SHELTER
ASSEMBLY MANUAL

Model-406222DR-M

L18.97 x W12.2x H6.7m

With 2.71m arch distance

SPECIFICATION

Width: 12.2m Length: 18.97m Height: 6.7m

Door dimension: W3.97mxH4.27m

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.

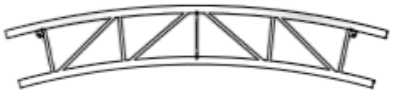
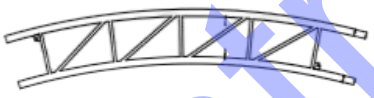
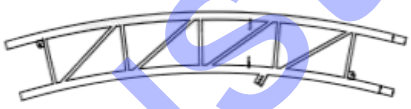
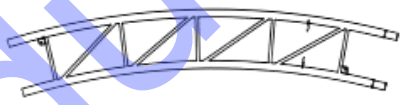
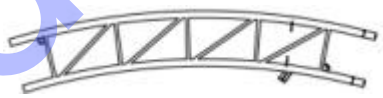
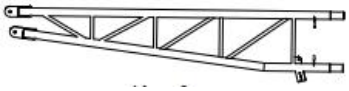
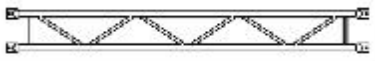
It's necessary to tighten the roof fabric enough to avoid "hammocks" on the roof and also re-tighten once or twice again after a few months of use. This is important when assembly in cold weather (autumn and winter) because the fabric is stiff then and when we got the sun and warm weather afterwards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

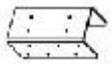
It's the owners responsibility to take of snow immediately if not slide off by itself.

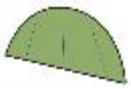
READ ALL INSTRUCTIONS BEFORE ASSEMBLY

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 carful not to pinch fingers with clips and tubes when assembling: when using makes sure there is adequate ventilation for exhaust and other dangerous fumes.

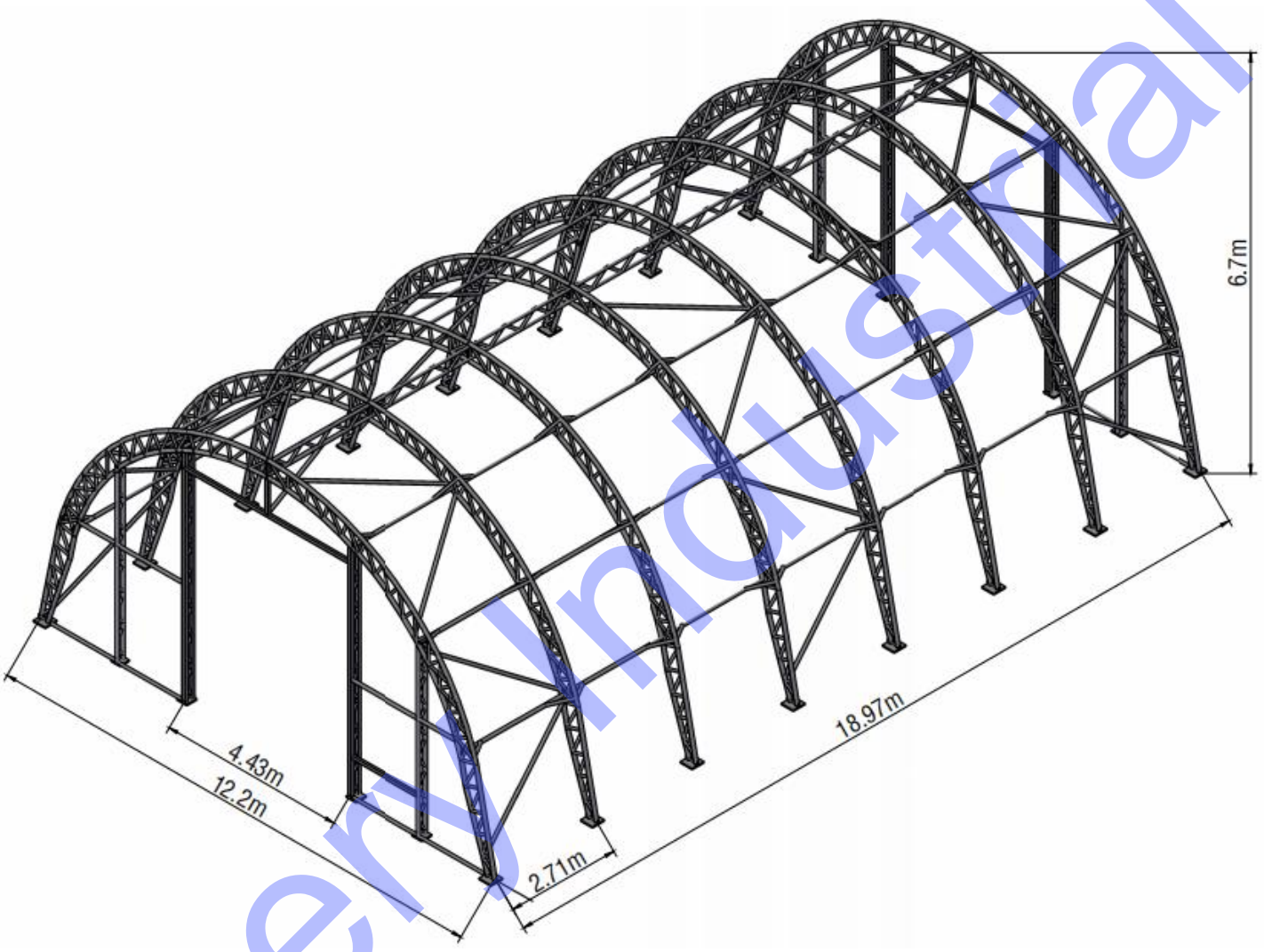
PART LIST

Part Code	Description		Qty
1	Top roof tube		6
1A	Top roof tube in the front and back door		2
2	Roof curving tube		12
2A	Roof curving tube in the front and back door		4
3	Roof curving tube at shoulder height		12
3A	Roof curving tube in the front and back door		4
4	Lower tube		12
4A	Lower curving tube in front and back door		4
5	Supporting Webbing between the arch		48
5A	60 Clamping Piece		192
6	Double Trussed Purlin		7
7	Purlin		42
8	Diagonal Support Tube For purlin		84
9	Diagonal Support Female Tube		24
9A	Diagonal Support Male Tube		24

10	Clips Φ48		86
11	Clips φ60		48
12	Tension Tube For Roof Cover		12
12A	Tension Tube For Roof Cover		2
13L	Left Corner Base Plate		2
13R	Right Corner Base Plate		2
13A	Middle Base Plate		12
13B	Laminated base plate		6
14	Stake Peg		92
15	Base plate for mechanical door		4
15A	Base plate for front and back door		4
16L	Lower door track for mechanical door at left		2
16R	Lower door track for mechanical door at right		2
16	Door side tube		4
17L	Upper door track for mechanical door at left		2
17R	Upper door track for mechanical door at right		2
17	Channel steel connection		16
18	Door beam on mechanical door		4
19	Vertical support tube for mechanical door beam		2
19A	Diagonal Support Tube For door beam		2

20L	Lower standing leg on both doors at left		2
20R	Lower standing leg on both doors at right		2
21L	Upper standing leg on both doors at left		2
21R	Upper standing leg on both doors at right		2
22	Horizontal tube beside the front and back door		8
22A	Lower purlin for Front and Back Door		4
23	Mechanical wheel square tube		2
24	Tensioning tube for front and back door		4
24A	Tensioning tube for the side of front and back door		4
25	Tubes for doors		14 groups
26	Mechanical wheel with Steel wire		2
27	32 PPR tube		14
28	25 PPR tube		22
29	Front and back door cover		2
30	Roof Cover		1
31	PVC Protective Cover		48
U2	Small ratchet with band		304
U6	Weighted ratchet		13 pairs/26 pcs
U10	Wide tension band		16
U15	38 Round plug		16

U18	60 Round plug		4
U12	Slack ball		4
S7	Carriage bolt 8*60mm		48
S15	hexagon bolt 10*90mm		32
S16	hexagon bolt 10*60mm		10
S17	hexagon bolt 10*50mm		134
S18	hexagon bolt 10*30mm		278
S21	hexagon bolt 16*50mm		32
S23	Carriage bolt 8*80mm		384
S25	plain washer M10		268
S27	plain washer M16		64
S29	flange nut M8		432
S30	flange nut M10		454
S33	flange nut M16		32
S41	self-tapping screw M5.5*25		256
S42	self-tapping screw M4.2*20		270



