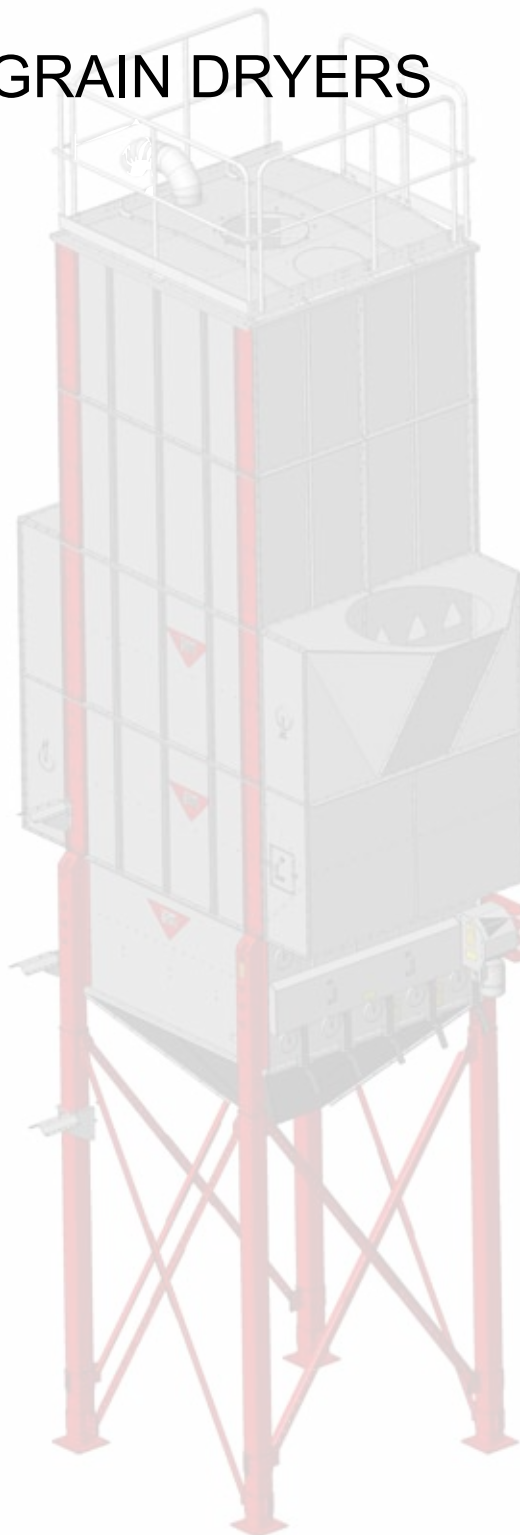


Assembly Instructions

ANTTI M06 4W GRAIN DRYERS TOP SECTION

408092 (en) 06-2022

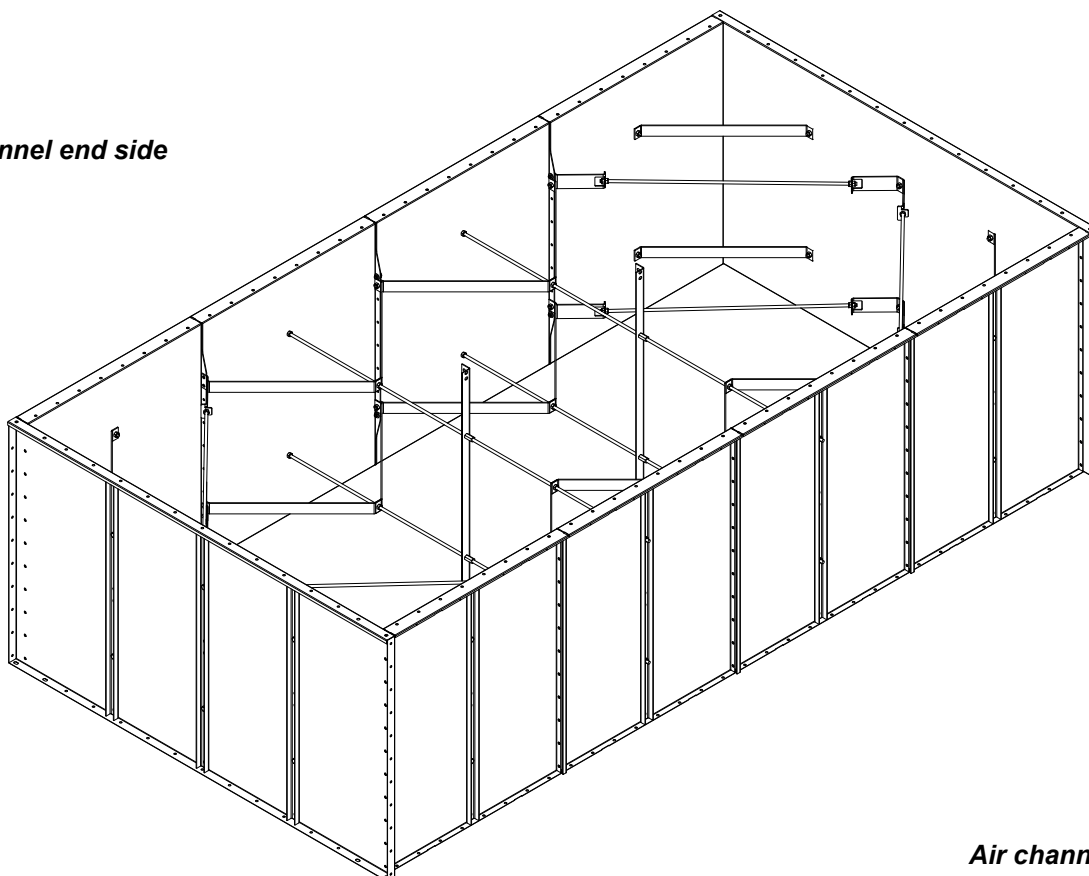


You'll see the difference



Top section 4W assembled (A70566)

