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FANGXING PSP STEEL

Installation and User Manual



INSTALLATION GUIDE

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01 Installation Guide

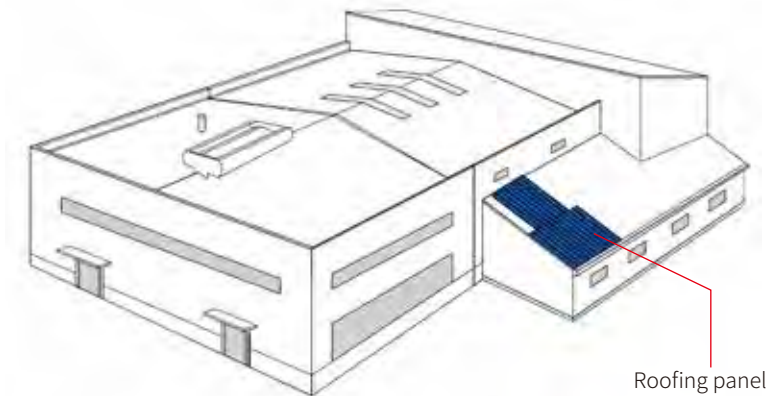
26 Machining

27 Transportation and loading

28 Storage

29 Packaging

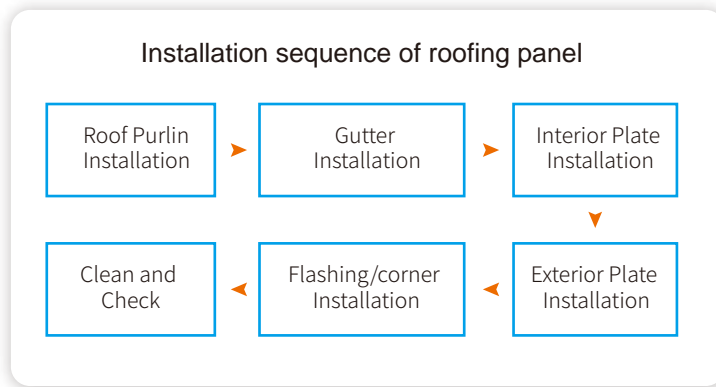
1 Installation of roofing panel



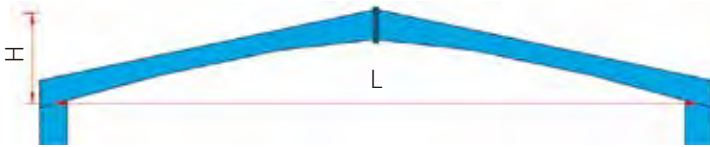
1.1 Design requirement

PSP PROFILES	890T	960T	1040T	1045T	1075T
Total width(mm)	890	960	1040	1045	1075
Overlap (wave)	1	1	1	1	1
Effective width(mm)	840	900	990	986	1005
Total thickness	0.6~1.0	0.6~1.0	0.6~1.0	0.4~1.0	0.4~0.6
Cross sectional moment of inertia (cm ⁴ /m)	4.2	20.42	14.75	7.45	1.94
Section modulus(cm ³ /m)	2.36	5.05	5.97	3.25	1.61
Purlin space(mm)	1500	1500	1500	1200	1500
Loading capacity(kg/m ²)	150~250	150~250	150~250	150~250	--
Application	Roofing	Roofing	Roofing	Roofing/wall	Wall/ceiling

1.2 Installation sequence



1.3 Roofing pitch: H/L



- 1.3.1** PSP steel roof pitch should not be less than 5%; when PSP steel is fixed by screws, such as 890T, 960T, 1040T, 1045T, the roof pitch should not be less than 10%.
- 1.3.2** In the corrosive environment, PSP steel roof pitch should not be less than 10%.

1.4 Selection of PSP steel profiles

- 1.4.1** The profile should be chosen according to local snow load, wind load, rain strength and roof shape etc.
- 1.4.2** PSP steel is not advised to be used for complex roof shape.

1.5 PSP steel overlapping

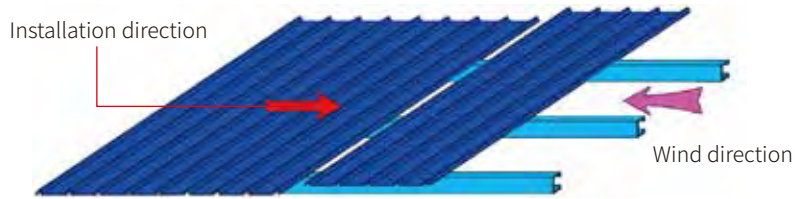
- 1.5.1** The horizontal overlap must be positioned at the purlin, and should be securely fastened.
- 1.5.2** When fixed by self-tapping screw, the overlapping point should be sealed by waterproof sealing tape.
- 1.5.3** When roof pitch is less than or equal to 10%, overlapping length of PSP steel should not be less than 250mm.
- 1.5.4** When roof pitch is more than 10%, overlapping length of PSP steel should not be less than 200mm.
- 1.5.5** Overlapping length of PSP wall panel should not be less than 120mm.
- 1.5.6** When PSP steel is used as roof bottom plate or wall interior plate, overlapping length should not be less than 80mm in the length direction.
- 1.5.7** Profiled PSP steel should use fastener on every wave or every other wave to connect to structural member and choose matched special anti-corrosive accessory.

1.6 The flashings and trim of ridge, corner, doors, windows etc. should use the same material as PSP steel.

1.7 If the structure use two steel plates sandwich roof panel, the interior plate should be installed firstly, then lay thermal insulation layer, finally install exterior plate.

1.8 Construction line or black mark-line should be hung before roof panel installation in order to make sure roof panel is straight and beautiful and eaves line is neat.

1.9 The installation direction of roof panel exterior plate should be opposite to the local predominant wind direction (install against the wind, overlap along the wind).



