

HIRT



swiss descending windows

Discender front SF 90, SF XL & SF Special

IQ GLASS

HIRT



Range of application

By pressing a button, the HIRT swiss descending windows 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. The descender front is used as a heat insulating element in the building envelope. HIRT swiss descending windows are available in three designs: HIRT SF 90, HIRT SF XL and HIRT SF Special.

HIRT SF 90 is suitable for a wide range of applications such as living rooms, pool and spa, dining etc.

Limit dimension HIRT SF 90: Width max. 6 m, height max. 6 m, area max. 18 m², weight max. 1,500 kg.

HIRT SF XL: The HIRT 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).

HIRT SF Special: The largest descender front to date is 20 metres long and weighs 7,500 kg. But bigger is always possible. Contact HIRT swiss descending windows with your wishes and creative ideas.



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.

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

Safe in accordance with EN: Descender fronts are in accordance with EN standards. The CE conformity was verified with the type testing.

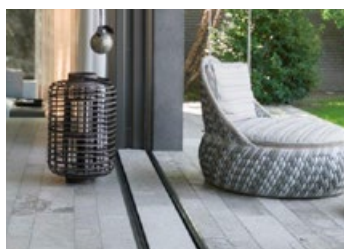
Drive/control: The motion is provided by an electro-mechanic drive. The inner cabling of motor, limit switch, control box and other peripherals will accompany the delivery ready-for-use and guarantees the correct connections. In accordance with the valid standards, the control unit connection to the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

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.



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Elegance without threshold

This threshold combines safety, comfort and modern design. It is absolutely flat, barrier-free, accessible, passable, and durable. The groove-cut stainless steel is a real eye catcher. Other materials - wood, stone or customised flooring - can also be used to produce a personalised design.

HIRT



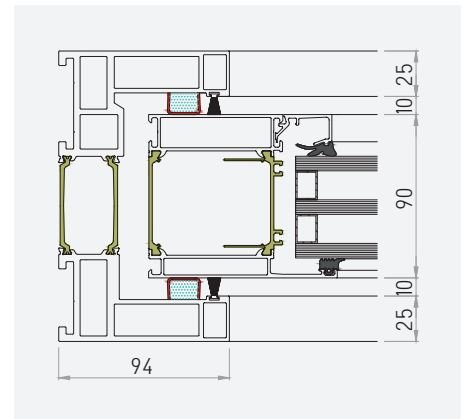
Construction/profile system

The HIRT SF 90 descender front is 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.

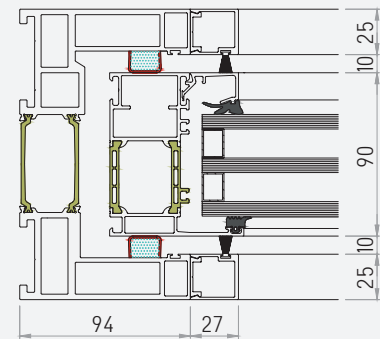
Proven and tested post and latching systems are installed in the descender front HIRT SF XL. Depending on the object and on the static requirements, the inner supporting structure can be implemented using steel, chrome nickel steel or even aluminum. The construction depth of the inner supporting structure is normally 125 mm, the visible width varies between 50 and 60 mm. Aluminum clamping cover strips are used on the outside.



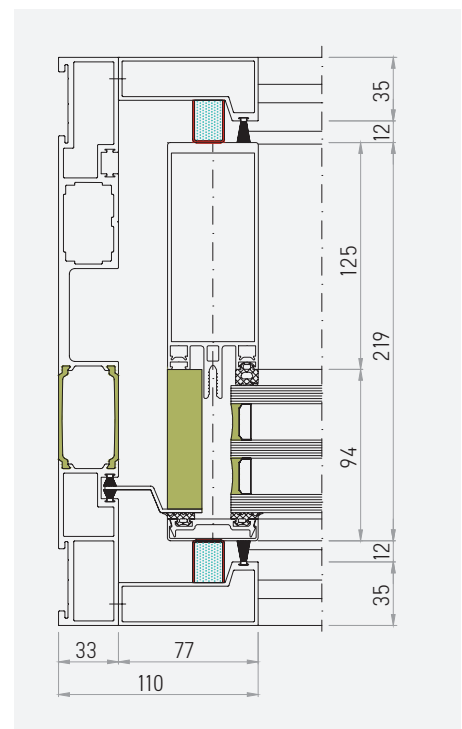
HIRT SF 90



Flush glass



HIRT SF XL





HIRT SF Special: Unlimited possibilities for customized solutions

HIRT swiss descending windows work with all conceivable facades of different materials, even metal, stone and wood. The effect here is even almost more impressive than with glass. An uncompromised space quietly opens up from wall to wall where previously a massive wall stood, without any visible constraints.

