



ausvaitn

Ausweiten door, a folded door for expended space





ausweith door's opening and closing system

AAAA	the left or to the right			
JVVV		S. C. J. S.		
Door hinge in one direction at	t 90 degree either to the lef	t or to the right		
\mathcal{M}				
Door hinge in one direction at	t 180 degree either to the le	eft or to the right (utility me	odel)	
\mathcal{M}		i a - 1 1 1.		
Store in both directions either	r to the left or to the right fro	om center or a point of the	e opening	
۸۸	۸۸		encollision (1.1.5.0 € X	
J V 1	/ V L			
Store in both directions either	To the left of to the right ar	d have door hinge either	at center of the opening	or at sp
		and the second		
Store at the place that you wa	ant after opening 1 set of 2	doors	Λ	
Store at the place that you wa	ant after opening 1 set of 2	doors		_]
Store at the place that you was	١/	. \	or (technology patent)	_]
_	١/	. \	or (technology patent)	
_	ant after opening door hinge	e with even number of do		
Store at the place that you wa	ant after opening door hinge	e with even number of do		
Store at the place that you wa	ant after opening door hinge	e with even number of do		

Your Ausvaitn door

can open and expand space by using folded system.

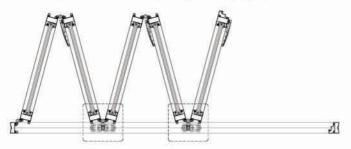
Your Ausvaitn door is produced by order

to open and/or expand space by folding, sliding and door hinge and to put a designer's thought into practice and to be optimum system. pace expansion of Ausvaitn has technology patent.

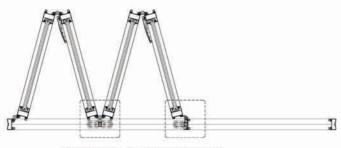


ausvaitn hardware technology [technology patent]

Scope of application of hardware depending upon load (Fig - 1)



[with hardware -1] [with hardware -2]



[with hardware -1] [with hardware -3]

Load of Ausvaitn hardware

Ausvaitn hardware with folded door for opening as well as space expansion has three kinds of loads (see Fig-1):

- With hardware (Fig -1) -1
 Load of balance, deflection and inclination of both doors
- [With hardware (Fig -1) -2
 Flexible load on irregularity and unbalance of the weight depending upon deflection and inclination of both doors and odd number door
- [With hardware (Fig -1) -3
 Balance, deflection and inclination of both doors, and stability of the slide of last door

The hardware (runner) that is a rolling system shall have functions and shapes depending upon load.

Ausvaitn with folding door has hardware (runner) of rolling system that rolls and prevents doors and windows from being deformed, and that shall be suitable to hardware load.

Top and bottom hardware (runner) of (with hardware -1) Top and bottom hardware (runner) of (with hardware -2) Top and bottom hardware (runner) of (with hardware -3)









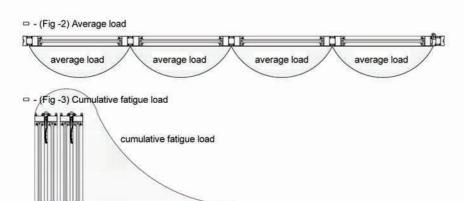
hardware technology for both loads at top and bottom of ausvaitn [technology patent]

□ - Introduction of the technology of both loads at top and bottom of Ausvaitn

A folding door applies force to top rail as well as bottom rail depending upon opening and closing.

A folding door may produce problems when neglecting force (load) at each area depending upon opening and closing.

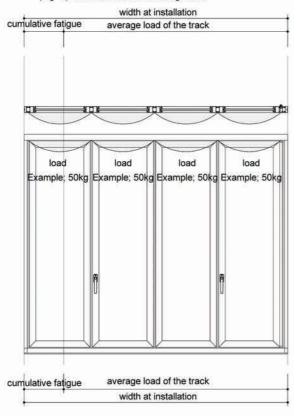
Load of folding door depending upon opening and/or closing can be divided into two: average load and cumulative fatigue load (see figure below):



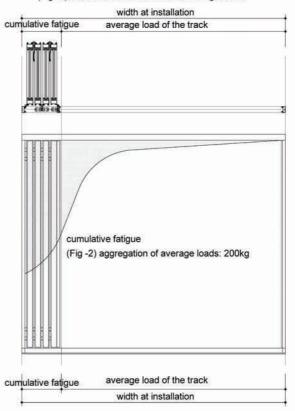


ausvaitn hardware technology for both loads at top and bottom (technology patent)

□ - (Fig -2) Load distribution at average load

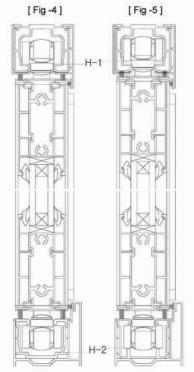


- (Fig -3) Load distribution at cumulative fatigue load



- $\hfill =$ Load of hardware technology for load at top and bottom
 - The average load (Fig -2) that has closed doors has divided all of the loads of doors by average of total loads.

 The cumulative load (Fig -3) that has opened doors has aggregated all of the loads either to the left or to the right at storage of doors.
- Effect of both [average load] and [cumulative fatigue load] upon folding door
 - The loads of doors and/or windows of cumulative fatigue area increase at storing and decrease at closing of doors and windows.
 - The fluctuation of loads shall destroy anchor and/or bolts of top track (top rail) of both building and folding door to produce deflection of doors and/or windows.