1.10 If you use self-tapping screw to fix, you must use FANGXING supplied special anti-corrosive accessories.

Special Supplied Anti-corrosive Fixings



1 Position and drill



2 Put anti-corrosive spacer in the hole and button up



4 Assemble expansion sleeve to the spacer



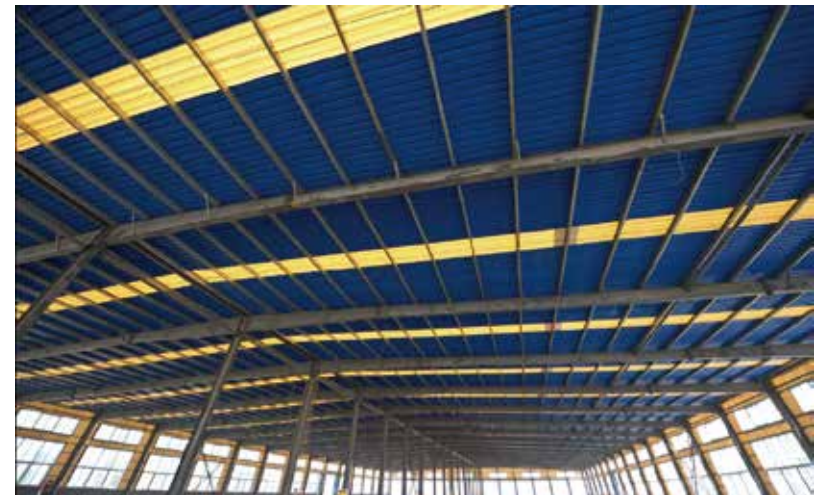
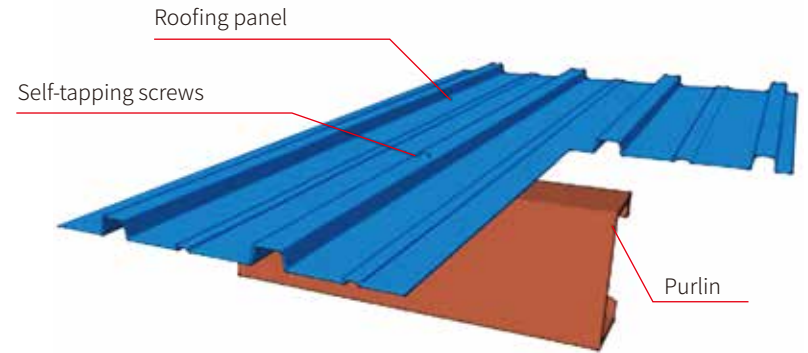
5 Tighten the screw to seal



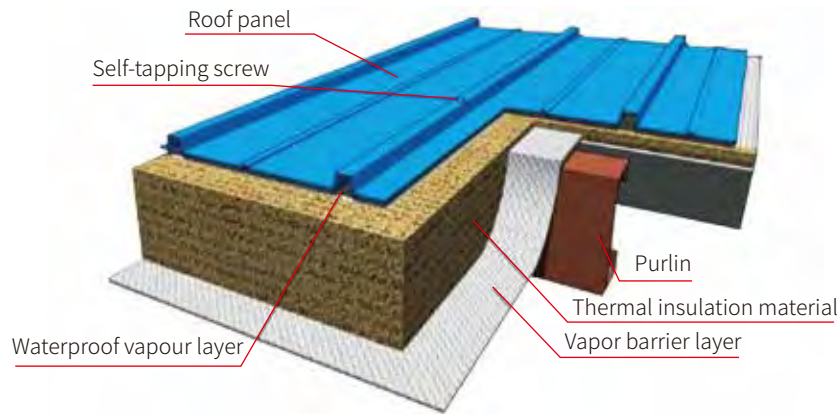
6 Tighten the cover

1.11 Different roofing systems for reference

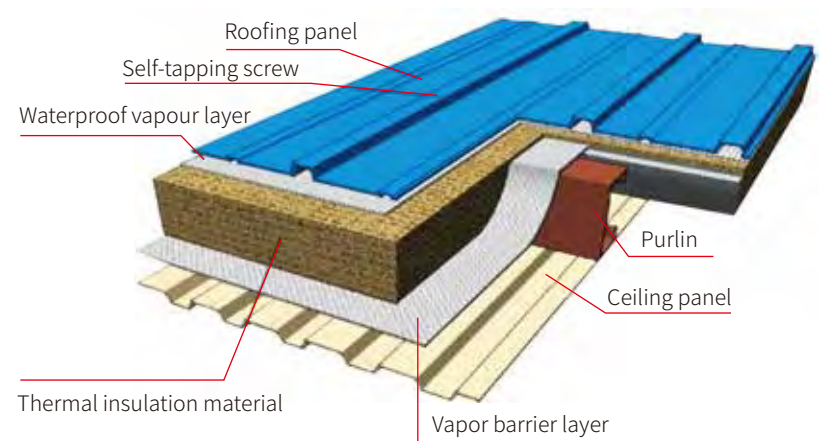
1.11.1 Screw fixing- Single panel roofing system



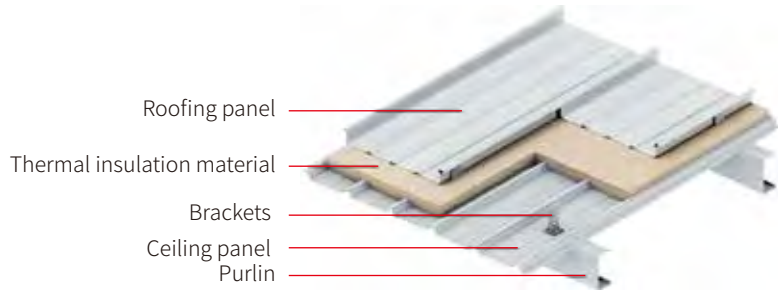
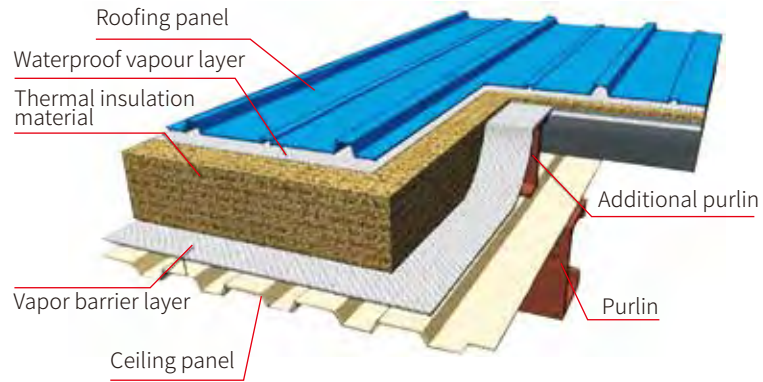
1.11.2 Screw fixing-Single panel insulated roof



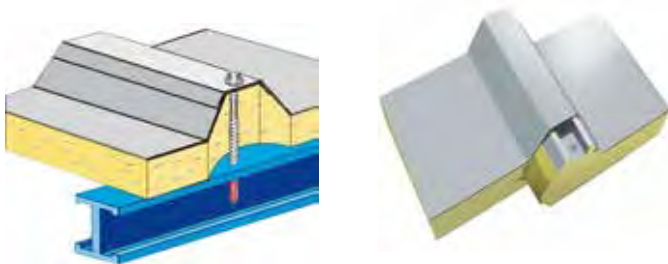
1.11.3 Screw fixing-Purlin hidden type insulated roof



