

# **SHELTER**

## **ASSEMBLY MANUAL**

### **(W40H21P SERIES)**

**Model # 406021P/ W12.2mxH6.4m xL18.3m**

**Model # 407021P/ W12.2mxH6.4m xL21.35m**

**Model # 408021P/ W12.2mxH6.4m xL24.4m**

**Model # 4010021P/ W12.2mxH6.4m xL30.5m**



## **SPECIFICATION**

Width: 12.2m      Height: 6.4m      Length: 18.3m/21.35m/24.4m/30.5m  
Door dimension: W4xH4.6m

## **IMPORTANT----READ MANUAL FIRST**

Improper site preparation, assembly and maintenance may invalidate warranty and cause unnecessary and costly mistakes. If you have any questions contact your local dealer.

For User Friendly assembly we have identified each individual component with the part code as indicated in the parts list. Please refer to the part code numbers and drawing to ensure problem free assembly.

It's necessary to tighten the roof fabric enough to avoid "hammocks" on the roof and also re-tighten once or twice again after a few months of use. This is important when assembly in cold weather (autumn and winter) because the fabric is stiff then and when we got the sun and warm weather afterwards it will make the fabric "slack" again and need to be re-tighten before next winter.

It's **the owners responsibility** to take of snow immediately if not slide of by itself.

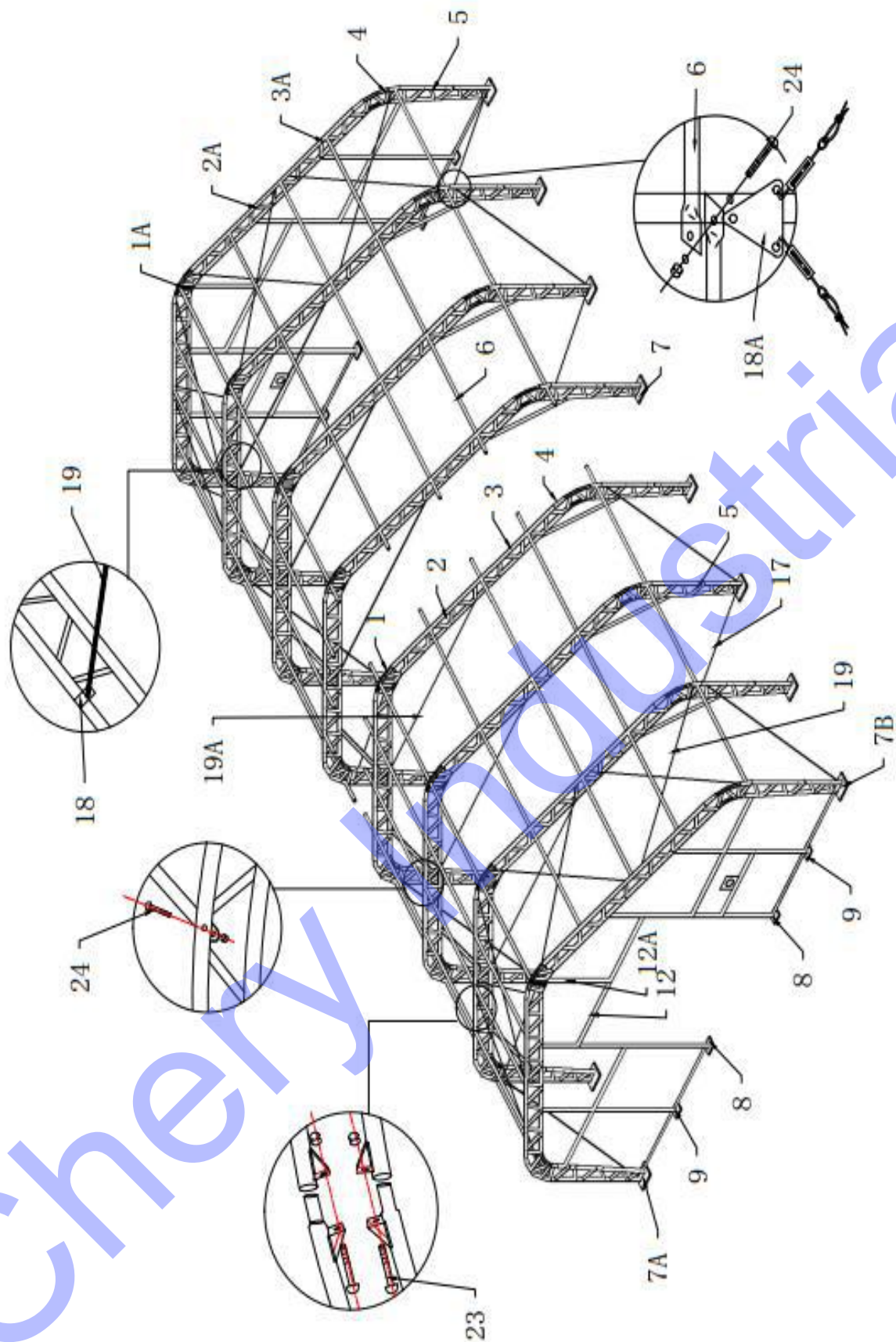
## **READ ALL INSTRUCTIONS BEFORE ASSEMBLY**

1. Keep work area clean. Cluttered areas invite injuries. Do not set up near snow drifts, in slippery places, in high winds, or wet location.
2. Keep children away. All children should be kept away from the work area. Be aware of personal safety. Be careful not to pinch fingers with clips and tubes when assembling: when using makes sure there is adequate ventilation for exhaust and other dangerous fumes.
3. Do not over reach. Keep proper footing and balance at all times.
4. Do not assemble if under the influence of alcohol or drugs. Read warning labels on prescription to determine if your judgment or reflexes are impaired while taking drugs. IF there is any doubt, do not assemble.
5. Be aware of possible windy conditions; fasten the base in concrete if these situations may occur. Remove the cover during hurricane.
6. Be careful with power and heat sources. Do not keep heat sources near the tarpaulin. Do not expose to open flame.
7. Be aware of personal safety during assembly and use .Be careful not to pinch fingers with clips and tubes when assembling when using makes sure there is adequate ventilation for exhaust and other dangerous fumes.

Part List

Part	Description	406021P Qty	407021P Qty	408021P Qty	4010021 P Qty
1	Top roof tube	5sets	6sets	7sets	9sets
1A	Top roof tube for front and back arch	2 sets	2sets	2 sets	2sets
2	Roof curving tube	10sets	12sets	14sets	18sets
2A	Roof curving tube for front and back arch	4sets	4sets	4sets	4sets
3	Roof curving tube at shoulder height	10sets	12sets	14sets	18sets
3A	Roof curving tube for front and back arch	4sets	4sets	4sets	4sets
4	Sidewall tube	14	16	18	22
5	Standing leg	14	16	18	22
6	Purlin	54	63	72	90
6A	Shoulder supporting bent tube	10	12	14	18
7	Base flange for standing legs	10	12	14	18
7A	Base flange in left corner	2	2	2	2
7B	Base flange in right corner	2	2	2	2
7C	Tie down Ratchet with screw	18sets	20sets	22 sets	28sets
7D	Base flange for roof cover section				2
8	Base flange for mechanical door	4	4	4	4
9	Base flange for end wall	4	4	4	4
10L	Lower door track for front and back door at left	2	2	2	2
10R	Lower door track for front and back door at right	2	2	2	2
11L	Upper door track for front and back door at left	2	2	2	2
11R	Upper door track for front and back door at right	2	2	2	2
12	Door beam on both doors	4	4	4	4
12A	Vertical support tube for door beam	2	2	2	2
12B	Angle steel plate	8	8	8	8
13	Lower standing leg for both end wall	2	2	2	2
13A	Lower standing leg on both doors to connect the winch rail	2	2	2	2
14	Upper standing leg for both end wall	4	4	4	4
15	Middle rail on both doors	8	8	8	8
16	Middle rail at side on both doors	2	2	2	2
17	Steel wire for sidewall	12	14	16	20
18	Clips to connect steel wire	66	72	80	90
18A	Angle Iron	6	8	8	10
19	Steel wire between two arches	16	16	16	16

