

# TRI MO QBISS ONE



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# Qbiss - QUALITY BUILDING INNOVATIVE SMART SKIN

## Qbiss One - Ultimate aesthetic total wall solution

Qbiss One is a design and technological breakthrough; a metal façade system that offers a true alternative to a conventional rain screens. Qbiss One is a world class-engineered, total wall solution with a unique rounded corner on the element.



### Qbiss One benefits:

- **Ultimate aesthetic** - rounded corners without cuts, folds or welds
- **Total wall solution** - fully prefabricated and self-supporting system
- **Maximum safety** - non-combustible core, air and water tightness
- **Active sustainability** - energy efficient and environmental friendly solution

# ULTIMATE AESTHETIC

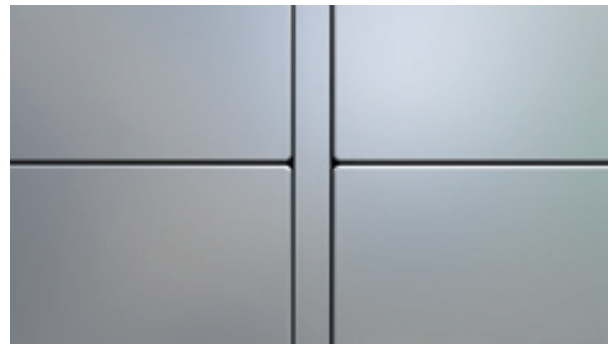
Qbiss One delivers the greatest freedom of expression and offers designs of almost limitless possibilities. Without any doubt this is one of the smoothest and flattest façade envelopes in its class. The façade element itself is improved with a unique rounded corner, which eliminates the need for any rivets, cuts or welding which would be visible on a traditional rain screen cassette.

## Joint options

Qbiss One system allows the combining of various permutation of recessed and flush joints.



| Qbiss One B



| Qbiss One F



| Qbiss One FB



| Qbiss One BF



| Qbiss One BF-B



| Qbiss One BF-F



## World class engineering

Qbiss One is distinguished by the unique rounded corner of the element. A solution, it is the result of world-class engineering and the highest automated technology and patented manufacturing systems.

Unique rounded corner provides a superior aesthetic appearance whilst also preventing any potential threat of corrosion. All other available products on the market use a "cut and fold" approach that needs to be sealed manually and then touched-up with paint.



### World class engineering:

- **Completely prefabricated elements**
  - facilitated through automated and robotized technology
- **Assured quality** - elements produced consistently in controlled environment
- **Personalized solution** - elements are custom-made according to project requirements
- **Robust solution** - Qbiss One meets tough CWCT standards\*

\* Qbiss One system has successfully completed rigorous testing to the latest CWCT standard. The tests were carried out by Wintech Engineering Ltd, one of the UK's most respected, independent, UKAS accredited, testing laboratories.



## Individual design ArtMe

ArtMe is the latest, unique facade surface treatment that allows literally unlimited shapes, patterns and visual effects to be expressed on the facade for dramatic, individual and creative results. From designs and pictures to inscriptions, logos, brands and bespoke creations, ArtMe makes this possible without the need for adhesives, additional elements or structural devices.



reddot design award



## Variety of assembly options

With the focus on optimal facade flexibility when designing the building envelope Trimo has developed four basic options, which allow a variety of impressions to be achieved. The basic grid style can be orientated vertically or horizontally, without compromising any of the façade's outstanding features.



### **Qbiss One assembly options:**

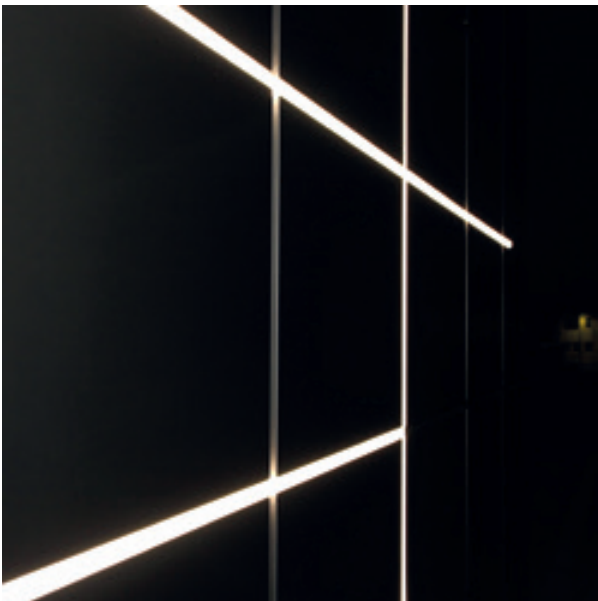
- horizontal classic
- horizontal brick
- vertical classic
- vertical brick