Round-shaped descender fronts (also with different radii as parabolas), descender fronts with horizontal sliding doors, descender fronts in solid wood, descender fronts with stone slabs, descender fronts that are consistently cubic and flush to the building structure. Contact HIRT swiss descending windows with your wishes and creative ideas.



swiss descending windows

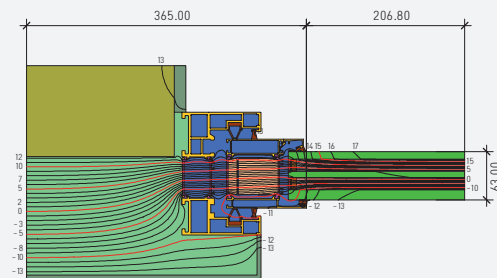




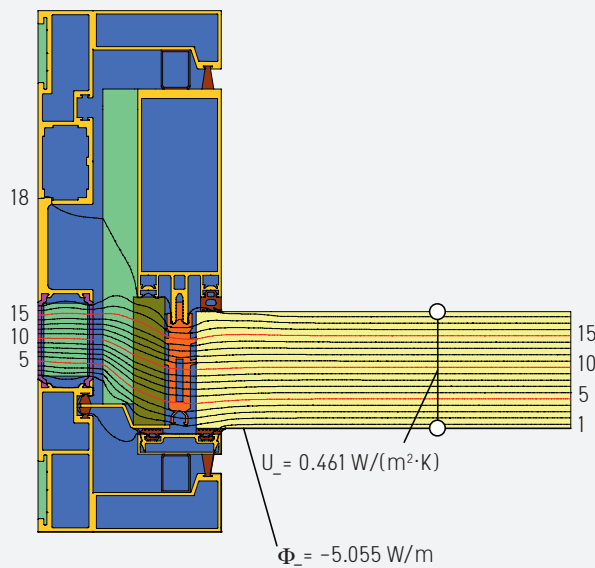
Construction physics

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

Isothermal progression SF 90



Isothermal progression SF XL

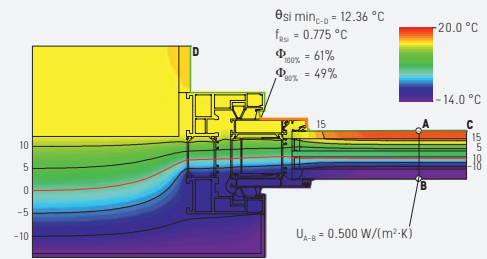


$$U_f = \frac{\Phi}{\Delta T - U_p \cdot b_p} = \frac{5.055}{20.000 - 0.461 \cdot 0.210} = 1.418 \text{ W/(m}^2 \cdot \text{K)}$$

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.

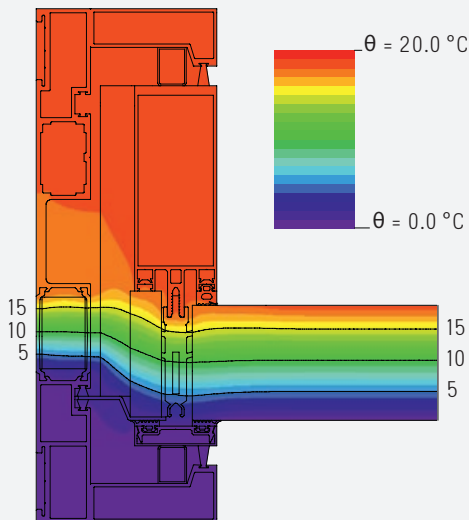
Best heat insulation: You save energy with the HIRT SF 90, SF XL and SF Special. Best thermal insulation and the effective air exchange without room cooling are major features. Depending on the glass, it is possible to achieve a thermal transmittance (U value) of up to 0,75 W/m²K with a thermally separated design.

