

Enbeam Fibre Optic Splice Closure 208-504 Installation Manual



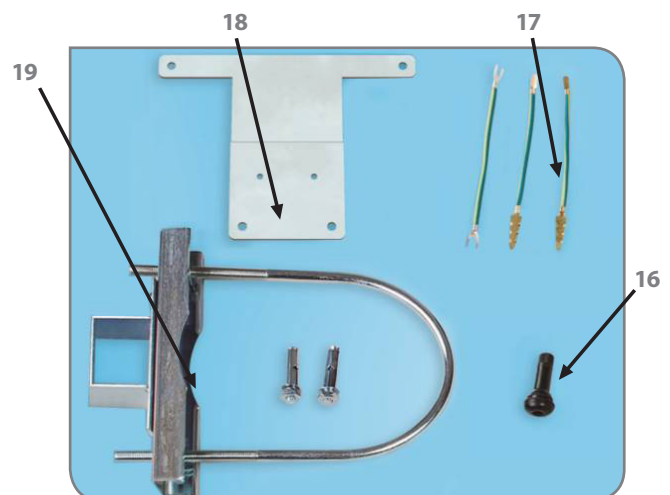
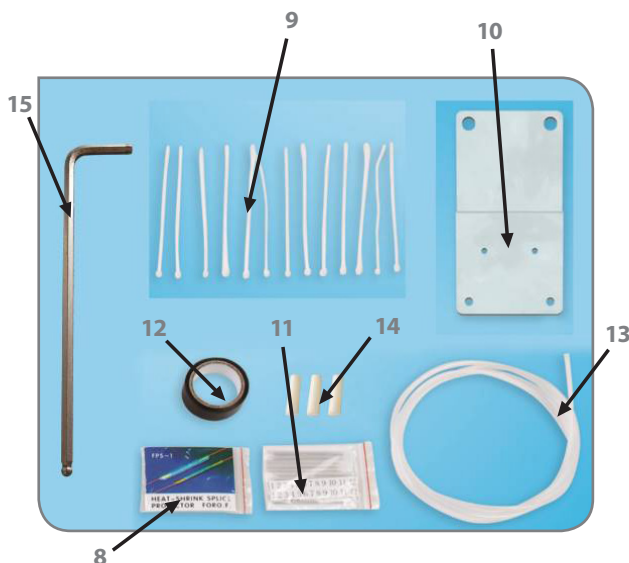
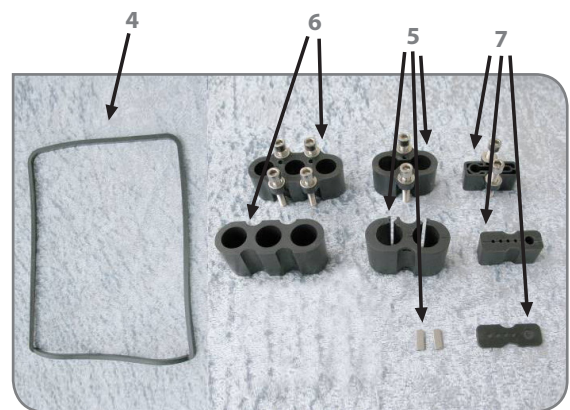
208-504 is a multifunctional fibre splice equipment which is designed for fibre connection, branching and terminal connection. This FOSC has three single fibre ports; one fibre port for uncut cable usage, one testing port ($\Phi 6\text{mm}$) and four pigtail outlets ($\Phi 2.0\text{mm}$). It is suitable for wall-mounting, aerial, pole-mounting, especially used for FTTH fibre distribution. We are always in pursue of doing research and developing the telecommunication connection equipment. Our FOSC is your reliable choice to guarantee the quality of information transform.

