

# SHELTER

## ASSEMBLY MANUAL

**Model-304020DR-M**

**L12.2 x W9.15x H6.1m**

With 3.05m arch distance



## **SPECIFICATION**

Width: 9.15m      Length: 12.2m      Height: 6.1m

Door dimension: W4.43m x H3.97m

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

Improper site preparation, Assembly and Maintenance may invalidate warranty and cause unnecessary and costly mistake. 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 off by itself.








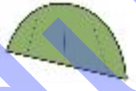










## **READ ALL INSTRUCTIONS BEFORE ASSEMBLY**

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.
3. Don't over reach. Keep proper footing and balance at all times.
4. Do not assemble in under the influence of alcohol or drugs. Read warning labels on prescriptions 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 bases in concrete if these conditions are likely to 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.

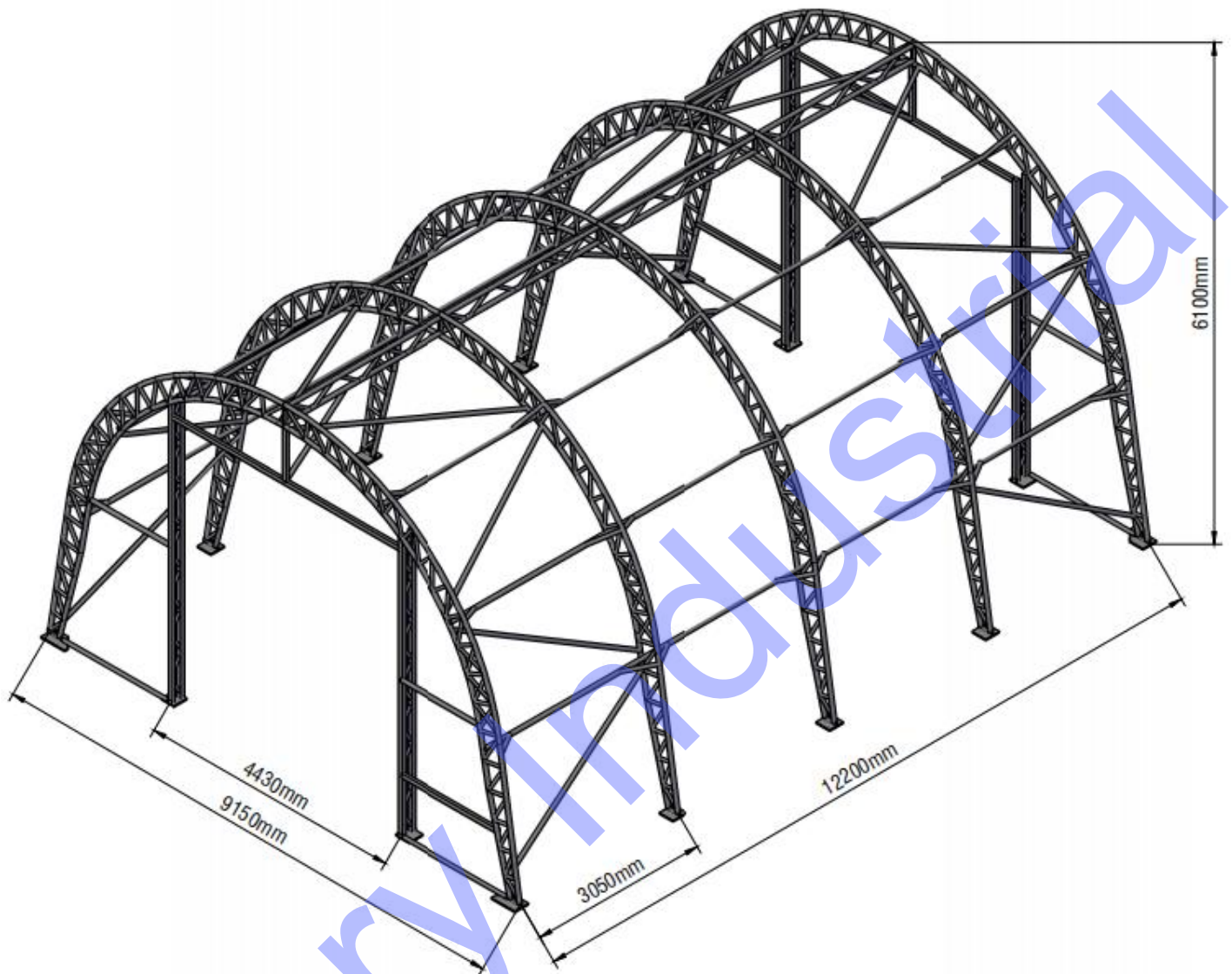
## PART LIST

Part Code	Description		Q'ty
1	Top roof tube		3
1A	Top roof tube in the front and back door		2
2	Roof curving tube		6
2A	Roof curving tube in the front and back door		4
3	Roof curving tube at shoulder height		10
4	Lower tube		6
4A	Lower curving tube at left for front and back door		2
4B	Lower curving tube at right for front and back door		2
5	Supporting Webbing between the arch		30
5A	48 Clamping Piece		120
6	Double Trussed Purlin		4
7	Purlin		24
8	Diagonal Support Tube For purlin		48
9	Diagonal Support Female Tube		16

9A	Diagonal Support Male Tube		16
10	Clips $\phi 48$		82
11	Tension Female Tube For Roof Cover		8
11A	Tension Male Tube For Roof Cover		2
12L	Left Corner Base Plate		2
12R	Right Corner Base Plate		2
12	Middle Base Plate		6
12A	Laminated base plate		4
13	Stake Peg		56
14	Base plate for mechanical door		4
15L	Lower door track for mechanical door at left		2
15R	Lower door track for mechanical door at right		2
16L	Upper door track for mechanical door at left		2
16R	Upper door track for mechanical door at right		2
16	Door side tube		4
17	Channel steel connection		8
18	Door beam on mechanical door		4
19	Vertical support tube for machanical door beam		2

19A	Diagonal Support Tube for door beam		2
20	Horizontal tube beside the front and back door		4
21	Mechanical wheel square tube		2
22	Tensioning tube for front and back door		4
23	Tubes for doors		14 groups
24	32 PPR tube		12 pcs
25	25 PPR tube		38 pcs
26	Front and back door cover		2
27	Roof Cover		1
28	PVC Protective Cover		30
U1	Rope		60m
U2	Small ratchet with band		180
U6	Weighted ratchet		9pairs/ 18 pcs
U10	Wide tension band		10
U12	Slack ball		4
U15	38 Round plug		8
U18	60 Round plug		4
U27	Mechanical wheel with wire rope		2

S7	Carriage bolt 8*60mm		32
S15	hexagon bolt 10*90mm		20
S16	hexagon bolt 10*60mm		8
S17	hexagon bolt 10*50mm		82
S18	hexagon bolt 10*30mm		172
S19	hexagon bolt 12*40mm		20
S25	plain washer M10		164
S29	flange nut M8		272
S30	flange nut M10		200
S31	flange nut M12		20
S35	hexagon nut M10		82
S41	self-tapping screw M5.5*25		128
S47	Carriage bolt 8*70mm		250



Frame

### 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                |          |



## Foundation placement

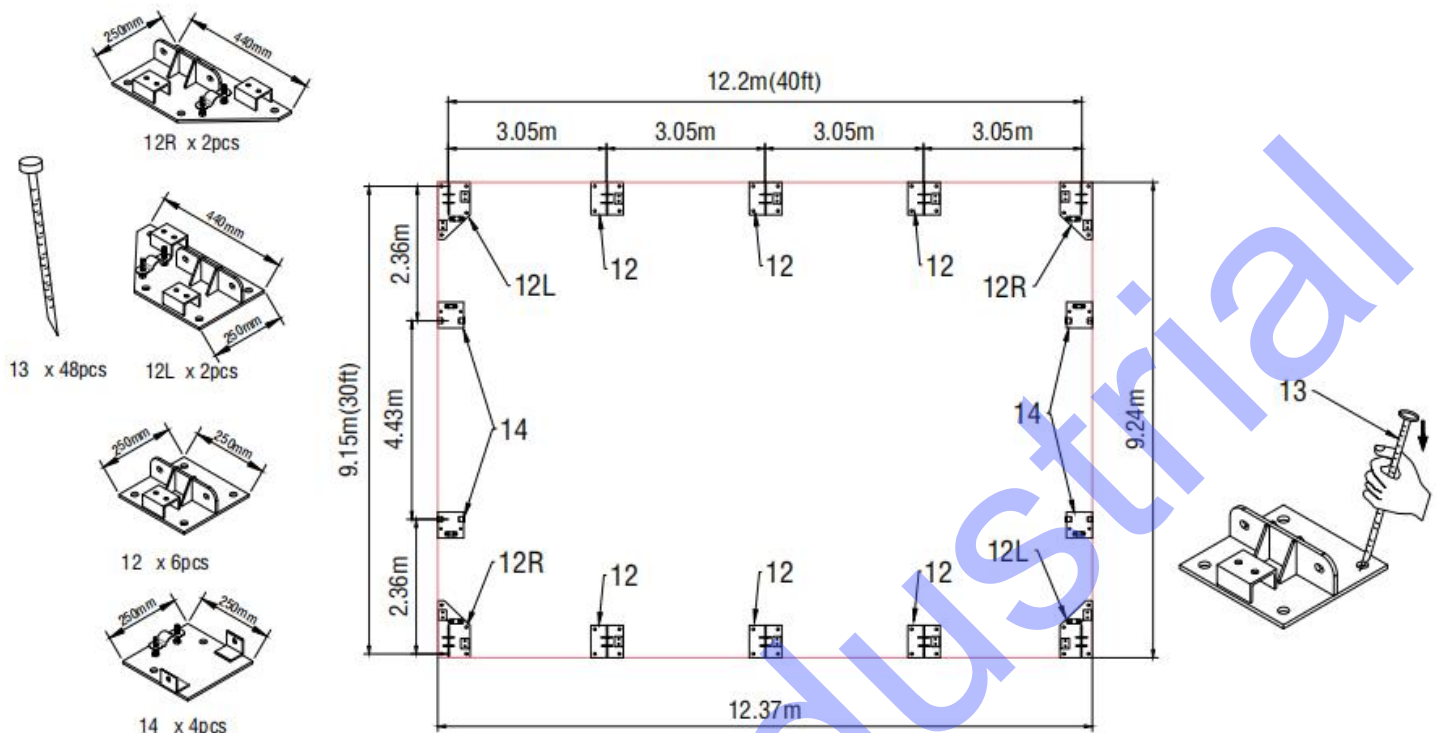


Figure 1

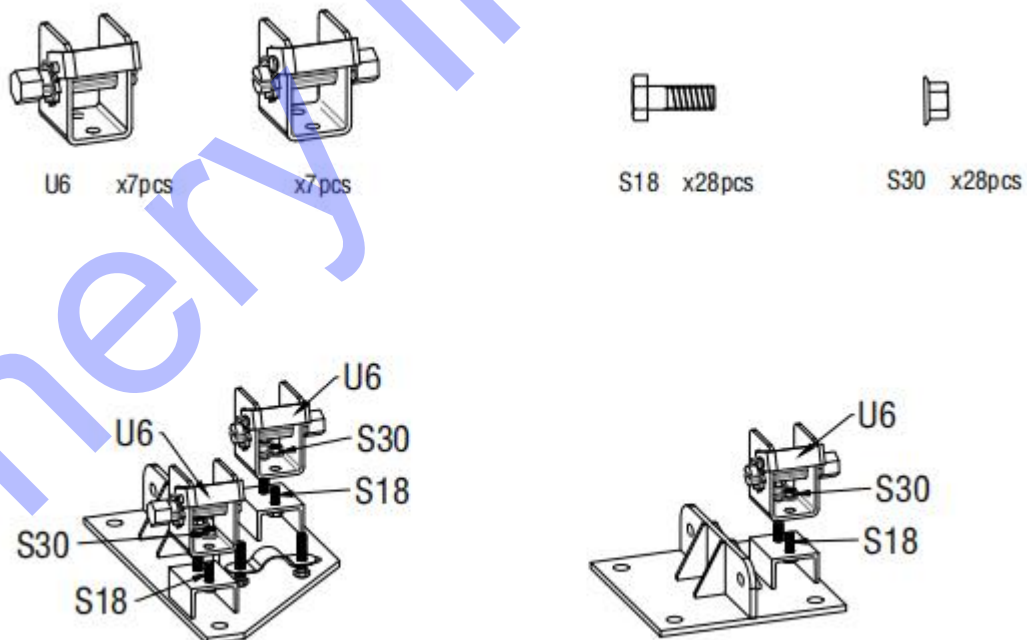


Figure 2

1. The measurement is from center to center of tubes on the base plates. Referring to the above diagram and confirm the place of base plates. There are holes on the plates for stake pegs.
2. Please refer to the diagram (Figure 1) to place the base plates.
3. As Figure 1 shows each Base plate is equipped with 4 pieces of Stake pegs.(No.13) or Expand



screw

4. Mark the stake peg hold through the base plate by using the stake peg. Move the base plates away and the mark determines where the stake peg will be.

