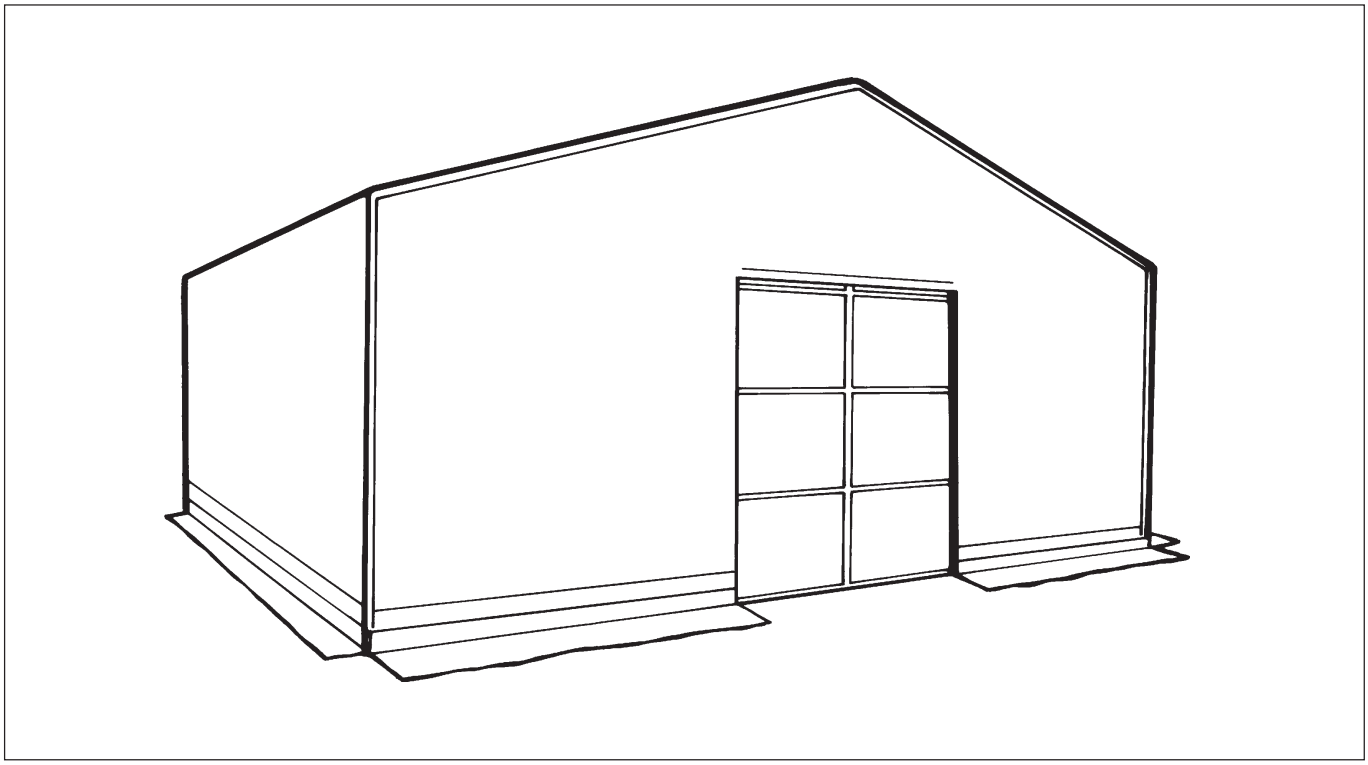
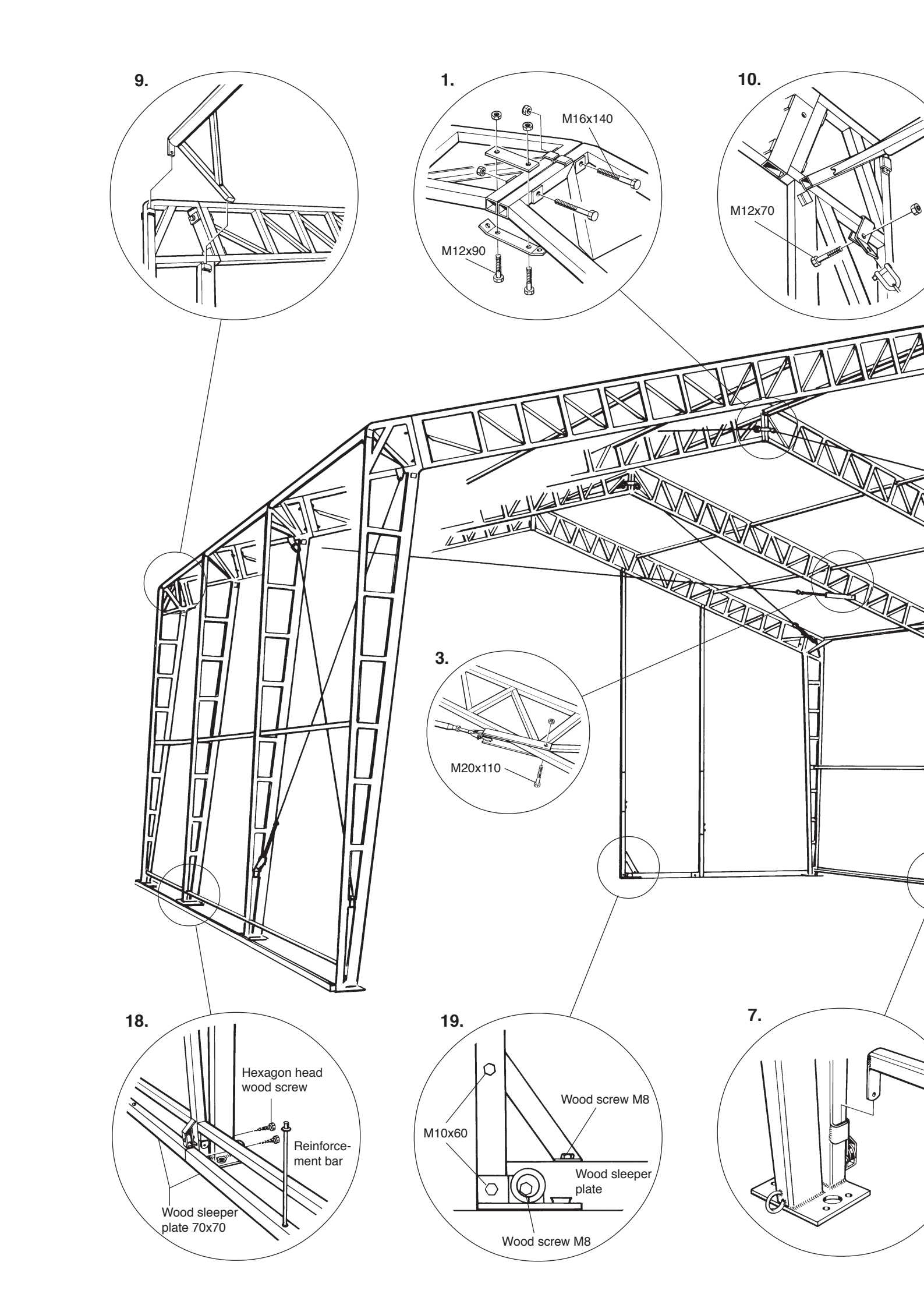
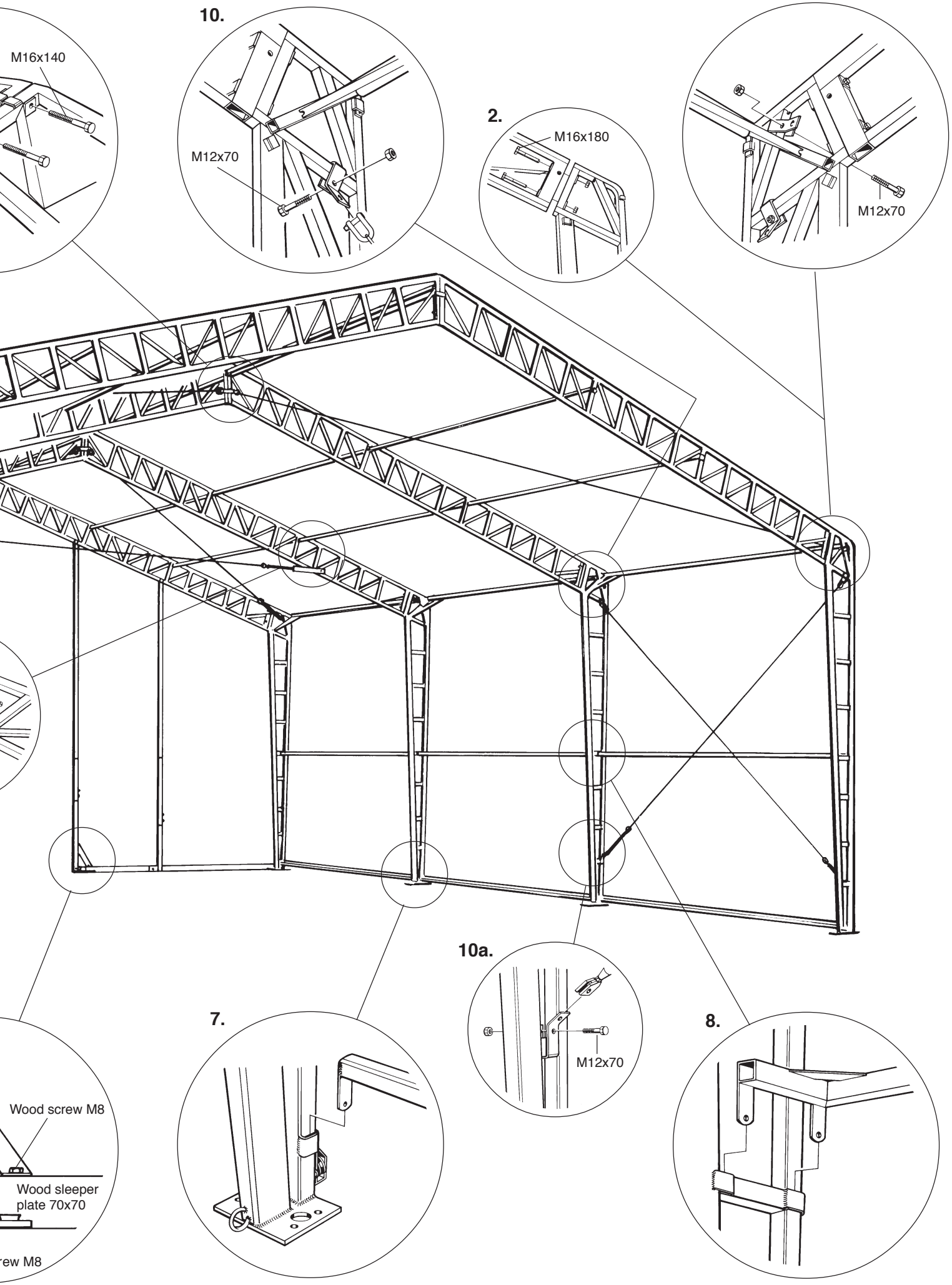