bottom rail

at cumulative fatique load

bottom rail

at average load

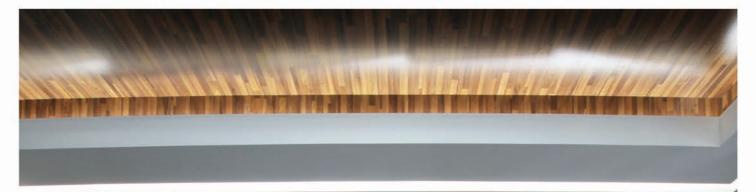
- Hardware for load at top and bottom
 - 1) Put rolling system (either runner or hardware) at both top and bottom of folding door.
 - 2) Put bottom rail for conversion into bottom rolling system not to give aggregated load to top rail (Fig -5).
 - Put bottom rail for conversion into top rolling system to have flexible, soft and stable closing and/or opening of doors and/or windows (Fig -4).
- O- The hardware technology for load of both top and bottom that may vary depending upon hardware as well as load of top rail and bottom rail can extend life of doors and/or windows more than 3 times to be required to assure of system stability in the use.







ausvaitn ultra-light weight use _ model name : conswin





Ultra-light standard handle



Ultra-light hardware for top load and bottom load(bottom) Ultra-light hardware for load of top load and bottom load (top)





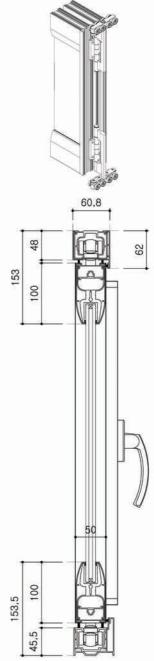
- □ Feature of The product
 - The door and/or window has unique system to bear load at bottom and top, and vertical bar has improved function by closure, screening, water-proof and burglar-proof.
- □ Designs

Not only slim vertical bar but also spacious top and bottom bar has optimum ratio to look beautiful and to produce softness and uniqueness of doors and/or windows by top and bottom curves.

□ - Systems

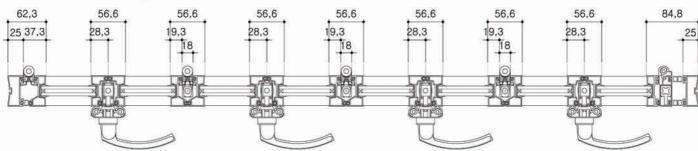
The hardware for top load and bottom load can endure deformation and deflection of doors and/or windows to have folding door enough to expand space.





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ausvaitn ultra-light use _ conswin horizontal section





Specifications

Functions;

Insulation / noise-proof / screening / water-proof / burglar-proof

Standard colors;

Black / white / brown / metal silver and colors upon request of consumers

Runner (hardware type);

Hinge type of hardware for load at top and bottom

Standard glass: multi-layer glass 16mm and/or single layer toughened glass

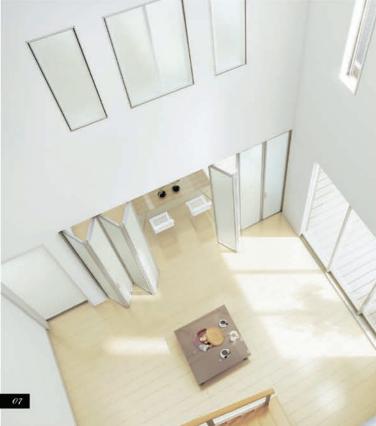
Maximum size of doors and/or windows:

maximum width of 1 set of door: 931mm, max height: 3,490mm



ausvaitn ultra-light weight use _ model name : symphony royal interior





Features of the Products:

Interior use Ausvaitn having light weight and high quality

Features of the Design :

The folding door for indoor use that has 'limited condition' of opening and closing space can be difficult to expand width of 1 set of door and/or window. This type of Ausvaith has made 'ultra-light' door and/or window to overcome 'repeated narrow door' by using slim and lightweight vertical bars and to convert visual inconvenience into design values.

Features of the System;

The high quality Ausvaitn has been designed to make use of hardware for load at bottom and top and to endure deformation and deflection of doors and/ or windows.

Installation Specifications:

Functions: sealing / noise-proof / screening / one directional lock

Standard color: black / white / brown / metal silver

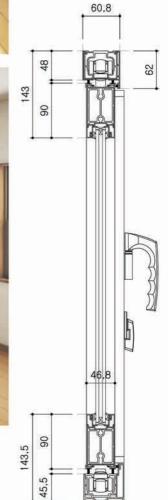
Colors; upon request of consumers

Runner (hardware type): Hardware for load at bottom and top Standard glass: For the use of single board mist glass 8mm



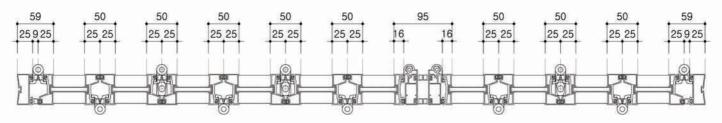






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ausvaitn ultra-light use _ symphony royal for interior use horizontal section





ausvaitn ultra-light weight use _ model name : symphony royal exterior



Features of the Product

This type of the products have been mostly manufactured for export to have small quantity of domestic use and to be the best class Ausvaitn product. The Ausvaitn product has folding door to be sole type in the world and to have folding door, earthquake resistance, fire-proof and 55 meters per second of air pressure resistance.

Features of the Design :

The product has been designed considering not only functions but also current designs.

What is current design?

The product that has been not fixed but moving can have various shapes visually depending upon watching places.

This type of product has 'current design' at closing and opening.

The product can be beautiful wall at closing and have an advanced function at opening to have design of beautiful state-of-the-art furniture.

Features of the System

Not only integrated door type of line hinge but also hardware for load at bottom and top has been used to endure deformation and deflection of the door and to be high quality, expanded and folding door.

Installation Specifications

Functions:

Insulation / noise-proof / screening / burglar-proof / firefighting / earthquake resistance Standard colors:

Black / white / brown / metal silver

Colors nominated:

Upon consumer's request

Runner (hardware type):

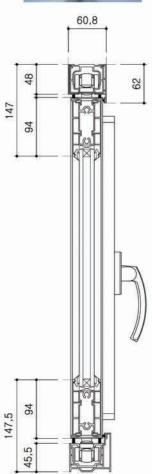
Hardware for load at bottom and top that makes use of line hinge.

