

INSULATED DOORS & PREPARATELY EQUIPMENTS

Various Sliding Insulated Doors
Overlap Insulated Doors
Vertical Sliding Insulated Doors
Lightweight Insulated Doors
Armor Dock Shelter & Super Air Shelter



MIZUTA

MIZUTA CO., LTD. Japan

MIZUTA

DOORS



Practicability and Prompt Maintenance System for the Customers

Working temperature of the Freezing and cold storage is setting up to temperature of minus 30 degrees, and outdoor air temperature is from temperature of 20 degrees to 30 digress as a ordinary temperature. Assume that a pair of Insulated door would be shut by internal and external storage. The difference in temperature between them shall reach from 50 to 60 degrees, when the doors would be installed such harsh location, the most significant problem is warping and twisting by the difference in it's temperature. The structure of the Insulated doors primary endure under such unfavorable conditions.

We, MIZUTA is producing the reliable Insulated doors based on usage data of practical experiences through the years and respective specifications.

Furthermore, we implement the nationwide prompt maintenance when breakdown and/or trouble occurs so as to keep low temperature of freezing and cold storage to the Customer.

We, MIZUTA is designing and producing Insulated doors which meet needs of Customers, and

"Customer care after supply and installation of Insulated doors should be our high priority duty. "



LECTOTYPE OF INSULATED DOORS BY UTILIZING SYSTEM

Currently, the warehouse with mobile rack system and multistory have become mainstream so as to peruse handling efficiency in the recent business of freezing and cold storage. The mobile rack system and automatic highrised warehouse have been pursued of high efficiency food processing factory and distribution center have been required for high efficiency.

The Insulated doors installed to exit and entrance for sold storage should be selected for products of performance of high efficiency by status.

We, MIZUTA would like to propose you to select the best Insulated doors by means of temperature inside of cold storage, frequency of open and shut, form of goods in custody and frequency of incoming and outcoming.

LECTOTYPE OF THICKNESS OF INSULATED DOORS BY THE TEMPERATURE INSIDE OF COLD STORAGE

Classification	Thickness of polyurethane foam injected (mm)
CLASS F ~ F1	150
CLASS F1 ~ F4	125
CLASS C1	125
CLASS C2	100
CLASS C3	75
FOOD PROCESSING AND SHIPPING PLATFORM	50

MATERIALS FOR SURFACE OF INSULATED DOORS IN PRODUCTION POSSIBLE

Various Stainless Steel Sheets

Various Baking finished Steel Sheets

aluminum-zinc alloy-coated steel sheet

Bonderizing plate

CLASSIFICATION OF COLD STORAGE AND NAME OF GOODS IN CUSTODY

	Item classification	Retention Temperature (°C)		Goods in Custody
		Range	Reference Temperature	
Common Cold Storage	F class	below -20	-23	Ice cream and frozen foods
	C1 class	-15~-20	-15	Ice cream (short term period), frozen fish, frozen meat, salted salmon, salted whale, sod roe and serring roe
	C2 class	-2~-10	-6	Frozen eggs, butter, Cheeze, ham, salted cod roe, dried herring, ssalmon roe, split and dried cod and smoked cod roe
	C3 class	-2~+10	0	Mrinboshi, dried herring roe, salted and dried fish, tsukudani, fresh fish (short term period), eggs, fruits, vegetable, fresh meats, katsuobushi, kamaboko, milk, liquor, smoked milk, tee, rise cake, fur goods and textiles

	Item classification	Temperature (°C)	Temperature (%) etc.	Goods in Custody
5~10	60	Katsuobushi		
Humidification	4~6	40	Tea	
CA	8~8	95~100 O ₂ : 3% Co ₂ : 3%	Differ from classify and degree of maturity in the kind of fruit and	

STANDARD SELECTION OF INSULATED DOOR & PREPARATELY EQUIPMENTS

Contents

FOOD PROCESSING	ELECTRICAL SINGLE & DUOBLE SLIDING INSULATED DOORS (LIGHTWEIGHT)	P3-6
COMMERCIAL WAREHOUSE	ELECTRICAL SINGLE & DUOBLE SLIDING INSULATED DOORS (VC•VL TYPE)	P7-20
	ELECTRICAL SINGLE SLIDING INSULATED DOORS (VL TYPE / FIREPROTECTION) DOUBLE SLIDING PAIR INSULATED DOORS	
HIGH RISED WAREHOUSE (INTERLOCKED CONVEYER SYSYTEM)	ELECTRICAL VERTICAL SLIDING INSULATED DOORS ELECTRICAL SINGLE & DUOBLE SLIDING INSULATED DOORS	P21-23
MEAT PROCESSING FACTORY	LIVESTOCK MEAT TYPE ELECTRICAL SINGLE & DUOBLE SLIDING INSULATED DOORS LIVESTOCK MEAT TYPE ELECTRICAL SINGLE & DOUBLEOVERLAP INSULATED DOORS	P24-25
MULTIPURPOSE WAREHOUSE	SINGLE OVERLAP INSULATED DOORS	P26-30
	DOUBLE OVERLAP INSULATED DOORS	
	SINGLE & DOUBLE OVERLAP INSULATED DOORS	
PREPARATELY EQUIPMENTS	ARMOR DOCK SHELTER & SUPER AIR SHELTER VARIOUS SWITCH	P30-41
COMPANY PROFILE & PERFORMANCES		P42-45

LIGHTWEIGHT

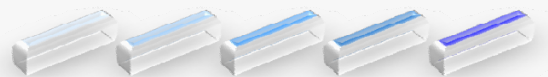
Electrical & Manual Operation

DOUBLE SLIDING INSULATED DOORS

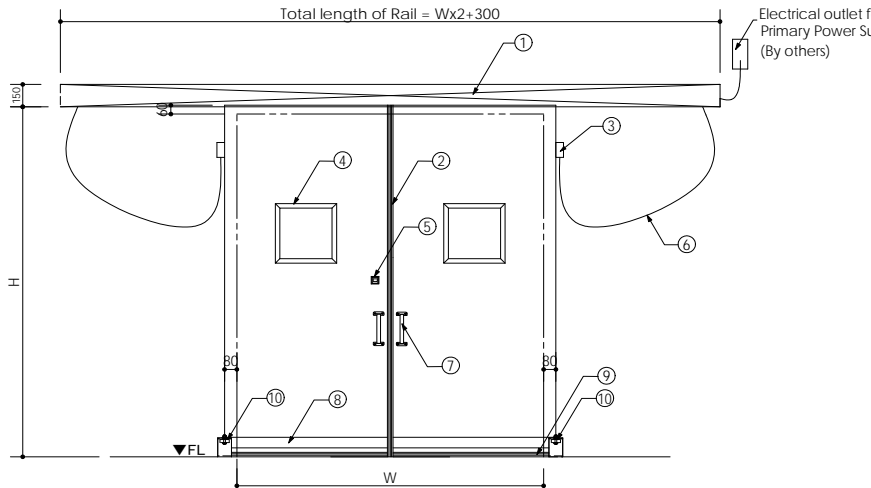
+10°C~



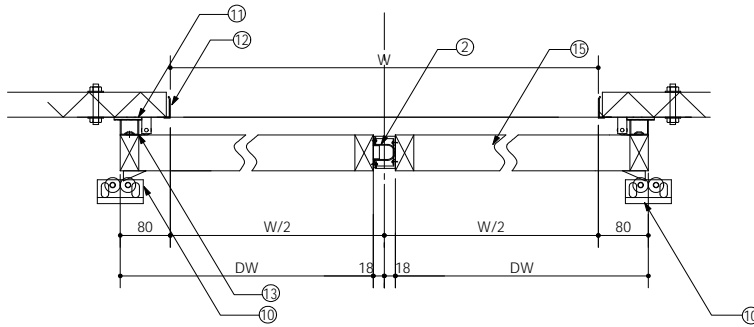
Featur



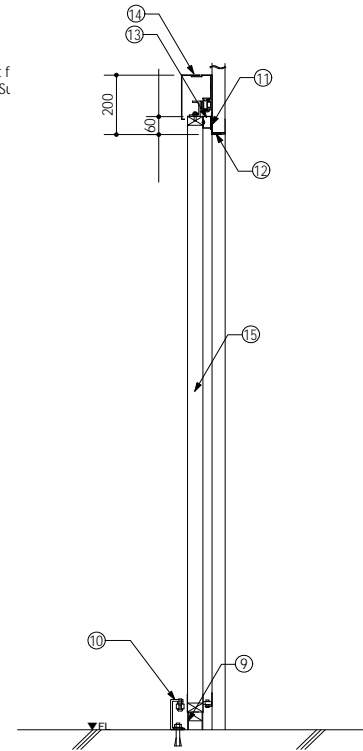
This Insulated door is primarily suitable for the processing factory with consideration of needs to be given for hygienic aspects, and completely covered for part of unit area. The installation of High-performance brushless DC motor and microcomputer control can be implemented for silent and speedy opening action. And, our Insulated doors adequate for partition wall such as insulating panel with implementation of compact configuration in comparison to conventional product. The reversing switch is installed door meeting of doors for safety sake.



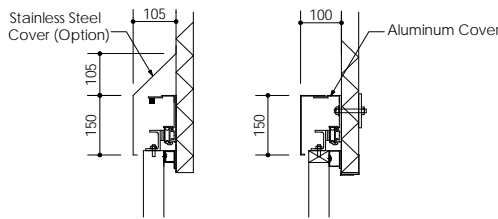
FRONT VIEW



HORIZONTAL SECTION



LONGITUDINAL SECTION



DETAILS FOR RAIL COVER

- ① Door rail cover
- ② Tape switch ※
- ③ Wiring joint box
- ④ Two layers glass (Option)
- ⑤ Push button switch ※
- ⑥ Cabtyre cord ※
- ⑦ Door knob
- ⑧ Guide plate
- ⑨ Rubber saddle
- ⑩ Guide roller
- ⑪ Door frame (Synthetic resin)
- ⑫ Inner surface materials
- ⑬ Packing materials
- ⑭ Door (Polyurethane foam)

Note)

※ for Electrical type

□ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

Specification	
Mortor	Brushless DC motor 100V/200W
Voltage in Operation	AC100V ± 10% 3A 50/60Hz (Depend on local regulation)
Core frame	Materials of door: Dried Oregon pine
Surface materials	Stainless Steel Sheets, Baking finished Steel Sheets and others
Insulation	High tension polyurethane foam injected 50t 60t
Safety devise	Part of door meeting: Tape switch with reversing devise (Not working when doors are opening)
Option	Light switch, two layers of glass (Various type), wireless switch, decorated frame and dew condensation prevention dew condensation prevention
Speed regulation	50~270mm/sec. (Distance in full speed of opening and shutting is possible to adjust in self non step operation system)
Operating environment	Temperature: More than +10 degrees, Humidity: 25~75%
Dimensions (mm)	Maximum dimension: Width=2,500 Height=2,500

LIGHTWEIGHT

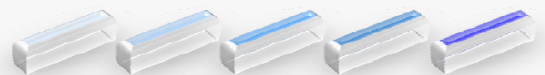
Electrical & Manual Operation

SINGLE SLIDING INSULATED DOORS

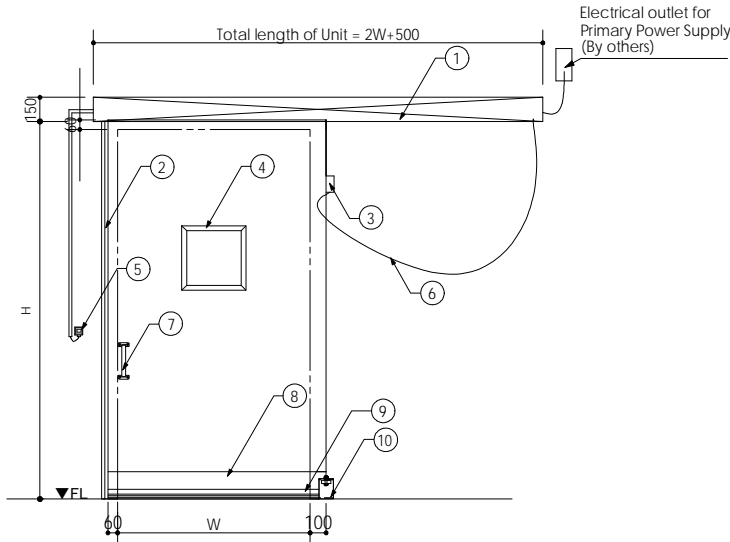
+10°C~



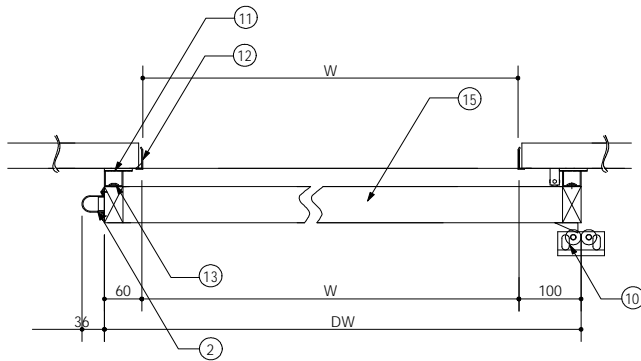
Power-driven method



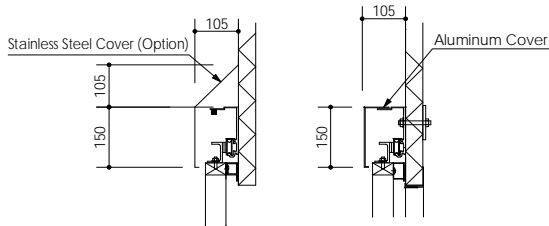
1. Brushless DC motor
The high-performance and silent Brushless DC (direct current) motor can be muted sound of mortar, and effected smooth opening and shutting.
2. The installation of full closing operation system can be equipped at power failure as Emergency response battery circuit (Option) can be equipped.
3. Various adjustment function
Anyone can make each adjusts easily as appliance of adjustment of door opening, closing speed of doors, very low speed, hold timer are equipped t the bottom units.
4. Realization of electric power saving
This unit can be utilized with efficiency according to the electrical power consumption of power source of 100V/200W. (Practicable power supply by the electrical outlet 100 volts)



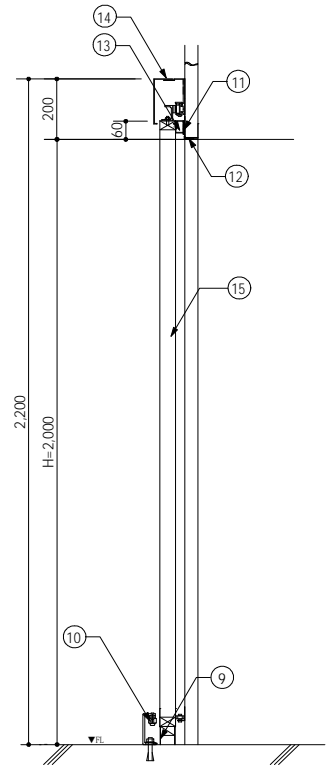
FRONT VIEW



HORIZONTAL SECTION



DETAILS FOR RAIL COVER



LONGITUDINAL SECTION

- ① Door rail cover
- ② Tape switch ※
- ③ Wiring joint box
- ④ Two layers glass (Option)
- ⑤ Push button switch ※
- ⑥ Cabtyre cord ※
- ⑦ Door knob
- ⑧ Guide plate
- ⑨ Rubber saddle
- ⑩ Guide roller
- ⑪ Door frame (Synthetic resin)
- ⑫ Inner surface materials
- ⑬ Packing materials
- ⑭ Space for unit devise
- ⑮ Door (Polyurethane foam)

Note)

※ for Electrical type

◆ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

Specification	
Mortor	Brushless DC motor 100V/200W
Voltage in Operation	AC100V ± 10% 3A 50/60Hz (Depend on local regulation)
Core frame	Materials of door: Dried Oregon pine
Surface materials	Stainless Steel Sheets, Baking finished Steel Sheets and others
Insulation	High tension polyurethane foam injected 50t 60t
Safety devise	Part of door meeting: Tape switch with reversing devise (Not working when doors are opening)
Option	Light switch, two layers of glass (Various type), wireless switch, decorated frame and dew condensation prevention dew condensation prevention
Speed regulation	50~270mm/sec. (Distance in full speed of opening and shutting is possible to adjust in self non step operation system)
Operating environment	Temperature: More than +10 degrees, Humidity: 25~75%
Dimensions (mm)	Maximum dimension: Width=1,500 Height=2,500

