

AF



AF | abstract from the general catalogue

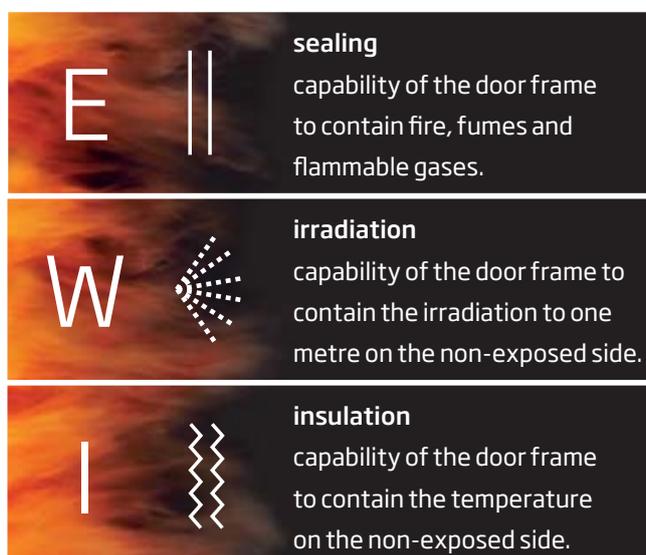
Secco Sistemi is an Italian trademark leader in the production of systems for doors, windows and facades in galvanized steel, stainless steel corten steel and brass. Every year, 2 million linear metres of profile bars are used to produce 200.000 doors and windows. Secco Sistemi boasts 60 years of experience and constant commitment dedicated to achieve high quality and innovation for their products.



# AF

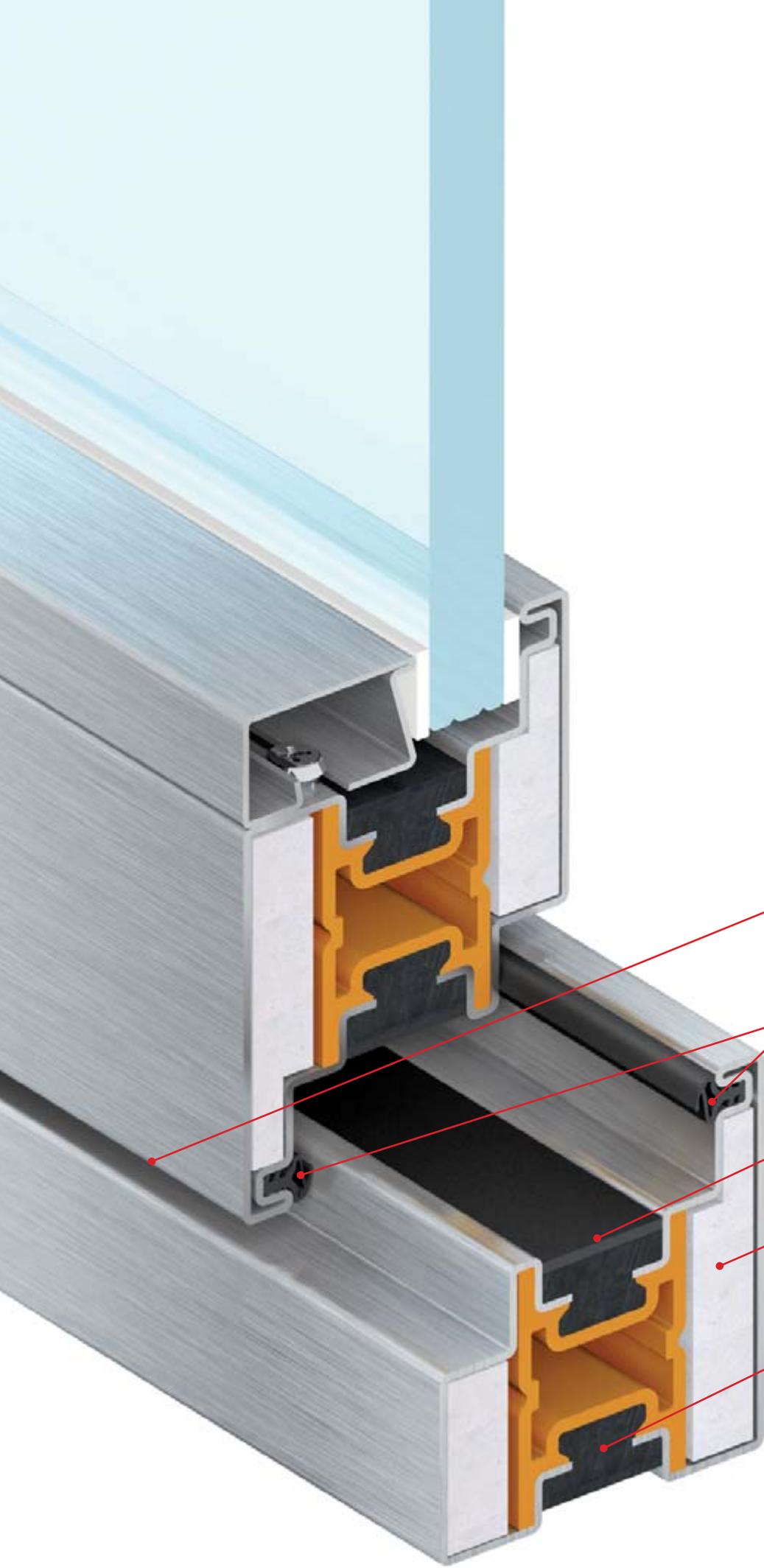
## firebreak doors and glazed partitions that blend in with all other door and window frames of the building