**Note:** The stake peg apply for normal conditions, not suitable to the rock ground,frozen soil and concrete ground.

The Expand screw apply for hard surface of the ground, customer may choose Stake peg or Expand screw according to your need.

## A—FRAME INSTALLATION

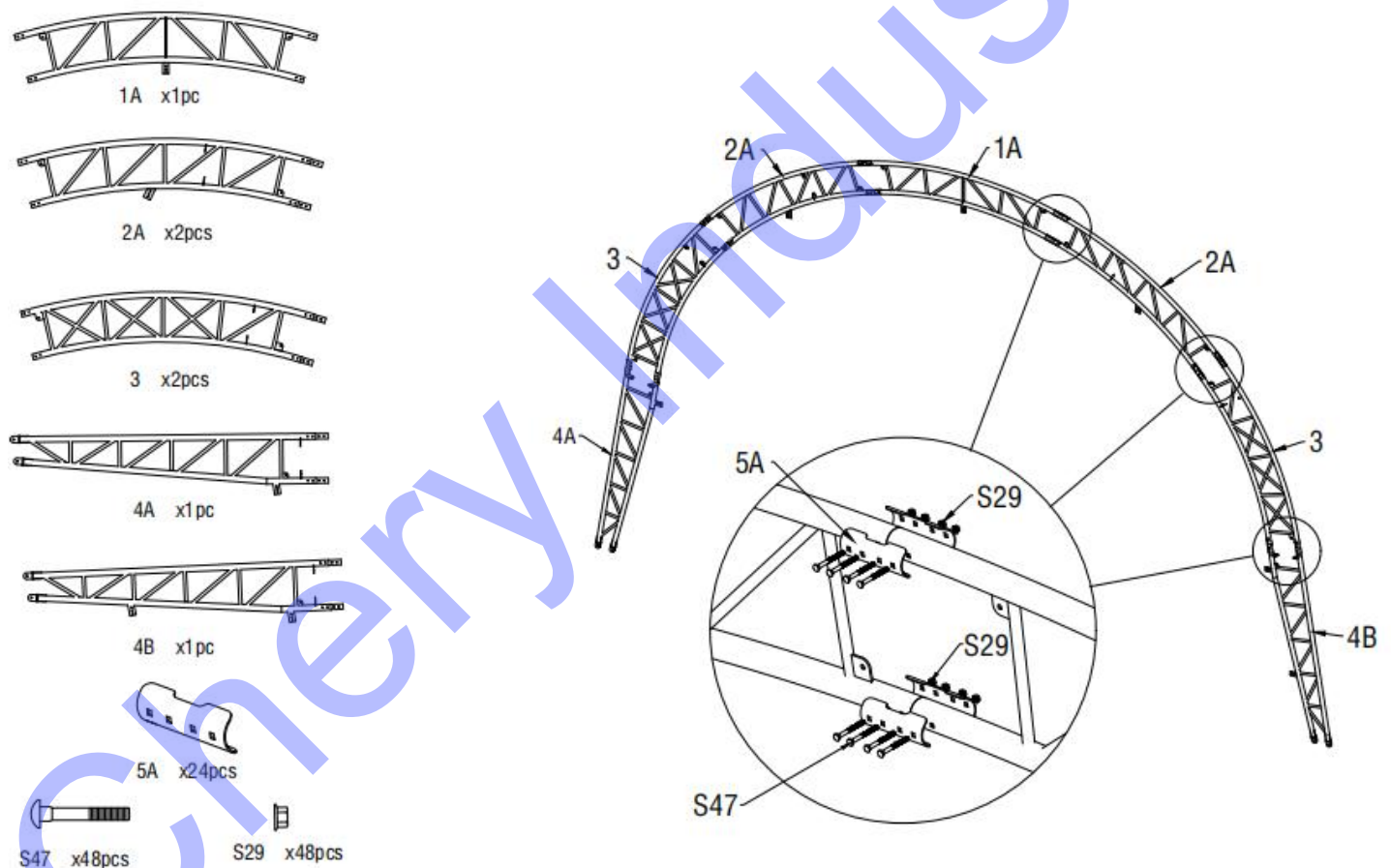


Figure 3

1. As Figure 3 shown to find one Top roof tube in the front and back door (No.1A), two Roof upper curving tube in the front and back door(No. 2A), two Roof middle curving tube in the front and back door (No. 3) ,two Lower curving tube in front and back door(4A) and assemble the first and final group arch with Carriage bolt M8x70 (No.S47). **DO NOT install the screw on the top of the truss where the fabric will rest.**

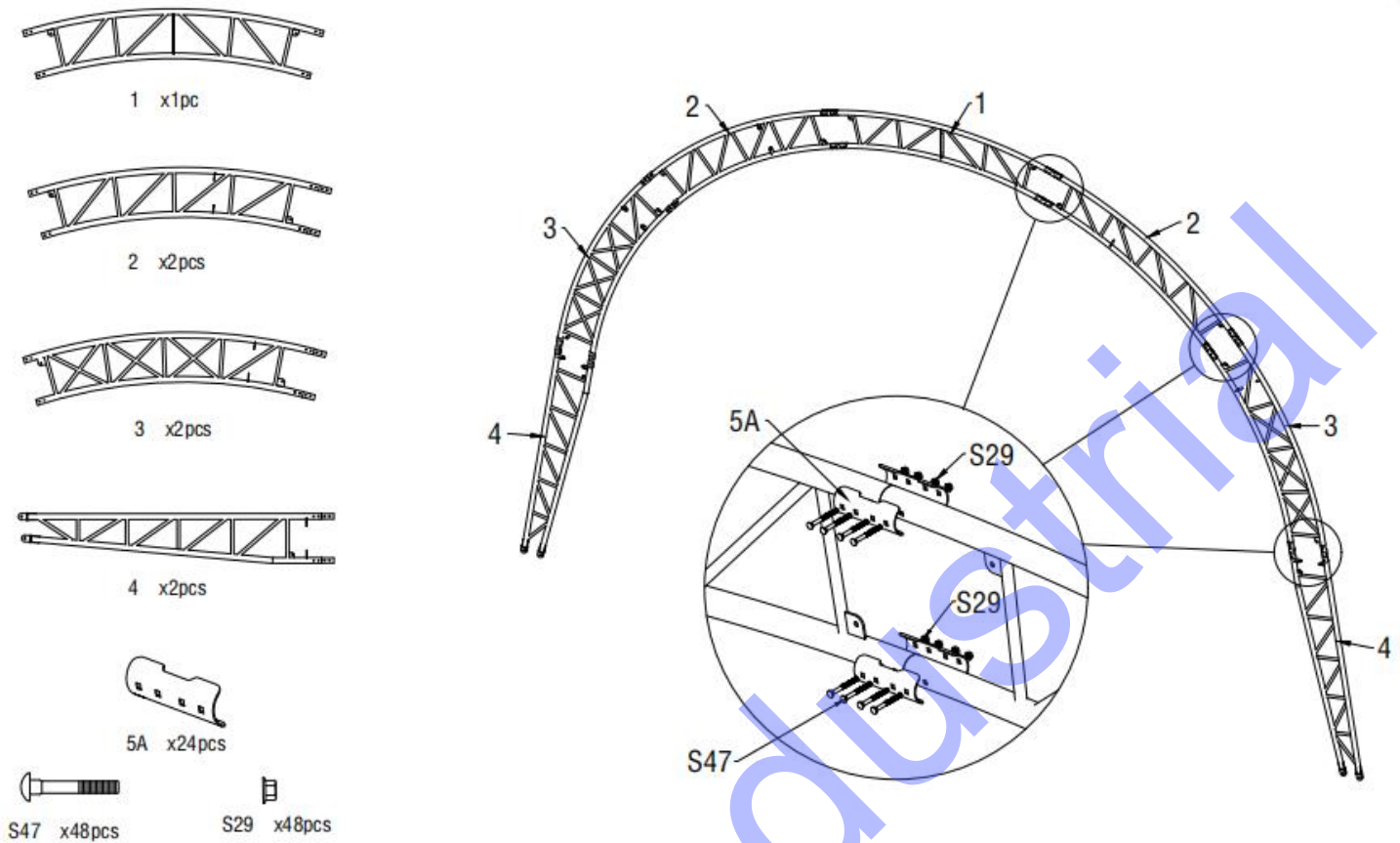


Figure 4

2. As Figure 4 shown to find one Top roof tube (No.1), two Roof upper curving tube (No. 2), two Roof middle curving tube at shoulder (No. 3), two Lower curving tube (4) and assemble every group arch with Carriage bolt M8x70 (No.S47). **DO NOT install the screw on the top of the truss where the fabric will rest.**

**Note:** Top Roof tube, Roof curving tube and Lower curving tube (No.1A,2A,3&4A) which are welded with steel plates for front and back doors are different from the middle arch.(Figure 4)

