

Kumsung Fire Doors

Kumsung Fire Door achieved the good quality as well as price competitiveness through its everlasting effort to make masterpiece since its domestic business start in 2002.

Kumsung is now taking a step forward to worldwide market and will do its best to be the market leader with new technology and creative design .



Automatic Production Line



NCT Machine



Salvagnini Machine



Frame cutting & bending line



Laser cutting machine



U/V Flat Sheet Printer

Product Range

- Entrance Fire Door
- Soundproof Door
- Glass Fire Door / Automatic Glass Fire Door
- Automatic / Semi – automatic Sliding Door
- Fire Steel Door

Entrance Fire Door (Automatic Swing Door)

- Fire door for entrance
- Steel fire door with reinforced functions in Fire rating, Insulating and security
- Special structure gives a splendid and dignified appearance



Standard size ; 1500mm (W) x 2450mm (H)

One touch operation (open / close) through the included devices for Finger Scan and Automatic Swing gives the ultimate convenience . It is also safe to the Children due to imbedded photo sensor (vertical detection)

Battery based automatic swing operator ..
[Digital servo controlled motor (90W) mounted]



Open & Close system by Finger Scan



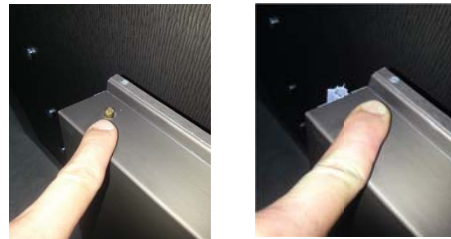
Finger scan and digital door lock setting

Door hinge parts combine strongly when door is closed.



Door is combined to the hole of hinge bar ,
which strengthen the fire rating function.

Auto seal operates while the door is closed



Auto seals are applied to top and bottom of the door, which prevent wind penetration and strengthen the insulating function.

Entrance Fire Door Model No. Identification



FD - BR - 9926 - TB

FD – Type of Model ; FD stands for “Front Door”.

BR – Tile Materials ; 4 colors available, most suitable color is applied based on the colors / materials of the base panel.




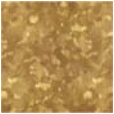
9926 – Product model number ; Tile layout identification number.
Various models are shown on catalogue page 5 – 11.

TB - This stands for materials of base panel.
Refer to below table.

Color Steel Sheet

			
RB Realzinc Black	R bRown	B Blue	M Mocha
			
G Grey	TB Texture Brown	GH Gold Hairline	H wHite

Color Stainless Steel Sheet

	
BK Black	SV Silver
	
BR BRonz	GL GoLd

- Please refer to the above initials and colors when order is placed.

Basic specification of Entrance Fire Door.

1. Materials and Size

EGI steel sheet of 1.6mm T is used as Door frame and basic size of fire doors are 1300mm W x 2400mm H x 120mm B for asymmetric double door and 1000mm W x 2400mm H x 120mm B for single door.. 50mm T is applied to the entrance fire door using 7mm T color steel sheet and stainless steel.

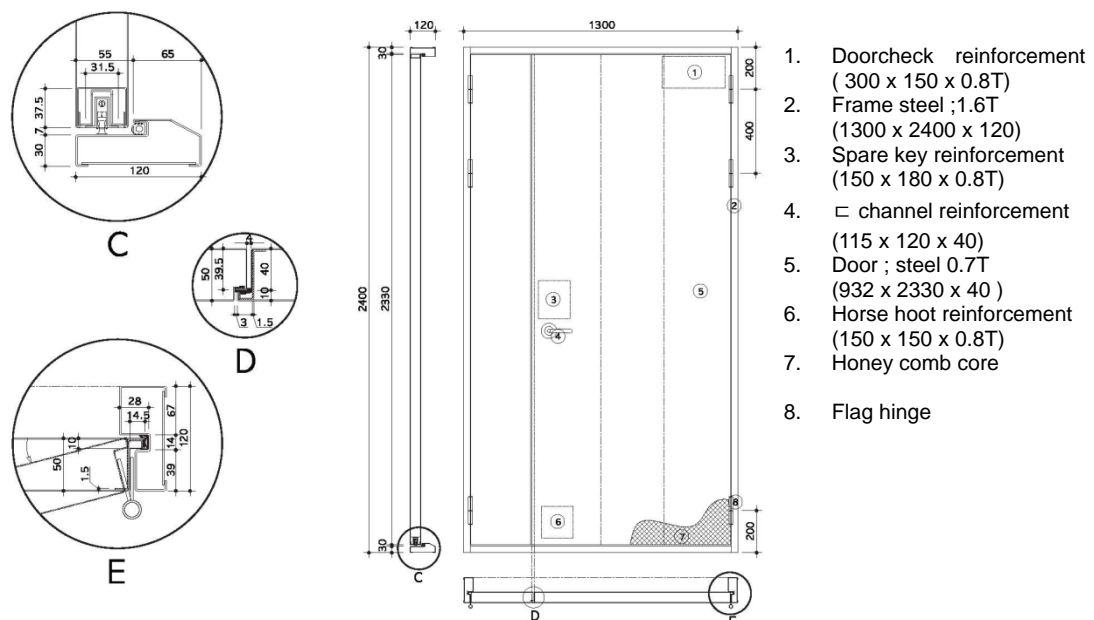
2. Features and Benefits

As the doors are manufactured under non-welding procedures, various materials can be used and shipping lead time is remarkably reduced.. Hook shaped Inner frame on both sides of the door helps a lot for to the security and fire rating function.