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

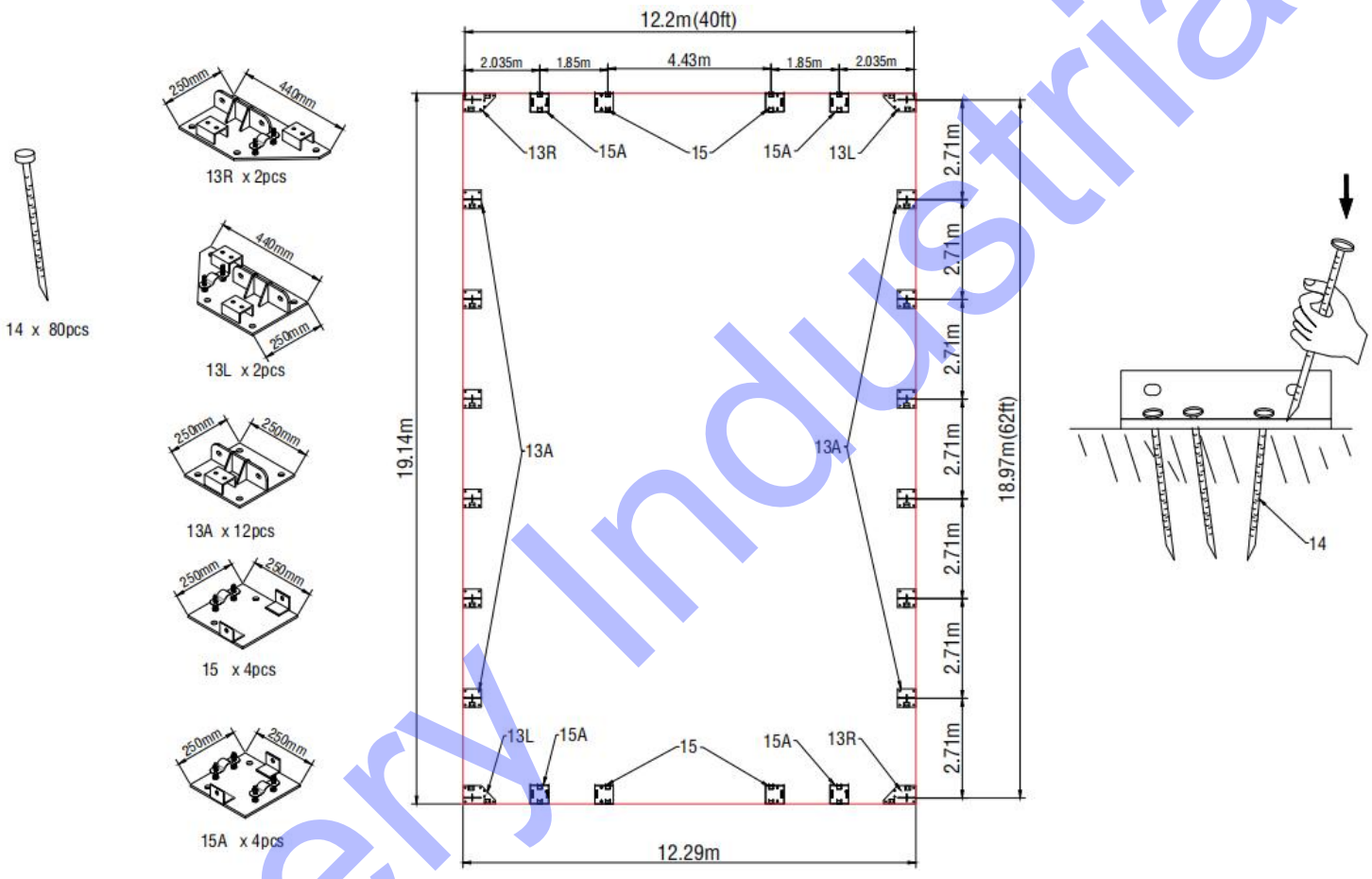


Figure 1

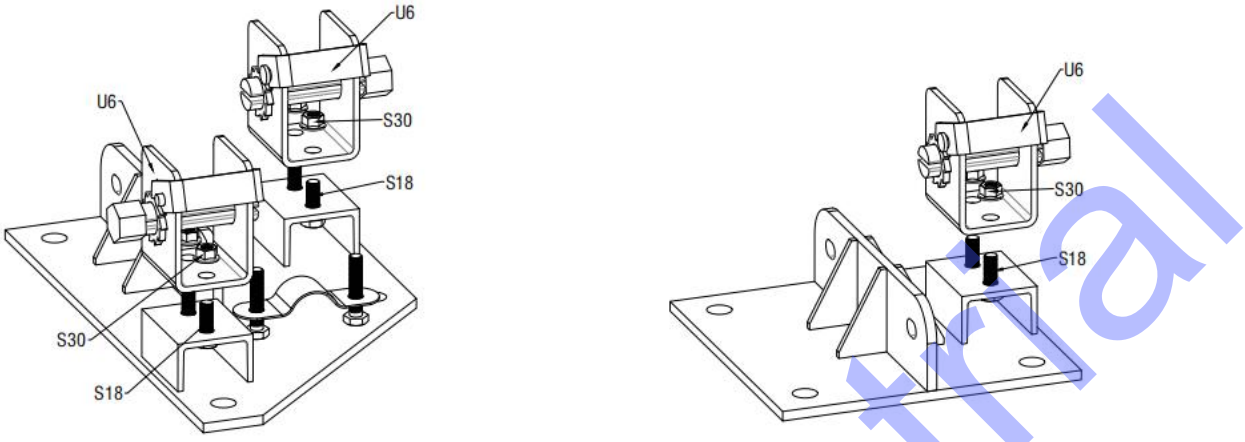


Figure 2

1. The measurement is from center to center of tubes on the base palates. Referring to the above diagram and confirm the place of base plates. There are there 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.14) 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

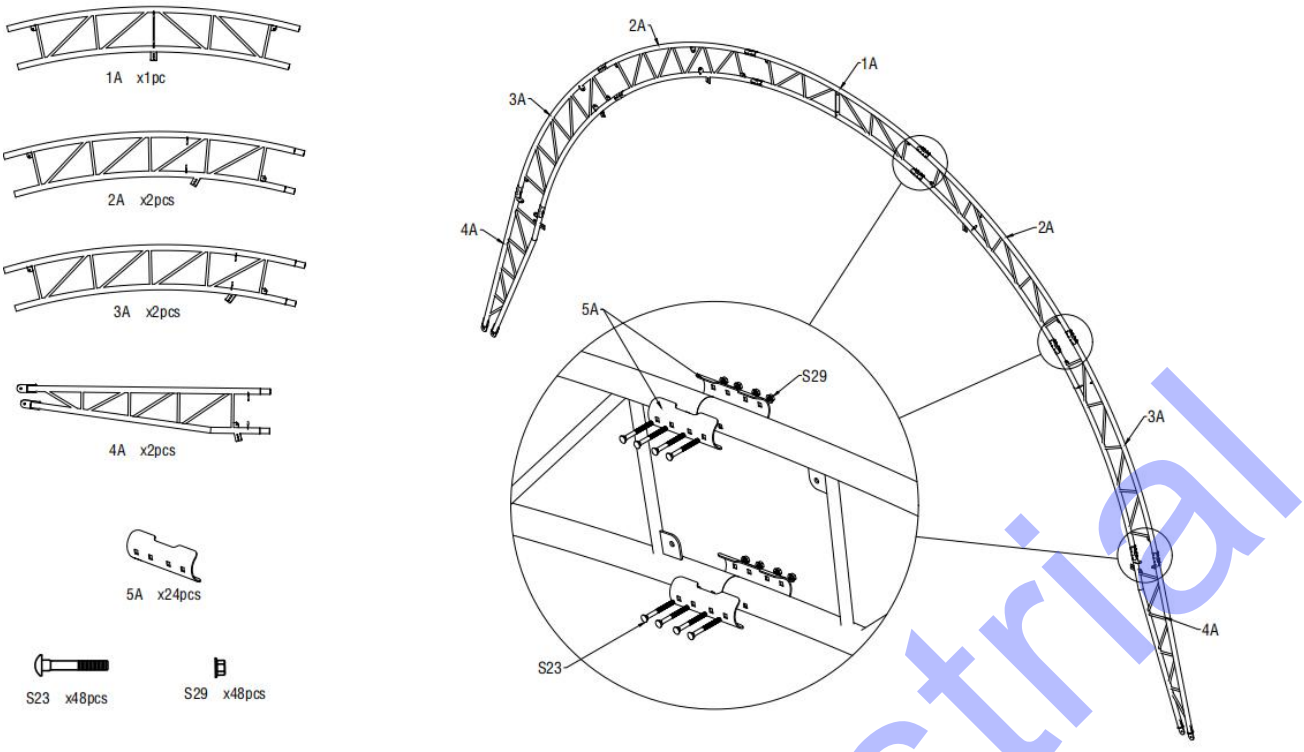


Figure 3

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. 3A) ,two Lower curving tube in front and back door(4A) and assemble the first group and final group of arch with Screw M8x80 (No.S23). **DO NOT install the screw on the top of the truss where the fabric will rest.**

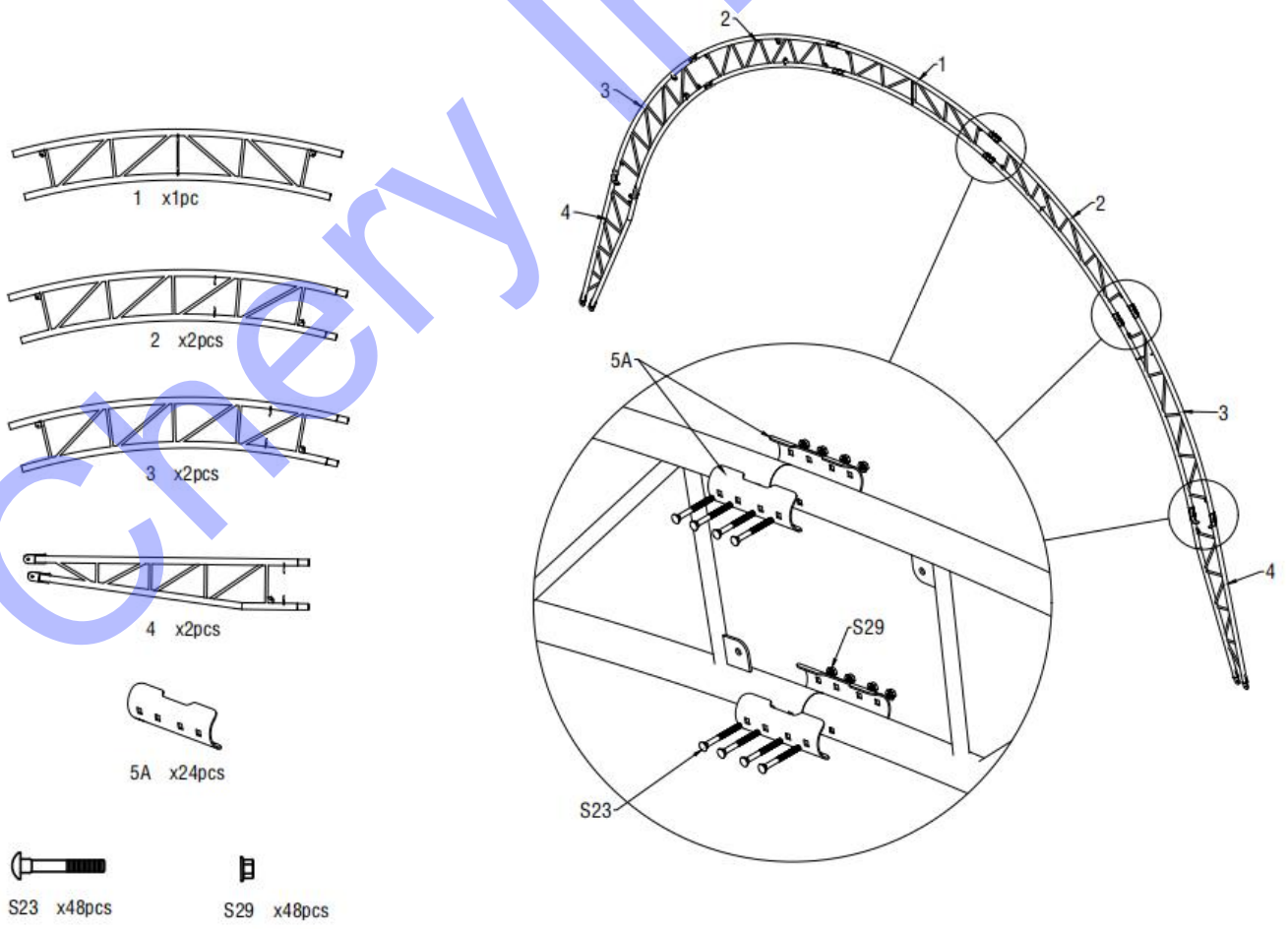


Figure 4

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 Screw M8x80 (No.S23). **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,3A&4A) which are welded with steel plates for front and back doors are different from the middle arch.(Figure 4)