Standard glass : for multi-layer glass 24mm



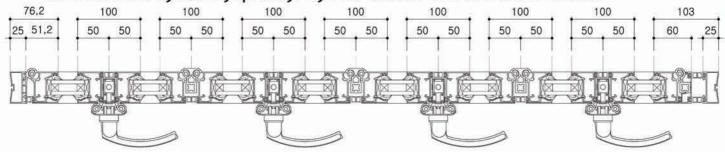






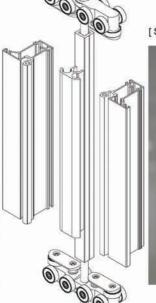
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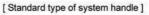
ausvaitn ultra-light _ symphony royal for exterior use horizontal section















ausvaitn light weight use _ model name : special mild



Features of the Product

The opened and expanded Ausvaitn can be commonly used at indoor, outdoor, residential facilities and others, and it has functions

of insulation, noise-proof, screening, water-proof and burglar-proof.

Features of the Design

Modern style door and/or window that looks elegant to have no distortion, and that is in good harmony with all of the places to have good quality.

Features of the System

The hardware for load at bottom and top can prevent doors and/or windows from being deformed and deflected, and it can satisfy endurance period and expand space.

Installation Specifications

Functions: Insulation / noise-proof / screening / water-proof / burglar-proof

Standard colors: black / white / brown / metal silver Colors nominated: upon consumer's request

Runner (hardware type): Hardware for load at bottom and top Standard glass: Multi-layer glass 16mm (5mm + 6mm space + 5mm)

Glass nominated : 5mm ~ 24mm

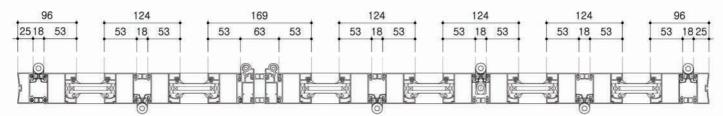






ausvaitn

ausvaitn light weight use _ special mild horizontal section



[Standard type of system handle for Ausvaitn light weight] [90 degree revolving door option system handle]

[Ausvaitn light weight option system handle]



[Ausvaitn hinge hardware image]

[Hinge hardware that varies depending upon Ausvaitn load]





ausvaitn light weight use _ model name : symphony mild



Features of the Product

The high strength and lightweight folding door

Ausvaitn has width of 1 set of door of 1.445 m and maximum height of 5.4 m.

Functions: Insulation / noise-proof / screening / water-proof / burglar-proof

Features of the Design

The high quality Ausvaitn door and window can produce good space by using special height and width of the door and window.

You can be proud of the Ausvaitn door when entering. You may feel castle values of the architecture.

Features of the System

Not only the integrated door line hinge but also hardware for load at bottom and top can prevent doors and/or windows from being deformed and deflected, and it can satisfy endurance period and expand space to be Ausvaitn high quality folding door.

Installation Specifications

Functions: Insulation / noise-proof / screening / water-proof / burglar-proof

Standard colors : black / white / brown / metal silver Colors nominated : upon consumer's request

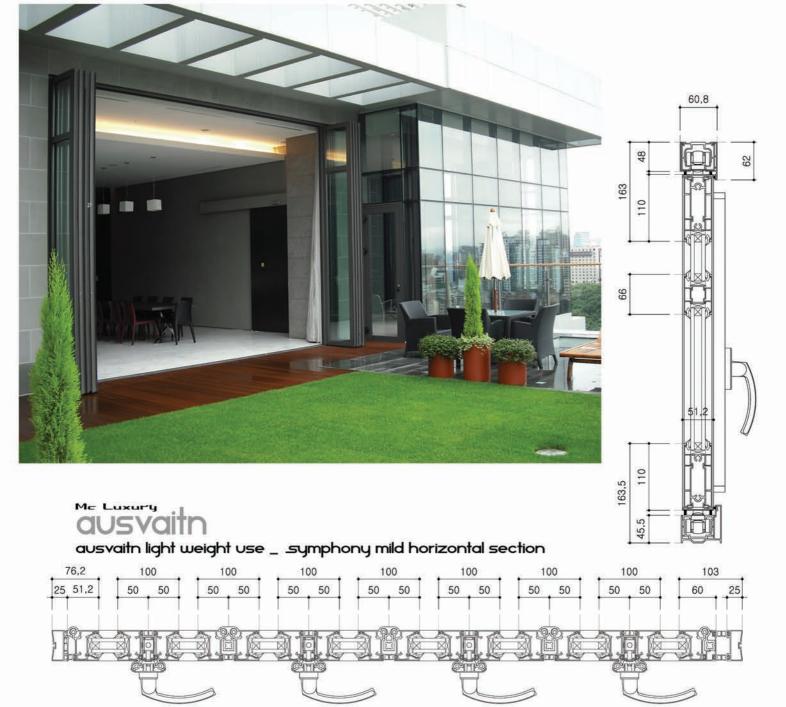
Runner (hardware type): Integrated door line hinge and hardware for load at bottom and top

Standard glass: Either multi-layer glass 22mm

(8mm tempered glass + 6mm space + 8mm tempered glass) or 24mm (6mm + 12mm + 6mm)

Maximum size of the door and/or window: height (5,400mm) and width (1,445mm)





The Ausvaitn light weight use Symphony Mild makes use of line hinge to be suitable to door having width of 1 meter or more and height of 5 meters or more.





ausvaitn heavyweight use _ model name : symphony pro



Features of the Product

The high strength and heavyweight folding door Ausvaitn has width of 1 set of door of 2.0 m and maximum height of 7.89 m. The folding door Ausvaitn has good insulation, noise-proof, screening, water-proof and burglar-proof.

Features of the Design

The high quality Ausvaitn door and window

can produce good space by using special height and width of the door and window

You can be proud of the Ausvaitn door when entering. You may feel castle values of the architecture.