Assembly instructions SwedHall 9, 12, 15 and 20

Component list

NSS Sverige AB
Box 7007, 791 07 FALUN
Phone: +46 23 70 52 00. Fax: +46 23 347 30. www.nss-sverige.se


9.
1.
M16x140
M12x90
10.
M12x70
3.
M20x110
18.
Hexagon head wood screw
Reinforce-ment bar
Wood sleeper plate 70x70
19.
M10x60
Wood screw M8
Wood sleeper plate
Wood screw M8
7.

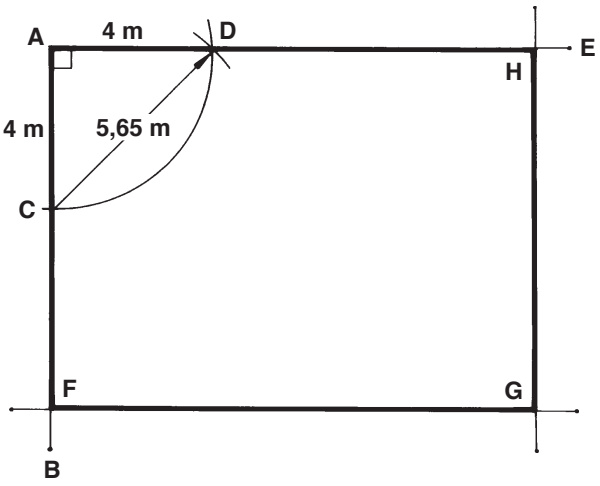

M16x140
10.
M12x70
2.
M16x180
M12x70
10a.
M12x70
7.
8.
Wood screw M8
Wood sleeper
plate 70x70

SwedHall 9, 12, 15 and 20

The hall is available in widths of 9, 12, 15 and 20 m, and three different heights, 3.5 m, 4.5 m and 5.4 m internal height.

Mark out where the hall will be erected, and its 4 corners.

Start by stretching a line where the short side of the hall will be placed (A–B). The line should be a half metre longer than the end wall.