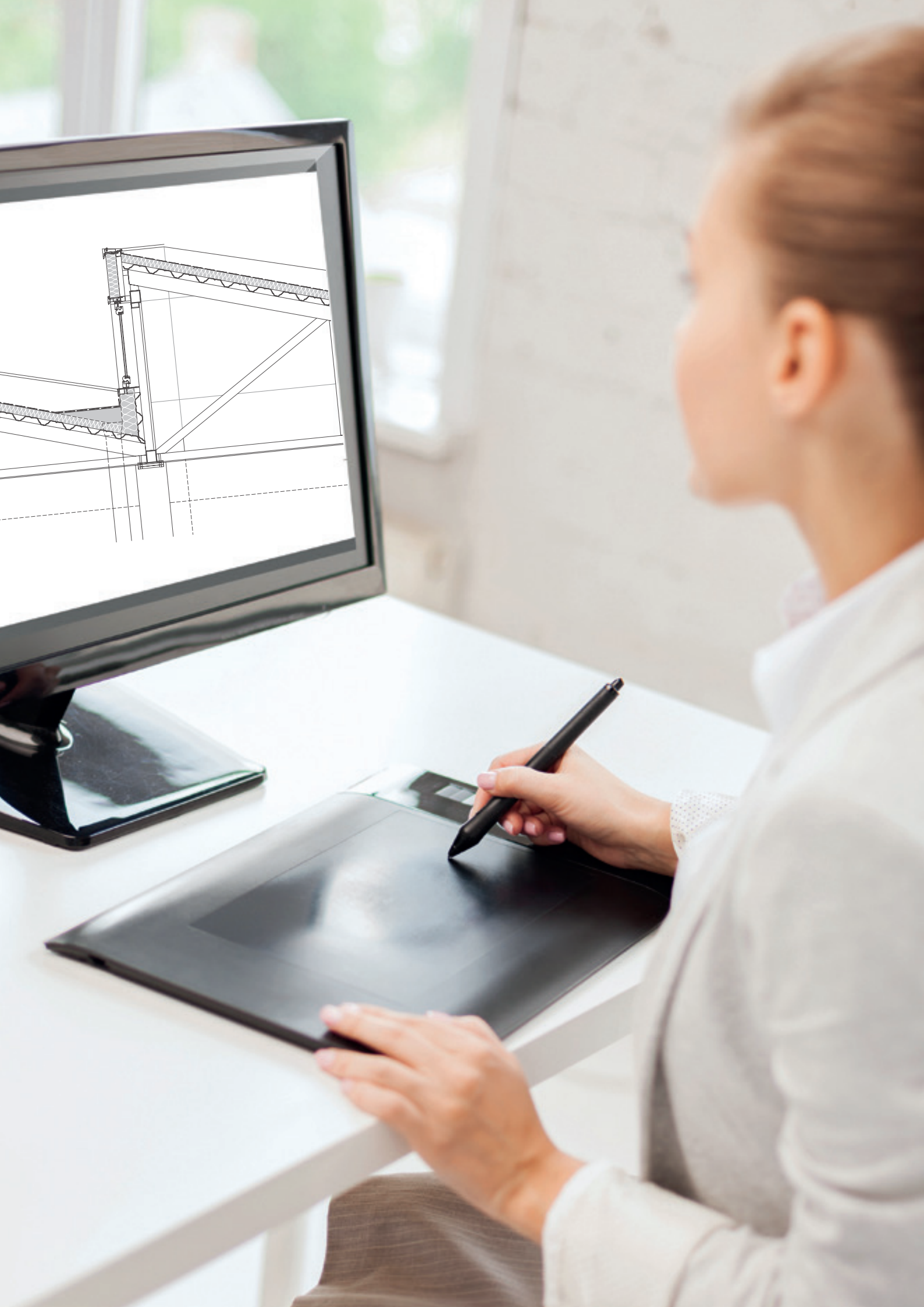




## Qbiss One lighting solution

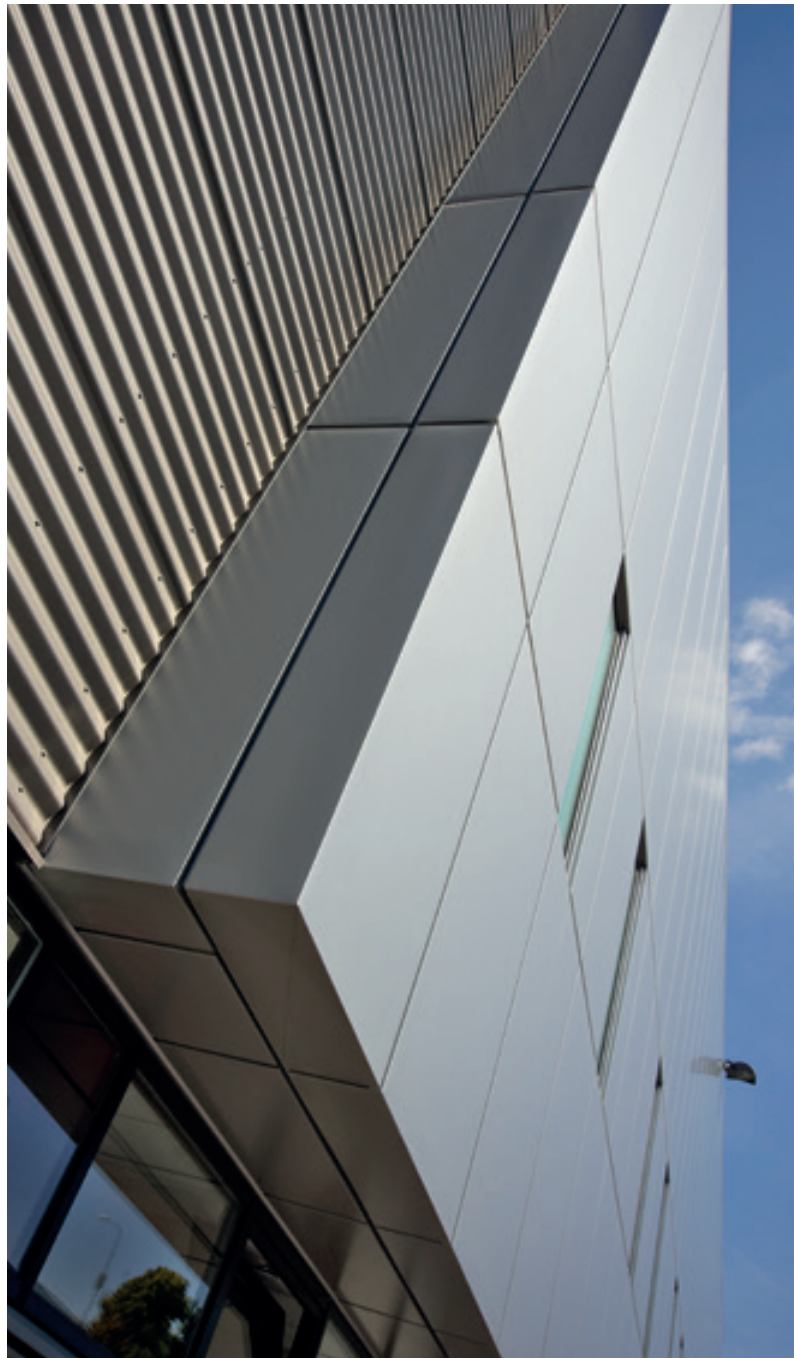
Qbiss One Lighting solution is a pre-fabricated element with integrated LED lights. Low-energy, efficient and long-lasting the LED lights are available in a wide spectrum of colours and hues for the greatest number of applications. Modular and integrated Qbiss One lighting solution is compatible with all Qbiss One elements for seamless integration and aesthetics. The LED lights can be installed in both horizontal and vertical joints for creative as well and functional possibilities.





