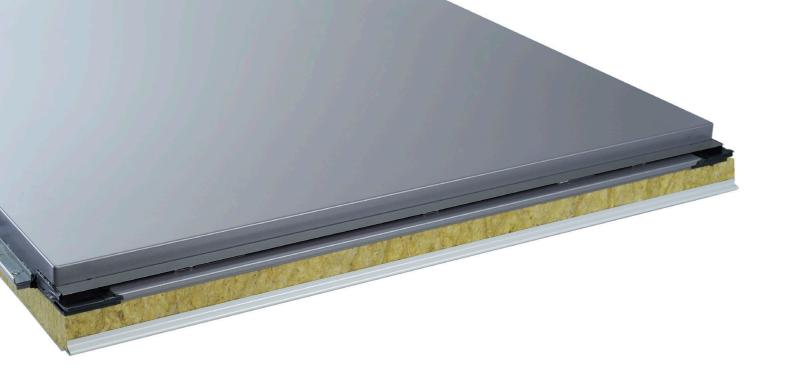
### TRIMO MO QBISS ONE





RE





# Prefabricated architectural wall.

Qbiss One is a design and technological breakthrough. An architectural metal wall offers a true alternative to conventional built-up system. Qbiss One delivers the greatest freedom of expression and offers designs of almost limitless possibilities.

Qbiss One is a world-class engineered, prefabricated, class A1 mineral wool-insulated, metal façade system that offers a through wall solution within a single construction element. Façade elements with closed corners, unmatchable flatness and advanced technical characteristics place Qbiss One among the best façade systems in the world

It brings a system approach to the building envelope by uniting all the desired functional advantages of high-quality wall systems with the best aesthetics. The combination of aesthetics, design and function are all united in one system.

### Contents.

| + composition                    | 4  | Fewer layers. More beauty.                             |  |  |  |  |  |
|----------------------------------|----|--|--|--|--|--|--|
|                                  | 5  | 100% prefabricated, cut-to-size and ready to install.  |  |  |  |  |  |
|                                  | 6  | Get the most from your façade.                         |  |  |  |  |  |
|                                  | 8  | Imagine perfectly rounded corners.                     |  |  |  |  |  |
| + fire                           | 10 | An hour of fire resistance would be great. Here's two. |  |  |  |  |  |
|                                  | 11 | Wrapped in a warm embrace.                             |  |  |  |  |  |
| • joint and installation options | 12 | Countless ways to arrange your façade.                 |  |  |  |  |  |
|                                  | 13 | Countless ways to install your façade.                 |  |  |  |  |  |
| + accessories                    | 14 | An absurd amount of design control.                    |  |  |  |  |  |
| + decorative profiles            | 16 | Give your façade a compliment.                         |  |  |  |  |  |
| + artme                          | 18 | ArtMe. A breath of fresh innovation.                   |  |  |  |  |  |
| + colour range                   | 20 | Nothing beats our colour range.                        |  |  |  |  |  |
| + value preposition              | 22 |  |  |  |  |  |  |
| + utilising qbiss one            | 24 |  |  |  |  |  |  |
| + references                     | 26 | Building overview and index.                           |  |  |  |  |  |
| + associated                     | 43 | Documents supporting the Qbiss One story.              |  |  |  |  |  |

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Qbiss One façade element consists of two galvanized and pre-finished steel sheets bonded to non-combustible class A1 mineral wool core. All layers together make a solid element of thickness ranging from 80 mm to 250 mm. Qbiss One is available in either flat or curved options.

Preinstalled gaskets prevent water from entering the system, drip element serves as a secondary protection and drains water out of the system, whilst a decorative T-extrusion defines the colour of the joint and together with transversal gasket covers the fixing elements and protects against water ingress.

### 100% prefabricated, cut-tosize and ready to install.

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

Elements are self supporting, bearing their own loads to eliminate transferring 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 load-bearing structural requirements.

Elements are custom-made according to requirements. There is no need for onsite cutting or any other post-production modification and quality control.