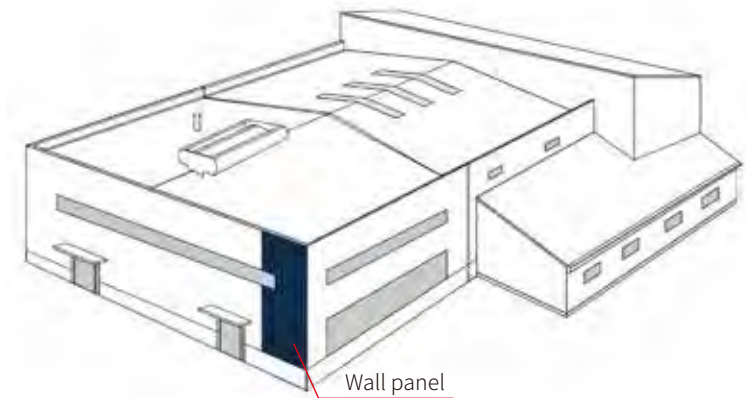
1.11.4 Purlin exposed type insulated roof



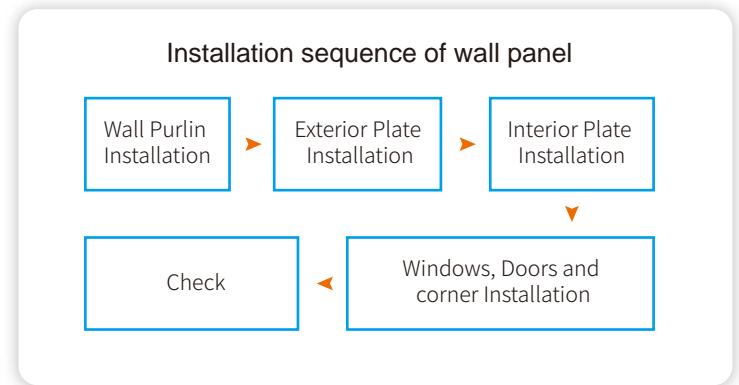
1.11.5 Screw fixing- sandwich panel roofing



2 Installation of wall panel

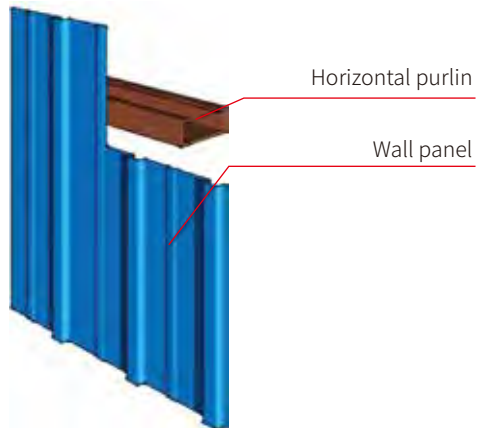


2.1 Installation sequence



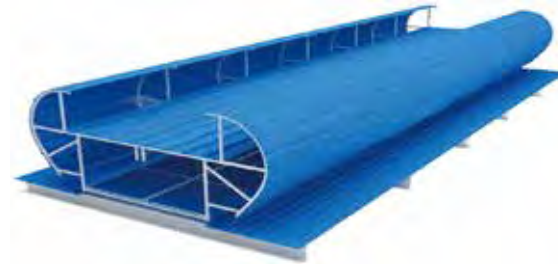
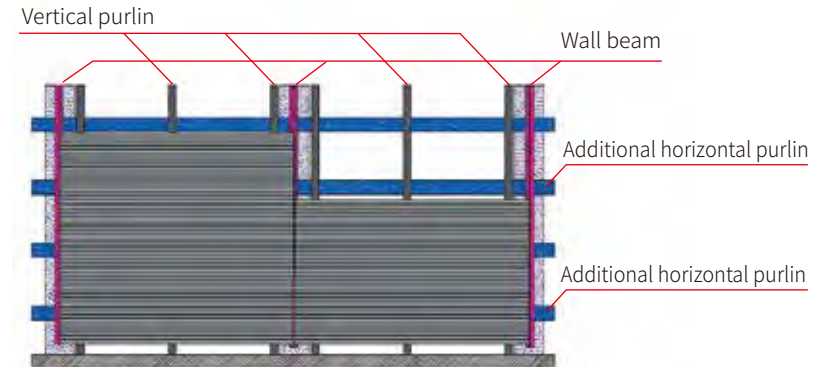
2.2 Different wall systems for reference

2.2.1 Vertical overlap wall system



Vertical overlap is a normal wall layout type which is easy to install and same to the installation of roof panel screw fixing system.

2.2.2 Horizontal overlap wall system

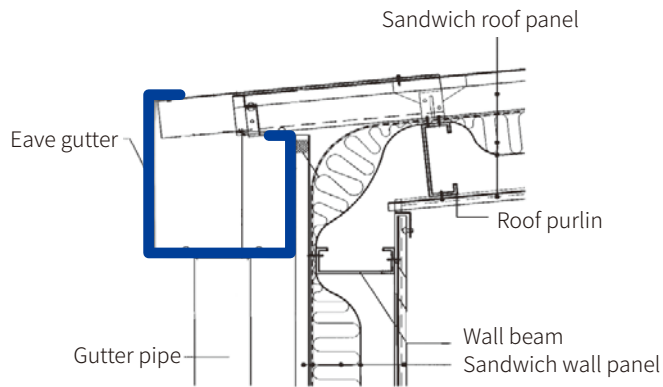
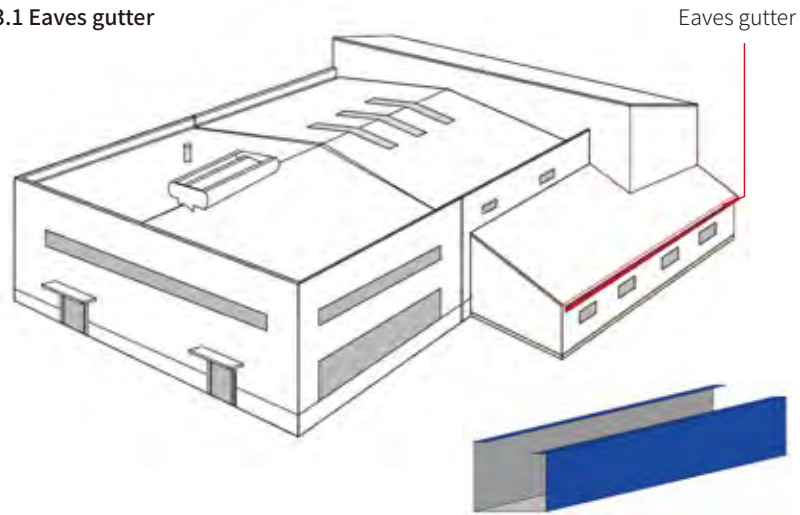