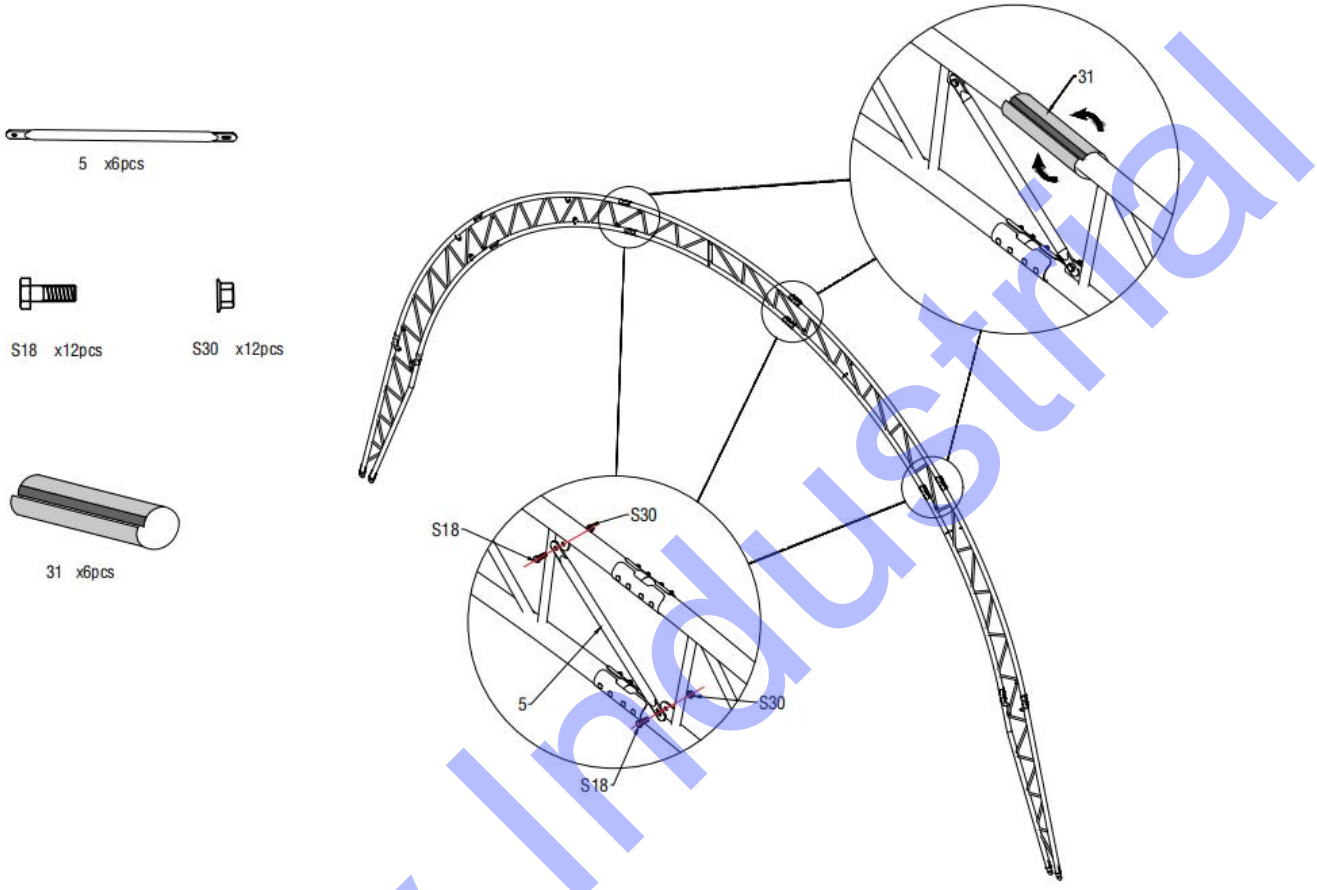


Figure 5

S21 x8pcs

S27 x16pcs

S33 x8pcs

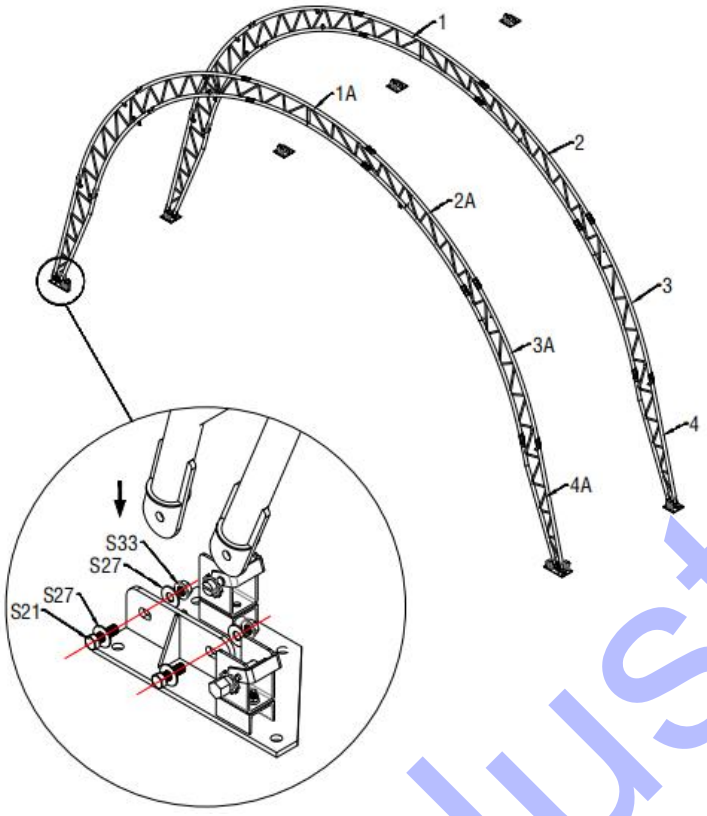
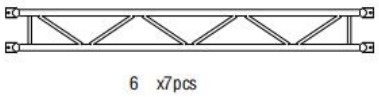


Figure 6



6 x7pcs

S18 x16pcs

S30 x16pcs

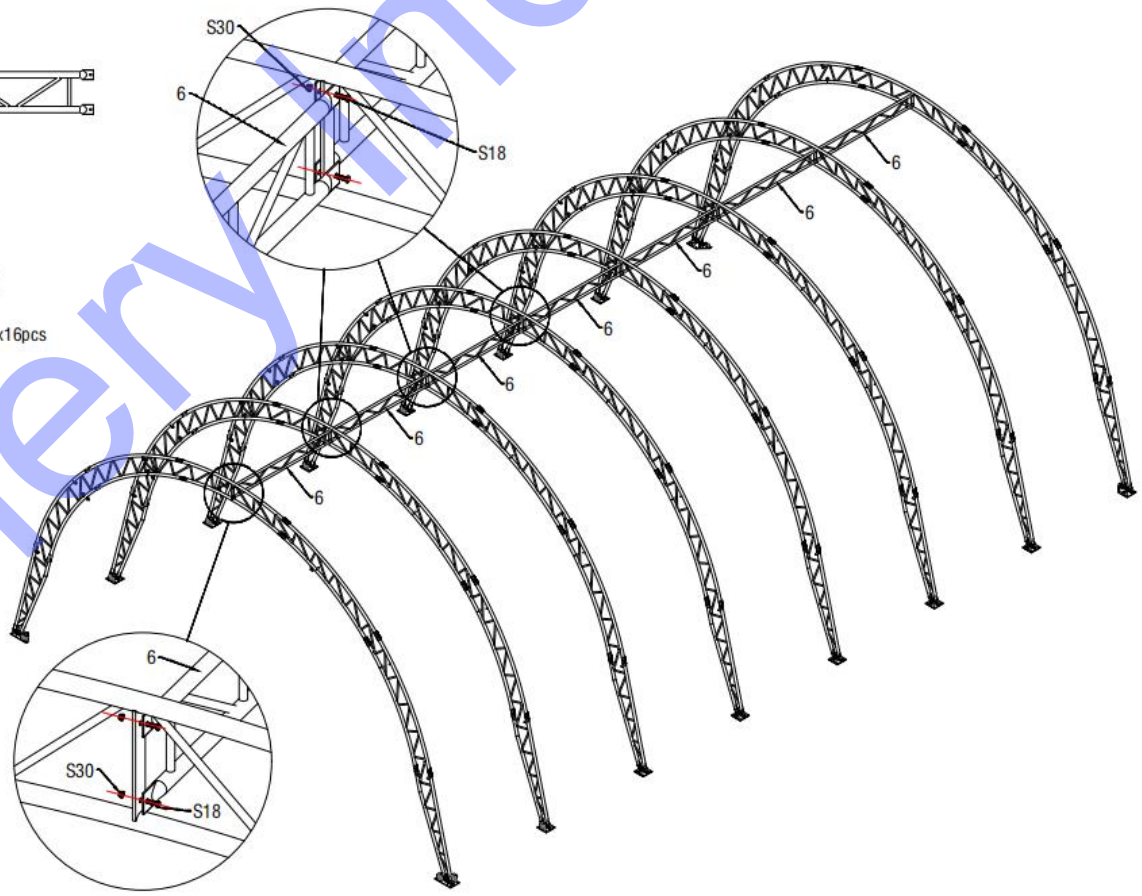


Figure 7

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.18). In this turn, fix all other purlins. Finished stretch frame as below(Figure 8)