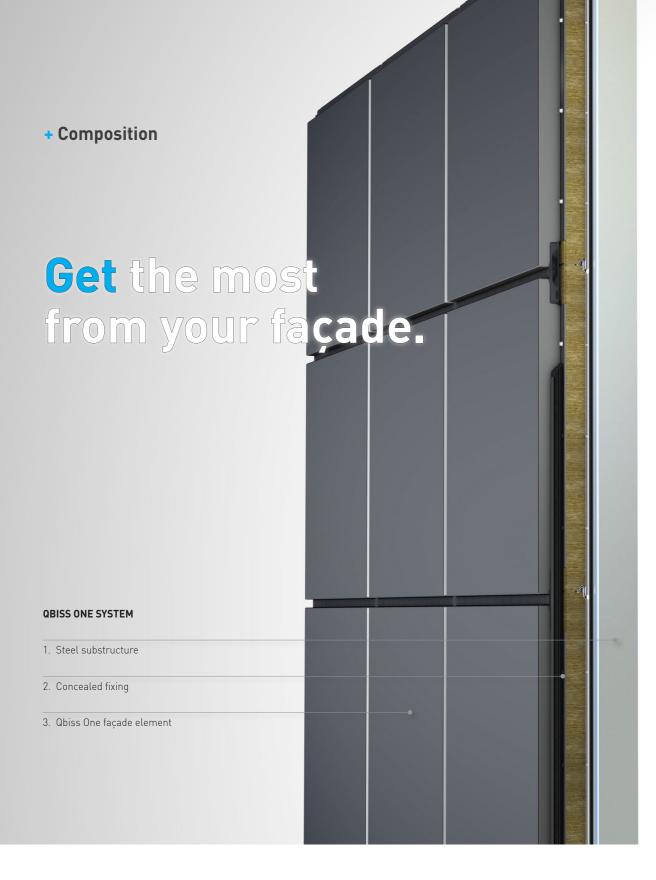


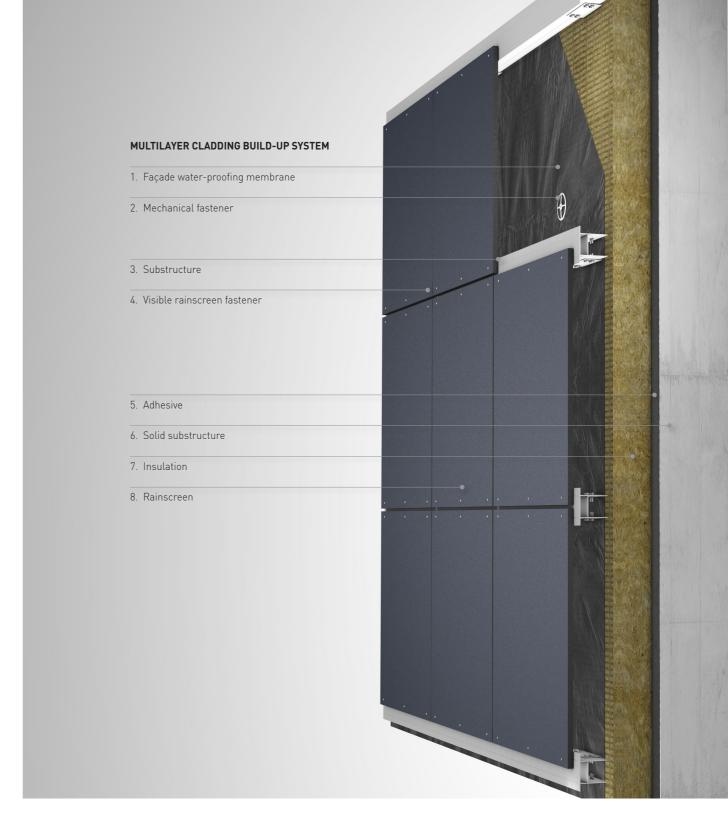
Qbiss One is aesthetically plaesing, with outstandingly flat surface and crisp details. In particular, rounded corners are made without any cuts, welds or folds.

#### **Prefabrication advantages**

As the system is fully prefabricated, integrating more than 95% of the necessary parts, it offers significant advantages in comparison with a standard rainscreen solution: it's faster, easier, more efficient.