2.2.3 Sandwich panel wall system

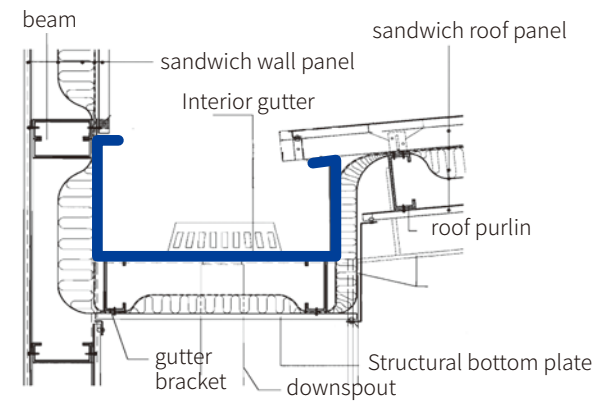
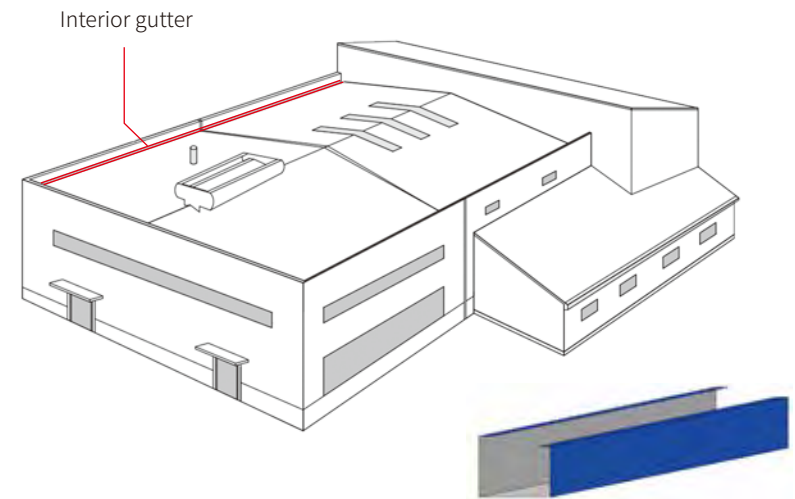