## Special solutions

Architects do not limit themselves to the demands of the building envelope, more they wish to expand into the total construction extending the look and feel and their vision to the total building. Why not take designs that are proven to work physically and artistically into the interior, to the roof, the ceilings or to custom-designed corners. There is a wide area of opportunity open, it is just a question of how and when to use it.







| McLaren Production Centre





# TOTAL WALL SOLUTION

Qbiss One system brings all the necessary components of total wall (from inside out) solutions.

Elements are self-supporting, bearing their own loads so as not to transfer loads to the next element and beyond. The maximum allowable span is 6.5 meters without any intermediate support, which reduces costs through shorter construction times and less material.

Qbiss One elements are custom-made according to requirements. There is no need for on-site cutting or any other post-production modification.

## Cost-effective

Self-supporting; it eliminates the need for any additional support or substructure, as well as reducing build time. No brick or concrete wall is needed.

As the system is fully prefabricated, integrating more than 95% of the necessary parts, it offers significant advantages in comparison with a standard rain screen solution: it's faster, easier, better and quality controlled.



### Total wall solution:

- Cost saving - self-supporting elements no additional wall is needed
- Peace of mind - elements, pre-fabricated under controlled conditions for rapid and efficient site installation
- Time saving - up to 30% faster assembly in comparison to typical rain screen facade

## Qbiss One system vs Rain screen system



### Qbiss One system

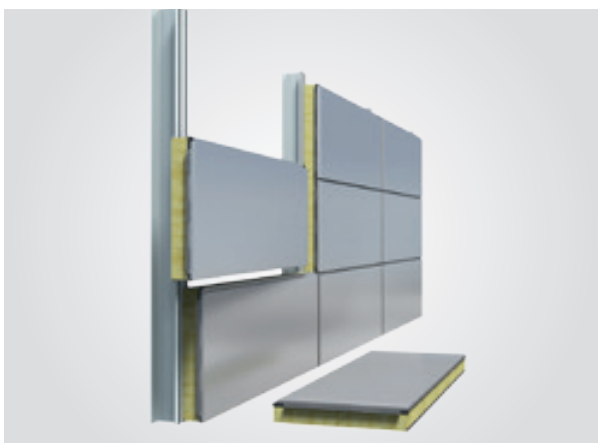
✔ Qbiss One features a unique rounded corner which is formed in a simple operation eliminating any cuts, folds or welds. State-of-the-art production techniques ensure exceptional element flatness.

✔ Qbiss One elements are self-spanning with no requirement for secondary support sections. Maximum element span is 6.5 meters.

✔ All elements are prefabricated and produced on an automated, robotic production line. Prefabrication process saves time and cost of construction on site.

✔ The integral non-combustible insulation forms a continuous blanket throughout the envelope system ensuring no direct cold bridges and excellent acoustics.

✔ The full system including integrated windows is tested to CWCT standards ensuring air and water tight envelope.



| Qbiss One system



### Rain screen system

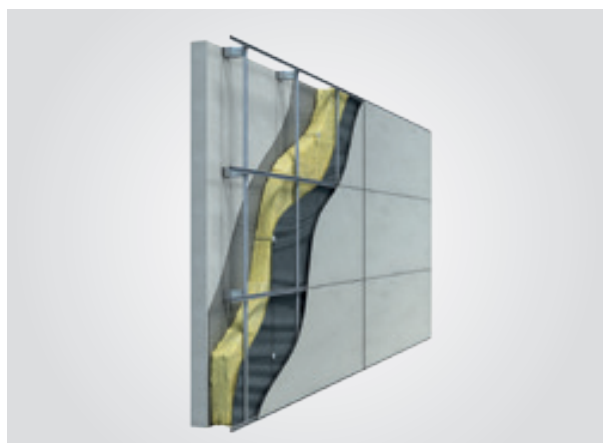
✘ Corners formed by cutting and folding create a potential weather ingress point and are less aesthetically pleasing compared to a corner formed as a one part process.

✘ Rain screen system has limited spanning capability and require stiffeners to increase spans. Stiffeners are often visible on the front face during certain weather conditions.

✘ Rain screen system consists of an inner wall, insulation, a cavity, and an outer skin. Structural penetrations are potential water ingress points as well as cold bridges.

✘ Rain screen system are a two-wall multi - component installation, often by two different fixing teams. This is costly and not always a continuous operation as well as extends the activities and construction time on site.

