Fire rated glazed doors, glazed walls, windows and gates

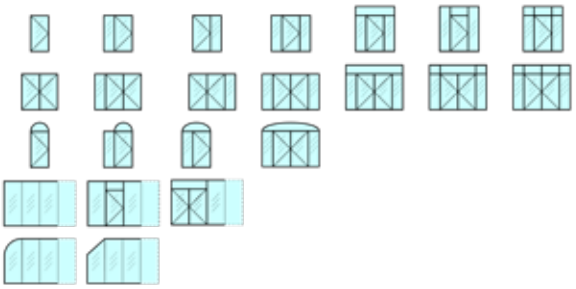
2023

Our services

Florian Ilias e.U.

Our product range include profiles in aluminum (ALU) and steel (STEEL).

ALU STEEL

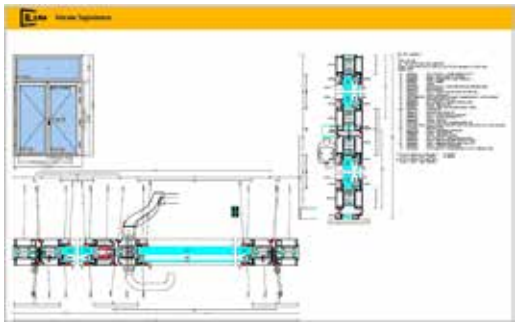


The fire rated glazings in all their innumerable configurations in combination with the wide range of accessories are tested and certified by notified and accredited bodies according to EN 1634-1 (fire test) and EN 1634-3 (smoke test), classified according to EN 13501-2 and CE marked according to EN 16034 (fire-rated product standard) and EN 14351-x (product standard for internal and external doors).

Where doors are installed as emergency exits, certificates are available in combination with the respective accessories according to the standards on escape routes EN 179 (safety handles / push pads) and EN 1125 (panic bars).

Certified additional technical characteristics are available such as:

- acustic insulation (EN 14759, ISO 717-1),
- burglar resistance (EN 1626, EN 1627, EN 1628, EN 1629),
- water tightness (EN 1027),
- air permeability (EN 12207, EN 1026),
- resistance to wind load (EN 12210, EN 12211),
- bullet resistance (EN 1522, EN 1523),
- resistance to explosion (EN 13124-1, EN 13123-2),
- thermal transmittance (EN ISO 10077)
- and many others



Measurements on the job site

We come to visit you on the job site to take measurements and consult you on the best technical solutions.

Offers on the fly

After the survey (but also for requests received by email), we send our offer and technical drawings.

Installation and maintenance

If required, we provide installation and follow-on maintenance services for meeting legal obligations.

Receive an offer for fire rated glazed profile systems!

Fire rated profiles in aluminum

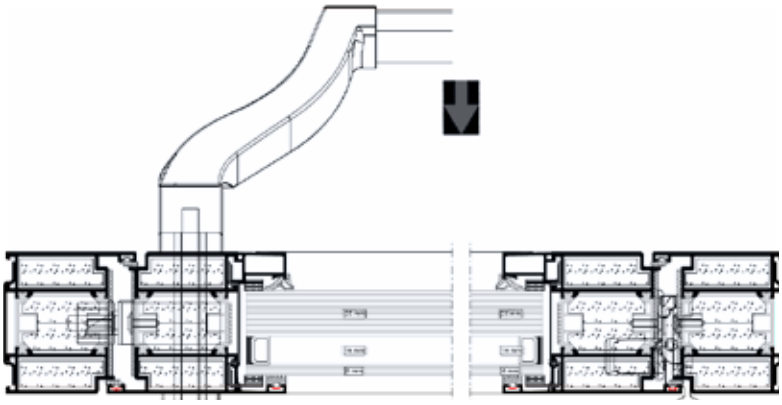
EI_2 30 - EI_2 60 - EI_2 90

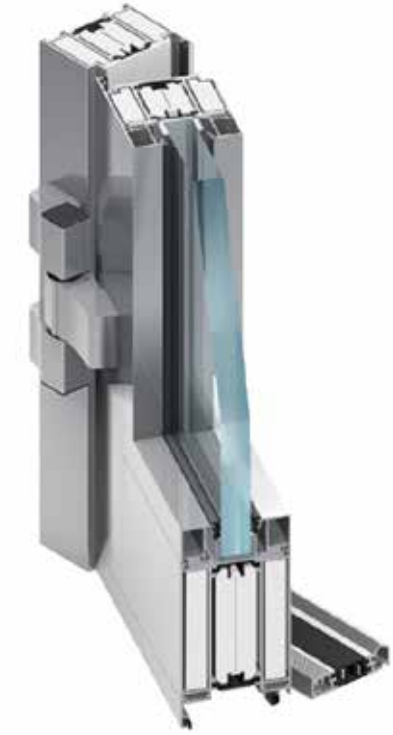
S_a - S_{200}

ALU

Aluminum, an elegant material, allows constructions which are light, thus very varied and easy to install. The thermal breaking profiles reinforced with angular steel joints reach excellent thermal transmittance values as well as good strength.

An intrinsic feature of aluminum is its resistance to corrosion ensuring a long product life.





Available in the following applications

doors | complex systems | windows | sliding | butt-joined

Technical characteristics EN 13501-2

- multipurpose
- CE marked CE EN 16034, EN 14351-1
- fire resistant EN 1634-1
- smoke proof EN 1634-3
- air permeability EN 12207, EN 1026
- acustic insulation EN 14759, ISO 717-1
- water tightness EN 1027
- resistance to wind load EN 12210, EN 12211
- thermal trasmitance EN ISO 10077
- escape routes (anti panic) EN 179, EN 1125
- corrosion resistance

Aluminum profile range ALUPROF MB 78EI / DPA

ALU

Doors and wall partitions

Fixed and openable windows
Doors single/double with glazed and flush elements
Openable windows
Complex systems with fixed elements and doors

doors windows complex

Butt-joined curtain walls

Curtain walls
Curtain walls with doors
Curtain walls with hidden profile

butt-joined

Sliding doors

Automatic sliding doors

sliding

Doors and wall partitions

ALU

Doors and wall partitions ALUPROF MB 78EI

ALU

The MB-78EI aluminum system has been developed for the construction of internal and external fire rated partition walls, with single or double leaf doors featuring a fire resistance class of EI_2 30, EI_2 60 or EI_2 90 according to EN 13501-2.

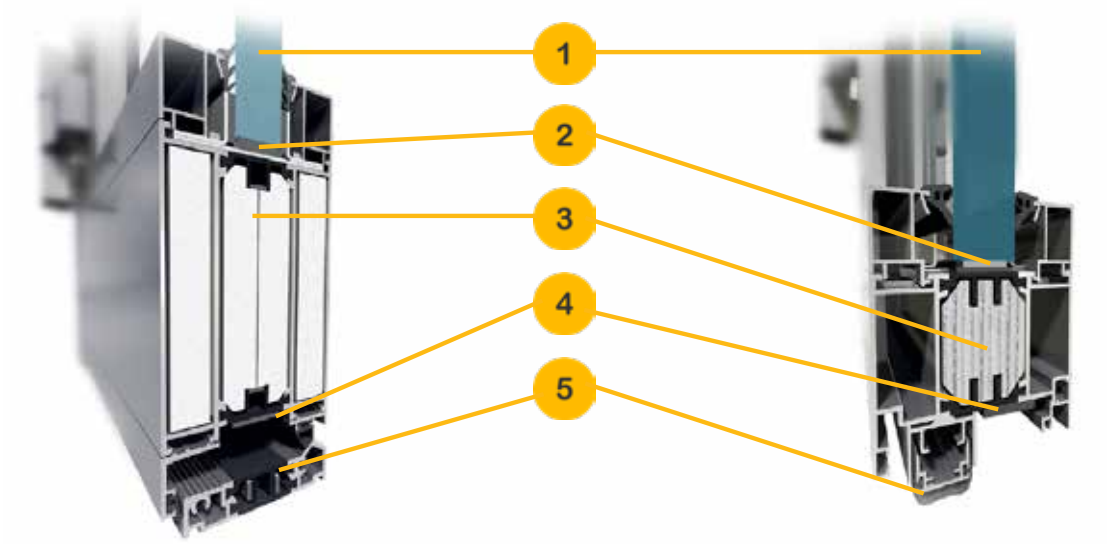
The structure of the MB-78 EI system is based on the thermally-insulated, 78 mm wide profile. The profile features a low overall heat transfer coefficient "U value" due to a thermal break of 34 mm in width. The resistance to fire is assured by special insulation materials placed in the inner chambers of the profile and into critical spaces between the profiles and close to steel accessories and joints.

Further, the profile offers extensive design possibilities, a wide range and variety of hinge products, locks, door closers, access control and other hardware.

The thickness of infills achievable with the MB-78EI system ranges from 8 to 65 mm. Infills may include fire resistant glass elements, chambered glass compositions (for external use) as well as flush non transparent elements consisting of sheet metal filled with insulating material to achieve fire resistance.

