



Tent hall, width 12.2 m

Models 406021P · 407021P · 408021P · 4010021P

406021P

12.2 × 18.3 × 6.4 m

407021P

12.2 × 21.35 × 6.4 m

408021P

12.2 × 24.4 × 6.4 m

4010021P

12.2 × 30.5 × 6.4 m

BEFORE ASSEMBLY

TECHNICAL DATA

Model	Width	Length	Height
406021P	12.2 m	18.3 m	6.4 m
407021P	12.2 m	21.35 m	6.4 m
408021P	12.2 m	24.4 m	6.4 m
4010021P	12.2 m	30.5 m	6.4 m

Door size for all halls: width 4 m × height 4.6 m.

**IMPORTANT!**

- Incorrect site preparation, incorrect assembly and maintenance may void the warranty and cause unnecessary and costly repairs. If you have any questions, please contact us.
- In these instructions each part is marked separately with a number that matches the parts list. For trouble-free assembly, the part numbers and drawing numbers are given.
- The cover must be tensioned to prevent it from "flapping" (see Maintenance).
- The owner is obliged to remove snow from the cover as soon as it appears!

READ ALL INSTRUCTIONS BEFORE ASSEMBLY

- Keep the work area clean. Untidy areas can cause injury. Do not erect the hall near snowdrifts, in slippery or wet places or in places with strong wind.
- Children may only enter under adult supervision. All children should be kept away from the work area.
- Ensure proper stability and balance throughout the assembly.
- Do not assemble the hall under the influence of alcohol or other intoxicating substances.
- Consider the possible wind conditions and, if possible, anchor the foundations in concrete. Remove the cover during a windstorm (hurricane).
- Be careful when connecting energy sources and heat sources. Do not store such sources near the hall. Do not expose the hall to open fire.
- Pay attention to personal safety during assembly and use of the hall. Be careful when assembling. Ensure sufficient ventilation for exhaust gases and other hazardous fumes.

EQUIPMENT AND TOOLS REQUIRED FOR ASSEMBLY

Measuring tape

Alignment string

Marking stakes

Step ladder (scaffold)

Mallet

Drill

Spanners

Knife

Lifting device

CHECK THE DELIVERY

PARTS LIST

NO.	Part name	406021P	407021P	408021P	4010021P
● 1	Upper arch tube	5	6	7	9
● 1A	Upper tube for front and rear arch	2	2	2	2
● 2	Upper arch tube	10	12	14	18
● 2A	Upper arch tube for front and rear arch	4	4	4	4
● 3	Upper arch tube for arch shoulders	10	12	14	18
● 3A	Upper arch tube for front and rear arch	4	4	4	4
● 4	Side tube	14	16	18	22
● 5	Legs	14	16	18	22
● 6	Purlin	54	63	72	90
● 6A	Arch tube support	10	12	14	18
● 7	Base plate for legs	10	12	14	18
● 7A	Base plate for left corner	2	2	2	2
● 7B	Base plate for right corner	2	2	2	2
● 7C	Ratchet with bolts	18	20	22	28
● 7D	Base plate for roof cover joint	-	-	-	2
● 8	Base plate for mechanical gate	4	4	4	4
● 9	Base plate for end wall	4	4	4	4
● 10L	Lower brace for front and rear gate, left	2	2	2	2
● 10R	Lower brace for front and rear gate, right	2	2	2	2
● 11L	Upper brace for front and rear gate, left	2	2	2	2
● 11R	Upper brace for front and rear gate, right	2	2	2	2
● 12	Gate beam	4	4	4	4
● 12A	Vertical tube for gate beam	2	2	2	2
● 12B	Steel angle plate	8	8	8	8
● 13	Lower legs of end wall	2	2	2	2
● 13A	Lower legs at the gate for connecting the winch rails	2	2	2	2
● 14	Upper legs of end wall	4	4	4	4
● 15	Middle gate rail	8	8	8	8
● 16	Middle rail for gate sides	2	2	2	2

NO.	Part name	406021P	407021P	408021P	4010021P
● 17	Steel cable for walls	12	14	16	20
● 18	Clamps for connecting the steel cable	66	72	80	90
● 18A	Steel angle bracket	6	8	8	10
● 19	Steel cable between two arches	16	16	16	16
● 19A	Steel cable for upper arches	5	6	7	9
● 21	Anchor stake	72	80	88	108
● 22	Roof cover support	2	2	2	22 + 2 pcs
● 23	Bolt M12 × 30 mm	154	176	198	242
● 24	Bolt M10 × 80 mm	71	80	89	107
● 24A	Bolt M10 × 90 mm	52	52	52	52
● 24B	Bolt M10 × 60 mm	6	6	6	6
● 24C	Bolt M8 × 70 mm	16	16	16	16
● 25	Tapered gate tube	14	14	14	28
● 26	Mechanical winch with wheel	2	2	2	2
● 27	Plastic end cap 32 mm	20	20	20	20
● 28	Rope	1 bundle	1 bundle	1 bundle	1 bundle
● 29	Tools	2	2	2	2
● 30	Strap with ratchet	14	16	18	22
● 31	Plastic (PVC) tube	2	2	2	4
● 32	Bolt M10 × 30 mm	4	4	4	4
● 33	Small ratchet	10	10	10	10
● 34	Roof cover	1	1	1	1
● 35	Cover for front and rear gate	2	2	2	2