VC Type

Electrical & Manual Operation

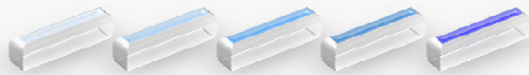
DOUBLE SLIDING INSULATED DOORS

+5°C~

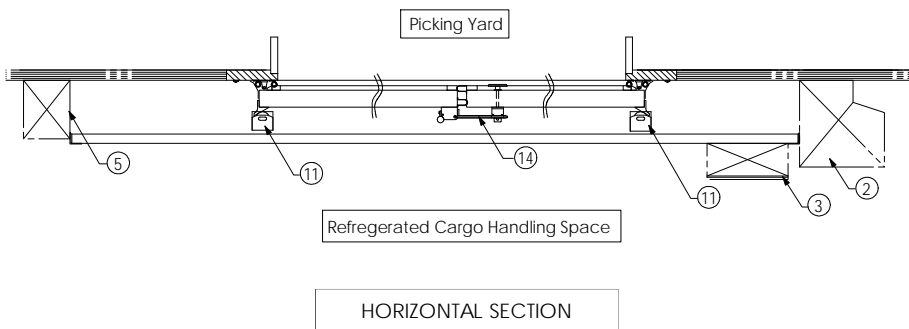
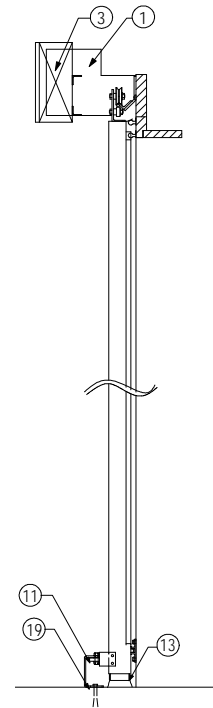
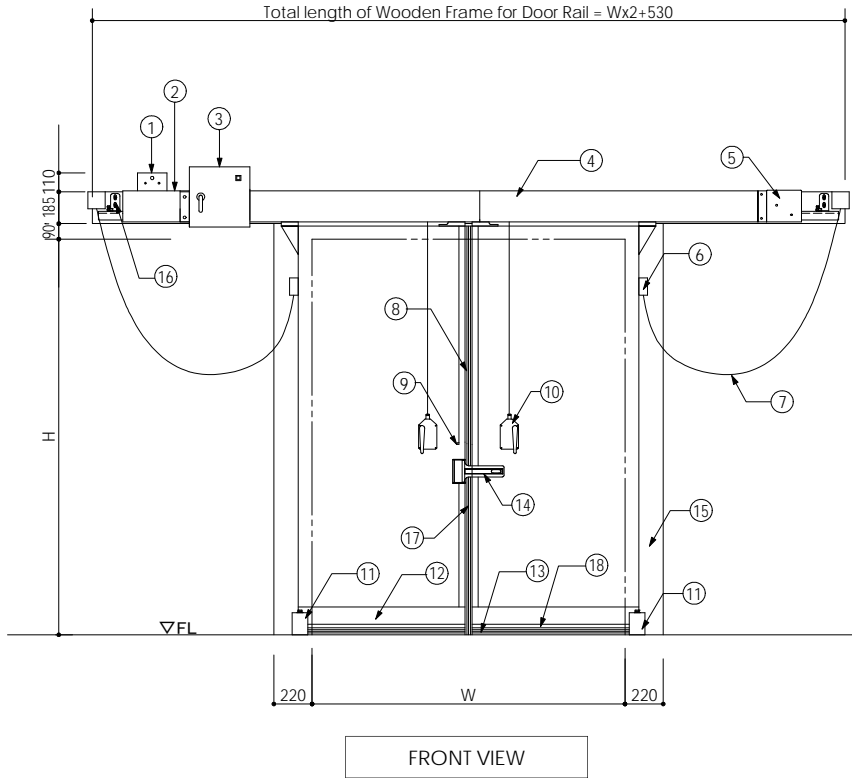


Lightweight type for C3 class cold room

Featur



- 1. VC type insulated doors is lightweight type sliding doors which designated conformity with standard for C3 class cold room (-2°C~+10°C).
- 2. The thickness of insulation of insulated doors is divided into three classes, 60mm, 75mm and 100mm thickness of urethane foam, and insulated packing of each insulation is equipped dual structure P type air tide formula, and rubbed dimensions between packing that is till release from comprehension and doors is about 80mm and keep its frictional wear to the minimum .
- 3. The drive motor that is compact and efficient Mitsubishi orthogonal axes geared motors (0.2kW) is equipped, and has both safety and economy. (Inverter is optional equipments)
- 4. Mizuta insulated doors is most suitable for wall panel structure as shock around doors is completely absorbed in time of door opening and closing.



- | | |
|--|--|
| ① Travel limit box | ⑪ Guide roller |
| ② Geared motors (with brake) | ⑫ Guide plate (double face) |
| ③ Control box | ⑬ Rubber saddle (2t) |
| ④ Chain cover | ⑭ Key switch box and plate |
| ⑤ Idler box | ⑮ Cock decorative rim (45tx220L) |
| ⑥ Wiring joint box | ⑯ Door rail bracket (Up-down adjustment style) |
| ⑦ Cabtyre cord | ⑰ Packing for door meeting |
| ⑧ Tape switch | ⑱ Holding plate for doorsill |
| ⑨ Push button switch | ⑲ Anchor Bolt M12 |
| ⑩ Operation Switching Handle (Manual/Electric) | |

☐ Maximum usable dimension: Width 2,500mm x Height 2,800mm.

☐ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

VC Type

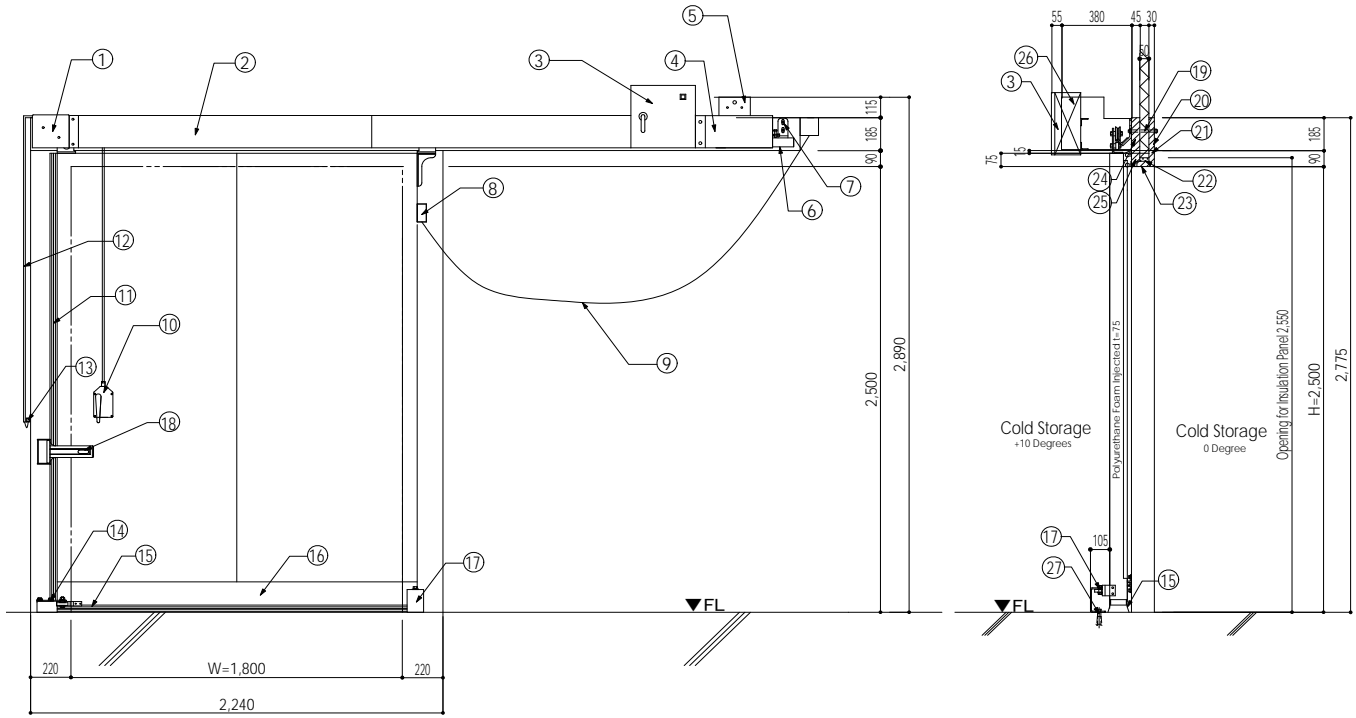
Electrical & Manual Operation

SINGLE SLIDING INSULATED DOORS

+5°C~

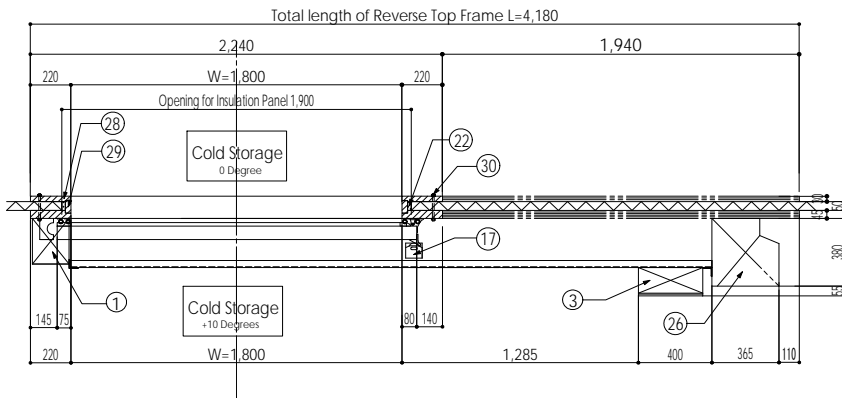


Specification	
Mortor	0.2kW=4P, 3 phase 200V, with brake system
Voltage in Operation	24V
Metal Fixtures	Drive case, Idler case, Door rail: Steel materials, Other marable: Galvanizing
Packing	Weather resistance type Neoprene rubber or Oil resistance type rubber
Core frame	Decorated frame: 45mm thickness, Blindfold wall: 30mm thickness, Materials of door: Dried Oregon pine
Surface materials	Stainless Steel Sheets, Various baking finish steel sheets and other materials
Insulation	High tension polyurethane foam injected 60, 75 and 100mm thickness
Safety devise	Part of door meeting: Tape switch with reversing devise, Key type switch and unlocking devise for emergency escape at the other side of doors
Optical Equipments	Door operation warning buzzer, Doors half-opening operation devise, Automatic closing devise and various optical switches.



FRONT VIEW

LONGITUDINAL SECTION



HORIZONTAL SECTION

- | | |
|------------------------------|---|
| ① Idler box | ⑩ Operation switching handle (Manual/Electric) |
| ② Chain Cover | ⑪ Tape switch |
| ③ Control box | ⑫ PVC Pipe |
| ④ Geared motors (with brake) | ⑬ Push button switch |
| ⑤ Travel limit box | ⑭ Guide roller |
| ⑥ Door rail | ⑮ Rubber saddle |
| ⑦ Door rail bracket | ⑯ Guide plate |
| ⑧ Wiring Joint Box | ⑰ Guide Roller |
| ⑨ Cabtyre cord | ⑱ Key switch box and plate |
| | ⑲ Stainless Bolt M12 |
| | ⑳ Rear door frame 30x185 t=0.8 (SUS-304) laminated |
| | ㉑ Rear door frame 30x90 t=0.8 (SUS-304) laminated |
| | ㉒ Injected polyurethane foam |
| | ㉓ Door jamb 30x70 t=0.8 (SUS-304) No.4 laminated |
| | ㉔ Wood base for door rail 45x185 t=0.8 (SUS-304) No.4 laminated |
| | ㉕ Cock decorative rim 45x90 t=0.8 (SUS-304) No.4 laminated |
| | ㉖ Drive space |
| | ㉗ Anchor Bolt M12 |
| | ㉘ Rear door frame 30x220 t=0.8 (SUS-304) laminated |
| | ㉙ Rear door frame 30x70 t=0.8 (SUS-304) laminated |
| | ㉚ Stainless bolt M10 |

❑ Maximum usable dimension: Width 1,500mm x Height 2,800mm.

❑ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

VL Type

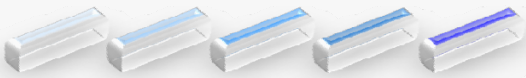
Electrical & Manual Operation

DOUBLE SLIDING INSULATED DOORS

-40°C~+5°C

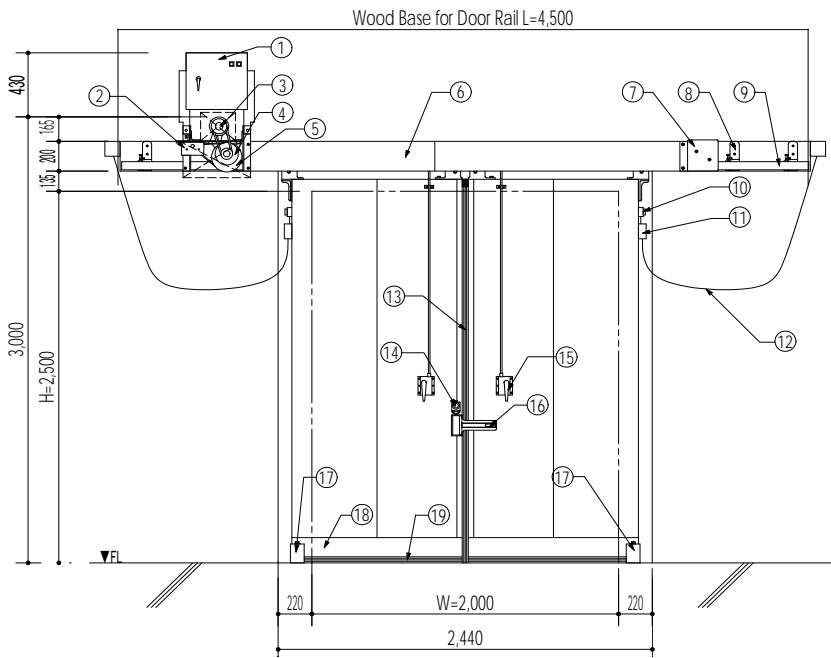


VL type Insulated doors

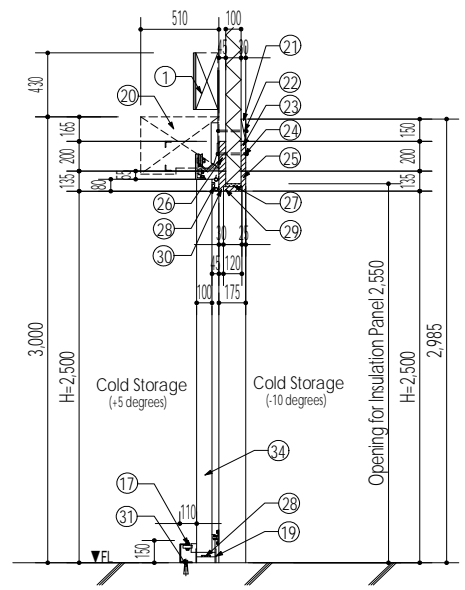


❑ Infallible confidentiality

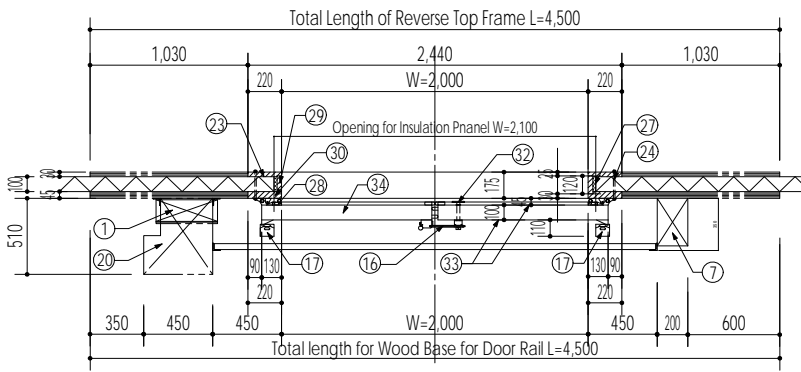
The packing of VL type insulated doors are compressed by the self weight of insulated doors by the function of notch that is inclination processing into the end of door rail the place where is just before the doors closing (about 100mm on this side), and door automatically falls into the oblique 45 degrees to the direction of door frame. And, doors are fixed by the latch installed to door rail, and constantly compressed packing. In the way described above, airtightness can be maintained constantly in the same condition as the compressive force to packing is caused by the weight of doors body and no mechanical forcible.