✘ Rain screen system often suffers from the external and internal walls having different thermal expansions which can cause excessive movement leading to air and water leakage at critical interface points.



| Rain screen system

# MAXIMUM SAFETY

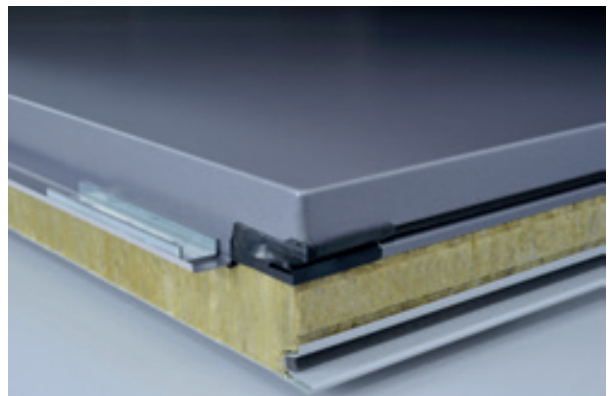
## Fire safety

Element's core is made of mineral wool, which is class A1 non – combustible and does not add any energy to fire. The entire façade system has an A2 classification and assures two hours fire resistance (integrity and insulation) with a thickness of 133 mm.



## Non Toxic smoke

Non – combustible insulation materials, like mineral wool, do not emit toxic smoke, which is acknowledged to be the major cause of death in instances of fire and not the fire itself.



## Guarantee

Qbiss One offers ultimate corrosion protection with Colorcoat Prisma® by Tata Steel for up to 30 years via its Confidex® Guarantee.

## Insurance

Qbiss One facade systems has been tested and approved to Factory Mutual (FM 4880, FM 4881) and Loss Prevention Certification Board (LPS 1208), standards to comply with property insurers risk requirements.



### Maximum safety:

- Fire resistance class up to EI 120
- Confidex® Guarantee by Tata Steel for up to 30 years offers full remedial action in the unlikely event of coating failure.



Colorcoat Prisma® is available with the Confidex® Guarantee for solid and metallic colours for up to 30 years, and matt colours for up to 25 years - in Zone 1 areas and is the most comprehensive guarantee for pre-finished steel in Europe. No requirement for any inspections or maintenance to validate the guarantee.



# ACTIVE SUSTAINABILITY

Qbiss One was developed with sustainability in mind, with all manufacturing processes designed to minimise emissions and energy usage and with products engineered with end-of-life recycling built-in.

## Energy efficiency

Qbiss One façade system was designed to provide a comfortable living environment in accordance with the requirements of physical construction conditions in buildings. Qbiss One systems, with mineral wool insulation, achieve values of  $0.16 \text{ W/m}^2\text{K}$  at 240 mm thickness.

## Air and water tightness

Tested to the most demanding conditions of **CWCT standards**, Qbiss One façade system provides a superior air and water tight envelope. Qbiss One also passed the tough FM 4881 hurricane test.

## Recyclability and emissions

Qbiss One façade system is made of environmentally friendly materials, is 98% recyclable and has a low  $\text{CO}_2$  footprint of just  $44 \text{ kg/m}^2$  (LCA) during the lifetime of the building, whilst also delivering a pleasant working environment.



### Active sustainability:

- 98% recyclable product
- $\text{CO}_2$  footprint of just  $44 \text{ kg/m}^2$
- high energy efficiency down to  $0.16 \text{ W/m}^2\text{K}$



## SUPPORT AND CONSULTING



From an initial idea to the final implementation: Qbiss team supports you throughout every phase of your architectural project. Qbiss expert team is a partner you can count on to provide comprehensive support throughout the entire duration of your project: from planning and purchasing to project management and creation, as well as flawless implementation.

Individual solutions: Qbiss expert team provides you with special product solutions designed to perfectly suit your project.

Support and consulting:

t: + 386 (0)7 34 60 328

e: [qbiss.one@trimo-group.com](mailto:qbiss.one@trimo-group.com)

### **Building Information Modelling (BIM)**

Building Information Modelling (BIM) enables quick, precise, and aesthetically perfected production of façade cladding in a 3D virtual environment together with an overview of the parameters, information, and advantages of the chosen system. It also speeds up the communication in the initial design phase.

To support and speed up the building design process Qbiss One objects are available in the BIM library for ArchiCad and Revit design software.

Qbiss One BIM library is available on [www.trimo-group.com](http://www.trimo-group.com)

# TECHNICAL SPECIFICATION

	Q-80	Q-100	Q-120	Q-133	Q-150	Q-172	Q-200	Q-240
<b>Thickness (mm)</b>	80	100	120	133	150	172	200	240
<b>Weight Qbiss One B (kg/m<sup>2</sup>)</b>	21.6	24.1	26.5	27.7	30.1	32.8	36.1	40.9
<b>Weight Qbiss One F (kg/m<sup>2</sup>)</b>	21.4	23.8	26.2	27.4	29.8	32.5	35.8	40.6
<b>U Thermal transmittance (W/m<sup>2</sup>K)*</b>	0.49	0.40	0.33	0.30	0.27	0.24	0.20	0.17
<b>Fire resistance class</b>	/	EI 30	EI 90	EI 120	EI 120	EI 120	EI 120	EI 120

<b>Weight Qbiss One B Power T (kg/m<sup>2</sup>)</b>	18.3	20.2	22.0	23.4	24.7	26.7	29.2	32.8
<b>Weight Qbiss One F Power T (kg/m<sup>2</sup>)</b>	18.2	20.0	21.8	23.2	24.5	26.5	29.0	32.6
<b>U Thermal transmittance (W/m<sup>2</sup>K)* Qbiss One Power T</b>	0.45	0.36	0.30	0.28	0.25	0.21	0.19	0.16
<b>Fire resistance class Qbiss One Power T</b>	/	/	EI 90	EI 120	EI 120	EI 120	EI 120	EI 120

<b>Weight Qbiss One B Power S (kg/m<sup>2</sup>)</b>	20.2	22.5	24.8	26.6	28.2	30.8	33.9	38.5
<b>Weight Qbiss One F Power S (kg/m<sup>2</sup>)</b>	20.0	22.3	24.6	26.4	28.0	30.6	33.8	38.3
<b>U Thermal transmittance (W/m<sup>2</sup>K)* Qbiss One Power S</b>	0.50	0.41	0.34	0.31	0.28	0.24	0.21	0.17
<b>Fire resistance class Qbiss One Power S</b>	/	EI 30	EI 90	EI 120	EI 120	EI 120	EI 120	EI 120