1. Specification

Size H×W×D (mm)	300×220×100	Max capacity (single fibre)	60
Weight (kg)	2.4~2.7	Airproof style	Mechanical
Entrances	5	Capacity of tray	12
Suitable cable diameter	$\Phi 8\sim\phi 15$		
Number of trays	5		

2. Internal Structure and Components

2.1 Pictures of fibre closure and its components:



2.2 Accessories

2.2.1 Main components

Number	Name	Quantity	Marks
1	Base	1	Fixing internal structure
2	Fibre splice tray	1 set	Fibre splice and storage
3	Cover	1	
4	Seal ring	1	Fixing cover and base
5	Two-hole sealing fixtures	1	Using in the uncut fibre sealing
6	Three-hole fibre cable fixtures	1	Fibre cable sealing
7	Sealed tray bracket	1 set	Φ2.0pigtail, Φ6 testing pigtail sealed

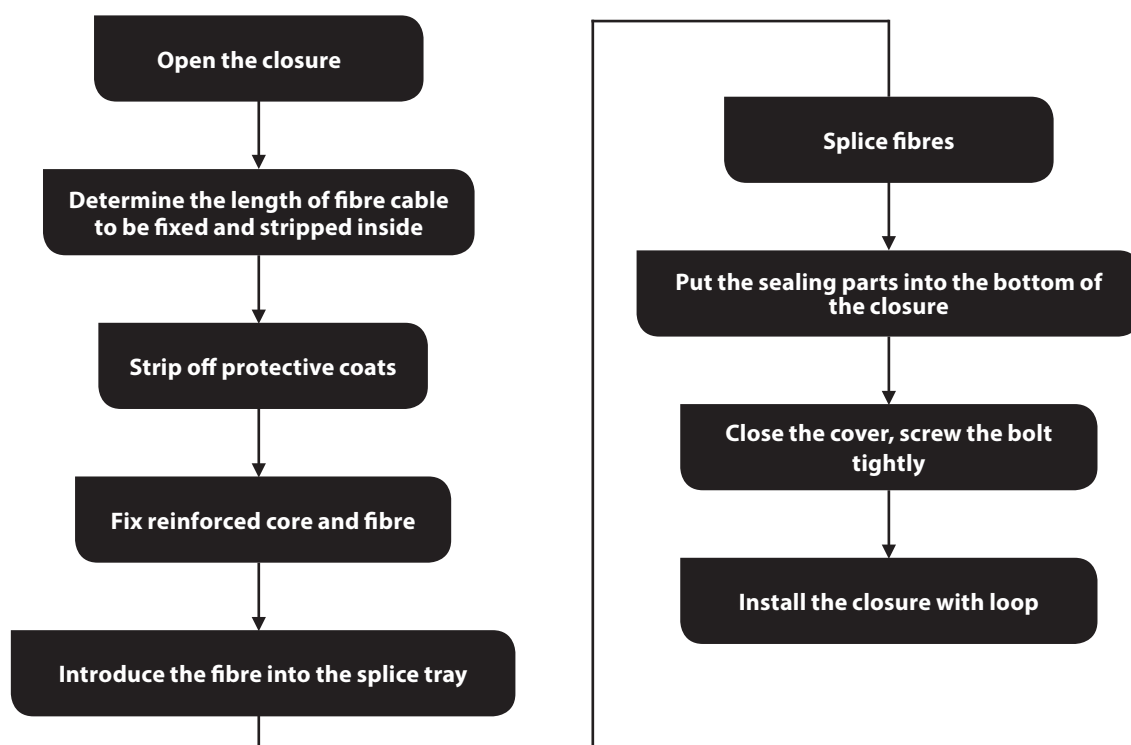
2.2.2 Accessories

Number	Name	Quantity	Application
8	Splice protective sleeve	According to standard fitting	Fibre fusion and protection
9	Nylon tie	16 pieces	Fixing fibres with Protective jacket
10	Wall-mounting installation fixtures	1 set	Fixing FOSC
11	Data paper	1 piece	Fibre labeling
12	Insulation tape	1 piece	
13	Protective tube	1 piece	Fibre protection
14	Plastic block	3	For ports when not used
15	Hexagonal spanner	1	Fixing the bolt

2.2.3 Optional Accessories

Number	Name	Quantity	Application
16	Valve	1 set	Test pressure
17	Grounding fixing set	1 set	Ground-mounting
18	Aerial installation fixtures	1 set	For installation of the closure aerially
19	Pole installation fixtures	1 set	For mounting the closure on the pole

3. Installation Flow Chart



4. Direction

4.1 Preparation

- 4.1.1 Please check the structure and type of the cable before installation. Different types of fibre can't be spliced together.
- 4.1.2 Ensure all seals are mounted correctly and take care not to over tighten.
- 4.1.3 Keep the working place free from moisture and dust. Don't give any impact on the cables and don't bent or entwine cables.
- 4.1.4 Use appropriate tools according to the approved standard of fibre optic splicing in your region when remove the jacket of cables and assemble the closure.

