Range of application

With the click of a button, HIRT kinetics® silently descends and opens up the room in an unrivaled manner. It is the ideal solution for areas where the interior and exterior can be combined: living area, pool house, garage or kitchen. HIRT kinetics® is used as a heat insulating element in the building envelope and is available in three designs: HIRT kinetics® SF 90, HIRT kinetics® SF XL and HIRT kinetics® SF special.

Limit dimensions HIRT kinetics® SF 90: Width max. 19 ft 8 in, height max. 19 ft 8 in, area max. 190 ft², weight max. 3,500 lb.

Function

The descending wall and counterweight will be suspended weight-neutral by chains from the basement ceiling. The load transfer is made through defined suspension points in the basement ceiling. The electro-mechanical drive and the counterweight can be arranged on the inside or outside. HIRT kinetics® SF 90 is guided via runner rails at the side, and it can be placed as an individual system in the wall soffit or several HIRT SF 90s can be installed in a series.

Construction/profile system

HIRT kinetics® is manufactured with thermally broken aluminium profiles. The framing is 6.25 in deep and 3.5 in wide. The corners are cut in 45° miters and assembled with vapour-tight corner braces. Different types of glazing and panels can be installed. Doors can be integrated, and the fixtures are adapted to the customization.
Elegance with invisible threshold
This threshold combines safety, comfort and state of the art design. The thermally broken standard aluminum sill is clear anodized, while invisible sill materials such as wood, tile, or stone can be used as an option.

Safe in accordance with EN: HIRT kinetics® is in accordance with EN and other standards.

Drive/control: The operation is provided by an electro-mechanic drive. The inner cabling of the motor, the limit switch, control box and other components will be included in the delivery, ready-for-use. The control unit connection to the grid needs to be provided by a Licensed Electrician at the construction site in accordance with the applicable standards. Upon request, the microprocessor control unit (PLC) can be modified to the project specific requirements.

Manual operation: HIRT kinetics® can easily be manually operated — which can be useful in the event of a power outage. Since the panels are balanced by counterweights, manual operation does not require a great deal of force.

The technology space: Space is required in the basement as the parking space for the opened descending wall and housing of the counterweight. This technology space also houses the motor, the drive shaft, the compressor and the pneumatics. The spatial design requirements can be found in the system plan. A drainage or a pump must be installed to redirect any water that may be collected in the groove of the descending wall.

Maintenance: For many years, descending walls have demonstrated 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. Periodic inspections are recommended and offered, which usually take place every two years. In addition, remote maintenance is also possible.
Best heat insulation: HIRT kinetics® SF 90 is highly energy efficient. Some major features include improved thermal properties and efficient air circulation. The thermally broken aluminum profiles provide 2.125 in of insulation and a Uf value of 0.24. Glass panels up to max 2.5 in can be installed. HIRT SF 90 values (examples): Size 15 ft x 8 ft, triple glazing with a u-value of 0.09. The thermal transfer value of the entire descending wall is Uw value of 0.13.

Construction physics

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Class</th>
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<tbody>
<tr>
<td>Air permeability in accordance with EN1026/EN12207</td>
<td>Class 4</td>
</tr>
<tr>
<td>Resistance to wind loads in accordance with EN12211/EN12210</td>
<td>Class C4</td>
</tr>
<tr>
<td>Rain impermeability in accordance with EN1027/EN12208</td>
<td>Class E1500</td>
</tr>
</tbody>
</table>

Absolutely tight: Due to the use of four tightening levels, pneumatic seals provide complete air tightness. The inner seal is used as a standard. Sophisticated press and labyrinth seals on the outside provide draft-free comfort. The seals are automatically inflated through a control pulse. Rush seals remove coarse dirt and provide an aesthetically pleasing transition from the frame to the panel. A hot air duct can be installed into the floor to compensate for the missing heat reflection by the glass.