Air channel end side

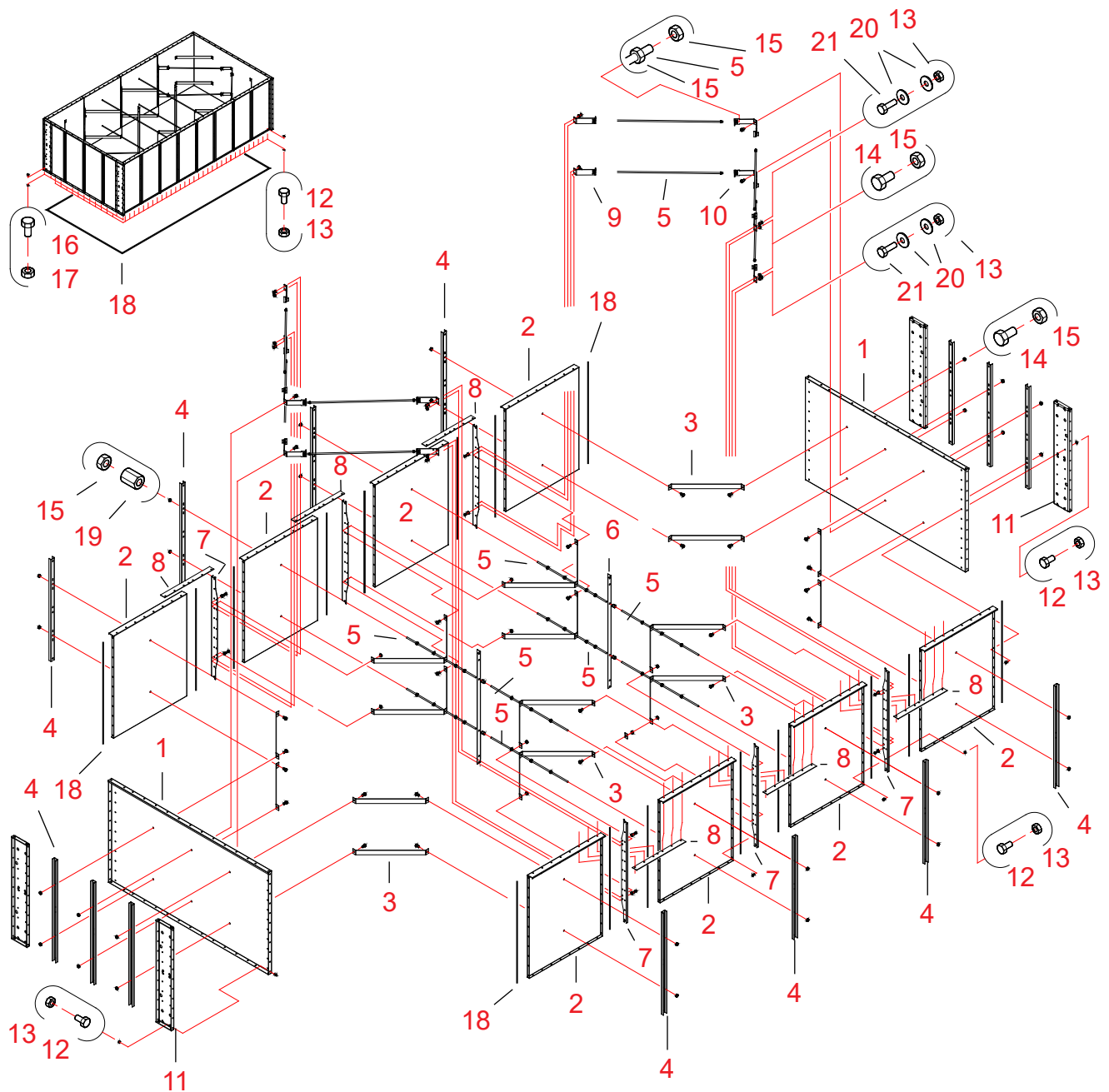


Air channel end side

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Top section 4W assembled (A70566), spare parts





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Ref.	Part no.	Denomination 1 and 2	Pcs.	Drawing No.	Weight	Group
1	A70562	TOP SECTION WM06 SIDE-PLATE	2	A70562-A	31.75	3000
2	A70563	TOP SECTION/AIR CH END END-PLATE	8	A70563-C	14.65	3000
3	A70560	TOP SECTION WM06 DRAWBAR SHORT	24	A70560	1.11	3000
4	A70565	TOP SECTION WM06 VERTICAL SUPPORT	14	A70565-D	2.45	3000
5	119028	THREADED ROD ZN - M12x1000 MM 8.8	16		0.89	2010
6	A70624	TOP SECTION WM06 BEARER EXTENSION	2	A70624	2.48	3000
7	A70810	TOP SECTION WM06 VERTICAL SUPPORT PL 3	6	A70810-C	2.34	3000
8	A71060	TOP SECTION WM06 BRACE FLANGE	6	A71060	1,11	3000
9	A72408	TOP SECTION WM06 BRACKET DRAWBAR LONG SINGLE	8	A72408-0	0.41	3000
10	A72407	TOP SECTION WM06 BRACKET DRAWBAR LONG DUAL	4	A72407-0	0.68	3000
11	A70382	SECTION WM06 SUPPORT LEG S=6	4	A70382-C	14.39	3000
12	101810	BOLT 6K ZN – 8x16 AM DIN933	198		0.01	2010
