

HIRT MOVING
ARCHITECTURE



HIRT kinetics® SF XL



Range of application

With the click of a button, HIRT kinetics® slide downwards silently and open the room in an unrivaled manner. They are the ideal solution, whenever the interior and exterior melt into each other: in the living area, for the pool house, the garage or in the gastronomy. The descender front is used as a heat insulating element in the building envelope. HIRT kinetics® are available in three formats: HIRT kinetics® SF 90, HIRT kinetics® SF XL and HIRT kinetics® SF Special.

HIRT kinetics® SF XL: The SF XL is virtually unlimited and can reach enormous proportions. It is fascinating that standard components can be inserted up to a surface area of 40 m² (the SF Special comes into play for bigger surfaces).

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® are guided in runner rails and can be placed as an individual system in the wall soffit, or several SF XL can be installed in series. A design without posts is possible if several SF XL are placed in series.

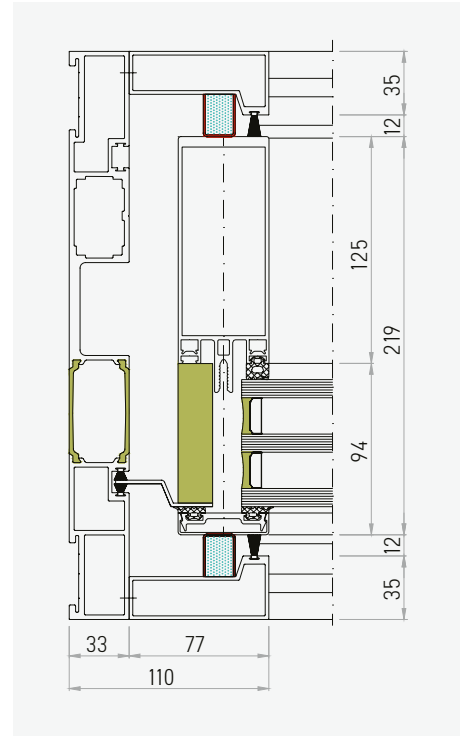


The special design: Structural Glazing

The outside level provides a homogeneous glass envelope. The glass joints are without profile at the outside and project a cubistic appearance.

Construction/profile system

Proven and tested post and latching systems are installed in the HIRT kinetics® SF XL. Depending on the object and on the static requirements, the inner supporting structure can be implemented using steel, chrome nickel steel or even aluminum. The construction depth of the inner supporting structure is normally 125 mm, the visible width varies between 50 and 60 mm. Aluminum clamping cover strips are used on the outside. A variety of glasses and panels can be used. Integrated door installations are possible, the fixtures are harmonized product specific.



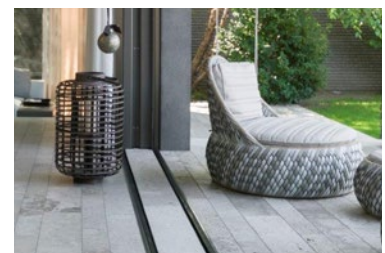
Safe in accordance with EN: HIRT kinetics® are in accordance with EN standards. The CE conformity was verified with the type testing.

Drive/control: The motion is provided by an electro-mechanic drive. The inner cabling of motor, 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 and 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.

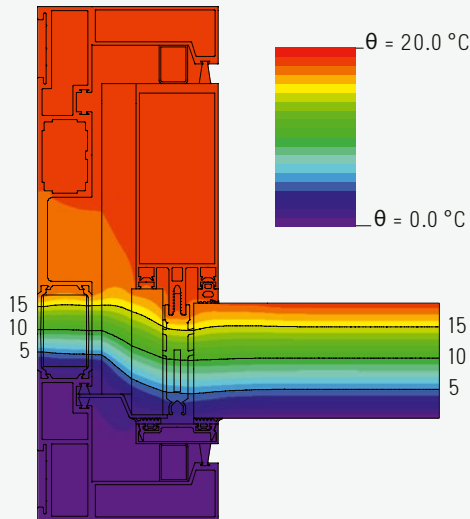
Maintenance: For many years, descender fronts demonstrate their benefits in innumerable projects even under very challenging conditions. Thanks to high-quality components and Swiss quality, faults or even failures are basically impossible. We offer the periodic inspection, recommended in the guidelines,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



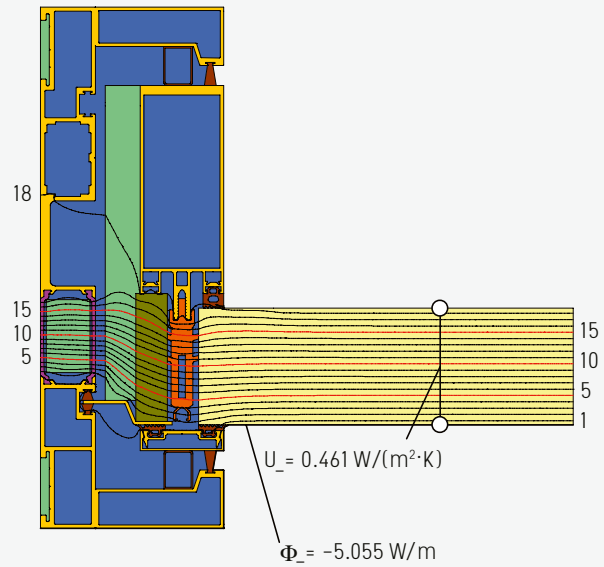
Elegance without threshold

This threshold combines safety, comfort and state of the art design. The insulated aluminum profile that emphasized the grooves is anodized colorless. Other materials such as wood, rock or an individual. The width of the threshold is app. 219 mm.

Temperature progression



Isothermal progression



$$U_f = \frac{\frac{\Phi}{\Delta T} - U_p \cdot b_p}{b_f} = \frac{\frac{5.055}{20.000} - 0.461 \cdot 0.210}{0.110} = 1.418 \text{ W}/(\text{m}^2 \cdot \text{K})$$

Best heat insulation: You save energy with the new HIRT kinetics® SF XL. 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 1.418 $\text{W}/\text{m}^2\text{K}$. Function glasses up to max 70 mm can be installed. HIRT kinetics® SF XL values (examples): Size 6 x 3 m, 3-times glass U 0.5 $\text{W}/\text{m}^2\text{K}$: The thermal transfer value of the entire descender front is U_w 0,75 $\text{W}/\text{m}^2\text{K}$.

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

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