



HIRT

swiss
descending
windows



HIRT

OUR DESCENDER FRONTS ARE MANUFACTURED IN SWITZERLAND IN ACCORDANCE WITH THE HIGHEST QUALITY STANDARDS. REGARDLESS OF WHERE IN THE WORLD THEY ARE INSTALLED, THE MECHANICS ALWAYS REPRESENT SWISS PRECISION AND CRAFTSMANSHIP.

THE OPTIMIZED MANUFACTURING PROCESS HAS DRAMATICALLY INCREASED THE AVAILABILITY OF THIS SPECIALTY PRODUCT AND PRESENTS THE DESCENDER FRONT AS AN IDEAL SOLUTION FOR ARCHITECTURAL CONCEPTS WHICH BLUR THE LINES BETWEEN INDOORS AND OUTDOORS.



swiss descending windows

Areas of installation

At the push of a button, HIRT swiss descending windows glide down silently, opening the room in a unique way. They are the ideal solution for connecting interior spaces with the outdoors. This includes living areas, pool houses, garages, or restaurants and event spaces. The descender front is incorporated into the building envelope as a thermally insulated element. HIRT swiss descending windows are available in three versions: **the HIRT SF 90, HIRT SF XL and HIRT SF Special.**



In every climate zone – worldwide

Descender fronts are durable enough to withstand extreme weather and have been tested under the harshest conditions. HIRT swiss descending windows are designed so that they can be installed anywhere in the world.

High-quality mechanical components such as closed ball bearings and a special coating prevent corrosion. The electronic system is installed in an enclosed control box, which protects it against external influences.





THE WOW EFFECT.
THE ENTIRE GLASS FACADE SLIDES
SILENTLY INTO THE GROUND
AT THE TOUCH OF A BUTTON.

DESCENDER FRONTS ARE NOT
SUSPENDED; THEY ARE
PERFECTLY BALANCED. A SMALL
MOTOR MOVES THEM EASILY.



DESCENDER FRONTS MADE OF STONE AND WOOD, SURPRISING OPENINGS AND UNCOMPROMISING LINES FOR BUILDINGS THAT CAPTURE THE IMAGINATION.

THEY OFFER AN INNOVATIVE WAY TO EXPLORE NEW DIMENSIONS OF OPEN SPACE, AND THEIR PRECISION AND RELIABILITY MAKE THEM AN EXCELLENT EXAMPLE OF SWISS QUALITY AND CRAFTSMANSHIP.



Unlimited options for individualized solutions

HIRT swiss descending windows work with all conceivable facades made of a wide variety of materials such as metal, stone or wood. The result is possibly even more impressive than just glass. A stunning open space now spans wall to wall where a solid wall once stood, with no visible restrictions.



Special design: structural glazing

The exterior of the building features an eye-catching, uniform glass shell. The glass joints have no exterior profile, which lends the structure a cubic appearance.





High-end solutions in a variety of formats

The HIRT SF 90 has been in use for more than two decades. The HIRT SF Special takes futuristic ideas about creating rooms without boundaries with larger and larger dimensions and makes them a reality.

The bigger, the more impressive

The largest descender front that has realized up to this point is 20 metres wide and weighs 7,500 kg. But more is always possible! HIRT swiss descending windows offer unlimited perspective when several descender fronts, starting with the HIRT SF XL, are installed in one continuous row without pillars.





MORE THAN JUST SIGNAGE. IN RESTAURANTS AND EVENT SPACES,
DESCENDER FRONTS ARE WORTH THEIR WEIGHT IN GOLD.

THE GLASS WINDOW DISAPPEARS AT THE TOUCH OF
A BUTTON, INCREASING THE NUMBER OF ATTRACTIVE
OUTDOOR TABLES.





Swiss quality

HIRT swiss descending windows' success story began in 1988 in Zurich with a metalworking company with a passion for innovation. A family business that advocates Swiss quality. Descender fronts were introduced in 1997 and they meet these strict requirements.

Sophisticated characteristics

HIRT swiss descending windows mean maximum convenience and top quality. High-tech features offer year-round comfort: in the winter months, your home stays cozy and warm, while in summer, the room is suffused with fresh air and sunlight.