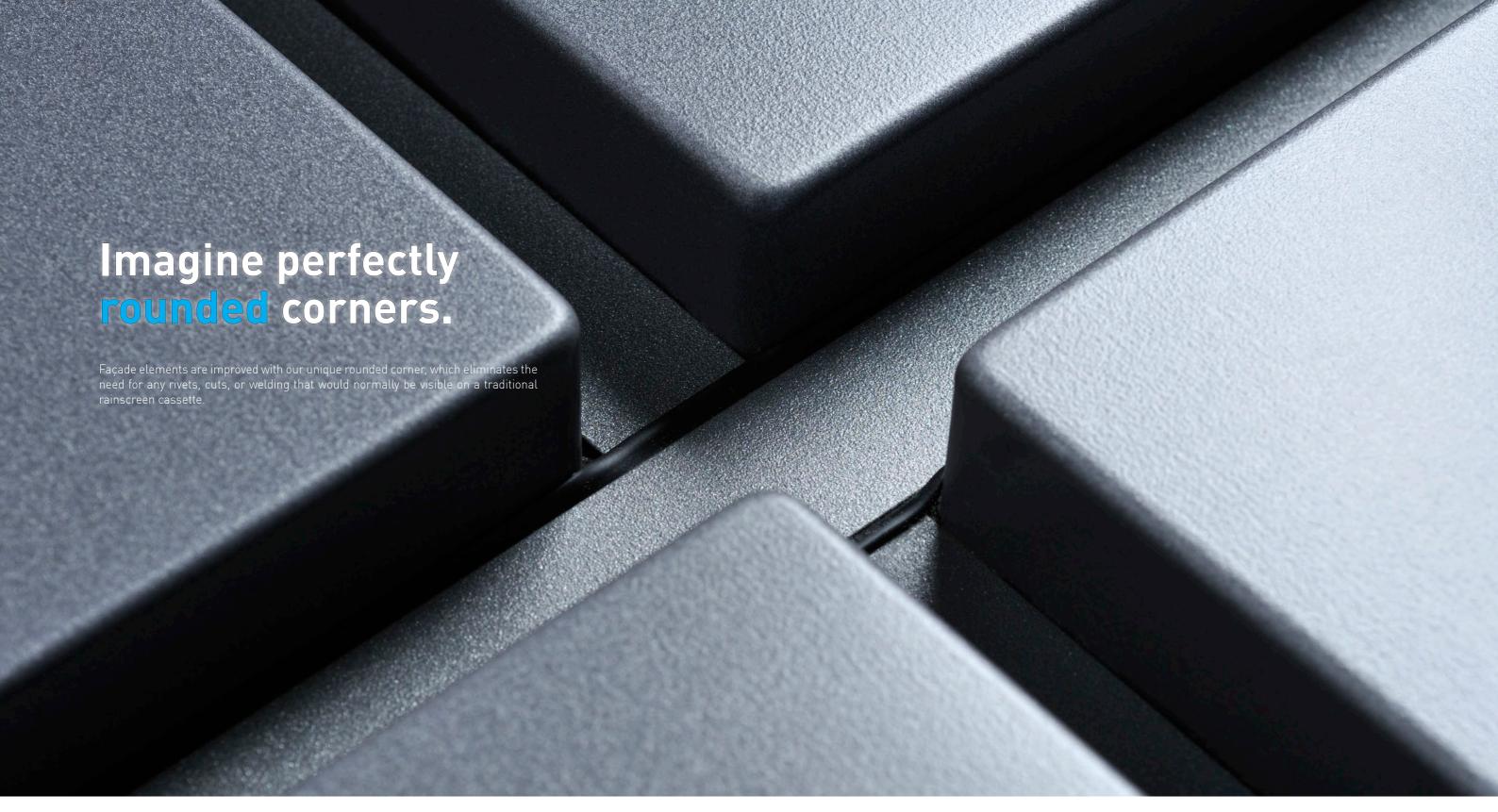


#### QBISS ONE FEATURES QBISS ONE BENEFITS

| Water and air tightness    | Superb workplace climate   |
|----------------------------|--|
| Tailored project solutions | Optimal cost solution, passion, creativity                                 |
| BIM libraries              | Smooth collaboration, reduced errors and conflicts, project visualisations |
| 99% recyclable             | Environmentally friendly material with at least 13% recycled content       |
| Flexible warranties        | Robust, durable and high quality coatings                                  |

#### QBISS ONE FEATURES QBISS ONE BENEFITS

| Total wall solution     | Save time & money by choosing only one supplier             |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|
| Self supporting         | Elements up to 6,5 m long                                   |  |  |  |  |  |
| Prefabricated           | Regular quality control, produced in controlled environment |  |  |  |  |  |
| Mineral wool insulation | High level of fire resistance, non-combustibility           |  |  |  |  |  |
| Rounded corner          | No cuts, no welded edges, no leakage and corrosion          |  |  |  |  |  |

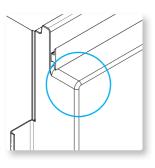




Closed element corners advantages:

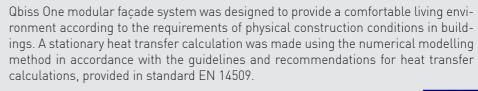
- Without cuts
- Without folds
- Without welds
- Without rivets
- No corrosion
- 100% protected steel sheet

Qbis One closed element corner

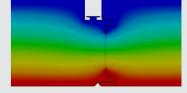


Qbiss One modular façade system was designed to provide a comfortable living environment according to the requirements of physical construction conditions in buildings. A stationary heat transfer calculation was made using the numerical modelling