19A	Steel wire on the top of arches	5	6	7	9
20	Tension tube of both door	8	8	8	8
21	Stake Peg	72	80	88	108
22	Tension tube for roof cover	2 sets	2sets	2 sets	2sets
23	Bolt M12x30mm	154sets	176sets	198sets	242sets
24	Bolt M10x80mm	71sets	80sets	89 sets	107sets
24A	Bolt M10x90mm	52sets	52sets	52sets	52sets
24B	Bolt M10x60mm	6sets	6sets	6sets	6sets
24C	Bolt M8x70mm	16sets	16sets	16sets	16sets
25	Door dropping tube	14 sets	14 sets	14 sets	14 sets
26	Mechanical winch wheel	2 sets	2 sets	2 sets	2 sets
27	32mm Plastic cap	20	20	20	20
28	Rope	1bundle	1bundle	1bundle	1bundle
29	Tools	2sets	2sets	2sets	2sets
30	Band for tie down ratchet	14	16	18	22
31	PVC tube	2 sets	2 sets	2 sets	4sets
32	Bolt M10x30mm	4 sets	4 sets	4 sets	4 sets
33	Small ratchet	10	10	10	10
34	Roof cover	1	1	1	2
35	Front and back door cover	2	2	2	2



**Figure 1: Sketch of trussed frame shelter**  
 Size: W12.2m x H6.4m x L18.3m/21.35m/24.4m/30.5m

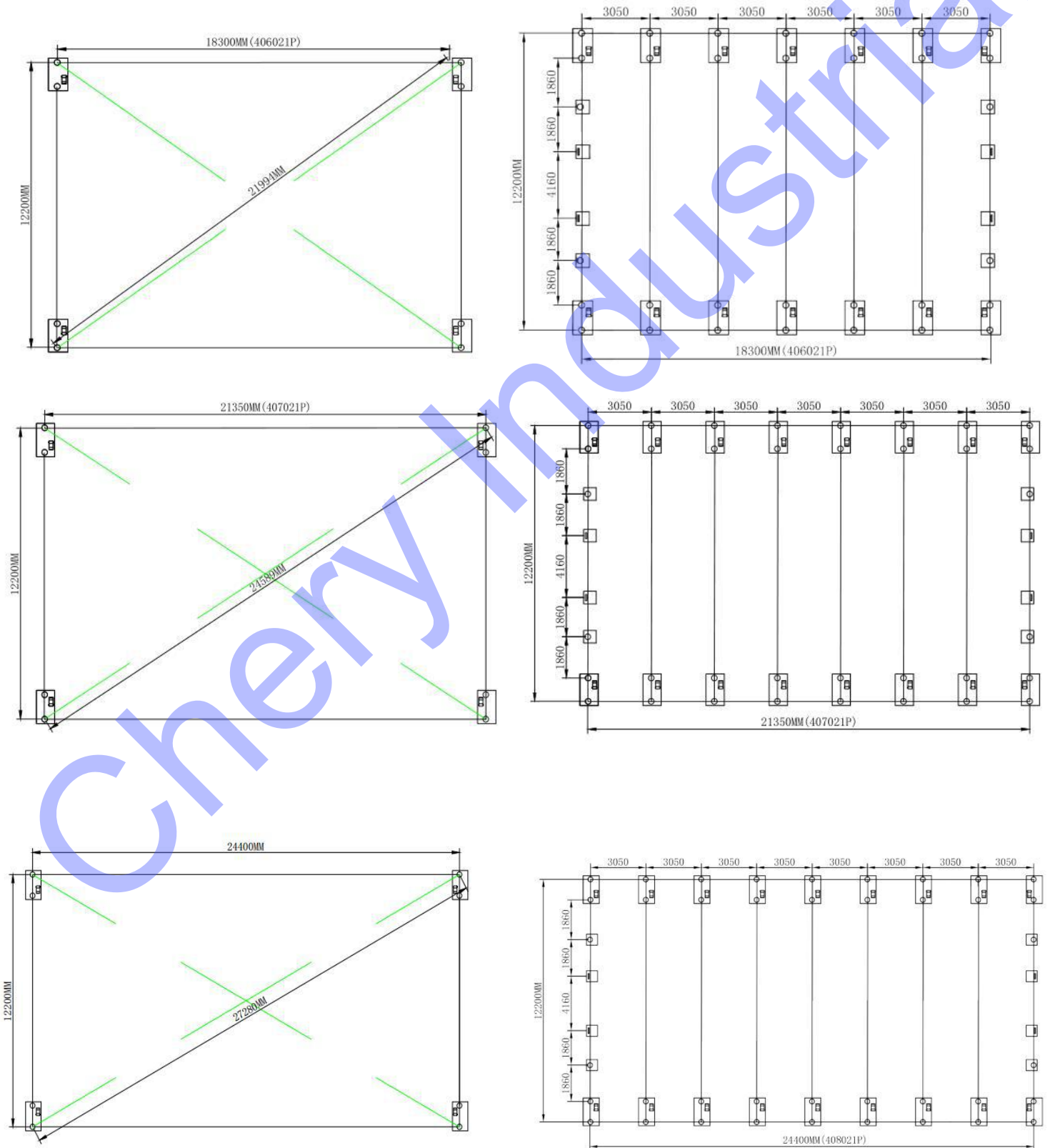
# EQUIPMENT AND TOOLS FOR INSTALLATION

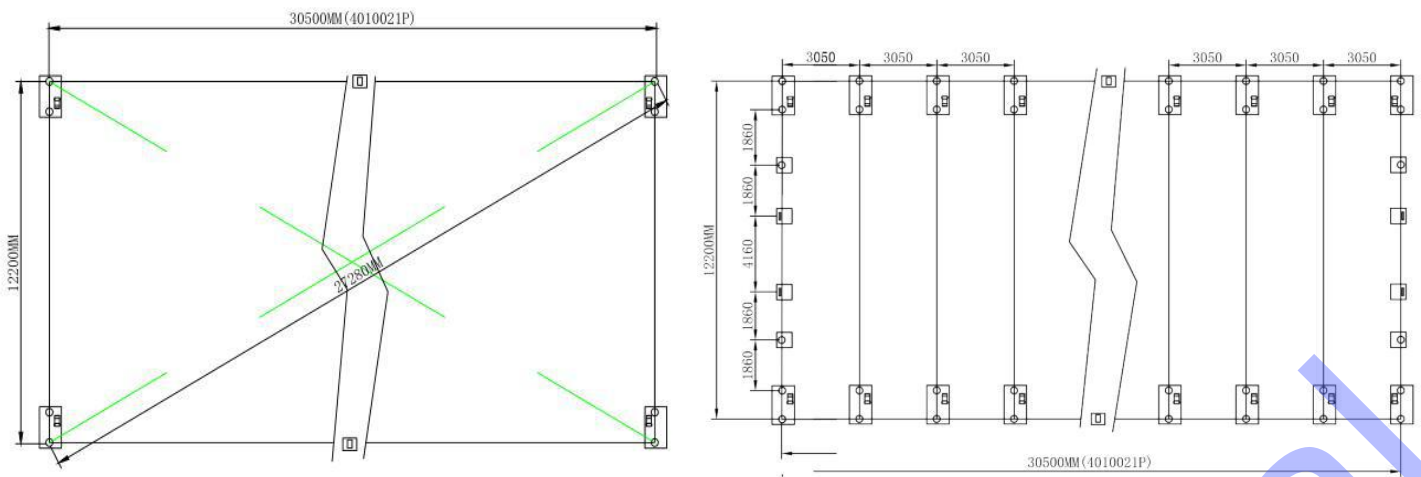
- |                   |                            |
|-------------------|----------------------------|
| 1. Measuring Tape | 2. String for alignment    |
| 3. Stake          | 4. Ladder or Scissors Lift |
| 5. Sledge Hammer  | 6. Drill                   |
| 7. Wrench         | 8. Knife                   |
| 9. Hoist          |                            |