Tools as following:



4.2 Remove the jacket of cables for uncut fibre installation

4.2.1 Mark the point on the cable, the length of stripping is about 180cm.



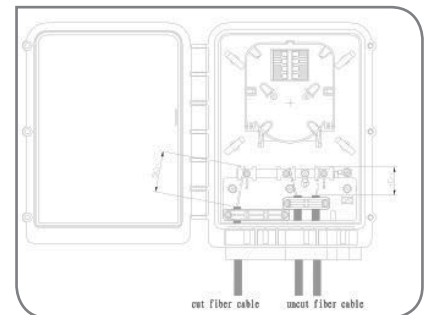
4.2.2 Remove the jacket from the marked point with a sheath stripper

NOTE: 1. Be sure not to damage fibre

2. Do not use any damaged cable

3. While removing the cable sheath, please do not cut, twist or damage cable jacket. Reserve enough length to ensure repair and maintenance in case of any accidents.

4.2.3 Cut off the extra reinforced core about 4cm from the removing point on the sheath.



4.3 Removal of the single cable jacket

4.3.1 Mark the point on the cable; the length of stripping is about 180cm from the end.

4.3.2 Remove the jacket

NOTE: 1. Be sure not to damage fibre

2. Do not use any damaged cable

3. While removing the cable sheath, please do not cut, twist or damage cable jacket. Reserve enough length to ensure repair and maintenance in case of any accidents.

4.3.3 Cut off the extra reinforced core about 5cm from the removing point on the sheath.

4.4 Installation of the fibre closure



4.4.1 Check the specified type and all accessories of the closure

4.4.2 Fix the closure to the fixing bracket

4.4.3 Open the fibre closure

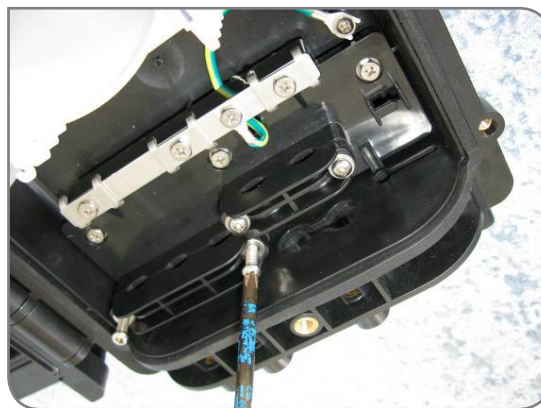
Loosen the bolts and open the closure

Note. Please be careful when opening the enclosure so as not to damage the seal.

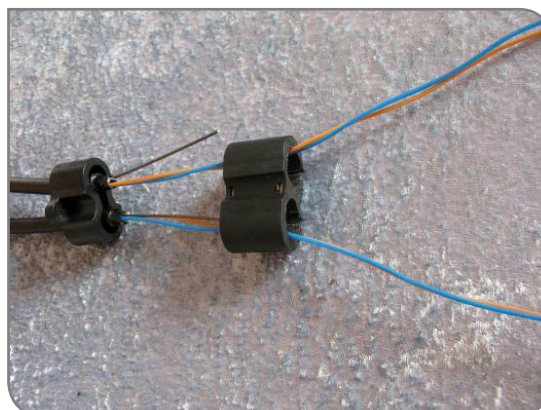
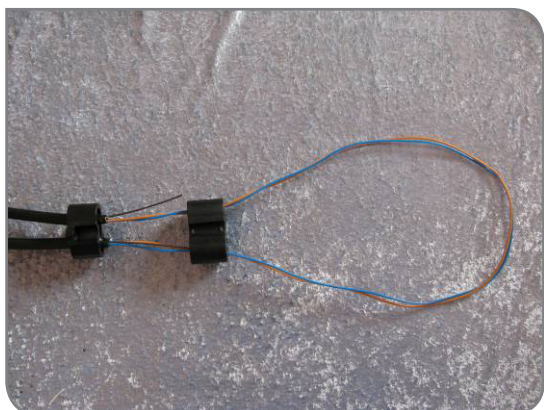
4.5 Installation of cable into the enclosure

Loosen all the hexangular bolts installed at the bottom of the base.

Remove all screws from the required cable clamps.