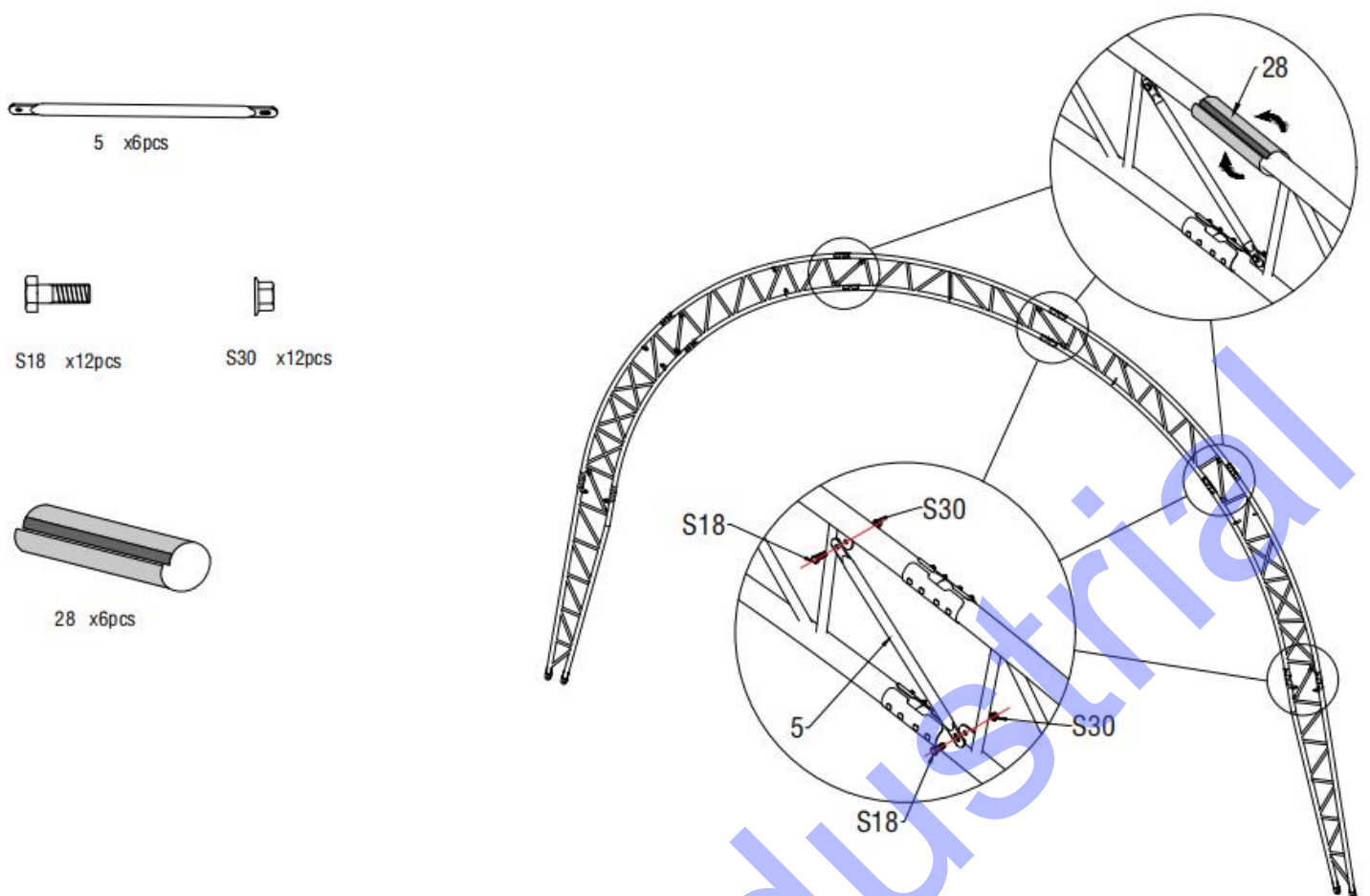


Figure 5

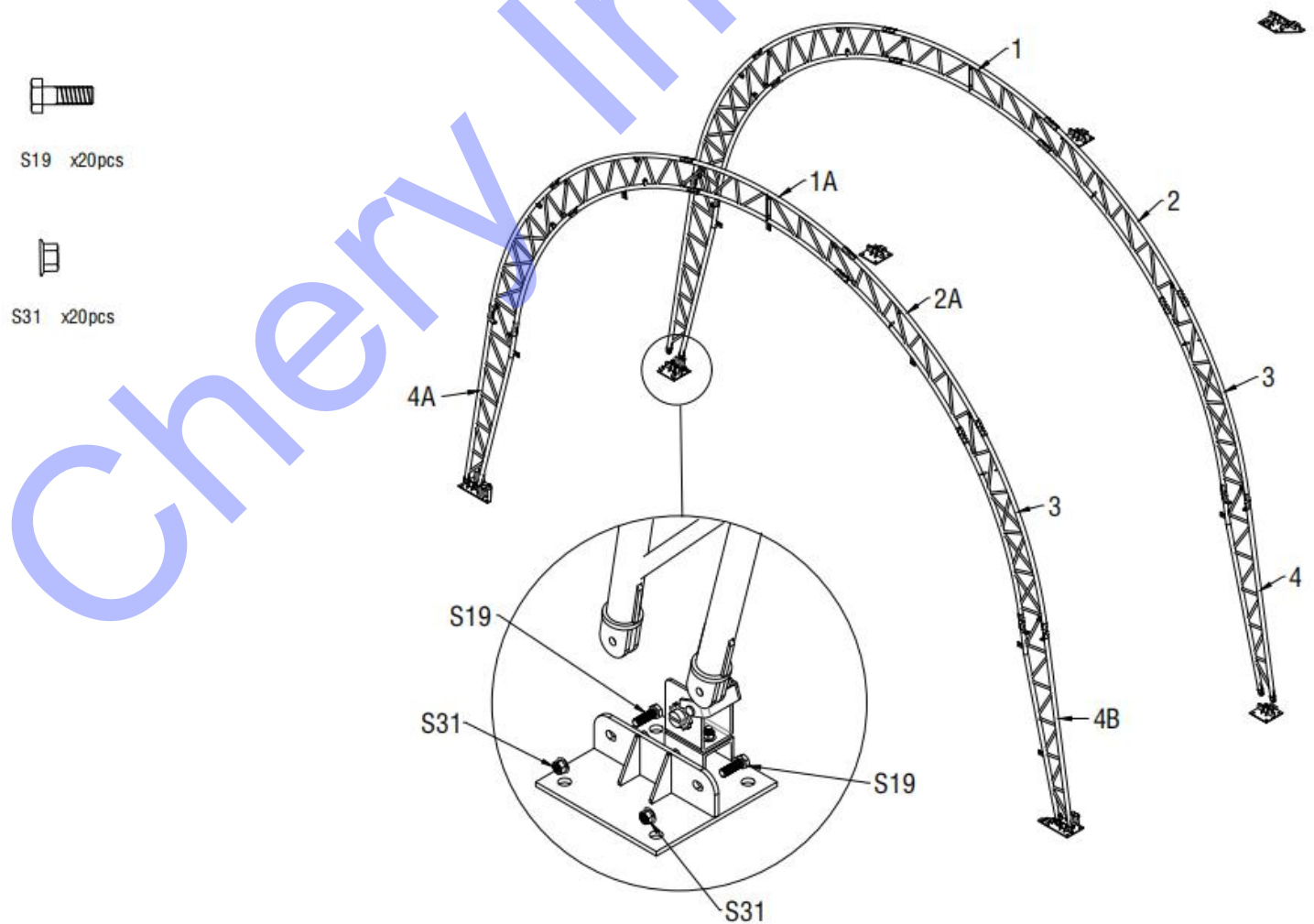


Figure 6

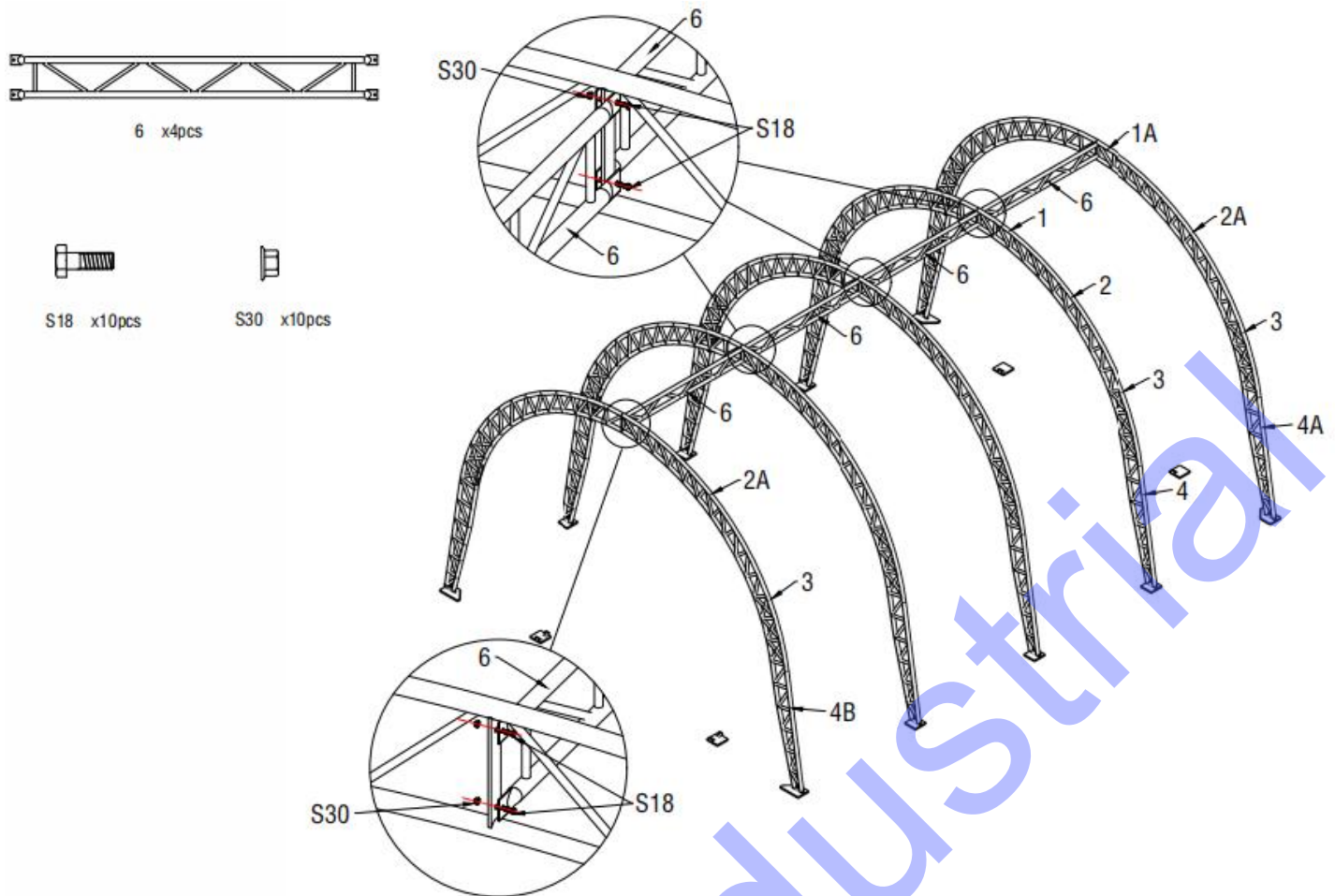


Figure 7

3. As figure 5 shown, use the Supporting Webbing between the arch(No.5) to connect the Top roof tube (No.1) with hexagon bolt 10\*30mm (No. S18). Then put the PVC protective cover on the outer of connection of the arch to protect the roof cover from scratched by the outer joint. Assemble the rest of the other group double truss arch like this.
4. Above Figure 7 shown when finish installing all the arches into the base plates, use Double Trussed Purlins (No.6) to connect them by Screw M10x30 (No.S18) . Then use Purlins(No.7) to connect the arches by Screw M10X30 (No.S18). In this turn, fix all other purlins. Finished stretch frame as below(Figure 8)