3 Gutter system

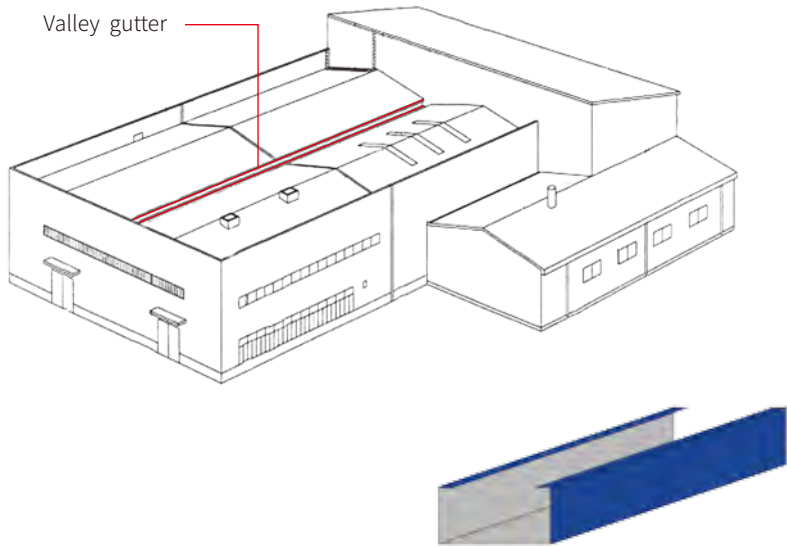
3.1 Eaves gutter



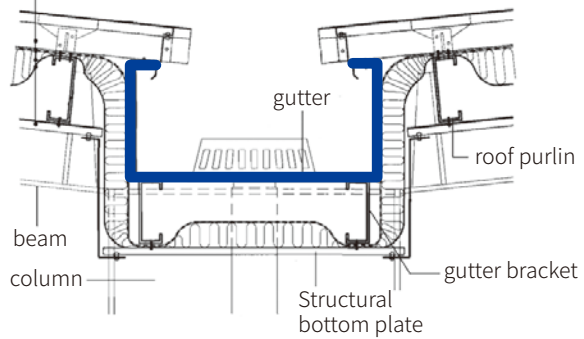
3.2 Interior gutter



3.3 Valley gutter

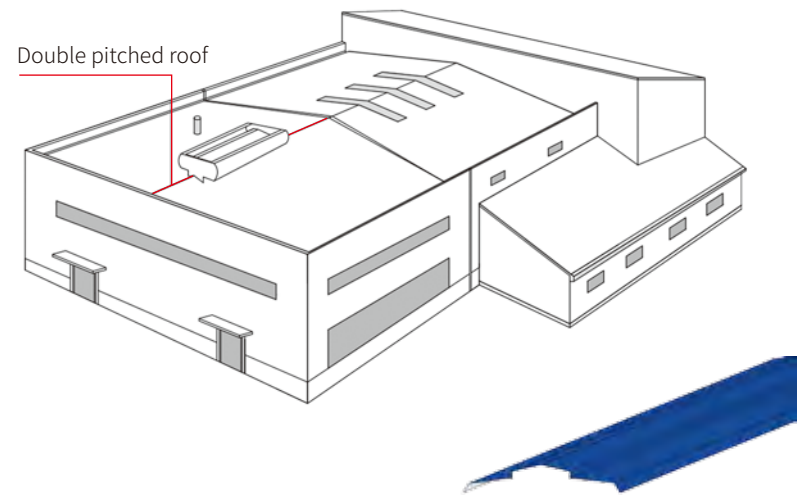


Sandwich roof panel



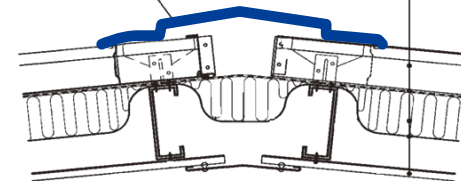
4 Ridge cover

4.1 Double pitched roof

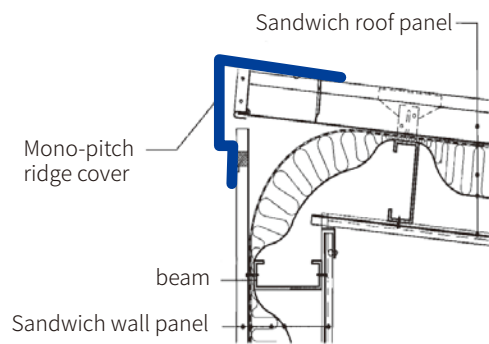
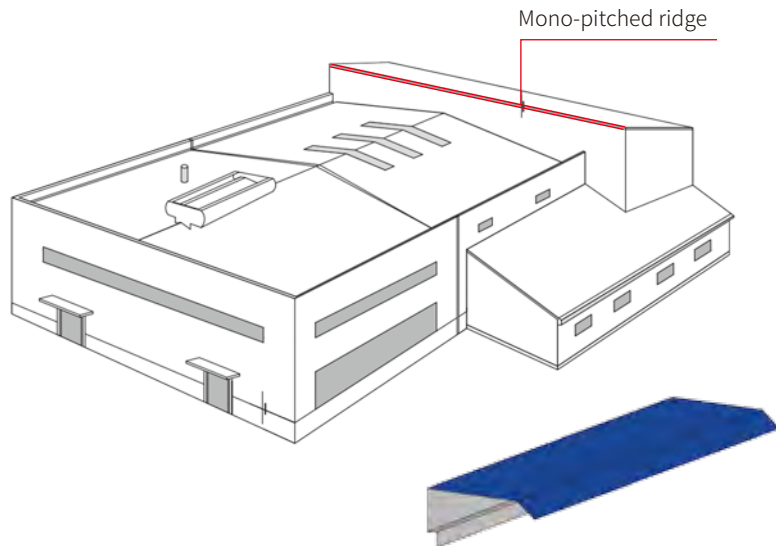


Ridge cover

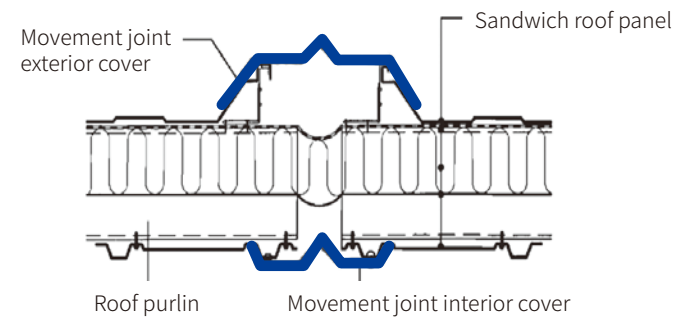
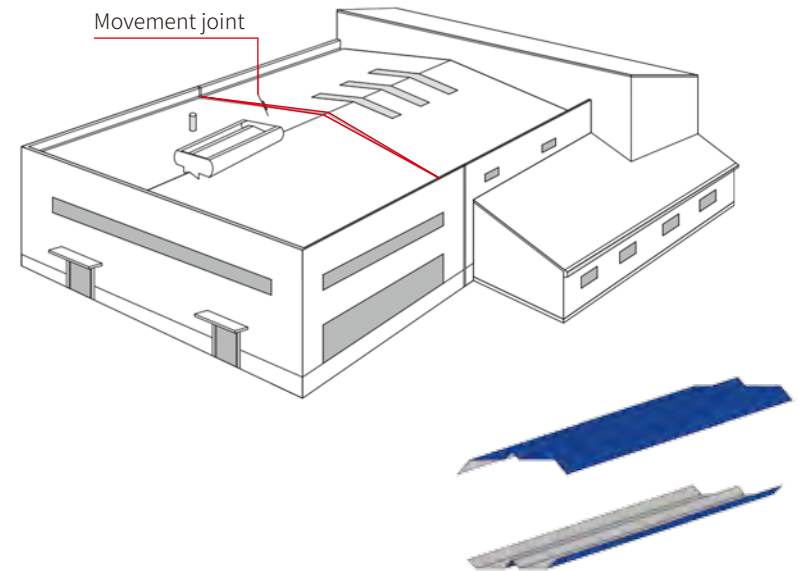
Sandwich roof panel



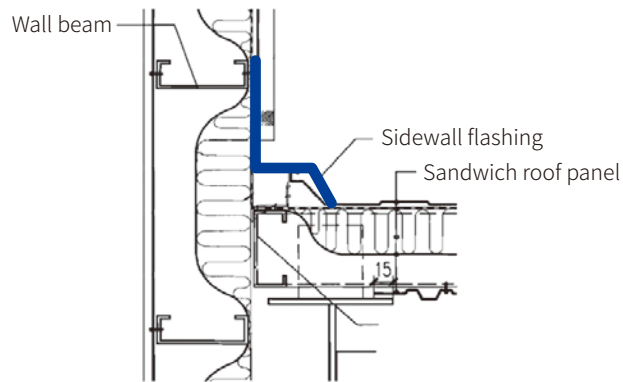
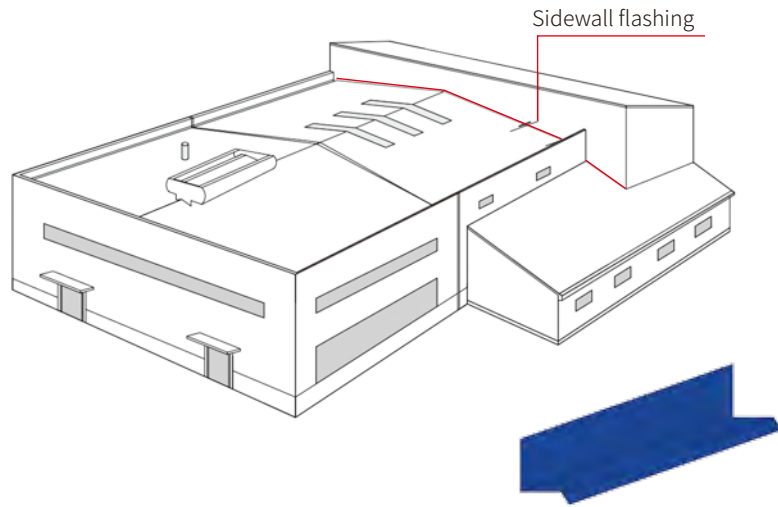
4.2 Mono-pitched roof