3. Basic specification & Options

Optimized size for the " Kumsung" fire door
Double opening – 1300 mm x 2400mm
Single opening - 1000mm x 2400mm
Special gasket for fire door is applied.
Auto-Seal operating upon close /open door.
Complementary 3 Flag Hinges are applied.

4. Entrance Fire Door (European Mode) Details



Typical type of Entrance Fire Door

Standard size : Double Opening (DO) - 1300(w) x 2400 mm (H)
Single Opening (SO) - 1000(w) x 2400 mm (H)



FD-BR-9996-R (DO)



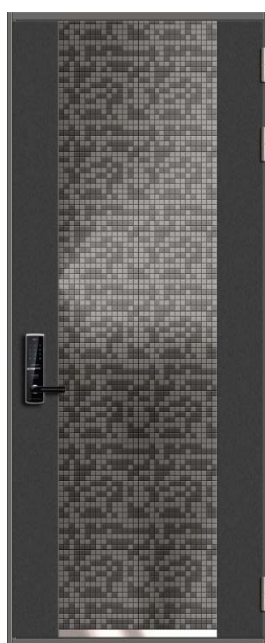
FD-BR-9996-Rb (SO)



FD-BR-9996-H (SO)



FD-GL-9976-GH(DO)



FD-BK-9986-RB(SO)



FD-BR-9633-TB(SO)



FD-SV-9923-H(D0)



FD-GL-9993-M(SO)



FD-SV-9915-RB(SO)



FD-BR-9826-R (Do)



FD-BK-9925-H (SO)



FD-BR-9801-R(SO)

- For the other types, please refer to catalogue book
- The optimized width of stainless steel tile is basically 600mm for single opening door.. 500mm width stainless steel tile can be used upon customer's request.

Designs of beading, molding, flat printing and color sheet for 40mm Fire Steel Door can be applied to 50mm Entrance fire door specification upon request. But there may be some limitation and confirmation on the availability prior to ordering is required.

You can get more choice through combining the below design and Model No.



FD -BK-9996-RB



FD -BK-641-H



FD -BK-513-G



FD -411-B

Examples of Entrance Fire Door manufactured from General Fire Door .

BK-641 – H (General Fire Door) → FD-BK-641-H (Entrance Fire Door)

- Model Number Identification for the general fire door with Entrance Fire door specifications

FD - BK - 641 - H

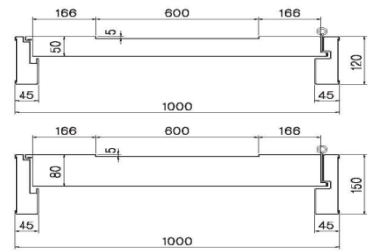
FD : Stands for Entrance Fire Door

BK ; Stands for Stainless Molding

641; Model number of General fire door

H ; Stands for the materials

Soundproof Door



Kumsung Soundproof doors are manufactured with the same specification of 50mm Entrance fire door and offer simple design with excellent durability.



SP-973-TB (Double Open)
Standard Size : 1800(W) x2100mm(H)

Typical Pattern:
(intaglio engraving+bottom)

Typical types of Soundproof door



SP-974-G



SP-972 -R



SP -973RB

Glass Fire Door / Automatic Glass Fire Door

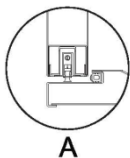
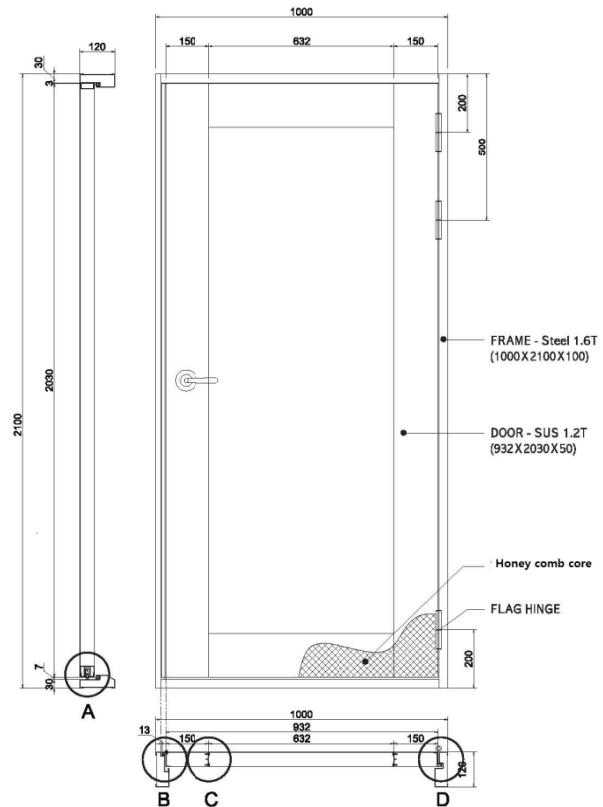
We offer an impressive collection of glass fire doors. A glazed door can enhance the look of an interior by allowing extra light into an area which would otherwise be too dark or compromise a view using a solid door. Sometimes, it is vital to have viewing panels to allow observation before opening a door particularly in busy commercial situations as well as in case of fire.