CHECK THE DELIVERY

STRUCTURE DRAWING

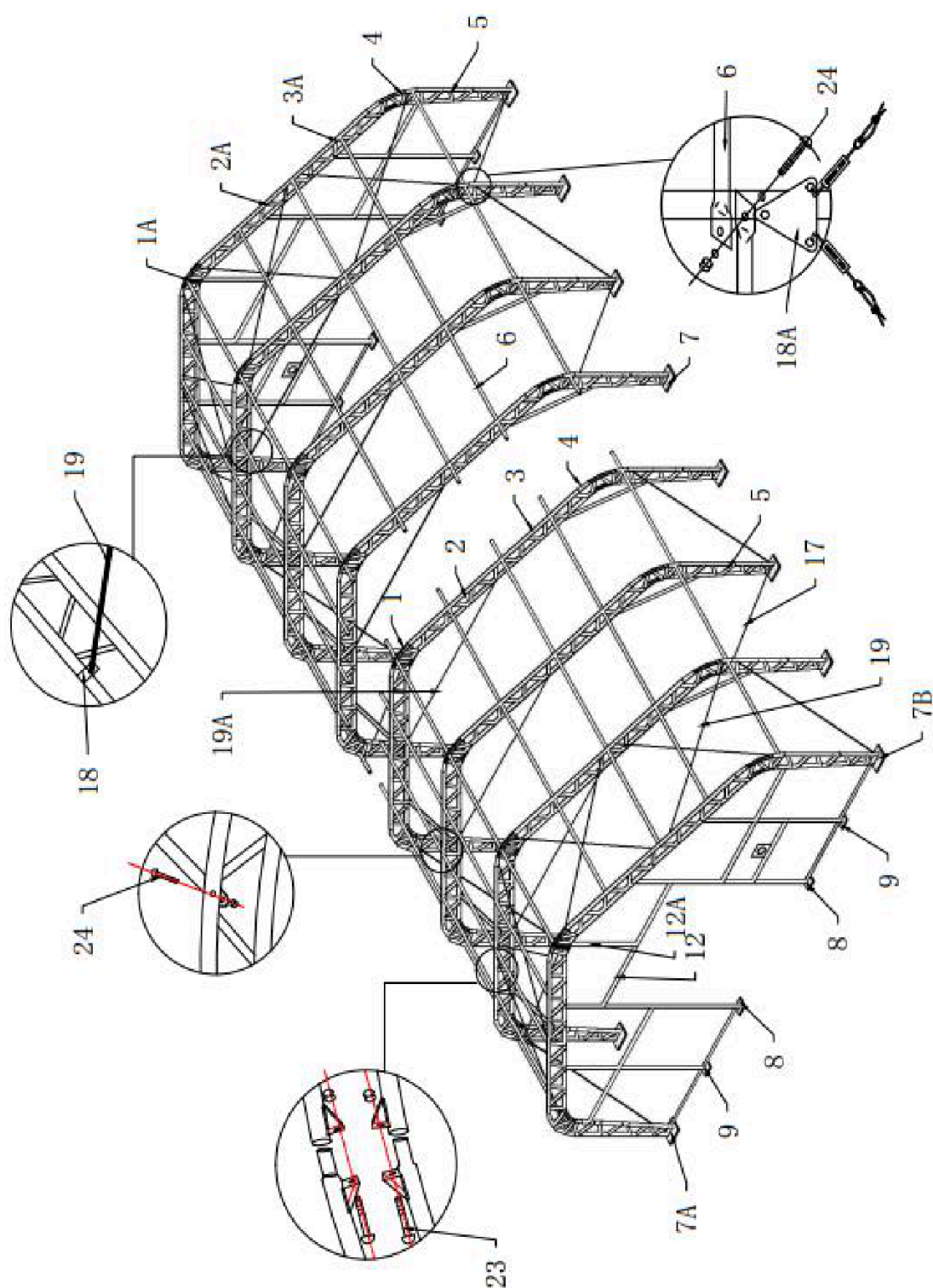


Fig. 1 - Structure drawing

INSTALLING THE BASE PLATES

Position the base plates according to Fig. 2 for your hall type (dimensions in mm).