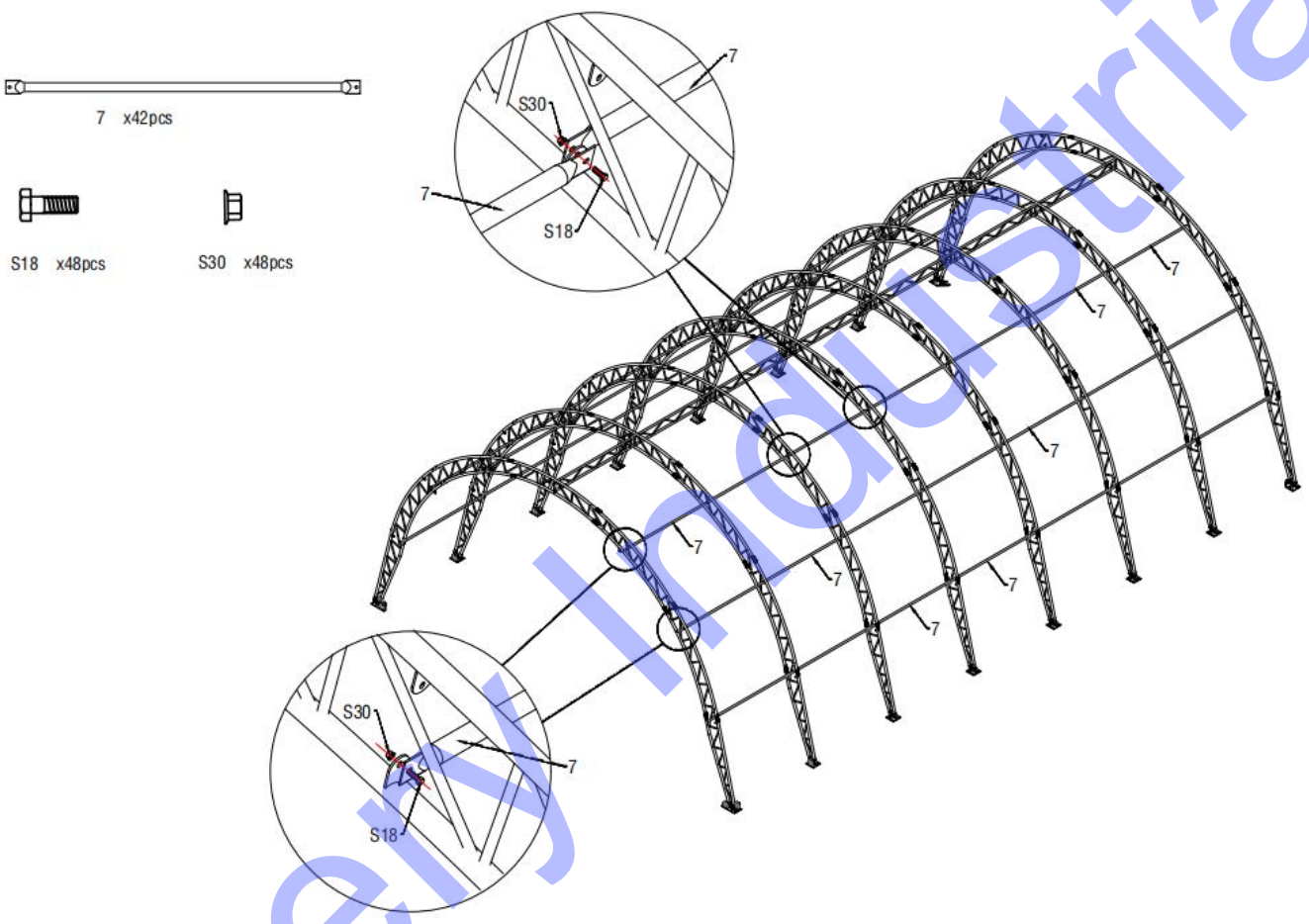


Figure 8

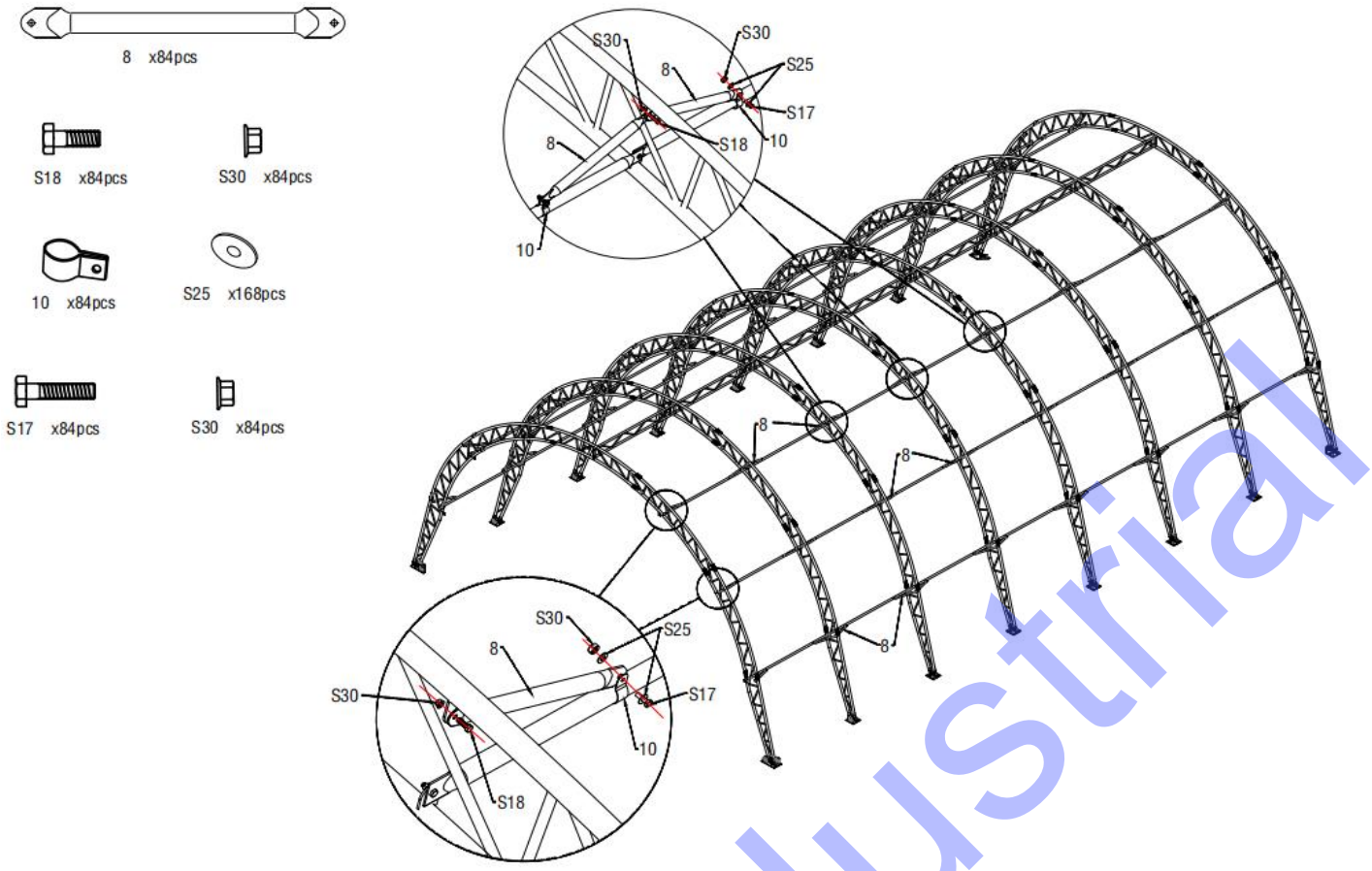


Figure 9

5. Fix clips(No.10) on purlins(No.7) and install the Diagonal Support Tube For purlin (No.8) on clips as figure 8 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.25).

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

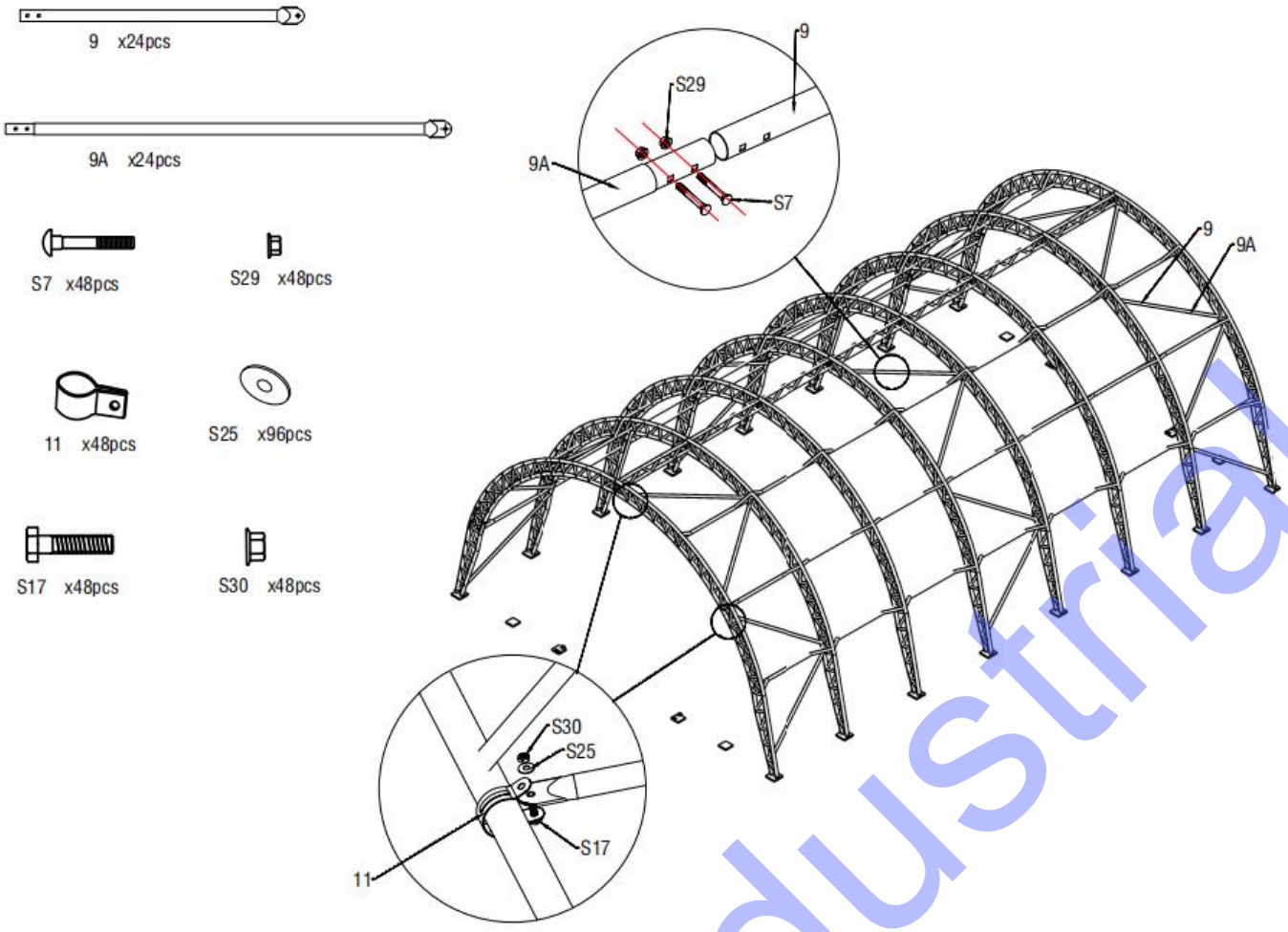


Figure 10

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.11).