Features of the System

Not only the integrated door line hinge but also hardware for load at bottom and top can prevent doors and/or windows from being deformed and deflected, and it can satisfy endurance period and expand space to be Ausvaitn high quality folding door.

Installation Specifications

Functions: Insulation / noise-proof / screening / water-proof / burglar-proof

Standard colors : black / white / brown / metal silver Colors nominated : upon consumer's request

Runner (hardware type): Integrated door line hinge and hardware for load at bottom and top

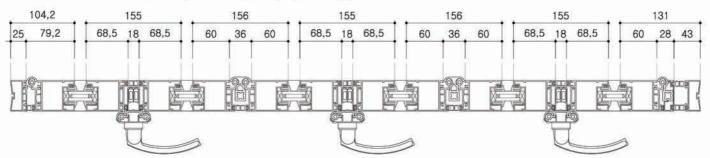
Standard glass: Either multi-layer glass 22mm (8mm tempered glass + 6mm space + 8mm tempered glass) glass nominated: 16mm (5mm tempered glass + 12mm space + 5mm tempered glass)

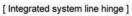




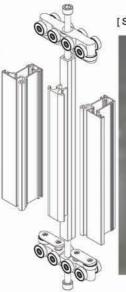
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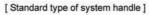
ausvaitn heavyweight use _ symphony pro horizontal section















ausvaith balcony expansion_model name: balconia_special / economic_service





Features of the Product

Ausvaith balcony expansion has much better sealing and firefighting. It has been designed for the elderly, the disabled, infants and babies to be very much soft and safe.

Ausvaitn can assure of your safety, in particular, safety of infants and babies.

Features of the Design

Ausvaitn Balconia Special that has advantages of convenience and drive of Ausvaitn Symphony has not only Symphony's classic but also Special's modern design to look beautiful at near place owing to very much delicate assembling of joints of doors and windows. The design has been focused on special series modern.

Features of the System

The hardware system for load at bottom and top has been designed to endure durability of deformation and deflection of doors and windows. The opening and closing of the system has ollowed that of special series product.

Installation Specification

Functions:

Insulation / noise-proof / screening / water-proof / firefighting / burglar-proof

Your Balconia Special has been designed to do 'sealing' being suitable to balcony and to take action against gravity convection that the air flows by temperature difference between living room and balcony.

The purpose of the design is to make room be comfortable.

Your Balconia Special assures of cool, warm and comfortable room environment.

Standard Colors: Black / white / brown / metal silver Color nominated : upon consumer's request Finish: 2 to 3 times coating of fluoric resin

Runner (hardware type) Hardware for load at bottom and top

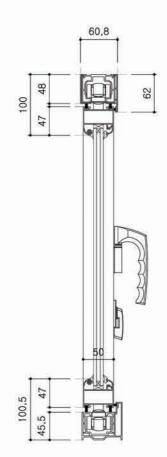
Standard type of glass:

Multi-layer glass: 16mm (5f + 6a + 5f) Glass nominated: 8mm~24mm







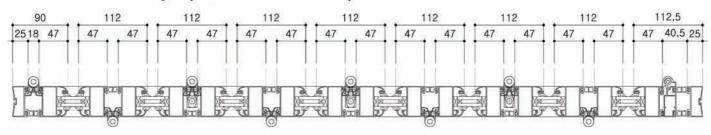


[Balconia Special's option handle]



Mc Luxury

ausvaitn balcony expansion _ balconia.special horizontal section



[Balconia Special's special handle]

[Hinged hardware depending upon load of Ausvaitn Balconia Special]











ausvaith balcony expansion _ model name : balconia cons / advanced level







Features of the Product

Ausvaitn Balcony Expansion has much better sealing and firefighting. It has been designed for the elderly, the disabled, infants and babies to be very much soft and safe.

Ausvaitn can assure of your safety, in particular, safety of infants and babies.

Features of the Design

Ausvaitn Balconia Cons that has advantages of convenience and drive of Ausvaitn Symphony has not only Symphony's classic but also Special's modern design to look beautiful at near place owing to very much delicate assembling of joints of doors and windows. The design has been focused on Symphony series Art Nouveau.

Features of the System

The hardware system for load at bottom and top has been designed to endure durability of deformation and deflection of doors and windows. The opening and closing of the system has followed that of Symphony series product.

Installation Specification

Functions:

Insulation / noise-proof / screening / water-proof / firefighting / burglar-proof

Your Balconia Cons has been designed to do 'sealing' being suitable to balcony and to take action against gravity convection that the air flows by temperature difference between living room and balcony. The purpose of the design is to make room be comfortable. Your Balconia Cons assures of cool, warm and comfortable room environment.

Standard Colors: Black / white / brown / metal silver Color nominated : upon consumer's request Finish: 2 to 3 times coating of fluoric resin

Runner (hardware type)
Hardware for load at bottom and top

Standard type of glass:

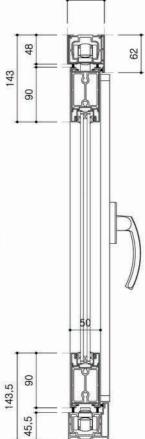
Multi-layer glass: 16mm (5f + 6a + 5f) Glass nominated: 8mm~24mm





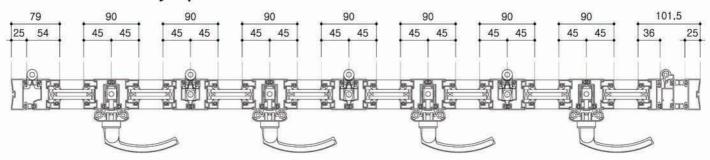


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ausvaitn balcony expansion _ balconia cons horizontal section



Your Ausvaitn Balconia Con for balcony has been designed to have very much special type of folding door.