## INSTALLATION PROCESS

### A----BASE INSTALLATION

Please refer to the diagram (Figure 2) to place the base plates:



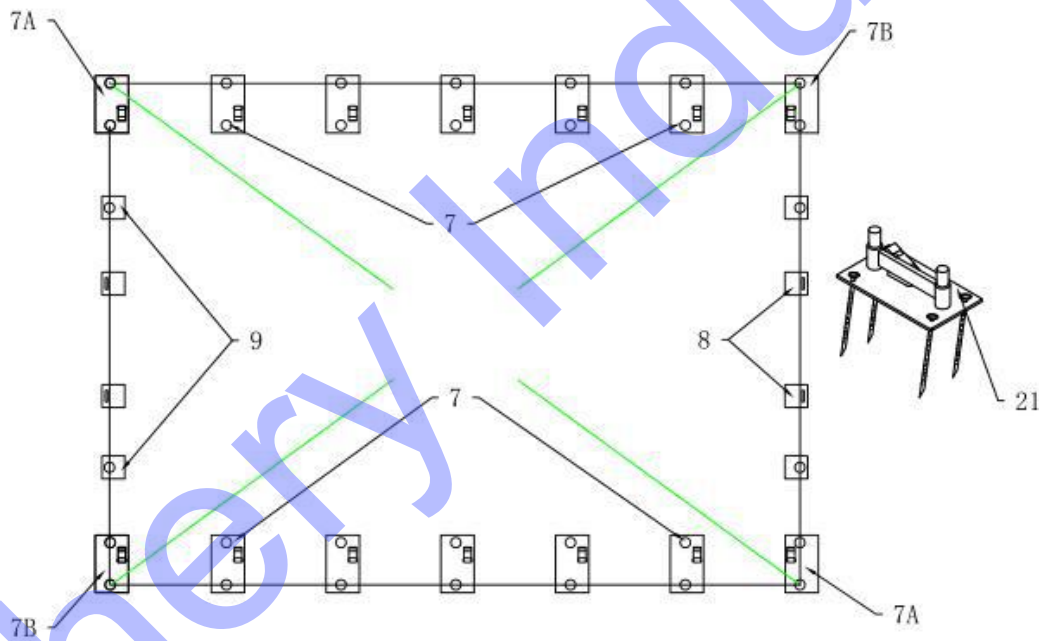


**Figure 2**

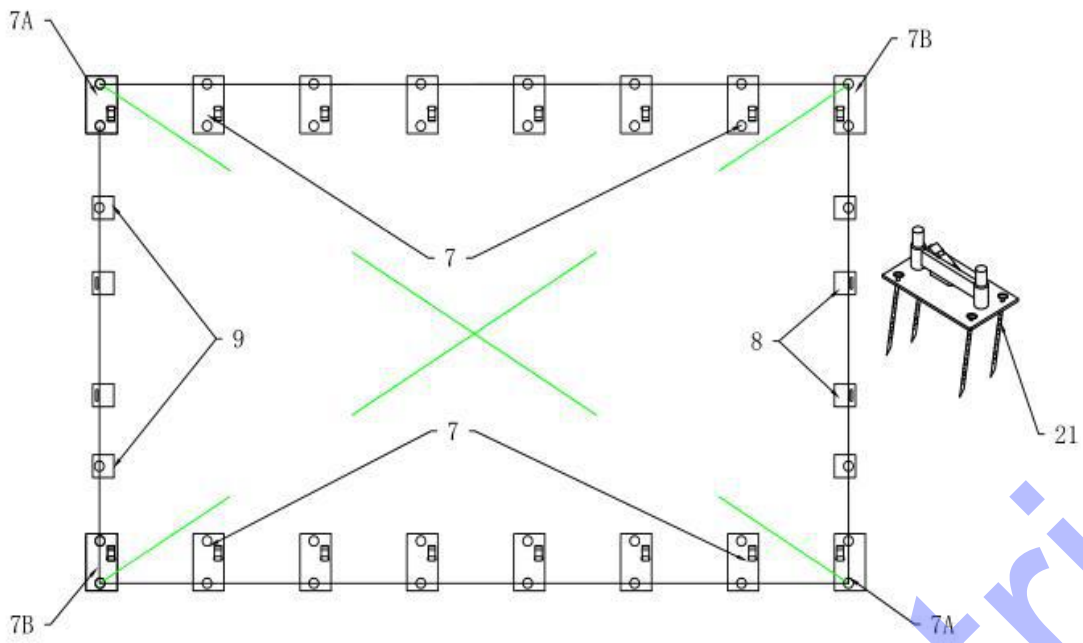
### Foundation placement

1. The measure is from center to center of the tubes. Referring to the above diagram and confirm the place of the base plates. ENSURE THAT THE FOUNDATIONS IS SQUARE.
2. Base plate (No. 7 / 7A / 7B) will be equipped with 4 stake pegs. However, please note that Base plate (No.7D / 8 / 9 /) should be equipped with 2 stake pegs. THUS ALL BASE PLATES ARE SECURED.

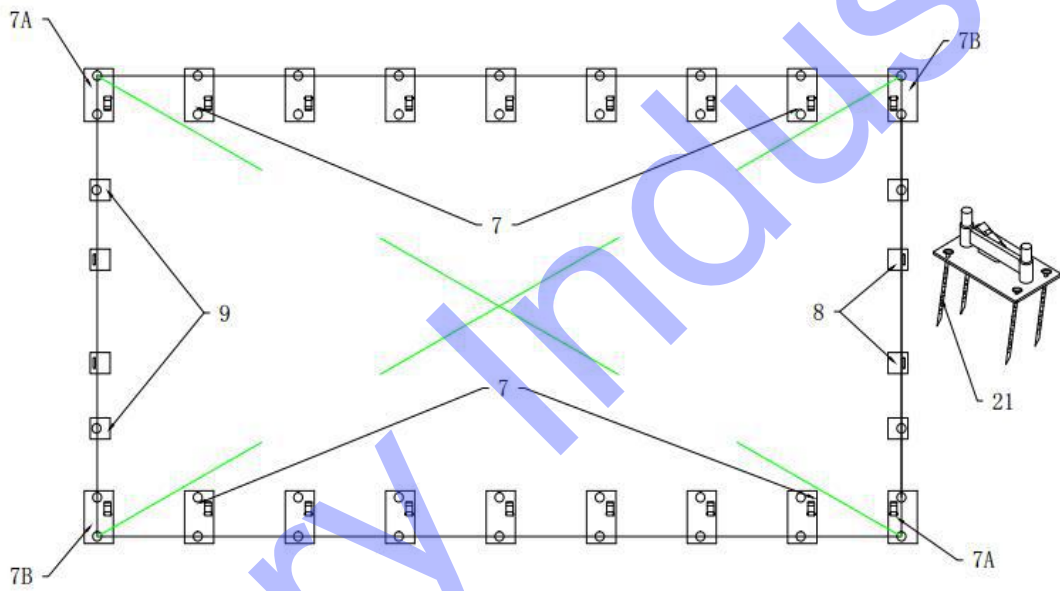
**Note:** The stake peg apply for normal conditions, not suitable to the rock ground, frozen soil and concrete ground. Please use expansion bolts if the building will be assembled on the concrete.