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)

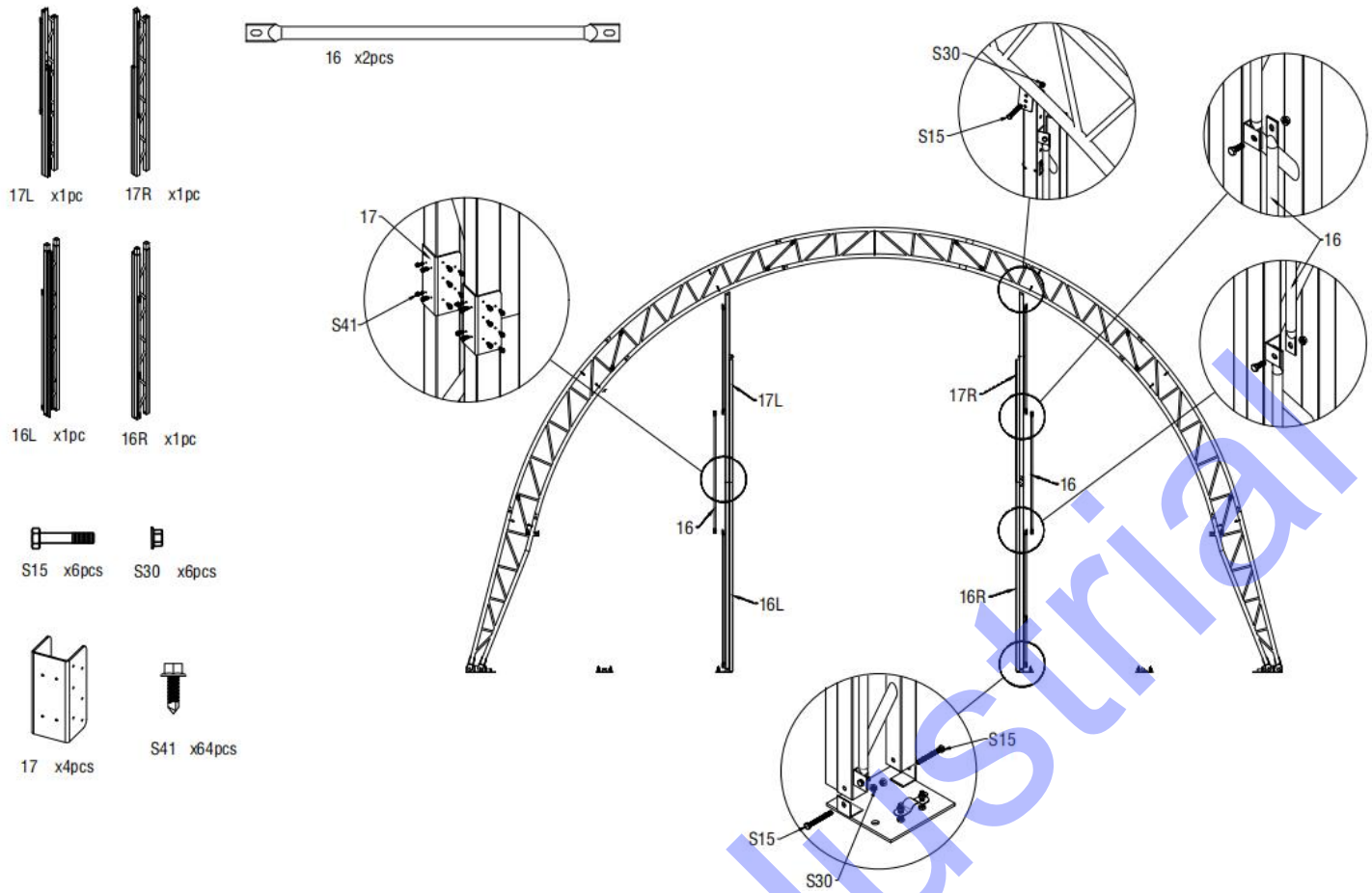


Figure 11

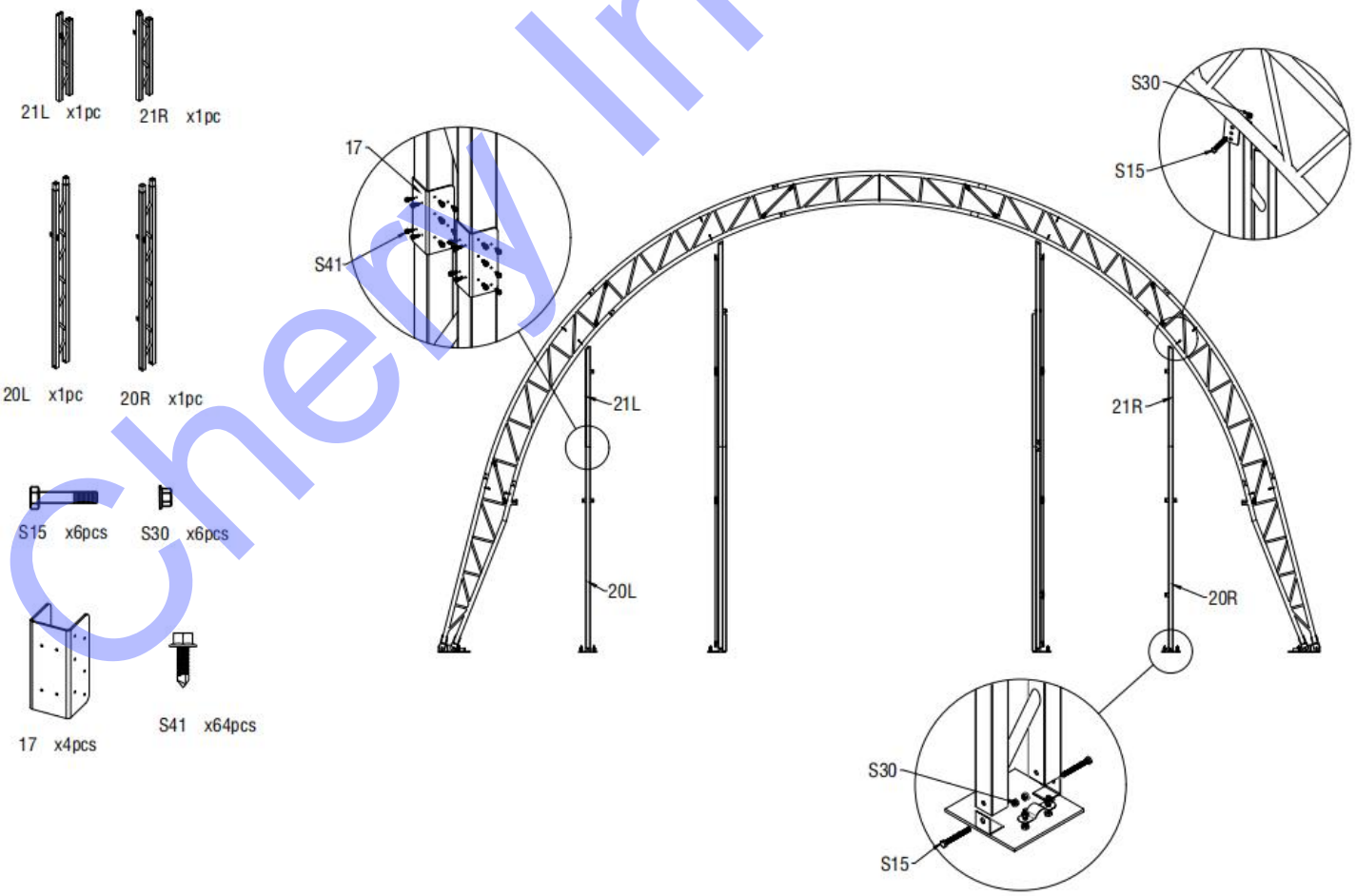


Figure 12

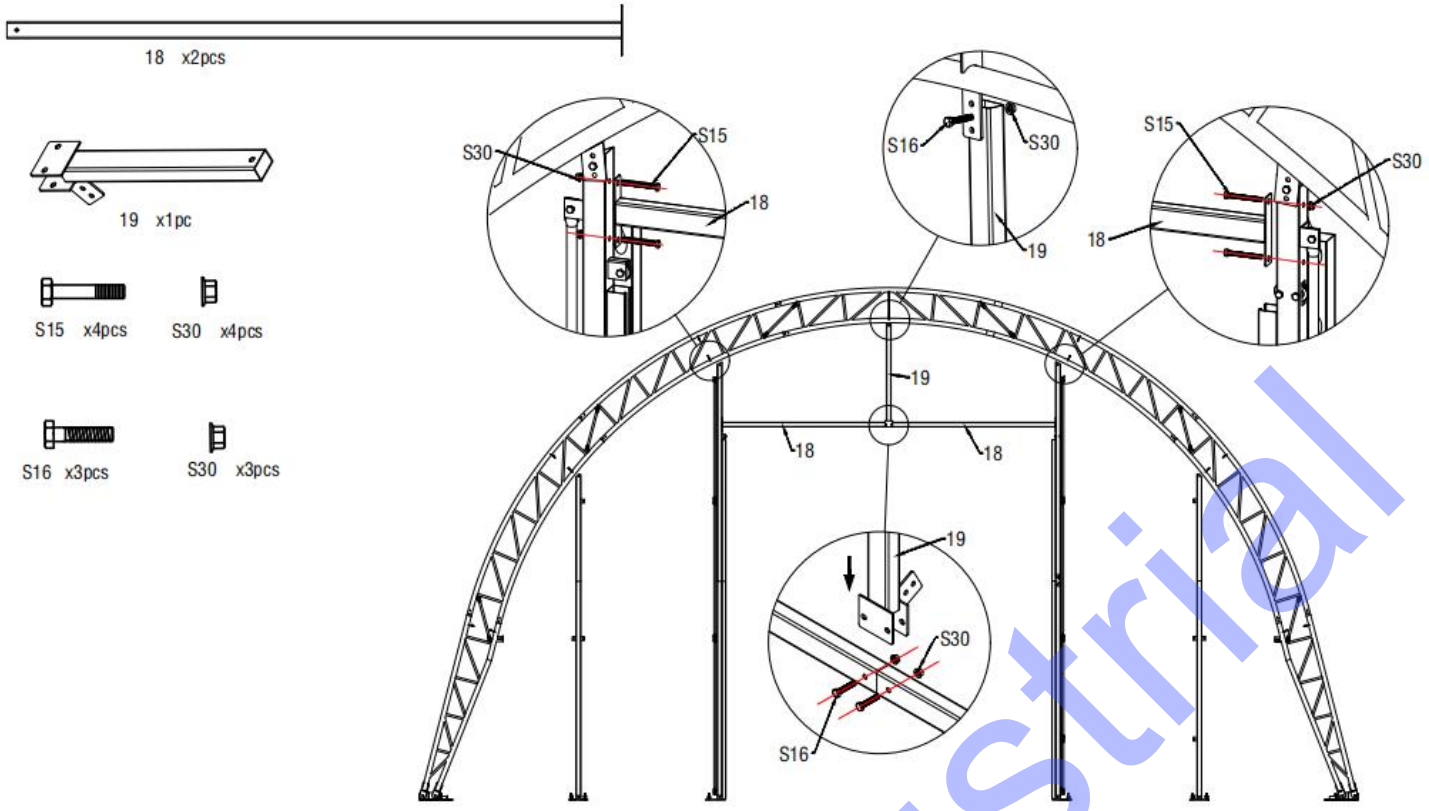