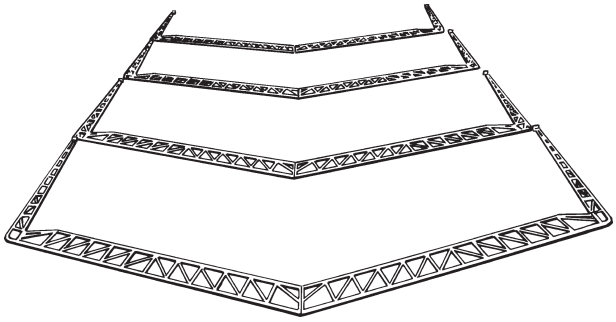
Measure off a distance of 4 m A–C. Hold a 4 m long string at point A and use it as “dividers” to mark the arc at point D.

Measure the distance C–D. This should be 5.65 m.

Stretch a line from A through D and about 0.5 m longer than the long side E of the hall. The corners of the hall are now at right angles.

Measure and mark off the other corners F of the hall (width) and H (length) plus G

It might be a good idea to mark the positions of the support arches along the long sides.

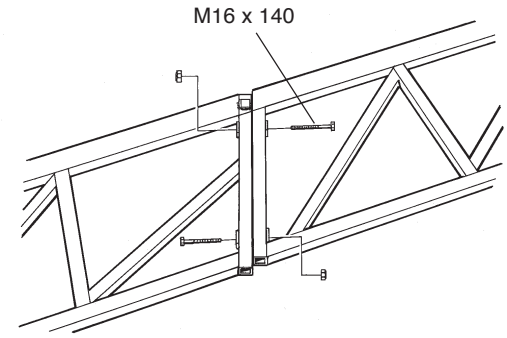


Place the roof and leg spaceframes in their places, to facilitate transport and assembly of the support arches.

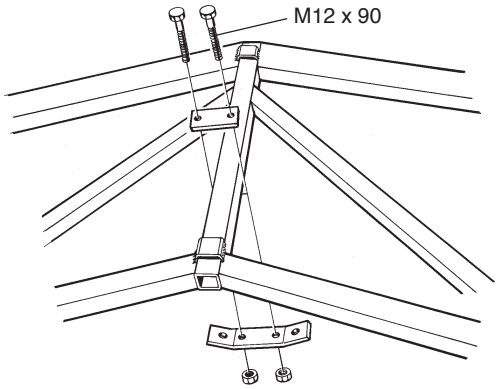
Assembly sequence

Assembly with the components on the ground.

1. Screw the roof trusses together at the ridge (M16x140).



Screw the roof trusses to at the ridge section (M16x140).



Install the shackle anchorage for the stay cables at the ridge, on the roof trusses which will be installed closest to the end wall arches (stand arch no. 2).

NOTE!

Screw the anchorage to the centre of the roof truss (M12x90), ensuring that the bend on the flat bar faces inwards towards the roof trusses.

2. Screw the legs to the space frames (M16x180).

2a. Screw the corner stays in place (M20x110), depending on snow zone and model of hall.

SwedHall 9: No corner stays

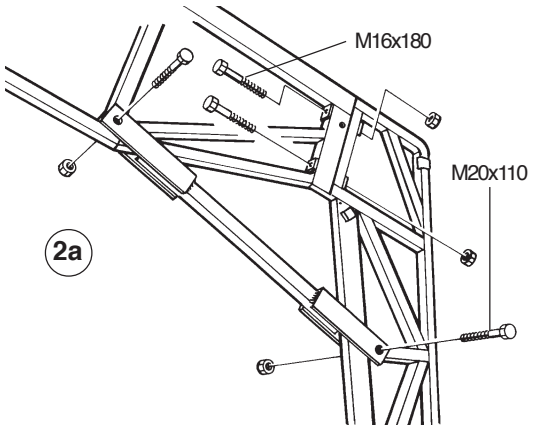
SwedHall 12: No corner stays on end arches

SwedHall 15: Corner stays on all support arches

SwedHall 20: Corner stays on all support arches

NOTE!

When corner stays are installed on an **end wall arch**, use **coach bolts** (M16x120) **with a sleeve**. The head must face the fabric. Or use special M20x110 coach bolts without a sleeve.



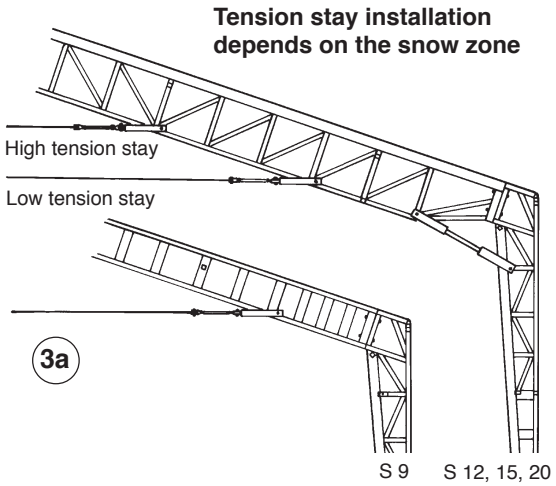
3. Depending on the snow zone where the hall is erected, it may have to have tension stays.

NOTE!

Tension stays must **never** be installed on **end wall arches**.

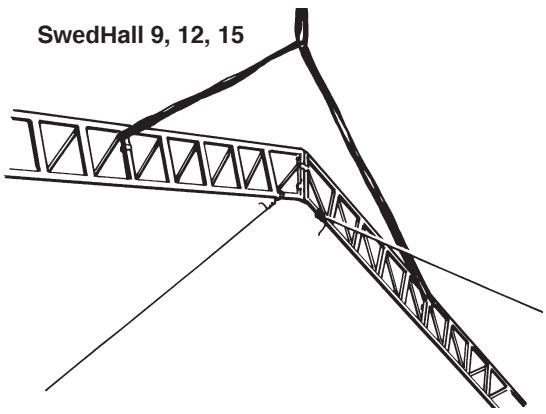
Install the tension stay anchorages on the space frame. Connect the tension cable to one end with a shackle, and use a rigging screw at the other end.

3a. The illustration shows where the tension stay anchorages should be connected for each model of hall.

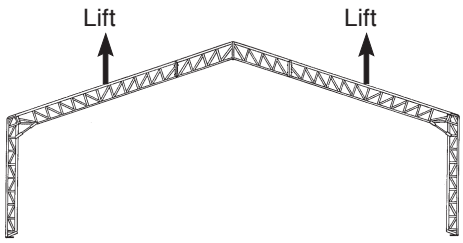


Raising and rigging the supports

4. Fix a rigging line to the first outer support arch before it is raised.



Note the lifting points on the arch for SwedHall 20.



5. Raise one of the outer support arches and anchor the rigging line so that the arch is vertical.

NOTE!

Use a plumb line to check that the support arches are vertical.