13	110540	NUT ZN – M8 DIN934	198+8		0	2010
14	102500	BOLT 6K ZN – 12x25 AM DIN933	32		0	2010
15	110570	NUT ZN - M12 DIN934	66+32		0	2010
16	102210	BOLT 6K ZN – 10x25 AM DIN933	8		0	2010
17	110560	NUT ZN – M10 DIN934	8		0	2010
18	115570	SEALING STRIP 4X10 MAPA	33		0	2600
19	110625	NUT EXTENSION ZN M12x40 WURTH 0974-1240	4		0.06	2010
20	111532	WASHER ZN FENDER - M8 DIN9021	16		0	2010
21	101830	BOLT 6K ZN – 8x25 AM DIN933	8		0	2010

**Delivery packages of top section for 4W (A70923)**

The top section of 4W comprises: 1 package A70829, top section 2W,
2 package A70830 additional plates and

In addition, as required: 4 pcs. of support legs A70359, s = 4 mm or
(delivery as separate items 4 pcs. of support legs A70382, s = 6 mm or
included in the dryer delivery) 4 pcs. of support legs A70448, robust (stiffener in the middle).

The way the legs are installed in the top section depends on location of the section in the ready-assembled dryer.

Table, presenting position of the support legs in different layers of the 4W dryer