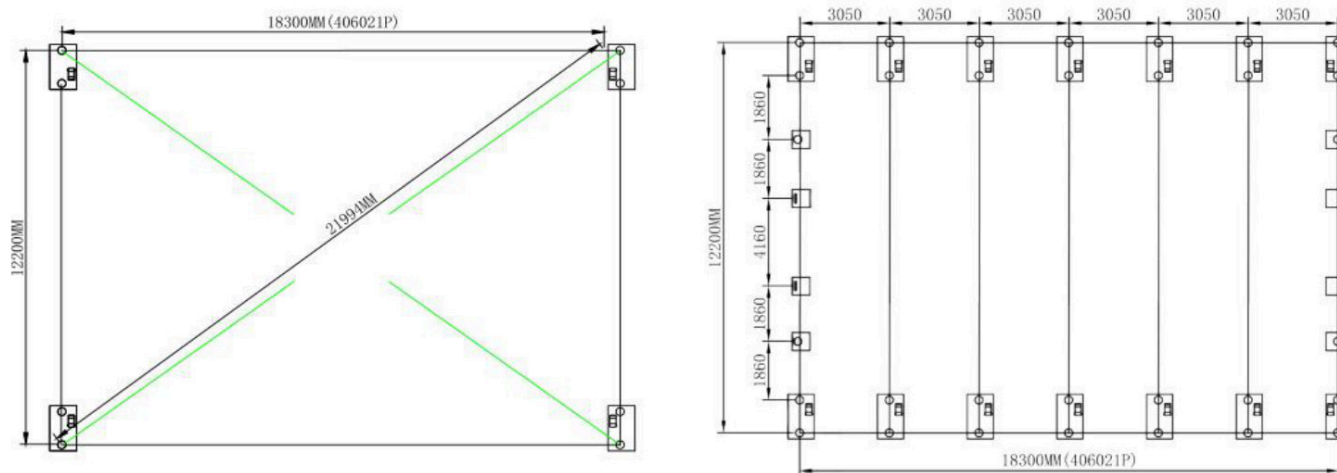


Fig. 2 - Base plate layout, model 406021P

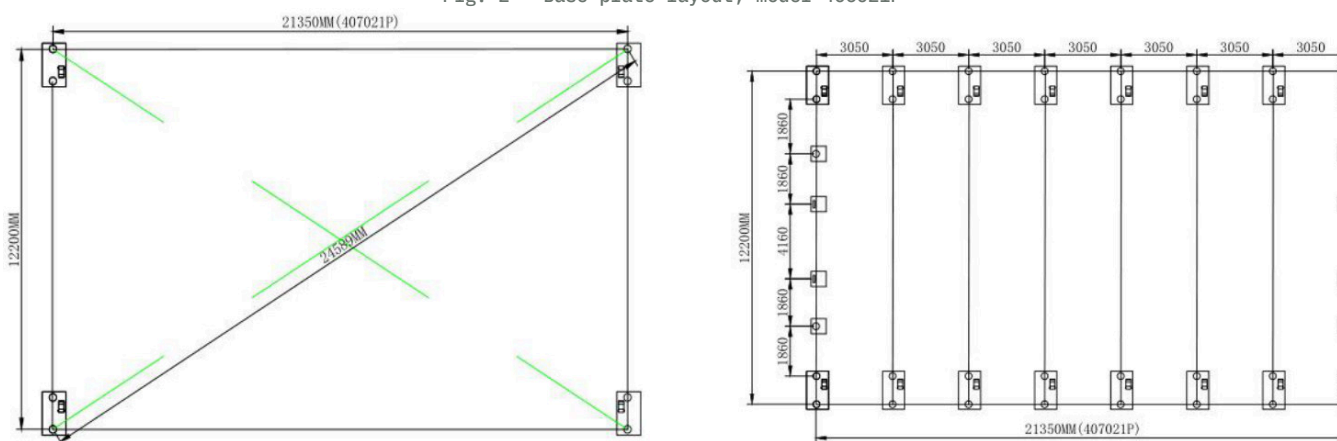


Fig. 2 - Base plate layout, model 407021P

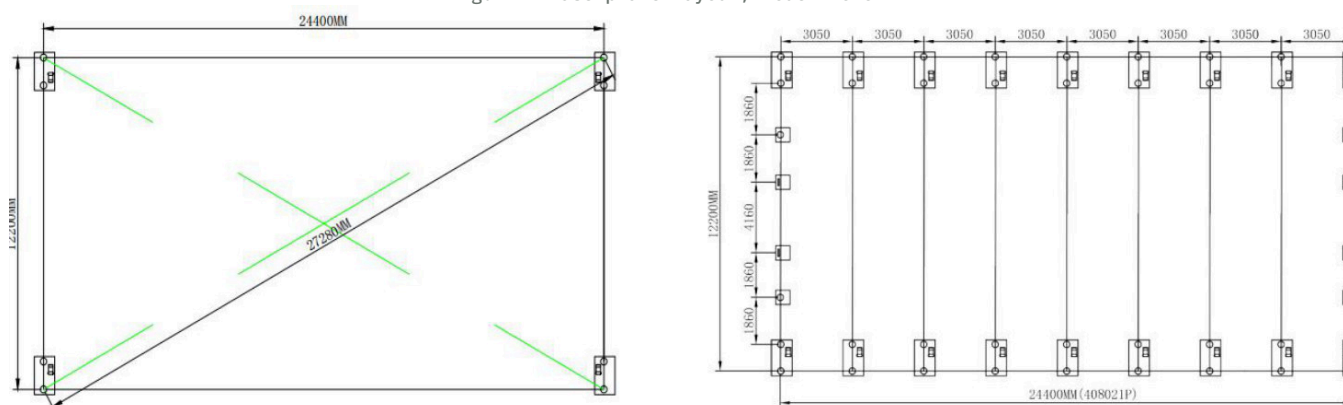


Fig. 2 - Base plate layout, model 408021P

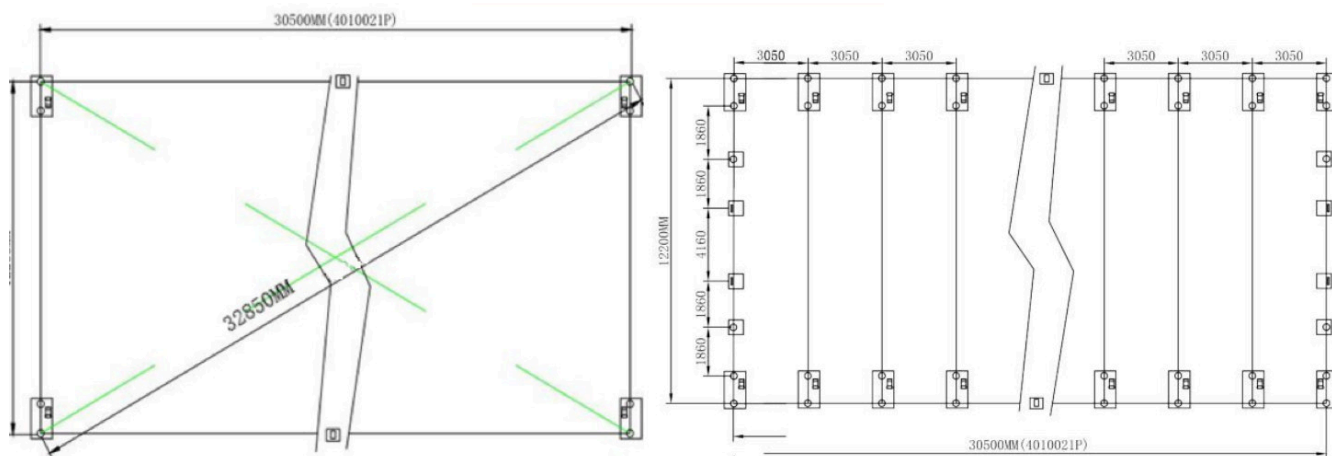


Fig. 2 - Base plate layout, model 4010021P

- 1** Measure the distances from tube centre to tube centre. Confirm the position of each base plate against the drawing (Fig. 2). Make sure the base plates are at right angles.