Technical specification	
Wall/door (depth)	78 mm
Leaf (depth)	78 mm
Wall/door (width)	51 mm / 72 mm
Leaf (width)	51 mm / 72 mm
Glass (thickness)	8 – 65 mm

Classes and technical values	
Air Permeability	Class 2 (EN 12207)
Water tightness	Class 5A (EN 12208)
Fire resistance	Class EI_2 30/60/90 (EN 13501-2)
Thermal insulation	from 1,6 W/(m²K)
Acoustic insulation	up to 41 dB (Rw)



1. Single or double fire resistant glass with a thickness of up to 65 mm
2. Steel accessories, thermo-expanding gaskets reinforcing/protecting the structure
3. Fire protection material for performance classes from EI_2 30 to EI_2 90
4. Thermal break for protection against heat loss (U value from 1.6 m2K)
5. Various bottom seals, with/without threshold profile option for smoke-proof class S200/Sa

Doors and wall partitions ALUPROF MB 78EI

ALU

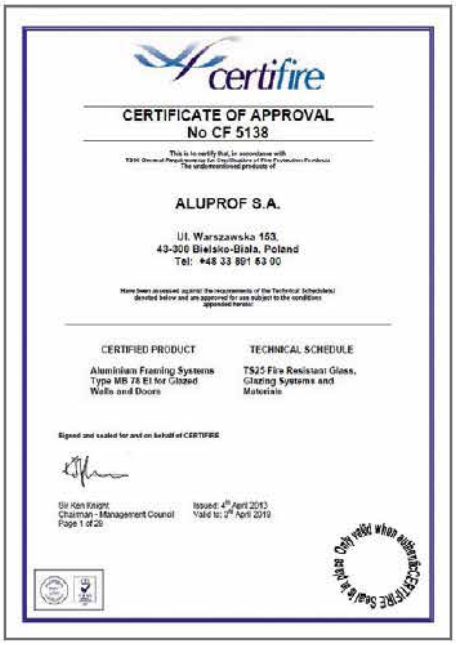
The MB-78EI system is classified in accordance with EN 13501-2 (Classifications No. 2-01036/19/R465NZE, 01036.1/20/R492NZE) and has a certificate by CERTIFIRE from the Institute of Warrington Certification Ltd No. CF 5138.


Instytut Techniki Budowlanej

ZAKŁAD INŻYNIERII ELEMENTÓW BUDOWLANYCH


Instytut Techniki Budowlanej

EXTENDED APPLICATION REPORT FOR FIRE RESISTANCE


certifire

CERTIFICATE OF APPROVAL
No CF 5138

ALUPROF S.A.

Ul. Warszawska 153,
43-300 Bielsko-Biała, Poland
Tel: +48 33 891 83 90

CERTIFIED PRODUCT

Aluminium Framing Systems
Type MB 78 EI for Glazed
Walls and Doors

TECHNICAL SCHEDULE

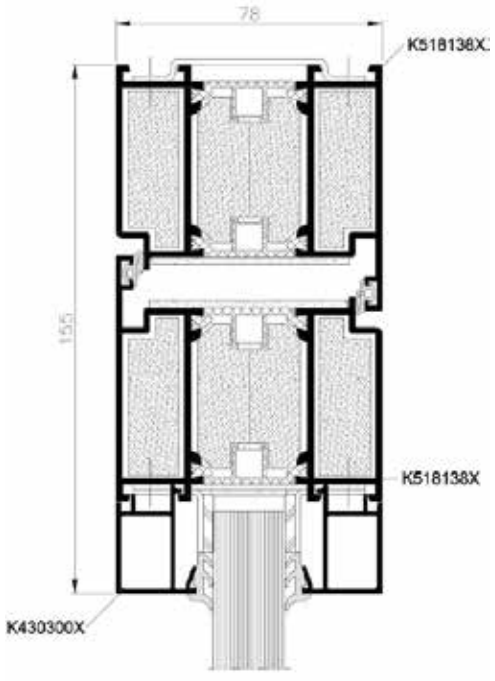
TS25 Fire Resistant Glass,
Glazing Systems and
Materials

Profile cross sections MB 78EI (doors and partition walls)

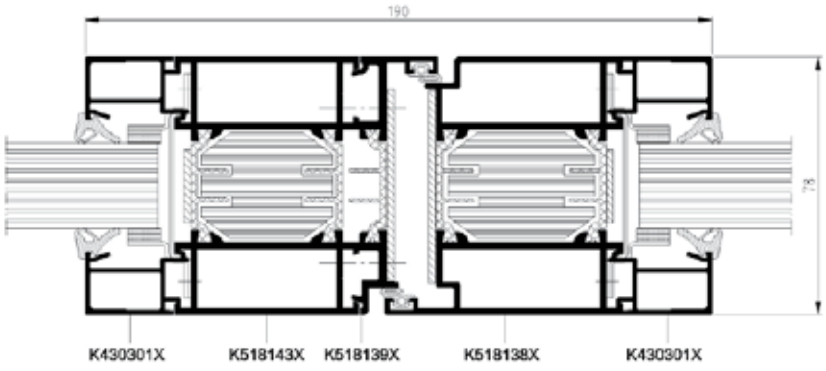
doors

complex systems

windows



Door frame

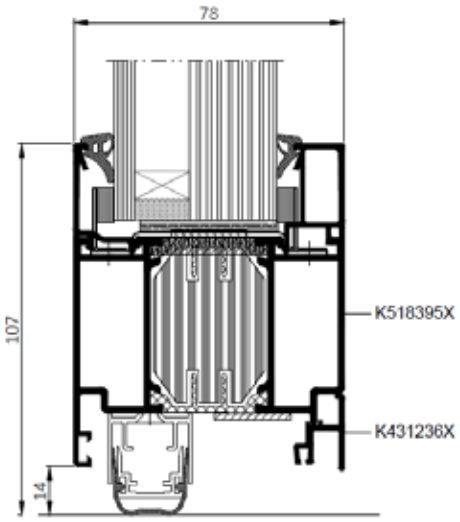


Door within wall partition

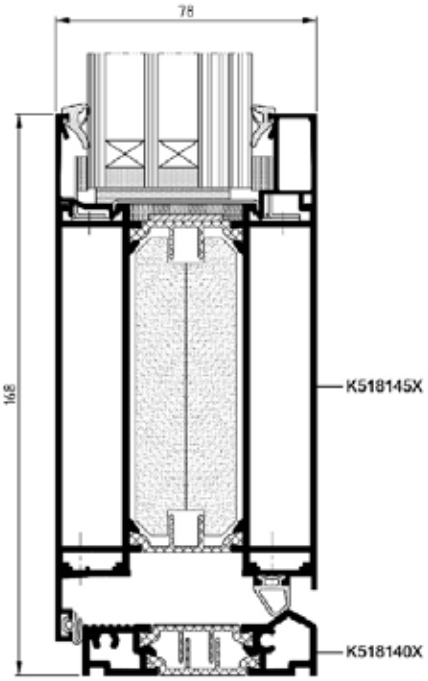
Doors and wall partitions ALUPROF MB 78EI

ALU

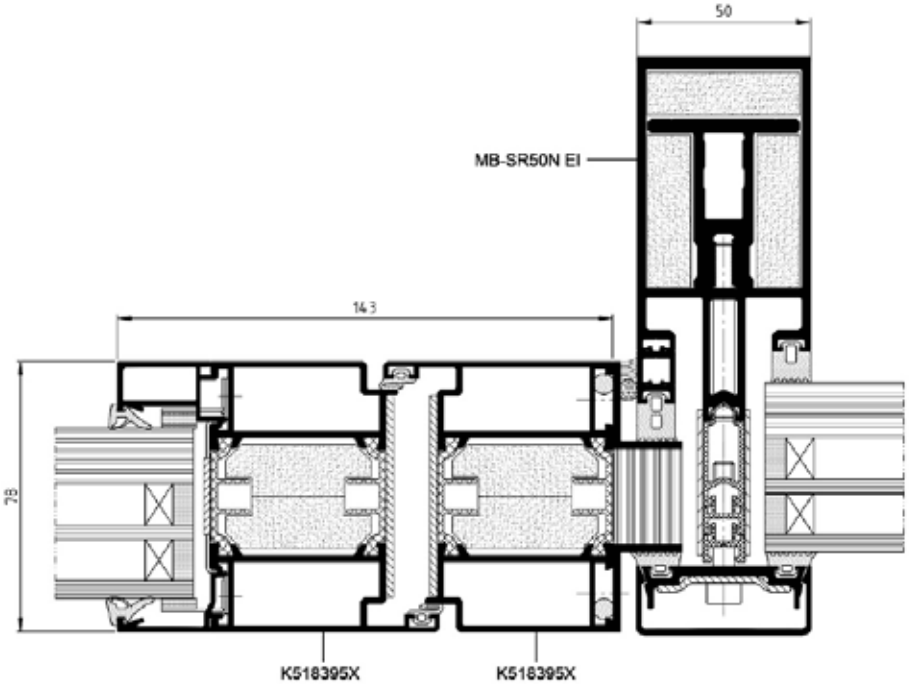
Profile cross sections MB 78EI (doors and partition walls)



Door frame with automatic bottom seal



Door within fixed threshold

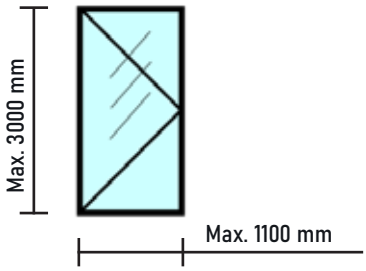


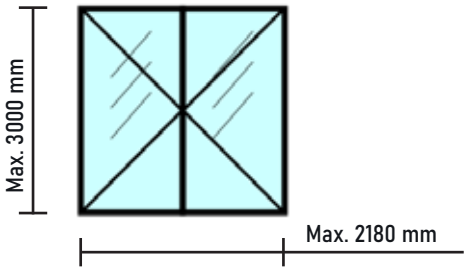
MB 78EI door in combination with MB-SR50N EI facade