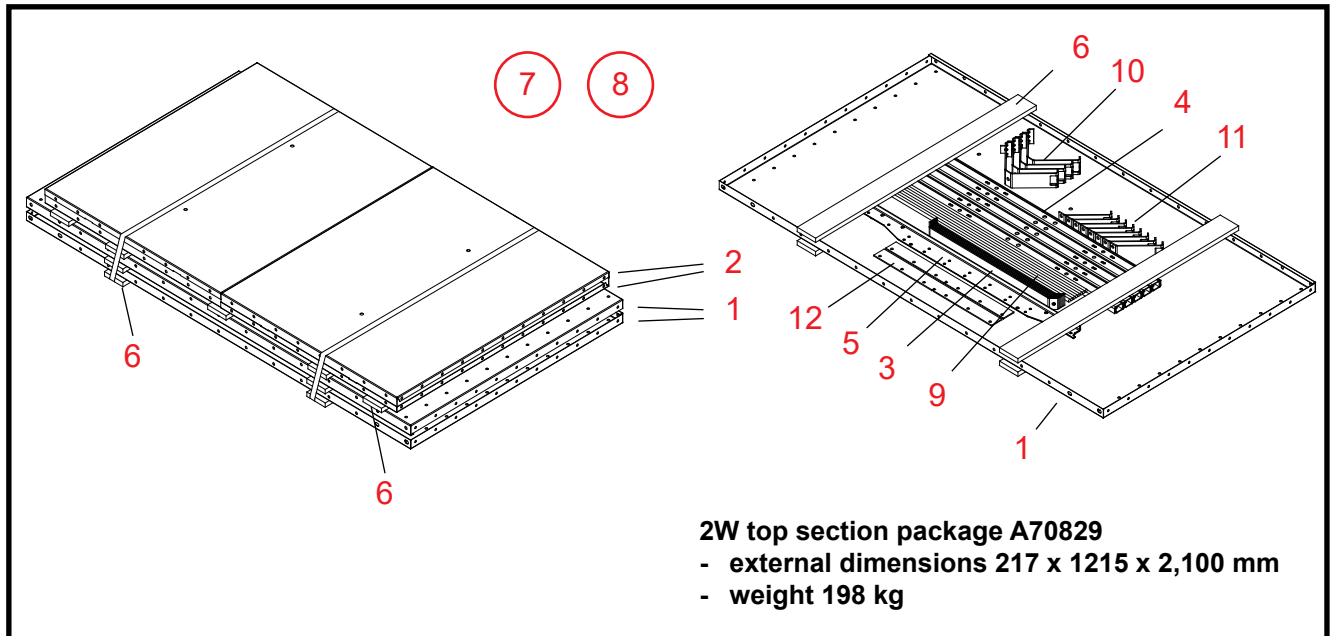
Layers are enumerated starting from top to bottom

Layer	Support leg
TOP LAYER	-
2nd LAYER FROM THE TOP	-
3rd LAYER FROM TOP	A70359, s = 4 mm
4th LAYER FROM TOP	A70359, s = 4 mm
5th LAYER FROM TOP	A70382, s = 6 mm
6th LAYER FROM TOP	A70382, s = 6 mm
7th LAYER FROM TOP	A70448, stiffener
8th LAYER FROM TOP	A70448, stiffener
9th LAYER FROM TOP	A70448, stiffener
10th LAYER FROM TOP	A70448, stiffener
11th LAYER FROM TOP	A70448, stiffener
12th LAYER FROM TOP	A70448, stiffener
13th LAYER FROM TOP	A70448, stiffener