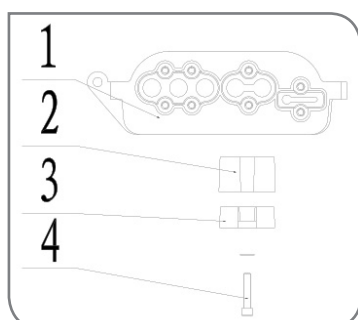


4.5 The inlet of uncut cables



4.5.1 Necessary components for removing jacket of cables with uncut fibre

Number	Name	Quantity	Material	Application
1	Base	1	ABS+PC	Fixing cable
2	Two-hole seal ring	1	Vulcanized rubber	For sealing uncut fibre
3	Two-hole pressed button gland	1	ABS+PC	
4	M6x30 hexangular bolts	1	Stainless steel	

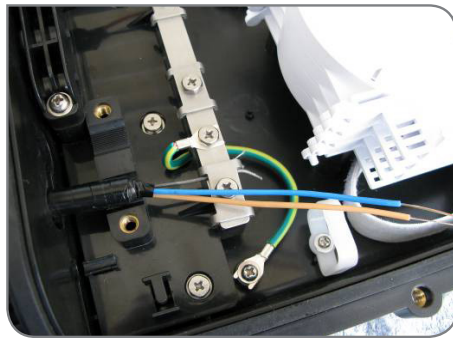


4.6.2 Cable installation

4.6.2.1 Thread the fibre and thread it through the compression gland and two-port sealing ring.

4.6.2.2 Insert the cable clamp and secure.

4.6.2.3 Fix the strength member in position as shown below.



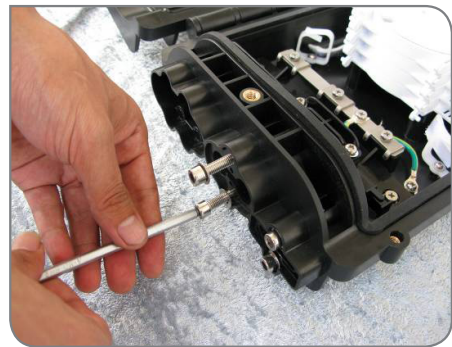
4.6.2.4 Store the spare cable in the closure
Be careful not to damage the fibre

4.6.3 Cable sealing

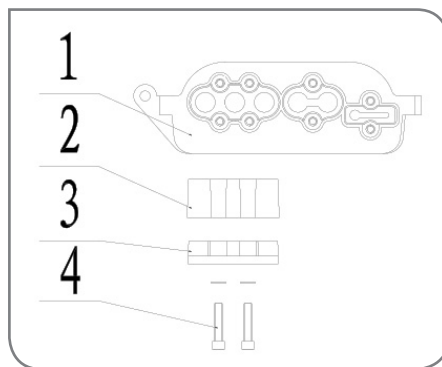
Fasten the M6x30 bolts using the allen key provided.

Please fasten them carefully.

If the port is unused, please use the blanking plugs provided to seal the unused ports.



4.7 For three hole Gland please follow the above instructions.



4.7.1 The components needed in the installation of cut cable

Number	Name	Quantity	Material	Application
1	Base	1	PP	Fixing the internal and external structure
2	Three-hole sealing ring	1	Rubber	For sealing the cut cable
3	Three-hole compression glands	1	ABS+PC	
4	M6x30 hexagonal bolt	4	Stainless steel	

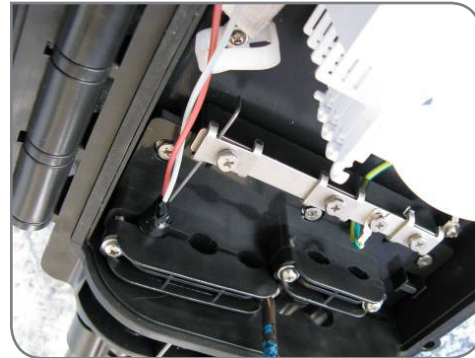
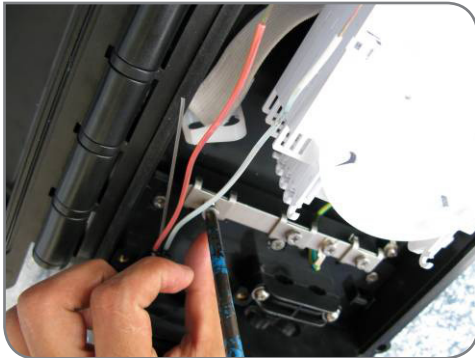
4.7.2 Cable installation

4.7.2.1 Insert the cable subsequently from three-hole compression gland and three-hole sealing ring.

If there are less than 3 pieces of cable, you should seal the port by using the plastic block.