FRONT VIEW



LONGITUDINAL SECTION



HORIZONTAL SECTION

- | | |
|---|--|
| ① Control box | ⑱ Guide plate |
| ② Travel limit box | ⑲ Rubber saddle |
| ③ Geared motors (with brake) 0.4kw | ⑳ Drive space |
| ④ Drive space cover | ㉑ Rear door frame 30x150 t=0.8 (SUS-304) laminated |
| ⑤ Reduction gear 1:50 | ㉒ Stainless bolt M10 |
| ⑥ Chain cover | ㉓ Rear door frame 30x200 t=0.8 (SUS-304) laminated |
| ⑦ Idler box | ㉔ Insulated bolt M16 |
| ⑧ Door rail bracket SS400 | ㉕ Rear door frame 30x135 t=0.8 (SUS-304) laminated |
| ⑨ Door rail | ㉖ Wood base for door rail 45x200 t=0.8 (SUS-304) No.4laminated |
| ⑩ Thermostat | ㉗ Injected polyurethane foam |
| ⑪ Wiring joint box | ㉘ Defrosting heater |
| ⑫ Cabtyre cord | ㉙ Door jamb 30x120 t=0.8 (SUS-304) No.4laminated |
| ⑬ Tape switch | ㉚ Cock decorative rim 45x220 t=0.8 (SUS-304) No.4laminated |
| ⑭ Push button switch for partial opening (Option) | ㉛ Anchor bolt M12 |
| ⑮ Operation switching handle (Manual/Electric) | ㉜ Evacuation handle |
| ⑯ Key switch box and plate | ㉝ Stainless steel sheet t=.08 |
| ⑰ Guide roller | ㉞ Injected polyurethane foam t=100 |

❑ Maximum usable dimension: Width 1,500mm x Height 2,800mm.

❑ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

VL Type

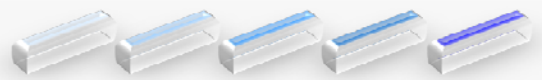
Electrical & Manual Operation

SINGLE SLIDING INSULATED DOORS

-40°C~+5°C



Insulated doors for Ultra low temperature cold

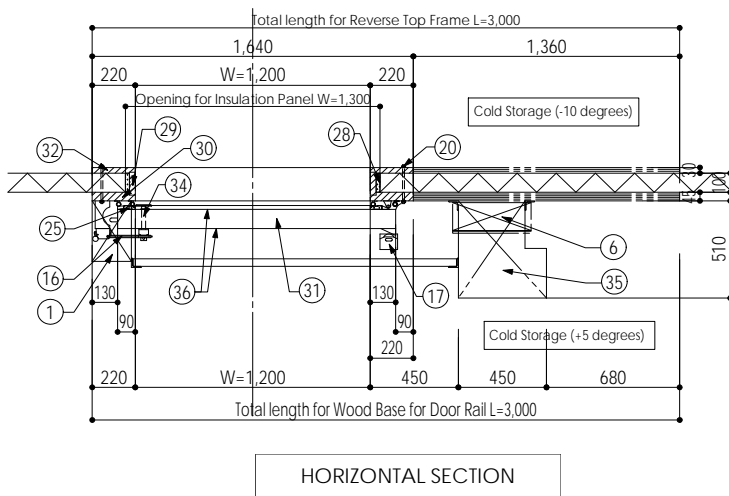
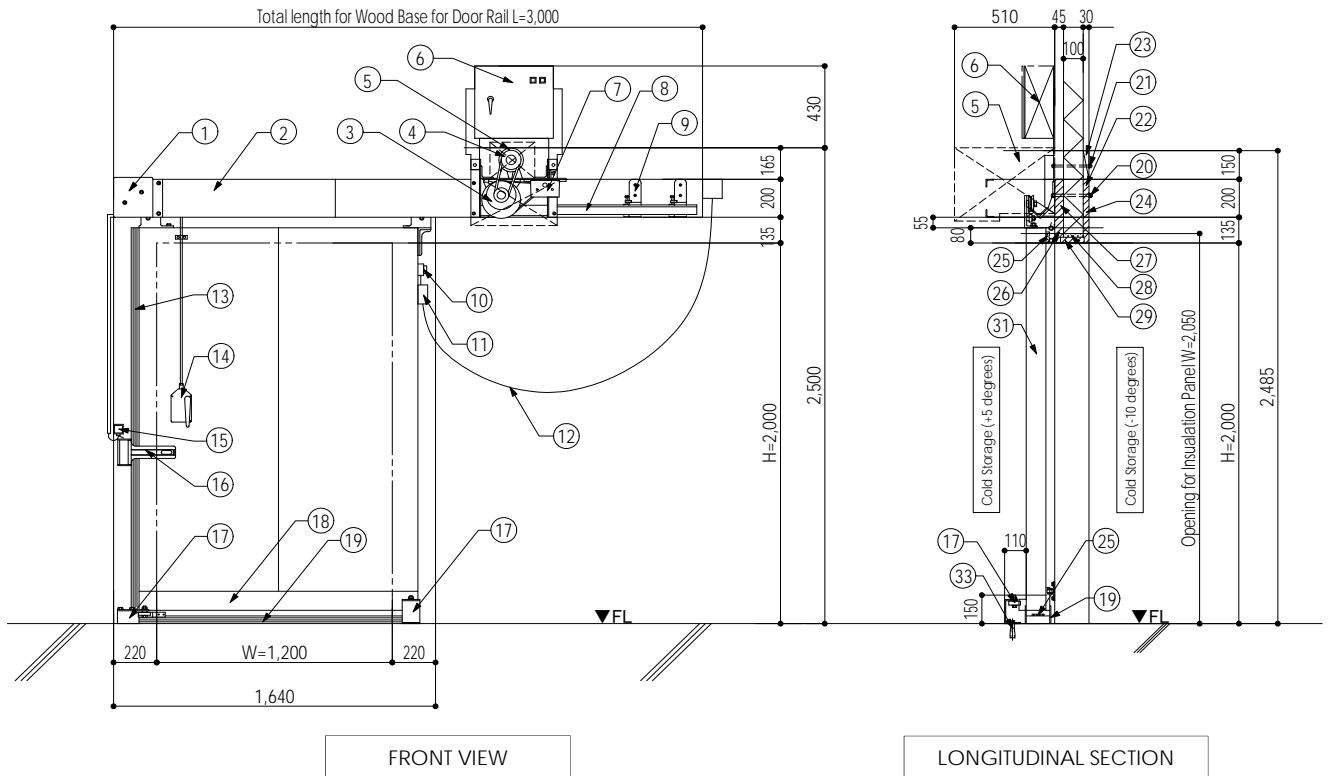


❑ Infallible confidentiality

The packing of VL type insulated doors are compressed by the self weight of insulated doors by the function of notch that is inclination processing into the end of door rail the place where is just before the doors closing (about 100mm on this side), and door automatically falls into the oblique 45 degrees to the direction of door frame.

And, doors are fixed by the latch installed to door rail, and constantly compressed packing.

In the way described above, airtightness can be maintained constantly in the same condition as the compressive force to packing is caused by the weight of doors body and no mechanical forcible.



- | | |
|---|---|
| ① Idler box | ⑲ Rubber saddle |
| ② Chain cover | ⑳ Insulated bolt M16 |
| ③ Reduction gear | ㉑ Stainless bolt M10 |
| ④ Geared motors (with brake) 0.4kw | ㉒ Rear door frame 30x200 t=0.8 (SUS-304) laminated |
| ⑤ Drive space cover | ㉓ Rear door frame 30x150 t=0.8 (SUS-304) laminated |
| ⑥ Control box | ㉔ Rear door frame 30x135 t=0.8 (SUS-304) laminated |
| ⑦ Travel limit box | ㉕ Defrosting heater |
| ⑧ Door rail SS400 | ㉖ Cock decorative rim 45x135 t=0.8 (SUS-304) No.4 laminated |
| ⑨ Door rail bracket SS400 | ㉗ Wood base for door rail 45x200 t=0.8 (SUS-304) No.4 laminated |
| ⑩ Thermostat | ㉘ Injected polyurethane foam |
| ⑪ Wiring joint box | ㉙ Door jamb 30x120 t=0.8 (SUS-304) No.4 laminated |
| ⑫ Cabtyre cord | ㉚ Cock decorative rim 45x220 t=0.8 (SUS-304) No.4 laminated |
| ⑬ Tape switch | ㉛ Injected polyurethane foam t=100 |
| ⑭ Operation switching handle (Manual/Electric) | ㉜ Rear door frame 30x220 t=0.8 (SUS-304) laminated |
| ⑮ Push button switch for partial opening (Option) | ㉝ Anchor bolt M12 |
| ⑯ Key switch box and plate | ㉞ Evacuation handle |
| ⑰ Guide roller | ㉟ Drive space |
| ⑰ Guide plate | ㊱ Stainless steel sheet t=.08 |

- ❑ Maximum usable dimension: Width 3,000mm x Height 4,000mm.
- ❑ Specification and design may be modified unexpectedly.
- * Please contact us in case of different specification.

VL Type

Electrical & Manual Operation

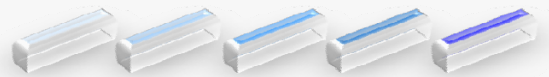
-40°C~+5°C

DOUBLE SLIDING INSULATED DOORS

Fire protection



Fire protection type Insulated doors (Double)

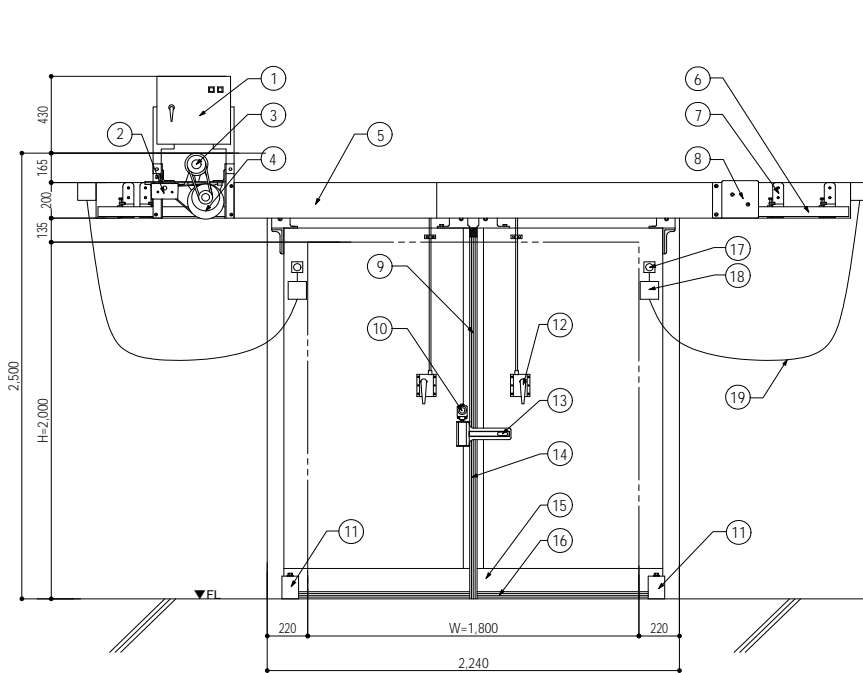


❑ Structure

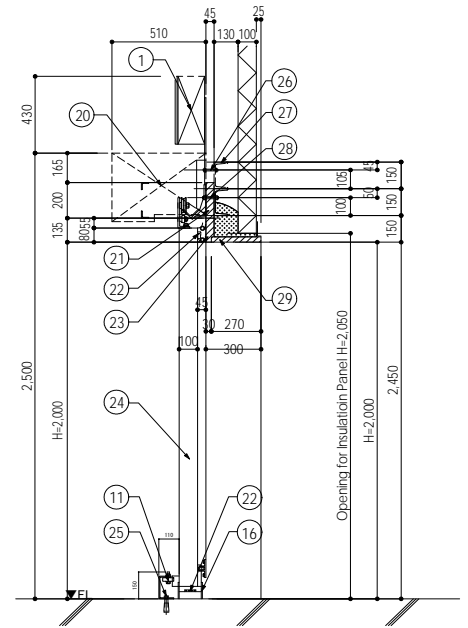
VL type insulated doors fulfill for the function of fire protection at fire retarding division. The structure of VL type insulated doors is effective to shut out fire from clearance gap in the doors in case of fire by using, for the heating expanded insulation (two hours fireproof qualified product) that is expanded by heating of surrounding packing with utilization of both facings of steel sheets.

❑ Opening and Closing Function

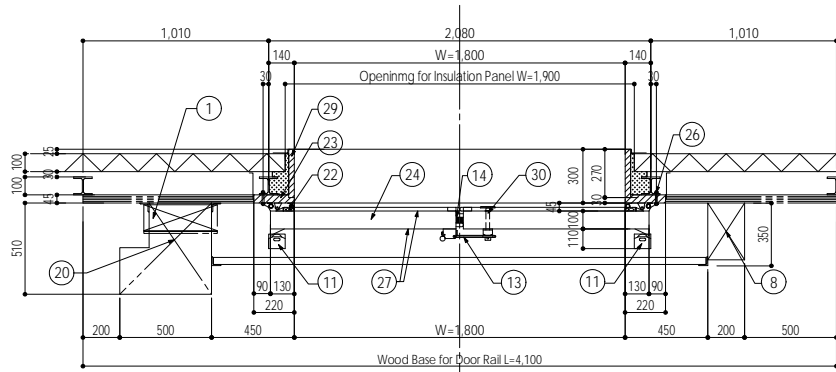
VL type doors are closed instantly by interlocking with fire alarm signal or smoke detection signal. And doors are closed automatically by balance weight in case of power cut. After power cut recovery, doors are put to



FRONT VIEW



LONGITUDINAL SECTION



HORIZONTAL SECTION

- | | | |
|---|--|--|
| ① Control box | ⑩ Push button switch for half-opening | ①⑥ Rubber saddle |
| ② Travel limit box | ⑪ Guide roller | ①⑦ Thermostat |
| ③ Mortor 200V 0.4kw (Depend on local condition) | ⑫ Operation switching handle (Manual/Electric) | ①⑧ Joint box |
| ④ Electro-magnetic clutches | ⑬ Padlocking | ①⑨ Cabtyre cord |
| ⑤ Chain cover | ⑭ Heating and foaming leavening agent | ②① Wood base for door rail 45x200 t=0.8 (SUS-304) No.4 laminated |
| ⑥ Door rail | ⑮ Guide plate | ②② Defrosting heater |
| ⑦ Bracket for door rail | | ②③ Cock decorative rim 45x135 t=0.8 (SUS-304) No.4 laminated |
| ⑧ Idler box | | ②④ Injected polyurethane foam t=100 |
| ⑨ Tape switch | | ②⑤ Anchor bolt M12 |
| | | ②⑥ Stainless bolt M10 |
| | | ②⑦ Baked color coated steel plate Laminated to the both sides |
| | | ②⑧ Stainless bolt M12 |
| | | ②⑨ Door jamb 30x270 t=0.8 (SUS-304) No.4 laminated |
| | | ③① Evacuation handle |

- ◆ Maximum Effective Dimension
... Width 4,000mm x Height 4,000mm
- Specification and design may be modified unexpectedly.
- * Please contact us in case of different specification.