The advantage of using glass as part of a fire resisting wall or system is that it alerts people to the fire and can assist rescuers in finding people

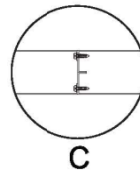


GD-905

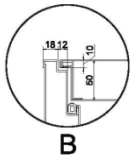
Frame Pattern : 4 side – Basic 150mm W
Standard Size : 1000 W x 2100mm H
1000 W x 2400mm H



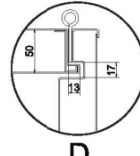
Auto seals installed at the top and bottom of the door operates upon open/close the door, which prevents the wind penetration and strengthen insulating function. Additional effect is the blocking inward dusts through the gabs between the floor and door.



All parts are combined by non-welding process which enables the various choice for the materials of color steel or stainless steel.



The same structure as 50mm Entrance Fire Door give weight feeling and it is differentiated from general 40mmT Fire glass door.



The door is set to be combined with groove or hinge bar in hook shape, which helps a lot to fire resistance function



GD-903

Frame Pattern : Left/Right – 300mm wide type

Standard Size : 1000 W x 2100mm H, 1000 W x 2400mm H



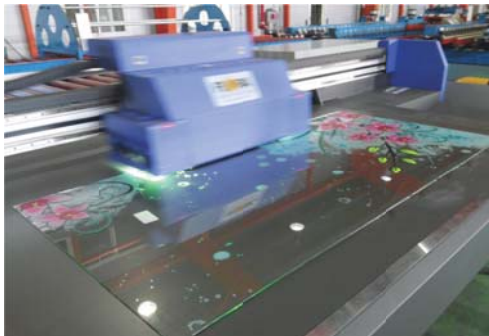
GD-906

Frame Pattern : Left/Right – 60mm slim type

Standard Size : 1000 W x 2100mm H, 1000 W x 2400mm H

Printing on Glass (Back side)

As per customer's request, the design is printed by UV printer on the back side of the glass.
The door is made by pair glass (5mm t+ 6mm space +5mm t)



Fire Rated Glass

A wireless super heat resistant glass through special heat treatment alerts people to the fire and can assist rescuer in finding people. Further it allows extra light into an area which would be too dark or compromise a view using a solid door.

● Features of fire rated door

Safety

- ★ High durability against strong impact and drastic temperature changes outside.

High strength

- ★ Under same thickness, fire rated glass is 8-12 times stronger than ordinary glass and 2-3 times stronger than tempered glass
Intensity strength – 600MN/m³ ,
Fire resistance strength : Min. 200MN



Single open glass door fire test

Various colors & thickness

Glass thickness : 5mm , 6mm , 8mm, 10mm, 12mm, 15mm, 19mm

Glass colors



Tranparent



Bronz



Green



Blue



Opaque



Reflective Bronz

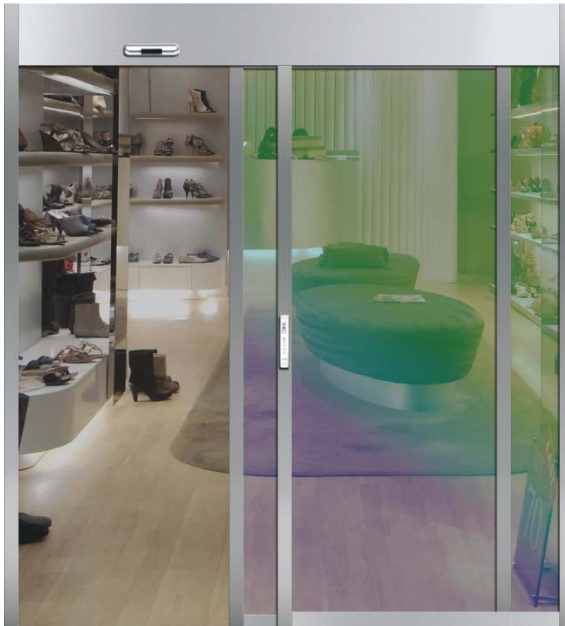


Reflective Green



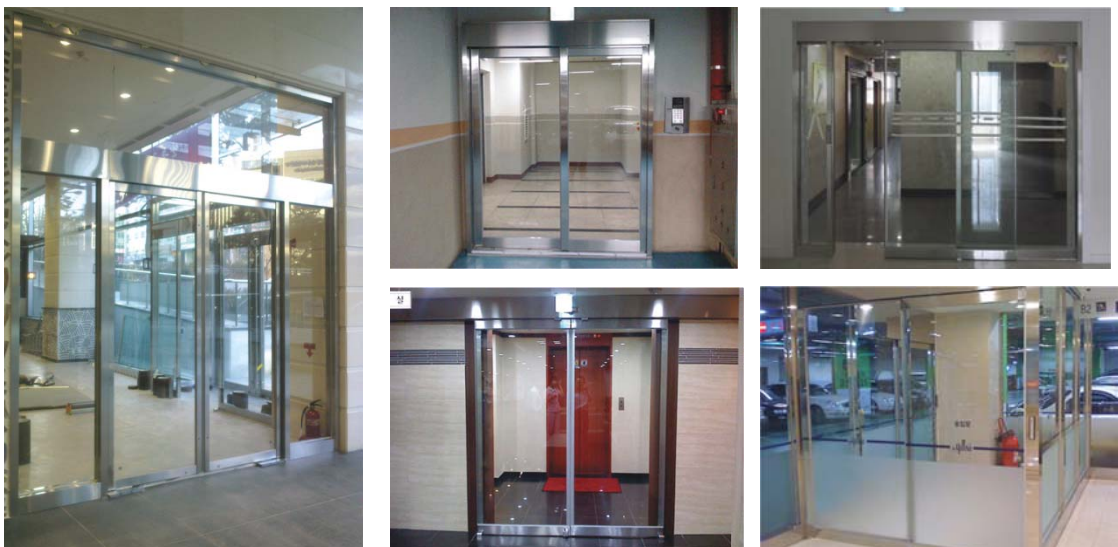
Reflective Blue

Automatic Sliding Door



1. Complementary top-operator allows convenient delivery and receiving as well as shorten the installation time and procedures.
2. Double layer of Mohair gaskets are inserted to strengthen the insulating effects and the frame is high beneficial to fire rating.
3. At the bottom, auto seals are operated during the door closing /opening. The auto seal prevents the penetration of dusts and outside wind.
4. Non-welding assembly allows clean and fast installation .
Various choices for the materials (Color stainless steel, Aluminum sheet, Color steel sheet) are available.