- 2** Base plates No. 7, 7A and 7B are secured with 4 stakes, base plates No. 7D, 8 and 9 with 2 stakes (No. 21). Secure all base plates.

**NOTE**

Install the rebar anchors in unpaved ground; they are not suitable for concrete, frozen ground, etc.

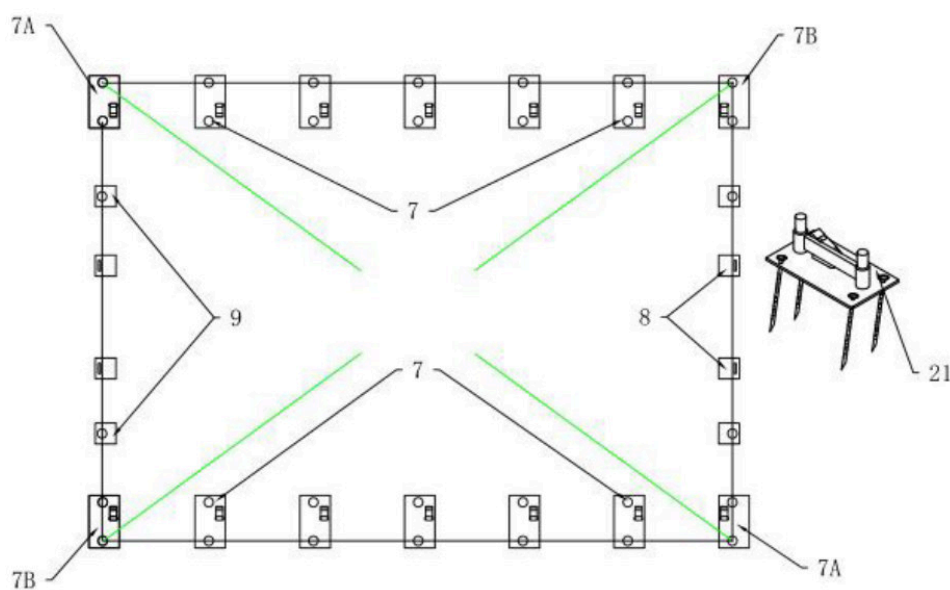
BASE PLATE TYPES

Fig. 2 - Base plate types, model 406021P

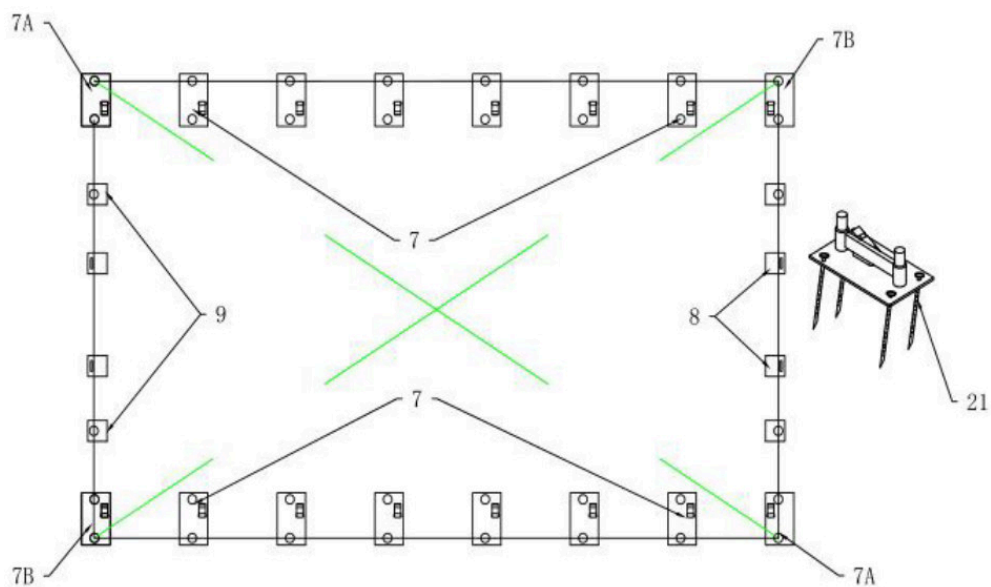


Fig. 2 - Base plate types, model 407021P

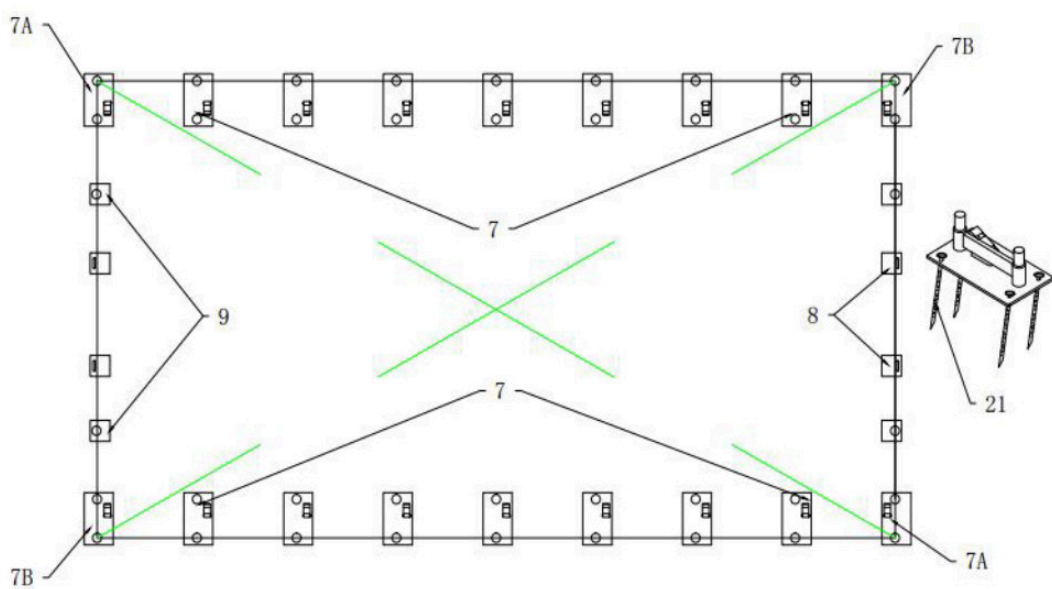


Fig. 2 - Base plate types, model 408021P

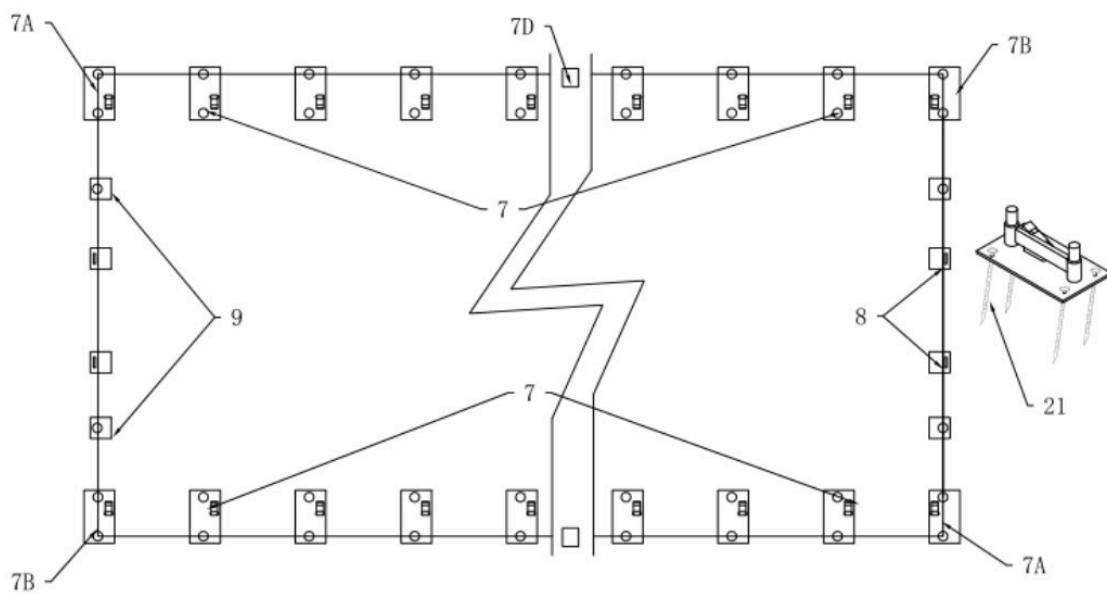


Fig. 2 - Base plate types, model 4010021P

FRAME ASSEMBLY

1

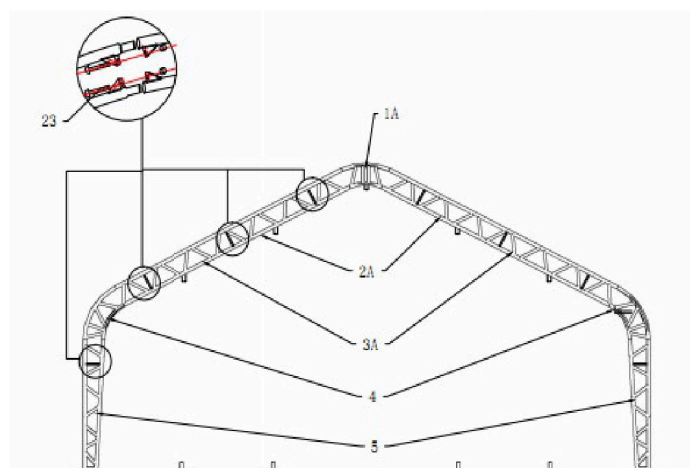