[Balconia Cons standard handle]

[Balconia Cons hinged hardware and standard handle]





ausvaitn

ausvaitn commercial use $_$ model name : flacel







Features of the Product

Ausvaith folding door for commercial use, opening and expansion can open and expand space in various ways, and it has much better insulation, noise-proof, screening, water-proof and burglar-proof. Your Ausvaith door has been designed to have safety, stability and durability to let many persons make use of it in very much safe and soft way.

Your Ausvaitn door for commercial use assures you of safety, in particular, safety for uncertain many persons.

Features of the Design

Your Ausvaith folding door for commercial use that has modern and smart design shall help develop access, impressions and advancement of commercial facilities to be very much effective at commercial areas.

Features of the System

The hardware for load at bottom and top has been designed to fold, open and expand by various kinds of opening and closing.

Your Ausvaith folding door has been designed to convert and integrate with other doors at commercial areas.

Installation Specification

Functions:

Insulation / noise-proof / screening / water-proof / firefighting / burglar-proof

Standard Colors: Black / white / brown / metal silver Color nominated : upon consumer's request Finish: 2 to 3 times coating of fluoric resin

Runner (hardware type)
Hardware for load at bottom and top

Standard type of glass:

Multi-layer glass: 16mm (5f + 6a + 5f) Glass nominated: 8mm~24mm

Sea coastal area and external window having height of 6 meters or more

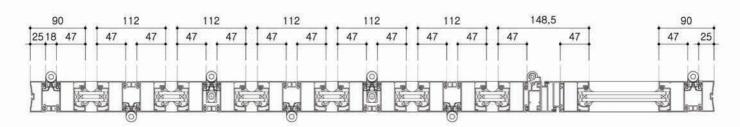
Height of the installation: 3.1m or less Width of the installation: 0.7m or less

Advantages

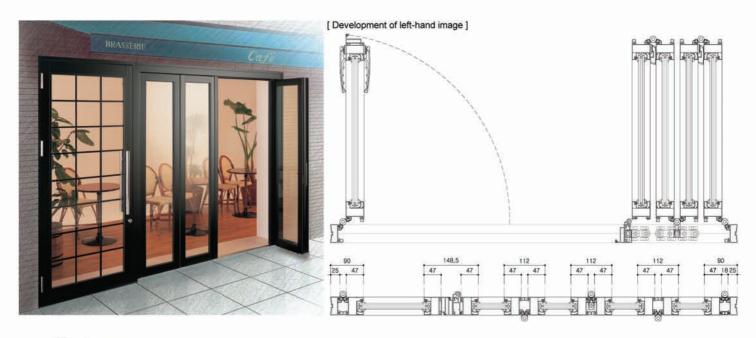
The cost shall be very much inexpensive considering functions.

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ausvaitn commercial use door _ model name : flacel horizontal section

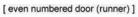


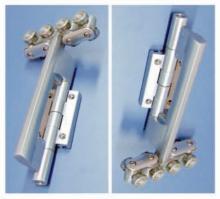
ausvaitn commercial use _ model name : flacel



ausvaitn

ausvaitn commercial use flacel hardware





[odd numbered door (runner)]



[last sliding door (runner)]



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ausvaitn commercial use flacel.system handle

[Commercial use standard type of system handle]

[90 degree revolving door option system handle]

[Commercial use option system handle]



Commercial use system handle can make change from standard type of system handle to optional system handle depending upon opening way without notice in advance.



ausvaitn commercial use flacel's opening and closing system

Storage in one direction either to the left or to the right	DINSCHIE
////	-
Door hinge to store either to the left or to the right	
Door hinge in one direction at 90 degree either to the left or to the right	
MV	
Door hinge in one direction at 180 degree either to the left or to the right (utility model)	
MW	
Store in both directions either to the left or to the right from center or a point of the opening	
Store in both directions either to the left or to the right and have door hinge either at center of the opening or at sp	ecilic point
/VV	
Store at the place that you want after opening 1 set of 2 doors	
Store at the place that you want after opening door hinge with even number of door (technology patent)	
Store at the place that you want by using 90 degree door hinge and folded door, when necessary	
Technology patent	- i
	1

Your Ausvaitn door

can open and expand space by using folded system.

Your Ausvaitn door is produced by order

to open and/or expand space by folding, sliding and door hinge and to put a designer's thought into practice and to be optimum system. pace expansion of Ausvaitn has technology patent.

[4-pair door and door hinge] [4-pair door and protruded partition] [Sliding partition] [Fixed window and door hinge]

[Free type partition]













Features of the Product

Your Ausvaitn door with visibility of the glass has been designed to make use of it at commercial facilities and to be variable wall.

Features of the Design

The glass having thick thickness has been designed to make variable wall for commercial use and to adopt aluminum made bars at bottom and top of door wall to assure of safety of driving. The aluminum made bar at top and bottom has been designed to have round shape and to give softness to the wall.

Features of the System

The hardware for load at bottom and top has been designed to endure deformation and/or deflection of the door and window.

Installation Specification

Functions: Insulation, noise-proof, screening and water-proof, etc are low.

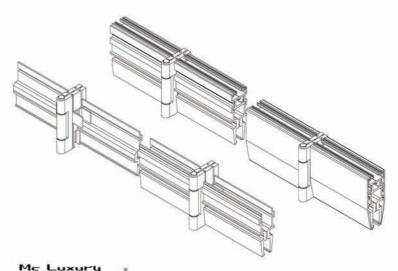
Standard Colors: Black / white / brown / metal silver

Color nominated : upon consumer's request

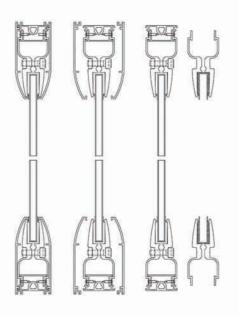
Runner (hardware type): Hardware for load at bottom and top

Standard type of glass: Tempered glass 12mm

QUSVAITA glass ausvaita _ hinge assembly



QUSVAITA glass ausvaita _ assembly





Wooden made ausvaitn _ model name : Wood acci



Name of The product: Wooden made Ausvaitn Wood Acci_ for interior use and exterior use

Structure

Your Ausvaitn door has been made of aluminum profile having stability at load, deflection and distortion to decorate by wood and to have folding door for indoor and outdoor.