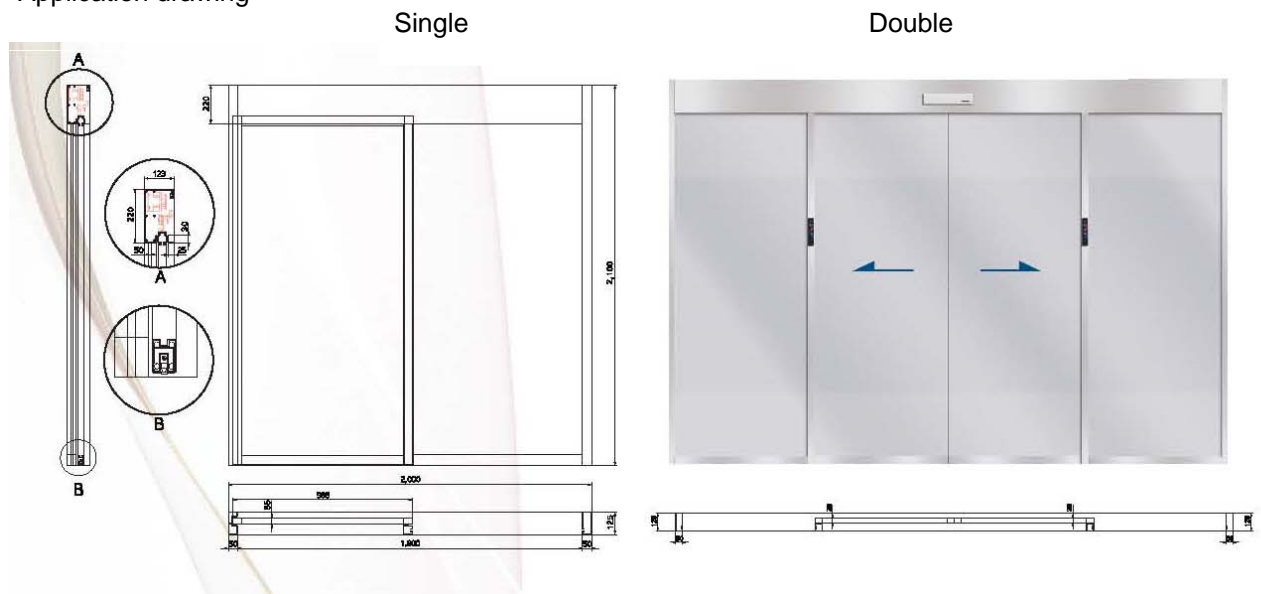
Example of construction - Automatic Sliding Door ;



Basic drawings – Automatic Sliding Door

Single door and Double door are basic structure. Detailed dimensions are available upon request.

Application drawing



Application of various colored materials.

Non-welding process allows clean assembly.
Color stainless steel, color steel sheet as well as hairline stainless steel can be used.



Structures and Functions of Operator

- **Automatic return**

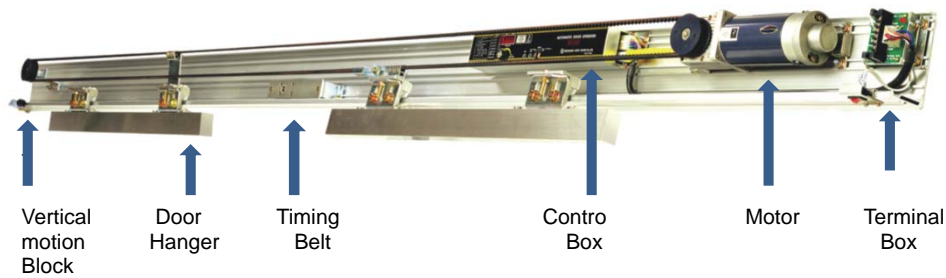
If the operation is interrupted by people or any object during its operation, the door will return/stop. It guarantees smooth and reliable operation improve the function acceptability of automatic door,

- **P.I.D (Proportional Integral Derivative) Servo Control compensation**

PID control is adapted to keep the exact position regardless of the slip or loosened belt.

