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1.0 FACADE ELEMENT

1.1 New architectural possibilities / Qbiss One FB / Qbiss One BF

Qbiss One FB-transversal joint recessed, longitudinal joint flush

Basic Qbiss One B system is different only in respect of its longitudinal male joint, which is more narrow, 4 mm to achieve a flush look. The transversal joint stays recessed, 25 mm wide.

Fig. 1.1: TRANSVERSAL and LONGITUDINAL joint of both horizontal installation methods

Transversal joint dimensions: 25 mm x 24 mm

Longitudinal joint dimensions: 4 mm x 24 mm

Fig. 1.2: Facade element QO B - Horizontal installation

Fig. 1.3: Facade element QO B - Vertical installation

Fig. 1.4: Facade element combination QO FB + B - Horizontal installation

Fig. 1.5: Facade element combination QO FB + B - Vertical installation
Basic Qbiss One B system is different only in respect of its transversal joint where the T-profile is extended to the outer surface to achieve a flush appearance. The longitudinal joint stays recessed, 23 mm wide and 24 mm deep.

Fig. 1.6: TRANSVERSAL and LONGITUDINAL joint for both horizontal installation methods

Transversal joint dimensions: 25 mm

Longitudinal joint dimensions:
23 mm x 24 mm

Fig. 1.7: Horizontal installation
Fig. 1.8: Vertical installation
1.2 ArtMe

ArtMe individuality can be achieved by the continuously 3D mechanical transformation of the element surface or figuratively “by drawing” on the element.

Two options are available:

**Option 1:** using pre-designed patterns [3]

**Option 2:** preparing individual designs at the request of a customer

ArtMe offers 3 basic pre-fabricated designs or the components that can be optionally combined. These designs, **Concept 1** are marked as »bubbles«, »curves« and »puzzles«.

An advantage of this concept is that it is already tried-and-tested, has optimized *statics* and enables quick and less expensive assembly.

Concept 2 requires **pattern confirmation with the** Trimo expert team.

Possibilities

- ArtMe designs can be applied only to FLAT SURFACES
- max. 6.5 m length of the base element
- material thickness 0.7 mm
- steel sheet coatings: PVDF, PUR
- mechanical properties of the element can change by applying design (should be checked in advance with Trimo expert team)
- offset from base element surface edge: Qbiss One 30 mm

Fig. 1.9: Poznan Stadium, Poland

Fig. 1.10: Blackburn Central High School, GB
1.3 Curved elements

1.3.1 Transversal curved

Possibilities:

- Radius - \( r \) [m]: minimal 4 m and more
- Thickness - \( S \) [mm]: 80 - 240
- Length - \( R \) [m]:
  - up to 3 m by \( r = 4 - 7 \) m
  - up to 4.5 m by \( r > 7 \) m
- Form: Convex & Concave
- Performance: retained thermal insulation, fire resistance, sound insulation
- Consultancy: for each project with necessarily data \( r, S, R \) project performance demands

NOTE:
All applications for use must be approved by Trimo’s technical support.
1.3.2 Longitudinal curved

Possibilities:

- Radius - $r$ [m]: minimal 4 m and more
- Thickness - $S$ [mm]: 80 - 240
- Length - $R$ [mm]: 530 - 5700
- Form: Convex & Concave
- Performance: retained thermal insulation, fire resistance, sound insulation
- Consultancy: for each project with necessarily data ($r$, $S$, $R$, project performance demands)

**NOTE:**

All applications for use must be approved by Trimo’s technical support.

Fig. 1.12: Curved elements

Fig. 1.12a: Curved elements - Convex

Fig. 1.12b: Curved elements - Concave
1.4 Non orthogonal elements (trapezoidal / parallelogram)

Elements of non orthogonal shapes are facade elements with one or two angled transverse sides - longitudinal joints (male/female) are parallel.

**NOTE:**
All applications for use must be approved by Trimo’s technical support.

Fig. 1.13: Horizontal installation

Fig. 1.14: Non orthogonal elements (trapezoidal / parallelogram)

Fig. 1.15: Non orthogonal elements-two angled transverse sides
2.0 CORNERS

2.1 Transversal corner element

2.1.1 Classical - combining two elements

Possibilities:

- Combining two different colours
- Element thickness $S$ [mm]: 80 - 240
- Module width $M$ [mm]: 600 - 1200
- Minimal leg length [mm]: $A_{\text{min}} = B_{\text{min}} = s + 150$ mm [* Qbiss One B/F $A + B = \text{min. 530 mm}*$]
- Maximal leg length [mm]:
  