- use of The product

Your Ausvaitn folding door has been designed to endure 60 $^{\circ}$ C at 45m/sec of air pressure and to make use of it at all kinds of places.

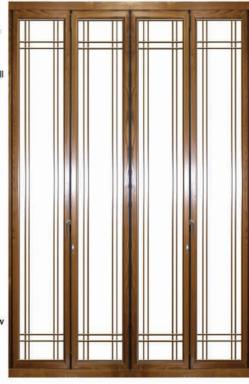
- Functions of The product

Your Ausvaith door that has folding door to open and expand has functions of insulation, noise-proof, screening, water-proof, burglar-proof and anti-dew, and it has much better insulation comparing with other kinds of products.

- Features of The Design

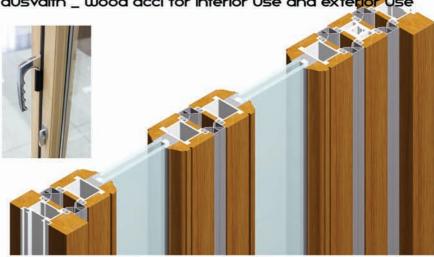
Your Ausvaitn door has softness and aesthetic value of the wooden product and Art Nouveau type of design has produced elegant beauty as much as possible.

- Material: Wood, for instance, The Oregon fine, western red cedar, ash tree, oak, walnut, teak, ash carbonized
 Wood, oak carbonized Wood
- Finish: Varnish coating / optional Finish: color nominated
- Glass: multi-layer glass 16mm (5F + 6A + 5F)
 - optional glass: single layer: 5mm ~ multiple layer: 38mm (common type, tempered, joint, roy)
- Limit at installation at inland: up to 3.6m in height, up to 0.9m in width
- Limit at installation at coastal area and external window having 6m or higher in height: up to 2.8m and width in installation: 0.75m or less
- Hardware : load for top and bottom
- Function: insulation / noise-proof / screening / water-proof / burglar-proof, in particular, both insulation and anti-dew are The best.

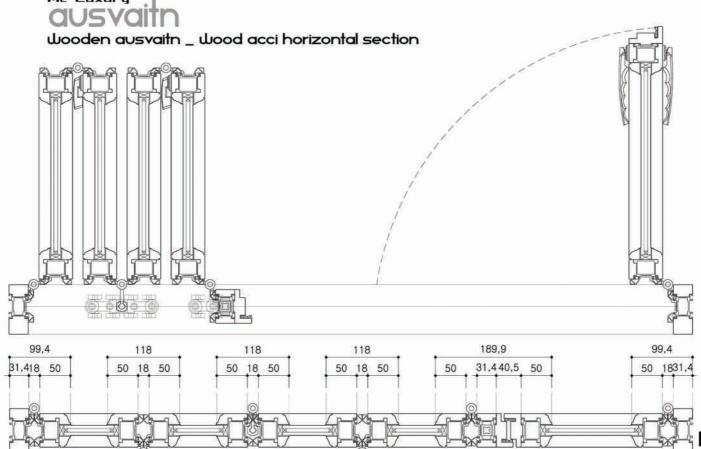






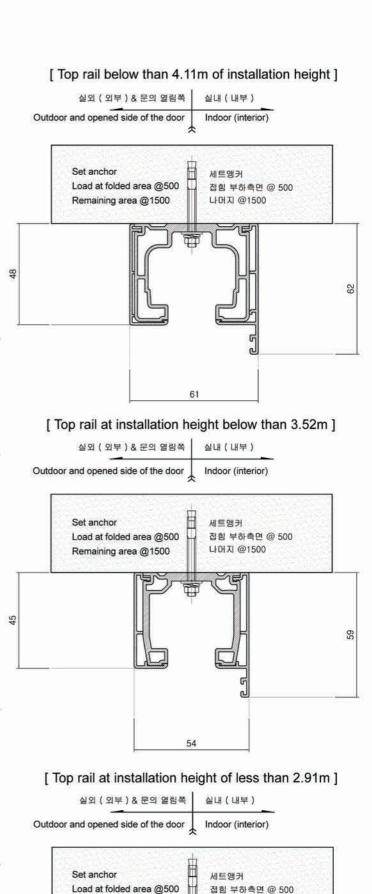








top rail by each ausvaitn load



나머지 @1500

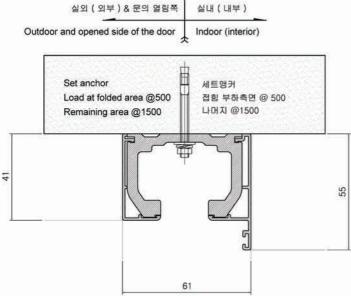
49

45

Remaining area @1500

30

[Top rail at installation height of more than 5.65m]



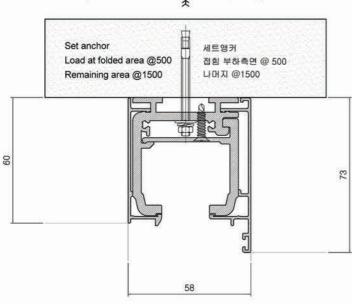
[Top rail at installation height of more than 4.11m]

실내 (내부)

Indoor (interior)