VL Type

Electrical & Manual Operation

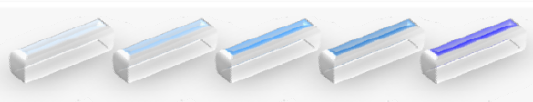
SINGLE SLIDING INSULATED DOORS

-40°C ~ +5°C

Fire protection



Fire protection type Insulated doors (Single)

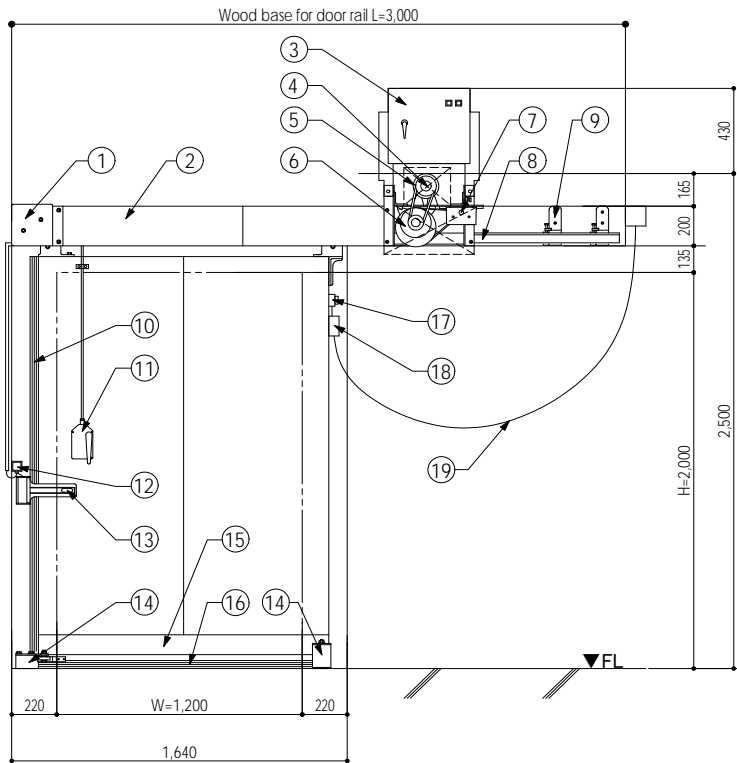


❑ Structure

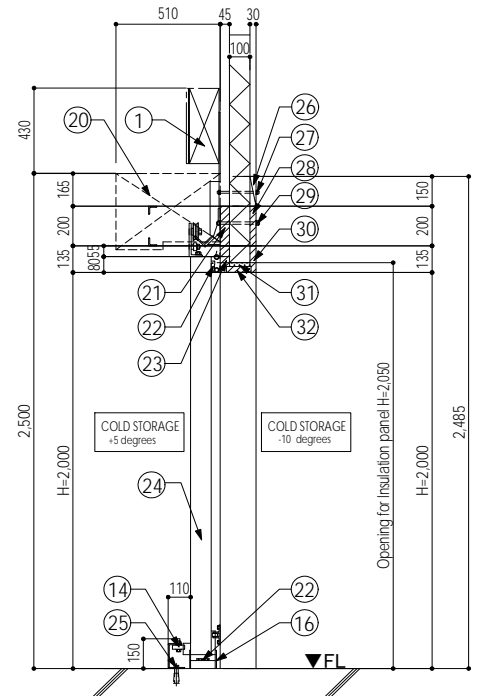
VL type insulated doors fulfill for the function of fire protection at fire retarding division. The structure of VL type insulated doors is effective to shut out fire from clearance gap in the doors in case of fire by using for the heating expanded insulation (two hours fireproof qualified product) that is expanded by heating of surrounding packing with utilization of both facings of steel sheets.

❑ Opening and Closing Function

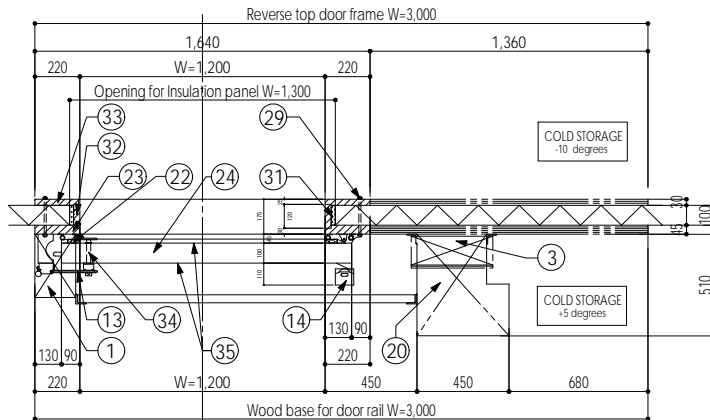
VL type doors are closed instantly by interlocking with fire alarm signal or smoke detection signal. And doors are closed automatically by balance weight in case of power cut. After power cut recovery, doors are put to use as a normal insulated doors.



FRONT VIEW



LONGITUDINAL SECTION



HORIZONTAL SECTION

- | | |
|--|---|
| ① Idler box | ⑲ Cabtyre cord |
| ② Chain cover | ⑳ Drive space |
| ③ Control box | ㉑ Wood base for door rail 45x200 t=0.8 (SUS-304) No.4 laminated |
| ④ Motor 200V 0.4kw (Depend on local condition) | ㉒ Defrosting heater |
| ⑤ Drive division cover (Option) | ㉓ Cock decorative rim 45x135 t=0.8 (SUS-304) No.4 laminated |
| ⑥ Reduction gear 1:50 | ㉔ Injected polyurethane foam t=100 |
| ⑦ Travel limit box | ㉕ Anchor bolt M12 |
| ⑧ Stainless door rail (SS-400) | ㉖ Rear door frame 30x150 t=0.8 L=500 (SUS-304) laminated |
| ⑨ Stainless bracket for door rail (SS-400) | ㉗ Stainless bolt M10 |
| ⑩ Tape switch | ㉘ Rear door frame Frame 30x200 t=0.8 (SUS-304) laminated |
| ⑪ Operation switching handle (Manual/Electric) | ㉙ Insulated bolt M16 |
| ⑫ Push button switch for half-opening (Option) | ㉚ Rear door frame 30x135 t=0.8 (SUS-304) laminated |
| ⑬ Padlocking | ㉛ Injected heat insulating material |
| ⑭ Guide roller | ㉜ Door jamb 30x120 t=0.8 (SUS-304) No.4 laminated |
| ⑮ Guide plate | ㉝ Rear door framee 30x220 t=0.8 (SUS-304) laminated |
| ⑯ Rubber doorsill | ㉞ Evacuation Handle |
| ⑰ Thermostat | ㉟ Baked color coated steel plate Laminated to the both sides |
| ⑱ Joint box | |

◆ Maximum Effective Dimension
... Width 2,500mm x Height 4,000mm

□ Specification and design may be modified unexpectedly.
* Please contact us in case of different specification.

SPECIAL Type Electrical & Manual Operation

DOUBLE SLIDING PAIR INSULATED DOORS

-30°C ~ +5°C



- ❑ **Maximum usable dimension:** Width 3,750mm x Height 4,000mm.
Maximum dimension of large size of door: Width 3,000mm (inner measurement)
Maximum dimension of small size of door: Width 750mm (inner measurement)
◇ However, dimension of large size of door shall be double of dimension of small size of door
- ❑ **Doors opening and closing speed**
1m distance per from four to six seconds (depend on width of door dimension of both doors)
- ❑ **Converter drive position**
Intermediate sprocket two speed transmission system
- ❑ Specification and design may be modified unexpectedly.

Top & Bottom

Electrical & Manual Operation (3 & 4 way door frame)

VERTICAL SLIDING INSULATED

-10°C~



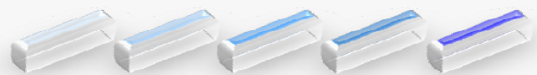
Vertical Sliding Insulated Doors

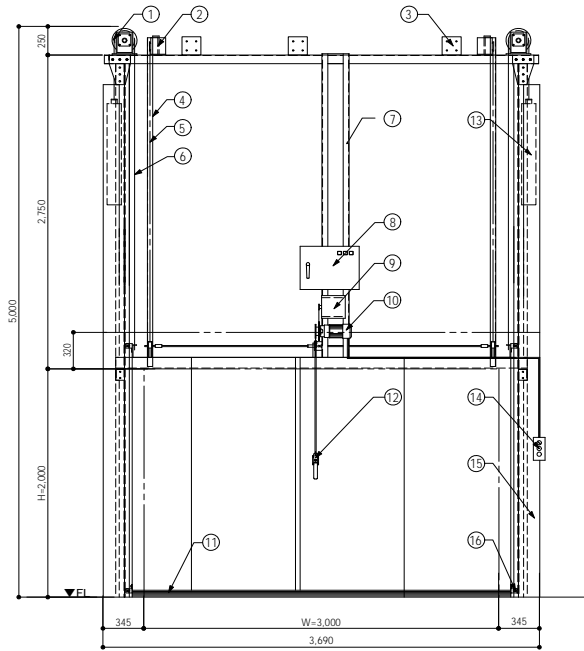
❑ Feature

Vertical sliding insulated doors are opened and closed by the signal instruction from conveyer delivery line in rack house, and cope with the extensive needs that is from normal to F class as to the temperature of cold storage, and to be useful unmanned conveyance by the computer control and cope with the building without enough bilateral space as ordinary door opening and closing function is possible.

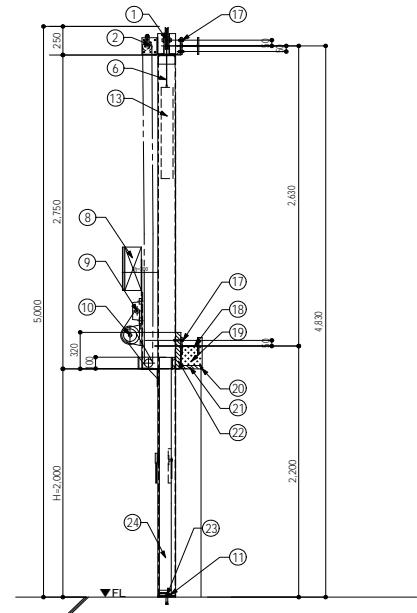
❑ Safety

The structure of vertical sliding insulated doors is sufficiently considered for the hanging strength with passing for door opening and closing testing. And the reversing switch is installed the bottom of doors due to not be caught in case of electrical operation. The weight of door is adjusted by balance weight in case of manual operation.

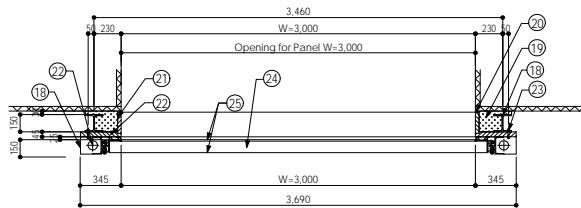




FRONT VIEW



LONGITUDINAL SECTION



HORIZONTAL SECTION

- | | |
|--|--|
| ① Sprocket 210 ϕ | ⑭ Selector switch (Manual/Interlocking) |
| ② Upper Idler | ⑮ Weight cover |
| ③ Overturning protection | ⑯ Guide roller |
| ④ Chain cover | ⑰ Plating bolt M12 |
| ⑤ Drive chain | ⑱ Balance weight cover |
| ⑥ Hanging chain | ⑲ Injected heat insulating material (By others) |
| ⑦ Steel structural for drive division | ⑳ Sealing (By others) |
| ⑧ Control box | ㉑ Door jamb 30x185 baked color coated steel plate |
| ⑨ Travel limit box | ㉒ Cock decorative rim 45x345 baked color coated steel plate |
| ⑩ Mortor 200V 0.4kw | ㉓ Anchor bolt M12 |
| ⑪ Tape switch | ㉔ Injected polyurethane foam t=100 |
| ⑫ Operation switching handle (Manual/Electric) | ㉕ Baked color coated steel plate laminated to the both sides |
| ⑬ Balance weight | |

◆ Method of Door opening and closing

Full closing and opening by the conveyor conjunction system and independent closing and opening by the conveyor conjunction by Push button (The operation of the conveyor conjunction system and independent closing and opening shall be thrown a switch by the on-off switch on the control; box

◆ Closing Speed

5.2sec/m (50c/s) 4.9sec/m (60c/s) (without consideration of Packing and Sprocket Resistance)

◆ Motive Power

200V 3ph 0.4kw (Without power capacity of Defrosting Heater)
(Depend on local regulation)

□ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

SPECIAL Type

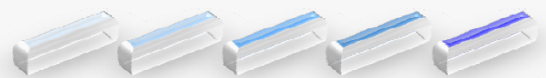
Electrical & Manual Operation

THREE PIECES VERTICAL SLIDING INSULATED DOORS

-25°C~+5°C



Feature



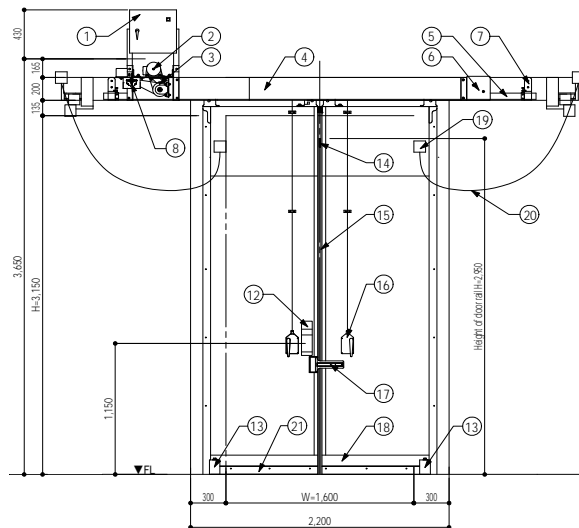
This Insulated door is put to use in case of without enough upper and lower space. The doors are stored with folding three boards by guide frame in case of door opening, and is put to use by manual operation so as it's possible to adjust for the weight of doors by balance weight. This insulated doors is put to use widely so as it's possible to be equipped heater devise, and is put to use for rack house by the interlocking device with conveyor line.

LIVESTOCK

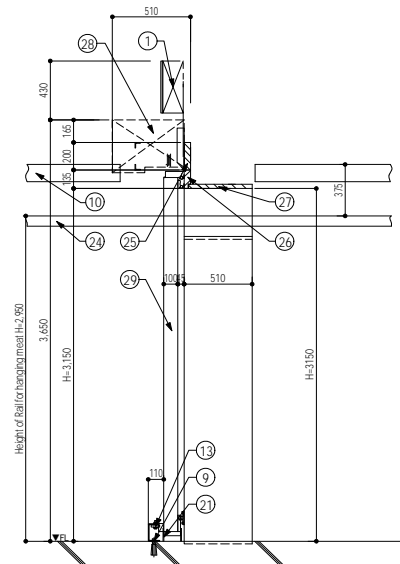
Electrical & Manual Operation

Drafting and Specifications

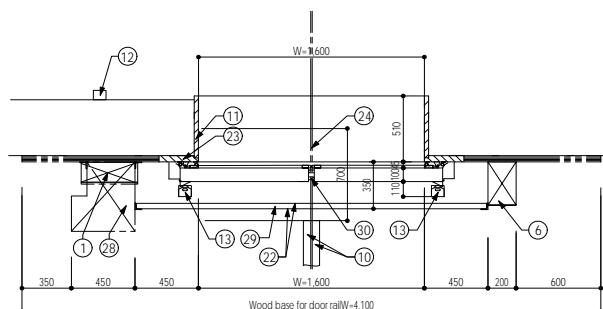
DOUBLE SLIDING INSULATED DOORS



FRONT VIEW



LONGITUDINAL SECTION

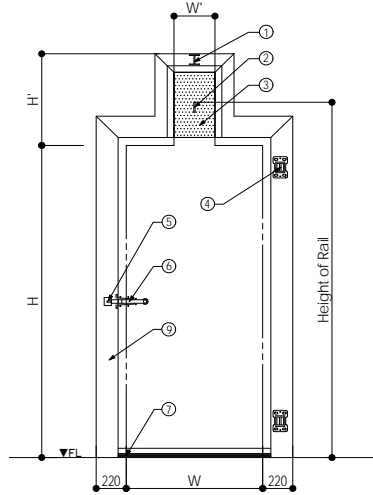


HORIZONTAL SECTION

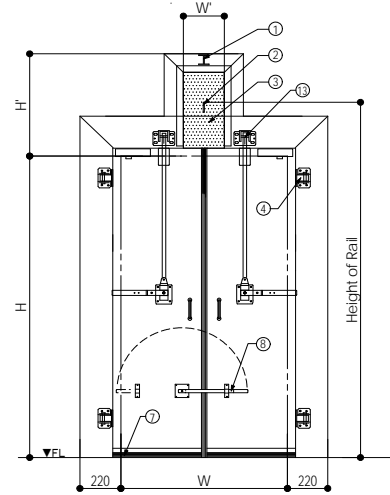
- | | |
|---|--|
| ① Control box | ⑩ Joist for hanging of meat (By others) |
| ② Mortor 200V 0.4kw (Depend on local condition) | ⑪ Door jamb 30x480 t=0.8 (SUS-304) No.4 laminated |
| ③ Electro-magnetic clutches | ⑫ Cut sensor |
| ④ Chain cover | ⑬ Guide roller |
| ⑤ Door rail | ⑭ Hanging rail for meat (FB-12x75) |
| ⑥ Idler box | ⑮ Tape switch |
| ⑦ Bracket for door rail | ⑯ Operation switching handle (Manual/Electric) |
| ⑧ Travel limit box | ⑰ Padlocking |
| ⑨ Anchor bolt M12 | ⑱ Guide plate |
| | ⑲ Joint box |
| | ⑳ Cabtyre cord |
| | ㉑ Cover of rubber saddle |
| | ㉒ Stainless steel plate (t=0.8 SUS304) laminated to the both sides |
| | ㉓ Cock decorative rim 45x300 t=0.8 (SUS-304) No.4 laminated |
| | ㉔ Rail for hanging of meat FB-12x75 (By others) |
| | ㉕ Wood base for door rail 45x200 t=0.8 (SUS-304) No.4 laminated |
| | ㉖ Cock decorative rim 45x135 t=0.8 (SUS-304) No.4 laminated |
| | ㉗ Door jamb 30x480 t=0.8 (SUS-304) No.4 laminated |
| | ㉘ Drive space |
| | ㉙ Injected polyurethane foam t=100 |
| | ㉚ Packing for door meeting (Heating and foaming leavening agent) |

- ◆ Maximum and Minimum Dimension of Production...Width 1,400 to 2,500 / Height 2,500 to 4,000
- ◆ Closing Speed...6m/1sec. (standard) ※ It will be subject to change if the width of door is extremely big (small).
- ◆ Thickness of Insulation...t=100 and 125 by injected
- ◆ Door rail...Reinforcement of Door rail bracket
- ◆ Door is always open and close smoothly, so as center of pulley of hanging fittings shall leave much space against the width of door.
- Total length of Wood base for door rail may be modified if the width of door is extremely narrow relative to the height of door.
- Specification and design may be modified unexpectedly.
- * Please contact us in case of different specification.