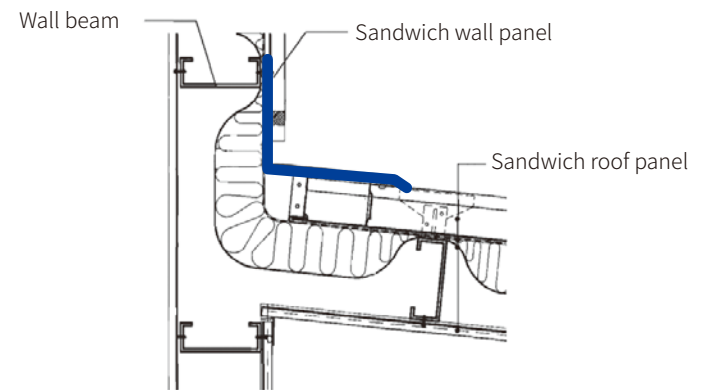
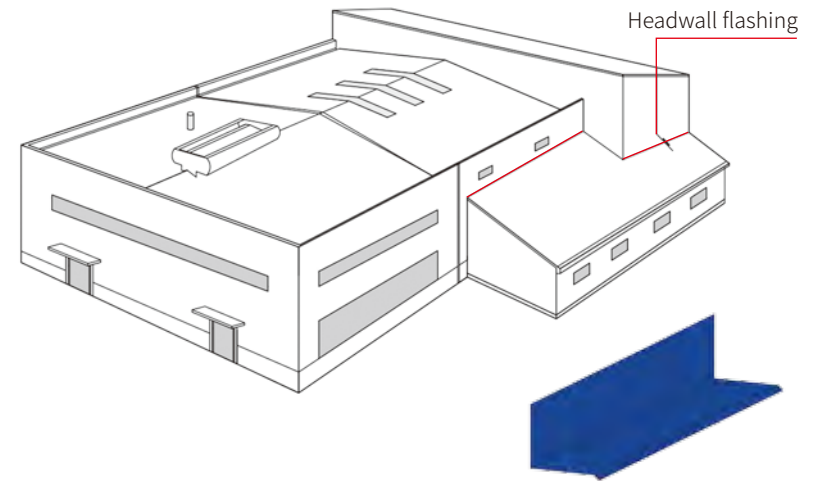
5 Movement joint



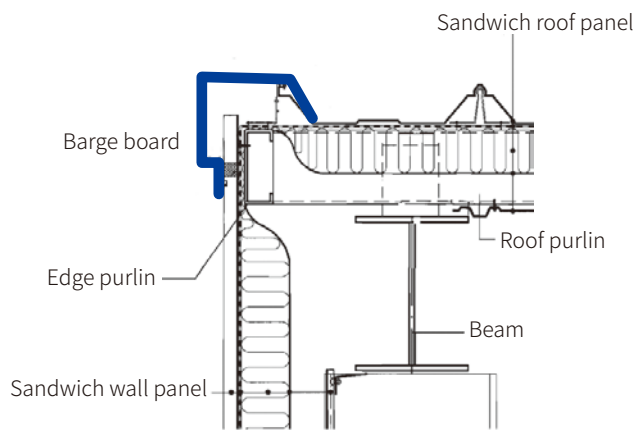
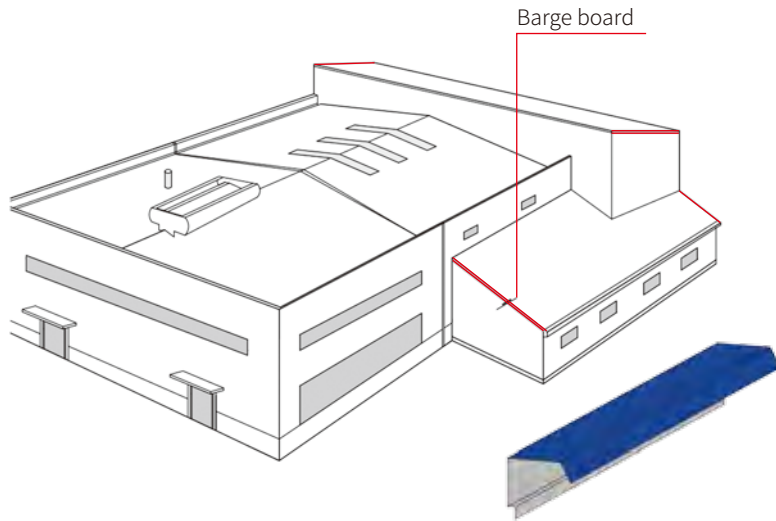
6 Sidewall flashing



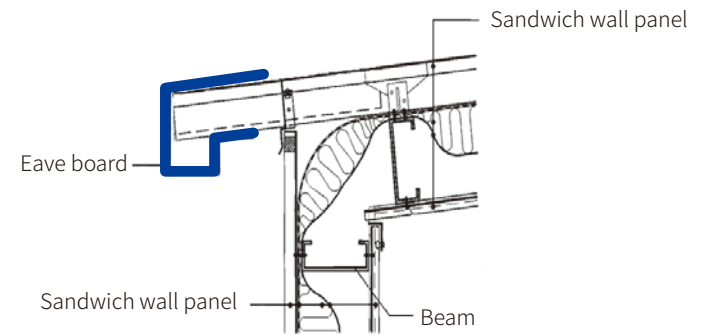
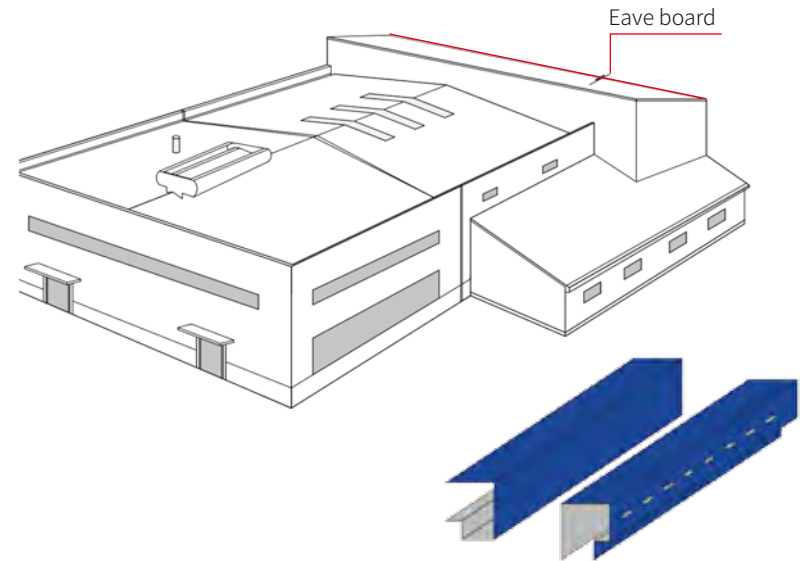
7 Headwall flashing