6. Raise support arch no. 2 and check that the rigging lines hang freely (c/f point 1).
7. Install the lower intermediate stay between the stand legs. Make sure that it is pressed down securely into its anchorages.
8. Install the stiffening stay. Make sure that it is pressed down securely into its anchorages.
9. Install the eaves pipe. Make sure that it is pressed down securely into its anchorages.
10. Install the anchorages for the diagonal cables (M12x70) in one of outer wall spaceframes at the eaves (10) and on the lower crossbar of the stand leg (10a).

    Connect the rigging cables with shackles at the eaves and rigging screws at the other end. Measure the diagonals and use a plumb line on the first bay.
11. Install the anchorages for the diagonal cables (M12x70) for the roof, in the two outermost roof spaceframes. Connect the rigging cables with shackles at the ridge and rigging screws at the eaves.

NOTE!

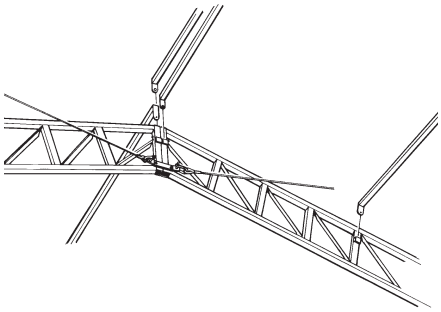
Support arches 1 and 2 must be anchored to the ground with twin earth spikes directly after they are fully assembled, with the intermediate stay and all cables in the roof and walls.

12. Install the intermediate stays between the roof trusses. Make sure that they are pressed down securely into their anchorages.

NOTE!

Install twin intermediate stays close to the ridge, between the first two arches.

12.



Also install intermediate stays underneath the roof space frame nearest to the eaves on SwedHall 15 and 20.

Once support arch 3 (incl. intermediate stays) has been installed, the tension strap between the ridge on support arch 2 and the eaves of support arch 3 must be temporarily installed. The tension strap will remain until the roof cable on the opposite end wall has been installed and tensioned.

13. Measure the diagonals of the hall as an extra check. Make any adjustments and then anchor each leg spaceframe with earth anchors.

NOTE!

Double earth anchors at each end wall corner and also at one of the next outermost support arches.

Installing the end wall stay

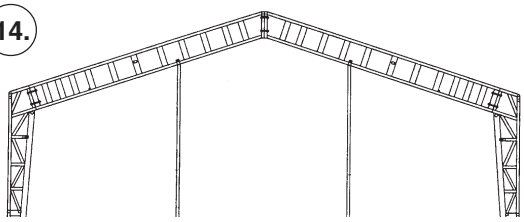
14. Connect the end wall stay to the roof space frames as appropriate for each model of SwedHall. Use M12x70 screws. The screw heads must face outwards.

Fix the end wall stay foot to the ground with an earth spike.

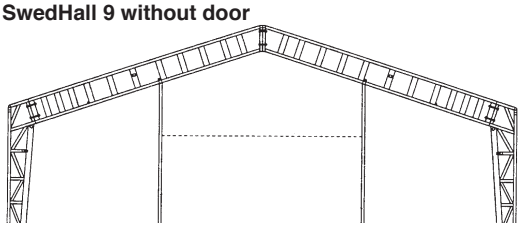
NOTE!

There are left and right-hand versions of the end wall stays. End wall stays with a cable eye shall be placed on each side of the door.

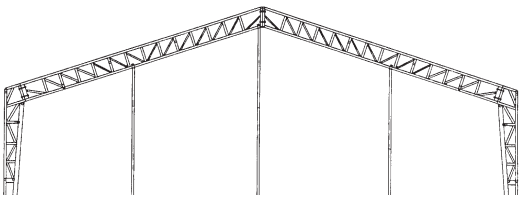
14.



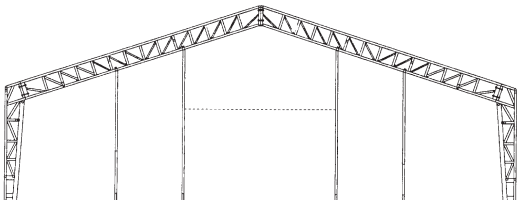
SwedHall 9 without door



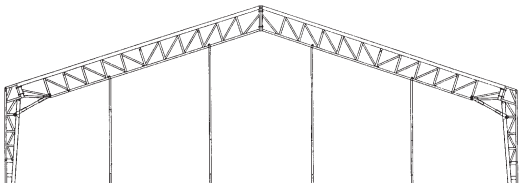
SwedHall 9 without door



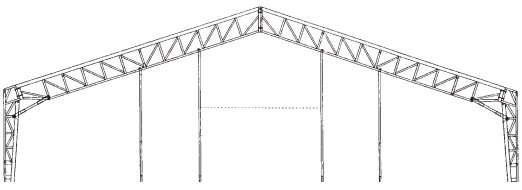
SwedHall 12 without door



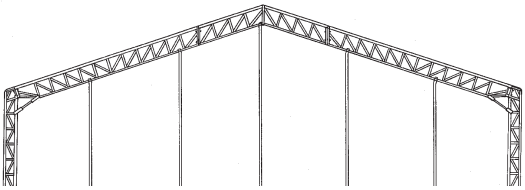
SwedHall 12 without door



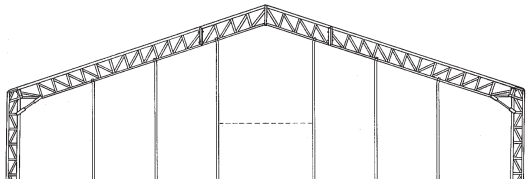
SwedHall 15 without door



SwedHall 15 with door



SwedHall 20 withot door



SwedHall 20 without door

15. Install the door guide on the end wall stay foot closest to the opening. Make sure that the roller faces inwards towards the hall.

Ground sealing

16. Put all the wood sleeper plates (70x70) along each side of the hall.
17. Screw the wood sleeper plates to the legs with hexagon head wood screws (T6S 4.6 8x35 mm).
18. Drill holes in the wood sleeper plates, right down to the ground and at least 300 mm depth. The holes (2 pcs) must be evenly spaced on each sleeper plate between the support legs.

    Use reinforcement bar as anchoring spikes through the sleeper plates.
19. Screw the side plates for the door to the end wall stays.

NOTE!

The side plates come in left and right-hand versions.