Doors and wall partitions ALUPROF MB 78EI

ALU

Dimensional ranges (summary) MB 78EI (doors and partition walls)





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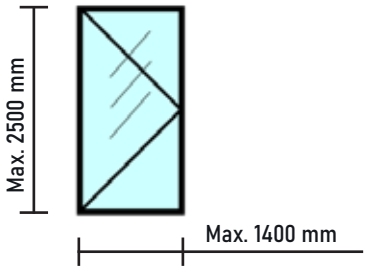
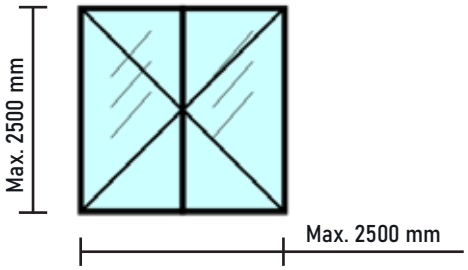
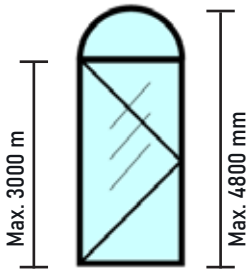
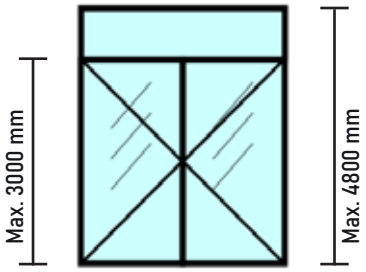
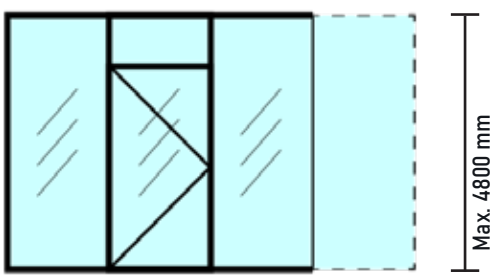










Butt-joined curtain walls

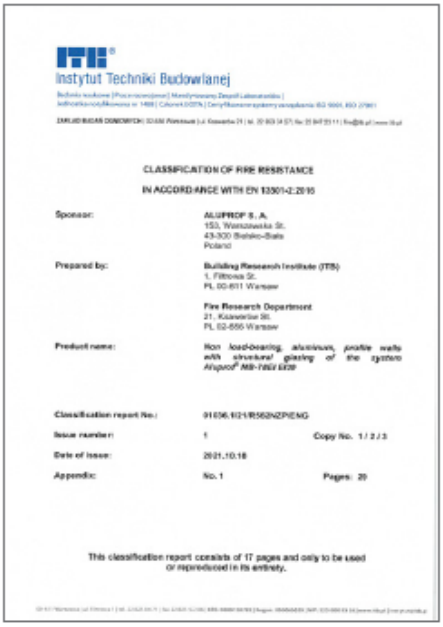
ALU

Butt-joined curtain walls ALUPROF MB 78EI

ALU

The MB-78EI system solution for transparent fire-resisting walls includes also butt-joined glazed walls. This application allows the construction of internal partitions without visible vertical profiles separating the individual glazed elements of the curtain wall, whilst preserving the full fire resistance. The gap between the glass elements (4 mm) is filled with intumescent and nonflammable material. For the same system a hidden top and bottom profile solution is also available.

Fire tests carried out at the notified polish fire institute Building Research Institute (ITB) includes a “free edge” model making sure there is no limit as to the maximum length of the partition.


Instytut Techniki Budowlanej

CLASSIFICATION OF FIRE RESISTANCE

IN ACCORDANCE WITH EN 13501-2:2016


Instytut Techniki Budowlanej

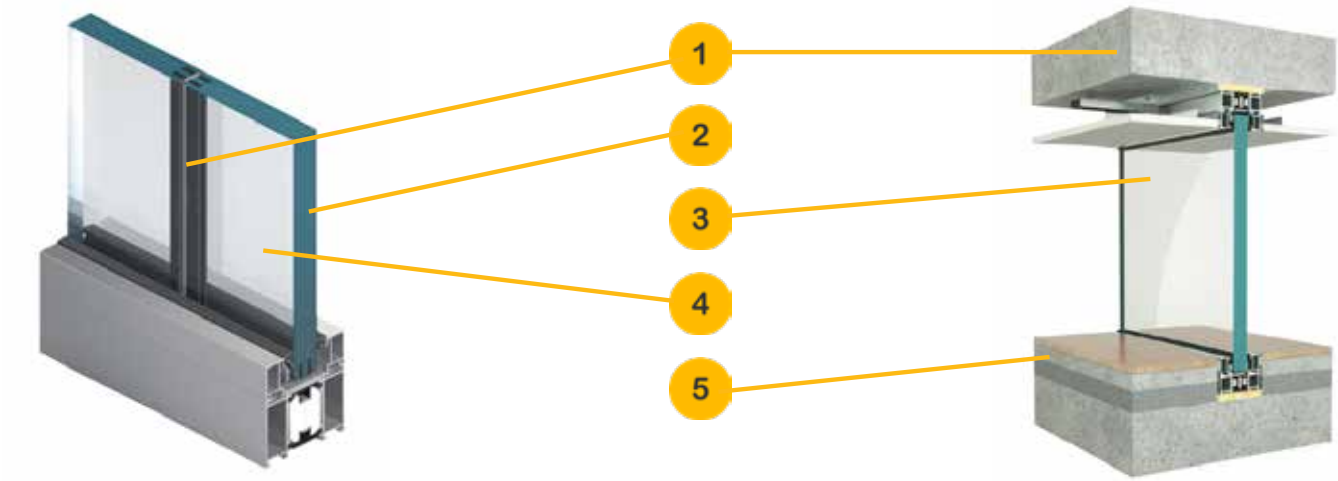
EXTENDED APPLICATION REPORT

FOR FIRE RESISTANCE


European Technical Assessment

ETA-21/0516

of 30/06/2021



Butt-joined system (black silicone)

1. The gap between the modules is 4 mm wide
2. Fire glass thickness: 17 to 35 mm (EI_2 30/60)
3. Maximum height of the partitions: 3600 mm, no limit in width
4. Maximum width of single glass modules: 1500 m x max. height: 3600 mm and 1800 mm x max. height 3000 mm
5. Hiden profile solution with profiles fitted in the floor, walls and ceiling

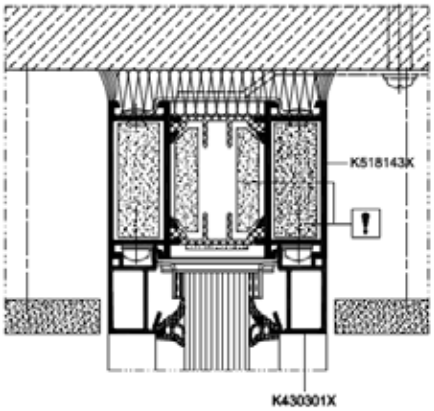
Butt-joined curtain walls ALUPROF MB 78EI

ALU

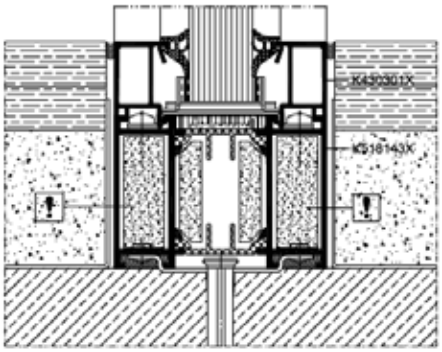
Profile cross sections MB 78EI (butt-joined systems)

butt-joined

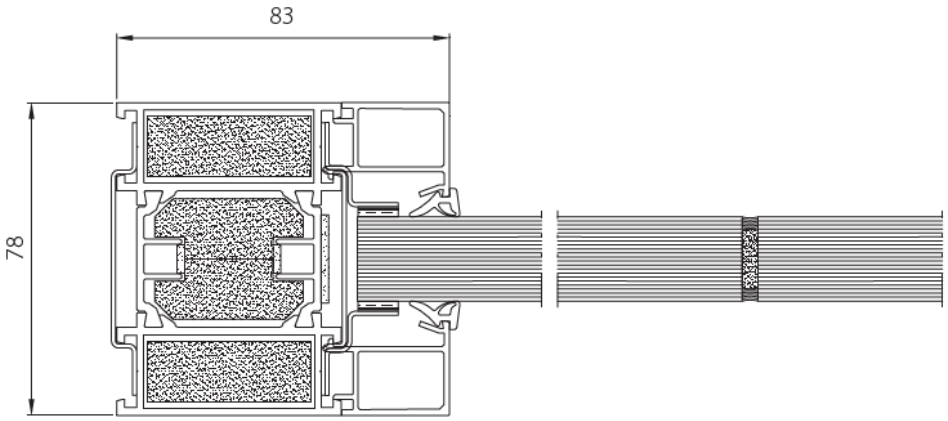
complex systems



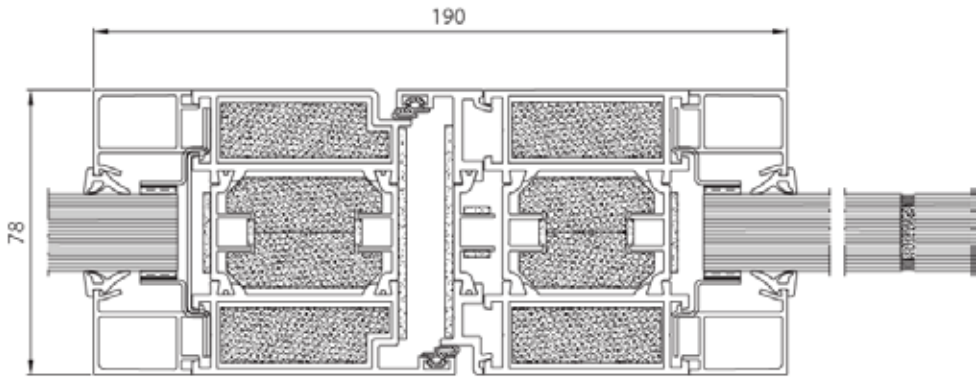
Butt-joined partition ceiling integrated