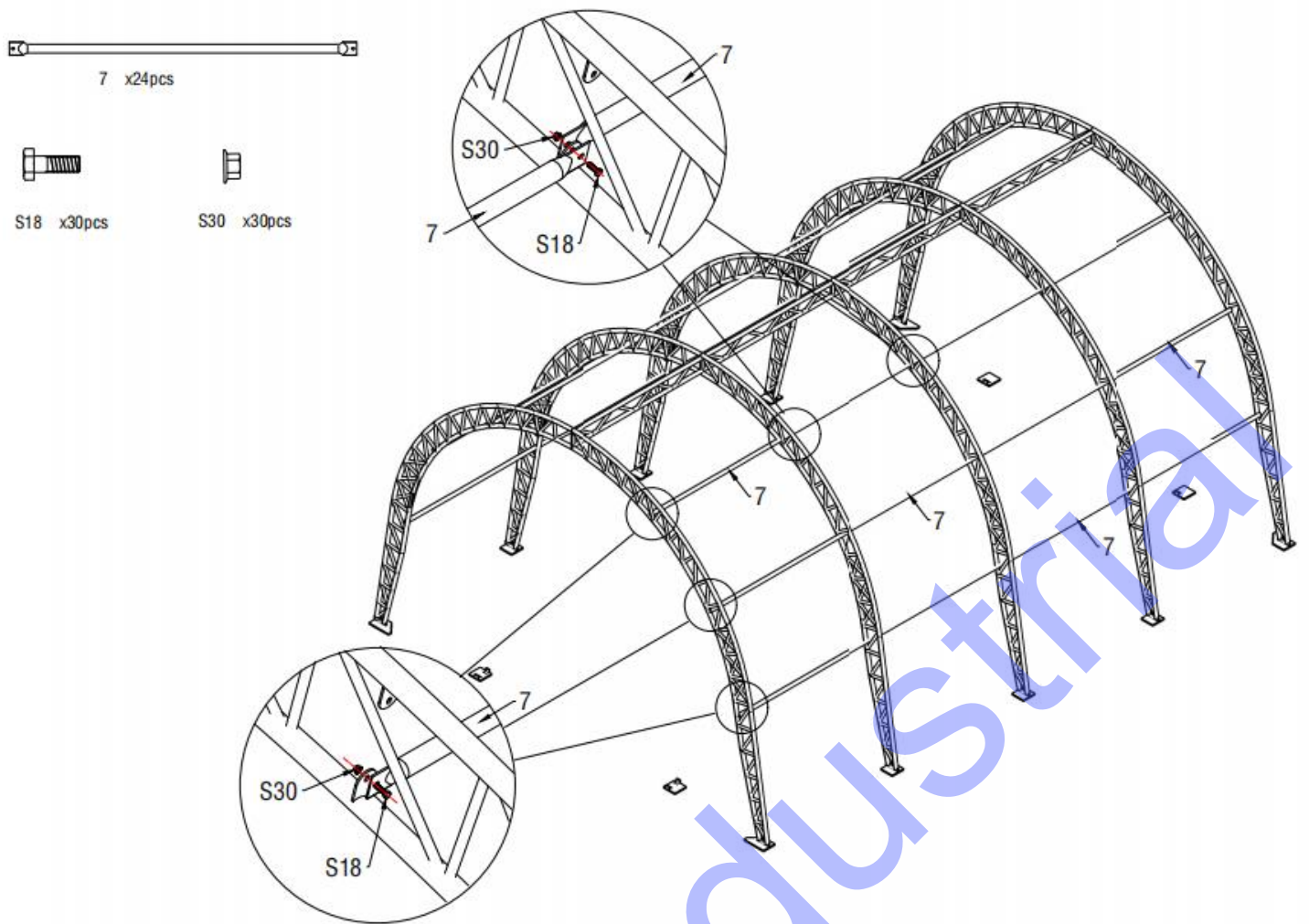


Figure 8

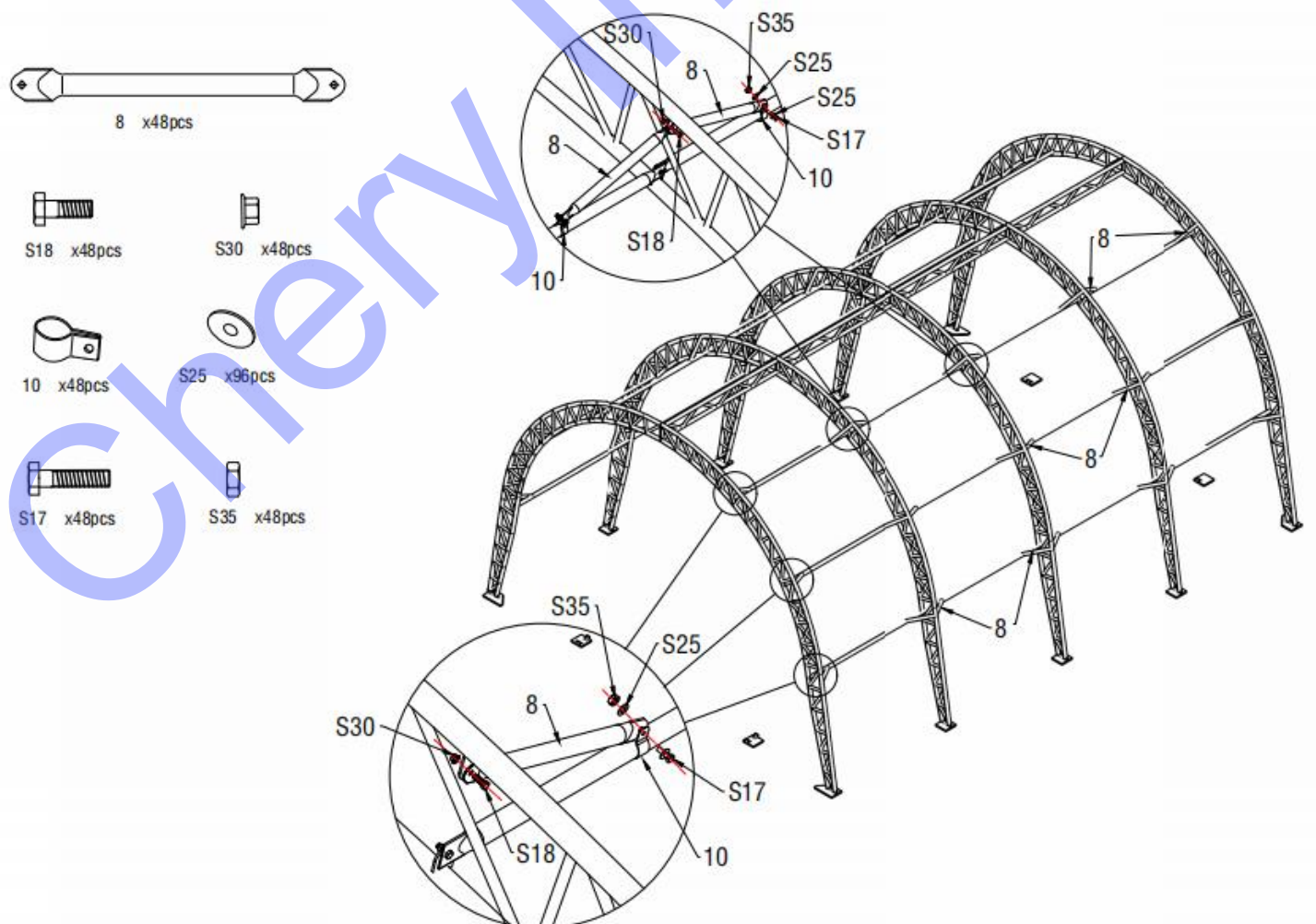


Figure 9

5. Fix clips(No.10) on purlins(No.7) and install the Diagonal Support Tube For purlin (No.8) on clips as figure 9 shows. Please connect the Diagonal Support Tube For purlin (No.8) between arch frame and purlin (No.7) by using Screw M10x30(No.S18) and Screw M10x50(No.S17) with plain washer M10(No.S25).

Note: Before install the Diagonal Support Tube For purlin, please install the clip first.

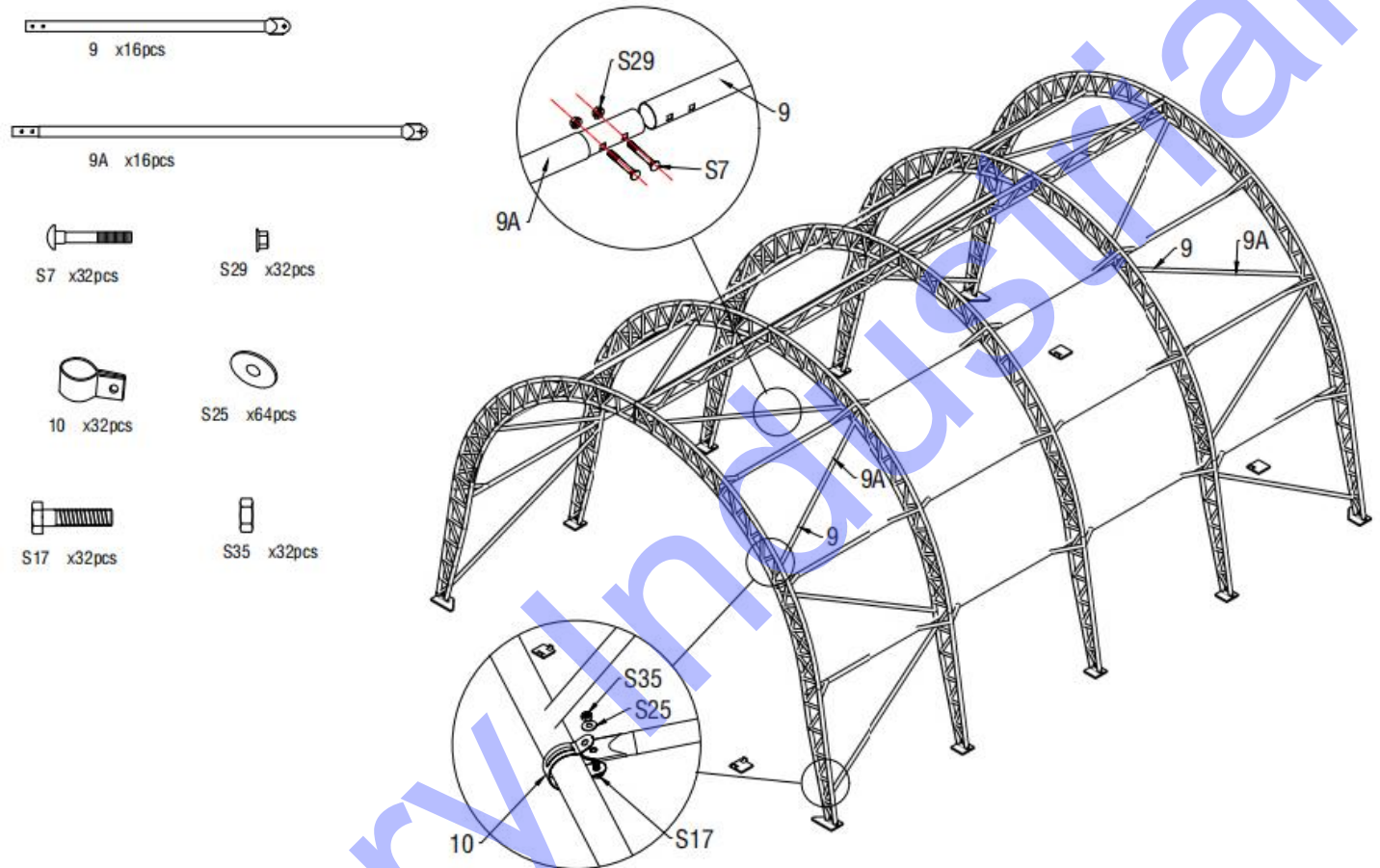


Figure 10

6. As figure 10 shown to find Diagonal Support Female Tube(No.9) and Diagonal Support Male Tube(No.9A) and assemble every group support tube with Carriage bolt M8x60(No.S7) and flange nut M8(No.S29). Then connect the diagonal support tube to arch by using clip(No.10).

Note: Before install the arch, please install the clip first.