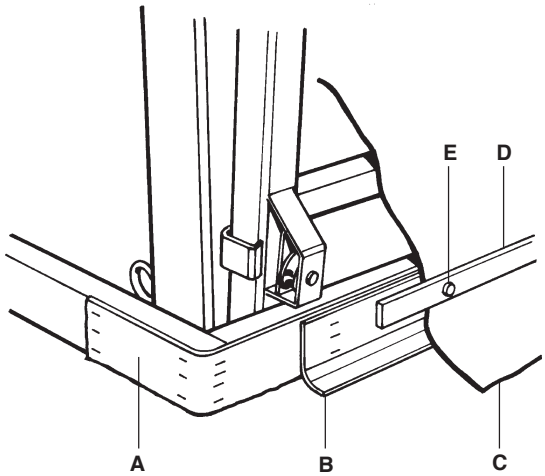
19a. Screw the fixing plates for the sleeper plates to the end wall stays beside the door.

20. Fix Icopal bridge insulation YEP 6500 75 mm wide (A) to the sleeper plates with staples. Fold the insulation round the corner to give full sealing.

    Then heat the bridge insulation with a gas burner, so that the asphalt in the strip melts, runs down to the ground and seals.

    If the hall is being rented, fix a PVC strip (B) of at least 75 mm width outside the bridge insulation.

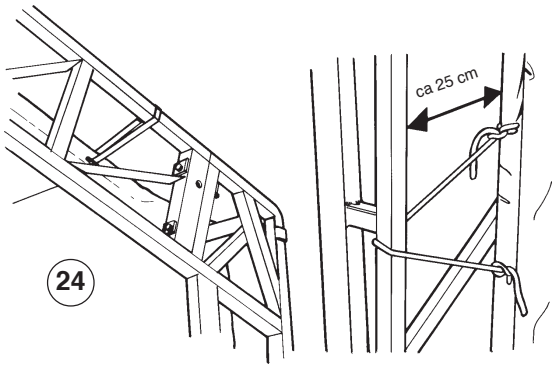
    When the fabric (C) is pulled over the support and tensioned (see below), it should be fixed to the sleeper plate with iron bar (25x 3 mm) (D) and Spax-S screws 6x35 (E). Tighten the screws with a No. 3 Pozidrive bit.



Installing the fabric cover

21. Lift the roof fabric up and unfold it so that it lies parallel to the ridge.
22. Unfold the roof fabric in both directions along the arches and down towards the eaves. Make sure that the roof fabric is 250 mm from the end wall arches.

    Insert the hem tubes (Ø 18x2) into the hem of the fabric. Start at the ridge.
23. Tension the roof fabric at one end wall arch with stainless steel straps. The distance between fabric and arch should be 220 – 250 mm.
24. Stretch the roof fabric towards the other end wall arch, so that it is 250 mm from the end wall arch. Make sure that the fabric is not skewed over the roof. Check its position at the eaves.



25. Fix the roof fabric to the other end wall arch with stainless steel straps. The distance between fabric and arch should be 220 – 250 mm here as well. Make sure that the straps are tensioned evenly.

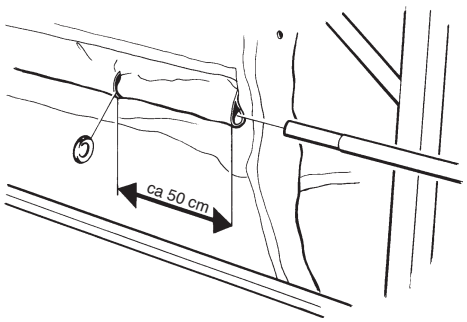
NOTE!

Start at the ridge and work outwards towards each eaves when the roof fabric is tensioned with the metal straps.

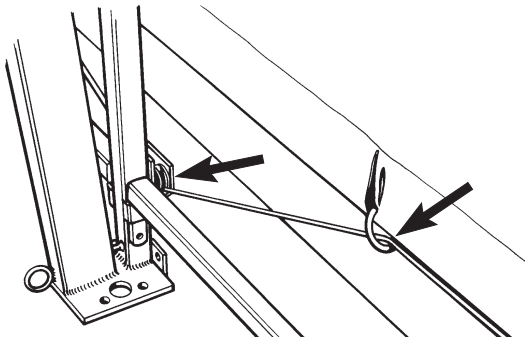
26. Insert the hem tubes (Ø 28x2) into the hem of the fabric, alongside the leg spaceframes.

    Tension the fabric temporarily with a rope so that it is 250 mm from the leg spaceframes on each of the end walls.

    Tension the fabric with stainless steel straps so that the fabric is 220 – 250 mm from the leg spaceframes. Always tension the straps evenly!
27. Cut holes in the fabric hems for the metal rings (app. 500 mm from each end) and slide the hem tubes in so that the tubes (Ø 28x2) also pass through the metal rings.



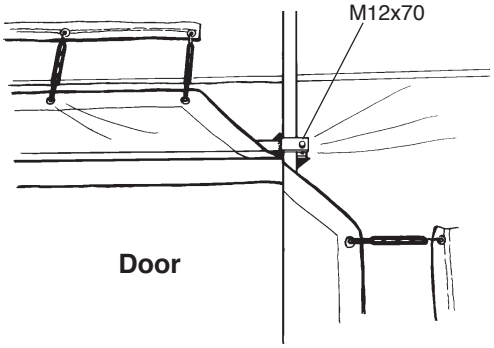
28. Connect a rigging screw and tension cable to one of the end wall legs. Thread the cable through the rings and under the tension roller on the intermediate arches. Fix it to the other end wall leg with two cable locks. Use a cable stretcher so that you can stretch the cable strongly enough. Then stretch it finally with the rigging screw.



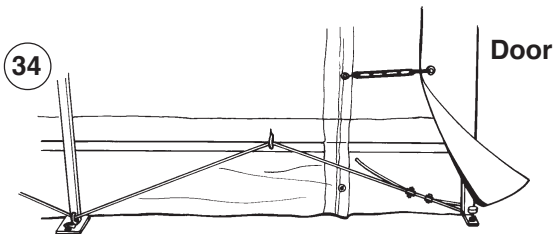
29. Tension the fabric round the end wall arch with a metal strap in the same way as at the roof truss.
30. Pull the end wall fabric towards the ridge with a rope. Fix it to the roof fabric with the belts.

    Then fix it to the end wall stays with the belts.
31. Move the handrail to the correct position on the end wall stay over the door opening and screw it in place (M12x70).

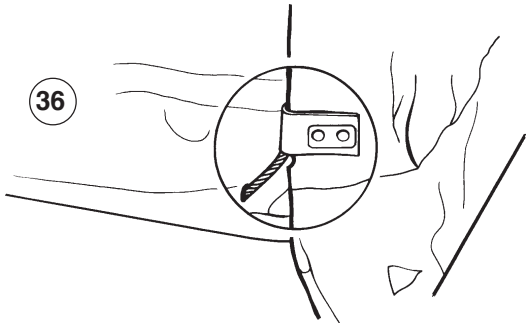
    Use the rubber straps to tension the end wall fabric around the door opening.