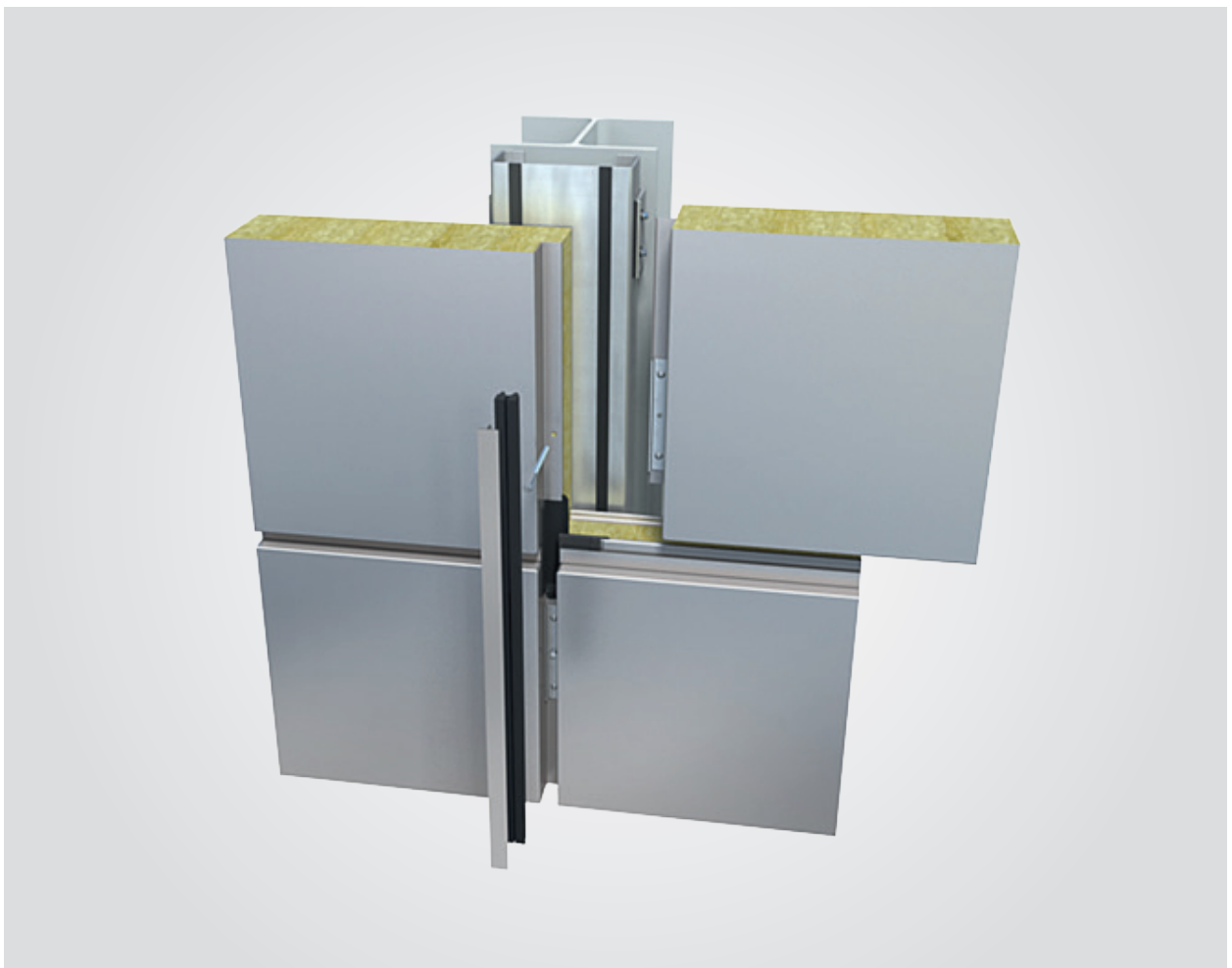
<b>Insulant core</b>	non-combustible mineral wool Class A1
<b>R<sub>w</sub> Sound reduction (EN 10140-3)</b>	30 [-1, 3]
<b>Length</b>	530 - 6500 mm
<b>Modular width</b>	1000 (available from 600 to 1200)
<b>External profile</b>	G - smooth
<b>Internal profile</b>	g, s, v, v2, m2 - profile
<b>Water permeability</b>	Class A (1200 Pa)

\* For specific project data refer to Technical CE specification data and contact Trimo Technical Support. Calculated according to EN 14509 standard without consideration of longitudinal joint losses.



# SYSTEM

Qbiss One brings a system approach to the building envelope by uniting all the desired functional advantages of high quality facades with the very best aesthetics. It presents the ultimate combination of aesthetics, design and function. With all elements prefabricated and manufactured by the latest automated technology, it delivers a long-term building solution.