Butt-joined partition floor integrated



Butt-joined partition

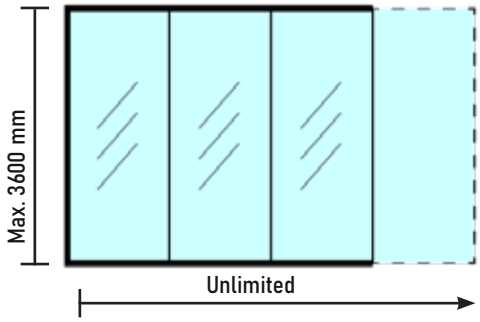


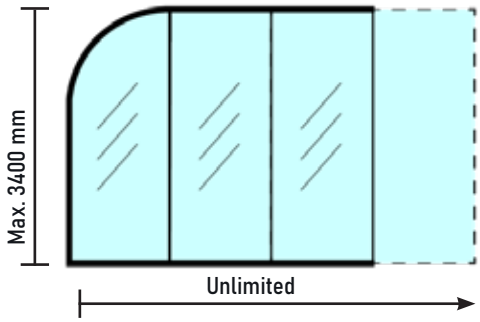
Butt-joined partition with door

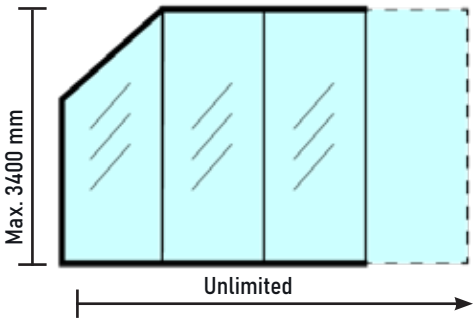
Butt-joined curtain walls ALUPROF MB 78EI

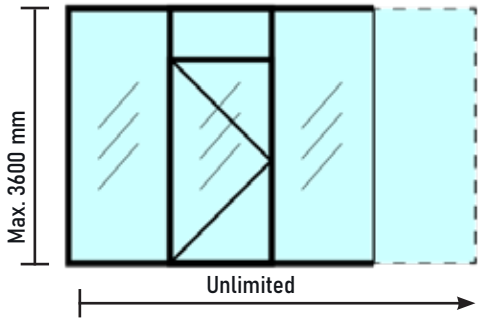
ALU

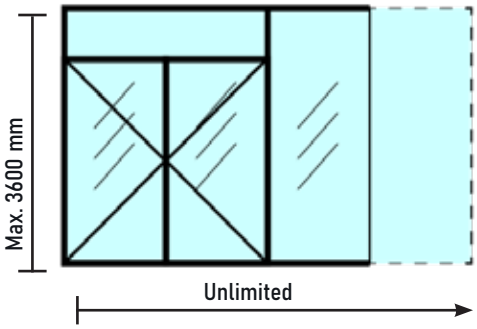
Dimensional ranges (summary) MB 78EI (butt joined systems)











Sliding doors

ALU

Sliding doors ALUPROF MB 78EI DPA

ALU

The MB-78EI DPA system has been developed for the construction of fire rated partitions with automatic, single and double leaf sliding doors. Their fire resistance class of EI_2 15 and EI_2 30 is tested on both sides.

The structure is compatible with the MB 78EI system of profiles and shares its production technology and components, including profiles, glazing beads, insulating materials, expanding tapes, gaskets, and most of the accessories. It allows the constructions of complex systems with fixed elements, doors and sliding doors within the same partition.

The sliding door's drive can be installed on high density walls and system walls such as plasterboard constructions. The motors used in this system allow a smooth and trouble-free operation of doors with up to a weight of 200 kg per leaf.

The MB-78EI DPA system holds an ITB's Classification report No.: 01036/20/R491NZP and a certificate CERTIFIRE delivered by Warrington Certification Ltd No. CF 5138.


certifire

CERTIFICATE OF APPROVAL
No CF 5138

ALUPROF S.A.

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CERTIFIED PRODUCT

TECHNICAL SCHEDULE


ITB
Instytut Techniki Budowlanej

CLASSIFICATION OF FIRE RESISTANCE

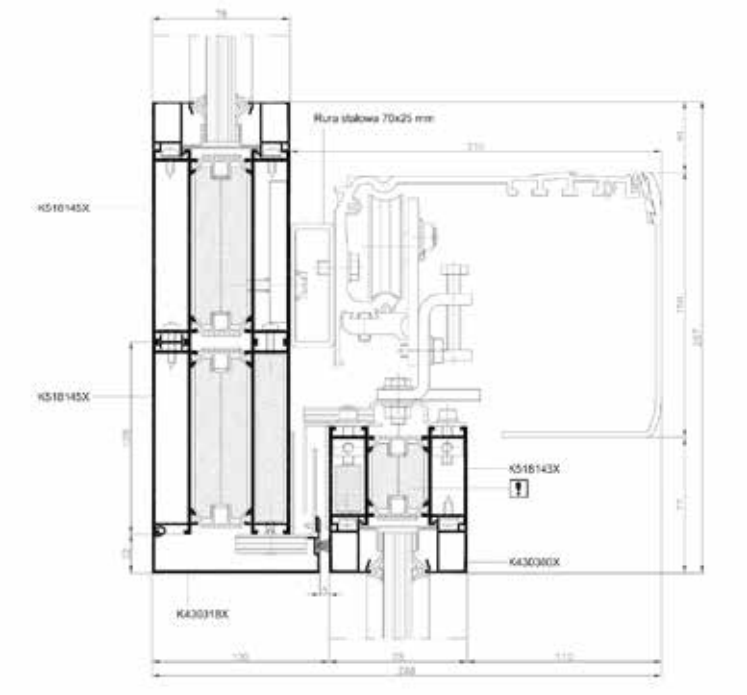
IN ACCORDANCE WITH EN 13501-2:2016

Sliding doors ALUPROF MB 78EI DPA

ALU

Profile cross sections MB 78EI DPA

sliding



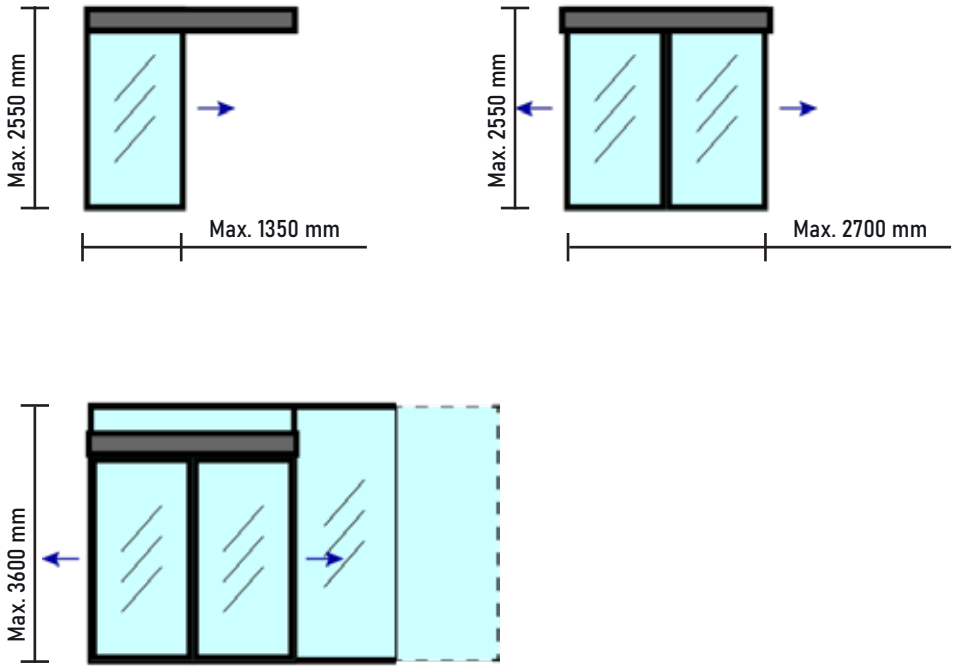
Sliding door upper profile section

Sliding door lateral profile section

Sliding doors ALUPROF MB 78EI DPA

ALU

Dimensional ranges (summary) MB 78EI DPA (sliding doors)



Fire rated profiles in steel

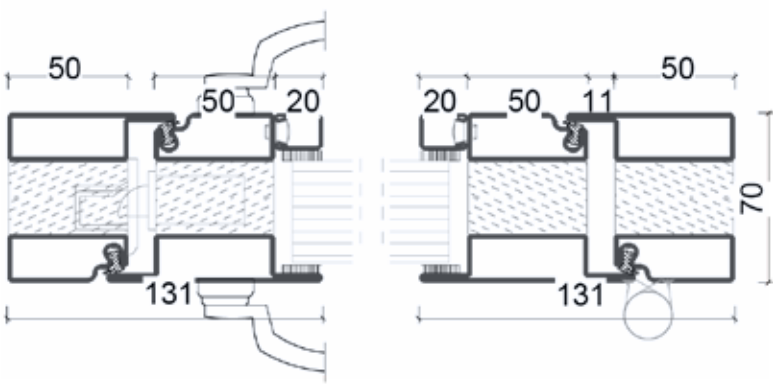
EI_2 30 - EI_2 60 - EI_2 90

S_a - S_{200}

STEEL

Steel, because of its durability, is the preferred material for heavy-duty use cases. The steel profiles with welded corner joints guarantee that incomparable strength that allows the system to be certified as fire rated but also resistant to bullets, resistant to explosions and resistant to burglary.