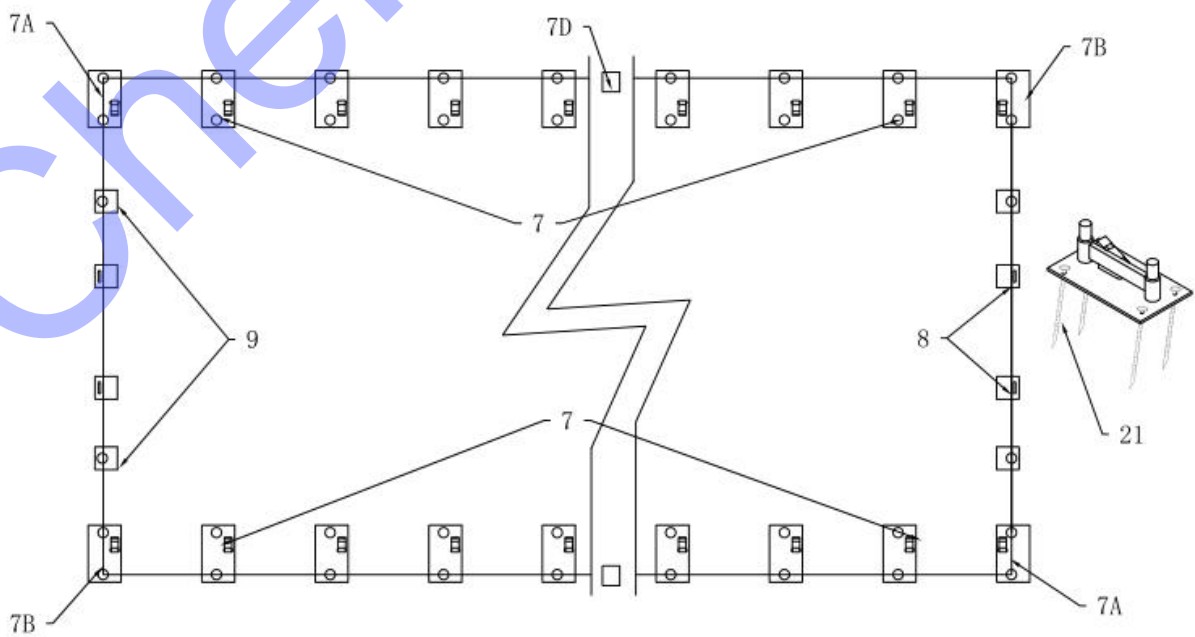
406021P



407021P



408021P



4010021P

Figure 3

## B---FRAME INSTALLATION

1. Figure 4 shows to connect the Top roof tube(No.1A),Roof curing tube(No.2A),Roof curving tube at shoulder for both doors (No.3A) , Sidewall tube (No.4) and Standing leg(No.5) with Bolt M12x30mm(No.23), then put the arch into tube of the Base flange by hoist.

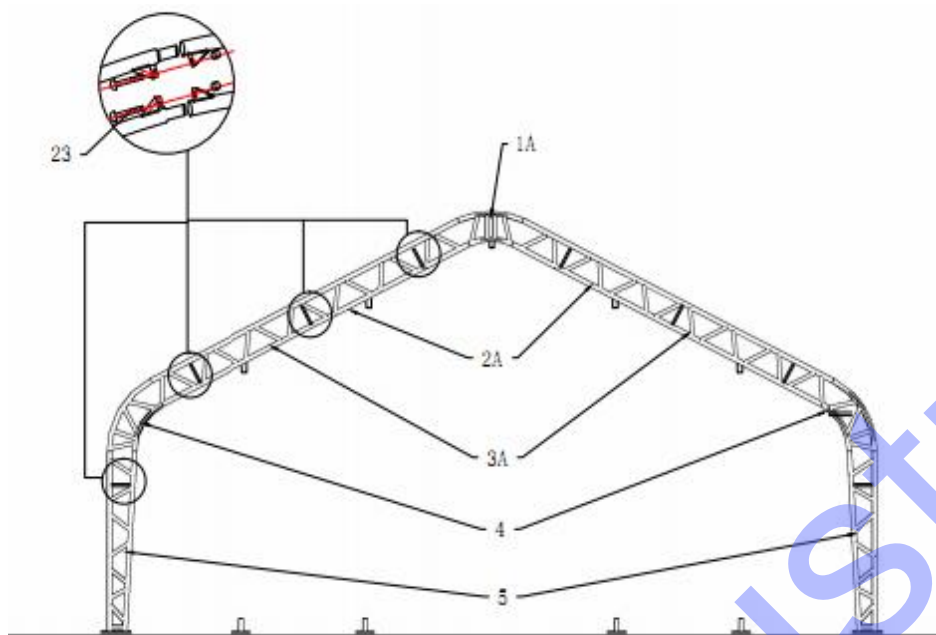


Figure 4

2. Figure 5 shows to connect the Top roof tube(No.1),Roof curing tube(No.2),Roof curving tube at shoulder (No.3) , Sidewall tube (No.4) and Standing leg(No.5) with Bolt M12x30mm(No.23), which make up the middle arch, then put the arch into tube of the Base flange by hoist, and assemble every group arch by turns as Figure 5.