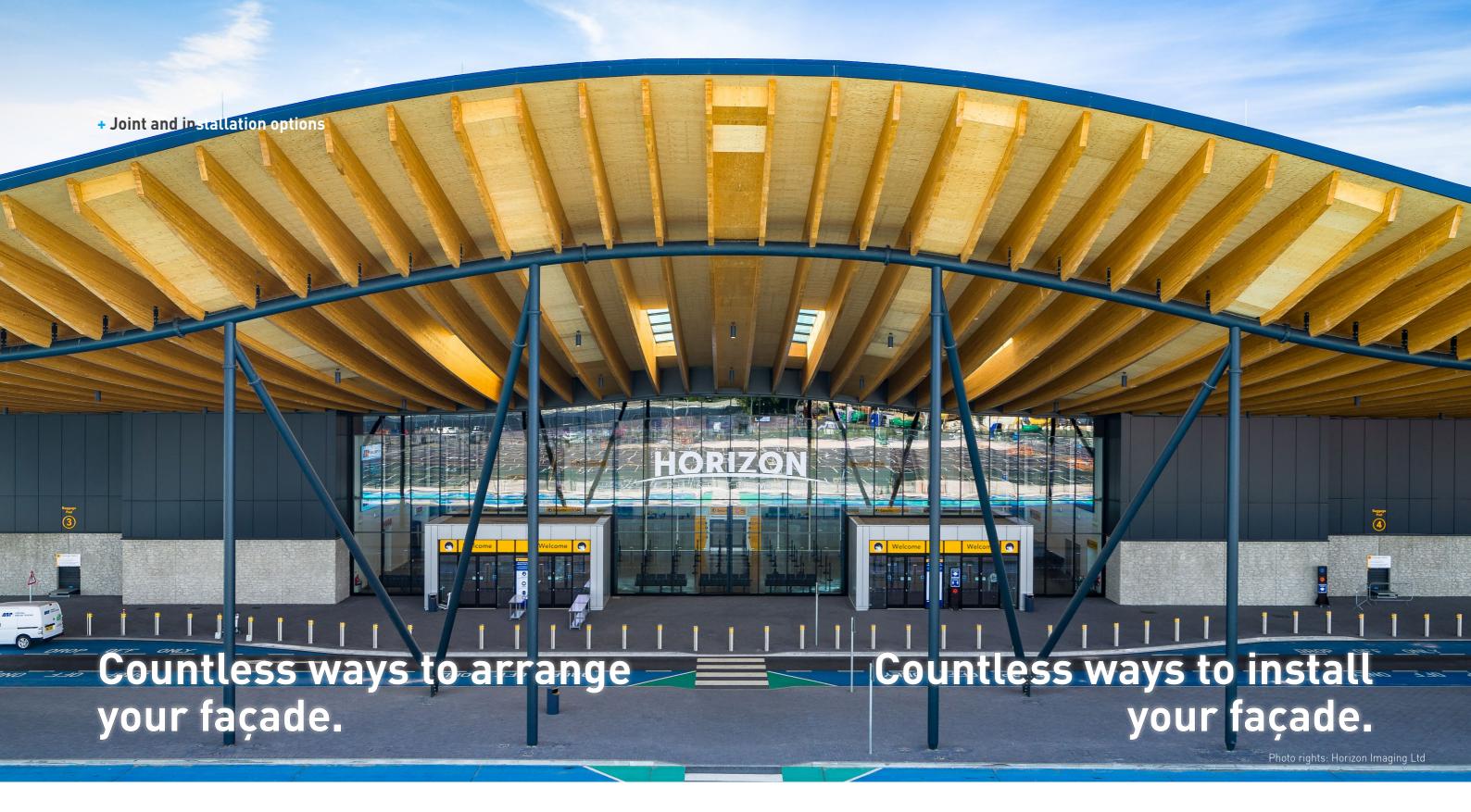
Thermal transmittance (U) of only 0,15 W/m<sup>2</sup>K with the 250 mm thick elements.



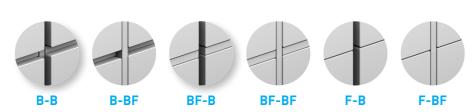
An hour of fire resistance would be great. Here's two.



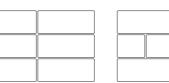
Wrapped in warm embrace.

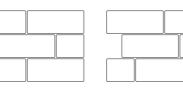


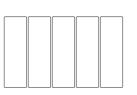
Qbiss One delivers the greatest freedom of expression. It enables you to create a unique aesthetic for the building by using different types of joints between elements. A playground for architects and a tool to show the world the excellence of design.

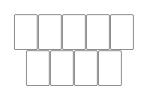


To give architects the freedom to express their style when choosing Qbiss One façade elements / system, we developed elements, that can be installed in many different orientations.