## B-DOOR INSTALLATION

### B1 Door frame installation

1. Find the relative components and assemble the front and back door accordingly(Figure 11, 12,13)

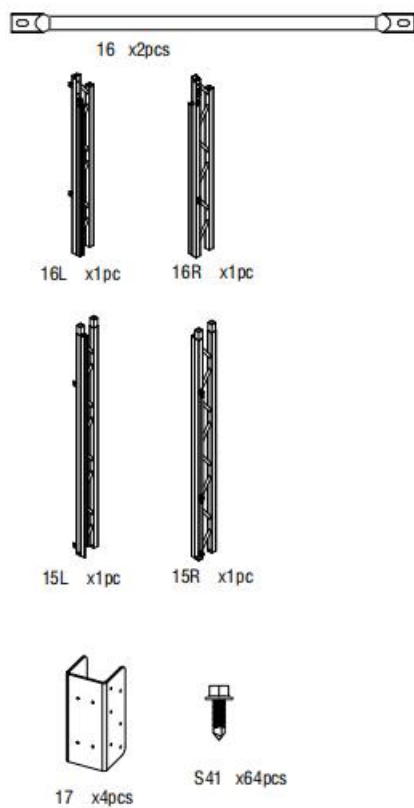


Figure 11

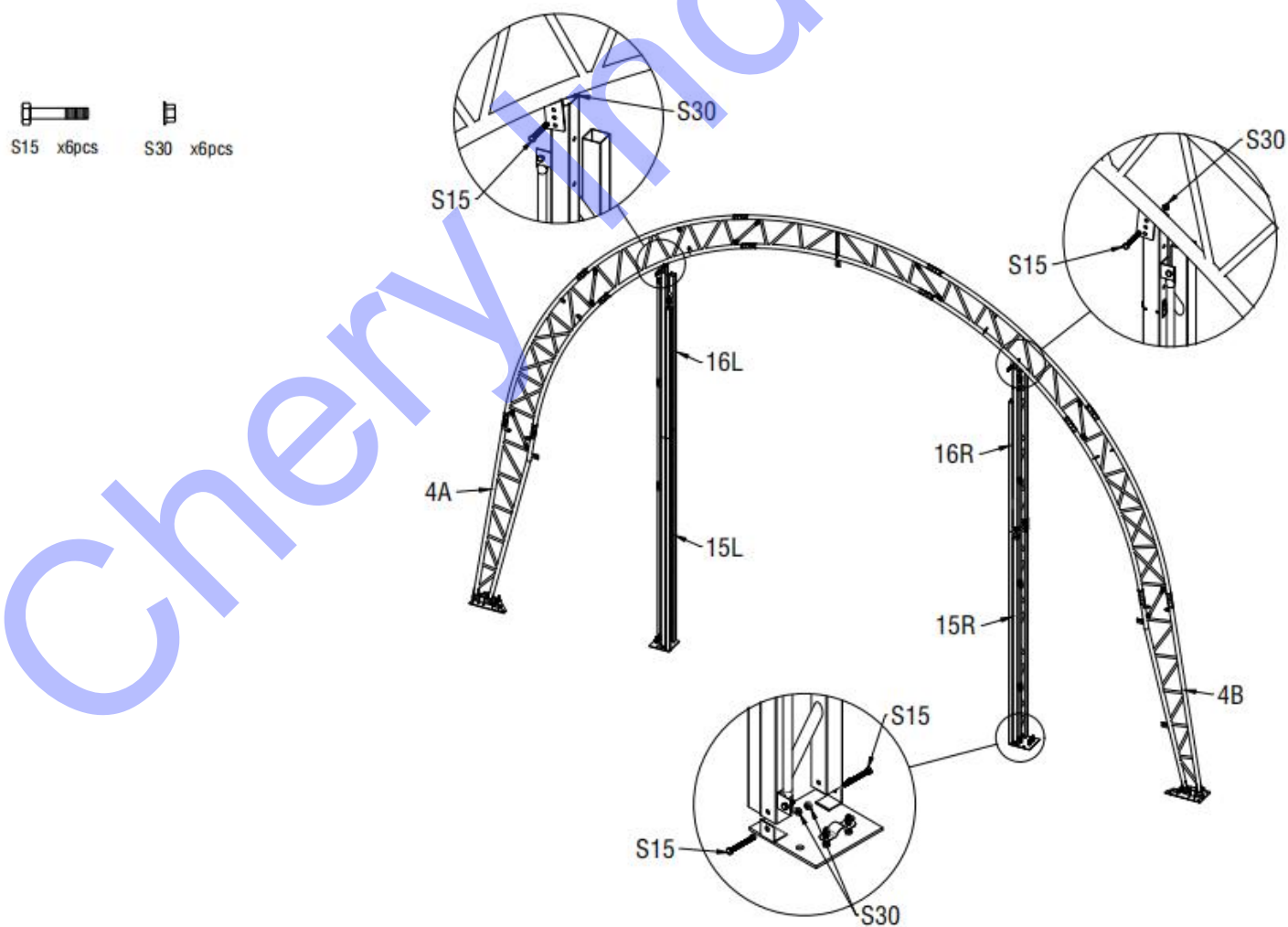


Figure 12



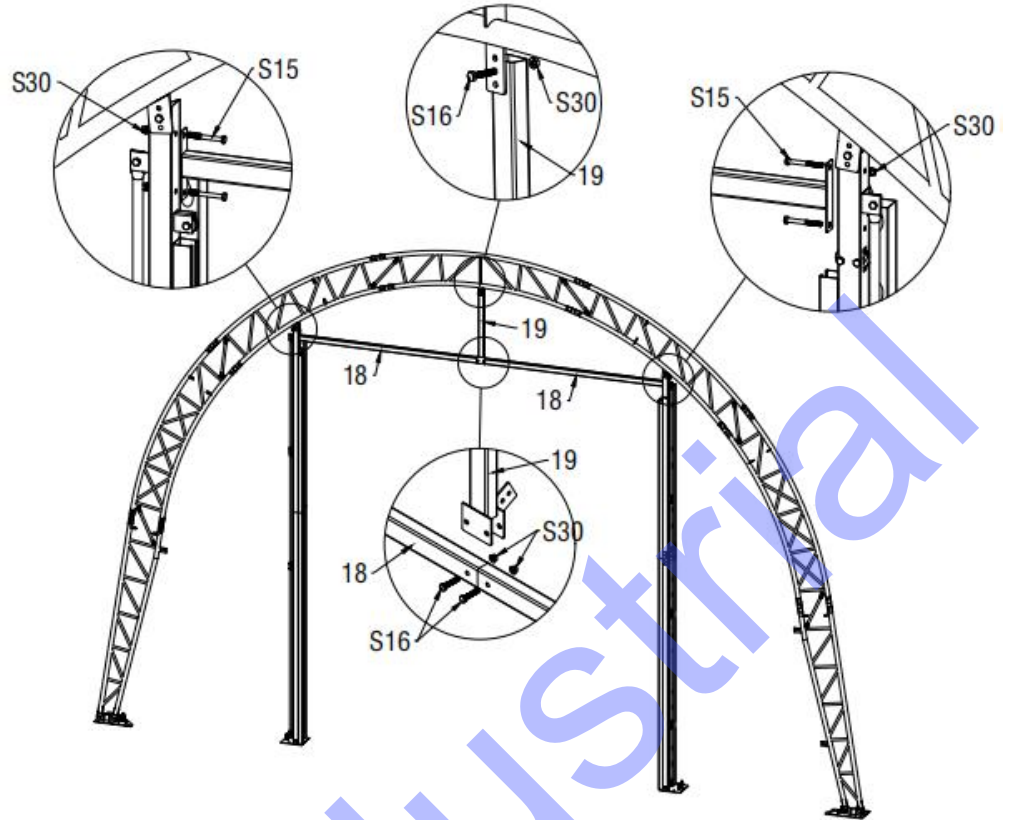
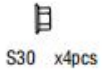
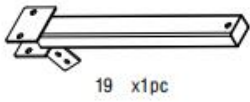
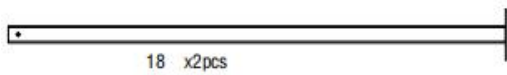


Figure 13

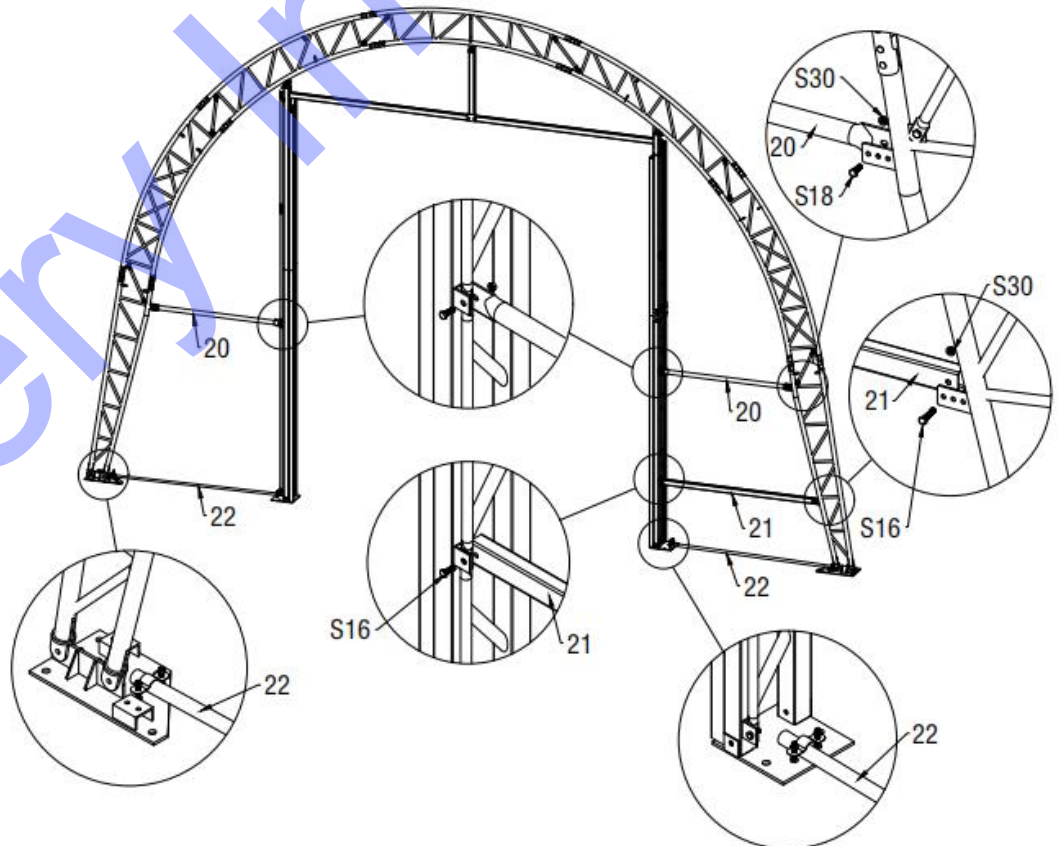
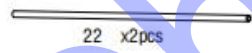
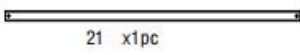
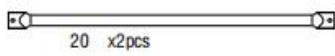