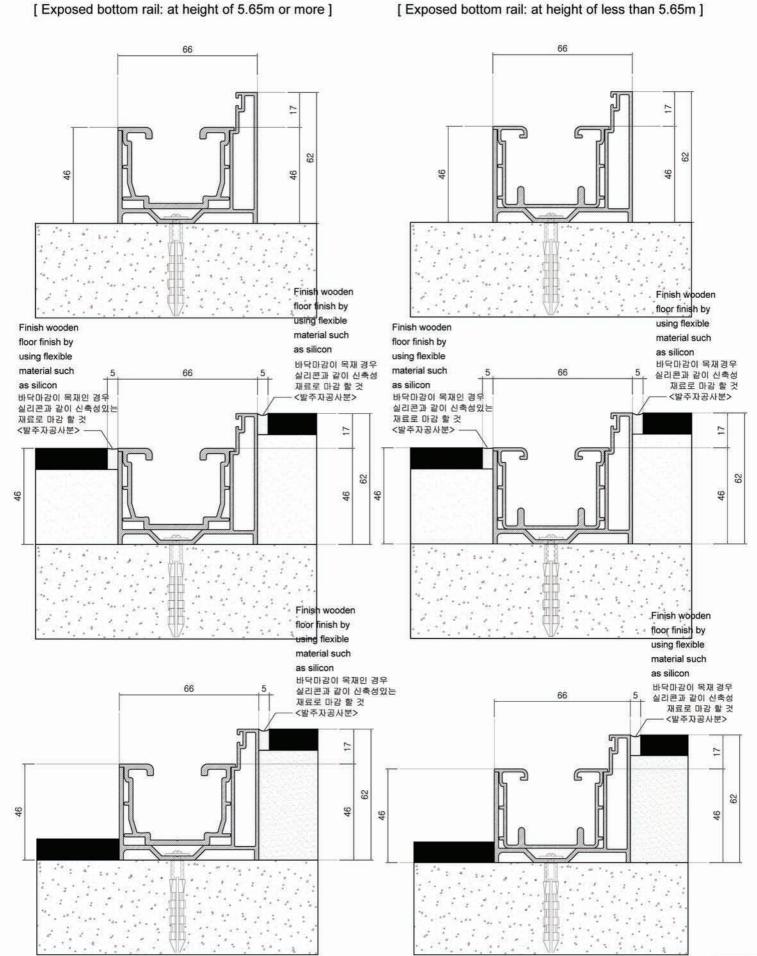
실외 (외부) & 문의 열림쪽

Outdoor and opened side of the door





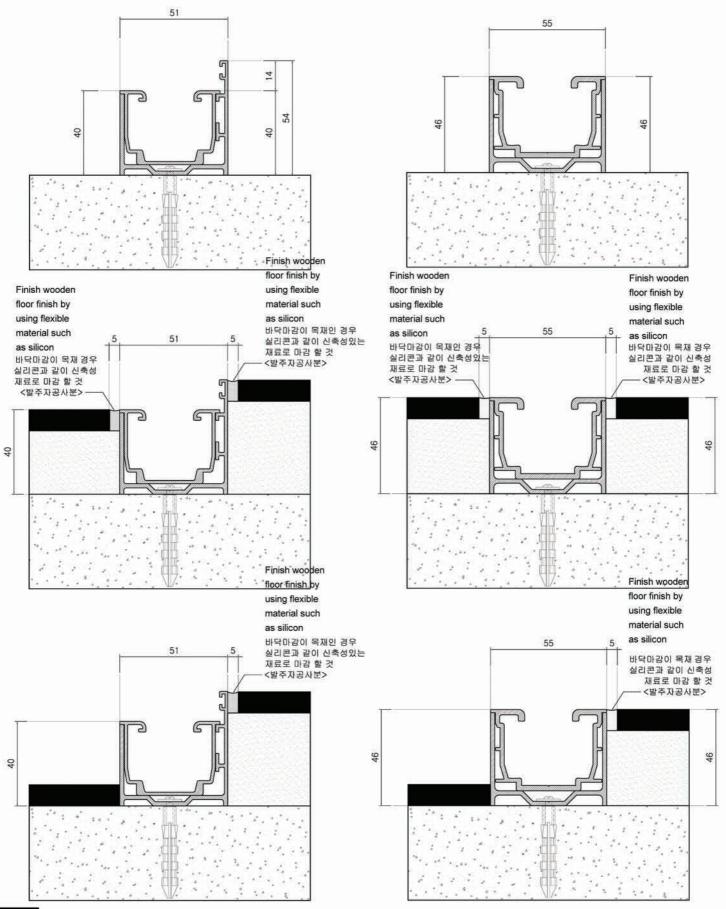
bottom rail depending upon use of ausvaitn





[Exposed bottom rail: at height of less than 3.01m]

[Embedded bottom rail: at height of 5.65m or more]

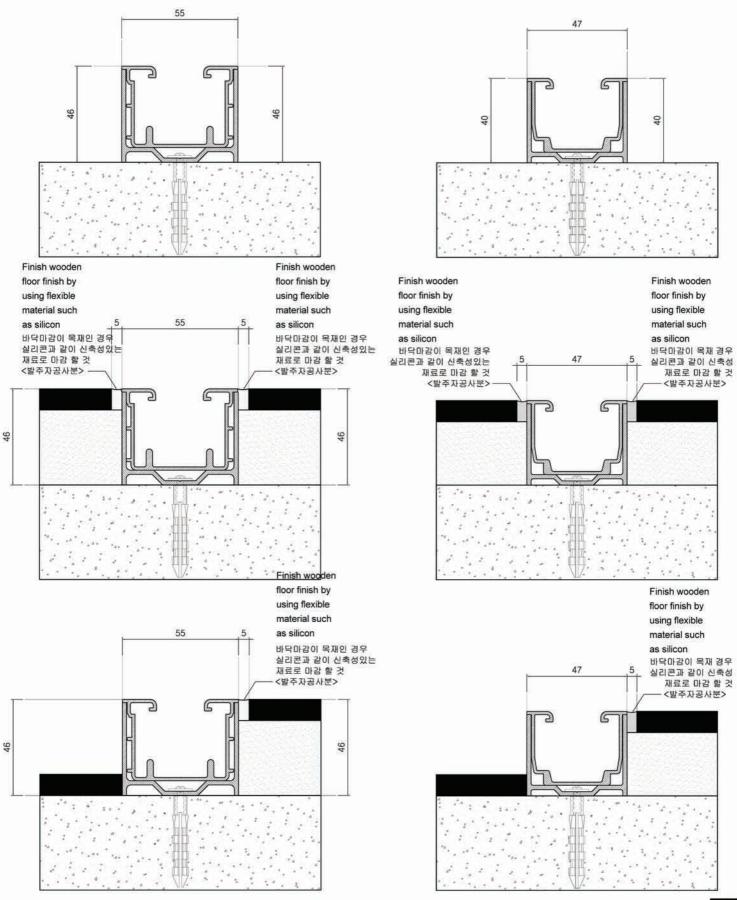




bottom rail depending upon use of ausvaitn

[Exposed bottom rail: at height of 5.65m or more]