- **Open in an Emergency**

In case of events such as fire, earth quakes, power failures etc, the door will be opened automatically by back-up battery. (Option)



- **Remarkable improvement in installation convenience**

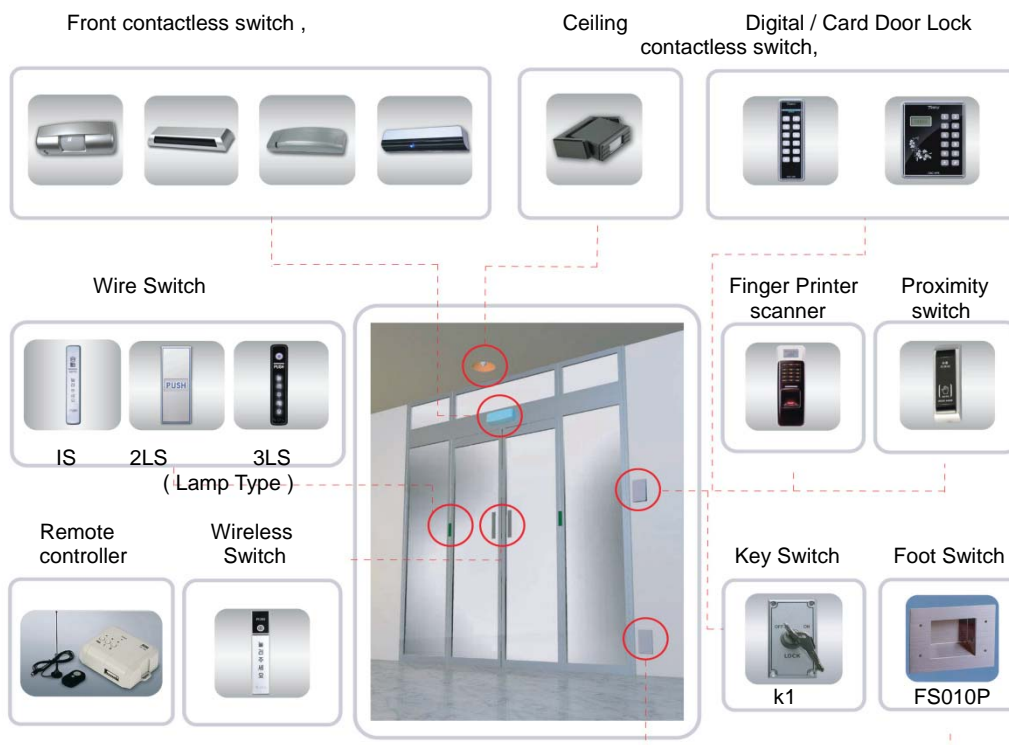
All operator position settings are possible without limitation and Installation convenience is remarkably improved by imbedding the function of the wireless touch receiver and safety beam into the control box.



- **Simple motion by remote controller**

All functions required for the operation of automatic door can be digitally set . Easy maintenance with remote controller.

- **Options (Various switches)**

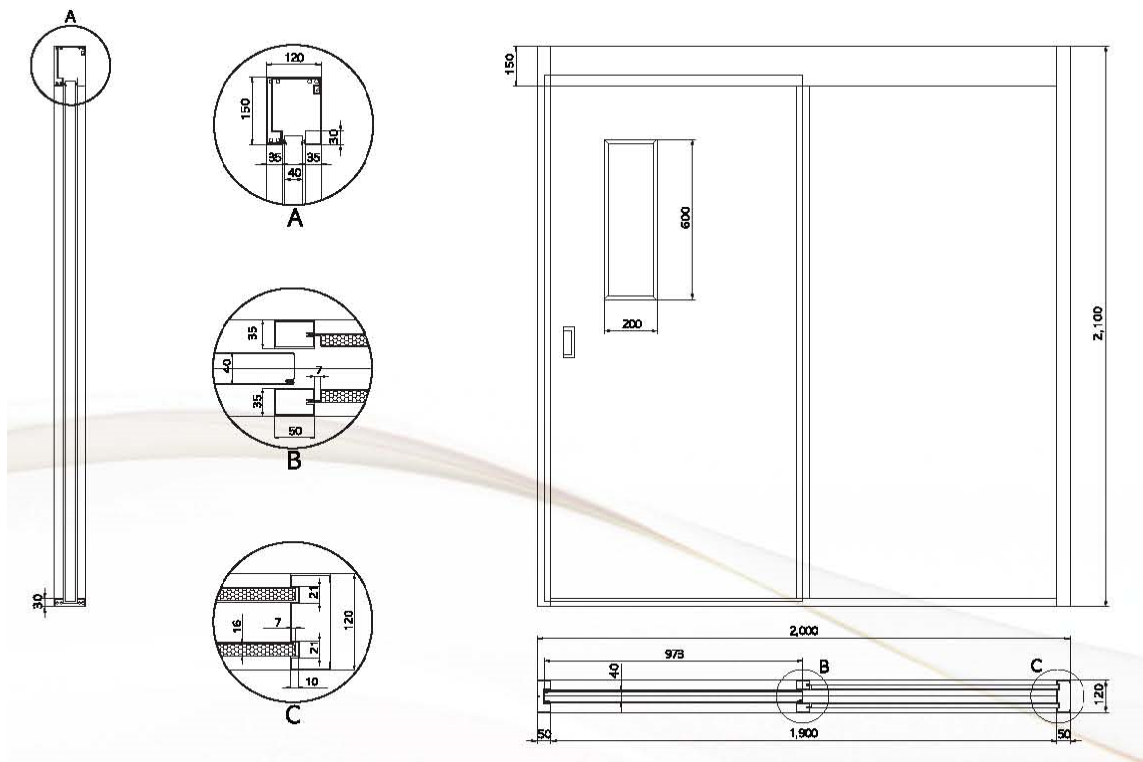


Sliding Fire Rated Door : Automatic /Semi- automatic



1. Simple pneumatic cylinder structure allows control of speed and open/close pressure. Recommendable to the narrow space with frequent usage. Mounted Head operator is complimentary.
2. Deep frame and mohair gasket improve the insulating and fire rating as well as silence function.
3. Both frame and door are made of steel under non-welding process

Basic Schematic Drawing

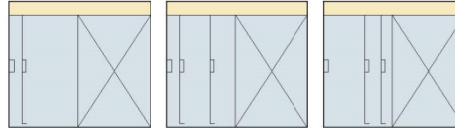


Semi - Automatic Sliding Door



Semi-Automatic Sliding Door is using special enclosure type hydraulic cylinder and the door can be opened/closed with small force. Accordingly it does not make noise and keep silent

Closing speed can be adjusted. (Door close direction : Right)



The door will be automatically closed once the door is opened.
Easy handling and maintenance



Due to no dead space of sliding door, you can get more space by 10% compared with Swing door.