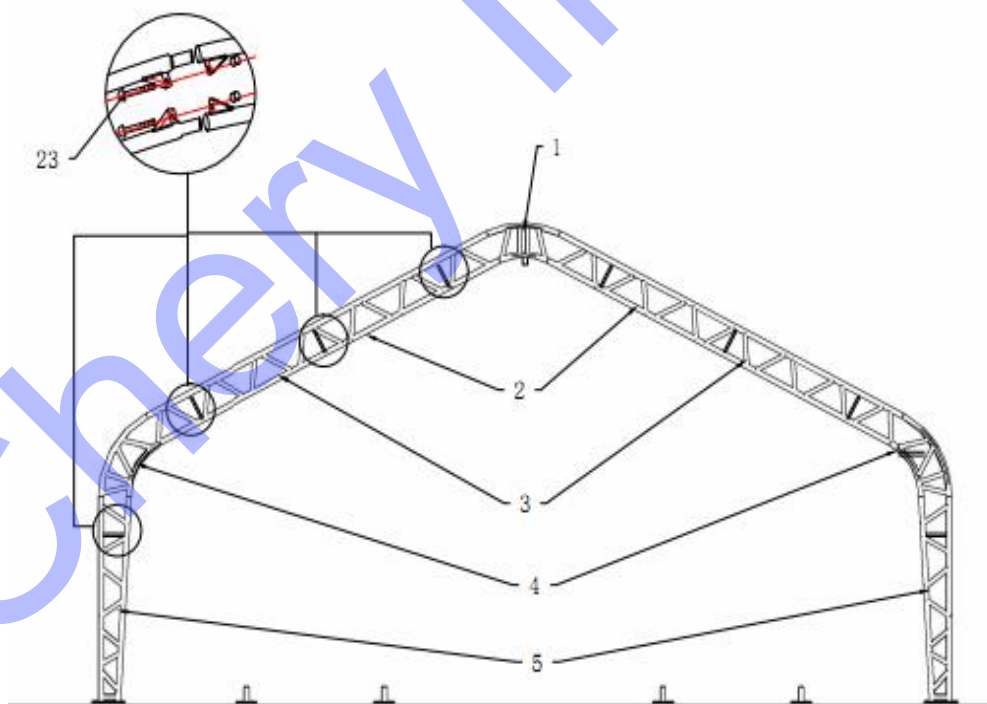
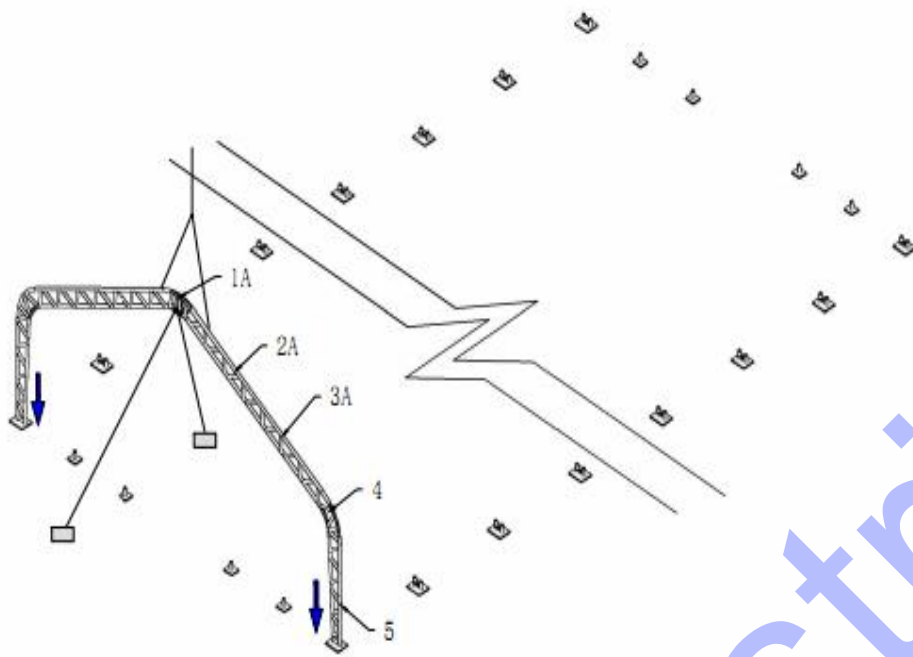
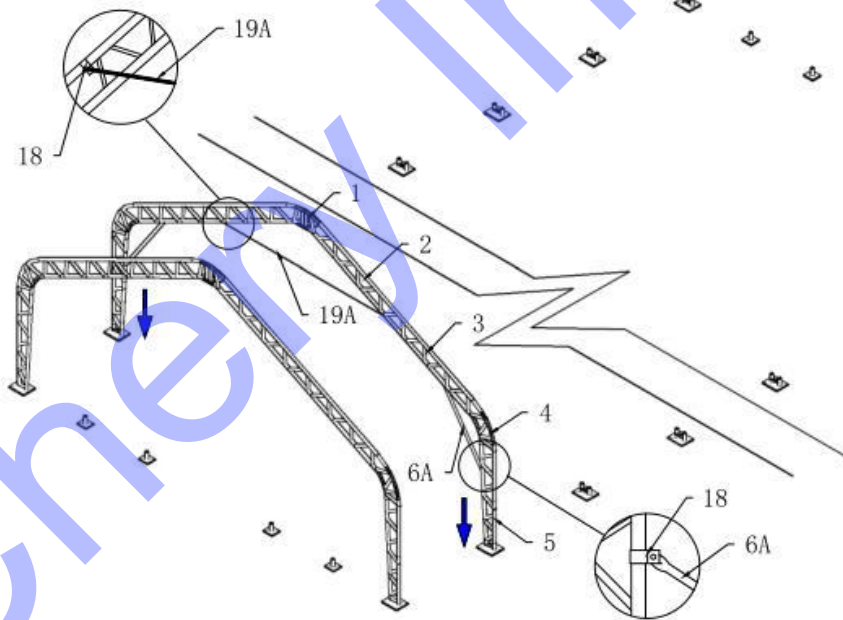


Figure 5

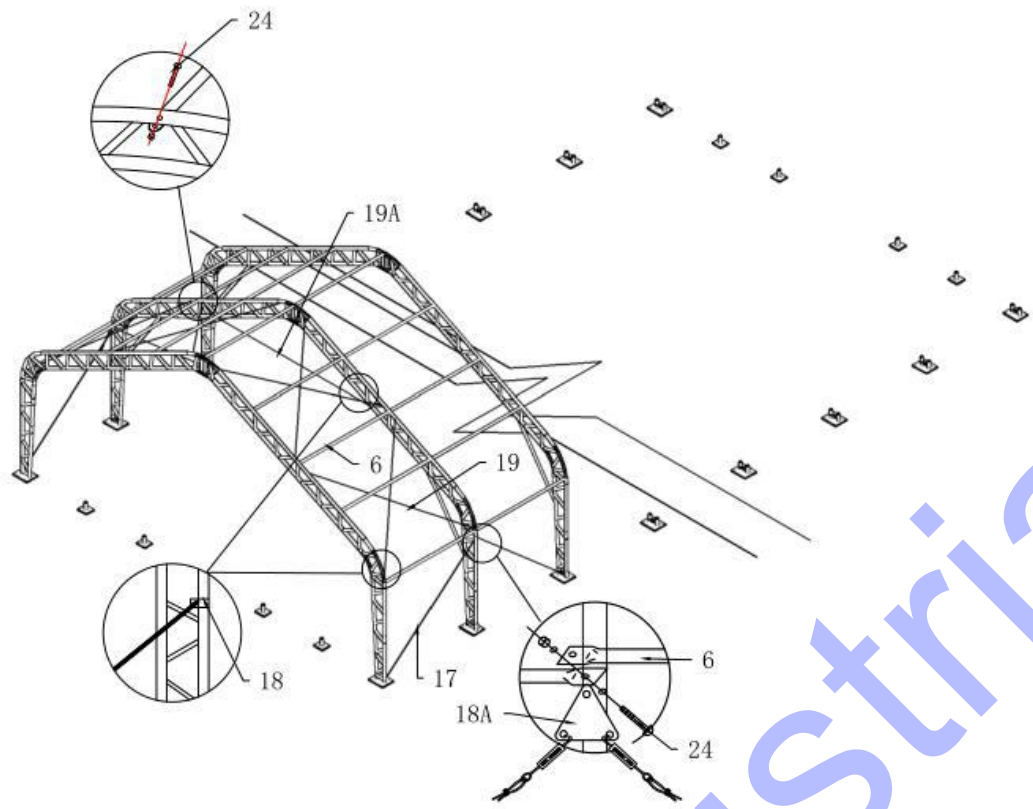


**Figure 6**

3. Connect Shoulder supporting bent tube (No. 6A) to arch by using Clip (No. 18) by turns (see Figure 7), then connect Steel wire on for top vertical (NO. 19A) on top by using Clip (No. 18) (see Figure 7).



