constructing safe buildings. Their primary function is to save lives and improve performance, however we appreciate that consideration should always be given to the aesthetics and the overall design of the building.

For this reason, our team of experts will work with architects and consultants to help them realise their creative ambitions for their designs without compromising the fire safety or environmental strategy.

One of our key differentiators is our willingness to take on difficult projects. With a range of design, verification and testing measures at our disposal, even the most complex façades can be engineered so that the automation strategy provides maximum comfort and safety without sacrificing the vision of the architect.
We believe that there is nothing more important than safety within buildings.

We not only abide by and comply with all required regulations in a number of territories, we take a leading role in influencing the industry to deliver a healthier and safer environment for all.

Our products are tested to the latest standards and we continue to test our products in combination with leading Aluminium façade systems.
<table>
<thead>
<tr>
<th>Industry Linking Groups</th>
<th>Standards &amp; Guidance</th>
<th>Product Testing &amp; Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CAB</td>
<td>• CENTC191 (EN 12101)</td>
<td>• EMC</td>
</tr>
<tr>
<td>• HEVAC (FETA/SCA)</td>
<td>• Design Guidance Documents</td>
<td>• LV</td>
</tr>
<tr>
<td>• BSI</td>
<td>• ISO</td>
<td>• FPC</td>
</tr>
<tr>
<td>• IMechE</td>
<td></td>
<td>• CPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• IFC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CE Marking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CCCF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• EN 12101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Civil Defense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• KTP Award</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Project Sponsorship</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NV Working Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Zero Carbon Hub</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Public Health England</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• BB101</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CHAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Safe Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• EN16763</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SE Controls has grown into a truly global organisation with local representation across the world, however our heritage is in the UK. With production, assembly, quality, product management, technical support, purchasing, warehousing and logistics all based out of the Hood Innovation Centre in Lichfield, England, we retain a high level of control over our lead times and are agile to ever changing customer requirements.
Innovation is the driving force behind our R&D strategy. Innovation reduces cost, forces agility and drives improvement throughout the entire industry.

The investment in the new R&D facility within the Hood Innovation Centre demonstrates our tangible commitment to new product development now and in the future. The testing areas of the new facility give us a competitive advantage by providing the capability to test our products independently but also to carry out application testing in combination with complimentary products such as façade systems.

The “Centre of Excellence”, facility will provide the platform for our continued innovation over the next 30 years.
Our solutions have been established and specified worldwide for 30 years and our goal is to develop the next generation of innovative control systems that will ensure buildings are intelligent, safe, compliant and energy efficient for the next 30 years.

We believe in continuous product improvement after any hardware launch. Using our SE Cloudlink remote services solution, we are able to monitor then optimise the software and algorithms throughout the product lifecycle.

Our products are not only Made in Britain but with a full suite of technical and operational functions on site in the UK, they also have a British infrastructure that underpins their ongoing global success.
We strive to become a global employer of choice.

We identify and nurture skills from within our organisation and we believe that talent management is central to the evolution of our business. Our commitment to training starts from the day someone joins our company and continues throughout their time with SE Controls, which has contributed to a market leading staff turnover metric.

From our graduate and apprentice placement schemes, to our Senior Management Team and our Board of Directors, with over 100 years of industry experience, it is the quality of our people that allows us to continue to grow profitably.

“I joined SE Controls because I recognised a company with a real focus on making a difference within its industry, which provides me with an opportunity to utilise my learning and development skill set to achieve maximum impact.”

Sharon Tommy
Learning and Development Business Partner
“SE Controls is a great place to start my career. It is expanding fast so I knew I would have opportunities to progress quite soon, as well as having the security of a job at the end of my apprenticeship. I have already learned from some great people here and the training provision is excellent.”

Oli Baines
Apprentice

“I joined SE Controls because the Master Data role was a new function within the business which I knew would give me the opportunity to take ownership and help drive digital projects going forward. SE Controls is a fast-growing business with great ideas and a real focus on developing its digital infrastructure and was the right step to help further my career.”

