## Façades made from thermally broken steel profiles – JANSEN FB

**Profile system**

Thermally broken mullion/transom construction consisting of rolled or drawn hollow steel profiles arranged on the room side with face widths of 50 or 60 mm and basic depths of 50 to 280 mm, in accordance with the structural requirements. The profile cross sections are to be checked by the contractor from a structural point of view. Proof of structural integrity must be provided before construction. Glazing is held by means of screwed-on vertical and horizontal aluminium pressure plates. Pressure plates are covered horizontally and vertically by aluminium or stainless steel cover profiles.

Application examples for VISS TV FB4 can be found in the VISS manual, chapter 21 - VISS TV, pages 72 + 73.

**Load-bearing structure**

Depending on the unit size, module size and type of construction, the load-bearing structure can be built either as a unitised construction (welded) and/or as a push-on construction (connecting spigot). For the unitised construction, the transoms must be welded on all sides. For exposed constructions, the groove area in the mullion joint must be sealed by means of sealing compound. For the push-on construction, push-in or clip-in connecting spigots are available. Depending on the structural and non-structural requirements, the transom joints can also be designed to allow room for expansion and/or with sealant (sealing collars or sealing compound).

Local fixing anchors made from stainless steel with oval head screws with stainless steel flange are to be used as a connection between the load-bearing structure on the room side and the external pressure plates. Direct connections and thermal bridging must not arise between the internal load-bearing structure and the outer cover profiles. Proof of the suitability of the clamping connection must be provided by means of a test certificate/approval.

**Drainage level**

Glazing weatherstrip made from continuous EPDM weatherstrips on the inside and outside. Weatherstrip joints overlap. The EPDM internal weatherstrips, which are to be installed on the isolators of the load-bearing structure by means of local perforation, block water and air movement for the glazing rebate. The horizontal weatherstrip with weatherstrip lips is continuous, whereby the top glass edge seal is covered. The vertical weatherstrip is inserted in between. The weatherstrip joints in the intersection points, T-joints and corner points must be sealed carefully using a suitable adhesive and sealing compound. A maximum of 2 compensating weatherstrips can be inserted, provided that an increase of 10 mm is not exceeded.

**Glass support**

Load-bearing anchors made from stainless steel with aluminium rebate supports, a glass fibre-reinforced glass support profile, or welded flat steel as well as plastic support blocks must be used in the glass support area for load transfer. The arrangement must be carried out in accordance with the regulations of the system and glazing manufacturer. Infill unit thicknesses from 6 to 70 mm can be used.

**Ventilation and drainage**

Rebate base ventilation and drainage of the glazing rebate is carried out to the outside, field by field, by means of deflector blocks in the transom area above the mullion area. The base point in the attachment to building structure area must be designed such that correct ventilation and drainage of the glazing rebate is guaranteed.

**Structural requirements**

The following minimum requirements for the façade must be strictly observed.

 Air permeability in accordance with EN 12152  up to class AE

 Watertightness in accordance with EN 12154 up to class RE 1200

 Resistance to wind load, EN13116 up to 2 kN/m2

 Impact resistance, EN14019 up to class E5/I5

 Sound reduction Rw 45 dB (-1; -5)

 Bullet resistance FB4 NS