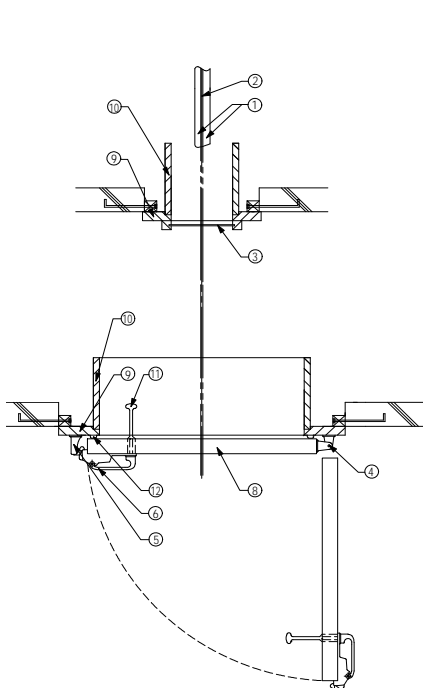
SINGLE & DOUBLE SWING OVERLAP INSULATED DOORS



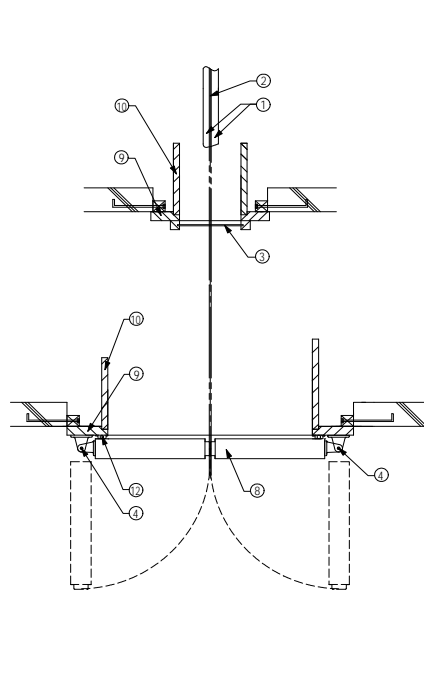
FRONT VIEW SINGLE SWING TYPE



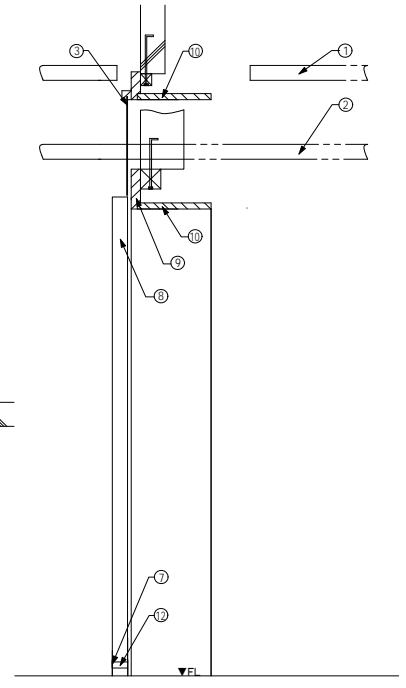
FRONT VIEW DOUBLE SWING TYPE



HORIZONTAL SECTION SINGLE SWING TYPE



HORIZONTAL SECTION DOUBLE SWING TYPE



LONGITUDINAL SECTION

- | | | |
|-----------------------------|-------------------------|------------------------------|
| ① Joint for hanging of meat | ⑥ Interlocking fastener | ⑪ Push bar |
| ② Rail for hanging of meat | ⑦ Rubber saddle packing | ⑫ Defrost heater (100V) ※ |
| ③ Black rubber Sheet | ⑧ Swing ratchet | ⑬ Upper strike steel fitting |
| ④ Hinge | ⑨ Cock decorative rim | |
| ⑤ Strike plate | ⑩ Door jamb | |

◆ Maximum usable dimension: Width 1,400mm

◆ Door thickness: 75, 100, 125 and 150mm

◆ Facing material: Various stainless steel plate and baking finished Steel Sheets.

□ Specification and design may be modified unexpectedly.

* Please contact us in case of different specification.

※ Option (Depend on local condition)

OL Type

Manual Operation

DOUBLE SWING OVERLAP INSULATED DOORS

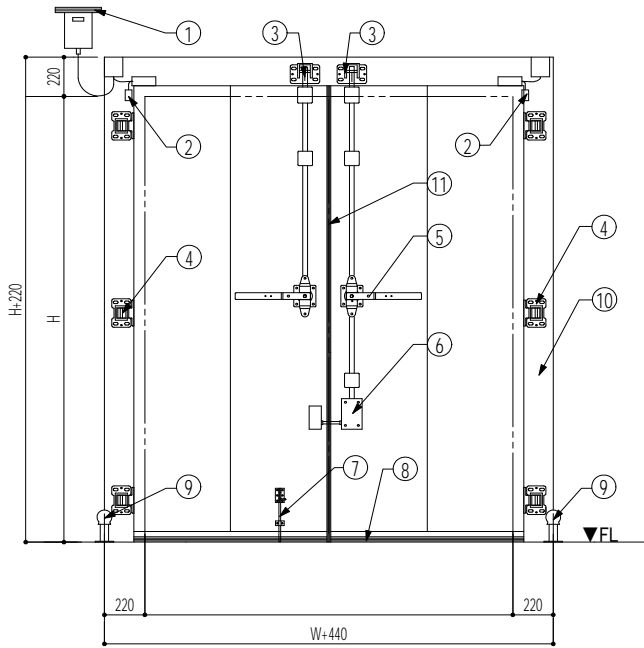
-60°C~+5°C



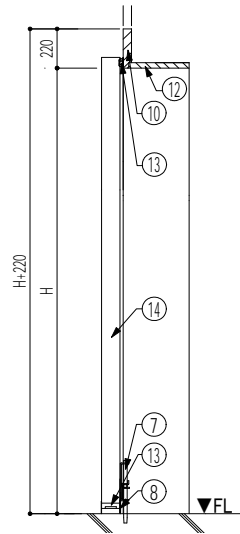
Feature



This Insulated door is put to use for the doorway of people in case of wide span of frontage. It's possible to put to use only one side as it is gatefold and left and right is male and female. It is rich in airtight of door meeting, and is possible to release ratch as it is put use sliding handle for the door opening and closing. And it can be use for ultralow temperature cold storage as it is possible to install heating devise (Voltage is depend on the local electrical condition). It can be use for the purpose of prevention of lapse of memory of door locking and for the location of fire retarding division as it is possible to install self-closing function (order coordination) by door closer as an optional installation.

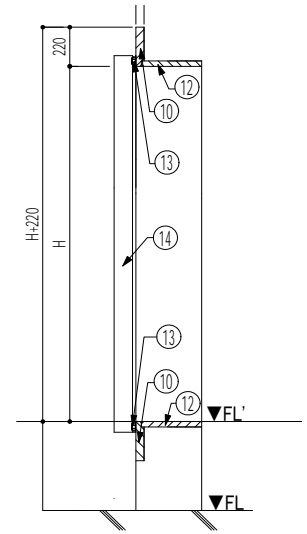


FRONT VIEW



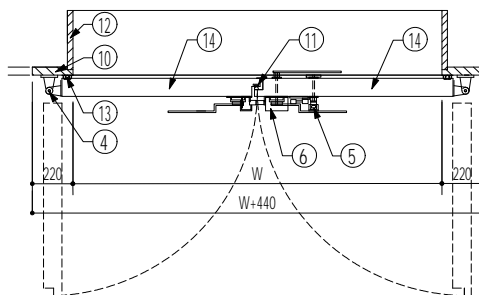
LONGITUDINAL SECTION

Three Way Doorsill Type



LONGITUDINAL SECTION

Four Way Jogging Type



HORIZONTAL SECTION

- | | |
|----------------------------|--|
| ① Breaker box ※ | ⑧ Rubber saddle (2t) |
| ② Thermostat ※ | ⑨ Door stop cushion rubber |
| ③ Upper part bracket metal | ⑩ Cock decorative rim (Decorated face bar) |
| ④ Hinge | ⑪ Rubber packing for door meeting |
| ⑤ Slide type fastener | ⑫ Door jamb (Decorated face bar) |
| ⑥ Upper part fastener | ⑬ Defrosting heater |
| ⑦ Flush bolts | ⑭ Door body (Polyurethane foam) |

□ Maximum usable dimension: Width 3,000mm x Height 4,000mm.

□ Specification and design may be modified unexpectedly.

※ Please contact us in case of different specification.

※ for Option (In case of with Heater)

OL Type

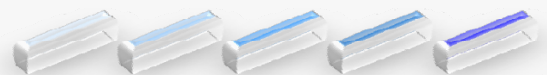
Manual Operation

SINGLE SWING OVERLAP INSULATED DOORS

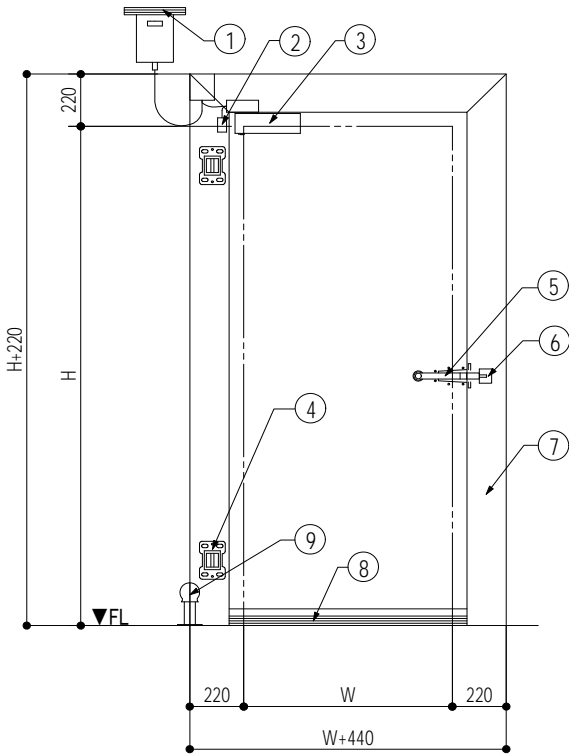
-60°C~+5°C



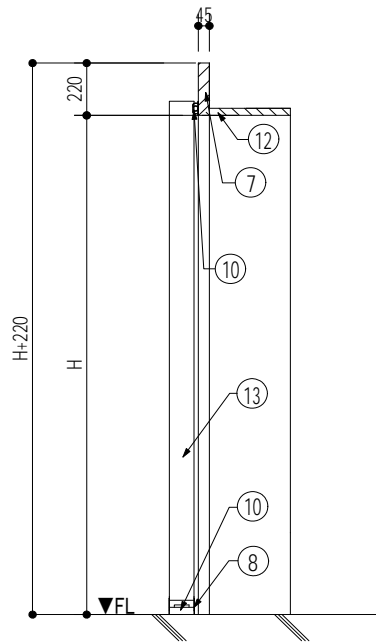
Feature



This Insulated door is mainly put to use for the doorway of people in the cold storage warehouse, and is fertile airtightness with utilization of special packing. And this insulated door is put to use for freezing storage warehouse as it's possible to install 100 voltage specified heater (depend on local condition). This insulated door is put to use for the prevention of forgetfulness of door closing by the installation of automatic closing function as an optional installation.

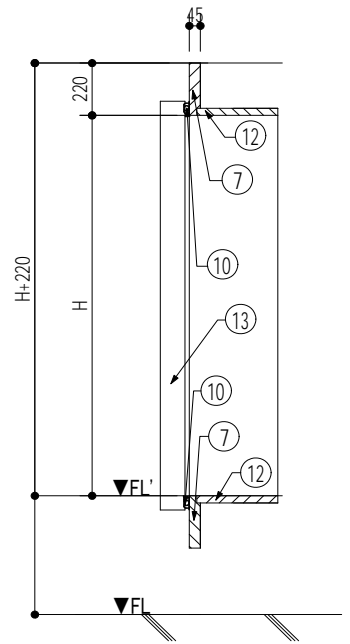


FRONT VIEW



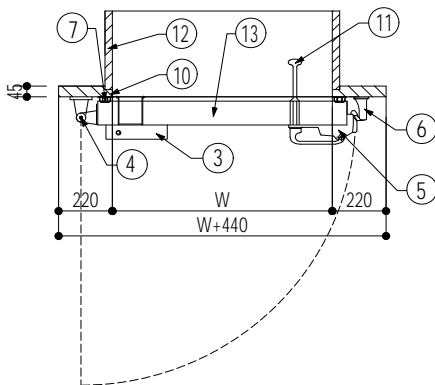
LONGITUDINAL SECTION

Three Way Doorsill Type



LONGITUDINAL SECTION

Four Way Jogging Type



HORIZONTAL SECTION

- | | |
|--|----------------------------------|
| ① Breaker box ※ | ⑧ Rubber saddle (2t) |
| ② Thermostat ※ | ⑨ Door stop cushion rubber |
| ③ Door closer (Option) | ⑩ Defrosting heater |
| ④ Hinge | ⑪ Push bar |
| ⑤ Slide type fastener | ⑫ Door jamb (Decorated face bar) |
| ⑥ Upper part fastener | ⑬ Door body (Polyurethane foam) |
| ⑦ Cock decorative rim (Decorated Face Bar) | |

□ Maximum usable dimension: Width 1,200mm x Height 2,500mm.

□ Specification and design may be modified unexpectedly.

※ Please contact us in case of different specification.

※ for Option (In case of with Heater)

LIGHTWEIGHT

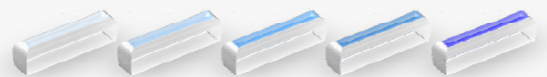
Manual Operation

SINGLE & DOUBLE OVERLAP INSULATED

+5°C~



Feature



This is overlap type light weight Insulated door, and it can be use for processing room of normal temperature panel door. And it can be use for ceiling access panel as it has few vibration, and it is very light with a density. It is so smart to the eye !!

VARIOUS SWITCH

We meet your request not anything these



PULL SWITCH
※HEATER EQUIPED TYPE IS AVAILABLE



PUSH-BUTTON SWITCH
(WATERPROOF)



CUT SENSOR
(FINGER INDICATED TYPE)



OPTICAL SENSER



FOODLIGHT
TOKO MAGIC EYE



OPTICAL RECEIVER
TOKO MAGIC EYE

STANDARD TYPE

Door control system by pull switch installed to the location of front and back area of ceiling of insulated door (The location of Pull switch shall be installed within 3meter distance from doors)

AUTOMATIC SHUTTING CONTROL DEVISE

Door will be closing automatically concurrently with warning buzzer sounds, after a few seconds, by the adjustment of timer with built-in timer devise to the standard type.

SEMICIVILIZED DOOR OPENING DEVISE

In addition to Standard type, this is a devise that stops at the position of the door half-open by Push button switch that installed to the surface of door body.

BURGLARY PREVENTION CIRCUIT

It will be reported for any burglary by the sound of warning buzzer or bell at a predetermined position when the locked key of door is destroyed, and door is opened.
(Any devises beside of built-in ciecuit should be separately)

OPTICAL SWITCH FOR ULTRA LOW TEMPERATURE

It's impossible to operate by drawstring because freezing resistant capsul type forklift puts is used for indoor work of ultralow temperature of minus 50 degrees, the operation of door opening and closing can be performed from the inside of capsul by the adption of optical switch for ultra low temperature.

COMPLETE ALTERNANCE DOOR CONTROL SYSTEM

In case of double-entry doors for ultra low temperature, a variety of disorders can occur with the intrusion of fresh air to the inside of cild storage by the opening of both doors, to prevent a variety of disorders, this is the opening and closing system that both doors should be performed automatically reciprocal opening and closing movement.

OTHERS

As for mobile rack system whrehouse (computer control system), it will perform the door opening and closing operation and the built-in predefined of signal of anomalous behaviour.
Furthermore, please contact our staff for further details.