The profiles are available in the versions painted carbon steel, painted galvanized steel and painted or brushed AISI 316L stainless steel.



Available in the following applications

doors

complex systems

windows

sliding

Tecnical characteristics EN 13501-2

- multipurpose
- CE marked CE EN 16034, EN 14351-1
- fire resistant EN 1634-1
- smoke proof EN 1634-3
- air permeability EN 12207, EN 1026
- acustic insulation EN 14759, ISO 717-1
- water tightness EN 1027
- resistance to wind load EN 12210, EN 12211
- thermal trasmitance EN ISO 10077
- escape routes (anti panic) EN 179, EN 1125
- bullet proof EN 1522, EN 1523
- burglar resistance EN 1627, EN 1628, EN 1629
- heavy- duty industrial use

Steel profile range STALPROFIL Concept SP 700 / 900

STEEL

Doors and wall partitions

Single/double glazed and flush doors, motorized
Complex systems with fixed elements and doors, corners
Internal and external CE marked doors

doors

complex

Windows fixed and openable

Curtain walls
Fixed windows
Openable windows

windows

Sliding doors

Automatic sliding doors

sliding

Doors and wall partitions

STEEL

Doors and wall partitions STALPROFIL Concept SP 700 / 900

STEEL

The SP Steel profil system has been developed for the construction of internal and external fire rated partition walls, with single or double leaf doors featuring a fire resistance class of E 60, E90, EI_2 30, EI_2 60 or $EI_2$90 according to EN 13501-2.

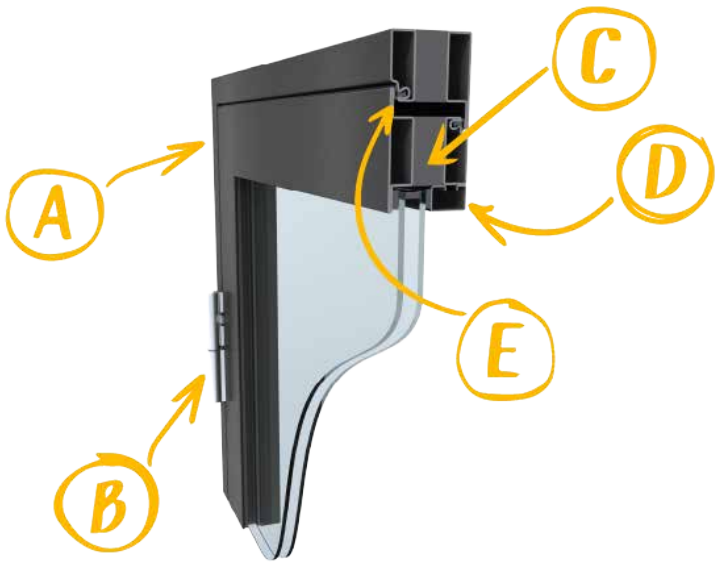
The structure of the SP 700 (steel) and 900 (inox) systems are based on the thermally-insulated 50 mm wide profile. The resistance to fire is assured by special insulation materials placed in between the profiles. The thickness of the profile depends on the fire rating and ranges from 50 to 90 mm.

Further, the profile offers extensive design possibilities, increased and decreased profiles widths, a wide range and variety of hinge products, locks, door closers, access control and other hardware.

The thickness of infills achievable with the Concept SP 700 / 900 systems ranges from 6 to 58 mm. Infills may include fire resistant glass elements, chambered glass compositions (for external use) as well as flush non transparent elements consisting of sheet metal filled with insulating material to achieve fire resistance.

Technical specification	
Wall/door (depth)	50 mm
Leaf (depth)	50 mm
Wall/door (width)	50, 65, 70, 90 mm
Leaf (width)	50, 65, 70, 90 mm
Glass (thickness)	6 – 58 mm

Classes and technical values	
Bulletproof	up to FB6
Burglar resistance	up to RC4
Fire resistance	Class E 60/90, EI_2 30/60/90 (EN 13501-2)
Thermal insulation	up to 1,1 W/(m²K)
Acoustic insulation	up to 43 dB (Rw)



A. Profile witdh 50 mm, steel sheet thickness 1,5 mm, available in: carbon, galvanized or stainless steel AISI 316L
B. 2- winged butt hinge welded to the frame and painted in the same RAL color as the frame
C. Fireproof insulation material
D. Glazing bead with hidden fixing, positioned flush to the profile, in the same RAL color as the profile
E. Profile equipped with a seat for the rubber gasket

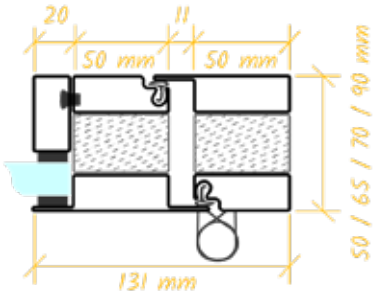
Doors and wall partitions STALPROFIL Concept SP 700 / 900

STEEL

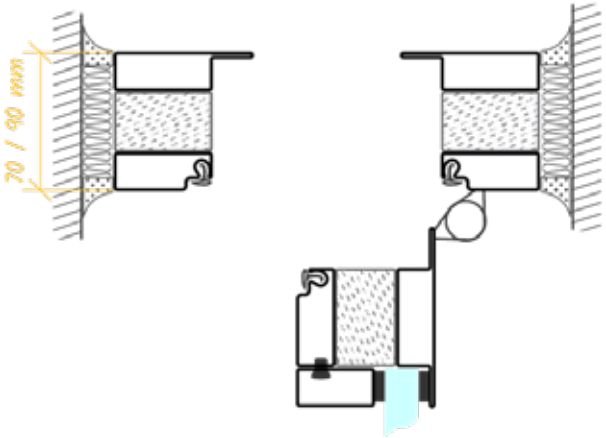
The MB-78EI system is classified in accordance with EN 13501-2 and has a certificate by RISE and DBI Sweden.

Profile cross sections Concept SP 700 / 900 (doors and partition walls)

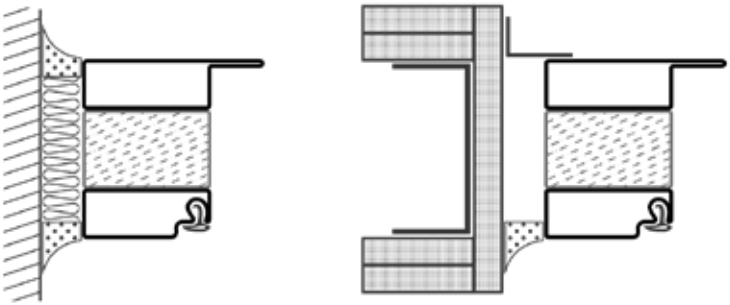
doors complex systems windows



Frame dimensions



Door frame open position



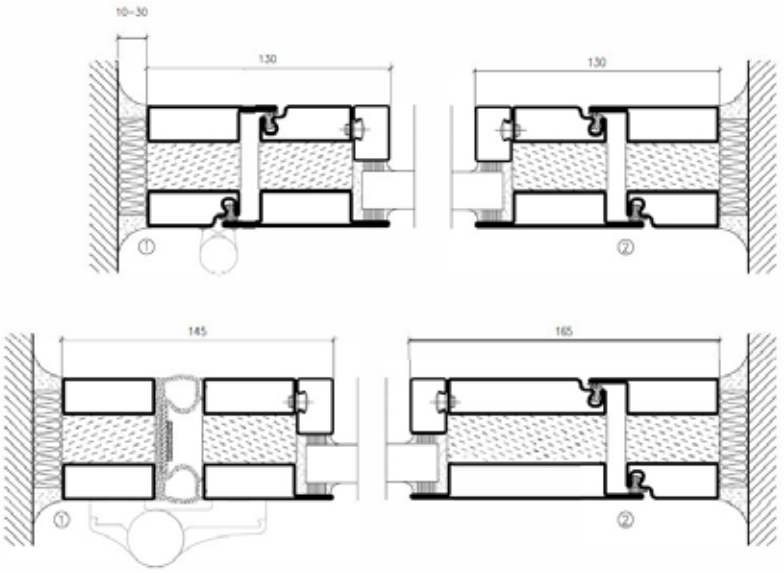
Installation methods high desnity wall, plasterboard wall