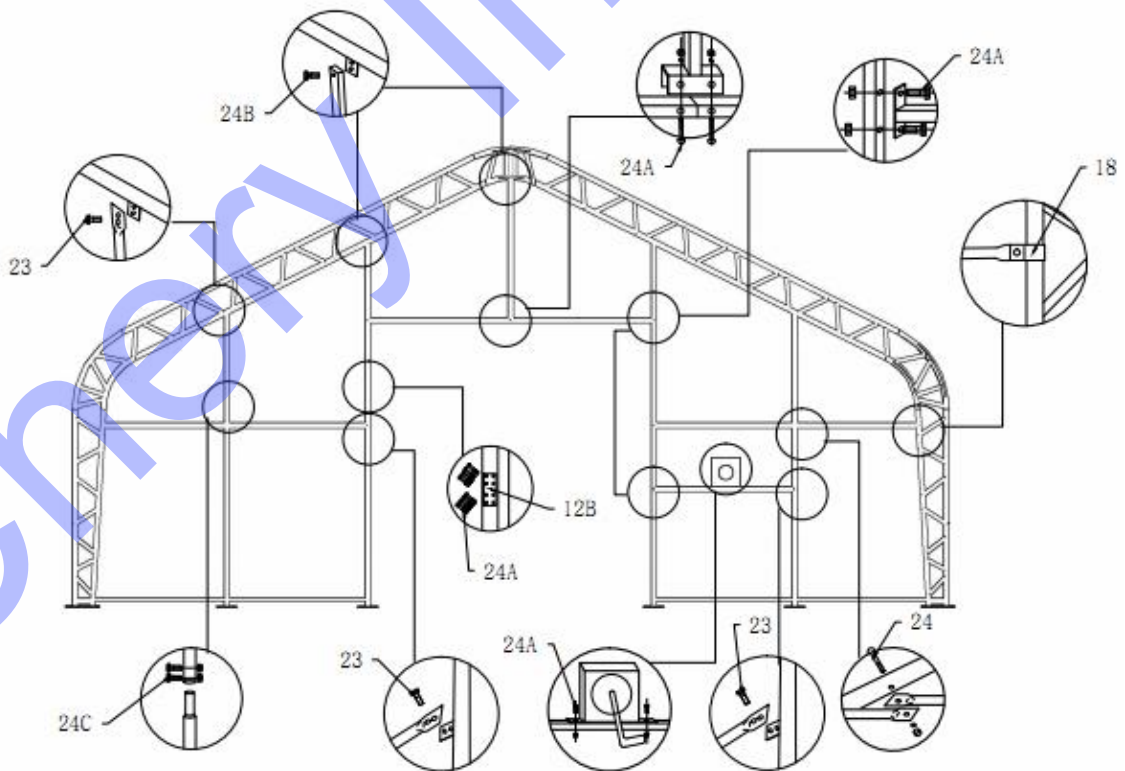
**Figure 7**



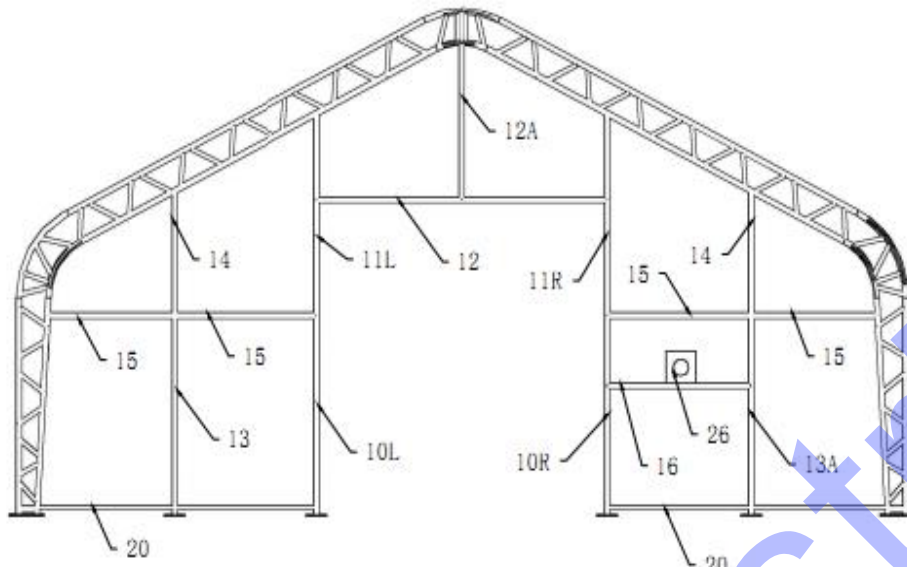
**Figure 8**

4. Connect Purlin (No. 6) to arch by using Bolt M10x80mm (No. 24) by turns (see Figure 8), then connect the Steel wire (NO. 17 and NO. 19) on top and side by using Clip (No. 18) (see Figure 8).