  $A + B$ (max) = 2000 mm
  
  $A_{\text{max}}$ = 1000 mm; $B_{\text{max}}$ = 1000 mm
  $A_{\text{max}}$ = 900 mm; $B_{\text{max}}$ = 1100 mm
  $A_{\text{max}}$ = 800 mm; $B_{\text{max}}$ = 1200 mm
  $A_{\text{max}}$ = 700 mm; $B_{\text{max}}$ = 1300 mm
  
  $A + B$ (max) = 4100 mm
  $A_{\text{max}}$ = 600 mm; $B_{\text{max}}$ = 3500 mm
2.1.2 Under an angle - combining two elements

Possibilities:

- Under an angle
- Combining two different colours
- Element thickness $S$ [mm]: 80-240
- Module width $M, M'$ [mm]: 600 - 1200, two different width!
  - Minimal leg length [mm]: $A_{\text{min}} = B_{\text{min}} = s + 150$ mm (*Qbiss One B/F $A + B = \text{min. } 530$ mm)
  - Maximal leg length [mm]:
    - $A_{\text{max}} = 1000$ (1500)
    - $B_{\text{max}} = 1500$ (1000)
- Angle between legs: $90^\circ$
- Inclination angle: $45^\circ - 135^\circ$

**NOTE:**
All applications for use must be approved by Trimo’s technical support.

Fig. 2.3: L corner shape - angled transverse sides

Fig. 2.4: L corner shape - angled transverse sides
2.2 Longitudinal corner element - combined

2.2.1 Classical - combining two elements (shape and colour combination)

Possibilities:

- Combining two different colours
- Element thickness $S$ [mm]: 80, 100, 120, 133, 150
- Module width $M$ [mm]: 600 - 1200
- Minimal leg length [mm]:
  - $A_{\text{min}} = S + 150$ (200)
  - $B_{\text{min}} = S + 200$ (150)
  - $A+B = \text{min. 600 mm}$
- Maximal leg length:
  - $A_{\text{max}} = B_{\text{max}} = 800$ mm & $A+B = \text{max. 1600 mm}$
- Angle between legs $70^\circ - 175^\circ$
2.2.2 Under an angle - combining two elements

Possibilities:

- Under an angle
- Combining two different colours

- Element thickness $S$ [mm]: 80, 100, 120, 133, 150
- Module width $M$ [mm]: 600 - 1200
- Minimal leg length [mm]:
  - $A_{\text{min}} = S + 150$ [200]
  - $B_{\text{min}} = S + 200$ [150]
  - $A+B = \text{min.} 600$ mm
- Maximal leg length: $A_{\text{max}} = B_{\text{max}} = 800$ mm & $A+B = \text{max.} 1600$
- Element length $R$ [mm]: 530 - 6500
- Angle between legs: $70^\circ - 175^\circ$
- Inclination angle: $45^\circ - 135^\circ$

NOTE:
All applications for use must be approved by Trimo’s technical support.
### 2.3 3D corner

3D corner was developed such that one Qbiss One corner element is laid horizontally and folded below 45° angle in the transversal direction. This allows the façade to pass smoothly into a soffit in one piece.

**NOTE:**
All applications for use must be approved by Trimo’s technical support.
3.0 WINDOWS/DOORS/CURTAIN WALLS

3.1 Windows, Doors and Curtain walls integration

Qbiss modular façade system offers a range of elegant and high-quality solutions for windows, doors and other openings. Frames are made of aluminium profiles with an integrated thermal transfer barrier that assures thermal stability of the indoor environment. They enable a quick assembly of openings and efficient replication of façade details. The modular assembly system allows the following types of frames and windows.

WINDOW AND DOOR OPENINGS
Types (feasible assembly combinations: A, B, C):
TYPE 1 equal to façade element dimension
   Type 1.1 - visible joint
   Type 1.2 - visible joint by shift

TYPE 2 not in element dimension
   Type 2.1 - with covered edges, windows smaller than element
   Type 2.2 - with covered edges, windows larger than element

Combinations of window and glazings
   A - Aluminium frame (blind frame)
   B - Aluminium frame + fixed glazing
   C - Aluminium frame + glazing with opening function

Fig. 3.1: TYPE 1 - in element dimension
Fig. 3.2: TYPE 2 - not in element dimension

Qbiss One facade system enables integration with different Windows, Doors and Curtain Walls systems that are available on the market.

For more information please contact Trimo’s technical support, tech.info@trimo-group.com

NOTE:
- Supporting sub-structure for the location of openings must be defined by static calculation.