Impermeability

Descender fronts can easily withstand extreme climatic conditions and have also proven their worth in the harshest weather conditions. A cleverly devised concept with multiple sealing planes and a unique, peripheral pneumatic seal guarantees draught-free comfort and helps to save valuable energy.



Shading and Insect Protection

As a standard solution for shading, the same sun protection found on normal windows can be used. Window panes with sun protection coatings are also possible.

Safety

Our descender fronts are constructed in strict accordance with EN standards. The CE conformity has been certified by a test institute with the type examination, and compliance with the machine directives guarantees safe operation. In principle, descender fronts also offer very good protection against intrusion. Apart from lowering, there are no other opening options. If additional doors are installed in the descender front, these can be provided with intrusion protection systems.





Durability

HIRT swiss descending windows are designed so that they can be installed anywhere in the world. Our descender fronts have been in use in various climatic zones around the world for many years now - from the moderate climate of Central Europe to salty, windy coastal areas to the humid tropics and desert regions with extreme temperature fluctuations.



Automation

Our descender fronts do not hang; instead, they sit on a support structure, which is in turn connected to a counterweight. In perfect balance, they can be moved by a small motor without making a sound. A fully automatic control system is possible, with which the descender front can be conveniently operated using a tablet or touchscreen.



Formats

Different sizes open new perspectives. HIRT swiss descending windows are available in three versions: the HIRT SF 90, HIRT SF XL and HIRT SF Special.

The HIRT SF 90 is suitable for a broad range of uses such as living rooms, pools and spas, and restaurants and event spaces. HIRT SF 90 dimensional limits: width: max. 6 m; height: max. 6 m; area: max. 18 m²; weight: max. 1,500 kg.

The HIRT SF XL is virtually unlimited and can reach enormous dimensions. One fascinating aspect is that standard components can be used up to an area of 40 m² (for larger areas, the HIRT SF Special is used).

The HIRT SF Special is the largest descender front yet installed, and has a length of 20 metres and weighs 7,500 kg. Starting with the HIRT SF XL, several windows can be arranged in a continuous row without pillars. For a limitless perspective.





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.

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

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 microprocessor 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

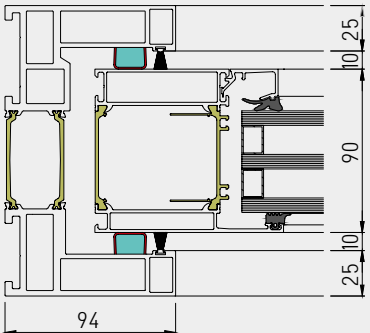
For many years, descender fronts demonstrate their benefits in innumerable projects even under very challenging conditions. Thanks to high-quality components and Swiss quality, faults or even failures are basically impossible. We offer the periodic inspection, recommended in the guidelines, which normally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

Construction/profile system

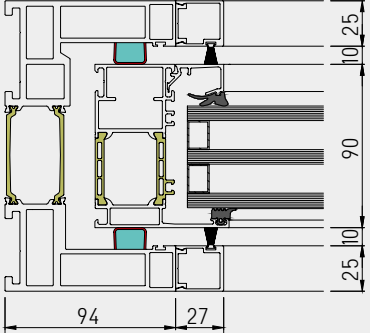
The HIRT SF 90 descender front is manufactured from thermally insulated, extruded aluminium profiles. Frame construction depth 160 mm, wing construction depth 90 mm. The corners are cut in 45°-mitre and assembled with vapour-tight corner braces. Different types of glazing and panels can be installed. 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.