Figure 14

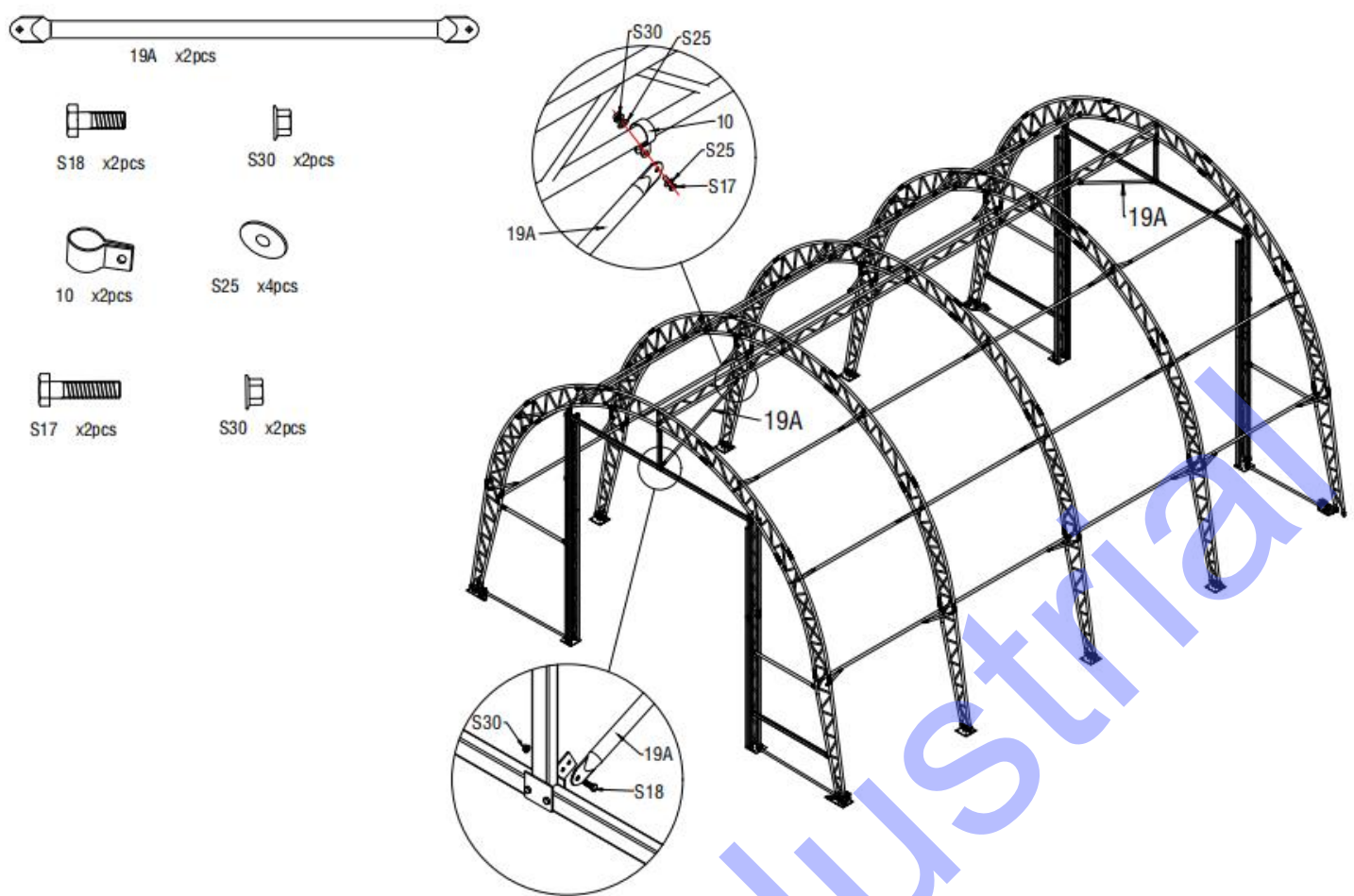


Figure 15

2. Fix clips (No. 10) on Double Trussed Purlins (No. 6) and install the Diagonal Support Tube For door beam (No. 19A) on clips as figure 15 shows. Please connect the Diagonal Support Tube For door beam (No. 19A) between door frame and Double Trussed Purlins (No. 6) by using Screw M10x30 (No. S18) and Screw M10x50 (No. S17) with plain washer M10 (No. 25).