Doors and wall partitions STALPROFIL Concept SP 700 / 900

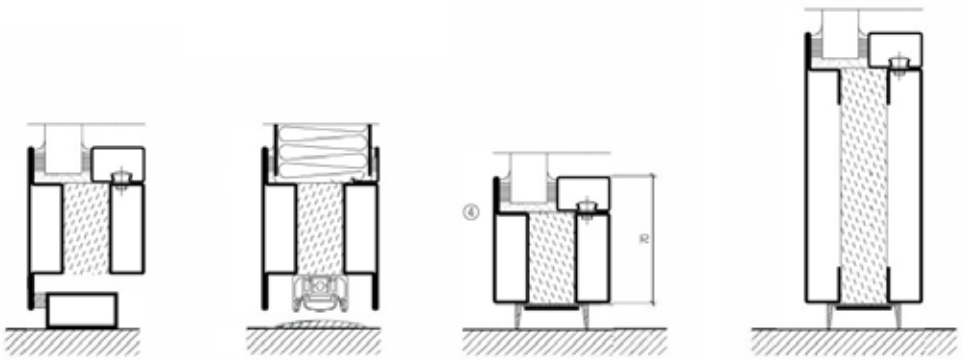
STEEL

Profile cross sections Concept SP 700 / 900 (doors and partition walls)

Vertical cut of frame/door and transom with standard and reduced width profile



Horizontal cut of frame/door with standard and finger trap gasket

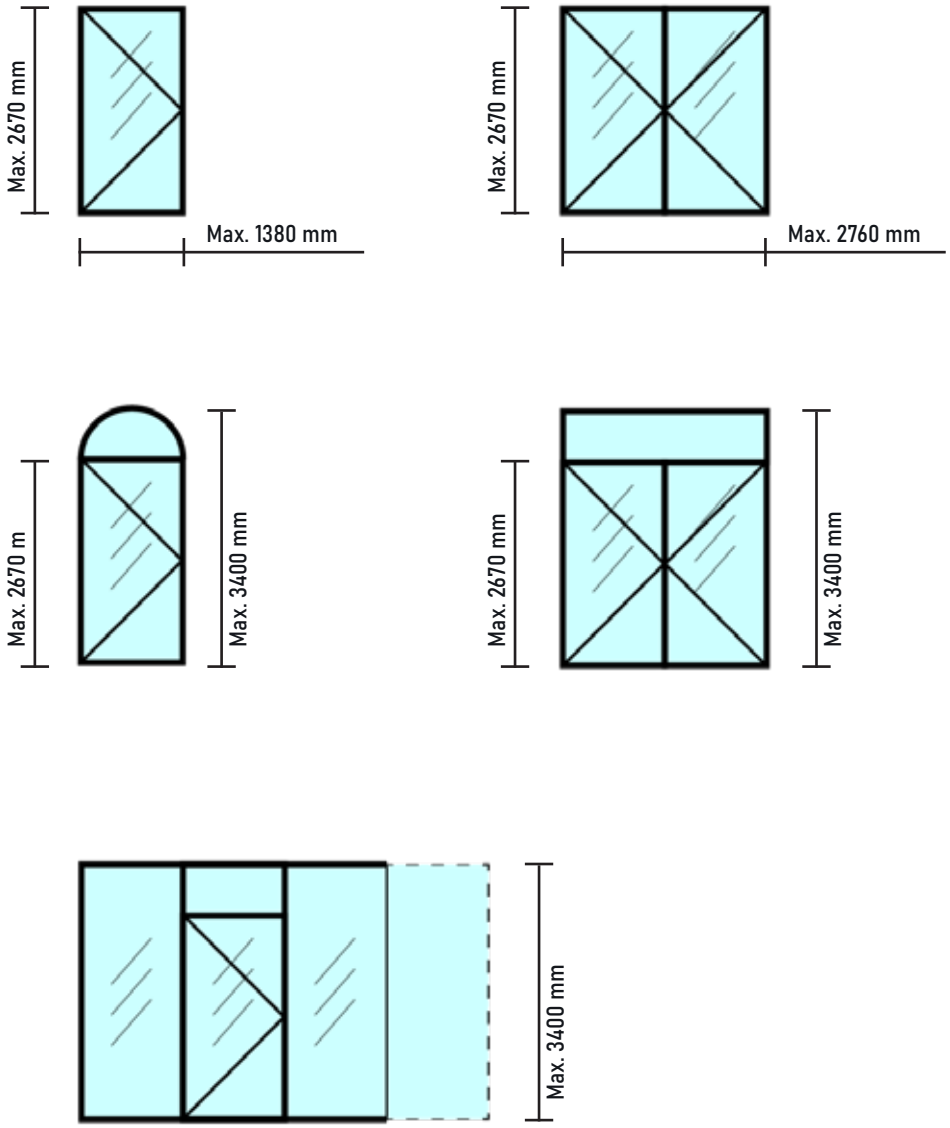


Bottom threshold/gasket solutions: fixed, automatic gasket (flush steel panel filling), standard gasket and increased profile width (kickplate solution)

Doors and wall partitions STALPROFIL Concept SP 700 / 900

STEEL

Dimensional ranges (summary) Concept SP 700 / 900 (doors and partition walls)



Sliding gates range Ferr Edil ETICO EI_2 60 / 120

POR

Single leaf sliding gates

Left or right opening
Counterweight in open / closed postion
Installation in front of opening or to the ceiling
Installation into a corner (on one side)

single leaf

Double leaf sliding gates

Symmetric or assymetric leaves
Installation in front of opening or to the ceiling

double leaf

Single leaf sliding gates EI_2 60 / 120

POR

Single leaf sliding gates EI_2 60 / 120

POR

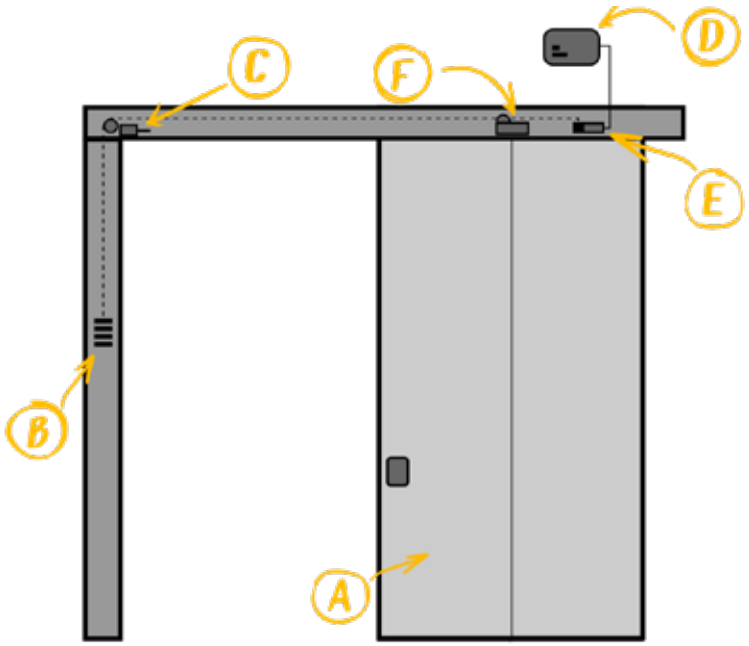
Fire rated sliding gates close large openings between fire compartments in vast architectural spaces assuring that in case of fire flames and heat cannot spread throughout the building.

Typically, during normal operation these gates are held open by an electromagnet allowing passage of vehicles and or people between compartments. If the fire system detects smoke and / or fire the electromagnet releases the leaf of the gate and the counterweight closes the gate along the rail.

Due to their dimensions the gates are heavy and thus, in order to prevent accidents, a hydraulic breaking and speed control device assures that during closing the speed of the leaf is kept safely constant and slow. An impact absorber at the end of the rail cushions the last centimeters of the closing movement preventing damage to the supporting construction.

Technical specification	
Panel thickness	100 mm
Steel sheet thickness	0.8 mm
Min. dimensions	800 x 800 mm
Max. dimensions	5400 x 5075 mm
Weight	45 kg / m^2

Classes and technical values	
Fire rating	EI2 120 (EN 13501-2)
Wind resistance	3 (EN 12444, EN 13241)
Safety in use	yes, EN 13241
Durablity	C3, 50.000 cycles (EN 12605, EN 12604)
Thermal transmittance	1.2 W/m^2K (EN 12428, EN 13141)



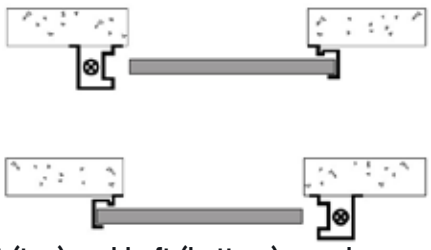
A. Door leaf composed of sandwich elements with handle and labyriths
B. Counterweight
C. Impact absorber
D. Fire / smoke alarm system connected to EM
E. Electromagnet (EM)
F. Hydraulic breaking / speed control device

Single leaf sliding gates EI_2 60 / 120

POR

Single leaf fire rated modular panels joined by tongue and groove, held in place by a upper and lower support profile and firmly fixed by rivets. The modular panels are made from peelable galvanized press-folded sheet metal with thickness 0,8 mm, forming an insulated sandwich with a total thickness of 100 mm. A floor mounted door leaf guide holds the leaf in the correct perpendicular position. Vertical and horizontal labyrinths and expanding gaskets installed below the leaf and on the closing rebate seal the perimeter of the leaf. A metallic identification plate with the production number and the CE marking is riveted to the leaf. Automatic closing is assured by means of a counterweight along the rail guide which is profiled from 4 mm thick steel sheets. The gate is supplied with an upper rail guide cover, a counterweight cover on the closed position side, recessed handles on both sides, an electromagnetic hold-open device, a braking device and an impact shock absorber.