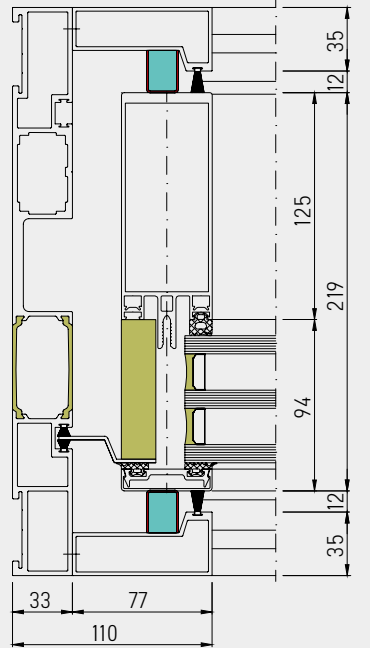
HIRT SF 90



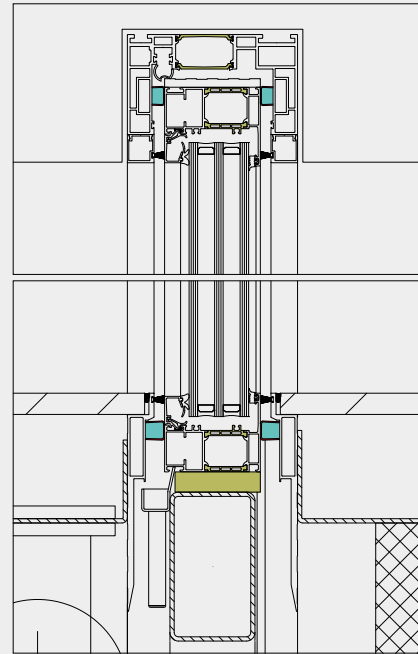
Flush glass



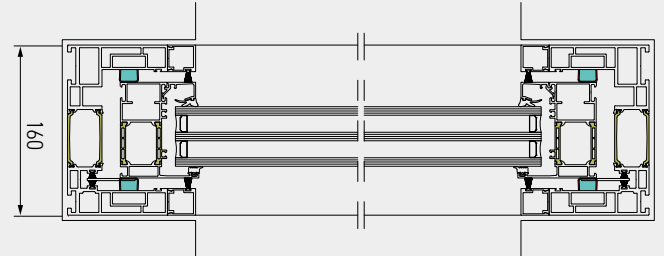
HIRT SF XL



HIRT SF 90

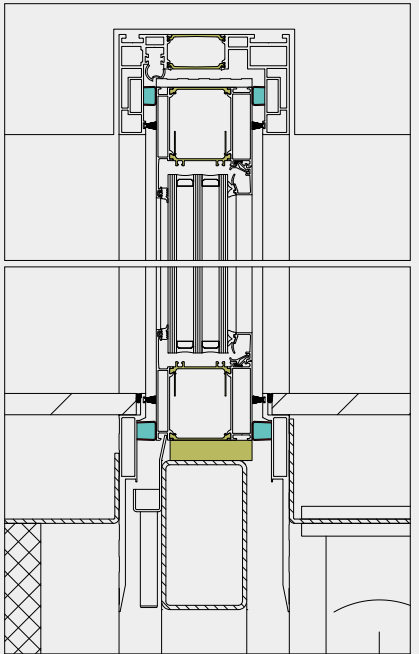


Frameless
Vertical section

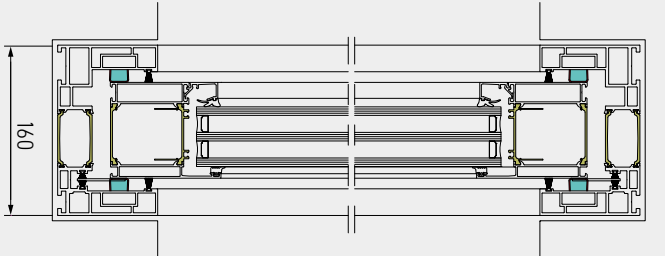


Frameless
Horizontal section

HIRT SF 90

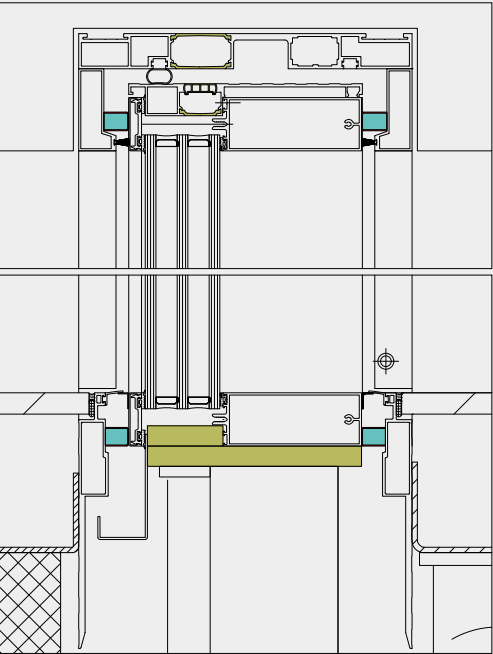


Classic
Vertical section

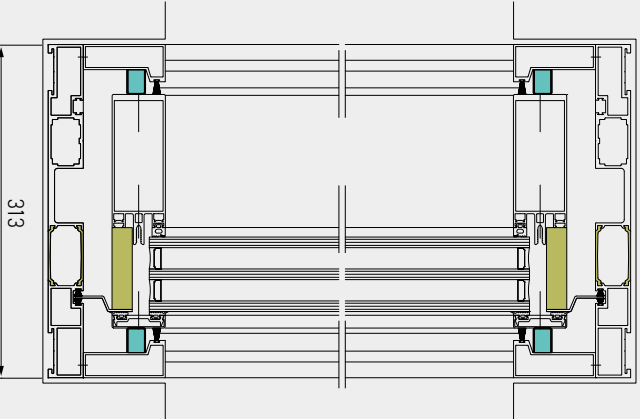


Classic
Horizontal section

HIRT SF XL

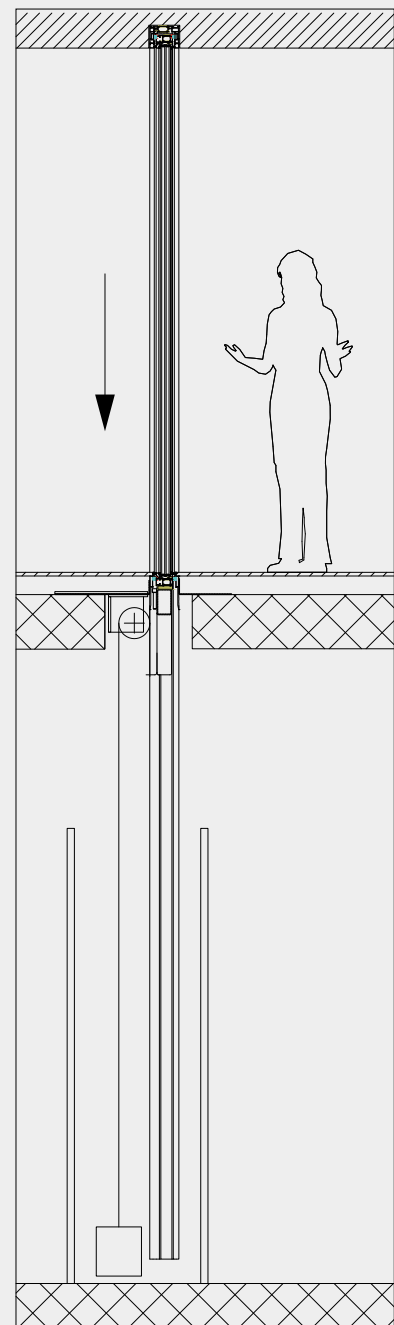