Example Construction of Semi-Automatic sliding door.



Fire Steel Door

New Type Frame + Door

This Frame+Door structure is inherent to Kumsung door and gives a neat and simple feeling.
Security function is strengthened compare with existing system.

-Features and benefits

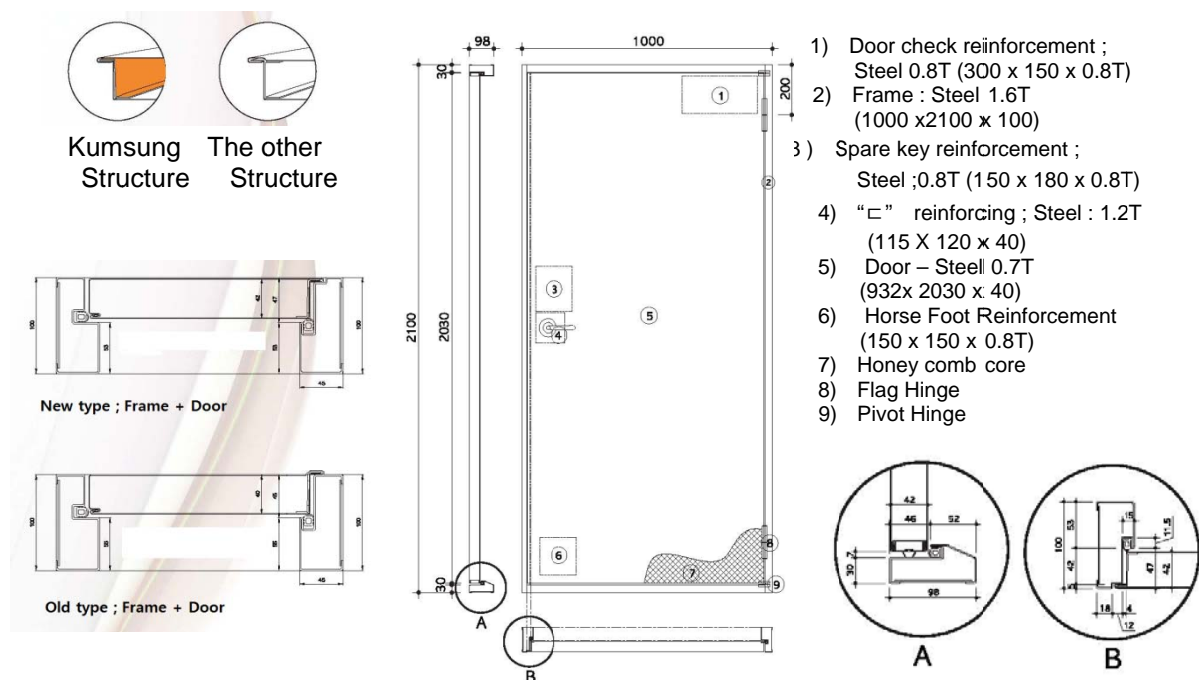
- 1) Tongue and groove type combination of Door and Frame strengthen the security function
- 2) Windbreak part is flat which makes easy stacking and delivery
- 3) Frame is made of 1.6t packing bar and Pivot hinge is basic specification.



Standard size : 900(w) x 2100mm (H)
1000(w) x 2100mm (H)

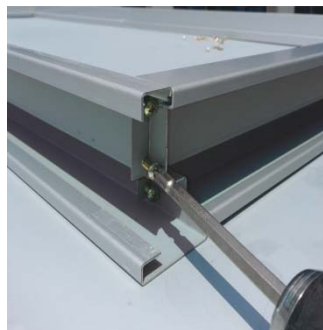
Details of Fire Steel Door

Z – inner frame is Kumsung's registered patent. (Patent No. 10-2010-0072699)



Non-welding processed Frame

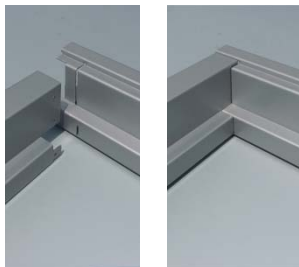
Combining by welding is upgraded by direct coupling with bolt , which gives neat finish appearance and allows simple and clean assembly with the painted color steel/ stainless steel bars,.



Comparison with welding
And direct coupling



Bars & tools before assembly



Direct coupling bolt connection
25-30 ea piece bolts are used
for 4 sides of frame.

Features and Benefits

1. Welding procedures are removed. Accordingly related works and tools such as Welder, welding rod, machining work, etc are not required.
2. Remarkable effect in assembly of color steel and stainless steel assembly of painted bar and quick action for the customer size are also available
3. Everybody can do assembly work easily with Motor drill and direct Coupling bolt at any place, which enabling the shipping bars without pre-Assembling and thereby reduces the Logistics cost.
4. Strength based on Non-welding process is almost same as the welding. In some aspect, there are more merits as mentioned above.