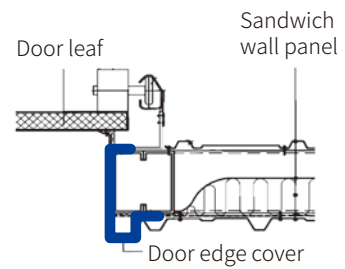
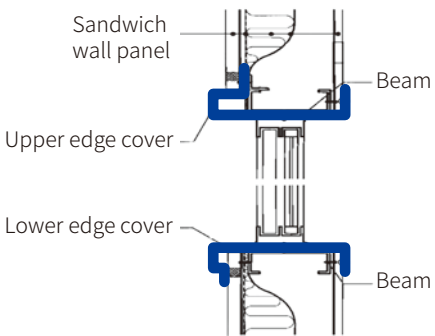
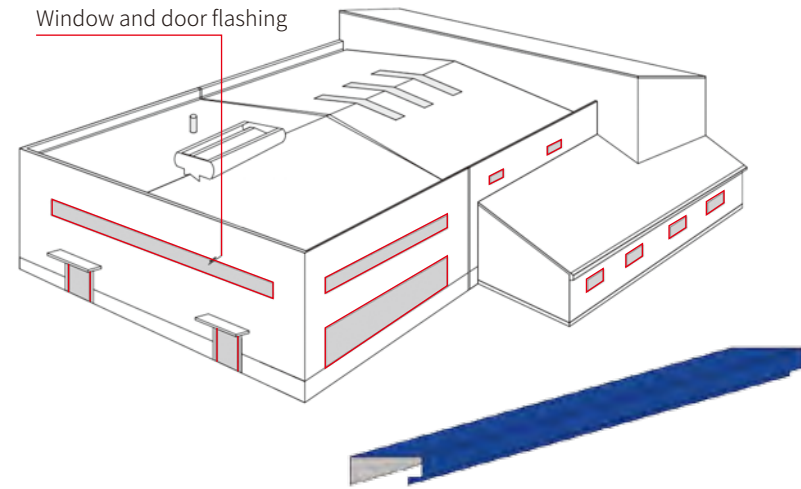
8 Barge board



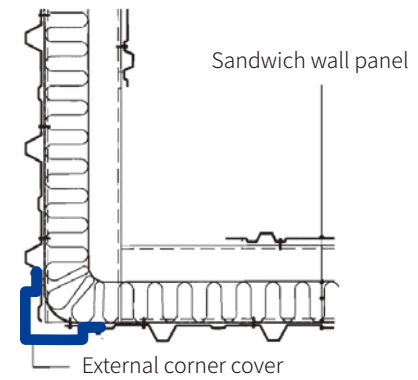
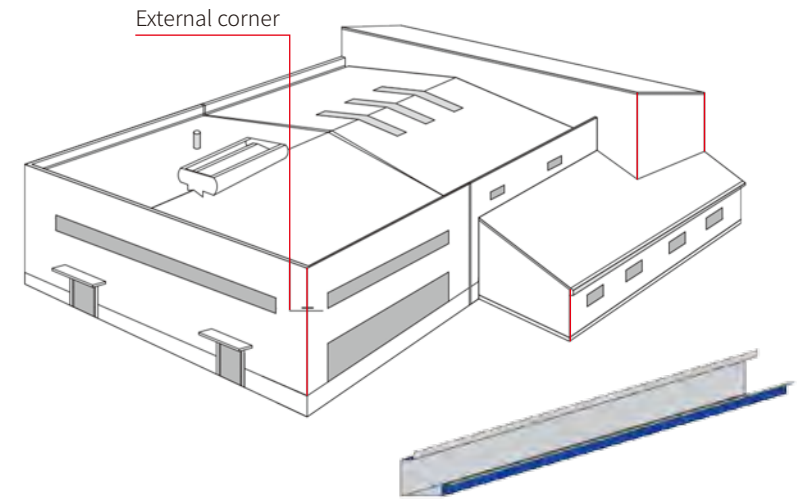
9 Eave board



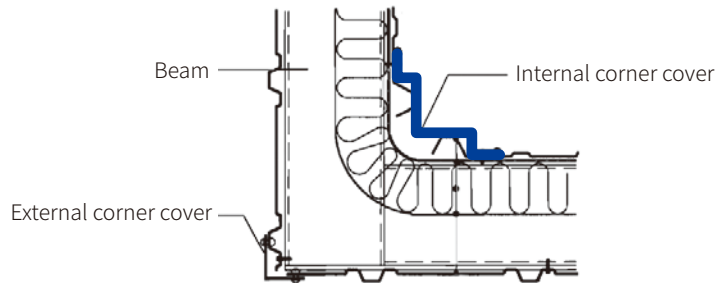
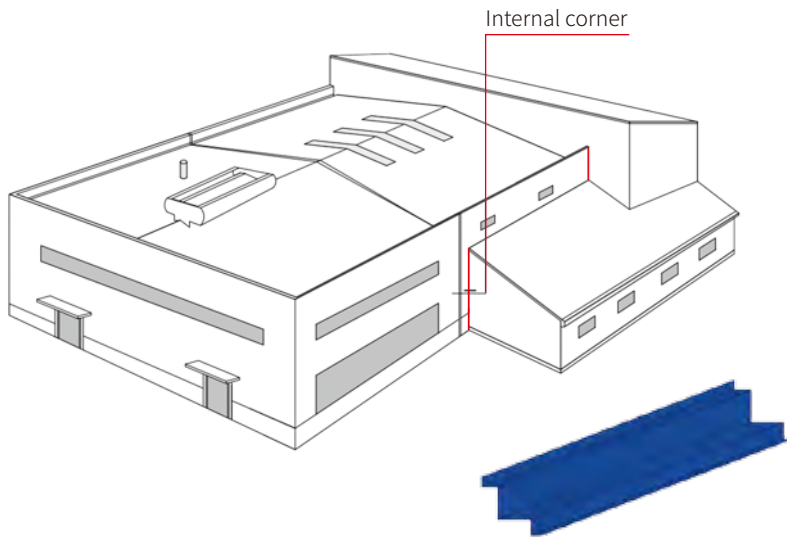
10 Flashing for window and door