**C--- INSTALLING FRONT AND BACK COVER**

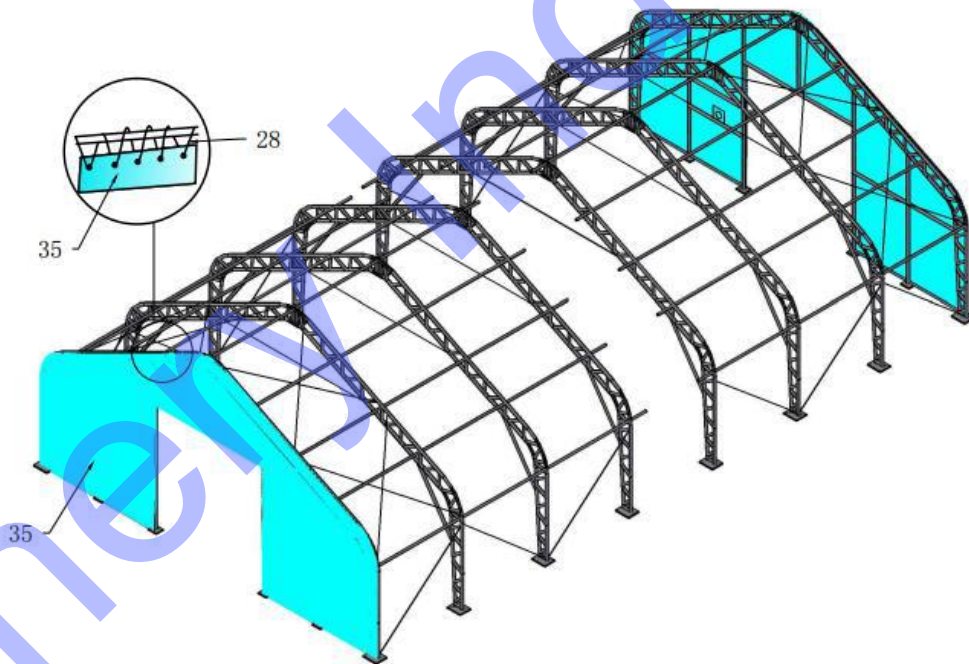


**Figure 9**

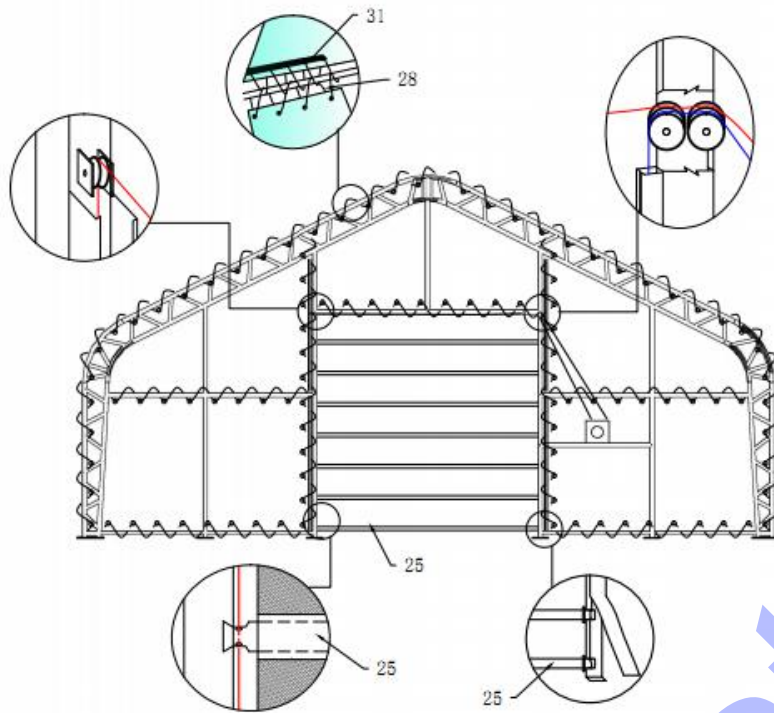


**Figure 10**

1. After Assembly the Arches, please assembly the front and back wall as the picture above show.



**Figure 11 Front and Back Cover**

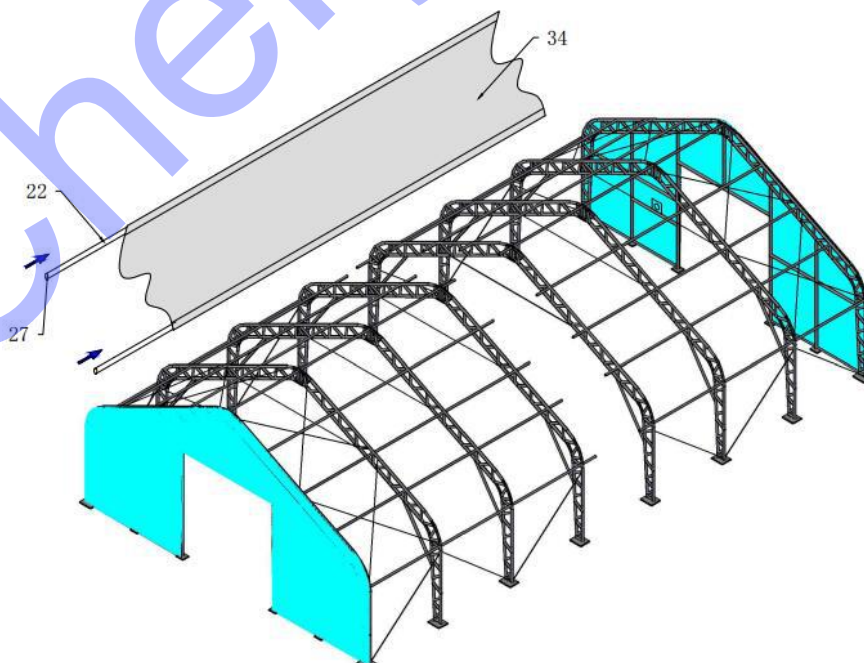


**Figure 12 Front door**

1. Spread the door cover on the ground, and insert the door dropping tube into the horizontal fabric pouch of the door cover.
2. Wrap the steel wire on the winch wheel. Put steel wire through the double pulley to the single pulley. The other end of steel wire through the double pulley directly.
3. Then let the installed steel wire go down through the dropping tube hole separately from top to bottom. Tie a knot in the bottom of door dropping tube, so it cannot pass back .
4. Erecting the whole door cover and fix it well on the frame by using rope.
5. Thus, the door can be open and close by operating the winch wheel.

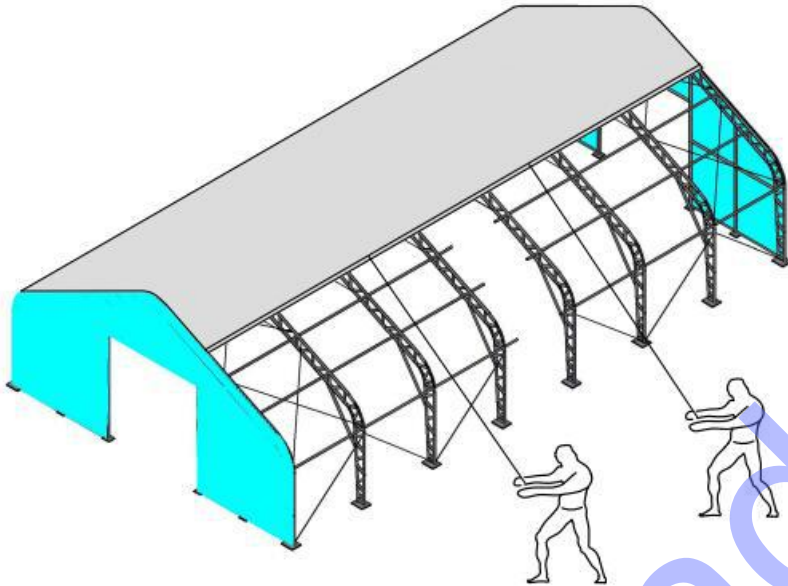
### D--- INSTALLING THE ROOF COVER

NOTE: DO NOT install the cover onto the frame of your building in high wind conditions. A slight breeze is the most advantageous for cover installation. To take advantage of the breeze, pull the cover up over the arches with the breeze blowing in the cover like a sail filled with air.



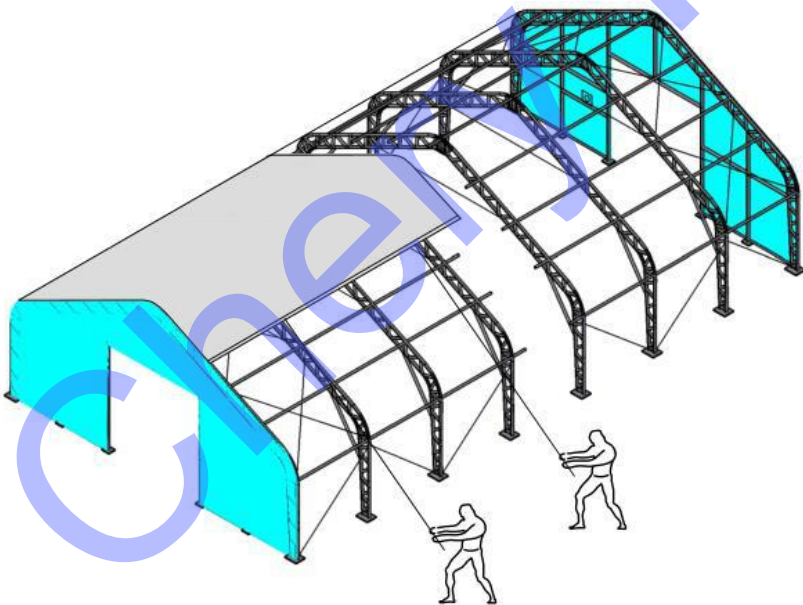
**Figure 13**

1. Spread the cover and lay parallel to one side of the frame.
2. Insert the tensioning tube (No. 22) into one side of roof cover only and cut some pockets which correspond to the position of ratchet. Then place the plastic plug on each end of tubes.
3. Attach the ropes and throw over the frame. Then pull the roof cover **EVENLY, CAREFULLY AND SLOWLY**.  
Then cut several pockets respond to each inner base plate. Secure the Nylon Band (No.30) in the Ratchet (No.7C).
4. Do not forget to insert PVC tube ( No.31) into the front and back ends of roof cover and combine them by rope.  
( If the whole roof cover is made up by several pieces of small cover, please insert PVC tube to two sides of each small cover and combine them by rope.)