32. Check that the screws on the end wall stay are tightened, both on the roof truss and for height adjustment
33. Thread the hem tubes through the hem on the end wall fabric and through the metal rings.
34. Use a rigging screw and tension cables on one end wall leg and pull it through the rings and eye on the foot of the end wall stay. Lock the tension cable with two cable locks by the end wall stay beside the door opening.



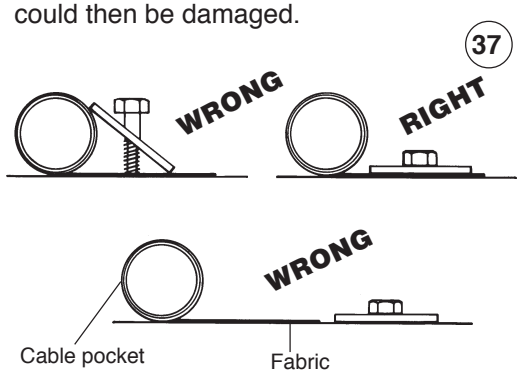
35. Pull the flap on the roof fabric over the end wall fabric. Start at the ridge.
36. Make a hole in the end wall fabric and thread the cable that runs through the roof fabric. Tension the cable on the inside of the fabric, using the cable stretcher. Lock the cable with two cable locks.



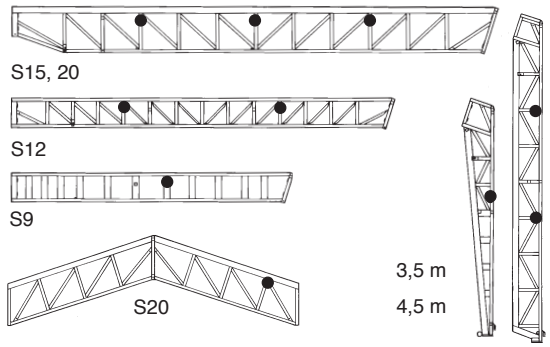
37. To prevent the fabric cover from flapping, and thus being damaged, it should be fixed to the stand with self-tapping screws 5.5x22 FZB.

    NOTE!

    Make sure that the screw is positioned so far away from the cable pocket that the washer does not rest on the pocket and the cable. Both the fabric and the screw could then be damaged.



Position the screws as in the illustrations.

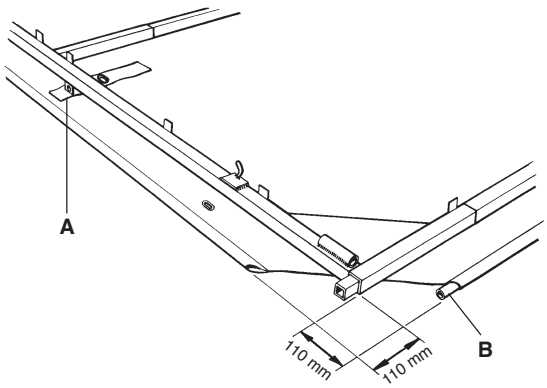


Installing the door blade with fabric covering

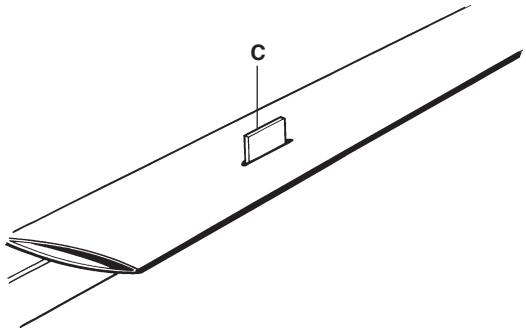
1. Put the fabric on a flat surface, so that the reinforcement (A) round the brace for the lock is on top.
2. Put the frame components in place over the fabric. The frame should be centred, 110 mm inside the outer edge of the fabric all the way round.

   NOTE!

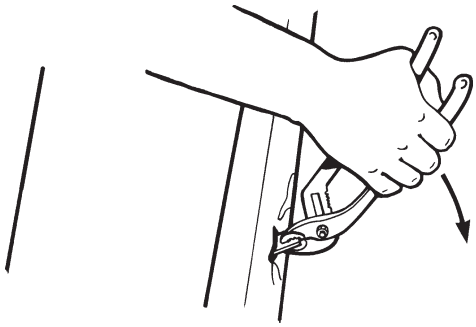
   The eye for the padlock must go through the reinforcement on the fabric (A).



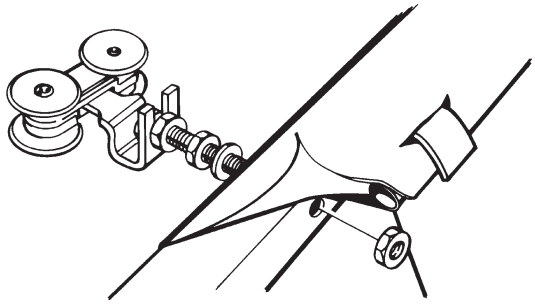
3. Slide the hem tubes (B) into the hems.
4. Cut holes in the fabric in the centre of the fold-over plates, and then press the fabric over the plates (C). Short sides first!



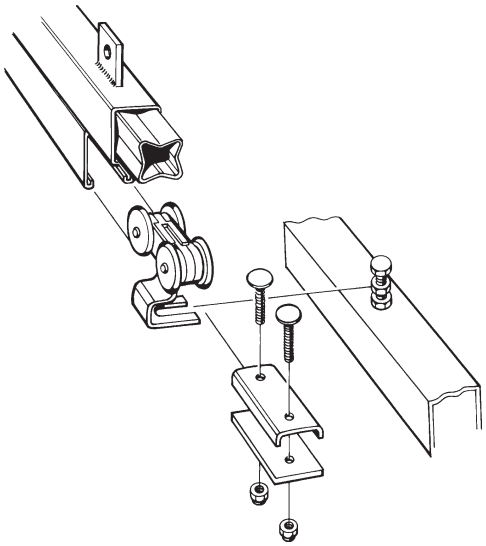
5. Turn the fold-over plates down with pliers so that the fabric is stretched. Then use a hammer to fold the plates down fully.



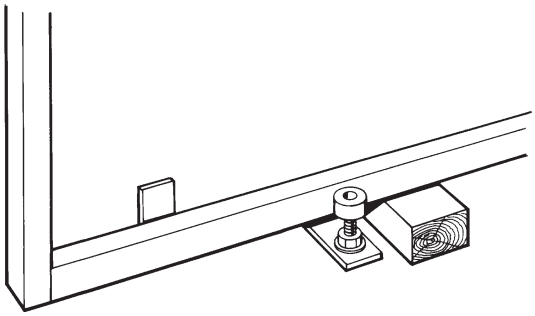
6. Cut holes in the fabric, centred over the holes for the runners. Screw the runners tight against the door blade frame, to permit height adjustment of the door when it is in place.