OTHER PREPARATELY EQUIPMENTS

OVERSLIDING DOOR / SHEET DOOR / VINYL STRIP CURTAIN / SWING DOOR

ARMOR DOCK SHELTER

Contribute to the Advancement of Quality Control and Saving Energy

Armor Dock Shelter is Airtight Apparatus which should be superior to the cushioning properties that seals the gap between a truck and receiving and shipping space, Armor Dock Shelter is mainly composed of the selected foam insulation and non-conventional processing heavy-duty sheet, and is in use the best quality materials that is designed to sufficiently withstand contacts and friction with truck body to be in use by repetition.

Armor Dock Shelter contributes ideal environment to be in effect definitely by way of now indispensable necessary articles to the quality protection and custody of products.



Examples of Construction of Armor Dock Shelter

Characteristic of Armor Dock Shelter

1 To prevent penetration of outside air to indoors and flowing out of the cold air in the room to outside during loading and unloading of products. It can be practice further improvements of the quality protection and significant cost saving by the

2 To prevent invasion of noxious insect and intrusion of dust, and show outstanding effects to insect proof and dust proof.

3 It can be in use widely different-sized truck that are from light weight track to heavy duty track.

4 It can practice environmental manipulation of unsparing loading operation during night and early morning, and improve work efficiency with interception of cold wind and heavy rain.

Principal Purposes

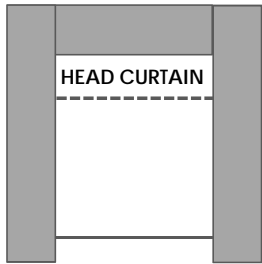
- ★ Food manufacturing and processing factory
- ★ Supermarket distribution center
- ★ Supply center of school meals
- ★ Medical supplies and pharmaceutical factory
- ★ Refrigerators and freezers
- ★ Grocery distribution center
- ★ Electronic components factory
- ★ Special paper factory
- ★ Food distribution center
- ★ Bread factory
- ★ Cosmetics factory
- ★ Other general factory

ARMOR DOCK SHELTER

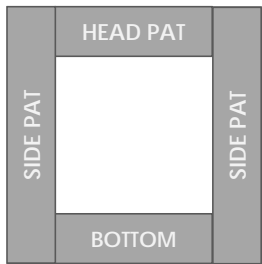
You may select a wide variety of Model



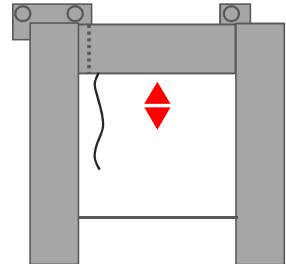
MODEL 101
Three-way fixed type



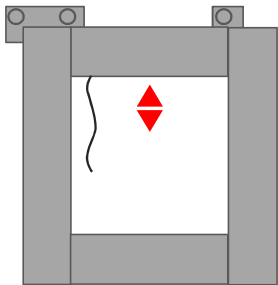
MODEL 102
Four-way fixed type



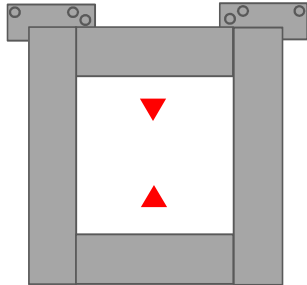
MODEL 201
Upper movable type



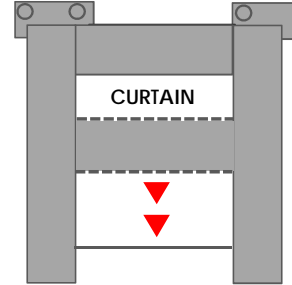
MODEL 202
Upper movable/
Lower fixed type



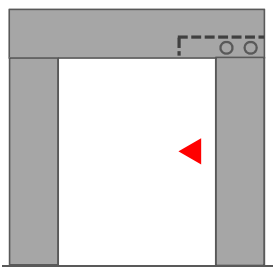
MODEL 203
Upper/Lower movable type



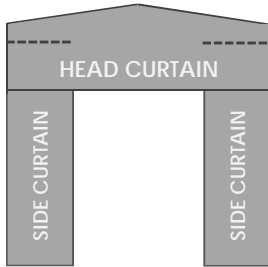
MODEL 204
Upper movable type

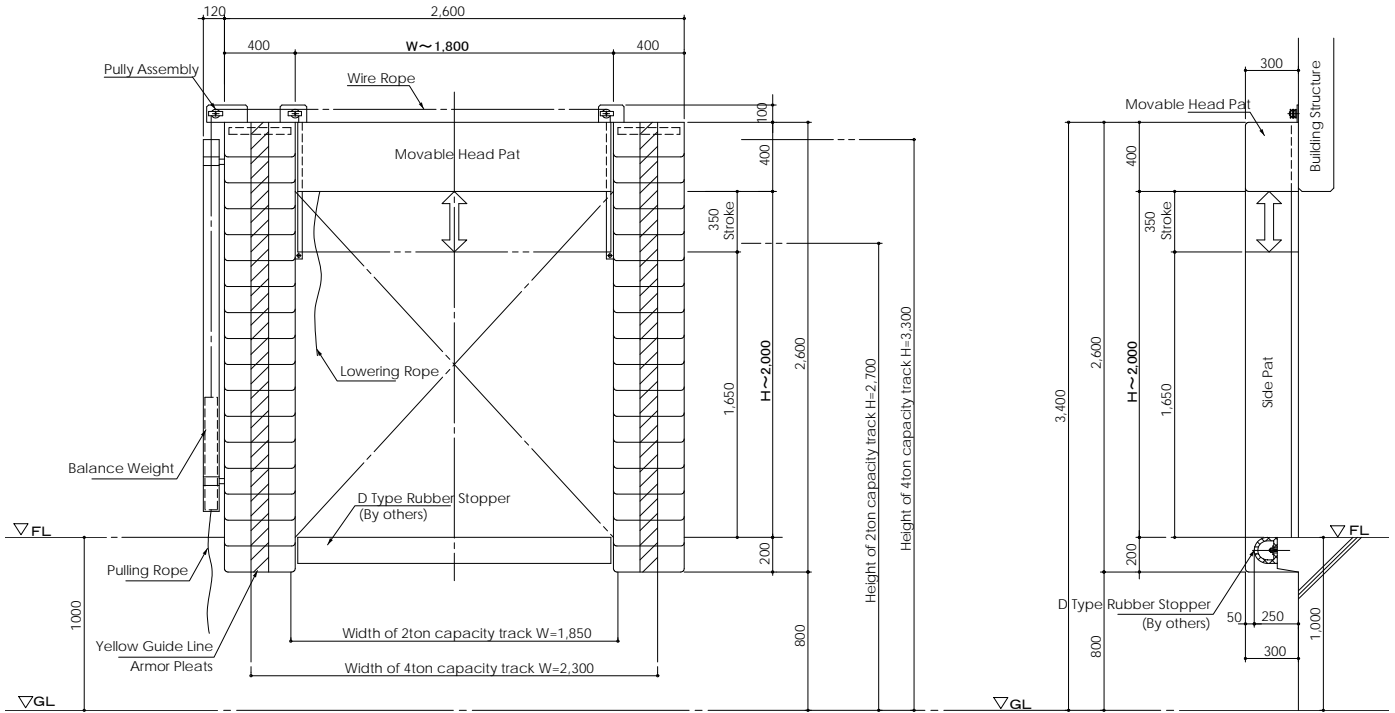


MODEL 601/602
Right side movable type



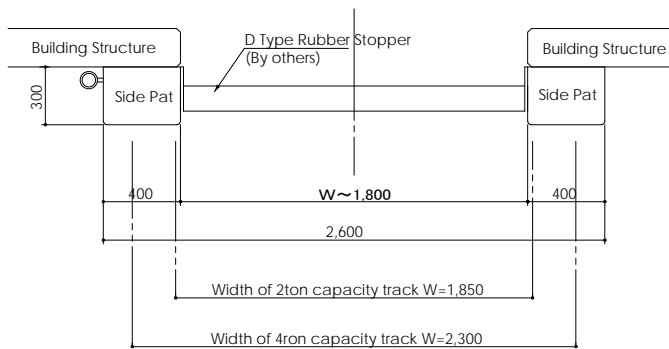
MODEL 401/402
Weather sealed type





FRONT VIEW

LONGITUDINAL SECTION



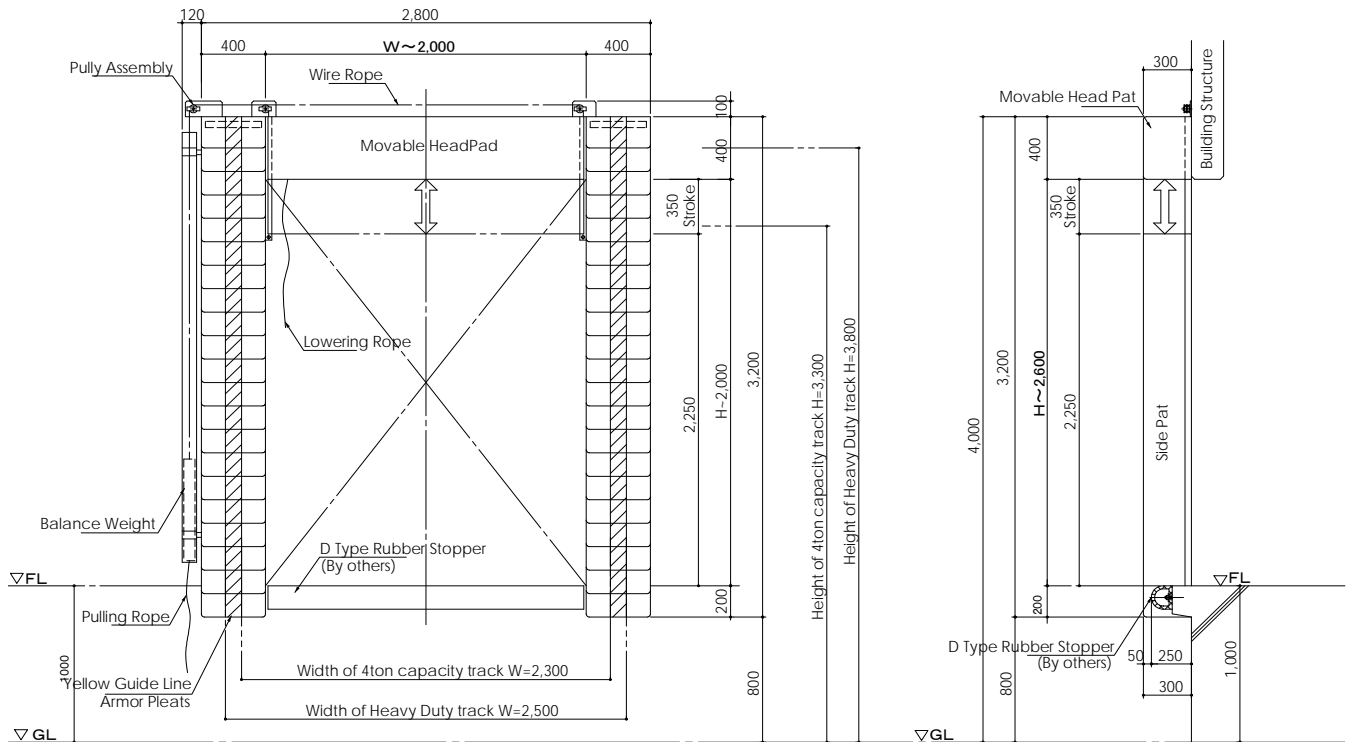
HORIZONTAL SECTION

MODEL 201 UPPER MOVABLE TYPE

Width	W=1,800 x H=2,000
Head Pat	400 x 300 x 1,800
Side Pat	400 x 300 x 2,600
Hardware	Zinc Coating

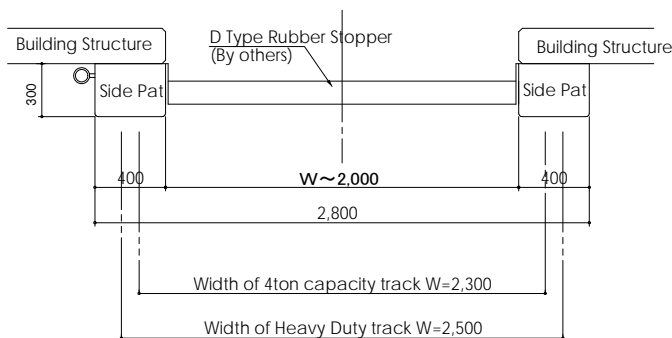
Movable Stroke 350

※ The stated width and height of from 2ton to 4ton capacity track are reference dimensions. Actual dimensions are not subject depend on models and manufactures.



FRONT VIEW

LONGITUDINAL SECTION



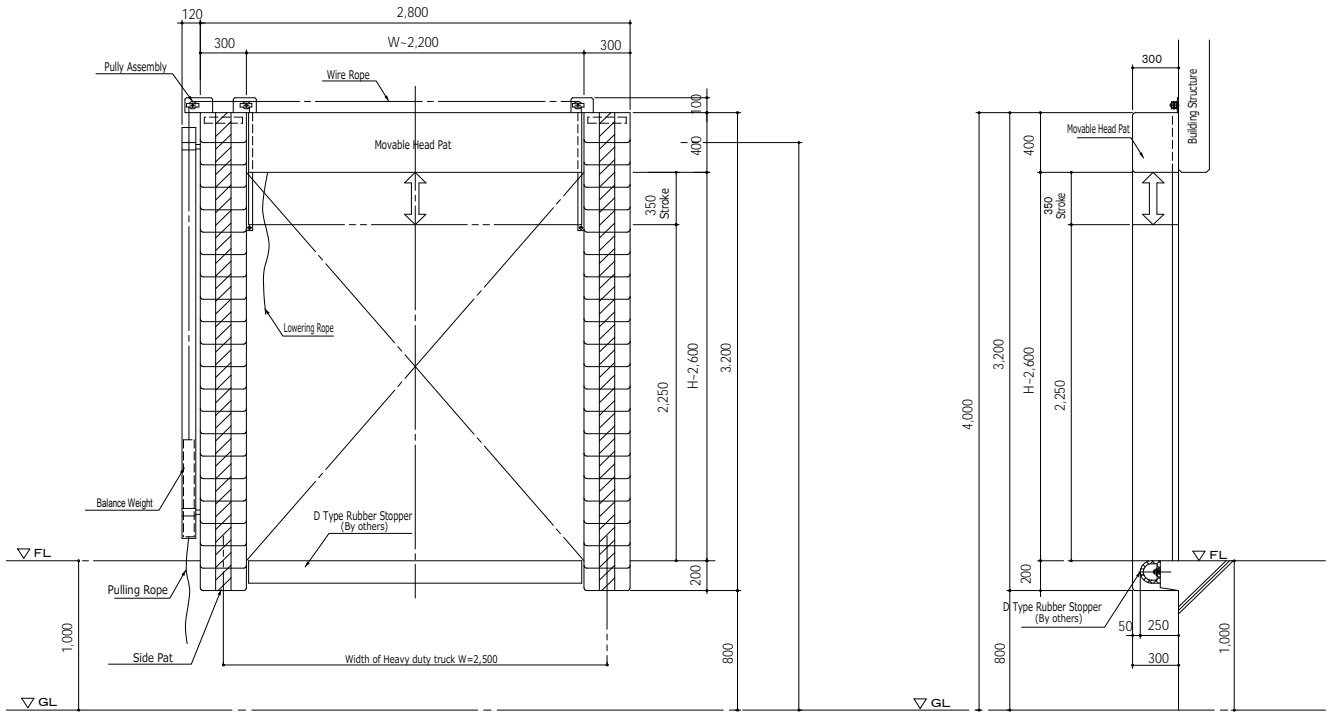
HORIZONTAL SECTION

MODEL 201 UPPER MOVABLE TYPE

Width	W=2,000 x H=2,600
Head Pat	400 x 300 x 2,000
Side Pat	400 x 300 x 3,200
Hardware	Zinc Coating

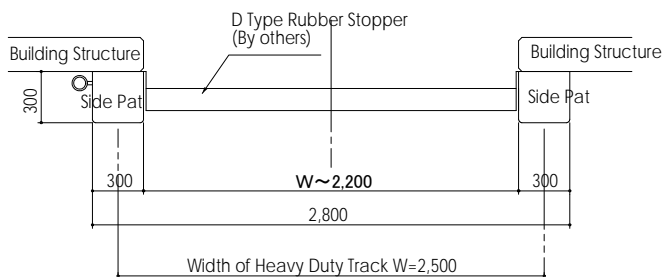
Movable Stroke 350

※ The stated width and height of 4ton capacity track and heavy duty track are reference dimensions. Actual dimensions are not subject depend on models and manufactures.