Partitioning the space to protect people from the danger of smoke and fire poses a further challenge for the designer. The difference in shape and look given by the firebreak technology makes it difficult to visually integrate firebreak doors and glazed partitions with all the other door and window frames. On the contrary, despite its high specificity, the **AF E/EI** system has a wide range of doors and glazed frames - for internal and external use - that bear the same aesthetic nature of all other products by Secco Sistemi. Same materials (painted galvanized steel, stainless steel and corten steel), same shapes and look, same accessories (handles, hinges, panic bars, door closers): all the elements are easy to identify without clashing with the rest of the building. Thanks to an accurate research on specific materials and internal components, including accessories and seals, **AF** system makes it possible to obtain door and window frames that are able to meet different fire protection standards: EI30 using the technology of EBE thermal insulated system and EW 30/60/90 door and window frames using **sistemacciaio** profiles.



### areas of application

- doors
- fixed partitions and glazed doors
- complex glazing



internal and external  
flush

double rebate  
fire seal

expanding seal

cooling inert  
material

fireproof thermal break  
resins

AF E130 stainless steel  
version

windows  
and doors with  
thermal break

facade  
and cladding

safe and fireproof  
windows  
and doors

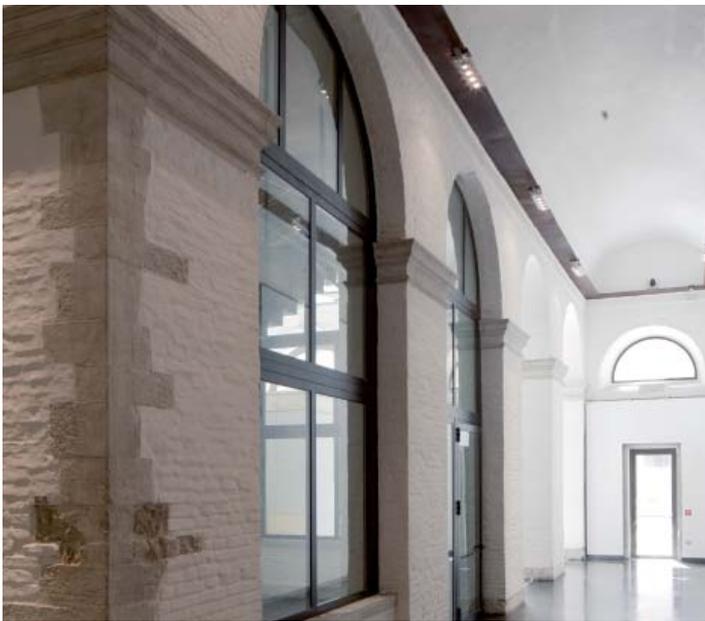
steel  
windows  
and doors

## Gallerie Dell'Accademia | Venice



The monumental complex of the Gallerie Dell'Accademia stands in the site where once was, until the beginning of 19<sup>th</sup> century, the big complex formed by the church of Santa Maria della Carità, the nunnery of Canonici Lateranensi and Scuola Grande di Santa Maria Della Carità. From the 16<sup>th</sup> century until the second half of the 1940s, several architects

worked on the complex of the Gallerie: Palladio, Gianantonio, Selva and up to Carlo Scarpa who was in charge of an important although partial recovery intervention. The renovation work aimed at expanding the space for exhibitions in the articulated and elaborate museum and it has required a delicate yet considerable functional restoration.