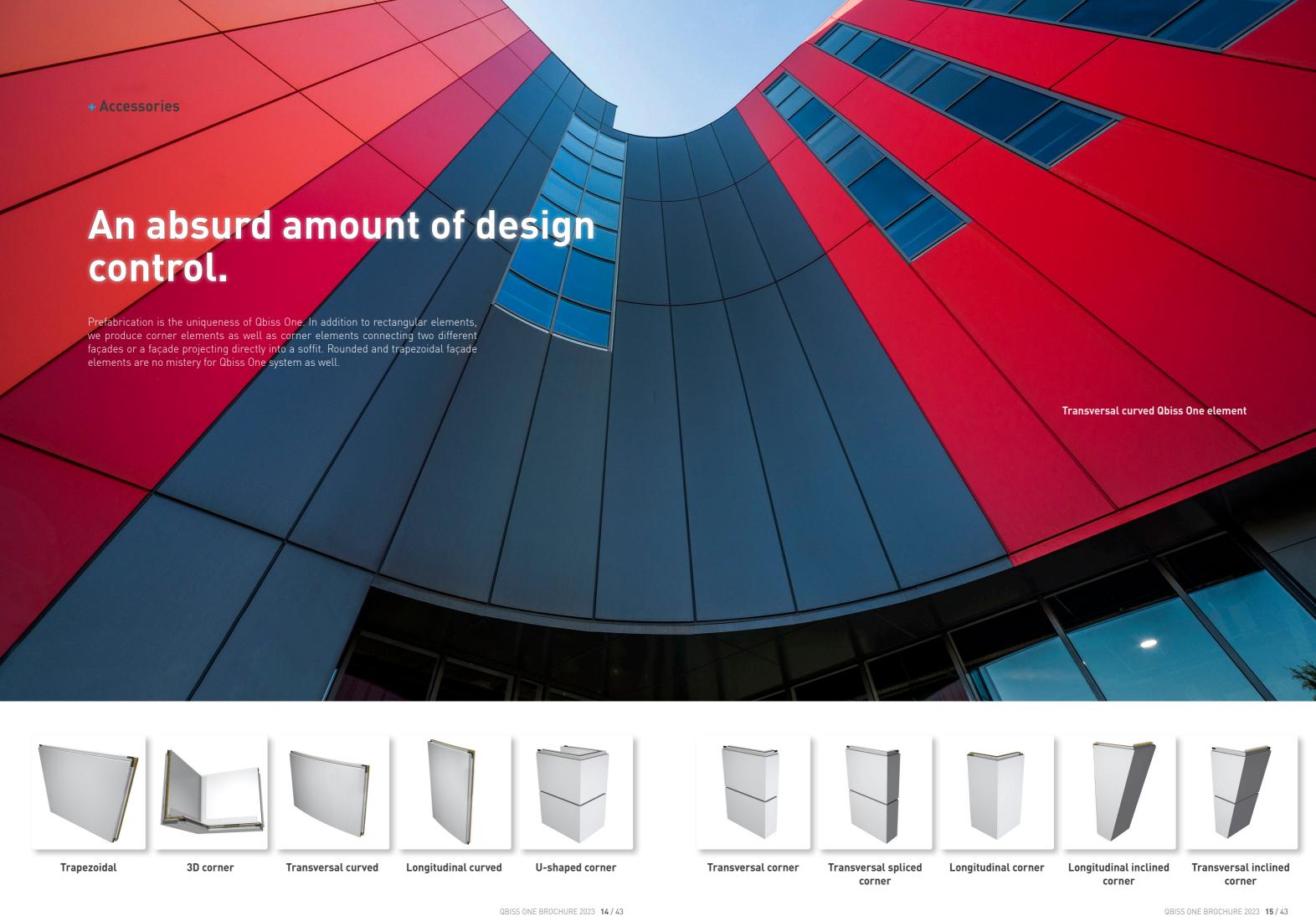
Horizontal

Horizontal brick

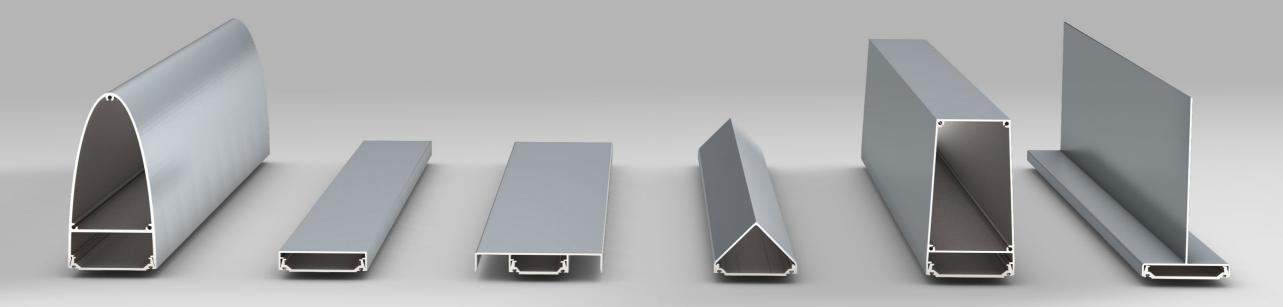
Asymmetrical brick

Vertical

Vertical brick

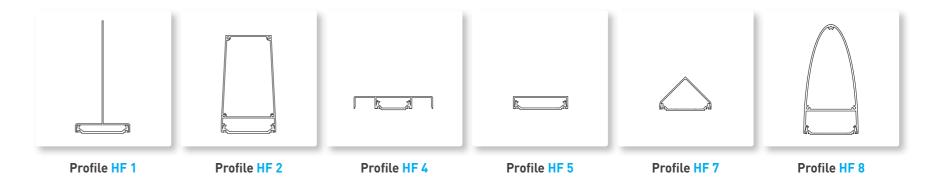


#### Decorative profiles



## Give your façade a compliment.

The range and the variety of decorative elements caught our attention and charm us with luxuriously decorated façades. Our aluminium decorative elements are powder coated to match the colour of your façade or you can have the option to choose your own colour as you wish.