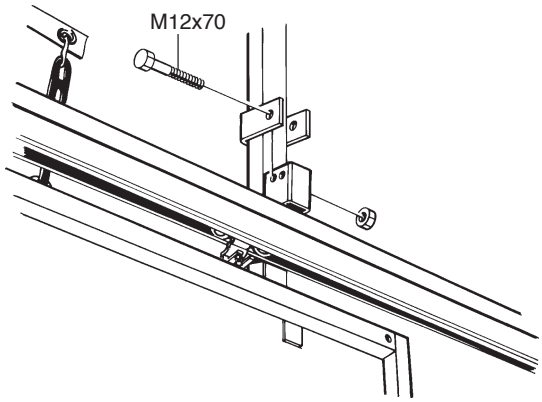
7. Slide the slide rail into place over the runners. Install end stops at each end of the slide rail.



8. Put a piece of wood under the door, corresponding to the height of the door above the ground. The support roller on the end wall stay must rest against the side of the lower steel frame on the door.



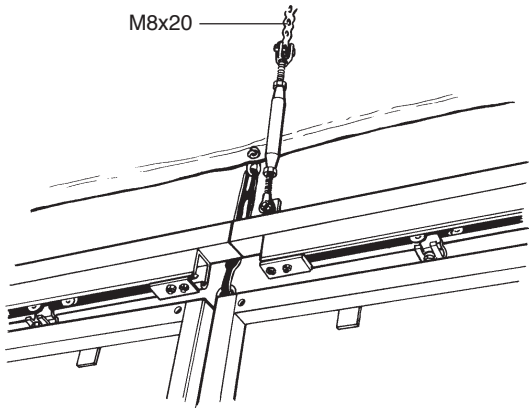
9. Raise the door blades (one at a time) and let them rest on the piece of wood. Screw the slide rails to the end wall stays with the braces (M12x70).



10. Anchor the slide rail at correct height with the perforated strap and rigging screw (M8x30). Fold the perforated strip round the lower frame of the roof truss. Fix with screws M8x20.

    Fold the perforated strap round the screw in the rigging screw. Fix with screw M8x20.

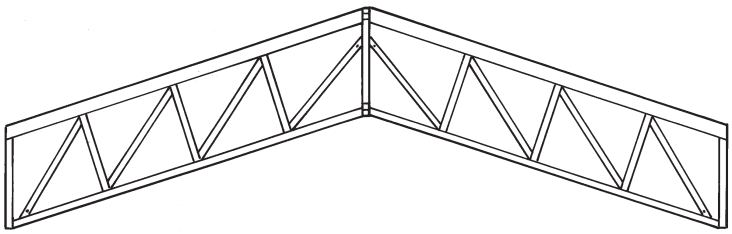
    Check that the rail is straight.

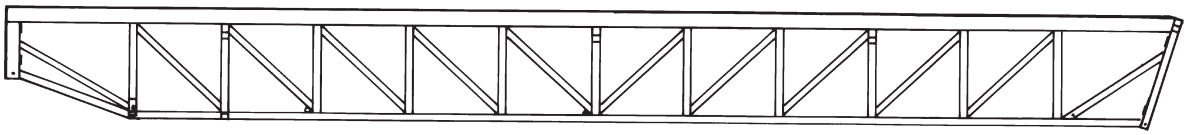


11. Align the two door blades vertically so that the guide pin on the door blade frame can enter the hole.
12. Drive down the tube for the lock pin, centred on the guide on the door blade.

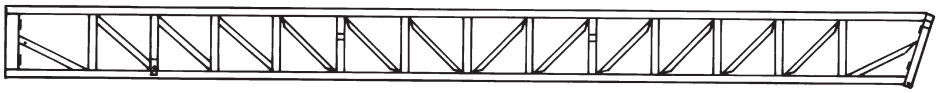
Components

712 004 Ridge spaceframe S20

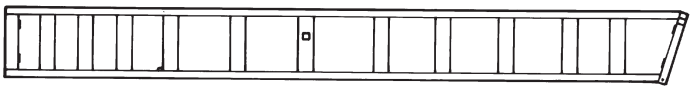




711 510 Roof spaceframe S15, S20

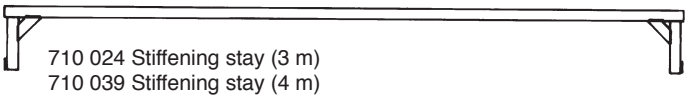


711 210 Roof spaceframe S12

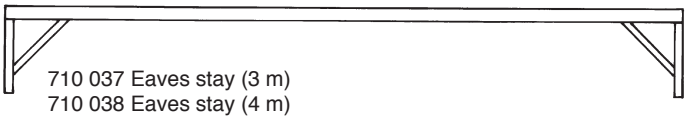


710 910 Roof spaceframe S9

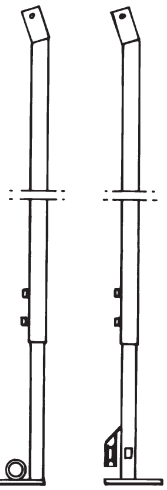
710 020 Intermediate stay (3 m)
710 036 Intermediate stay (4 m)



710 024 Stiffening stay (3 m)
710 039 Stiffening stay (4 m)

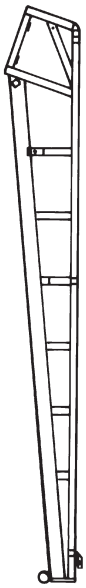


710 037 Eaves stay (3 m)
710 038 Eaves stay (4 m)

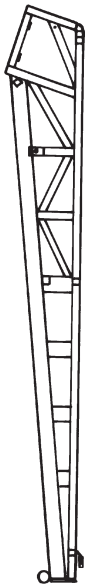


End wall stay by door

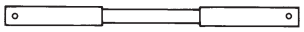
End wall stay



Leg
710 011 (3,5 m)
710 012 (4,5 m)



Leg reinforced
710 001 (3,5 m)
710 002 (4,5 m)

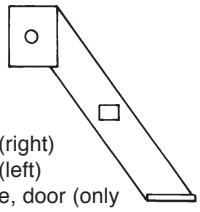


Corner stay (support arch)

