



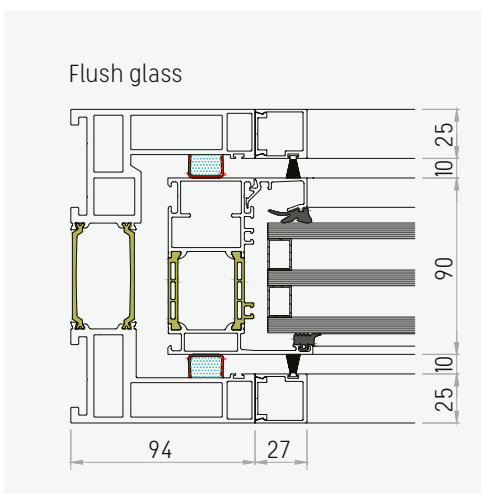
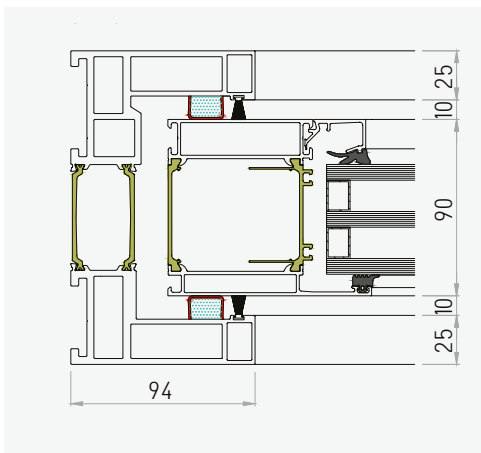
**HIRT kinetics® SF 90**



## Range of application

By pressing a button, HIRT kinetics® slide downwards silently and open the room in an unrivaled manner. They are the ideal solution, wherever the interior and exterior melt into each other: in the living area, for the pool house, the garage or in the gastronomy. HIRT kinetics® are used as a heat insulating element in the building envelope. HIRT kinetics® are available in three designs: HIRT kinetics® SF 90, HIRT kinetics® SF XL and HIRT kinetics® SF special.

**Limit dimension HIRT kinetics® SF 90:** Width max. 6 m, height max. 6 m, area max. 18 m<sup>2</sup>, weight max. 1,500 kg.



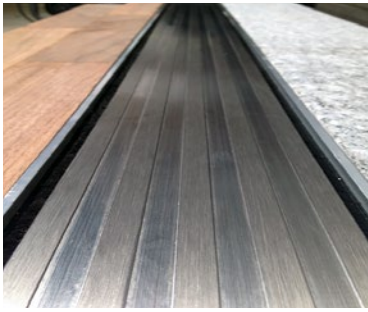
## Function

Descender front and counterweight will be suspended weight-neutral by chains from the floor ceiling of the technology space. The load transfer is made through defined suspension point in the basement ceiling. The electro-mechanical drive and the counterweight can be arranged on the inside or outside. HIRT kinetics® SF 90 are guided in runner rails at the side and they can be placed as an individual system in the wall soffit or several HIRT SF 90 can be installed in series.

## Construction/profile system

HIRT kinetics® are manufactured from thermally insulated, extruded aluminium profiles. Frame construction depth 160 mm, wing construction depth 90 mm. The corners are cut in 45°-mitre and assembled with vapour-tight corner braces. Different types of glazing and panels can be installed. Integrated door installation is possible; the fittings are made to product specifications.





#### **Elegance without threshold**

This threshold combines safety, comfort and state of the art design. Other materials such as wood, rock or an individual floor covering can also be used as a special construction.



**Safe in accordance with EN:** HIRT kinetics® are in accordance with EN standards. The CE conformity was verified with the type testing.

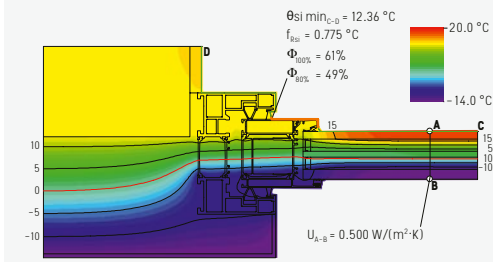
**Drive/control:** The motion is provided by an electro-mechanic drive. The inner cabling of the motor, the limit switch, control box and other peripherals will accompany the delivery ready-for-use and guarantees the correct connections. In accordance with the valid standards, the control unit connection to the grid is provided by an electrician at the construction site. On the request of the customer, the microprocessor control unit (PLC) can be adapted object specific.

**Manual operation:** HIRT kinetics® can easily be opened or closed by hand – which can be useful in the event of a power outage. Since they are balanced by counterweights, this does not require a great deal of force.

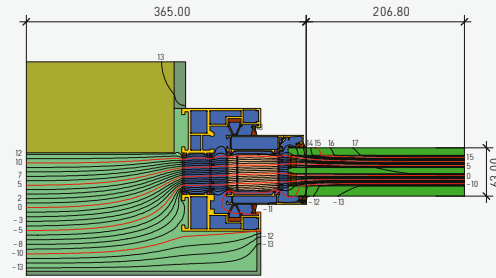
**The technology space:** Space is required in the basement as the parking space for the opened descender front and for the housing of the counterweight. This technology space also houses the motor, the drive shaft, the compressor and the pneumatics. The spatial design can be found in the system plan. A drainage or a pump must be installed for small water volumes that are collected in the provided groove of the descender front.

**Maintenance:** For many years, descender fronts demonstrate their benefits in innumerable projects even under very challenging conditions. Thanks to high-quality components and Swiss quality, faults or even failures are basically impossible. We offer the periodic inspection, recommended in the guidelines, which normally take place every two years, as a service. In addition, a remote maintenance is also possible.

## Temperature progression



## Isothermal progression



**Best heat insulation:** You save energy with HIRT kinetics® SF 90. Best thermal insulation and the effective air exchange without room cooling are major features. Highly insulated aluminum profiles with 54 mm insulation stays and a  $U_f$  value of  $1.364 \text{ W/m}^2\text{K}$ . Function glasses up to max 63 mm can be installed. HIRT SF 90 values (examples): Size  $4.50 \times 2.50 \text{ m}$ , 3-times glass  $U 0,5 \text{ W/m}^2\text{K}$ : The thermal transfer value of the entire descender front is  $U_w 0.75 \text{ W/m}^2\text{K}$ .

**Absolutely tight** thanks up to four tightening levels. Pneumatic seals do not let any air through. The inner seal is used as a standard, a cleverly devised system of press and labyrinth seals on the outside provides draft-free comfort. The seals are blown up automatically through a control pulse. Brush seals remove the coarse dirt and they display an aesthetic transition from the frame to the leaf. The hot air duct, which can be installed shapely into the floor is recommended for the compensation of the missing heat reflection of the glass.

## Construction physics

Air permeability in accordance with EN1026/EN12207	Class 4
Resistance to wind loads in accordance with EN12211/EN12210	Class C4
Rain impermeability in accordance with EN1027/EN12208	Class E1500

**HIRT MOVING ARCHITECTURE®**

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