Figure 13

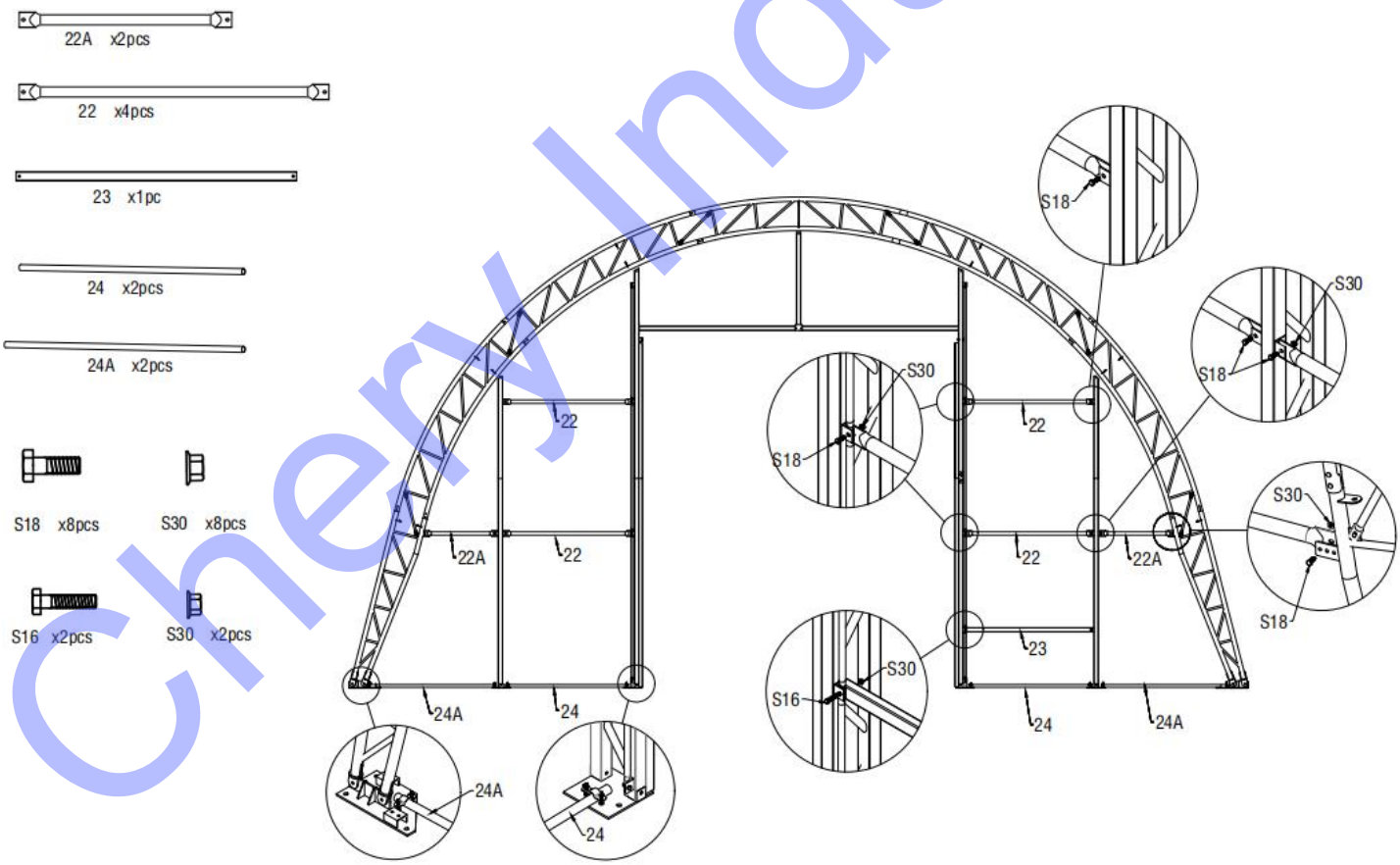


Figure 14

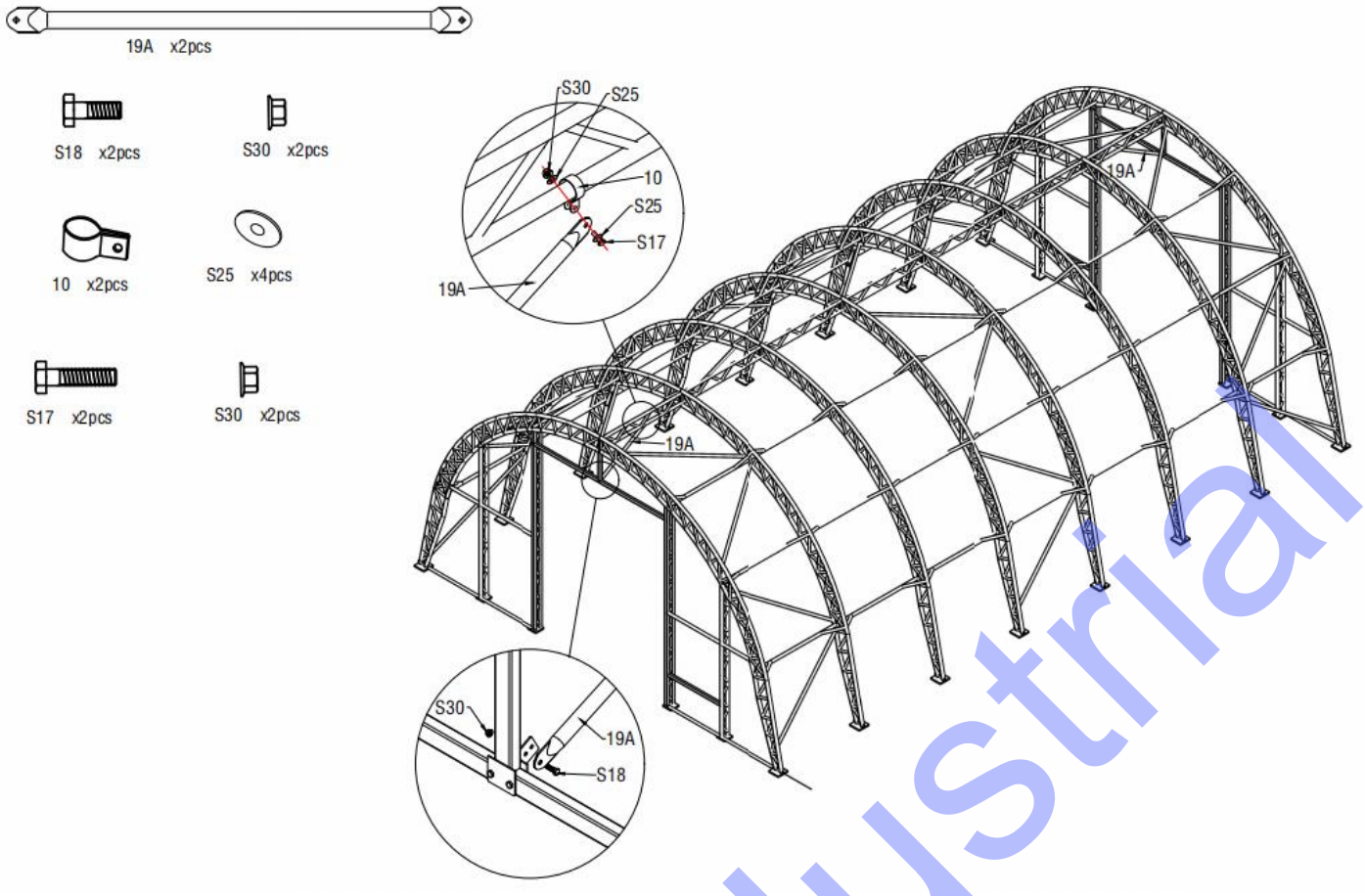


Figure 15

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).