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



Photo rights: Matej Hakár

#### Name of the building

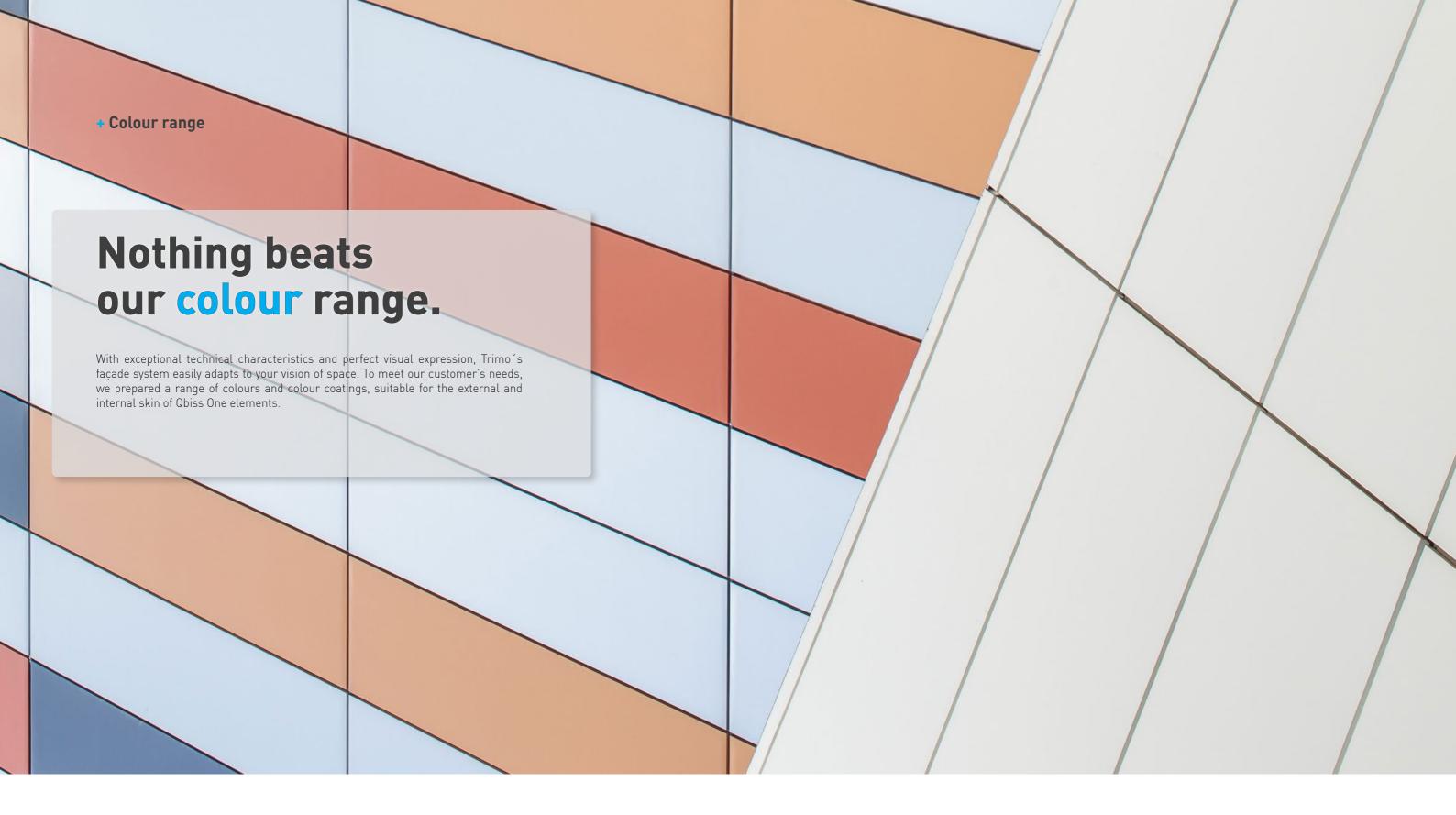
Office of Ministry of Labour Social Affairs and Family of the Slovak Republic in Nitra, Slovakia

Year

2020

#### Architectural office

Ateliér Neutra, Ing. arch. Peter Mizia







Seren Copper









Seren Black Anthracite Solet Seren Midas











Light Graphite

#### **SPECIAL METALLIC**







#### **SOLID COLOURS**







Traffic Red







**STAINLESS STEEL** 





Pelle Lucido



QBISS ONE BROCHURE 2023 20 / 43

Qbiss One façade element consists of two galvanized and pre-finished steel sheets bonded to the non-combustible A1 mineral wool core. Together with silicone gaskets and adhesive, elements are up to 99% recyclable and produced from at least 13% recycled content. It has a low CO<sub>2</sub> footprint of just 60 kg/m² during the production stage (EPD, Qbiss One, 12 December 2019).

### An infinity pool of design.

Design details not only increase design efficiency, but shorten the design process. They ensure the stunning appearance of the building with more than 500 different typical details available. To help you design with Qbiss One elements, parametric design details are avaliable to download free from our website.





Tested to the most demanding conditions of CWCT standards, Qbiss One façade system provides a superior air and water tight single wall solution. Tests have been corroborated with the latest CWCT standard performed by UKAS accredited testing laboratories. System water permeability is classified as Class A (1200 Pa).

## The ultimate drive for excellence.

From the initial idea to the final implementation: Trimo team provides support for each step of your project, from planning and architectural design to construction and handover. During the process, it is crucial to have a reliable partner.