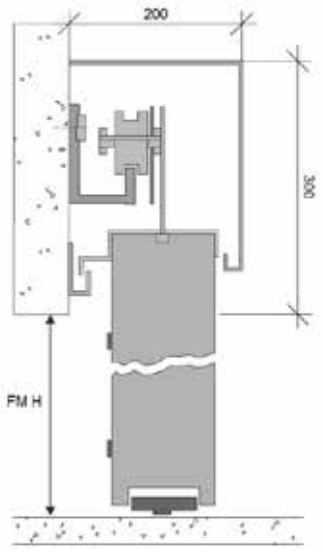
The pre-painted steel sheets are availbale in 3 different simil RAL colors. Packaging is with heat-shrinked film on wooden crates.
The gate is certified in accordance with EN 13241 and EN 16034 and comes with CE marking and a declaration of performance (DoP).



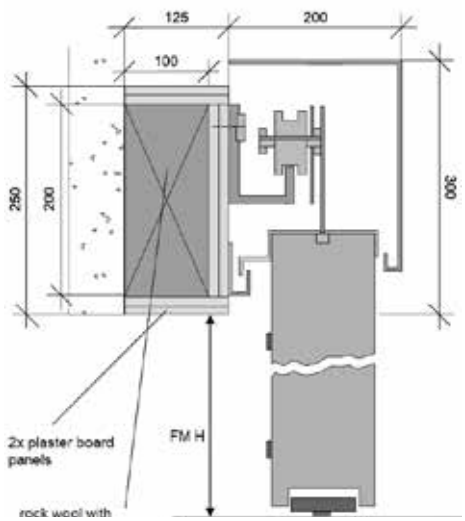
Right (top) and Left (bottom) opening senses with counterweight in standard position

simil RAL colors available

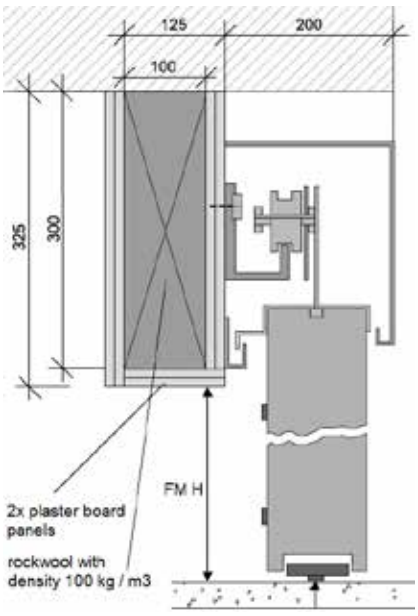
Installation methods



In front of the wall



In front of the spaced wall

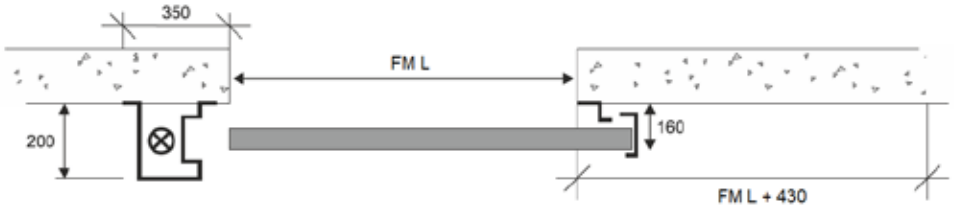


To the ceiling

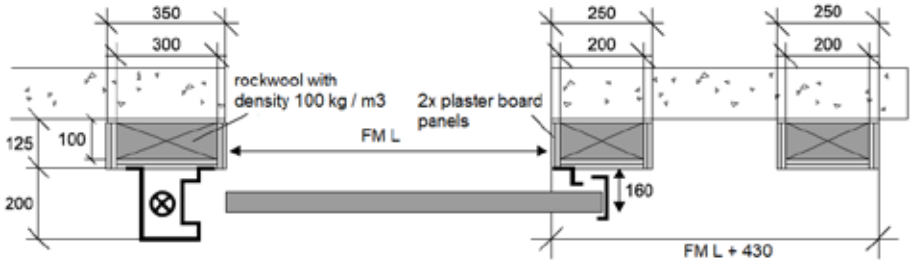
Single leaf sliding gates EI_2 60 / 120

POR

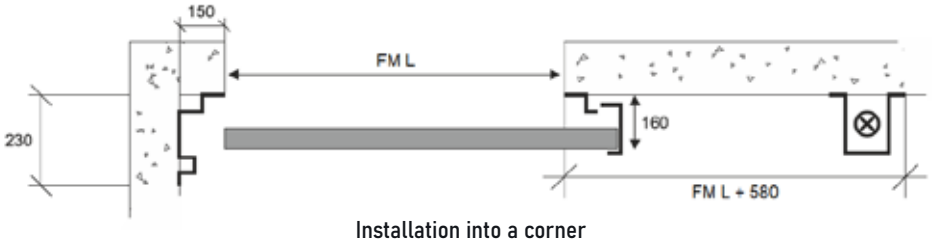
Dimensions and required spaces



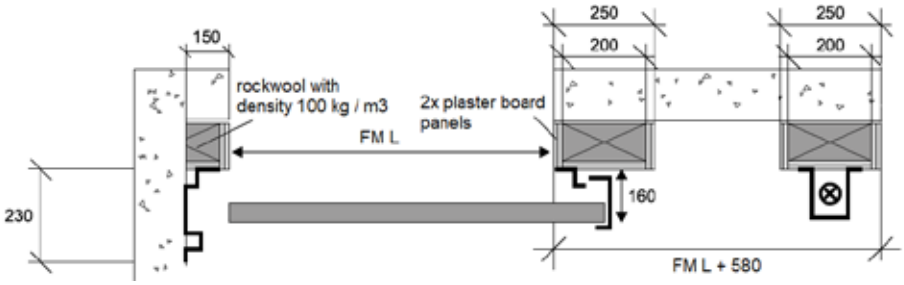
Installation in front of the opening with free spaces on both sides



Installation in front of the opening with free spaces on both sides, spaced from the wall with additional structural profiles (supplied not insulated)



Installation into a corner

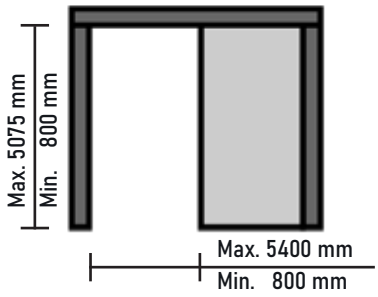


Installation into a corner, spaced from the wall with additional structural profiles (supplied not insulated)

Single leaf sliding gates EI_2 60 / 120

POR

Dimensional ranges (summary) ETICO (sliding doors)



Double leaf sliding gates

EI_2 60 - EI_2 120

POR

Double leaf sliding gates EI_2 60 / 120

POR

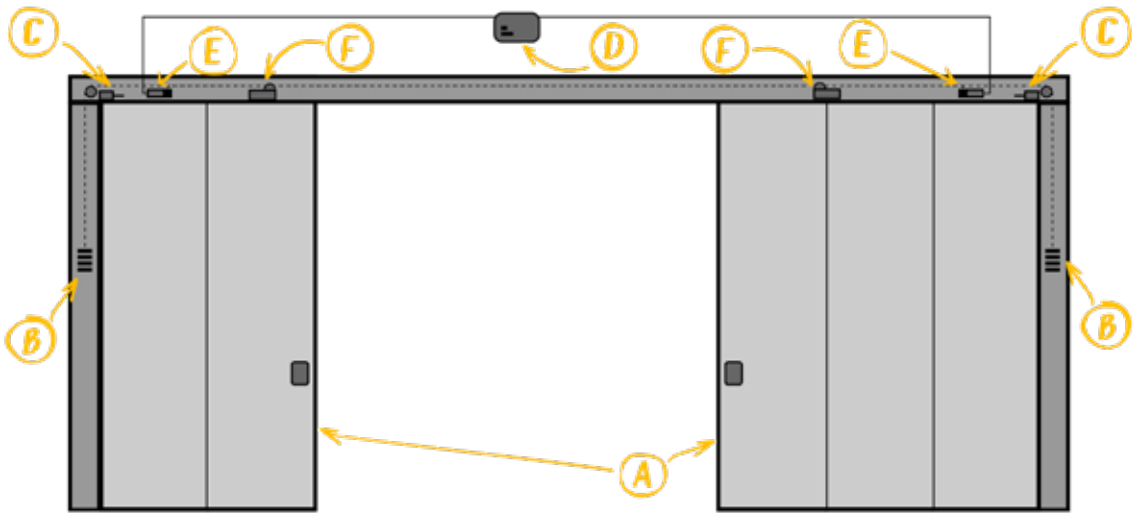
Fire rated sliding gates close large openings between fire compartments in vast architectural spaces assuring that in case of fire flames and heat cannot spread throughout the building.