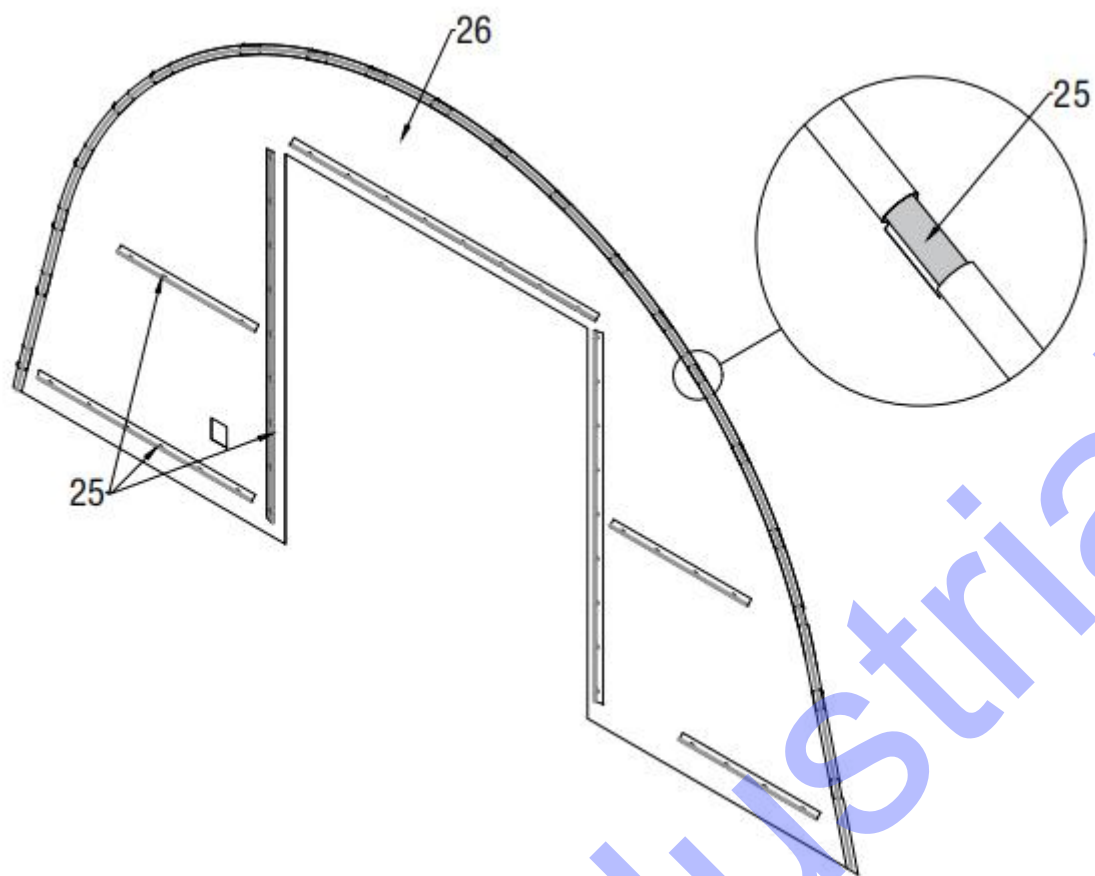


Figure 16

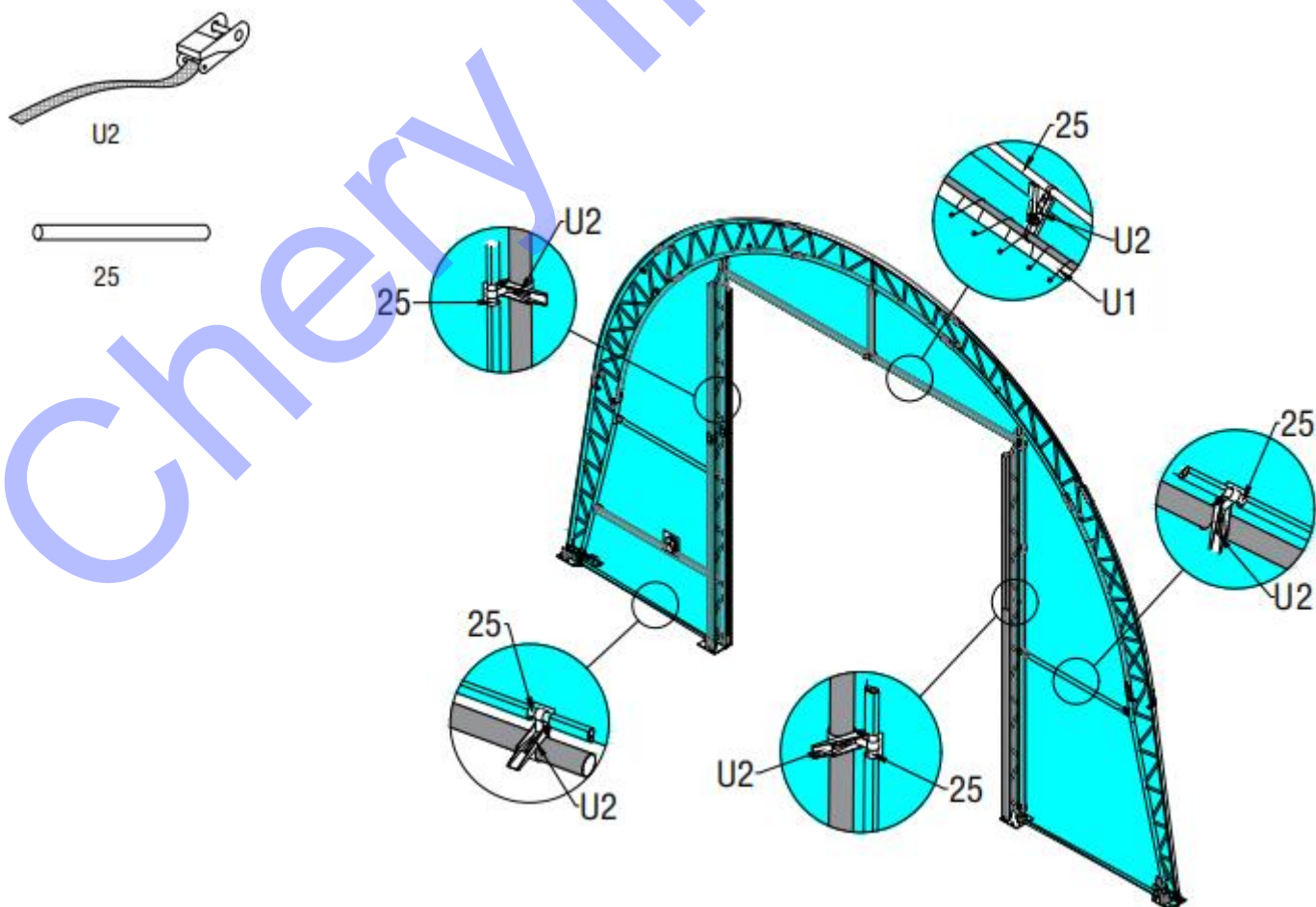


Figure 17

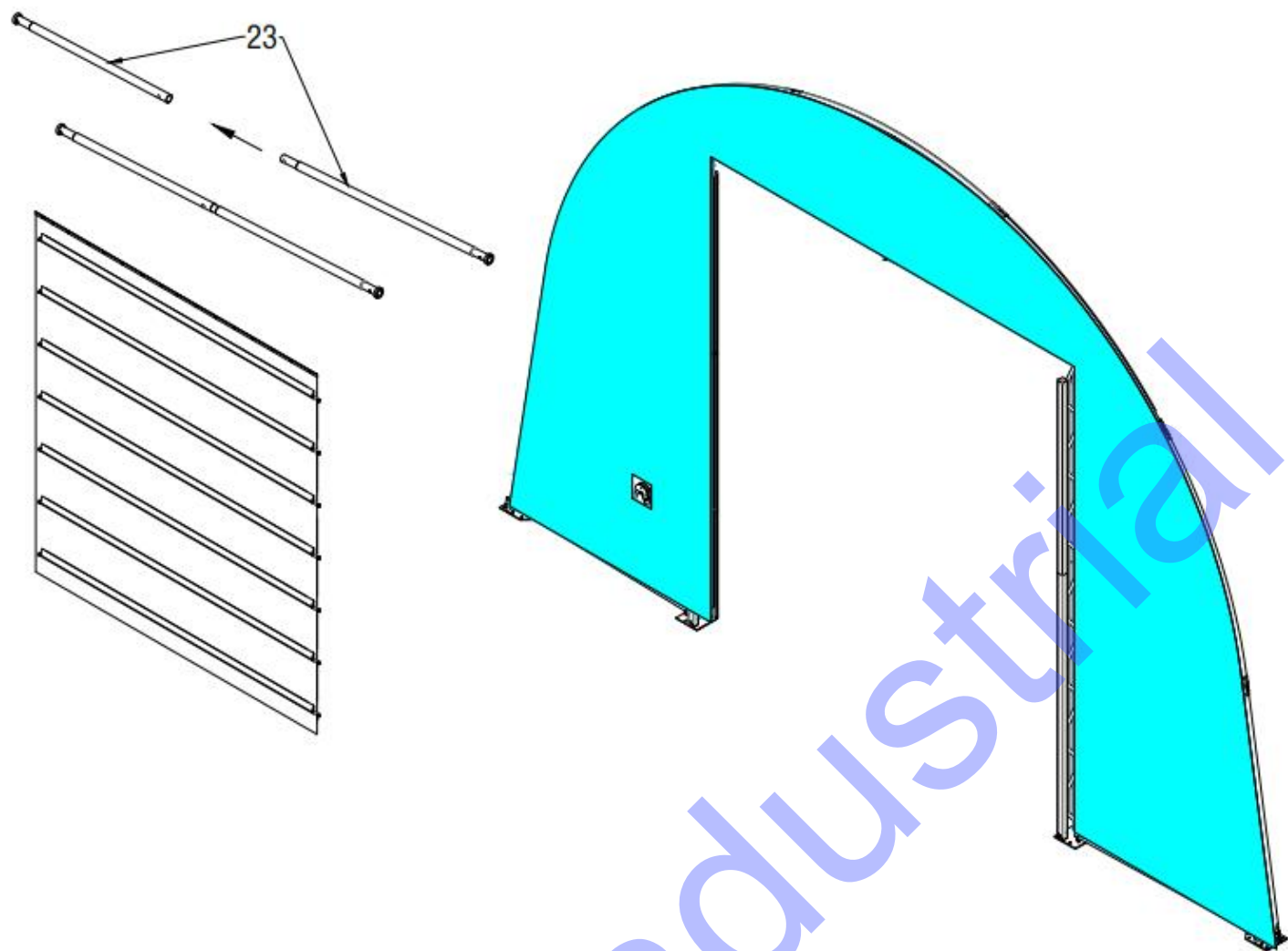


Figure 18



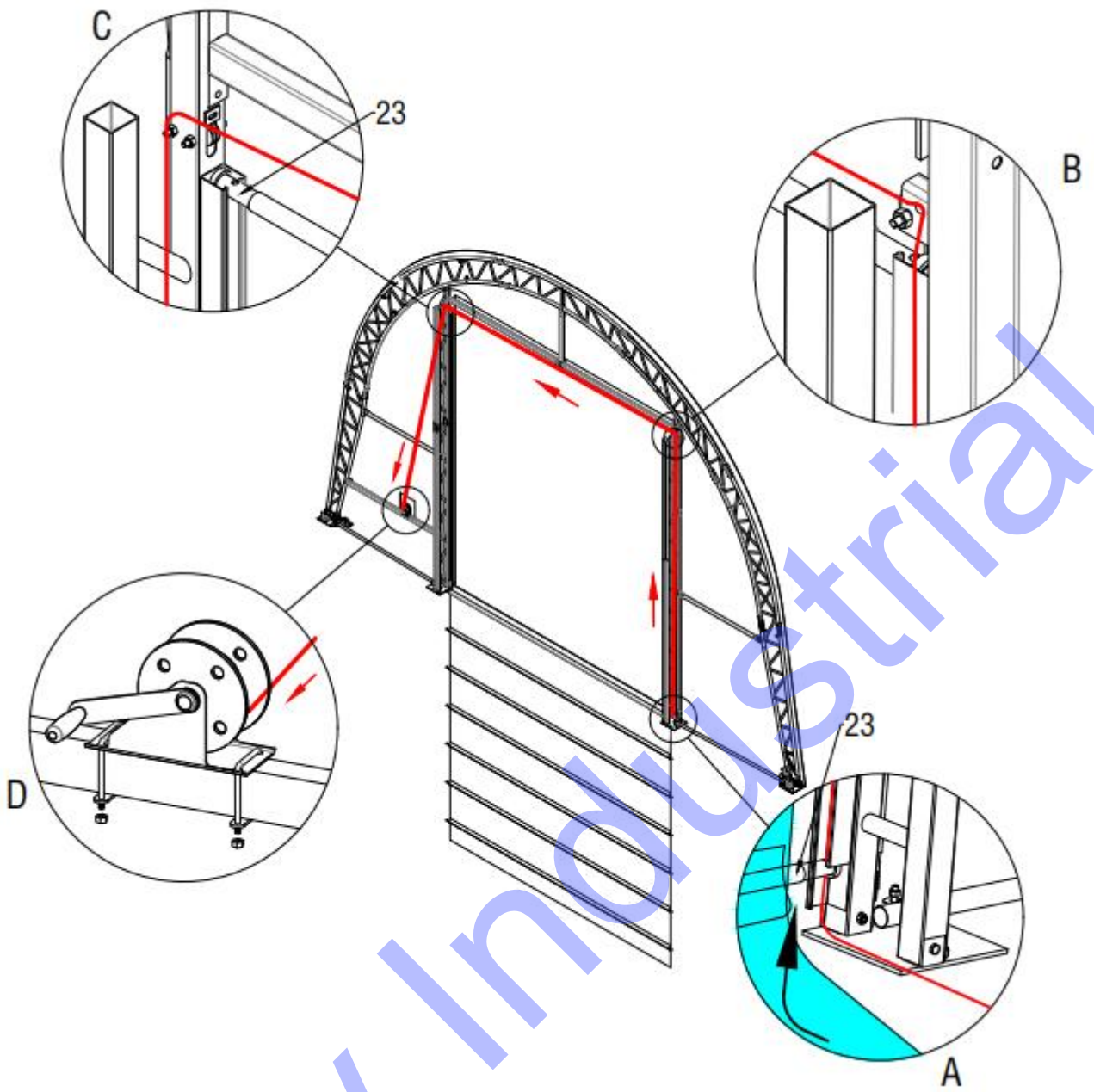


Figure 19

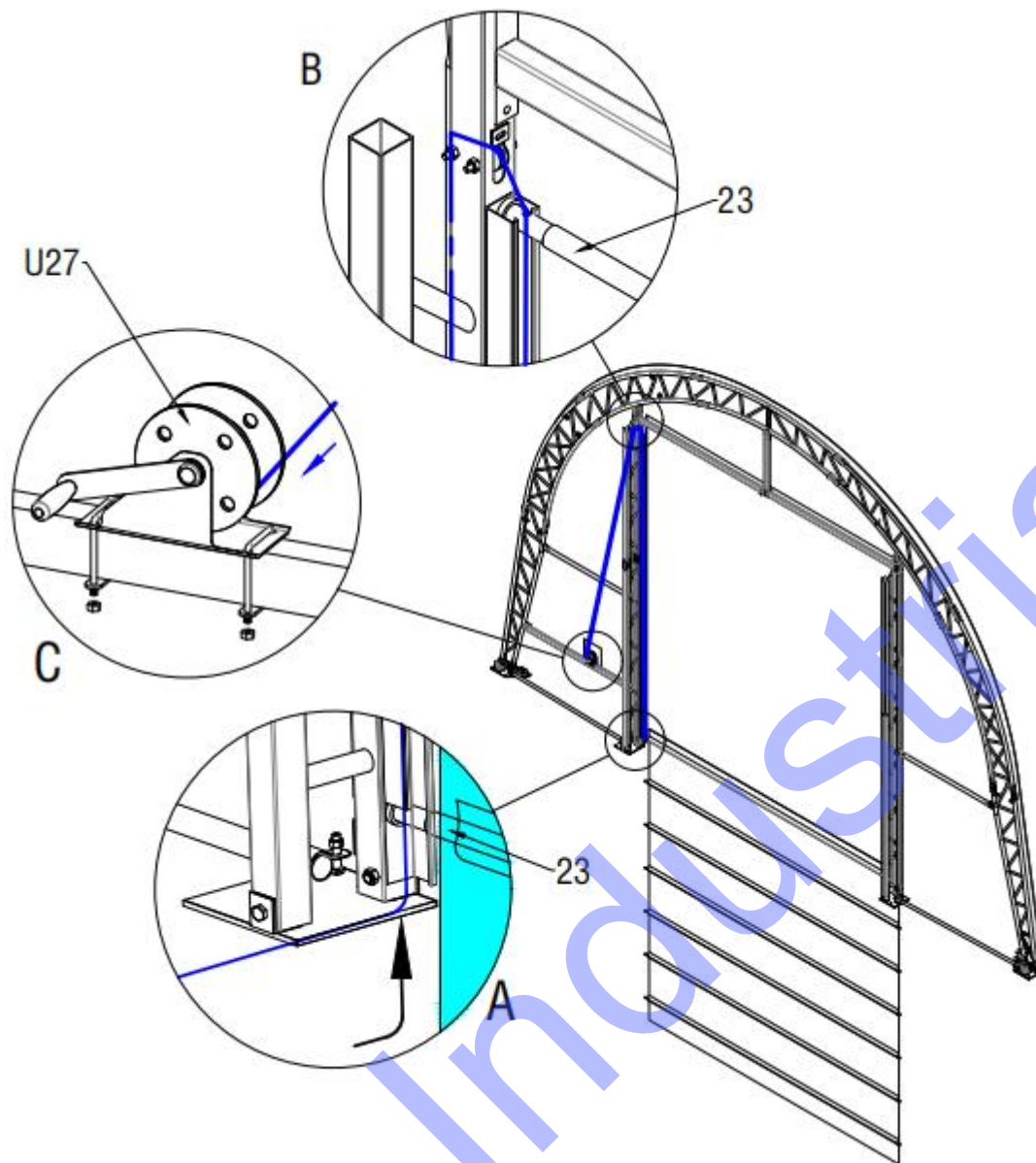


Figure 20

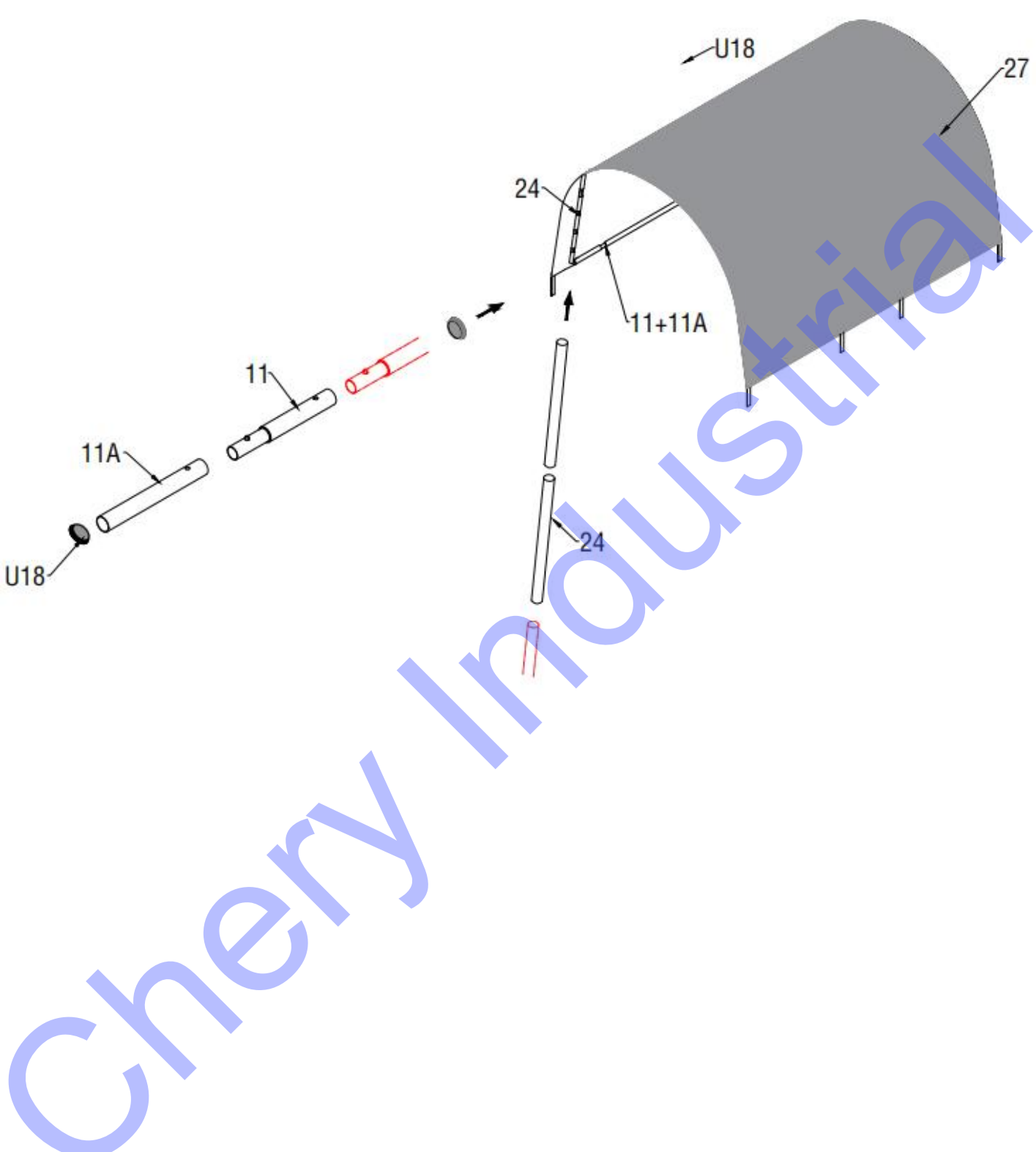
## B2 Front and back cover installation

1. Insert the Door Dropping Tube (No.23) into the bottom of Front and Back door cover (No.26). Thread the Steel Wire (No.U27) into each group of Door Dropping Tube(part No.23), then install one front and back door cover (part No.26) on the door frame and knit this cover to the tubes. Finally tie the Steel Wire for Door onto the Mechanical wheel (part No.26).
2. Use small ratchet (No.U2) on Front and Back cover to tensioning tubes evenly. The end covers are tied to the frame (Roof, Middle & Lower Bent Tube) by ratchet. They are also been secured to the end frame (door tube and side rail) by Knitting Rope.
3. Make the cover well tidy the Back Cover and Front Cover. Fasten the band inside the end of the roof cover, make the cover well fold to the frame and tie the end of the band to the Clips on Base Plates at four corners.
4. When you close the door ,we can use the Lock steel wire for door(No.U27) and Lock steel wire for the wrench handle to fix.(Figure 20)

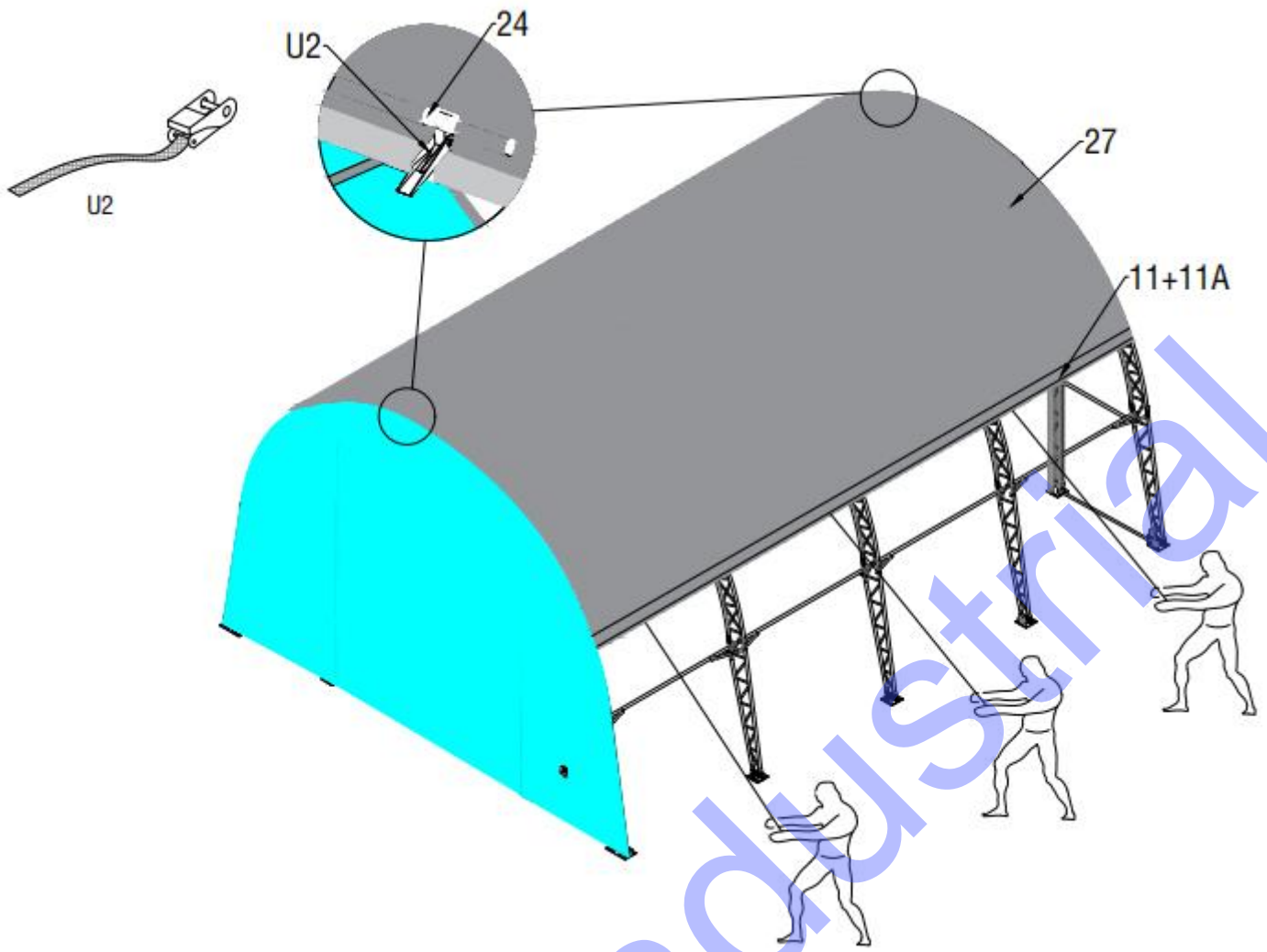
## C-ROOF COVER INSTALLATION

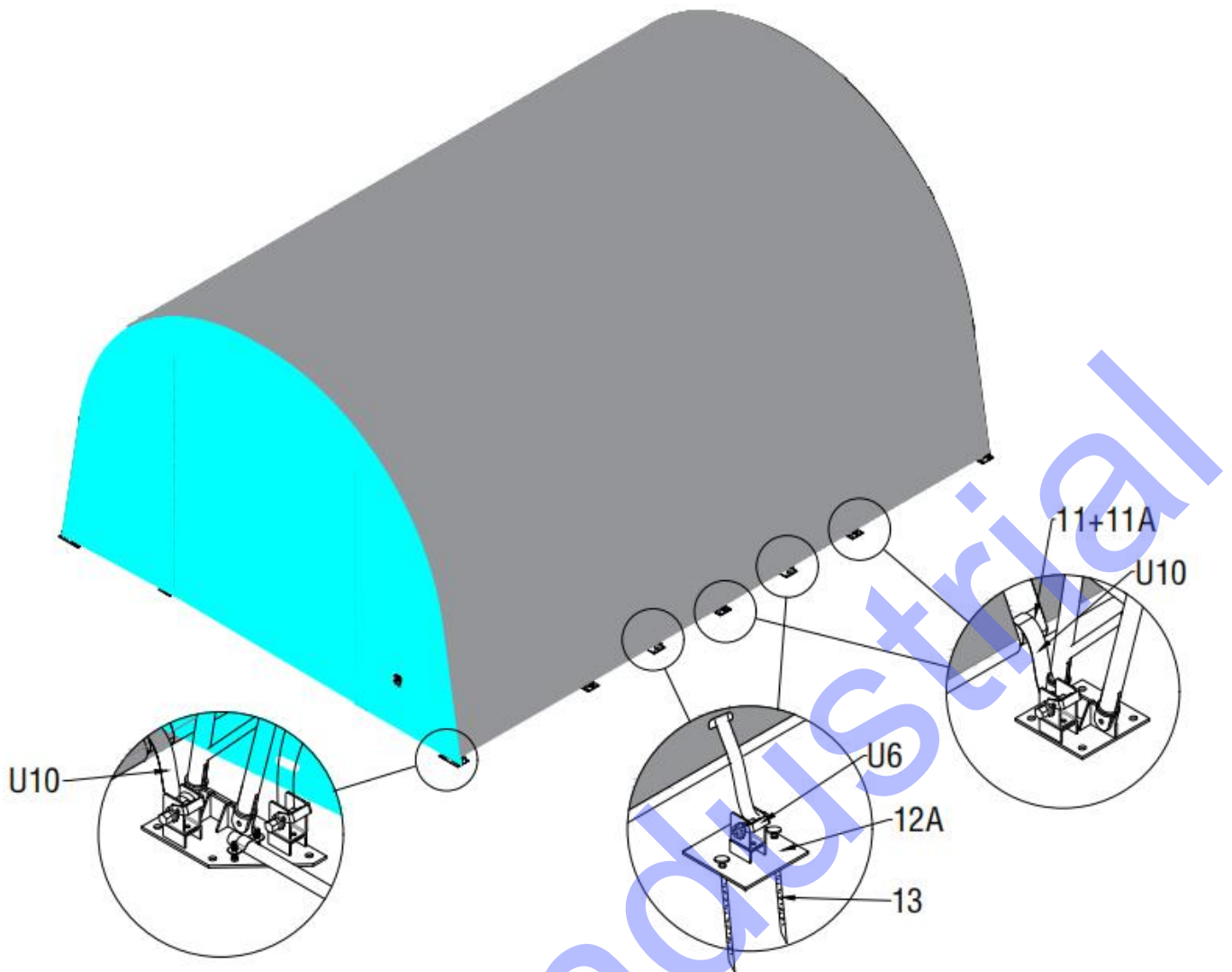