**The system's main components are:**

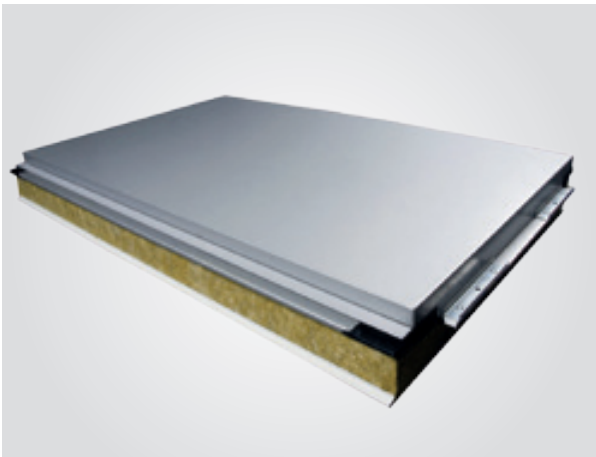
- Modular façade elements
- Fixing and sealing material
- Architectural performance details
- Corner elements
- Sub-structure (optional)
- Windows and doors (optional)



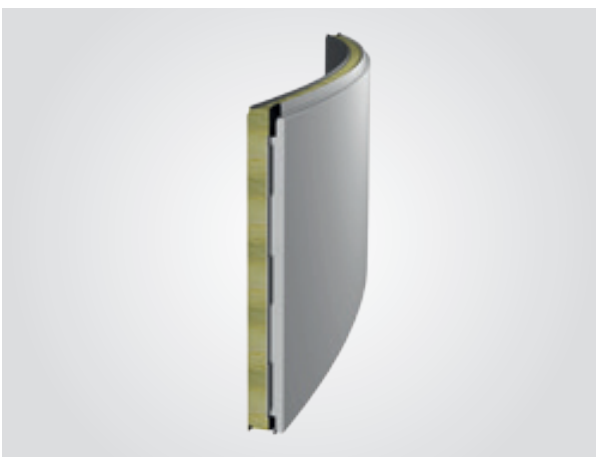
## Modular façade element

The basic Qbiss One pre-fabricated modular façade element consists of two galvanised and pre-finished steel sheets bonded to a non-combustible mineral wool core. All layers together make a solid element of thickness ranging 80 – 240 mm. Qbiss One is available in either totally flat or curved options. When there is no need for insulation Qbiss One is available also as a rain screen (Qbiss One S).

### Qbiss One – flat modular façade element

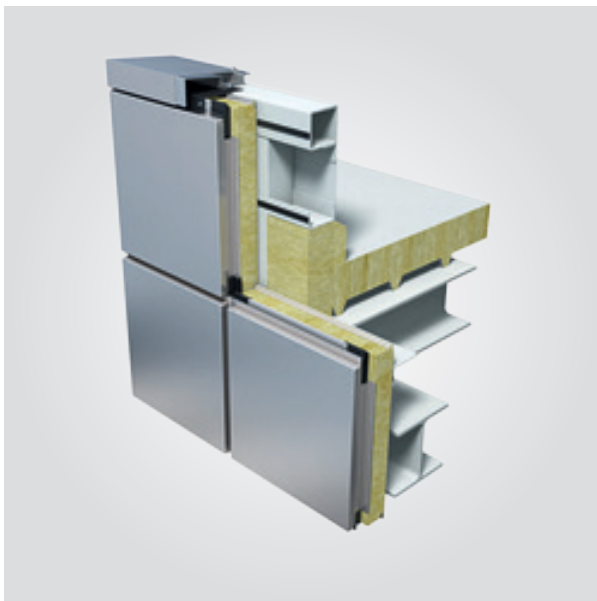


### Qbiss One – curved modular façade element

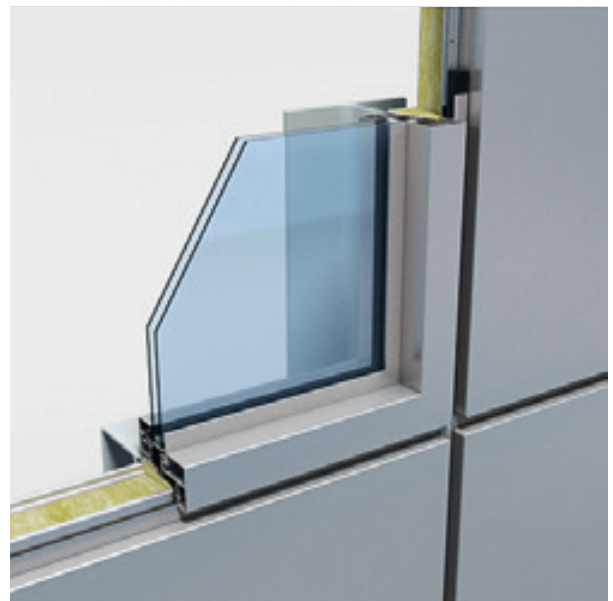


## Architectural performance details

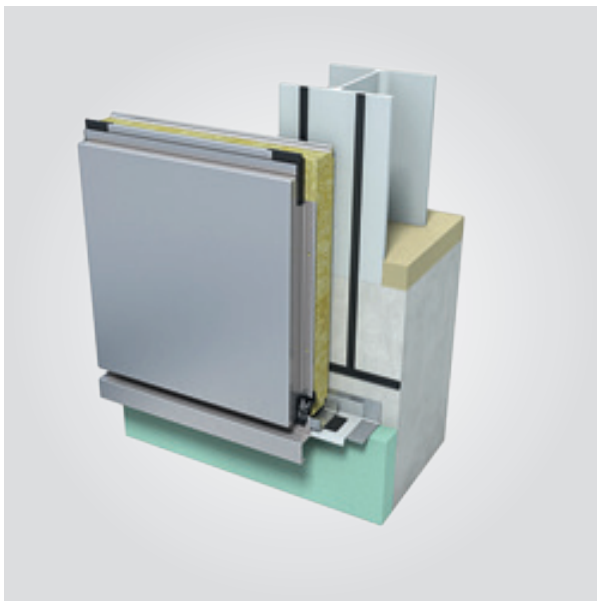
Qbiss One is complemented with the full scope of architectural detail solutions. These solutions not only increase design efficiency, but shorten the project design process, as well as ensuring the stunning appearance of the building with more than 500 different typical details available. There is also the ability to create bespoke details for specific requirements and special project requirements can be met.