Frameless
Vertical section

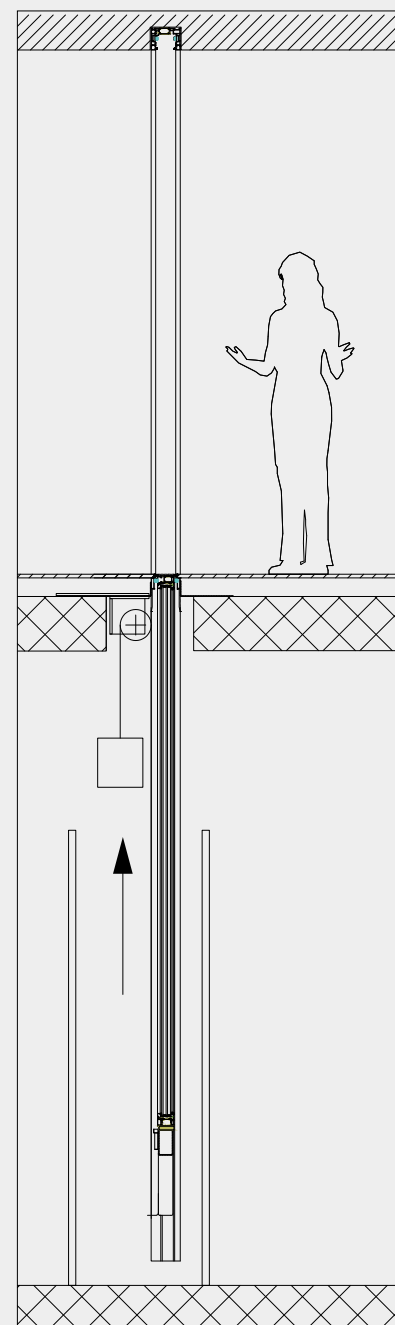


Frameless
Horizontal section

HIRT SF 90 and HIRT SF XL



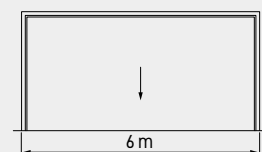
Closed
Vertical section



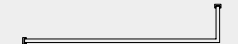
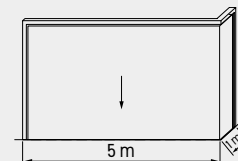
Open
Vertical section

HIRT SF 90 and HIRT SF XL: designs up to 18 m² and up to 40 m²

Straight

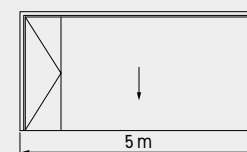


Corner design



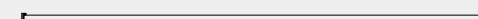
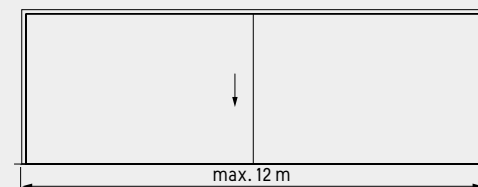