windows  
and doors with  
thermal break

facade  
and cladding

safe and fireproof  
windows  
and doors

steel  
windows  
and doors

All the space previously occupied by the Accademia was cleared in order to increase the area available to the museum. To do so, it was necessary to connect the first floor to the ground floor of the 18th century building with a new set of stairs and to separate the two areas with a firebreak barrier. The door and window frames have been realised with AF Ew 30 system,

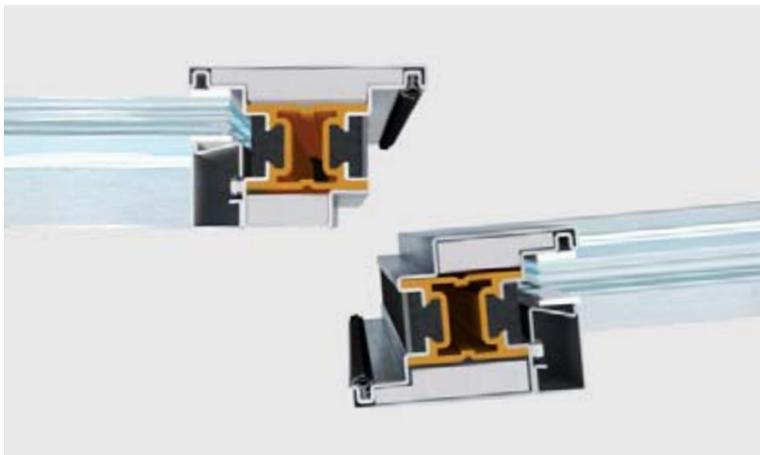
according to the new government requirements and the new fire safety concept based on the "fire engineering" notion. These large, brown, arched-shaped door and window frames in galvanized steel match, architecturally and aesthetically, all the others used in the building and realised with OS2 system in burnished brass.

# AF EI 30

## system and performance



**AF EI 30** is an integrated system with accessories, seals and thermal break profiles 65 mm deep that allows for a wide range of fireproof doors and glazed partitions. They can be equipped with single or double glazing up to 40 mm thick. Each solution is equipped with a related set of certified accessories integrated in the system. The ability of not letting fire or hot fumes through (fire resistance E) is guaranteed by the particular structure of the profile and by a rebate double seal system.

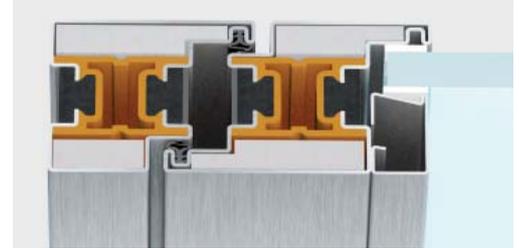


The ability to contain the temperature level on the side not exposed to the fire (insulation I) is guaranteed by the thermal break made of special fire resistant resins. The performance of **AF EI 30** system has been tested by the best European certifying labs under the reference standards EN 1634-1.

fire performance	EI <sub>2</sub> 30
smoke seal	Sm - C5
mechanical strength: durability	200.000 cycle

under reference standards EN 1364-1 and EN 1364-3

## size and variations



lateral section | frame section 134mm



central section | frame section 156 mm



bottom rail | frame section 94mm

**AF EI 30** is an interior and exterior flush door. The lateral and central sections have the same frame size of the **EBE 65** system, 134 mm lateral frame sections.

## materials



galvanized steel



stainless steel



corten steel

AF EI 30 is available in galvanized steel - in a wide range of colours and superficial finishes - in AISI 304 brushed stainless steel, in AISI 316L polished or Scotch-Brite stainless steel and corten steel.

## glazing bead



rectangular

The rectangular glazing bead is available in various sizes for different glazing thickness. It allows for high resistance required to meet the fireproof performance without the application of visible screws.

## handles



inox 1502  
h.135 | d.20 mm

## hinges



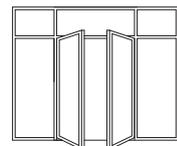
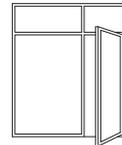
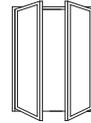
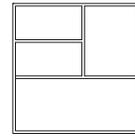
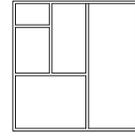
three-wing butt hinge  
h.160 | d.22,5 mm



three-wing flush  
h.100 | d.20 mm

Three-wing butt hinges are adjustable and are supplied in galvanized steel, stainless steel, burnished stainless steel and corten steel. A three-wing hinge for flush doors is provided available in stainless steel.