FRONT VIEW

LONGITUDINAL SECTION



HORIZONTAL SECTION

MODEL 201 UPPER MOVABLE TYPE

Width	W=2,200 x H=2,600
Head Pat	400 x 300 x 2,200
Side Pat	300 x 300 x 3,200
Hardware	Zinc Coating

Movable Stroke 350

※ The stated width and height of heavy duty track are reference dimensions. Actual dimensions are not subject depend on models and manufactures.

SUPER AIR SHELTER

Contribute to the Advancement of Quality Control and Saving Energy

Super Air Shelter is superior to insulation effectiveness, dust proof and insect proof, and the most suitable for the freezing warehouse, refrigerated warehouse and food processing factory to be required severe temperature control for twenty four hours so as to minimize for energy loss.

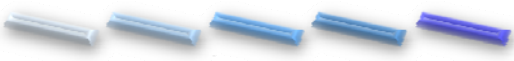


Differences to Armor Dock Shelter



- ★ Air Shelter dose not impede direct loading and unloading by forklift so as to seal flank between building/facility and track
- ★ Air Shelter will most likely fit into the unevenness of the track so as to inflate by the air blast of electric fan, and to be required power supplied to the motor and fan.
- ★ It is necessary to construct wall juttet out front of building/facility so as to install seal portion.

Method of Operation



Do the loading and unloading after track approaching to the storage and retrieval and operate Air Shelter under condition of blockade of open air, and will depart the track after completing operation with storing of Air Shelter.

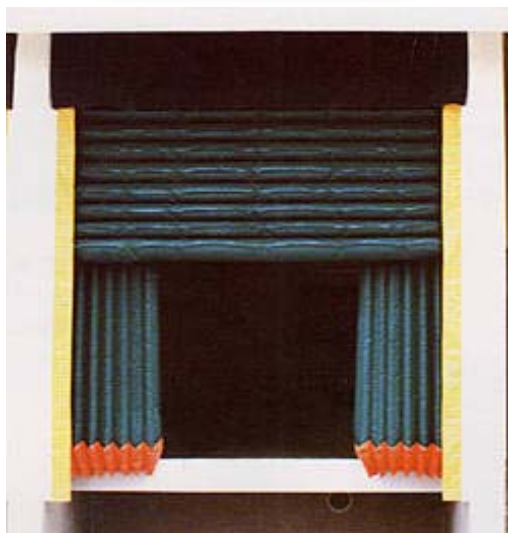


SUPER AIR SHELTER

You may select a wide variety of Model



IGA Type



Feature

The most basic model
The superior durability

Standard Type



Feature

The most common performances
Availability of heterogeneous track size

Roll Curtain Type



Feature

Availability of heterogeneous track size
Inexpensive by comparison with others

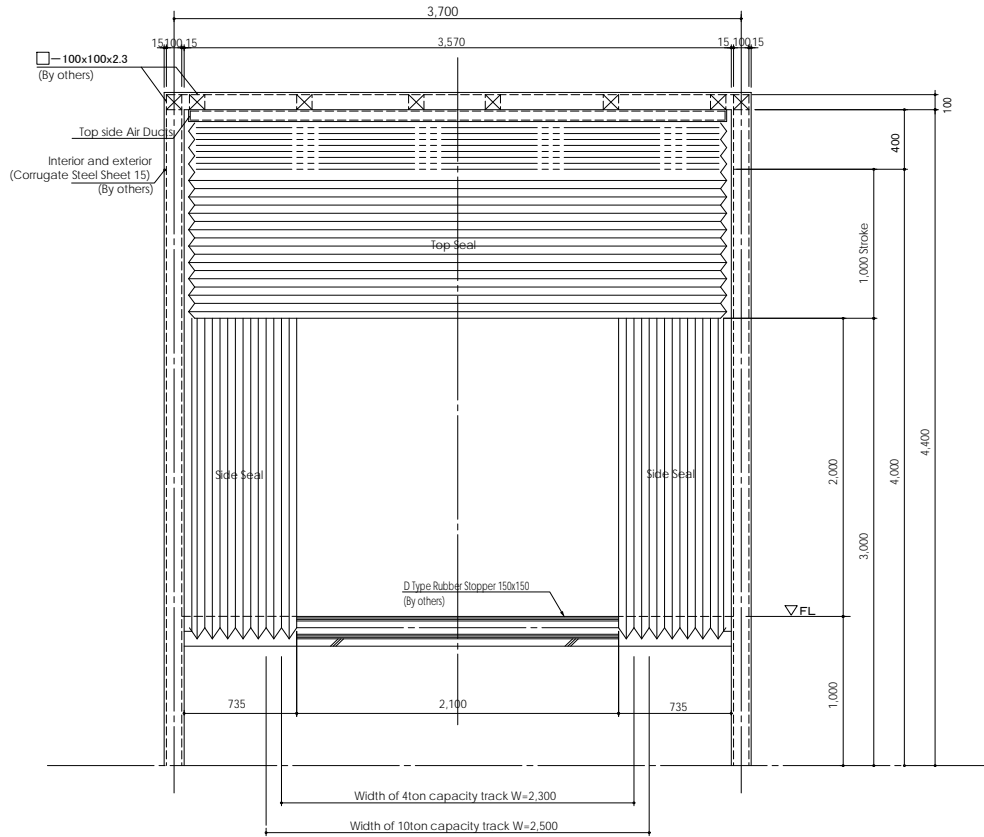
Tretight Type



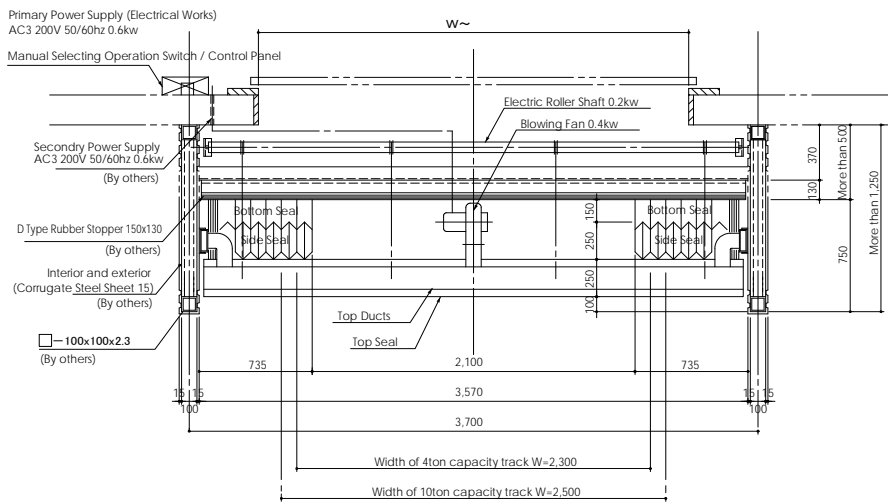
Feature

Unnecessary wall juttred out to be installed
Imported products

STANDARD TYPE / REFERENCE DRAWING

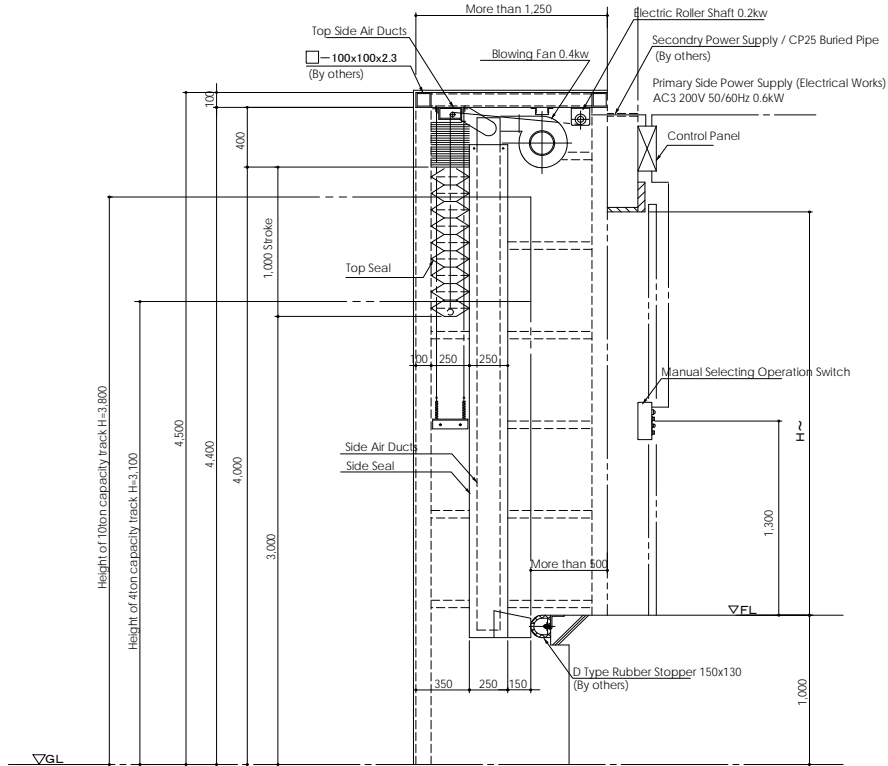


FRONT VIEW



HORIZONTAL SECTION

STANDARD TYPE / REFERENCE DRAWING



LONGITUDINAL SECTION

SUPER AIR SHELTER FOR 4TON - 10TON CAPACITY TRACK

Model	Standard Type
Top Seal	W=250 x L=3,510
Side Seal	W=250 x L=3,300
Power Source	AC3Φ 200V 50/60hz 0.6kw

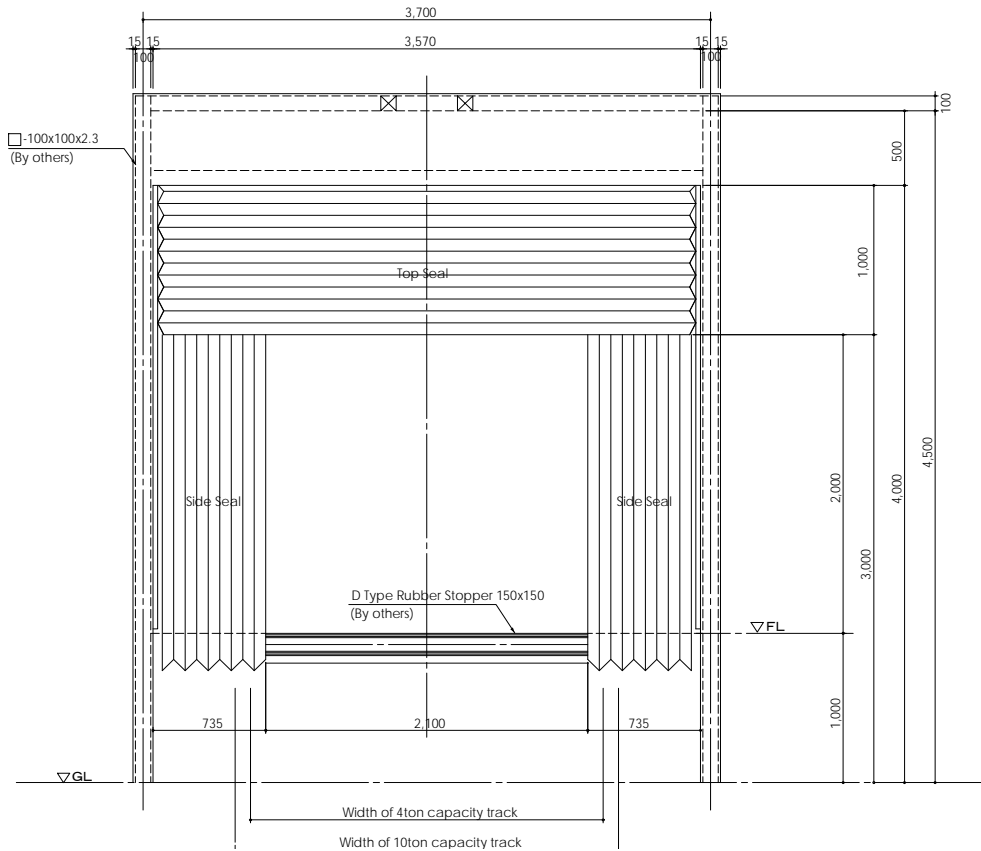
※ The voltage can be corresponded to the local specification. (ex. 380V/420V)

COLOR OF SHEET OF SUPER AIR SHELTER

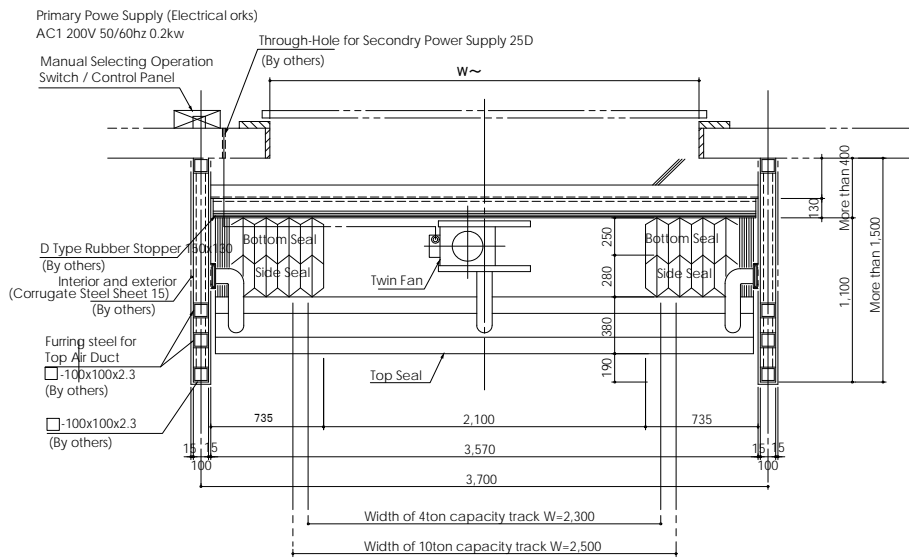
Top Seal	Black
Side Seal	Black
Bottom Seal	Black

※ The stated width and height are reference dimensions. Actual dimensions are not subject depend on models and manufactures.

IGA TYPE REFERENCE DRAWING

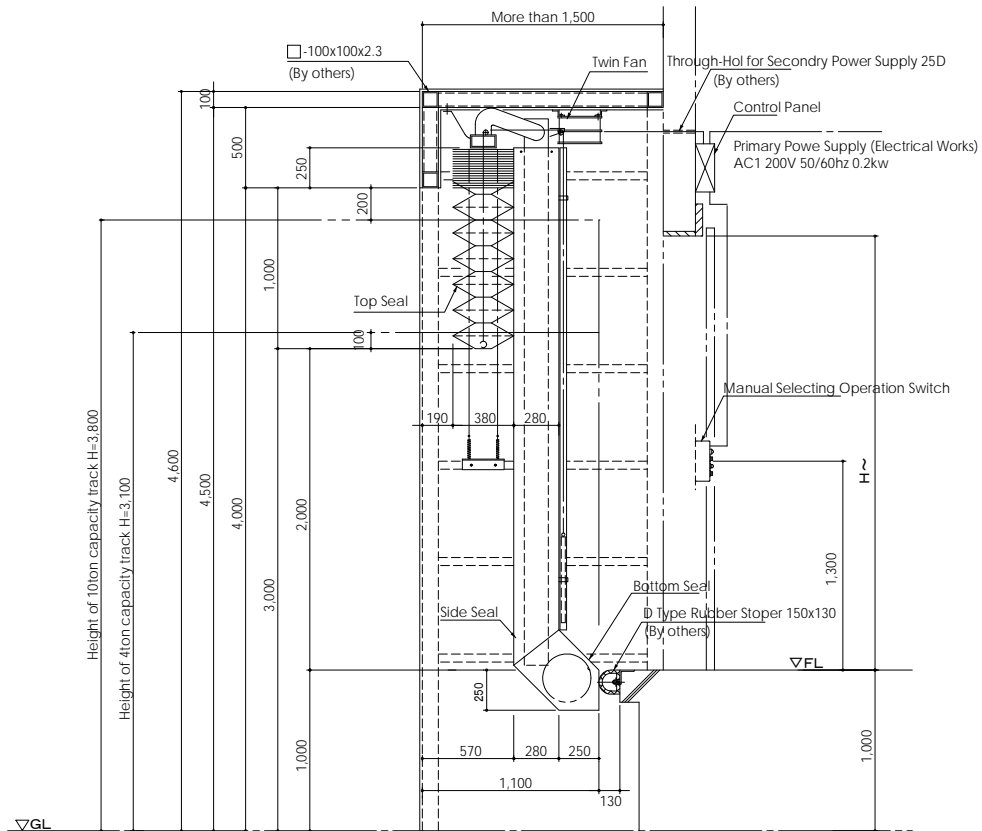


FRONT VIEW



HORIZONTAL SECTION

IGA TYPE REFERENCE DRAWING



LONGITUDINAL SECTION

SUPER AIR SHELTER FOR 4TON - 10TON CAPACITY TRACK

Model	IGA Type
Top Seal	W=380 x L=3,510
Side Seal	W=280 x L=3,500
Power Source	AC1 Φ 200V 50/60hz 0.2kw

※ The voltage can be corresponded to the local specification. (ex. 380V/420V)

COLOR OF SHEET OF SUPER AIR SHELTER

Top Seal	Green
Side Seal	Green
Bottom Seal	Orange

※ The stated width and height are reference dimensions. Actual dimensions are not subject depend on models and manufactures.