A70359
s = 4 mm

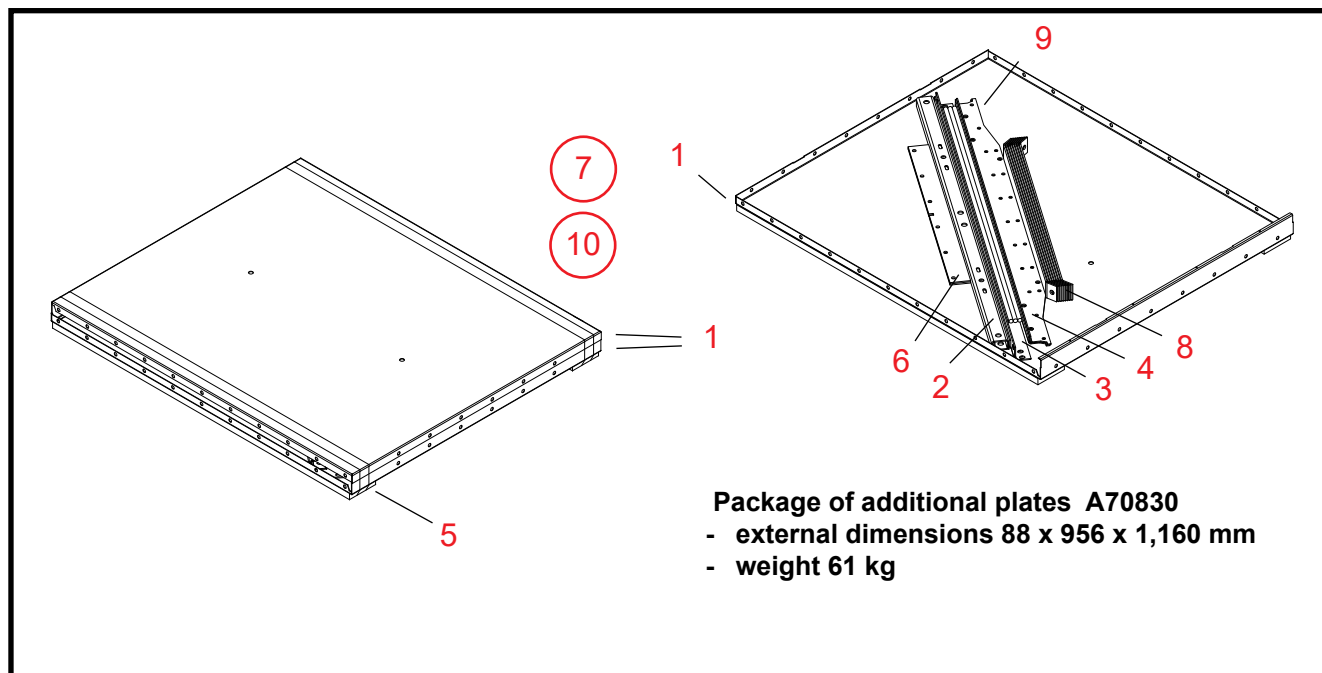
A70382
s = 6 mm

A70448



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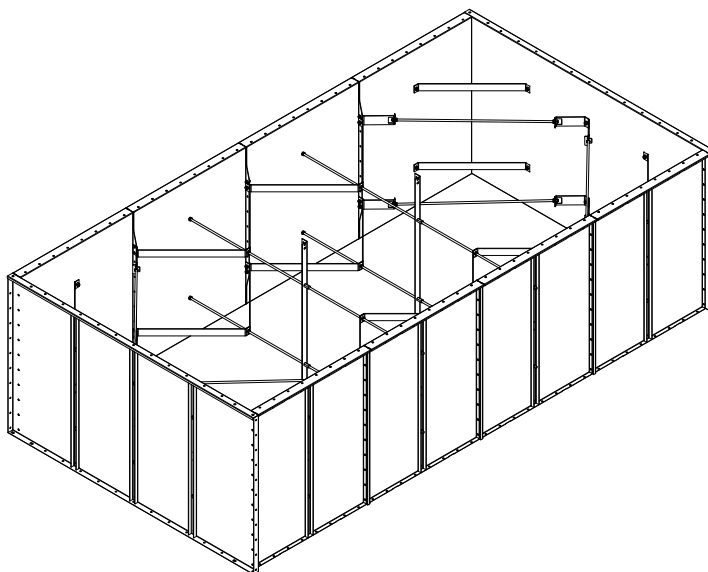
Ref.	Part no.	Denomination 1 and 2	Pcs.	Drawing No.	Weight	Group
1	A70562	TOP SECTION WM06 SIDE-PLATE	2	A70562-A	31.74	3000
2	A70563	TOP SECTION/AIR CH END END-PLATE	4	A70563-C	14.65	3000
3	A70560	TOP SECTION WM06 DRAWBAR SHORT	8	A70560-0	1.11	3000
4	A70565	TOP SECTION WM06 VERTICAL SUPPORT	10	A70565-D	2.45	3000
5	A70810	TOP SECTION WM06 VERTICAL SUPPORT PL 3	2	A70810-C	2.34	3000
6	315418	BOARD L=1200 22x100	9		1.44	2800
7	A70831	TOP SECTION WM06 2W BOLT PACK 9994200044	1	A70831-B	4.25	2010
8	115570	SEALING STRIP 4X10 MAPA	19		0.04	2600
9	119028	THREADED ROD ZN - M12x1000 MM 8.8	8		0.89	2010
10	A72407	TOP SECTION WM06 BRACKET DRAWBAR LONG DUAL	4	A72407-0	0.68	3000
11	A72408	TOP SECTION WM06 BRACKET DRAWBAR LONG SINGLE	8	A72408-0	0.41	3000
12	A71060	TOP SECTION WM06 BRACE FLANGE	2	A71060-0	1.11	3000