Fig. 3 – End arch

Fig. 3 shows the connection of the upper roof tube (No. 1A), roof tubes (No. 2A, 3A), side tube (No. 4) and leg (No. 5) of the end arch using M12 × 30 mm bolts (No. 23). Use a lifting device to fit the arch into the base plate tubes (Fig. 5).

2

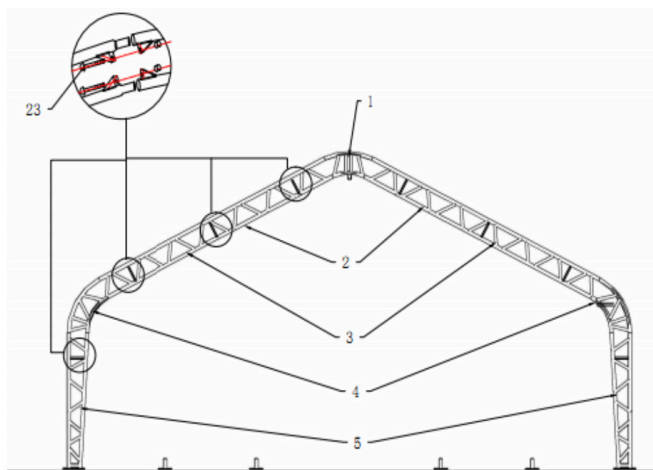


Fig. 4 - Middle arch

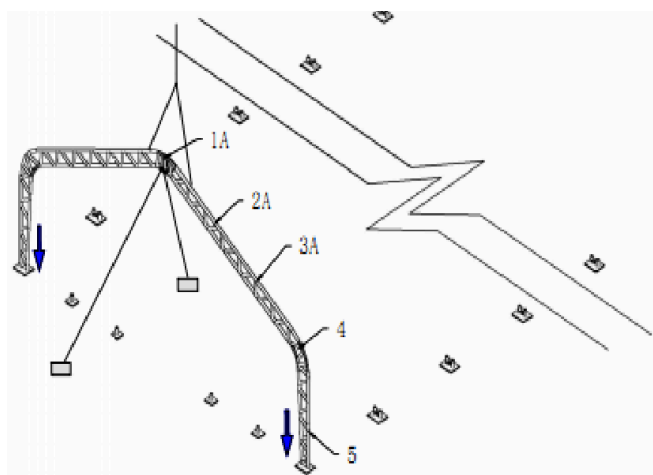


Fig. 5

Fig. 4 shows the connection of the upper roof tubes (No. 1, 2, 3), the side wall tube (No. 4) and the leg (No. 5) using M12 × 30 mm bolts (No. 23), which form the middle arch. Fit the arch into the base plate tubes using a lifting device. Assemble the arches according to Fig. 5.