5 m-1 m x 3 m, max. 18 m²

With installed door

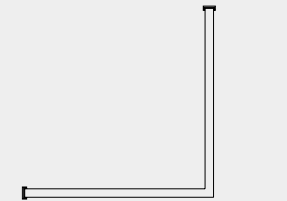
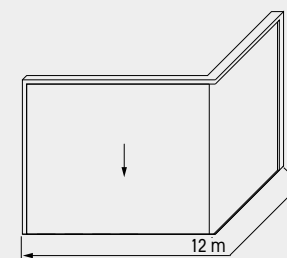


HIRT SF 90	Max. area	18 m ²
Max. width	6 m	Max. weight 1,500 kg
Max. height	6 m	Installed depth 160 mm

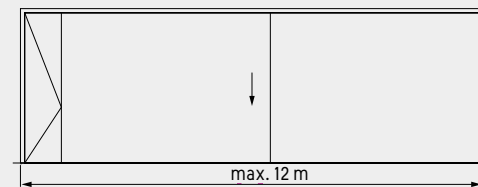
Straight



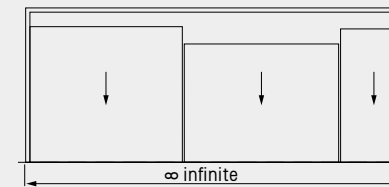
Corner design



With installed door



Without pillars



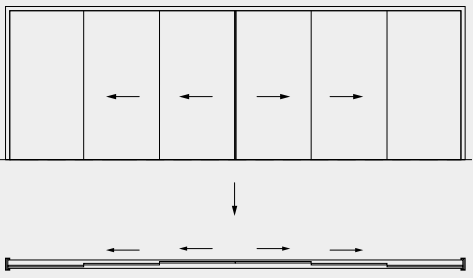
HIRT SF XL	Max. area	40 m ²
Max. width	12 m	Max. weight 3,500 kg
Max. height	6 m	Installed depth 313 mm