COMPANY PROFILE

Names	MIZUTA Co.,LTD.	
Head office	4-1, 4 Choome, Oosugi, Edogawa-ku, Tokyo 132-0022, Japan Tel. +81(0)3-3653-1014 (Main) Fax +81(0)3-3653-1045	
Founded	August 16, 2001	
Capital	10,000,000 Japanese Yen	
Business	Planning and Designing, Production, Installation and Maintenance for the various Insulated Door and Preparatory equipment's	
License	Contractor's License issued by the Minister of Ministry of Land, Infrastructure, Transport and Tourism : (Standard-18) No. 19442	
Number of Employees	23 persons	
Number of qualified person	Qualified architect of the second class: 1 person Qualified construction management of the second class: 1 person Qualified registered electrician of the second class: 5 persons	
Main Financing Bank	The Bank of Tokyo-Mitsubishi UFJ, Ltd, Komatsugawa Branch The 77 Bank, Ltd. Oogimachi Branch	
Tools, Facilities and Equipment's for Factory	Universal wood lathes (AMADA)	1 No
	Bending machine (AMADA)	1 No
	Shearing machine (AMADA)	1 No
	Conner shear (AMADA)	1 No
	Punching press (TOYOKOUKI)	1 No
	Argon-welding machine	1 No
	Arc-welding machine	1 No
	Iron worker (AMADA)	1 No
Offices	Sendai Branch	8-69, Rokucyoo-nome Minami-machi, Wakabayashi-ku, Sendai, Miyagi, Japan Tel. +81-(0)22-287-4161 Fax. +81-(0)22-287-4171
	Niigata Branch	368, Nishi Yotsuya otsu, Gosen, Niigata, Japan Tel. +81-(0)250-42-3131 Fax. +81-(0)250-42-3039
Overseas affiliate	MIZUTA (Thailand) Co., LTD.	19/146 Moo 7 Bangna-Trad Road, Km. 17.5 Bangchanlong, Bangplee, Samutprakarn 10540, Thailand. Tel. +66-(0)2-312-7876/7 Fax. +66-(0)2-312-7909
Group Companies	Ecotec One Co.,LTD. Moritec Co.,LTD.	
Cooperative company in Thailand	Inter Asia Systems Engineering Cp., LTD.	
Major Costumers	Maruha Nichiro Logistics Inc.	YOKOREI Co., LTD.
	Nichirei Logistics Group Inc. Tokyo Danchi Reizo Co., LTD. Bureau of Economics, Kawasaki City Government	Tokyo Suisan Terminal Co., LTD. Igarashi Reizo Co., LTD.
Directors		
President	Eikichi MIZUTA	
Managing Director	Masumi YAMAGUCHI	
Directors and Director-General of Operation Department	Noboru MIZUTA	

COMPANY PERFORMANCES

Title of Project

- JA Akita Shinsei Kameda Branch
 JA Takasu-choo Branch
 JA Tendou Nario Branch
 JBAC Yamanashi Field Crop
 * JFE Logistics Corp. Higashiogishima
 Aomori Prefecture Fisherman's Cooperative Association
 Igarashi Reizo Co., Ltd. Shibaura Distribution Center
 Igarashi Reizo Co., Ltd.
 Ishikari Chilled Distribution Center
 Ichimaru Suisan Co., LTD.
 Gyouba Shouten
 Iwate Canning Co., Ltd.
 Iwate Agricultural Cooperative Chiken Foods Co., LTD.
 Naigen Suisan Co., LTD. Naigen Japan
 Ootake Shouten Niigata Branch
 Oguraya Co., LTD.
 ABC Foods Co., LTD.
 Ito Shouten Co., LTD.
 Okamoto Seihyoo Reizo Koujyoo Co., LTD.
 Kanese Sekine Shouten Co., LTD.
 Kamigumi Co., LTD. Yokohama Branch Minamihonmoku Factory
 * Kyokurei Yamashita Co., LTD. DC New Construction Works
 Sato Shoukai Co., LTD.
 Sanmasa Shouten Co., LTD.
 Sumitomo Warehouse Co., LTD. Yokohama Branch,
 Minamihonmoku Factory
 Daikokuya Kisan Co., LTD.
 Daishou Co., LTD.
 NRS Corp. Sodegaura Distribution Center
 Nichirei Logistics Funabashi
 Nissin Corporation Ooi Wharf Warehouse
 Fresh System, Inc. Kooriyama Branch
 Marusa Saga Shouten Co., LTD.
 Mefure Co., LTD.
 Yamagata Meat Corporation Co., LTD. No.1
 Yamagata Meat Corporation Co., LTD. No.2
 * Kanesan Suisan Co., LTD.
 * Kanetomo Ultra Low Temperature Cold Storage
 Mr. Yasuho KAMADA
 Calpis Co., LTD. Tatebayashi Factory
 Central Wholesale Market of Economic Affairs Bureau of Kawasaki
 City, Nanbu Market
 Kewpie Corporation Nakagawara Factory
 Konoike Transport Co., LTD. Niigata Distribution Center
 Kooriyama Reizo Seihyoo Co., LTD.
 Goto Shouten
 * Saihoku Toyo Ice Center
 Incorporated Foundation Japan Meat Trade Center
 Sapporo Breweries LTD. Shizuoka Factory
 Suntory Products LTD. Tennen Ooku Oyama
 Shimakura Suisan Co., LTD.
 Japan Foods Co., LTD. Kawasaki Branch
 Shouwa Shizuoka Co., LTD.
 Shin-Etsu Chemical Co., LTD.
 Shinyou Tsuushou (Niigata Wholesale Market)
 Suzukiku Shouten
 Zen Choushi City Seafoods Processing
 Souma
 Daiichi Broiler Co., LTD.
 Thai Quality Pannel
 * Takaoka Reizo
 Taneichi
 Tama New
 Chikura-choo Nanbu Gyokyou Hanbai Co., LTD.
 Chuuou Reito Co., LTD. Funabashi Factory
 Choojin Corporation Iiyama Central Market
 Teisan Warehouse Honmoku Wharf
 Daily Foods Co., LTD. Nagano Branch
 Tokai Mokuzai Sogo Shijo
 Tokyo Danchi Reizo
 Touhokuseika Co., LTD. Ninnin CA

Note) * : -55°C ~ -60°C * : -35°C

Title of Project

- Touhoku Reizo Co., LTD.
 Tohoku Nippon Meat Packers, Inc.
 Toyo Suisan Kaisha, Ltd. Saitama No.2 Factory
 Towada Seika Co., LTD.
 * Niigata Kameda Distribution Center
 * Nissan Motor Co., LTD. Technical Center
 Nippon Zenyaku Kougyou Co., LTD.
 Nippon Express Co., LTD. Kaiun Branch
 Nippon White Foam
 NRS Corporation YCC Warehouse
 NRS Corporation Chiba Warehouse
 NRS Corporation Chiyoda Warehouse
 Tosoh Logistics Corp.
 Toko
 Nittobest Corp. Sagae Factory
 Fujita Masanori Shouten
 Shousei-unyu Co., LTD.
 Maruichi Co., LTD.
 Maruta Foods Co., LTD.
 Maruden Corporation Distribution Service Center
 Maruto Marine Co., LTD.
 Sento Reizo Co., LTD.
 Kitafuku Suisan Co., LTD.
 Takeuchi Seika LTD.

2008

COMPANY PERFORMANCES

Title of Project

- JA Akita Obako Nakasen No.9
 JA Iwaki-mura Chilling Temperature cold Storage for Garlic
 JA
 JF Japan Fishery Cooperation Shiogama Foods
 Aomori Prefectural Fishery Cooperation Minato-machi Frozen Foods
 Kyokusho Shokuhin Co., LTD,
 Ajinomoto
- * Abechoo Shooten Co., LTD.
 Agricultural Warehouse for the Ichikawa Family
 Agricultural Cooperative Oirase Burdock Warehouse
 Ichimatsu Suisan Co., LTD.
 Tsujino Co., LTD. Sendai Factory
 Ito Shooten Co., LTD.
 Kanetomo Co., LTD.
 Kitamura Foods Co., LTD. No.5 Factory
 Kyokurei Corp. Nakai Distribution Center
 Jyuumonji Chicken Company Limited.
 Daishou Co., LTD.
 Nikou Co., LTD. Funabashi Factory
 Nichiriku Co., LTD. Chiba Distribution Center
 - * Futaba Corp. Heiwajima Factory
 Fresh System Co., LTD. Kawasaki Factory
 Maruha Nichiro Logistics, Inc.
 Maruha Nichiro Logistics, Inc. Kawasaki Factory
 Kanagawa Meat Processing Center
 Kamaishi
 Yoshinari & Co.
 Kousei Suisan Co., LTD. Kisarazu Factory
 Konoike Transport Co., Ltd. Niigata Distribution Center
 - * Sato Unso
 Suntory Beverage Co., LTD. Kanagawa Factory
 Sanwa Souko
 Showa Reizo
 Showa Reizo Todabashi Factory
 Showa Reizo Todabashi Distribution Center
 Shirai Reizo Co., LTD.
 Shinwa Shoji Kaisha Ltd.
 Suwa Public Market
 Sendai Reizo Souko Co., LTD. No.2 Factory
 Soma
 Soma Futaba Fisherman's Cooperative Association
 Yakult Thailand Co., LTD.
 Daiwa Suisan Co., Ltd.
 Takagi Tamesada Shooten
 - * Takase & Co. Koufu Branch
 Takahashi Susain Co., LTD.
 Taishi Food Inc.
 Chuuo Kisan Co., LTD.
 Chuugai Unyu Souko Co., LTD. Koyasu Branch
 Tokatsu Foods Co., LTD. Koufu Factory
 Tokyo Suisan Terminal Co., LTD.
 Tokyo Danchi Reizo
 - * Tokyo Toyomi Reizo Funabashi Factory
 Tobu Unyu Prive
 - * Toyo Suisan Kaisha, LTD. Higashi Ougishima Factory
 Toyo Reizo(Refrigeration) Co., LTD. Sagamihara Factory
 Niigata Central Fruit and Vegetables
 Nikuno Suzukiya Ltd.
 Nichirei Logistics Tokai Toyohashi Distribution Center
 Japan Bonito and Tuna Cooperative
 Japan Super Freeze Co., LTD.
 Nihonmatsu Public Market

Note) * : -55°C~-60°C * : -35°C

Title of Project

- Nihon Reliance Co., LTD.
- * New Port Sangyo Co., LTD.
 Hachinohe Central Fruit and Vegetables Co., LTD.
 Hanaizumi
 Ryoyu Shuzou Co., LTD.
 Nissui Buturyu Co., LTD. Ibaragi Factory
 Nikkei Shokusan Co., LTD.
 - * Hino Motors, LTD. Ibaragi Driving Test Course
 Nittobest Corp. Sagae Factory
 Hiroki Shuzou
 Matsuzakaya Renovation Work
 Maruka Niigata Fruit and Vegetables Co., LTD.
 Maruden Distribution Service Center
 Maruha Nichiro Foods, Inc. Toyomi Factory
 Mitsubishi Heavy Industries, LTD. Oue Factory
 Minami-Tsugaru Apples Cooperative Selling
 Miyagi Sennan Agricultural Cooperative Oogawara Branch
 Miyamoto Suisan Co., LTD.
 Murata Suisan Co., LTD.
 Yakult Honsha Co., LTD. Fujisusono Factory
 Yamaki Nouen Co., LTD.
 Yamabun Daido Fruit and Vegetables Co., LTD. New Office Building
 Yayoi Foods Co., LTD. Kesenuma Factory
 Kitafuku Kisan Kakou Co., LTD.
 Takeuchi Seika Ninniku Limited.
 Maruta Suisan Co., LTD.
 Yamafuku Apple Co., LTD.
 - * Yokohama Ichiba Reizo Co., LTD. Nanbu Ichiba
 Logistics Network Co., LTD. Kawasaki Takatsu Distribution Center

2009

Title of Project

- D Project Kuki Shoubuura Part 1B Block
 JA Akita Furusato-Chuuou Cold Store
 JA Shin-Iwate Toubu Assembly and shipping yards
 JA Zennou Meet Foods Co.,LTD,
 JA Chikuma Annual Shipping Yard
 JA Higashine Wakadai Branch
 JA Minami Shinshuu Mushroom Assembly and shipping yards
 JA Matsumoto Highland Yamagata Branch
 JA Nakano Hackberry Assembly and shipping yards
 Vegetable Cold Store for Aomori Prefectural Management Agricultural College
 JA Hitachi Hikari Branch
 Toto Foods Co.,LTD,
 Asahi Logistic Co.,LTD, Yokohama Distribution Center
 L'attrait Co., Ltd. Sugamo Store
 Issei Ham Co.,LTD. Kashiwa Plant
 Itoham Foods Inc. Takashimizu Plant
 Igarashi Reizo Co., Ltd. Shibaura Distribution Center
 Naigen Suisan Co.,LTD, Toba Plant
 Utoku Unyu Co.,LTD.
 Echigo Ham Co.,LTD.
 * Okayama Buturyuu Co.,LTD. Atsugi Distribution Center
 * Kaneyo Yamanobe Suisan Co.,LTD.
 Kamaishi Fisherman's Cooperative Association
 * Co-op Foods Corp. Morinosato Plant
 Taishi Food Inc. Towada Plant
 Incorporated Foundation Nihon Meet Foods Distribution Center
 Sunny Ace Co.,LTD.
 Samex Co.,LTD. Sagae Warehouse Extension Work
 * Sanko Ice Making Co.,LTD.
 Shirayuki Tofu Co.,LTD. Saku Foods Plant
 Shirataka Unsoo Co.,LTD.
 Sumi-shou Network Co.,LTD. Oyamadai Branch
 Suwa Shookai Co.,LTD.
 Seiho Unyu Co.,LTD.
 Zennou Buturyuu Co.,LTD. No. 6 Warehouse
 Chuetsu Transport Co., Ltd. Nagaoka Branch
 Chuetsu Transport Co., Ltd. Jyoetsu Branch
 * Daiichi Souko Reizo Co.,LTD. Toda No. 6 Warehouse
 Tokyo Toyomi Reizo Funabashi Distribution Center
 Toho Studio PPM Center
 Toyo Wharf & Warehouse Co., Ltd. Kashima Warehouse
 Tokyo Danchi Reizo
 Tokyo Central Wholesome Market Adachi Market
 Tokyo Toyomi Reizo
 * Toyo Suisan Kaisha, Ltd. Chubu Region Distribution Center
 Nikou Co.,LTD. New Construction Project
 Nittobest Corp. Higashine Plant
 Nippon-paint Anticorrosive Coating Co.,LTD.
 Hirosaki City Chuubu School Lunch Distribution Center
 Foods Service Network Co.,LTD. Sendai Cold Storage Distribution Center
 Fresco Co.,LTD. Ooigawa Branch
 Matsuda Uehichi Co.,LTD.
 Maruichi Sanshoo Co.,LTD.
 Maruha Nichiro Foods Inc.
 Mito Fisheries Co-operative Union
 Yamagata Fisherman's Cooperative Association
 Yamaki Foods Co.,LTD.
 * Yamamasa Reito Co.,LTD. Yaizu Cold-storage Warehouse
 Yamada Suisan Ishinomaki Plant
 EM Sougounet Co.,LTD.
 Rikuchuu Suisan Co.,LTD
 Rumeal Co.,LTD.
 * Watanabe Seihyo Reizo Co.,LTD.
 * Itouchuu Fresh Co.,LTD.
 Yokohama Ichiba-reizo Co.,LTD. Nanbu Branch
 Yokohama Reito Co.,LTD. Tokyo Branch
 Shinko Corp.
 * Abechoo Shooten Co.,LTD. Oofunado Foods Plant
 Abe Souko Co.,LTD. Daikoku Distribution Center
 Abe Souko Co.,LTD. Honmoku Distribution Center
 Kawamura Co.,LTD. Kesenuma Plant

Note) * : -55°C~-60°C * : -35°C