Toni Lewis
Master Data Administrator

‘I joined SE Controls because they seemed like they had a rich knowledge in their industry and the team I would be joining was ambitious. Being based remotely, I really like the style of working and the responsibility I’m given to carry out my role.’

Satheesh Kannan
Design Engineer
Our Sustainable Growth on Digital Platforms

As clients’ requirements have become more complex, the construction industry has evolved and improved.

More than ever, architects and consultants rely on standardised platforms and tools to design to a compliant standard.

We believe that efficiencies internally and externally can be driven through digital optimisation and with a product configurator, a first to market approach with BIM objects, Enterprise Content Management and market leading ERP and Business Intelligence Software, SE Controls has developed a base of digital systems that will support growth for the next 10 years.

- Product Configurator
- Business Intelligence
- BIM Objects
- CAD Drawings
- Enterprise Resource Planning (ERP)
- Enterprise Content Management (ECM)
- Knowledge Hub
Project Profiles

024
Parkview Green

026
Evelyn Grace Academy

028
Department of Environmental Affairs

030
One/Two Snow Hill

032
Dragonmart

034
Wolverhampton Business School

036
Lusail Multipurpose Hall

038
Swansea University Bay Campus

040
Mall of the South

042
Kai Tak Cruise Terminal
Project Profile
Parkview Green

Facade automation to achieve a hybrid environmental ventilation solution to create a controllable microclimate to optimise energy consumption/thermal comfort.

System design, product supply and partner installation of over 4,000 actuators and control systems providing power and control. Communication with BMS environmental ventilation system including manual switching overlaying connection to a BMS system to allow maximum thermal comfort for all occupants.

Client
Hong Kong Park View Group

Location of Project
Beijing, China

Architect
Integrated Design Associates

M&E Consultant
Arup

Facade System/Consultant/Contractor
JL Aluminium

Main Contractor
China Jiangsu International Construction

United States Green Building Council (USGBC)
LEED Platinum Rated

Building Function
Commercial

Application
Environmental Ventilation
Project Profile
Evelyn Grace Academy

Façade automation for environmental ventilation, CO₂ and temperature control incorporating night time cooling.
System design, product supply, installation and commissioning. Effective free area calculations to CIBSE AM10 design code. BMS strategy design for optimum indoor air quality. Concealed automation with synchronised multi-point locking.

Location of Project
London

Façade System
Schüco

Architect
Zaha Hadid & Associates

Façade Consultant
Wintech Façade Engineering Consultancy

Royal Institute of British Architects
RIBA Sterling prize for Architecture

Building Function

Leisure
Education

Application

Environmental Ventilation

CAD Drawing
Project Profile  
**Department of Environmental Affairs**

**Natural smoke and environmental ventilation as part of an energy efficient building strategy.**

System design, product supply and partner installation of a full natural smoke and environmental ventilation system, including communication with BMS, night purging strategy and fingertrap mitigation.

**Client**  
Department of Environmental Affairs

**Location of Project**  
Pretoria, South Africa

**Architect**  
TC Design Architects

**Facade Contractor**  
Pre Plan International

**Design/Construction**  
Aveng Grinaker LTA and Keren Kula JV

**Green Building Council of South Africa (GBCSA)**  
6 star green rating

**Building Function**

- Commercial

**Application**

- Environmental Ventilation
- Smoke Ventilation
Automated inlet and atria extract smoke ventilation via window automation.
System design, product supply, installation and commissioning.
Aerodynamic free area smoke calculations.
Structural installation and wind load design.

**Location of Project**
Birmingham, UK

**Facade System**
Focchi & Yuanda

**Architect**
Fairhurst Design Associates

**Facade Consultant**
Arup Facade Engineering

**M&E Consultant**
Arup Associates

**Building Function**
- Commercial
- Retail

**Application**
- Smoke Ventilation

**CAD Drawing**
Atria natural smoke ventilation in accordance with EN 12101-2 for a mixed use premises.

System design, product supply and partner installation of over 1100 actuators and control systems providing power and control.