## main type



All models can be made to open inward or outward.

**Custom solutions are available in co-operation with Secco Sistemi technical office.**

windows and doors with thermal break

facade and cladding

safe and fireproof windows and doors

steel windows and doors

# AF

## Fire resistance test



The ability of a door or a window frame to resist to the high stress induced by a fire is tested in specific labs equipped with special burners and tools following strict European procedures. The test is performed on a real-size specimen in which all components - profiles, glass, seals, locks, door closers - are tested in real conditions of use after being

subjected to a number of opening and closing cycles. Furthermore, the supporting structures are the same on which the door and window frames will be mounted (plasterboard, wall, concrete, etc.). The burners in the lab can quickly raise the temperature to nearly 1000°C and keep it at this level for the whole duration of the test.



windows  
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Sensors are applied on the specimen, which can test the compliance of the unit with the grading specifications. During the test not only the temperature on the “cold” side of the specimen is measured and evaluated but also possible deformities and the nature of the fumes coming from the heating of the various components.

The test is considered successful if, after the time specified by the specific grade, the door remains intact, there's no fire on the outside, there are no gaps in the frame and the fumes are not flammable. **AF** system guarantees such results thanks to the materials of which the thermal break is made, to the cooling components inserted in the door and

to the use of special types of glass and seals that, in rising temperatures, produce gels and foams able to lower the temperature and seal any gaps from any deformities occurred.

# AF Ew 30/60/90

## system and performance



AF Ew 30/60/90 is an integrated system with accessories, seals and thermally non-insulated profiles 55 mm deep allowing for a wide range of fireproof doors and glazed partitions. They can be equipped with single or double glazing up to 35 mm thick. Each solution is equipped with a related set of certified accessories integrated in the system.



The ability of not letting fire or hot fumes through (fire resistance E) is guaranteed by the particular structure of the profile and by a rebate double seal system. The ability to keep the irradiation from the side not exposed to the fire (irradiation W) is guaranteed by special glass provided. The performance of AF Ew 30/60/90 system has been tested by the best European certifying labs under the reference standards EN 1634-1.

fire performance	E 30 Ew 60 Ew 90
smoke seal	Sm - C5 *
mechanical strength: durability	200.000 cycle *

ref: EN 1364-1 standard

\* ref: EN 1364-3 standard, ref: single-leaf galvanized steel 1300 x 2300 mm door

## size and variations



lateral section | frame section 131 mm



central section | frame section 151 mm



bottom rail | frame section 140 mm

AF Ew 30/60/90 is an interior and exterior flush door. The lateral and central sections have the same frame size of the sistemacciaio system, 131 mm lateral frame sections.

## materials



galvanized steel



stainless steel



corten steel

**AF Ew 30/60/90** is available in galvanized steel - in a wide range of colours and superficial finishes - in AISI 304 brushed stainless steel, in AISI 316L polished or Scotch-Brite stainless steel and corten steel.

## glazing bead



rectangular

The rectangular glazing bead is available in various sizes for different glazing thickness. It allows for high resistance required to meet the fireproof performance without the application of visible screws.

## handles



inox 1502  
h.135 | d.20 mm

## hinges



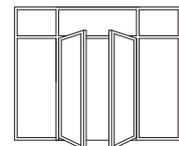
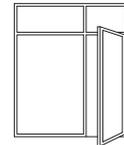
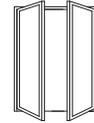
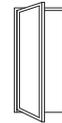
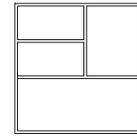
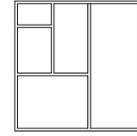
inox 6006 three-wing  
h.130 | d.20 mm



weld-on 5001  
h.145 | d.20 mm

Weld-on hinges are in galvanized and stainless steel. Three-wing butt hinges are adjustable and are supplied in galvanized steel, stainless steel and burnished stainless steel.

## main type



All models can be made to open inward or outward.