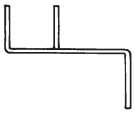
Earth spike

Earth anchor

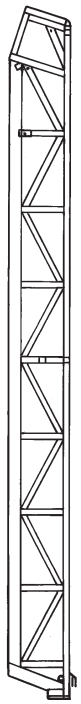
710 066 Hem tube against earth (Ø28x2)
710 067 Hem tube against roof (Ø18x2)



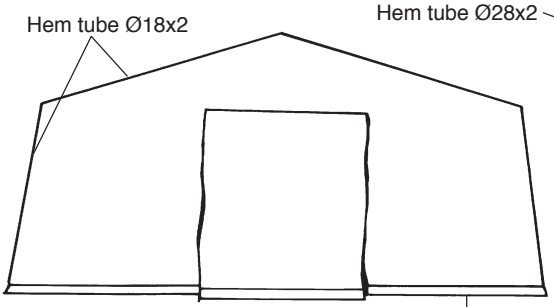
710 090 (right)
710 091 (left)
Side plate, door (only for ground sealing)



710 095 Fixing plate, sleeper bar by end wall stay

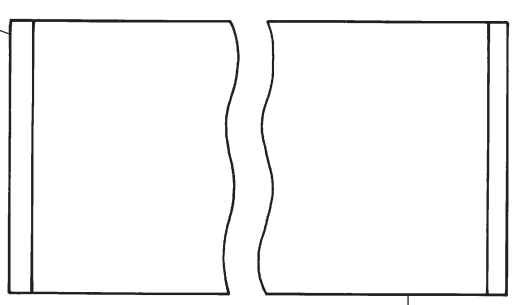


Leg, S20
710 003 (5,4 m)



End wall fabric

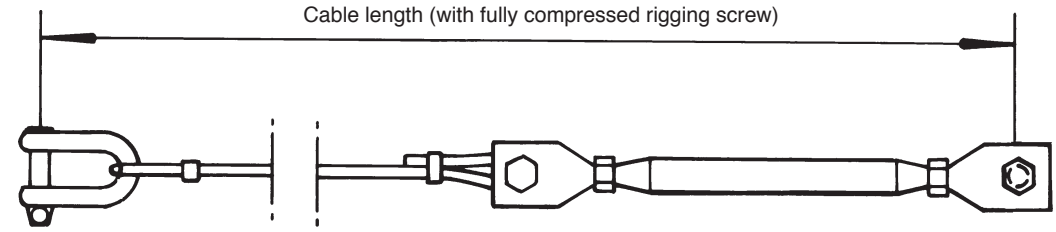
Hem tube Ø28x2



Roof fabric

Hem tube Ø18x2

Component list



Rigging cable

Cable length, diagonal, wall

Leg type, standard	Length
Ben 3,5 c 3,0 m	3650
Ben 3,5 c 4,0 m	4480
Ben 4,5 c 3,0 m	4340
Ben 4,5 c 4,0 m	5060

Cable length, diagonal, wall

Leg type, reinforced	Length
Ben 3,5 c 3,0 m	3650
Ben 3,5 c 4,0 m	4480
Ben 4,5 c 3,0 m	4340
Ben 4,5 c 4,0 m	5060
Ben 5,4 c 3,0 m	5355
Ben 5,4 c 4,0 m	5955

Cable length, diagonal, roof

Hall type	Length
S9 c 3,0 m	5270
S9 c 4,0 m	5890
S12 c 3,0 m	6640
S12 c 4,0 m	7140
S15 c 3,0 m	8060
S15 c 4,0 m	8480
S20 c 3,0 m	10640
S20 c 4,0 m	10960

Cable length, tension stay

Hall type	Length	Length
S9	–	5244
S12	Lågt	7711
S12	Högt	5395
S15	Lågt	9325
S15	Högt	5959
S20	Lågt	14325
S20	Högt	10959

710 042 Tension stay anchorage

Diagonal cable anchorage, ridge

Cable anchorage

WARNING

Make sure that the tent/ weather shelter is properly anchored.

Always use protective headwear when erecting or striking the tent/weather shelter.

Tips and Advice to Consider

1. Read through the assembly instructions before beginning assembly.
2. Check that the delivery is in agreement with the shipping list.
3. If the surface on which the tent/weather shelter will be assembled tilts, assembly shall begin at the highest point.

   The maximum permitted tilt is 1.2%.
4. **Make sure that anchorage is sufficient.**

   Gravel surfaces require extra anchorage in addition to the provided ground anchors/ground spikes.

   Contact NSS Sweden for advice.
5. Never leave a frame without securing tensioning straps and ground anchors/ground spikes in accordance with the instructions.
6. When returning, ensure that the tarpaulin is manageable and the markings are clearly visible.

General Care Instructions

Roof, Side and End Tarpaulin Sections

1. **Tarpaulin Tensioning**

   It is important that the tarpaulins are properly tensioned so that they cannot ripple. There is otherwise considerable risk that the tarpaulins will become worn and/or torn against the frame.

   Check the tarpaulin tension at least once each year. Tension the tarpaulin as needed. This considerably lengthens the tarpaulin's service life.
2. **Tarpaulin Cleaning**

   Clean with warm water, preferably at high pressure. Use mild cleaning agent.

   Solvents can be used in concentrated form on more difficult spots.

   For severe soiling, methylated spirits can be used with extreme caution so that the softener in the tarpaulin is not damaged.
3. **Wear and Tear**

   Leased products: Repaired by NSS Sweden.

   Purchased products: The tarpaulin is repaired using a hot-air gun or with special glue available from NSS Sweden. Place a patch of PVC tarpaulin over the damaged area. Secure it with glue or heat from the hot-air gun. For larger damages, contact NSS Sweden.
4. **Snow Removal**

   During snow removal, snow may not be ploughed or shovelled against the tarpaulin.

   If snow pockets form on the tarpaulin, they shall be immediately removed. The tarpaulin can otherwise be permanently deformed. Snow pockets on the roof are formed when the tarpaulin is poorly tensioned.

   Tension the tarpaulin hard.

Frame

1. **Tensioning Straps**

   Check that that the tensioning straps are properly tensioned.

   The tensioning straps shall be cleaned, marked and checked to ensure that they are free from damage before returning to us.
2. **Ground Anchors**

   Ensure that the ground anchors/ground spikes are properly secured and in contact with the end support.

   If the tent/weather shelter is mounted on tracks, ensure that the tracks are properly anchored.
3. **Handle the Entryways with Care**

   Check that the entryway assemblies are straight and function properly, and that the wheels roll freely. Check that the wheel assemblies travel freely along the entryway tracks.

   Lubricate as needed.
4. **Miscellaneous**

   Check that there are no cracks along the welded joints and that the frame components with "break profiles" (profiles in which the tarpaulin's piping are drawn) are free from damage.

Teknik-Info, Huskv. 0806

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