Typically, during normal operation these gates are held open by an electromagnet allowing passage of vehicles and or people between compartments. If the fire system detects smoke and / or fire the electromagnets releases the leaves of the gate and the counterweights close the gate along the rail.

Due to their dimensions the gates are heavy and thus, in order to prevent accidents, for each leaf a hydrualic breaking and speed control device assures that during closing the speed of the leaf is kept safely constant and slow. An impact absorber at the end of the rail cushions the last centimeters of the closing movement preventing damage to the supporting construction.

Technical specification	
Panel thickness	100 mm
Steel sheet thickness	0.8 mm
Min. dimensions (gate)	1700 x 800 mm
Max. dimensions (gate)	5400 x 5075 mm
Min. dimensions (leaf)	800 x 800 mm
Weight	45 kg / m^2

Classes and technical values	
Fire rating	EI2 120 (EN 13501-2)
Wind resistance	3 (EN 12444, EN 13241)
Safety in use	yes, EN 13241
Durablity	C3, 50.000 cycles (EN 12605, EN 12604)
Thermal transmittance	1.3 W/m^2K (EN 12428, EN 13141)



A. Door leaves composed of sandwich elements with handle and labyriths
B. Counterweights
C. Impact absorbers
D. Fire / smoke alarm system connected to EM
E. Electromagnets (EM)
F. Hydraulic breaking / speed control devices

Double leaf sliding gates EI_2 60 / 120

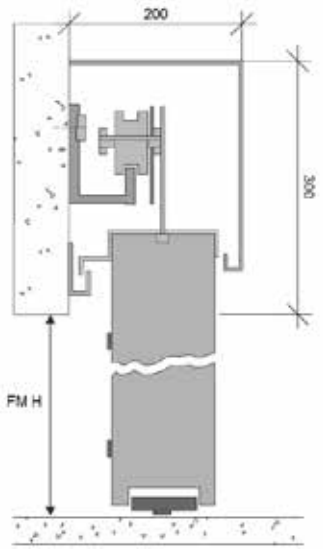
POR

Double leaf fire rated modular panels joined by tongue and groove, held in place by a upper and lower support profile and firmly fixed by rivets. The modular panels are made from peelable galvanized press-folded sheet metal with thickness 0,8 mm, forming an insulated sandwich with a total thickness of 100 mm. A floor mounted door leaf guide holds the leaf in the correct perpendicular position. Vertical and horizontal labyrinths and expanding gaskets installed below the leaf and on the closing rebate seal the perimeter of the leaf. A metallic identification plate with the production number and the CE marking is riveted to the leaf. Automatic closing is assured by means of two counterweights along the rail guide which is profiled from 4 mm thick steel sheets. The gate is supplied with an upper rail guide cover and with per leaf: a counterweight cover in the closed position side, recessed handles on both sides, an electromagnetic hold-open devices, a braking devices and an impact shock absorber.
The pre-painted steel sheets are availbale in 3 different simil RAL colors. Packaging is with heat-shrinked film on wooden crates.
The gate is certified in accordance with EN 13241 and EN 16034 and comes with CE marking and a declaration of performance (DoP).

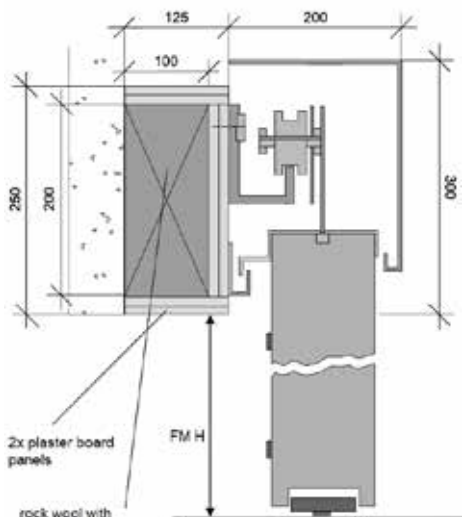
Symmetric or assymetric leaves with counterweights on both sides

simil RAL colors available

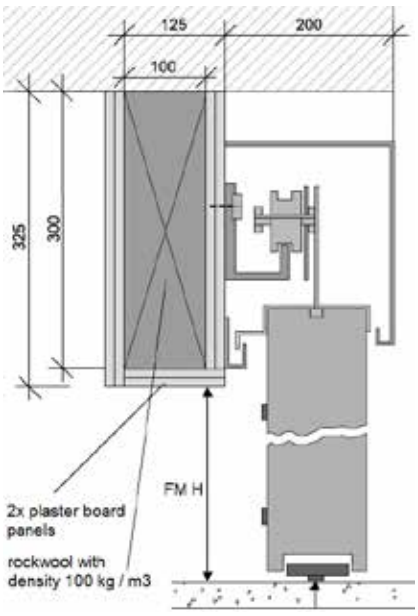
Installation methods



In front of the wall



In front of the spaced wall



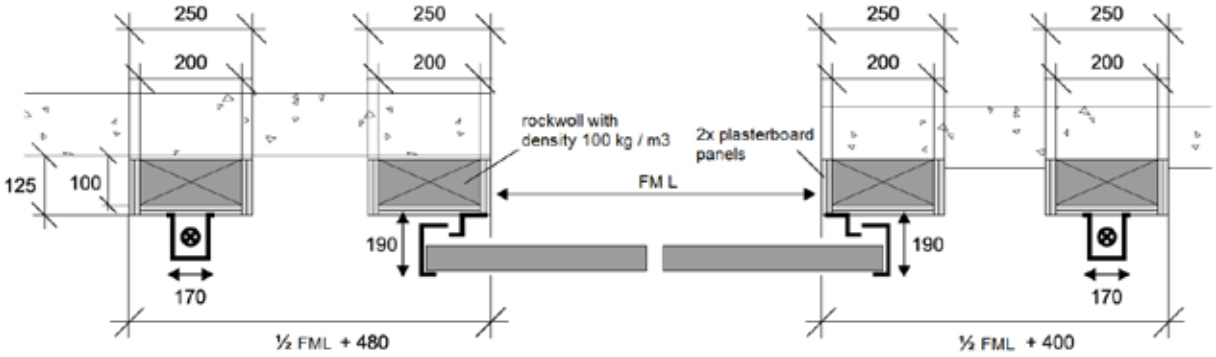
To the ceiling

Double leaf sliding gates EI_2 60 / 120

POR

Dimensions and required spaces

Installation in front of the opening with free spaces on both sides

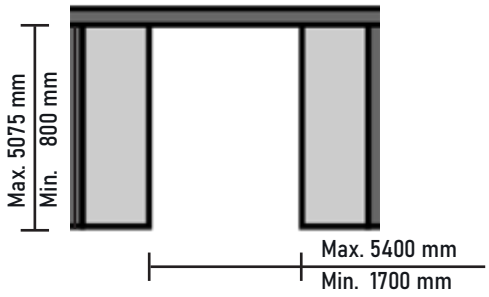


Installation in front of the opening with free spaces on both sides, spaced from the wall with additional structural profiles (supplied not insulated)

Double leaf sliding gates EI_2 60 / 120

POR

Dimensional ranges (summary) ETICO (sliding doors)

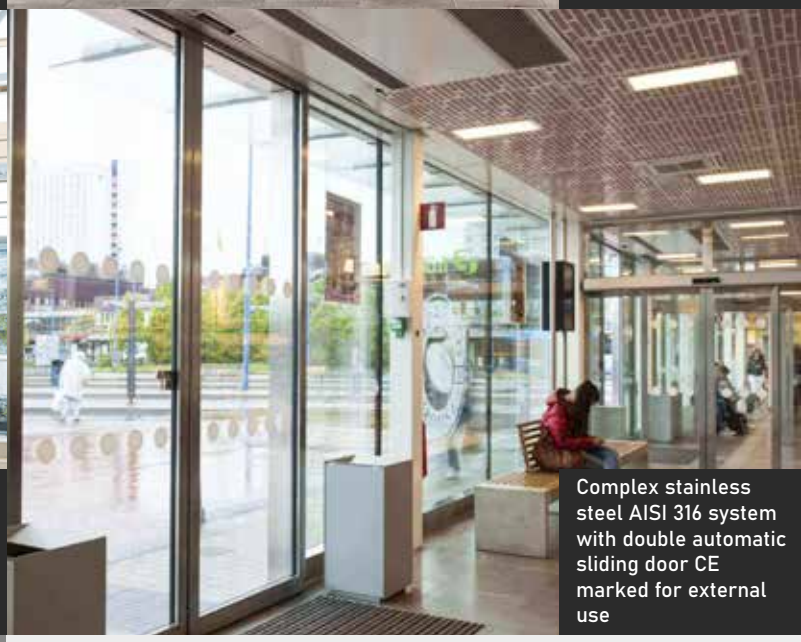


Florian Ilias e.U. Your partner across Europe

Complex aluminum system with single door with improved acustic isulation and CE marked for external use

Complex steel system with various single doors on escape routes with anti-panic bars and CE marked for external use

Complex steel system with motorized active leaf of double door for easy access and CE marked for external use



Complex stainless steel AISI 316 system with double automatic sliding door CE marked for external use

Internal aluminum curtain wall with butt-joined elements, single glazed door and installation with hidden profiles

Services in Italy

Florian Ilias e.U. offers a complete service to the Italian market covering site surveys, installation through its network of distributors, agents, installers and maintenance companies.

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