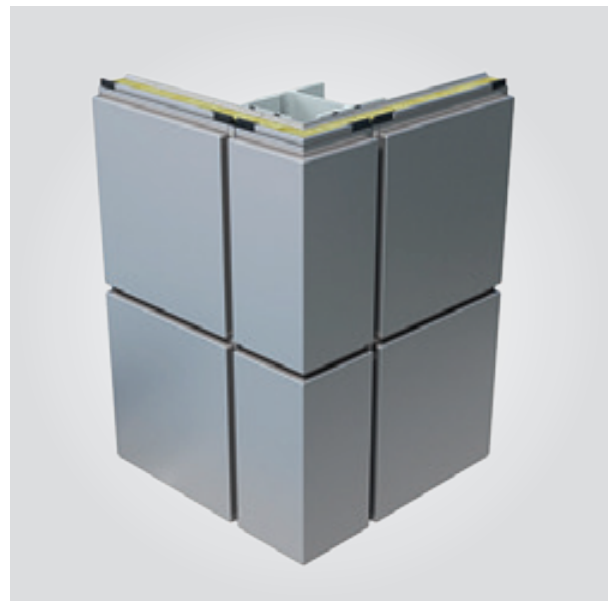
| Top parapet detail



| Window fixed glass



| Base parapet detail



| Corner detail





# COMPANY PROFILE

Qbiss One is a product brand of Trimo.

Trimo is one of the leading providers of building envelope solutions. With over 50 years of experience and worldwide realized projects, its engineering, production and sales teams provide efficient, innovative and sustainable solutions to meet your demands.

Trimo sells its products and services under its own brand across more than 50 countries worldwide. Trimo has a sales network in more than 25 countries and has production facilities in Slovenia and Serbia.

## Trimo's product brands:



| Q-Air, Glass Curtain Wall System



| Trimoterm, Fireproof Roofs and Façades



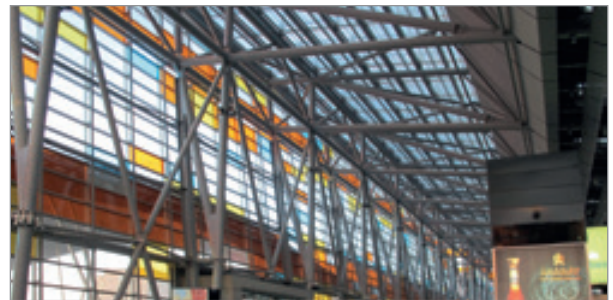
| Qbiss One, Metal Modular Façade System



| Trimo Modular Space Solutions



| Qbiss One with ArtMe, Design Solution



| Trimo Steel Construction



# REFERENCES

## AUTOMOTIVE

McLaren Production Centre, UK  
Porsche Car Showroom, BE, NL, DE, RU, KZ  
Musa Motors, RU  
Renault Car Showroom, CH  
Mercedes-Benz Car Showroom, UK  
Mercedes-Benz Car Factory, HU  
Mercedes-Benz Truck Service Centre, CH  
Land Rover Car Showroom, RU

## PUBLIC

Winifred Holtby and Tweendykes school, UK  
East Blackburn Learning Community, UK  
Jodrell Bank Centre for Astrophysics, UK  
Faculty of Medicine, University of Ljubljana, SI  
University Hospital of Wales, UK  
Vialia High-Speed Train Station, ES  
New York University, AE  
Concert Hall in Novosibirsk, RU  
Data Centre, UK  
High School Deutenberg, DE  
First Street Cultural Centre, UK  
CWK Congress Centre, PL  
Main Post Office Zemun, RS

## PRODUCTION & LOGISTIC

Knorr-Bremse Production Facility, HU  
Lego Production, CZ, HU, MX  
Coca Cola Single Ireland Production Site, IE  
DHL Centre, NL  
PartyRent Logistic Centre, DE  
Rewe Logistic Centre, DE

## AVIATION

Heathrow Airport, UK  
Gatwick Airport, UK  
Zvartnots Airport, AM  
Lufthansa Technik AG Hamburg, DE  
Airbus Escuela de Pilotos, ES  
Rolls-Royce Engine Facility, UK  
Luton Airport, UK

## SPORTS

Football Stadium PGE Arena Gdansk, PL  
Municipal Stadium Poznan, PL  
Hockey Stadium Ondreja Nepela Arena, SK  
Emirates Arena and Sir Chris Hoy Velodrome, UK  
Swimming Pool Pardubice, CZ

## OFFICE

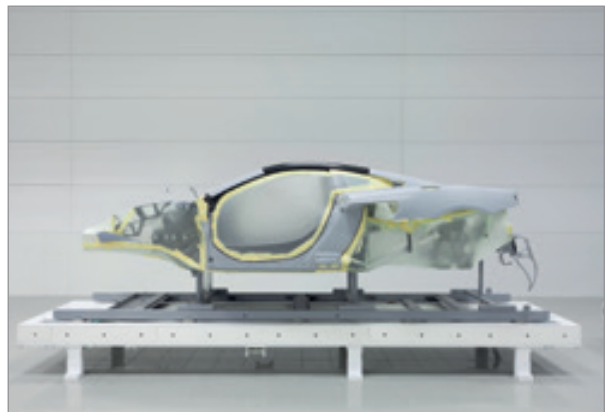
Munsters Metaal Helmond Office Building, NL  
Belimed Office Building, SI  
Meyn Head Quarters, NL  
Indigo Blue Business & Residential Centre, UK

## RETAIL

Shopping Centre C.C. Factory, ES  
Shopping Centre Domodedovo, RU  
Galeria Ostrovia, PL  
Shopping Centre Rock, UK  
OBI Centre, RU  
Yas Mall, AE  
West Centre Graz, AT  
Stöcker Fashion House, AT  
Eurotorg Shopping Centre, BY

## McLaren Production Centre





Location: United Kingdom  
 Year of completion: 2011  
 Architect: Foster + Partners  
 Product: Qbiss One F