3

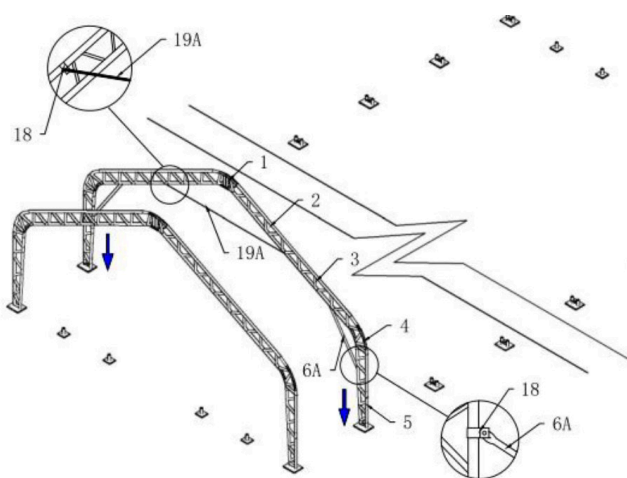


Fig. 6

Connect the shoulder support tube (No. 6A) to the arch with a clamp (No. 18), then connect the steel cable to the upper vertical tube (No. 19A), again with a clamp (No. 18) at the top – see Fig. 6.

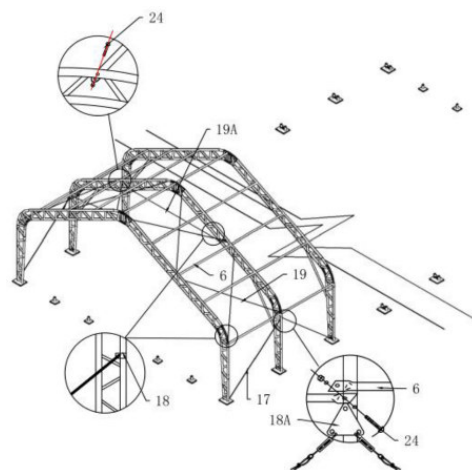


Fig. 7

Connect the purlins (No. 6) to the arch using M10 × 80 mm bolts (No. 24) – see Fig. 7. Then attach the steel cables (No. 17, 19) at the top and on the side using clamps (No. 18) – see Fig. 7.

FRONT AND REAR WALL

1

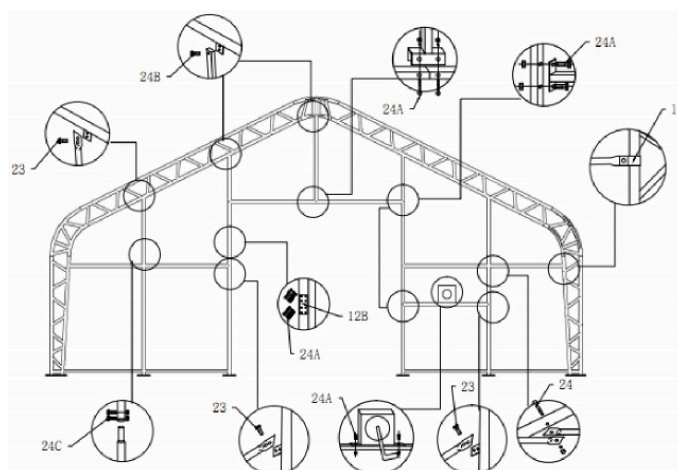


Fig. 8 - Wall frame joints

After fitting the arches, fit the front and rear walls according to Fig. 8 and Fig. 9.

2

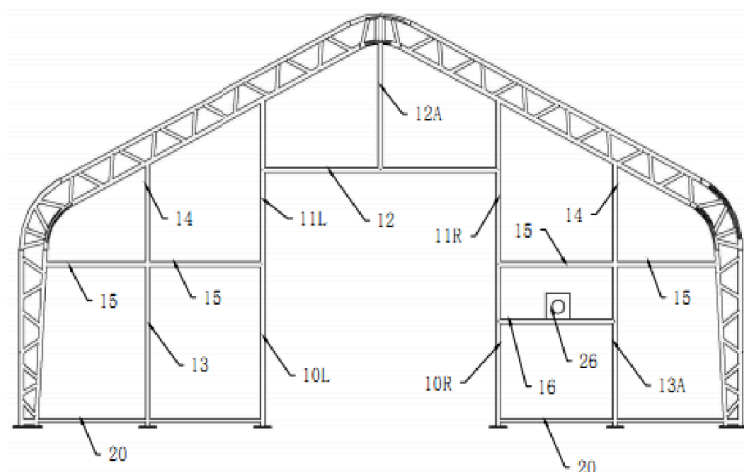


Fig. 9 - Wall frame parts

The layout of the front and rear wall frame parts is shown in Fig. 9.

HOW TO FIX THE FRONT AND REAR COVER

1

Lay the gate cover on the ground and insert the tapered gate tube (No. 25) into the horizontal fabric sleeve of the gate cover.

2

Wind the steel cable onto the winch. Run the steel cable over the double pulley onto one sheave. The other end of the steel cable passes straight through the double pulley.

3

Then pass the wound steel cable through the hole in the tapered tube that separates the upper and lower parts. Tighten the cable at the bottom of the tapered tube so that it cannot slip back.