4.7.2.2 Insert the cable through the three-hole cable port into the closure.

4.7.2.3 Fix the core into the fixing pressed hole and fasten the bolts.



4.7.2.4 Put the cable on the cable fixing frame and then fasten the pressed bolts to fix the cable.

Be careful not to damage the fibre.

4.7.2.5 The fibre can be coiled alone and put aside.

4.7.3 Cable sealing

Insert the cable fixtures through the relevant cable port and fasten the bolts by using the spanner.

4.8 Pigtail installation

4.8.1 All the components needed

Number	Name	Quantity	Material	Application
1	Base	1	PP	Fixing the internal and external structure
2	Three-hole sealing ring	1	Rubber	For sealing the pigtail and fibre(Ø6mm)
3	Three-hole compression gland	1	ABS+PC	
4	M6×30 hexagonal bolt	4	Stainless steel	
5	M6×30 hexagonal bolt	2	Stainless steel	

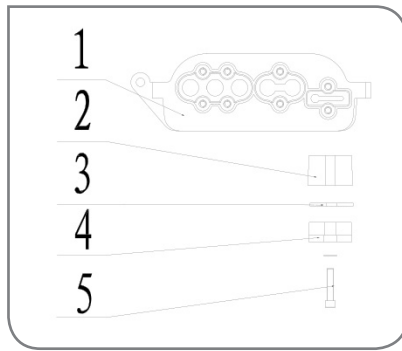
4.8.2 All the components needed



This FOSC is suitable for the patch cord (Ø2)



Ø2.0 one-end pigtail



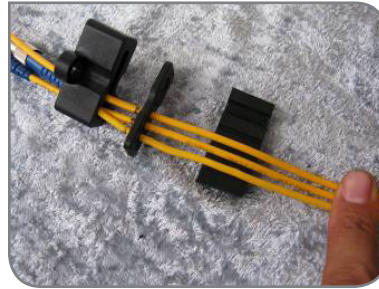
4.8.3 Installation of pigtails and test cable.

4.8.3.1 Insert the cable subsequently through the compression gland, sealing block and rubber seal.

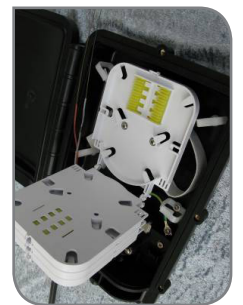
If the port is unused, please use the blanking plugs provided.

4.8.3.2 Insert the cable(Φ2.0) together with the sealed fixtures through the button pigtail port in the enclosure.

4.8.3.3 Remove the jacket of the pigtail (about 60cm)



4.9 Splice fibres and store fibre



4.9.1 Route the sub units tube to each splice tray (max capacity: 12cores/one tray)

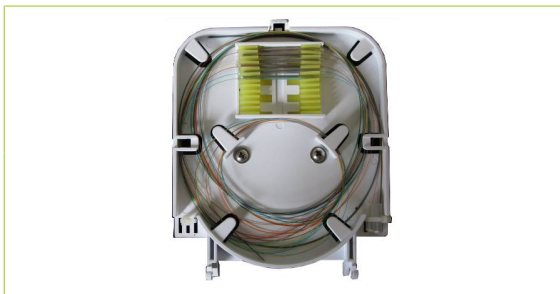
4.9.2 Fix the above sub units to the entrance of the splice tray by using the nylon ties and route fibre to the splice area allowing extra length for reworking.

4.9.3 Repeat the same steps above.

4.9.4 Please embed the fibre splice protective tube subsequently into the deck.



4.9.4.1 Fibre storing introduction



1. The fibres should be coiled in the big circle and its length is about 330mm.

2. when the fibres are coiled in the circle, with some length of fibres remained, implant the spliced fibres with protective sleeves inside the fibre holder. If the remaining fibre are not enough for a big circle, then coil the remaining fibres round the small circle. The length of the small circle is about 220mm.

Repeat the above steps until you meet your need of the cores. The max capacity of one tray is 12 cores (single fibre).

4.9.5 Install the tray after the splicing

4.9.6 Cable sealing

Insert the fixtures to the relative cable port one after another and then fasten the bolts with a spanner.