Temperature progression SF 90

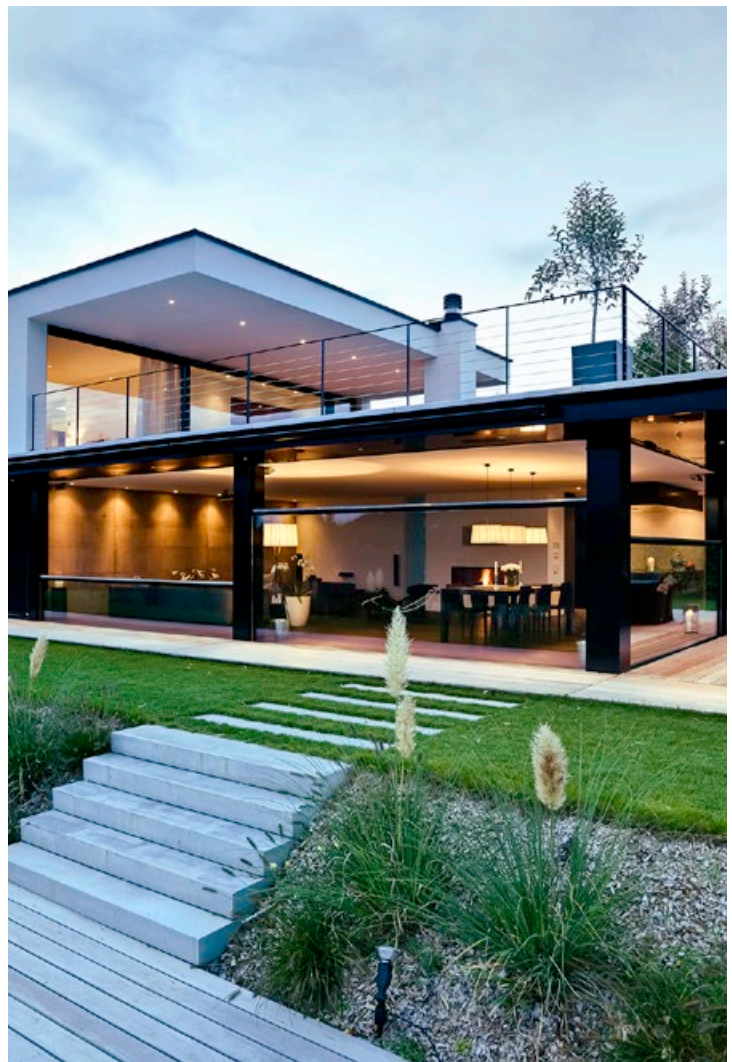


HIRT SF 90: Highly insulated aluminum profiles with 54 mm insulation stays and a U_f value of 1,364 W/m²K. Function glasses up to max 63 mm can be installed.

Temperature progression SF XL



HIRT SF XL: Highly insulated aluminum profiles with 54 mm insulation stays and a U_f value of 1,418 W/m²K. Function glasses up to max 70 mm can be installed.



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Comparison of the SF 90, SF XL and SF Special descender fronts

	SF 90	SF XL	SF Special
Max. height	6 m	6 m	Unlimited
Max. width	6 m	12 m	Unlimited
Max. area	18 m ²	40 m ²	Unlimited
Max. weight	1,500 kg	3,500 kg	Unlimited
Suitable for	Indoors and outdoors, living room, pool, spa, event spaces	Indoors and outdoors, living room, pool, spa, event spaces	Residential, commercial and public buildings
Postless version	No	Yes	Yes
Building depth mounting frame	160 mm	313 mm	Upon outcome
Threshold	90 mm wide, groove-cut stainless steel. Custom-made products with wood, stone or other materials	219 mm wide, groove-accented, insulated aluminium profile, anodised colourless. Custom-made products with wood, stone or other materials	Upon request
Rounded version	No	No	Yes
Door installation included	Yes	Yes	Yes
Corner solution	Yes (short side length max. 1 m)	Yes	Yes
Flush-mounted glass	Yes (with additional profile)	Yes	Yes

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