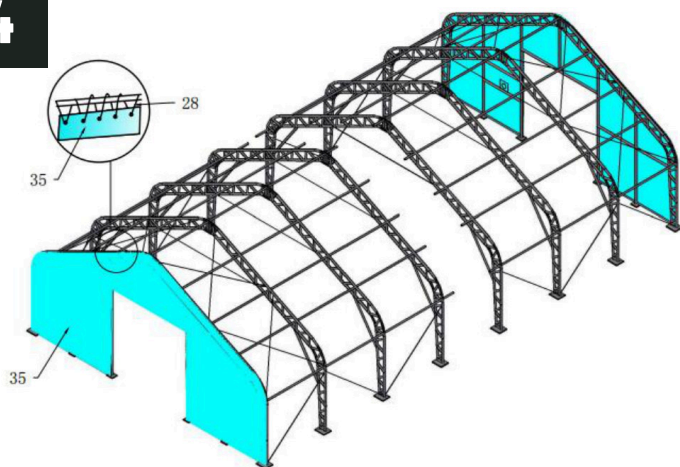
4

Fig. 10

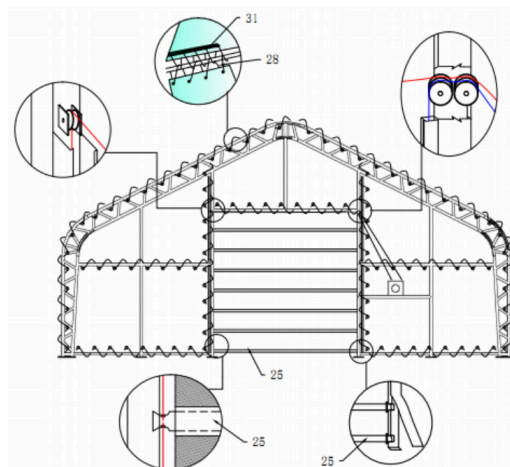


Fig. 11

Fix the entire gate cover with rope (Fig. 10 and Fig. 11).

5

The gate can be operated with the winch.

**CAUTION**

Do not place the cover on the hall frame in windy weather.

FITTING THE ROOF COVER



CAUTION

Do not install the cover on the hall frame in windy weather. To make use of a light breeze, pull the cover over the arches so that it fills with air.

1

Spread out the cover and lay it parallel to one side of the frame.

2

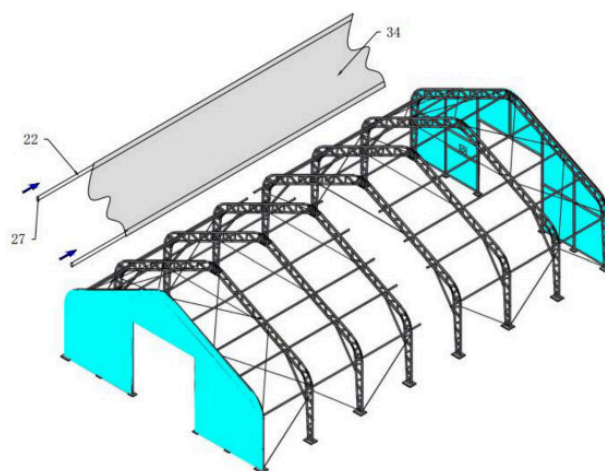


Fig. 12

Insert the tensioning tube (No. 22) into one side of the roof cover only and cut open some sleeves matching the ratchet positions. Cover the tube ends with plastic end caps (No. 27).

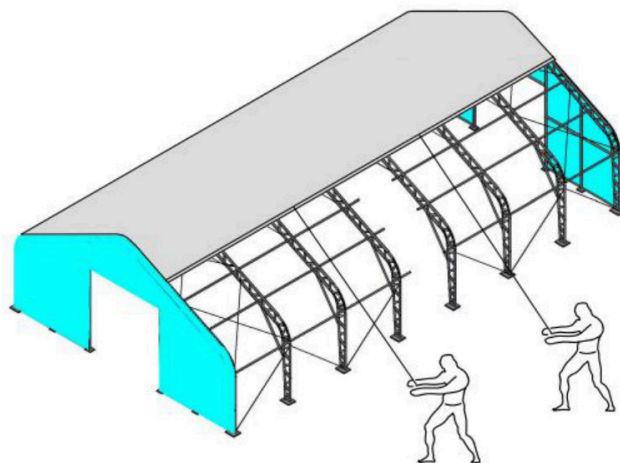
3

Fig. 13 – 406021P, 407021P, 408021P: only 1 pc roof cover

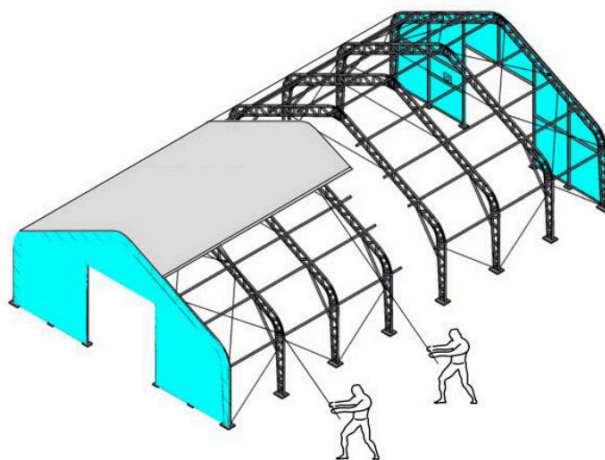


Fig. 14 – 4010021P: 2 pcs roof cover

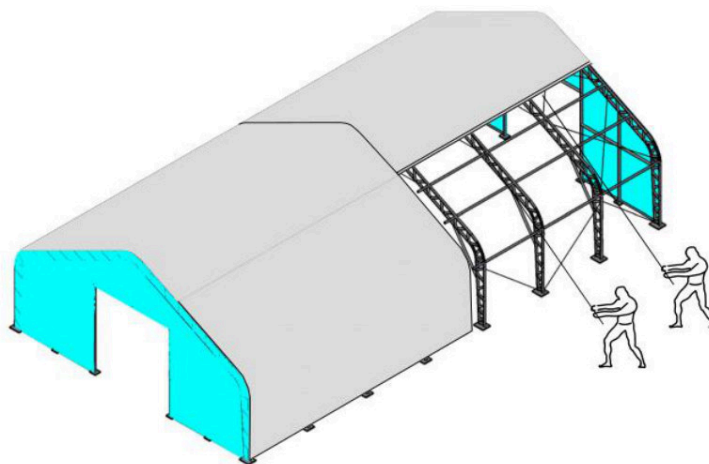


Fig. 14

Attach the ropes and throw them over the frame. Then pull the roof cover over carefully and slowly. Fig. 13 and Fig. 14 show the roof cover being pulled over the frame – always carefully and slowly.