HIRT SF Special: Unlimited possibilities for customized solutions

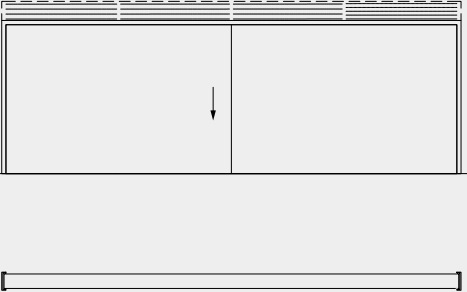
HIRT swiss descending windows work with all conceivable facades of different materials, even metal, stone and wood. The effect here is even almost more impressive than with glass. An uncompromised space quietly opens up from wall to wall where previously a massive wall stood, without any visible constraints.

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.

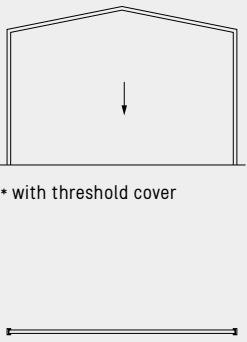
With sliding doors



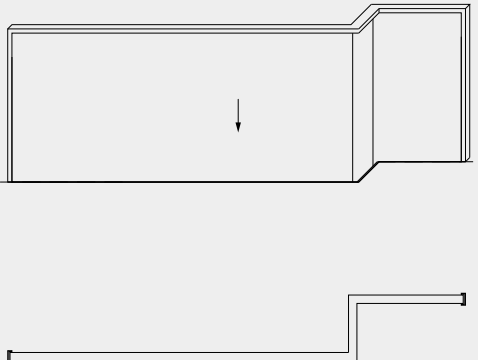
XL with adaptive shading



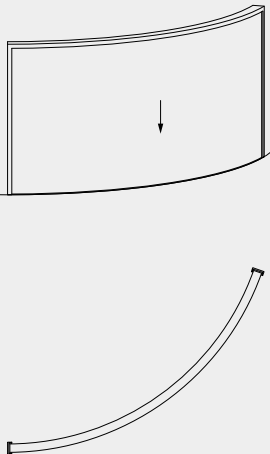
Gable or arch



Multiple direction changes



Curved

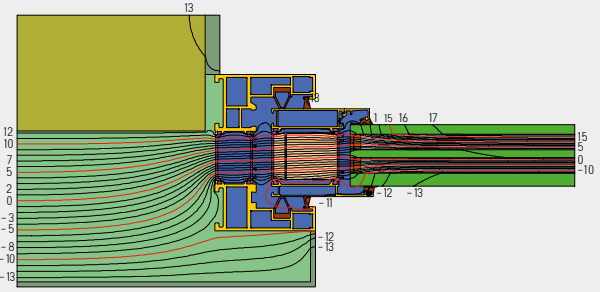


Construction physics

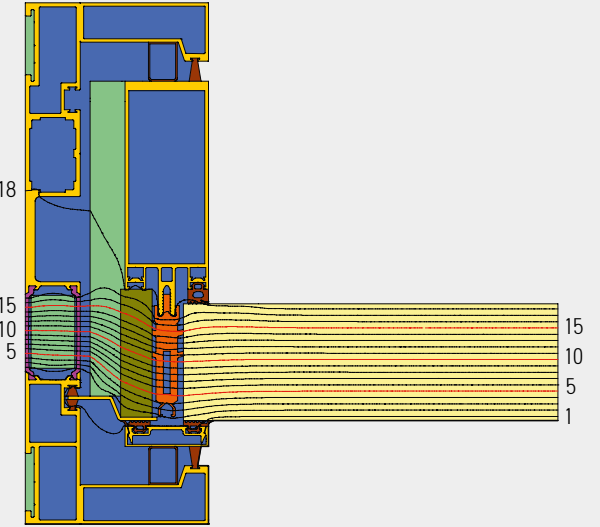
Absolutely tight thanks up to four tightening levels. Pneumatic seals do not let any air through. The inner seal is used as a standard, a cleverly devised system of press and labyrinth seals on the outside provides draft-free comfort. The seals are blown up automatically through a control pulse. Brush 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.