Wrapping frame

Due to non-welding process, various and fancy colors can be adapted for the harmonization with the exiting colors and patterns of wall.



Harmonization between door
and wall can be made through
Wrapping Frame
Economical compare with existing
powder coating .



Various color matches
are available.

UV Printer

State of the art U/V Flat sheet printer is used for the Kumsung doors which enables the customer ordering patterns, pictures, company logos, etc on the fire doors

U/V Flat sheet printer can print the various patterns /designs on paper, steel Sheets, glass , leather, wood with high definition.



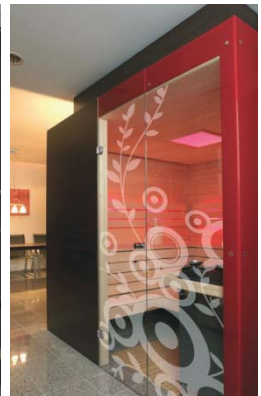
Example of Fire Doors using UV printer



▲ Applied to Fire Door



▲ Applied to Glass (printing on the back)



▲ Applied to partition



▲ Folding door



▲ Applied to shops

Stainless Steel Ornaments gives an variety in your choice.

Various material combinations allow another display effects compare with existing hairline stainless ornaments.

Initials of stainless steel ornaments are expressed, which shall be referred to the order sheet



Fire door Model Number identification

BK 613 TB

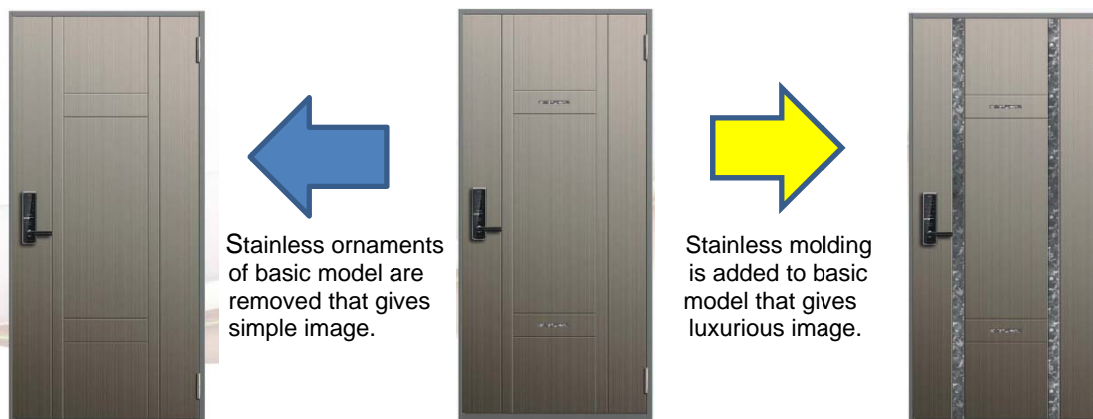
BK : Materials of Stainless Steel

613 : Products Model No.

TB : Materials of Color steel sheet

Self - Design system

From existing standard model, various changes can be available with limitation
This system offers various changes to existing model through combinations as far as it is available under existing process.



Typical models of Fire Steel Doors

800 Series - 1



BK-824-GH

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



SV-824-RB

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



SV-801-B

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BR-808-R

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



SV-808-B

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BK-801-H

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)

800 Series - 2



GL-803-R

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



BK-805-H

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



BR-805-R

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



BR-804-M

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



GL-806-TB

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



SV-806-B

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)

700 Series -1



769-TB

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BK-713-H

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BR-719-M

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



SV-754-RB

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



GL-712-R

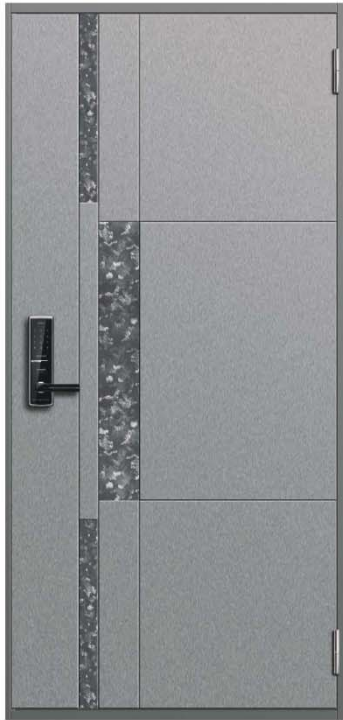
STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



SV-758-B

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)

700 Series - 2



BK-724-G

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



SV-724-RB

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



SV-756-R

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



BK-757-H

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



GL-717-TB

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)



GL-700-M

STANDARD SIZE
900(W) × 2100mm(H)
1000(W) × 2100mm(H)

600 Series - 1



SV-641-RB

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BK-643-H

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BK-665-GH

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



SV-634-B

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



BK-631-H

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)



GL-656-TB

STANDARD SIZE
900(w) × 2100mm(h)
1000(w) × 2100mm(h)

600 Series – 2



SV-651-B

STANDARD SIZE
900(w)×2100mm(h)
1000(w)×2100mm(h)



GL-635-TB

STANDARD SIZE
900(w)×2100mm(h)
1000(w)×2100mm(h)



SV-636-RB

STANDARD SIZE
900(w)×2100mm(h)
1000(w)×2100mm(h)



BR-647-M

STANDARD SIZE
900(w)×2100mm(h)
1000(w)×2100mm(h)