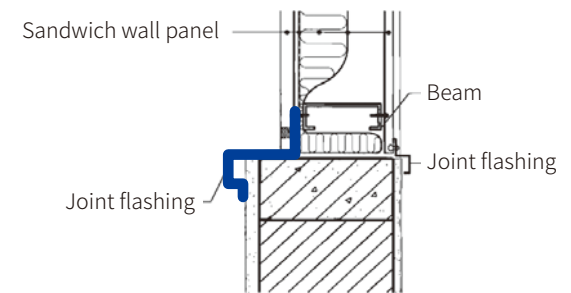
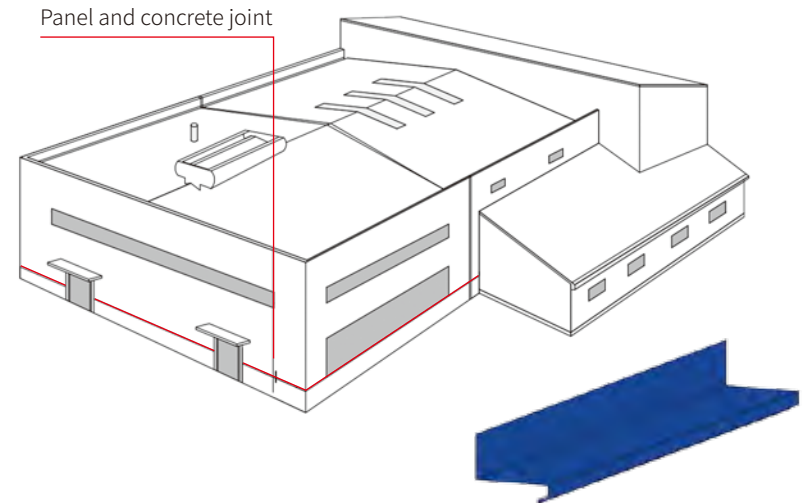
11 External corner cover



12 Internal corner cover



13 Panel and concrete joint flashing



MACHINING

1. The machining speed should be rationally set in accordance with the equipment conditions, process conditions, shape of part, etc. Any excessively high speed might lead to the shedding of the coating.
2. The flexibility of the coating may be lowered at low temperature, so we must avoid machining under such circumstances. If the ambient temperature is relatively low, the materials should be machined after being heated up to a certain temperature.
3. The notch and fracture of the PSP STEEL while machining may be apt to corrosion, so some protective measures, such as covering protective coat and embedding seal, should be taken. Try to reduce the stress around the notch and fracture while machining, and prevent the surface film of the PSP STEEL from being scratched by the stress.
4. Try to keep all the contact surfaces to the film clean and timely clear the scraps and metallic granules away while machining, so as to prevent the surface of the coating from any damage.
5. Try to reduce the abrasion of the molded roll surface and the die surface, keep the contact surface clean, and prevent the surface of the film from pressure, scratch and any other damages. Try to adopt the construction policy that the factory takes charge of pre-assembly and sends to implement the onsite installation, and take necessary measures to protect the surface from any damage while installation.
6. In case of any scratch on the surface while machining, please timely adopt the specified materials to repair and prevent the scratched PSP STEEL from corrosion.

TRANSPORTATION AND LOADING

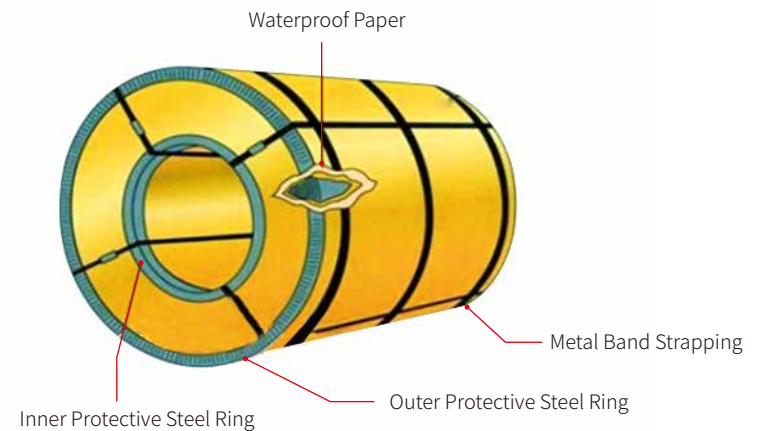
1. The product must be transported with the state while leaving from the factory and the original packing mustn't be assembled or changed at will.
2. While loading/unloading, the rubber cushions should be inserted between the hoisting, loading/unloading equipment, so as to prevent the steel products from any damage. If any, please adopt the special hoisting, loading/unloading equipment for the products only.
3. The vehicles in charge of transporting the products should keep clean, rubber cushions and other protective devices should be furnished for the floors of the vehicles, and the necessary actions should be also taken around the carriages, so as to prevent the packing of the products from any damage.
4. The steel coils packed in vertical should also be transported, loaded/unloaded vertically.
5. The products should be firmly fixed, so as to prevent them from any damage or unexpected accidents for from the rolling or shifting of the products while being transported.
6. Do not drag out the steel sheet, and prevent it from being damaged or scratched by the stress around the notch or fracture of the other sheet underside. Please fetch and place the steel sheet gently and keep it from any rigid article.

STORAGE

1. Products should be stored in a dry and ventilated room, instead of being stored in the open air or a place with moisture and a great change of temperature.
2. The products should be stored in a clean and neat environment, preventing from various corrosive substances.
The storage field should be smooth and level, having a good bearing capacity
3. Horizontal steel coil should be placed on the brackets with rubber cushions or wooden cushions and be locked with the lock catch on the topside. It mustn't be placed onto the ground or vehicles directly.
4. To avoid being pressed, the steel coil mustn't be stored in stacking. When the steel sheets are stored in stacking, a limit to every stack should be specified and the sheets with large weight and size should be placed in the lower part of the stack.
5. The mechanical properties of the PSP STEEL and part of performances of the coating, including pencil hardness, T-shape bend, collision, etc. may varies with the time, so we recommend customers to use the products as soon as possible.
The storage field should keep enough room for the hoisting and transporting equipment.
6. The storage of the steel sheets and coils should be scientifically arranged in advance, so as to avoid unnecessary shifting and conveniently use.

PACKAGING

1.Coils



2.Profiled Sheets



Packed by PP woven fabrics for length over 2.2m

Packed by pallet for length no more than 2.2m

Without package