**Custom solutions are available in co-operation with Secco Sistemi technical office.**

windows and doors with thermal break

facade and cladding

safe and fireproof windows and doors

steel windows and doors



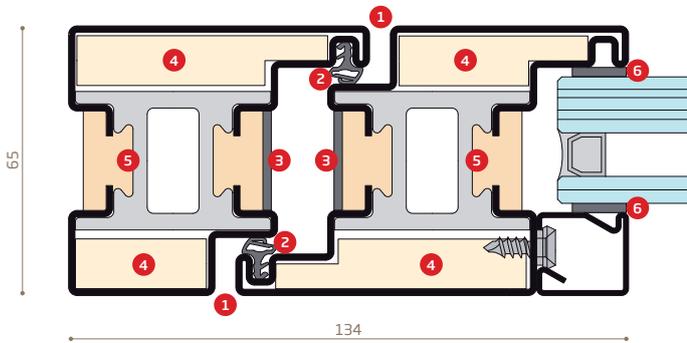
# designing together

the Secco Sistemi  
team works with  
the designer,  
with enthusiasm  
and competence,  
looking for  
the right solution.  
Its work is our  
main strength

- alongside those who design  
to shape solutions that are  
customised and tailored;
- alongside those who design  
to support the development  
of the technical-operational  
process and the cost estimates
- alongside those who design  
to provide consultancy  
and constant update  
on the current regulations
- alongside those who design  
to identify the most suitable  
window and door frames provider  
to carry out the project
- alongside those who design  
to assist to the entire project  
development and final work,  
from the manufacturing  
to the final set-up

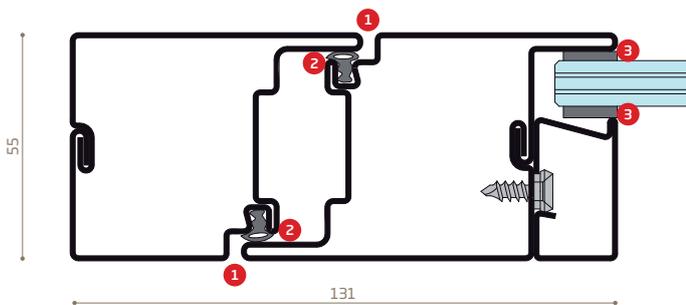
# AF

## main sections



### AF EI 30

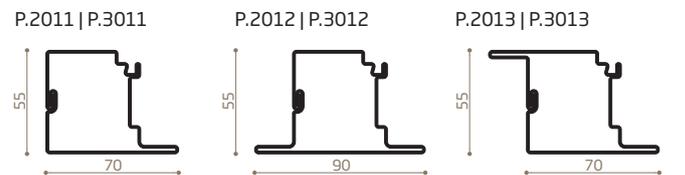
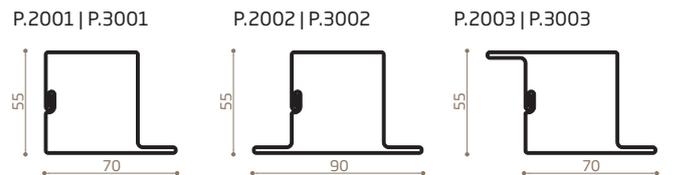
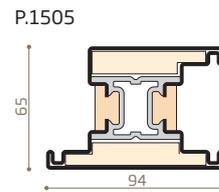
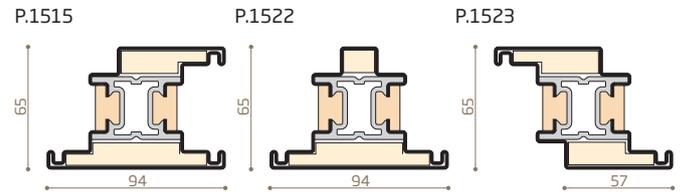
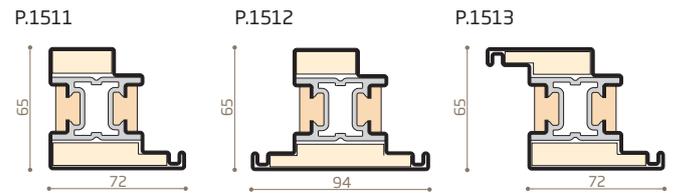
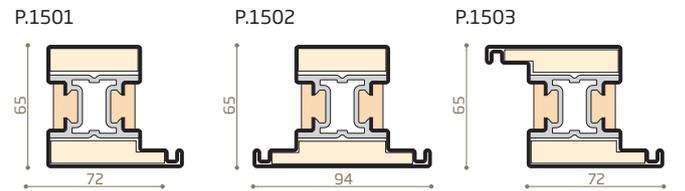
1. internal and external flush
2. double rebate fire seal
3. expanding seal
4. cooling inert material
5. fireproof thermal break resins
6. special glazing gasket