Full natural smoke ventilation system, including battery backup to ensure failsafe operation in the event of mains power failure.

**Client**
Nakheel

**Location of Project**
Dubai, UAE

**Architect**
Dar Al Handasah

**Façade System**
Brittal

**Façade Contractor**
Zebian Aluminium & Glass Industries Ltd

**Main Contractor**
United Engineering Construction (UNEC) LLC

**M&E Contractor**
Al Andalous Engineering
**Project Profile**

**Wolverhampton Business School**

**Inlet and extract natural smoke atria ventilation via EN 12101-2 compliant smoke vents to BS 9999.**

System design, product supply, installation and commissioning.
Fire fighting stair AOVs via window automation.
Fire alarm interface controls system, in accordance with EN 12101-10
Aerodynamic free area calculations.
Open in AOV bracket design.

**Location of Project**
Wolverhampton, UK

**Facade System**
Technal (Hydro Building Solutions)

**Architect**
Fairhurs Design

**M&E Consultant**
Arup

**Building Function**

- Education

**Application**

- Smoke Ventilation

**CAD Drawing**
Project Profile
Lusail Multipurpose Hall

Façade automation for replacement air intake and smoke extraction in accordance with EN 12101-2.

System design, product supply and partner installation of a full natural smoke ventilation system, including battery backup to ensure failsafe operation in the event of mains power failure.

**Client**
Qatar Olympic Committee

**Location of Project**
Doha, Qatar

**Architect**
Dar Al Handasah/Alastair Richardson

**Façade System/Contractor**
Alunasa Aluminium Qatar

**Main Contractor**
Consolidated Contractors Company

**M&E Contractor**
Consolidated Contractors Company

**Building Function**
Commercial

**Application**
Smoke Ventilation
Project Profile
Swansea University Bay Campus

Residential smoke ventilation via window automation, in accordance with EN 12101-2
System design, product supply, installation and commissioning. Atria smoke ventilation via automated inclined smoke vents, in accordance with EN 12101-2. Fire alarm interface controls system, in accordance with EN 12101-10. Geometric and aerodynamic smoke ventilation calculations. Installation, snow and wind load design (coastal application). Smoke strategy application in accordance with Approved Document B and BS 9999 (atria smoke ventilation).

Location of Project
Swansea. UK

Facade System
Kawneer (Alcoa)

Architect
Powell Dobson, Glancy Nicholls, Stride Treglown, Hopkins Associates.

Building Function
- Residential
- Education
- Smoke Ventilation

Application
Residential
Education
Smoke Ventilation

CAD Drawing
Project Profile

Mall of the South

Atria natural smoke ventilation in accordance with EN 12101-2 for a retail premises.

System design, product supply and partner installation of a full natural smoke ventilation system, including battery backup to ensure failsafe operation in the event of mains power failure.

**Client**  
Zenprop

**Location of Project**  
Johannesburg, South Africa

**Architect**  
Vivid Architects

**Façade System/Contractor**  
Alunasa Aluminium Qatar

**Main Contractor**  
Aveng Group

**Fire Consultant**  
TWCE

**Building Function**  
Retail

**Application**  
Smoke Ventilation
Project Profile
Kai Tak Cruise Terminal

Facade automation for failsafe natural smoke ventilation in prestigious infrastructure project.

System design, product supply and partner installation of over 2000 actuators.

System includes make up air through inlet vents and extract through skylight exhaust vents.

System also includes fail safe operation in the event of a power failure as well as operation in communication with the fire detection system.

Client
ASD Hong Kong Ltd

Location of Project
Hong Kong, China

Facade System/Contractor
Far East Aluminium Works Co Ltd

Facade Consultant
Wong Ouyang

Main Contractor
Dragages Hong Kong Ltd

Architect
Foster and Partners

M&E Contractor
Atal Engineering

Building Function
- Infrastructure

Application
- Environmental Ventilation
- Smoke Ventilation