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 HIRT SF 90



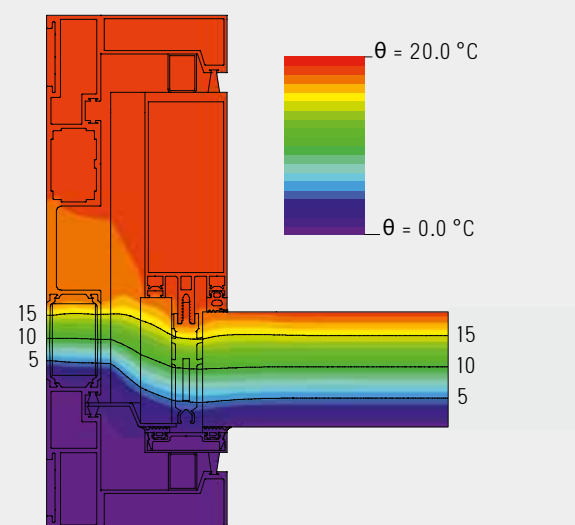
Isothermal progression HIRT SF XL



Construction physics

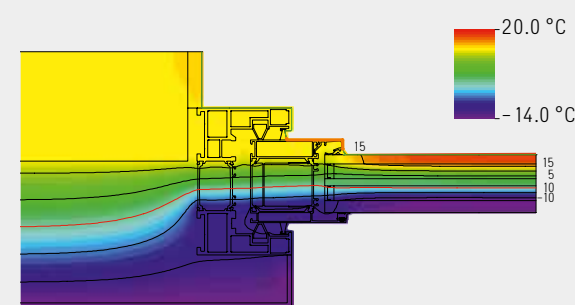
Best heat insulation: You save energy with the HIRT SF 90, SF XL and SF Special. Best thermal insulation and the effective air exchange without room cooling are major features. Depending on the glass, it is possible to achieve a thermal transmittance (U value) of up to 0,75 W/m²K with a thermally separated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

Temperature progression SF 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.

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.

IQ GLASS

IQ Glass UK are leaders in modern architectural glazing. With in-house design technicians, contracts management and expert technical installers IQ Glass are the UK's leaders in modern architectural glazing packages. Their years of experience in delivering complex glazing installations ensure that they are the perfect partner for HIRT in the UK.



Qualified sales partners worldwide

HIRT swiss descending windows works with sales partners worldwide. These partners are committed to meeting the high quality standards of the company. HIRT swiss descending windows' official sales partners are specialized companies that are familiar with and follow the local requirements and laws in their countries. They also handle maintenance of the descender fronts. The periodic inspection defined in the guidelines is scheduled every two years. In addition, online remote maintenance is also possible.



Proud innovators and their unique product

HIRT swiss descending windows are peerless when it comes to creating a feeling of open space. The innovators, who manufacture their descender fronts, which are the only ones of their kind in the world, in Switzerland, have a great deal of experience and proven technical knowledge in the field of metal construction. HIRT swiss descending windows represent Swiss precision and craftsmanship, as well as unparalleled frameless transparency. The first time, and every time after that.





Stefan Hirt, metalworker and no-nonsense innovator

Why did you make HIRT swiss descending windows?

What drove you?

The desire to combine technology and design, and to bring ideas to life – both ours and those of others! As metalworkers, we were frequently in contact with architects and noticed that they were unhappy with the options available. Sliding windows are always a compromise. The areas are limited, and when they open, the windows remain inside the room – this situation does not make anyone happy. That is why, in 1988, we intentionally started looking for a solution that did not require any compromises. We wanted the perfect product! Even if it was clear to us that our product range might not be for everyone. You really need to want a descender front. It is more expensive than a sliding window, but at the same time, you really cannot compare the two. A descender front is almost magical; a wall that truly disappears.