4

Then cut several sleeves matching the inner base plates. Secure the nylon strap (No. 30) in the ratchet (No. 7C).

5

Remember to insert the tube (No. 31) into the front and rear ends of the roof cover and connect them with rope (if the roof cover consists of several pieces, insert a PVC tube into both sides of each piece and connect them with rope).

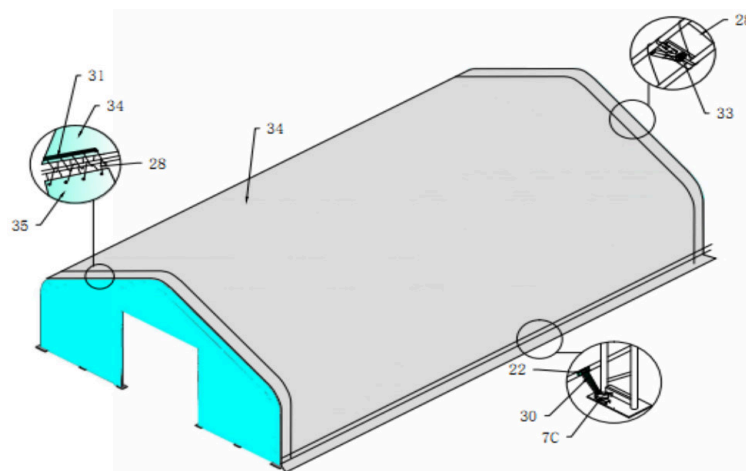
6

Fig. 15

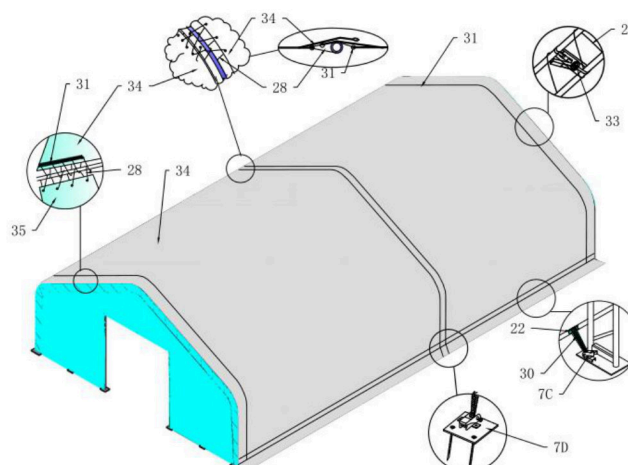


Fig. 16 - 4010021P (2 pcs roof cover)

Do not tighten. Adjust the cover so that it is evenly centred on the frame. Fit and fix the roof cover together with the front and rear covers. Insert the lower tensioning tube and the PVC tube (No. 31) and fix them with rope (No. 28). Finally, tie off – see Fig. 15 and Fig. 16. Note: The cover must overhang evenly at both ends.

7

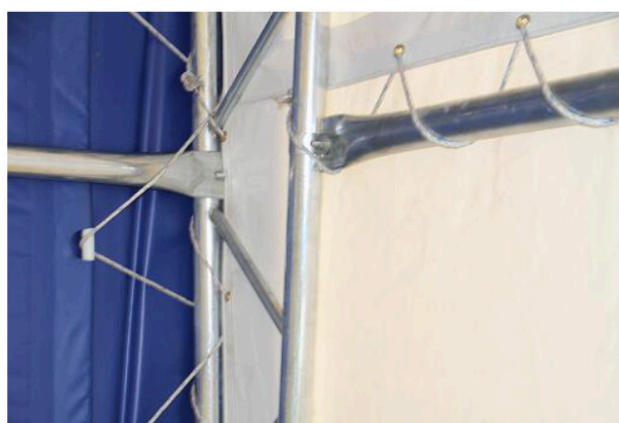
Fold the end flaps the opposite way and use rope to tension the roof cover to the end arches. Adjust the rope length as required. We recommend using separate pieces of rope and starting from the bottom edges up to the top centre. Secure the ropes at the top centre. Fix the rope to the bottom edge.

8

Fit the strap (No. 30) on the tubes where the cut-outs are. Pull the nylon strap through with the winch. Tighten it by moving the ratchet back and forth. Assembly is complete.

STRUCTURE DETAILS

Look carefully at the detailed photos before assembly.



CAUTION

- Do not leave the hall until the cover is secured.
- Adjust (retension) the cover every month.
- After assembly, tape over the joints.



Wrapping the structure joints with tape

MAINTENANCE

HALL MAINTENANCE

- The cover must be retensioned regularly, ideally 2× a year – always before winter and in spring after the frosts. In cold weather the cover can stiffen, in warm weather it can sag.
- In winter, we recommend sweeping snow off the hall roof if it does not slide off by itself.
- Excessive humidity can cause mould. The cover can be treated with standard anti-mould products.
- We do not recommend using acid-based cleaning agents to clean the cover.

**HAGRO ORAVA s.r.o.**

hagroshelters.com · hagro@hagro.sk

Contact us with any questions about assembly.