Technical support includes visualisations, detailing, BIM support, static solutions and managing changes, information and resources. Our engineers provide structural calculations for Obiss One elements, solve non-standard technical details and calculate thermal transmittance of the façade – all precisely and in the blink of an eye.

Photo rights. One Creative Environments Ltd

OBISS ONE BROCHURE 2023 22 / 43

and trimo-ordina

#### 023

### **Built-in security.**

Qbiss One is certified as RC3 for burgular resistance. Despite many different design possibilities, the Qbisss One façade always comes ceritfied as burglar resistant. Built-in security, classified as RC3 protects all your valuables from the unexpected and violant visitors despite the many design options.

## Go ahead. We've got your back.

Qbiss One façade system provides long lasting asthetic and functional performance. The use of materials is carefully selected and the latest three layer chrome free coating technology ensures a robust and durable performance, together with high density non-combustible rock wool structural insulation core. With the extensive testing and experiences we are confident our product can be utilized for projects with a design life of up to 50 years.

Standard product warranties are 10 years and for paint coatings up to 30 years according to certain terms and conditions, location of the building, colour, and corrosion environment. Such performance makes it ideal choice for public, retail, commercial, office, residential, aviation and other types of superior aesthetic developments that are built to last.

### Added security.

Qbiss One façade system has been tested and approved to Factory Mutual (FM4880, FM4881) and Loss Prevention Certification Board (LPS1208 - fire resistance of constituent materials and LPS1181 - spread of flame), standards to comply with property insurers risk requirements.









CLADDING



650a to LPS 1208

## Can you be more precise? YES.

#### Qbiss One façade elements technical data

Qbiss One elements are differentiated based on type of mineral wool being used according to thermal insulation and structural spanning requirements.

|  |  |        |        |        | Diff. Sac. |        |        | Section 1 |        |  |  |
|--|--|--------|--------|--------|------------|--------|--------|-----------|--------|--|--|
| Thickness (mm)   | 80   | 100    | 120    | 133    | 150        | 172    | 200    | 240       | 250    |  |  |
| Use  | External walls, internal walls and ceilings                                |        |        |        |            |        |        |           |        |  |  |
| Cover width (mm)   | 600 - 1200   |        |        |        |            |        |        |           |        |  |  |
| Length (mm)*   | From 500 up to 6500  |        |        |        |            |        |        |           |        |  |  |
| External facing - profile                                      | Steel sheet, stainless steel, thickness: 0.675 - 0.80; G                   |        |        |        |            |        |        |           |        |  |  |
| Internal facing - profile                                      | Steel sheet, stainless steel, thicknesses: 0.50 - 0.80; G, V, V2, S, M, M3 |        |        |        |            |        |        |           |        |  |  |
| Coating  | Coating PVDF or PUR/PA   |        |        |        |            |        |        |           |        |  |  |
| Reaction to fire   | A2-s1, d0  |        |        |        |            |        |        |           |        |  |  |
| Water permeability (Pa - wall)                                 | Class A (1200)   |        |        |        |            |        |        |           |        |  |  |
| Air permeability (C (m³/Pa*s);n)                               | C = 0.0046; n = 0.970  |        |        |        |            |        |        |           |        |  |  |
| Water vapour permeability                                      | Impermeable  |        |        |        |            |        |        |           |        |  |  |
| Airborne sound insulation: R <sub>w</sub> (C:C <sub>tr</sub> ) | 30 (-1;-3) (dB)  |        |        |        |            |        |        |           |        |  |  |
| CORE: POWER T  |  |        |        |        |            |        |        |           |        |  |  |
| Weight (kg/m²) for 0,55mm int. skin                            | 18.7   | 20.6   | 22.4   | 23.8   | 25.1       | 27.1   | 29.6   | 33.19     | 34.1   |  |  |
| Ψ <sub>L</sub> - Longitudinal joint (W/mK)                     | 0.0456   | 0.0243 | 0.0157 | 0.0143 | 0.0096     | 0.0072 | 0.0053 | 0.0036    | 0.0034 |  |  |
| $\Psi_{\rm T}$ - Transversal joint (W/mK)                      | 0.0461   | 0.0266 | 0.0176 | 0.0141 | 0.0110     | 0.0082 | 0.0058 | 0.0041    | 0.0038 |  |  |
| U - Thermal transmittance (W/m²K)*                             | 0.46   | 0.37   | 0.31   | 0.28   | 0.25       | 0.22   | 0.19   | 0.16      | 0.15   |  |  |
| CORE: POWER S  |  |        |        |        |            |        |        |           |        |  |  |
| Weight (kg/m²) for 0,55mm int. skin                            | 20.6   | 22.9   | 25.2   | 27.0   | 28.6       | 31.2   | 34.3   | 38.9      | 40.0   |  |  |
| Ψ <sub>L</sub> - Longitudinal joint (W/mK)                     | 0.067  | 0.032  | 0.020  | 0.016  | 0.012      | 0.009  | 0.007  | 0.005     | 0.004  |  |  |
| $\Psi_{\rm T}$ - Transversal joint (W/mK)                      | 0.050  | 0.029  | 0.019  | 0.015  | 0.012      | 0.009  | 0.006  | 0.005     | 0.005  |  |  |
| U - Thermal transmittance (W/m²K)*                             | 0.50   | 0.41   | 0.34   | 0.31   | 0.28       | 0.24   | 0.21   | 0.17      | 0.17   |  |  |
| CORE: PERFORM C  |  |        |        |        |            |        |        |           |        |  |  |
| Weight (kg/m²) for 0,55mm int. skin                            | 21.1   | 23.5   | 25.9   | 27.8   | 29.5       | 32.2   | 35.5   | 40.3      | 41.5   |  |  |
| Ψ <sub>L</sub> - Longitudinal joint (W/m K)                    | 0.067  | 0.032  | 0.020  | 0.016  | 0.012      | 0.009  | 0.006  | 0.005     | 0.004  |  |  |
| $\Psi_{T}$ - Transversal joint (W/m K)                         | 0.049  | 0.029  | 0.019  | 0.015  | 0.012      | 0.009  | 0.006  | 0.004     | 0.004  |  |  |
| U - Thermal transmittance (W/m² K)*                            | 0.49   | 0.40   | 0.33   | 0.30   | 0.27       | 0.24   | 0.20   | 0.17      | 0.16   |  |  |