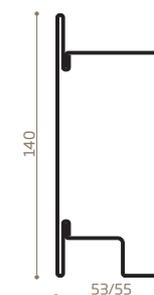
### AF Ew30/60/90

1. internal and external flush
2. double rebate fire seal
3. special glazing gasket

## profiles

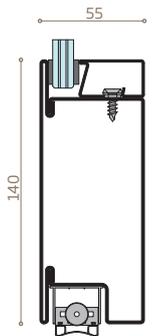
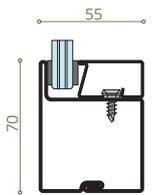
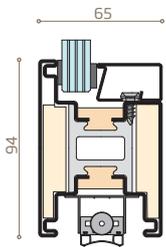
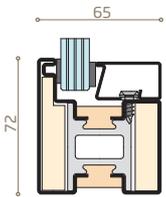


### P.2005 | P.3005

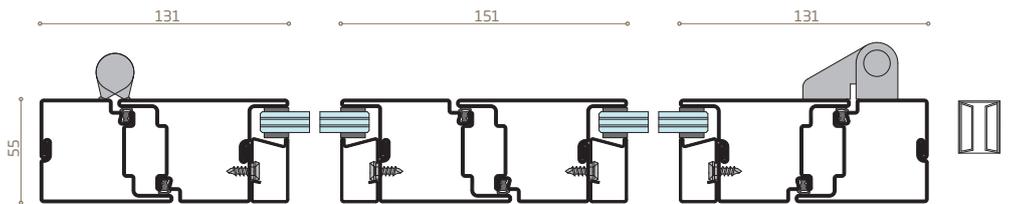
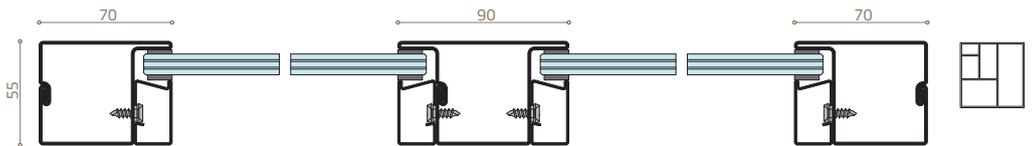
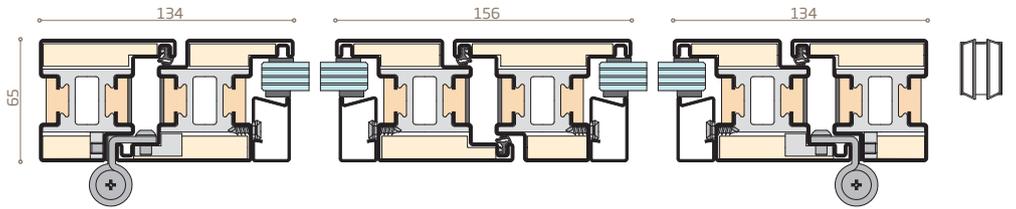
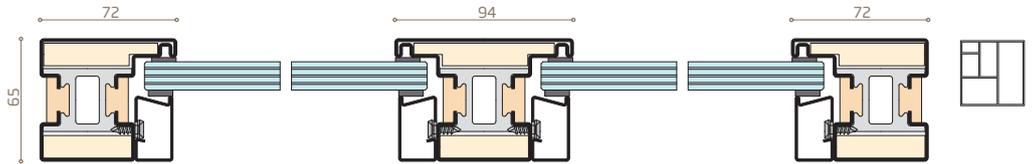


AF P.2 --- profiles are provided in stainless steel 12/10 thick  
 AF P.3 --- profiles are provided in stainless steel and corten steel 15/10 thick

vertical section



horizontal section



# products comparison: performance, heat flow, safety and face dimension



# products comparison: design options

	OS2	EBE 65	EBE 85	ML	termica	termica UP	infinities HT	AF	blindacciaio	sistemacciaio	security
galvanized steel	●	●	●	●	●	●	●	●	●	●	●
stainless steel		●	●	●	●	●	●	●		●	
corten steel	●	●	●	●	●	●	●	●		●	
brass	●	●	●	●	●	●	●			●	
flush door/window		●	●					●	●	●	●
rebated door/window	●	●	●	●						●	●
concealed sashes			●								
concealed hinges for windows		●	●	●						●	●
concealed hinges for doors		●	●							●	●
concealed door closer			●							●	●

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