## Porsche Car Showroom







Location: Belgium  
Year of completion: 2011  
Architect: AAVO Architects  
Product: Qbiss One B

## Football Stadium PGE Arena Gdansk







Location: Poland  
 Year of completion: 2011  
 Architect: RKW Rhode Kellermann Wawrowsky  
 Product: Qbiss One B

## Hockey Stadium Ondreja Nepela Arena







Location: Slovakia  
Year of completion: 2011  
Architect: Fischer Atelier  
Product: Qbiss One B

## Emirates Arena and Sir Chris Hoy Velodrome







Location: United Kingdom  
Year of completion: 2012  
Architect: 3DReid  
Product: Qbiss One B



## High School Deutenberg







Before



After



Location: Germany  
 Year of completion: 2011  
 Architect: Becker Ellenberger  
 Architekten  
 Product: Qbiss One

## East Blackburn Learning Community





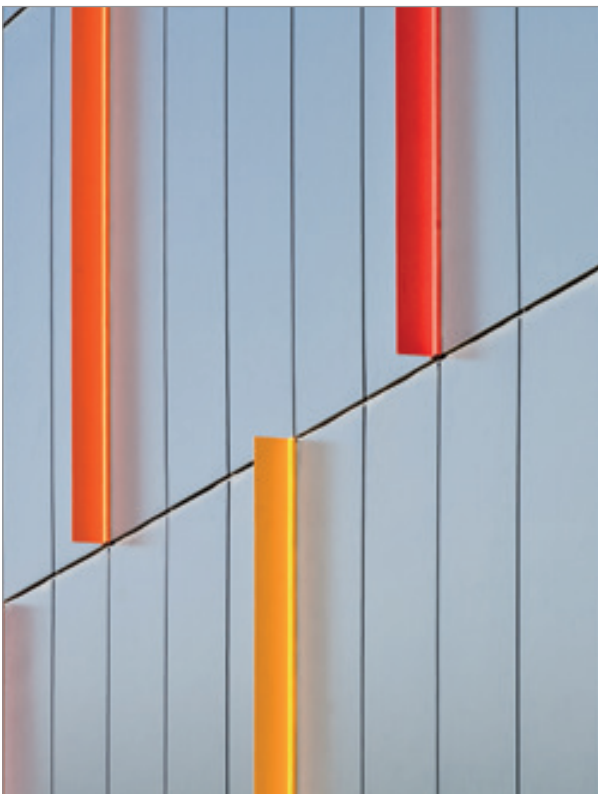
Q

Location: United Kingdom  
 Year of completion: 2012  
 Architect: Nicholas Hare Architects  
 Product: Qbiss One B, Qbiss One F, ArtMe



## Vialia High-Speed Train Station





Location: Spain

Year of completion: 2010

Architect: Métrica Tip Arquitectura

Product: Qbiss One B

## Heathrow Airport Terminal 2 Concourse B



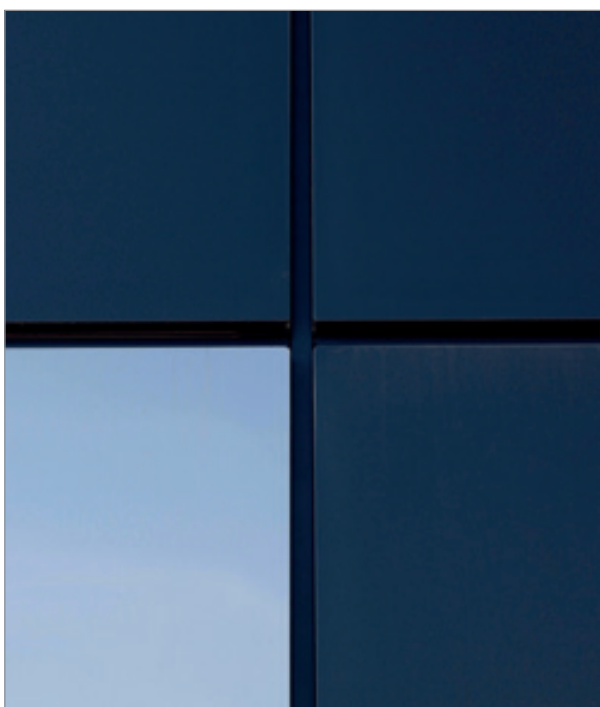




Location: United Kingdom  
Year of completion: 2009  
Architect: Grimshaw Architects  
Product: Qbiss One B

## Shopping Centre C.C. Factory Outlet





Location: Spain  
 Year of completion: 2011  
 Architect: Rosa López  
 Product: Qbiss One B



## Shopping Centre Domodedovo





Location: Russia

Year of completion: 2011

Architect: Jupatov Jury Dmitryevic

Product: Qbiss One B

## Mercut Manufacturing Hall







 Location: Czech Republic  
Year of completion: 2011  
Architect: Nextlevel Studio  
Product: Qbiss One B



## Schuh Marke Zentrale Logistic Centre





Location: Germany  
 Year of completion: 2012  
 Architect: \*marcbetz architektur  
 Product: Qbiss One B



## Munsters Metaal Helmond Office Building





Location: The Netherlands  
 Year of completion: 2010  
 Architect: Architectenburo Joosten BNA  
 Product: Qbiss One B



## CWK Opole Congress Centre







Location: Poland  
Year of completion: 2013  
Architect: Archimental S.C.  
Product: Qbiss One B

## PartyRent Logistic Centre





Location: Germany  
Year of completion: 2013  
Architect: Jarosch Architektur Darmstadt  
Product: Qbiss One B



## Stöcker Shopping Centre





Location: Austria

Year of completion: 2013

Architect: F2-Architekten ZT GmbH

Product: Qbiss One B



**Trimo d.o.o.**

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