[Exposed bottom rail: at height of less than 5.65m]

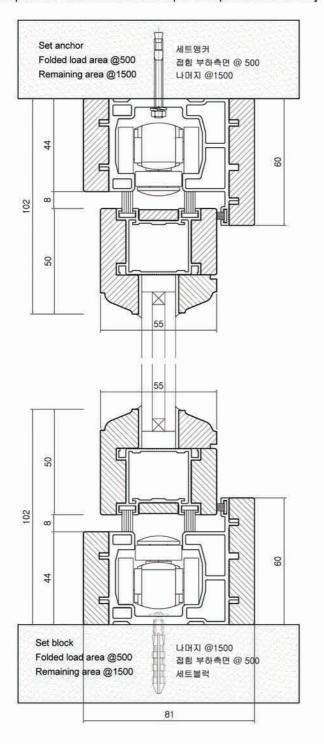


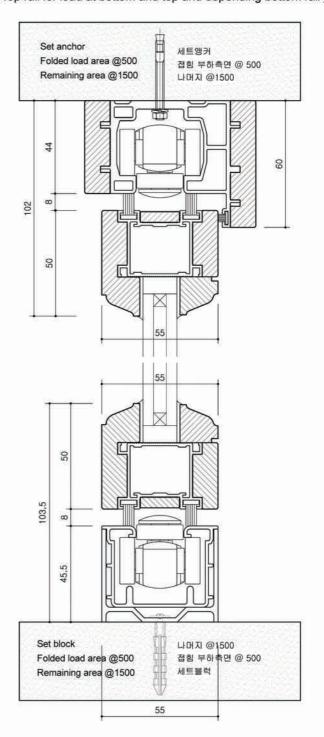


top bottom rail of Wooden ausvaitn Wood acci

[Top rail for load at bottom and top and exposed bottom rail]

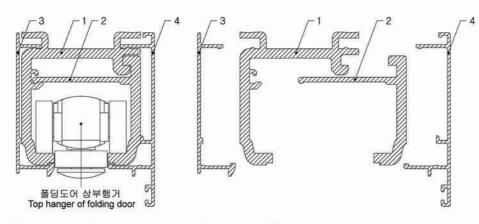
[Top rail for load at bottom and top and depending bottom rail]







patent of top bottom rail of ausvaitn door



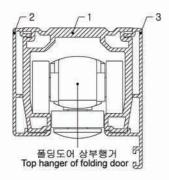
Name: Top hanger rail of separated folding door Construction :

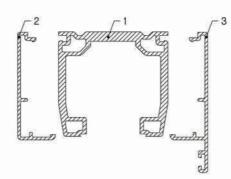
- Rail for rolling; Put bolts and/or anchors into the construction to roll hanger of the doors and windows
- Rail for repairing: Insert rail for repairing into the rail 1 to fasten, and is used to repair hanger of doors and windows.
- 3. Decoration bar for exterior use The rail 1 shall have specific strength that is needed to extrude aluminum material and to do heat treatment and cooling for structural strength: 1, 2, 3 and 4 shall be painted upon demand on-the-spot. Heat treatment is needed at painting of the aluminum, and it can weaken rail 1.

The decoration bar 3 can skip weakening of rail 1 and paint rail 3 by using paint upon on-the-spot demand not to do heat treatment, and it shall cover rail 1.

4. Decoration bar for inner use

Rail 2 shall have specific strength that is needed to extrude aluminum material and to do heat treatment and cooling for structural strength: 1, 2, 3 and 4 shall be painted upon demand on-the-spot. Heat treatment is needed at painting of the aluminum, and it can weaken rail 1. The decoration bar 4 can skip weakening of rail 2 and paint rail 4 by using paint upon on-the-spot demand not to do heat treatment, and it shall cover rail 2.





Name: Top hanger rail of separated folding door

- Rail for construction; Put bolts and/or anchors into the construction to roll hanger of the doors and windows
- 2. Decoration bar for exterior use The rail 1 shall have specific strength that is needed to extrude aluminum material and to do heat treatment and cooling for structural strength: 1, 2 and 3 shall be painted upon demand on-the-spot. Heat treatment is needed at painting of the aluminum, and it can weaken rail 1. The decoration bar 2 can skip weakening of rail 1 and paint rail 3 by using paint upon on-the-spot demand not to do heat treatment, and it shall cover rail 1.

3 Decoration bar for inner use

Rail 1 shall have specific strength that is needed to extrude aluminum material and to do heat treatment and cooling for structural strength: 1, 2 and 3 shall be painted upon demand on-the-spot. Heat treatment is needed at painting of the aluminum, and it can weaken rail 1. The decoration bar 4 can skip weakening of rail 2 and paint rail 3 by using paint upon on-the-spot demand not to extrude nor do heat treatment, and it shall cover rail 1.

Name: Folding door separated bottom rail Construction:

1. Rail for construction

The bottom rail produces rolling when rolling system of door and window is concentrated on the bottom.

2. Bottom rail frame

First installation of bottom rail 1 can introduce foreign materials to destroy it and to create poor running of door and window.

At this time, put rail 2 firstly and the insert rail 1 at following process to solve problem of first installation of rail 1. Separate rail 1 from rail 2 to adhere to rail 1 and to repair and maintain ea