BK-638-H

STANDARD SIZE
900(w)×2100mm(h)
1000(w)×2100mm(h)



SV-603-GH

STANDARD SIZE
900(w)×2100mm(h)
1000(w)×2100mm(h)

600 Series – 3



GL-613-TB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-609-B

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



GL-604-GH

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



612-G

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-633-RB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-632-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

500 Series – 1



GL-514-TB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-514-G

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-533-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-573-B

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



501-GH

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



GL-536-R

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

500 Series -2



SV-516-RB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-516-GH

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-511-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



GL-500-M

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-508-G

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-509-B

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

500 Series 3



SV-515-TB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-515-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-532-RB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BK-571-G

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-534-B

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



BR-535-R

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

500 Series – 4



BK-531-G

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-571-RB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-572-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-504-GH

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



SV-574-B

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



GL-507-TB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

400 Series -1



409-R

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



408-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



407-B

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



406-RB

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



411-G

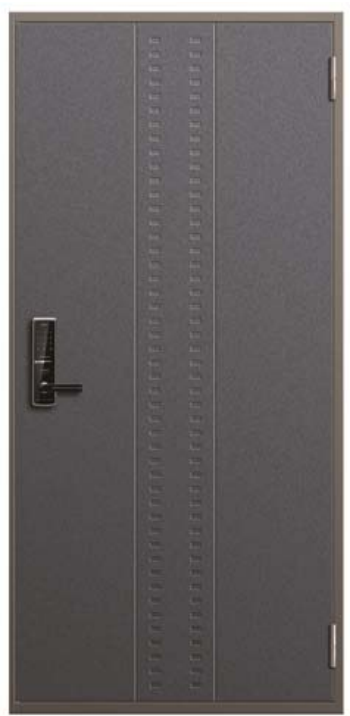
Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



413-H

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

400 Series -2



413-RB Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



411-GH Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



Gallery - G Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



403-TB Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



402-RB Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



401-R Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)

300 Series – 1

300 Series are the printed products with combination of beading



327 M

Standard Size
900(W) x 2100(H)
1800(W) x 2100(H)



325 M



314 GH

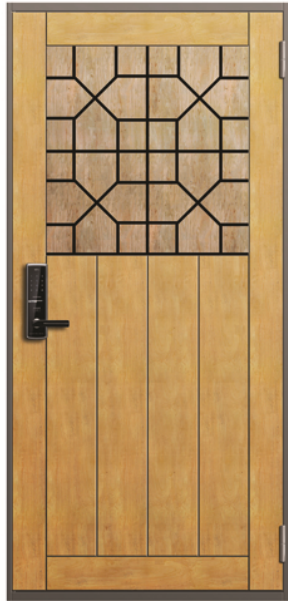


317 GH



319 GH

300 Series – 2



308 P (P: 전체인쇄)

Standard Size
900(W) x 2100(H)
1000(W) x 2100(H)



304 GH



305 R



306 H



303 B

200 Series



215 G

Standard Size
800(W) x 2100(H)
1000(W) x 2100(H)



212 H



227 TB



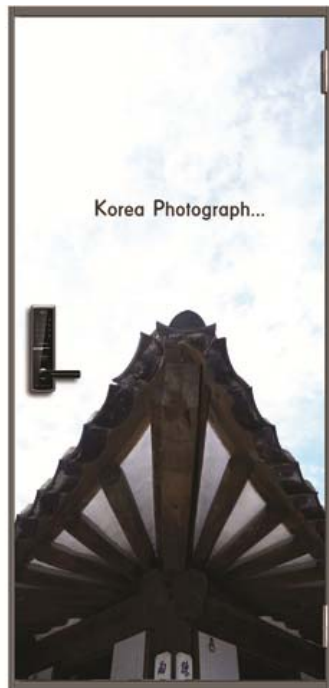
223 RB



211 H

Clients' Design

Designs are supplied by Clients

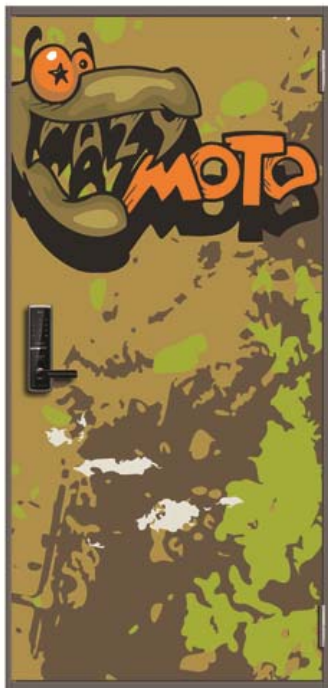


TYPE A

Standard Size
800(W) x 2100(H)
1000(W) x 2100(H)



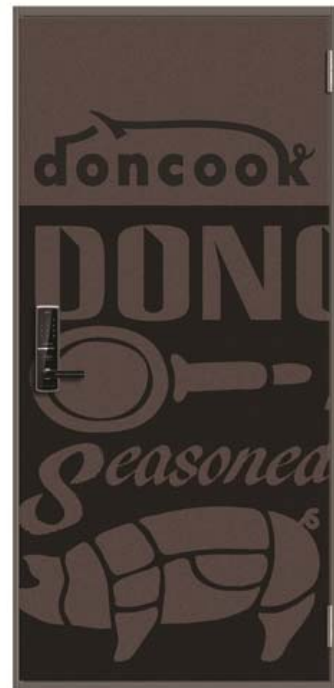
TYPE B



TYPE C



TYPE D



TYPE E