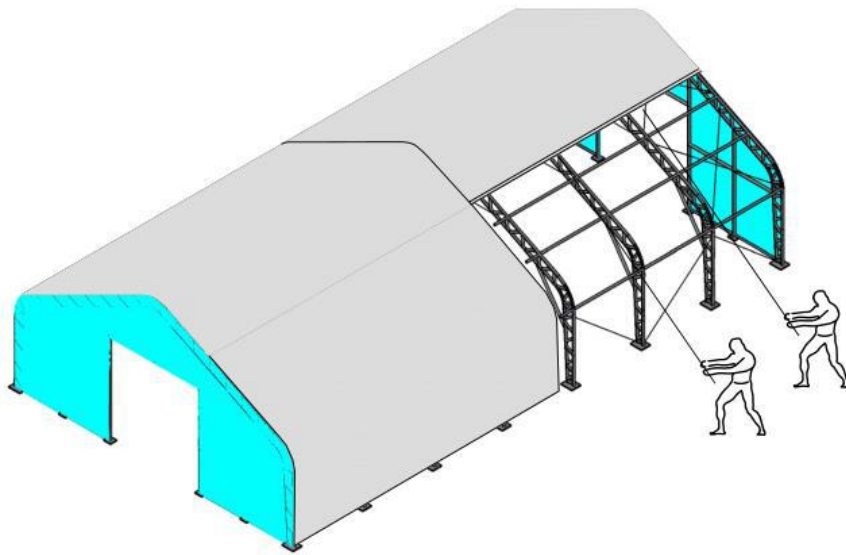


**Figure 14(406021P/407021P/408021P only  
has 1 pcs of roof cover)**

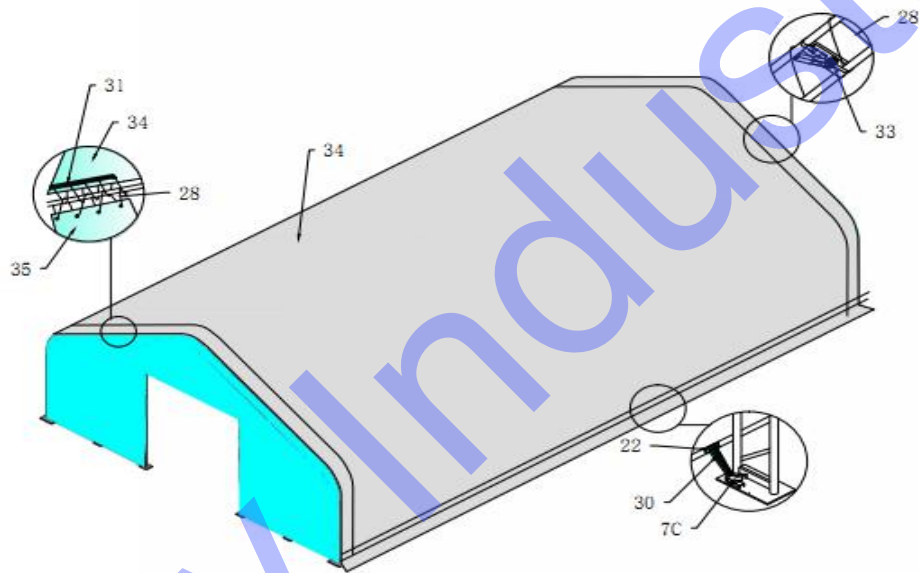
2.As Figure 14 and 15 shown, Pull the Roof Cover over the frame **EVENLY, CAREFULLY AND SLOWLY**.



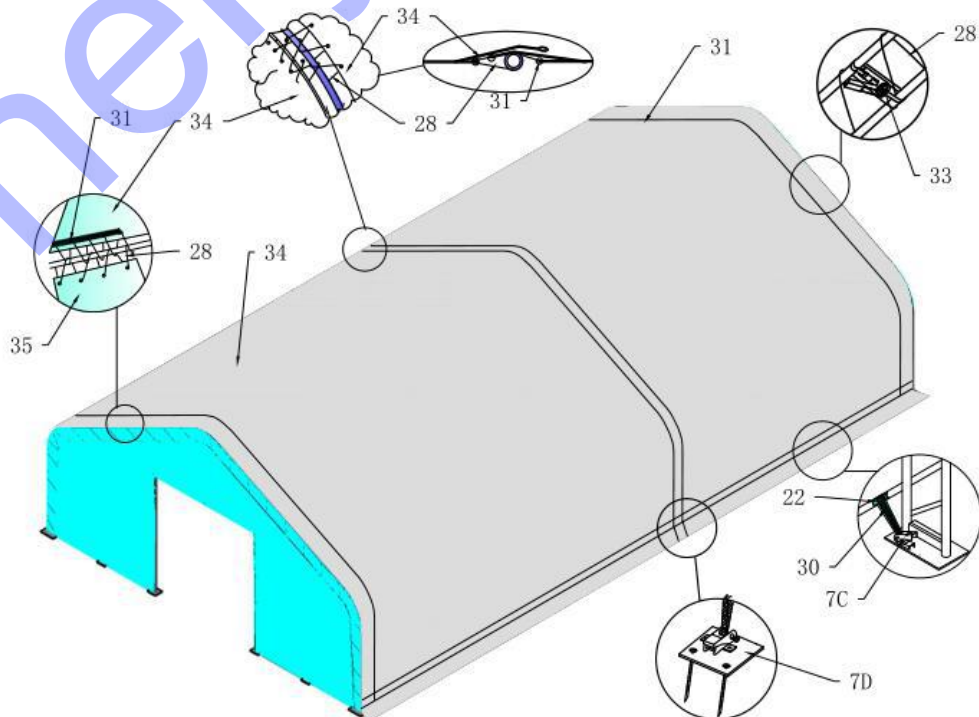
**Figure 15 (4010021P has 2 pcs of roof cover)**



**Figure 16 (4010021P has 2 pcs of roof cover)**



**Figure 17 (406021P/407021P/408021P only has one pcs of roof cover)**



**Figure 18 (4010021P has 2 pcs of roof cover)**

- **DO NOT TIGHTEN.** Adjust the cover so that it is square and evenly centered on the frame. Put on and fix the roof cover together with front cover, as same as the back cover. Insert the Lower Tensioning Tube & PVC tube (part No.31) , fix them by using Rope (part No.28). Finally knit them using rope as the figure 17&18 shown.
- Note: The end flaps must overhang evenly at both ends.

With the end flaps flipped back and out of the way, use the supplied rope to tighten the roof cover to the end arches. The rope should be cut as your requirements when using. The recommended procedure is to use separate pieces of rope and start by first lacing the cover from the bottom edges up to the top center. Secure the ropes at the top center and tent apply tension as you lace down both sides. Fasten the rope at the bottom edge. Put the Band (No.30) onto the tubes where the notches are. Pull the Nylon Band through the reels of winches. Drive the Ratchet Tie Down forth and back, and then the roof cover is tightened.

NOW THE INSTALLATION IS FINISHED.

Please check the below installation detailed pictures:



(A)



(B)



(C)



(D)



(E)



(F)

**NOTE: DO NOT LEAVE THE ROOF COVER UNATTACHED UNDER ANY CIRCUMSTANCES until the final assembly and tightening has been completed. The process is quite easy. But some tightening adjustments will be necessary to produce a flat, tension ed roof cover. Please adjust the roof cover every month.**

**Please Note:**



**Please use the tape wrapped around the gap between the steel skeleton after installing.**