To get an exact Qbiss One thermal transmittance, use the following formula:  $U_{TOTAL} = \{U \times Area_{element} + \Psi_L \times Length_{element} + \Psi_L \times Length_{element} + \Psi_L \times Length_{element} \}$  / Area Real Properties of the minimum Qbiss One length is set to 550 mm and maximum Qbiss One length to 6475 mm for the element types: 5, 6, 7, 8, 9, 10, 11, 12.

QBISS ONE BROCHURE 2023 24/43 QBISS ONE BROCHURE 2023 25/43



Name of the building Etele Plaza, Hungary

Year

2021

Architectural office
Paulinyi&Partners, Group Dyer

#### Architectural office

Valeres industriebouw

Photo rights: © DAPh.nl

QBISS ONE BROCHURE 2023 **34/**43

Name of the building
Trimo top management office interior, Slovenia

Year

2021

Architectural office

Trimo d.o.o.

Name of the building Interpolis Banská Bystrica, Slovakia

Year

2022

Architectural office

Paulíny Hovorka Architekti

Year

2022

Architectural office

A-typ, architektonický ateliér, spol. s r.o.

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### Building index.

#### Germany

- Party Rent, München
- Brunner Innovation Factory
- Hear Office Dr. Grandel, Augsburg
- Finke Center Hamm
- Gasteig HP8 Isarphilharmonie
- Headquarters Heka Herzog
- Headquarters Krückemeyer GmbH
- Klingspor Headquarters
- Parkseven GmbH

#### Hungary

- Etele Plaza
- Eli Aplp Szeged Research Facility

#### Czech Republic

- <u>Hirschmann Automotive Vsetin</u>
- Kindergarden Unhošť

#### Austria

• <u>Carnaby Modeaus</u>

#### Belgium

• Porsche Centre Mechelen

#### Croatia

Business Incubator Biograd na Moru

#### Netherlands

- Industrieweg 2 te Bladel
- Kempen Cladding Bolsius
- High Tech Campus 1, Eindhoven
- Brecor
- Petrol Industries

#### Poland

- MAN Bus Starachowice
- Komfort

#### **Palestinia**

• Arab American University

#### Slovakia

- University of Veterinary Medicine and Pharmacy
- Office of Ministry of Labour, Social Affairs and Family
- KJG Business Center

#### Slovenia

- Transport Finec
- Cargo Partner
- Roletarstvo Medle, Novo mesto
- REM, Trebnje

#### Spain

- Planta de Fabricación de Estaciones de Control
- Mango, Barcelona

#### **Switzerland**

• Porsche Centre St. Gallen

#### United Kingdom

- The University of Warwick Sports Hub
- Rugby Free School
- NEC Resorts World Birmingham
- <u>Home</u>
- Birmingham Dental Hospital & School of Dentistry
- Silverstone UTC
- Waste Transfer Centre, Greenwich Peninsula
- St. Fagans National Museum Of History





## **Associated** documents supporting the Qbiss story.

Qbiss One brochure contains all the basic information about the product. On top of this document, Qbiss One is supported with Qbiss One book, Artme guide and brochure, Product portfolio, Qbiss One flayer, BIM library instructions, Architectural details and Design details, which can all be attained from above.

Trimo recognises the importance of providing correct, current, and neatly structured information, whenever and wherever is needed. The new Trimo Library Mobile App meets these needs offering on-the-go access to all of Trimo's technical documentation, brochures, guides, and videos both on- and offline.





#### **HEADQUARTERS**

#### TRIMO D.O.O.

PRIJATELJEVA CESTA 12, 8210 TREBNJE, SLOVENIA T: +386 (0)7 34 60 200 F: +386 (0)7 34 60 127 TRIMO@TRIMO-GROUP.COM WWW.TRIMO-GROUP.COM

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