**NOTE:** DONOT install the cover onto the frame of your building in high wind conditions. A slight

This diagram shows an exploded perspective view of a mechanical assembly. On the left, a small black circular component labeled U18 is positioned near a cylindrical part labeled 11A. To the right of 11A is another cylindrical part labeled 11. Further right is a red cylindrical component. In the center, a small grey circular component is shown with an arrow pointing towards the assembly. Below this, two vertical cylindrical parts labeled 24 are shown, with a red pin-like component positioned between them. On the right side, a large, curved, grey component labeled 27 is shown. A bracket labeled 11+11A indicates the assembly of parts 11 and 11A. An arrow labeled U18 points towards the top of the curved component 27.









1. Put tubes 11A&11 into the cover and also put the plastic caps(No.U18) onto the tubes. You throw the ropes over the frame and use the 12A&12 tubes in every pockets to fix the rope. Insert the 32 PPR tube(No.24) into the pocket of the front and back door. Then you drag the roof including all tubes 11A&11 on another side over the frame

2. Pull the Roof Cover (No.27) over the frame EVENLY, CAREFULLY AND SLOWLY. Insert the tension tubes for roof cover (No.27) and PVC tube (No. 11&11A) into the two edges of roof cover pipe pockets and cut pockets respond to each inner base plate. Loosely secure the nylon band (No.U9) in the ratchet (No.U6)DO NOT TIGHTEN. Adjust the cover so that it is square and evenly centered on the frame.

**NOW THE INSTALLATION IS FINISHED, PLEASE ASJUST THE BASE PLATES VERY MONTH.**

**Notice: 1. The calculation of wind load is based on the height of the highest point of the shelter not exceeding 10m. 2. All calculations of the load bearing capacity is based on the reasonable tensioning of the roof cover and the smoothness of the roof cover.**