LUDWIG MIES VAN DER ROHE BUILT THE FIRST DESCENDER IN HISTORY AT VILLA TUGENDHAT IN BRÜNN, A MILESTONE IN MODERN ARCHITECTURE CONSTRUCTED AROUND 1930. AN UNREMARKABLE PAVILION FACES THE STREET, BUT TO THE SOUTH – WITH A VIEW OVER BRÜNN'S HISTORIC CITY CENTRE – IS A HUGE WINDOW FACADE THAT CAN BE LOWERED. THIS WAS STEFAN HIRT'S INSPIRATION FOR HIRT SWISS DESCENDING WINDOWS.

What was the greatest challenge during development?

For the Swiss, it is very difficult to think about and strive for something that does not allow for compromise. This is something I personally experienced throughout the history of HIRT swiss descending windows. Of course, I knew that in my home country, where balance is important, readiness to compromise plays a very big role. However, I did not expect it to be so extreme. To build something that does not allow for compromise and does not include a version for as many special cases as possible is almost inconceivable in Switzerland. This motivated me, and, because of it, I have become less willing to compromise in other areas as well. Today, I believe that you cannot build a perfect product if you focus on compromise from the outset. In the development phase, we could have been more willing to compromise on a number of aspects, and we could have agreed to more. We could have cut corners in terms of quality to lower the price, we could have focussed on requirements for construction in warmer countries, and so on. It takes a lot of energy to refuse to compromise and to strive for that one, perfect solution. And today, we are glad that we did. Now we can concentrate on one product that, regardless of how large it is designed to be, works in almost exactly the same way and has the same characteristics. This makes things much simpler. Personally, what makes me happiest is that we did it; we built a truly uncompromising solution for an aesthetic problem. Windows and walls that open completely, without limits and entirely without frames. Before HIRT swiss descending windows, this did not exist.

Where do you see the greatest potential?

There is one area where descender fronts are considerably more than just architecture – the ground floors of large buildings in central locations. This is where stores, restaurants and hotels are

located. All of these spaces have the goal of attracting as much foot traffic as possible. This is much simpler if there is no wall or window between the customer and the products for sale. This is where I see the greatest potential. For such retail spaces, a descender front has a direct and lasting effect on sales. This is something that not only owner-operated companies understand, but also investors who can increase their rental income.

Why do you think a Swiss product will be the one to conquer the world?

The legal requirements in Switzerland are among the strictest anywhere. If a window complies with the guidelines here, that is usually sufficient for the rest of world. But that is only one reason. The other reason is that we have a special tradition of developing technical solutions that are at once simple yet sound. This goes all the way back to the Swiss Army knife and today probably ends with a component for a mission to Mars. If you want machines and devices to function reliably for a long time without all the bells and whistles, give it to the Swiss for development.

What feeling do you get, even to this day, when you stand in front of a descender front?

Every time a small switch is flipped and a gigantic wall slides silently into the ground, just like that, I still get goose pimples, even after all these years. Something that appears as immovable as an enormous sheet of glass silently disappearing is still a magic moment every time, even for me. It makes no difference that I know every screw, every profile, inside and out. When several metric tonnes move silently, I feel confident that I made the right decision to become a metalworker 40 years ago.



WINDOWS THAT WEIGH SEVERAL TONNES ARE LOWERED GENTLY. THERE IS NO OTHER PRODUCT ON THE MARKET THAT CAN DO THAT.

THIS FUNCTION DEMONSTRATES THE GREAT DEAL OF PASSION THAT HAS GONE INTO MAKING HIRT SWISS DESCENDING WINDOWS AN EXCLUSIVE TOP PRODUCT THAT IS LOVED BY CUSTOMERS THE WORLD OVER. OUR INTERNATIONAL SALES PARTNERS ALSO CONTRIBUTE TO THAT SATISFACTION.



Descender fronts are one of a kind
Inside and outside in perfect harmony. Connecting interior spaces and the outdoors creates added value for your property.



HIRT swiss
descending
windows

IQ GLASS

Sky House, Raans Road
Amersham HP6 6JQ

T +44 1494 722880
www.iqglassuk.com