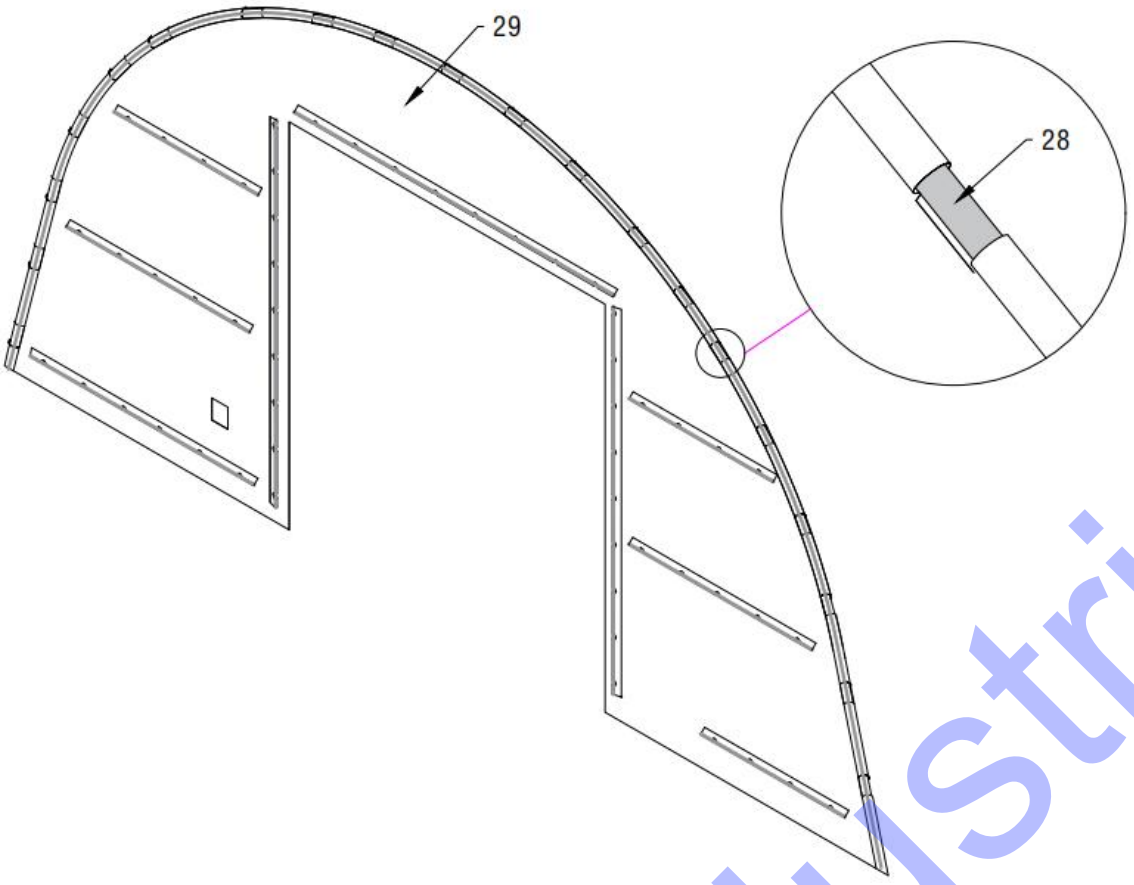


Figure 16

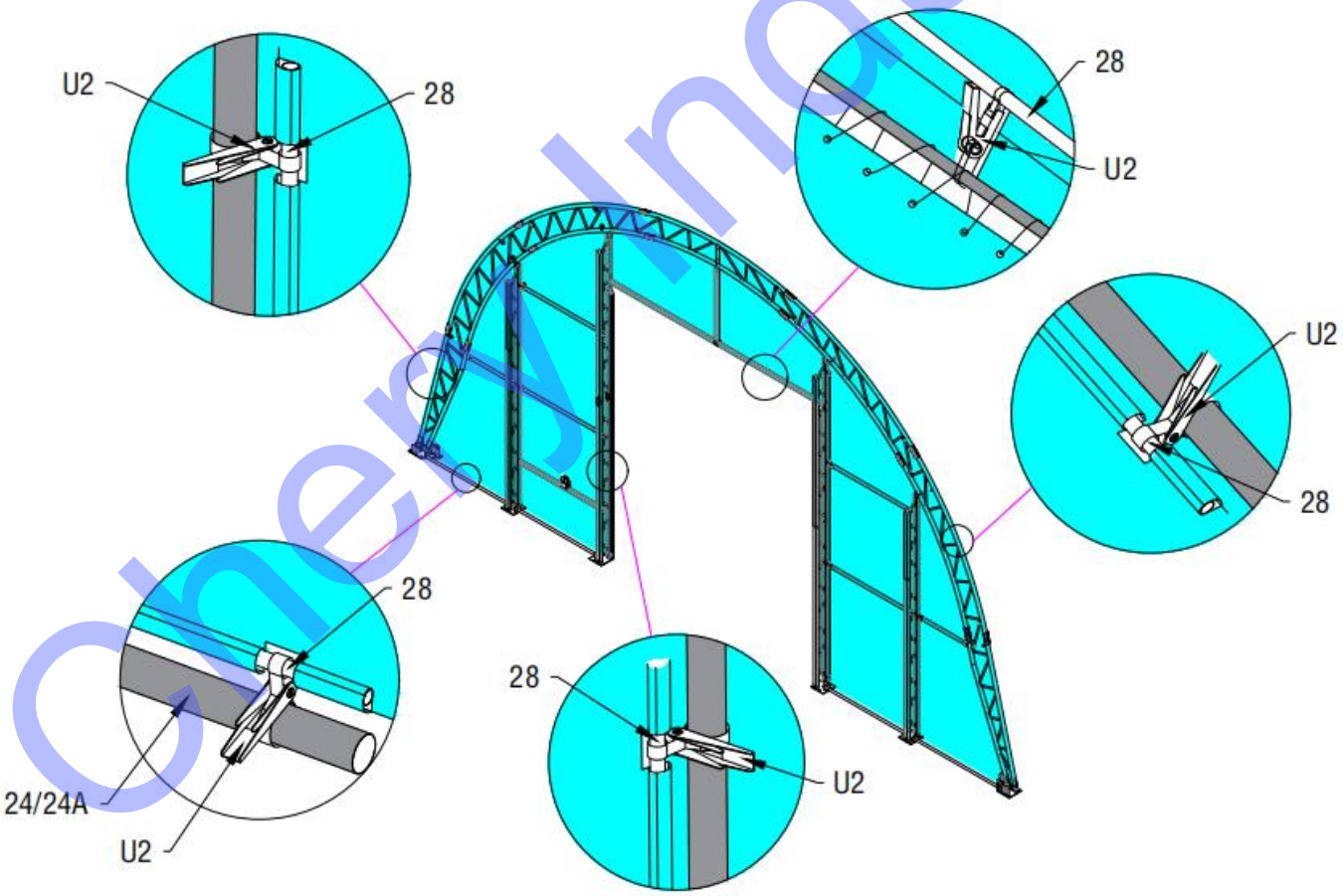


Figure 17

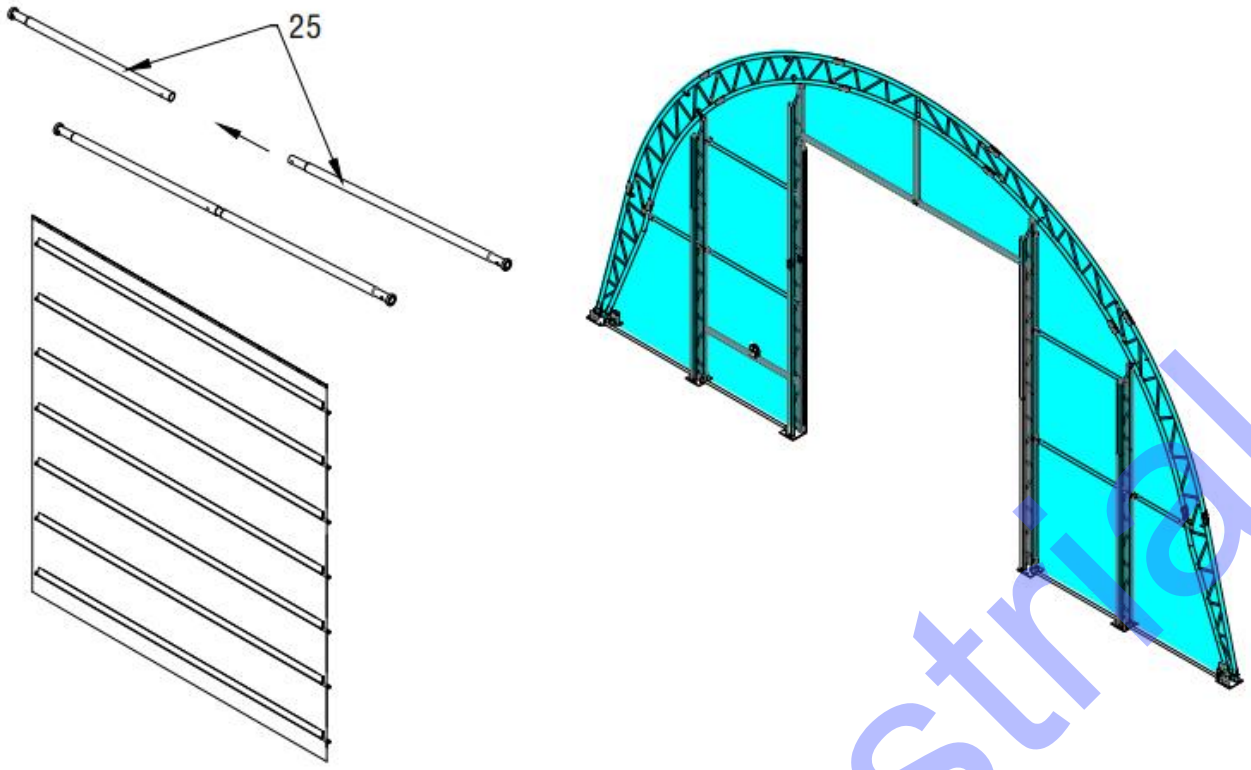


Figure 18

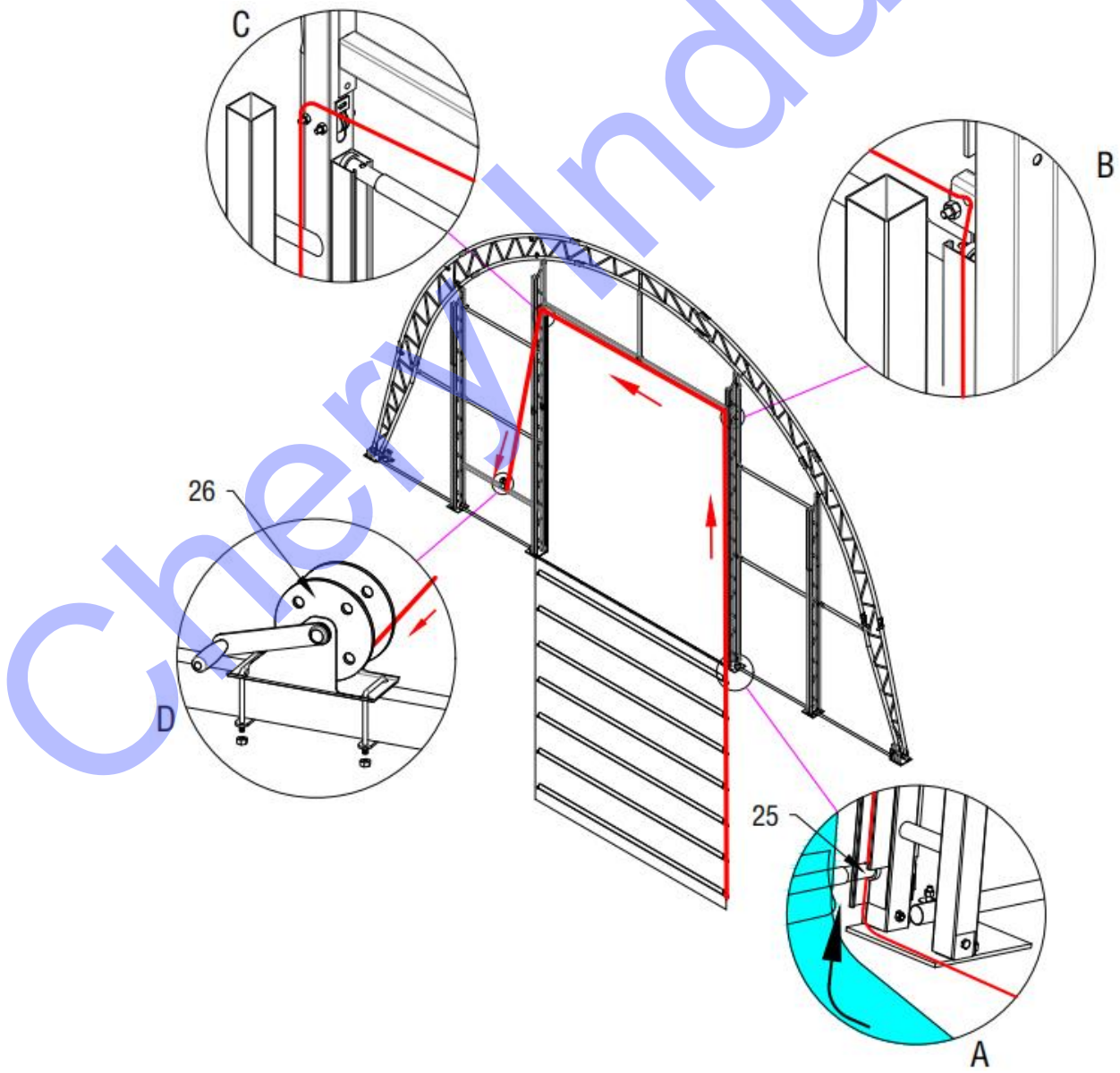


Figure 19

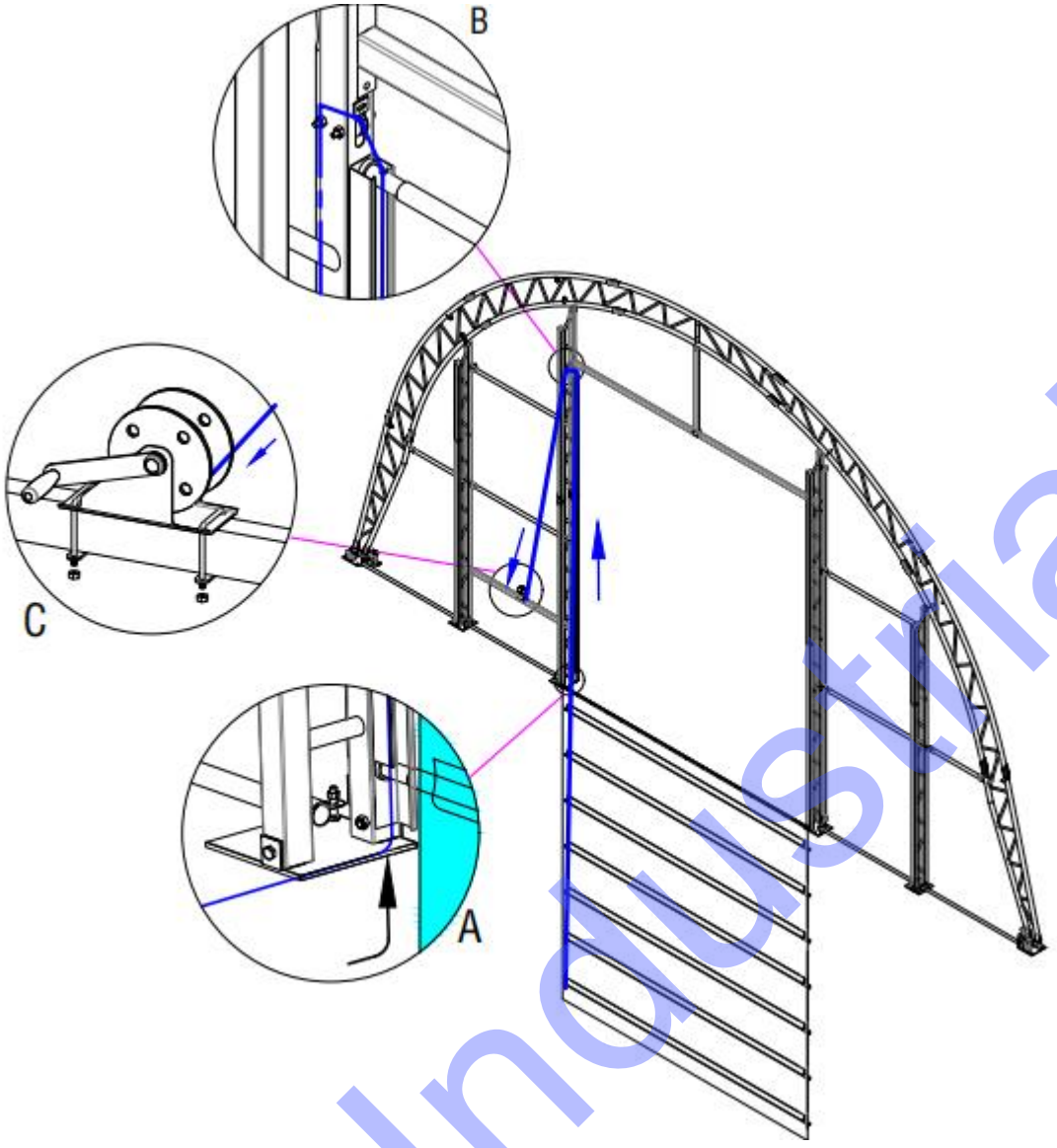


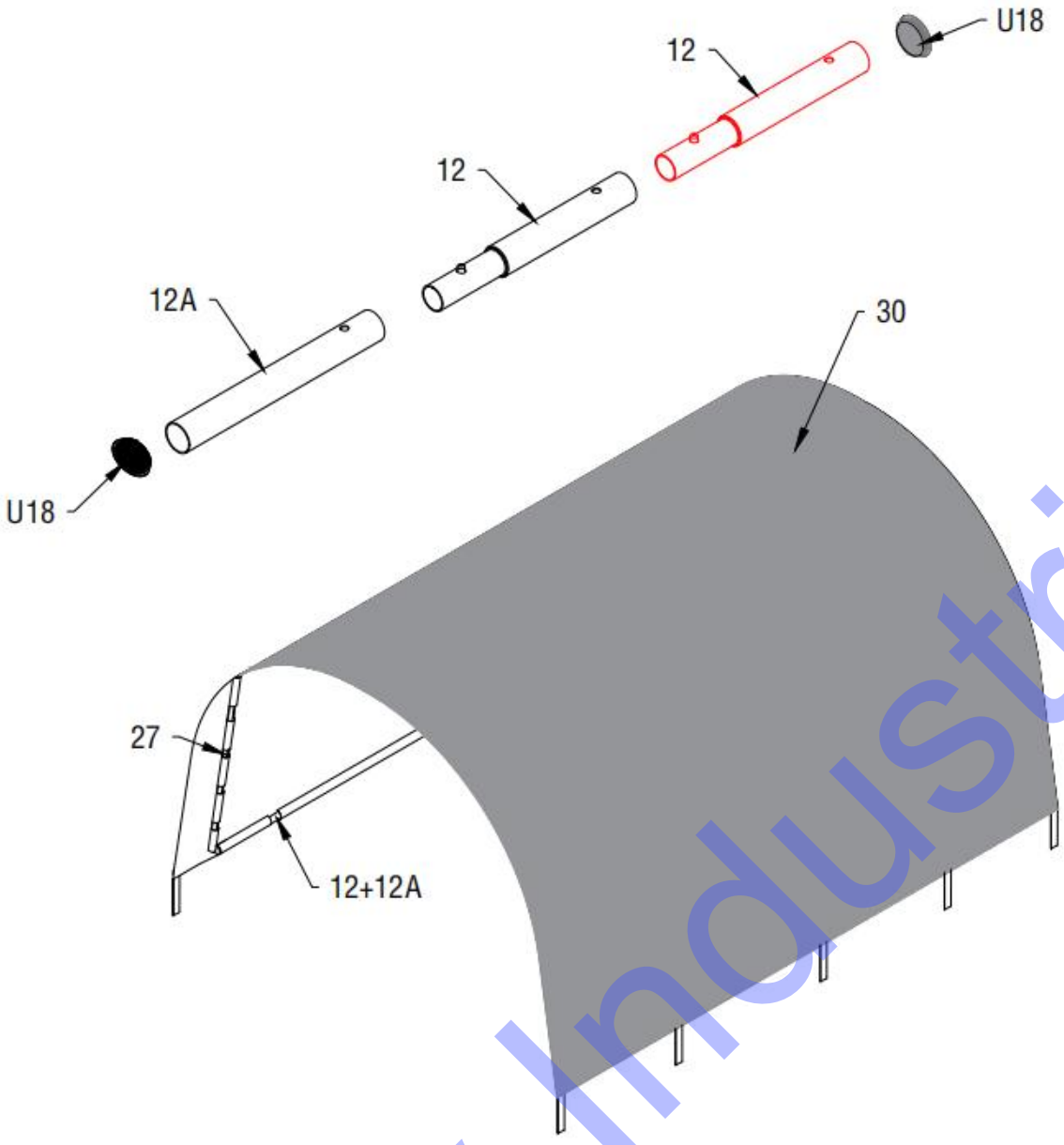
Figure 20

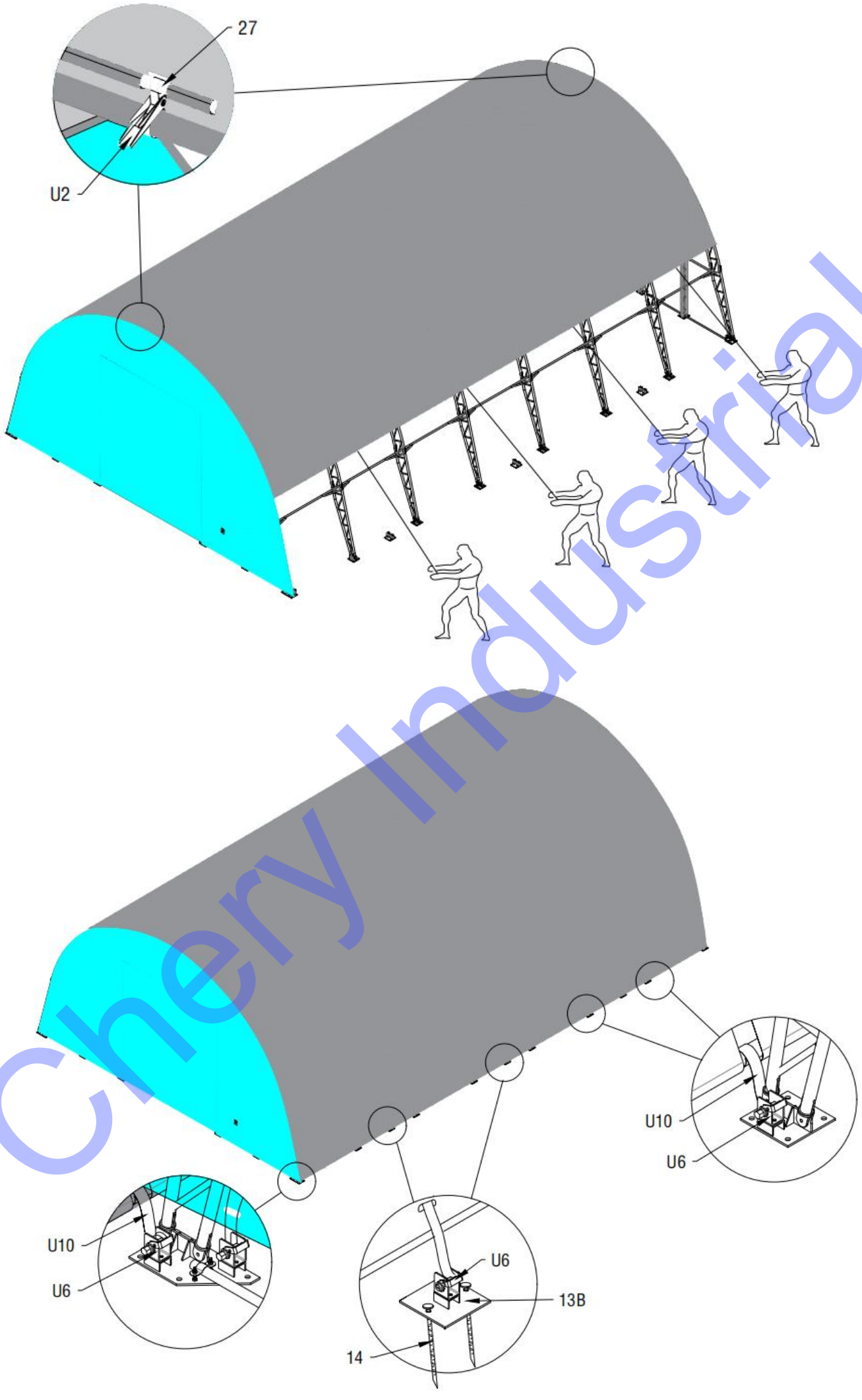
B2 Front and back cover installation

1.Insert the Door Dropping Tube (No.28) into the bottom of Front and Back door cover (No.29).Thread the Steel Wire (No.26) into each group of Door Dropping Tube(part No.28), then install one front and back door cover (part No.29) 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.
6. When you close the door ,we can use the Lock steel wire for door(No.26) and Lock steel wire for the wrench handle to fix.(Figure 19)

C-ROOF COVER INSTALLATION

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





1. Put tubes 12A&12 into the cover and also put the plastic plugs(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.27) into the pocket of the front and back door. Then you drag the roof including all tubes 12A&12 on another side over the frame

2. Pull the roof cover over the frame EVENLY, CAREFULLY AND SLOWLY. Insert the tension tubes for roof cover (No.30) and PVC tube (No. 12&12A) into the two edges of roof cover pipe pockets and cut pockets respond to each inner base plate. Loosely secure the nylon band (No.U10) 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.