4.10 Assemble the closure



5.10.1 After the installation of cables, secure the cover and then tighten the bolts by using the spanner properly (less than 50N).

5.10.2 Fibre test and sealing test

You can insert the air to test after the sealing of the closure and do the protection of cable. (Your choice to have a valve or no valve)

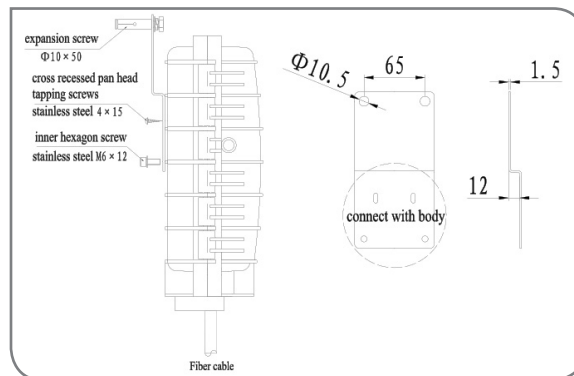
4.11 Installation of FOSC

4.11.1 Wall-mounting

4.11.1.1 Fix the hoop on the closure with M6x12 hexagonal bolts and M4x15 bolts.

4.11.1.2 Choose the place to install and then install M10 bolts in 65mm.

4.11.1.3 Fix the closure on the wall

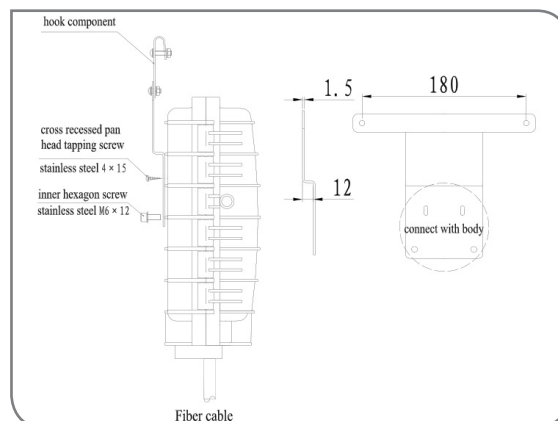


4.11.2 Aerial-mounting installation

4.11.2.1 Fix the hoop on the closure with M6x12 hexagonal bolts and M4x15 bolts.

4.11.2.2 Fix the aerial hook through the connecting bar

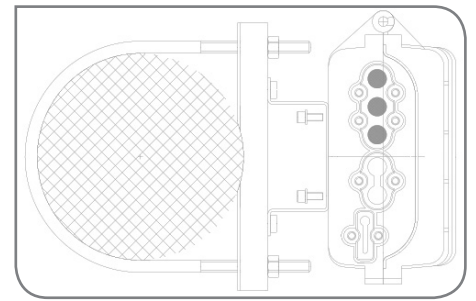
4.11.2.3 Fix the bar through the hook on the strand



4.11.3 Pole-mounting installation

4.11.3.1 Fix the hoop on the concrete pole with the M6×12 screw, then tighten the nut.

4.11.3.2 Fix the closure and tighten the nut.



5. Main Technical Data

- Airproof performance: airtight pressure inside box 100Kpa, pointer immovability after 24 hours or no air bell within 15min when placed under normal temperature water.
- Re-encapsulation performance: no change in the index of air-proof performance after three times of repeat encapsulation.
- Insulation resistance: $\geq 2 \times 10^4 M\Omega$
- Voltage-resistance strength: under the effect of 15KVDC/1min, non-puncture, no arc-over

6. Packing, Transportation and Storage

This equipment packaging is moisture-proof and earthquake-proof. The accessories are packed first plastic bags, then into the boxes with plastic bags for sealing. There are moisture-proof and earthquake direction signs outside the boxes.

It can't be inverted in the transportation and be free from rolling when carrying. Please load carefully and prevent the collision. You should prevent it from heavy rain before installation. The temperature in the transportation should be controlled between $-35^{\circ}C$ to $+55^{\circ}C$.

The excessive accumulation of goods should not be stored on the cartons. The Treasury should away from the erosion of corrosive gas equipment and the temperature should be below $45^{\circ}C$ and higher than $-5^{\circ}C$, and relative temperature should not be high in long-term (generally less than 75%)