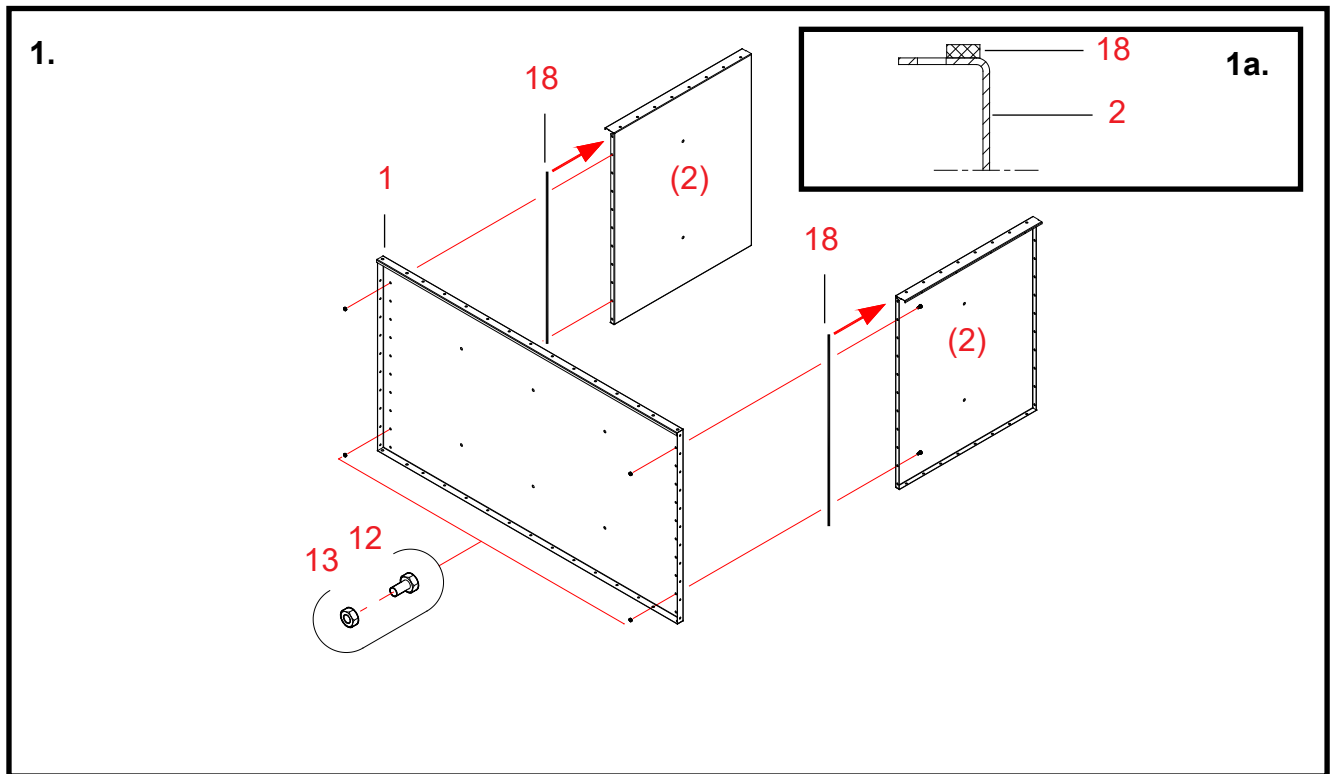
20091001

Ref.	Part no.	Denomination 1 and 2	Pcs.	Drawing No.	Weight	Group
1	A70563	TOP SECTION/AIR CH END END-PLATE	2	A70563-C	14.65	3000
2	A70565	TOP SECTION WM06 VERTICAL SUPPORT	2	A70565-D	2.45	3000
3	A70624	TOP SECTION WM06 BEARER EXTENSION	1	A70624	2.48	3000
4	A70810	TOP SECTION WM06 VERTICAL SUPPORT PL 3	2	A70810-C	2.34	3000
5	315451	BOARD L=1140 22x100	2		1.37	2800
6	A71060	TOP SECTION WM06 BRACE FLANGE	2	A71060	1.11	3000
7	A70832	TOP SECTION WM06 1W BOLT PACK 9994200048	1	A70832-A	1.27	2010
8	A70560	TOP SECTION WM06 DRAWBAR SHORT	8	A70560-0	1.11	3000
9	119028	THREADED ROD ZN - M12x1000 MM 8.8	4	A70560-0	0.89	2010
10	115570	SEALING STRIP 4X10 MAPA	7		0.04	2600

Top section 4W assembled



Assembling the top section



1. Installing the end-plates in the side-plate of the section

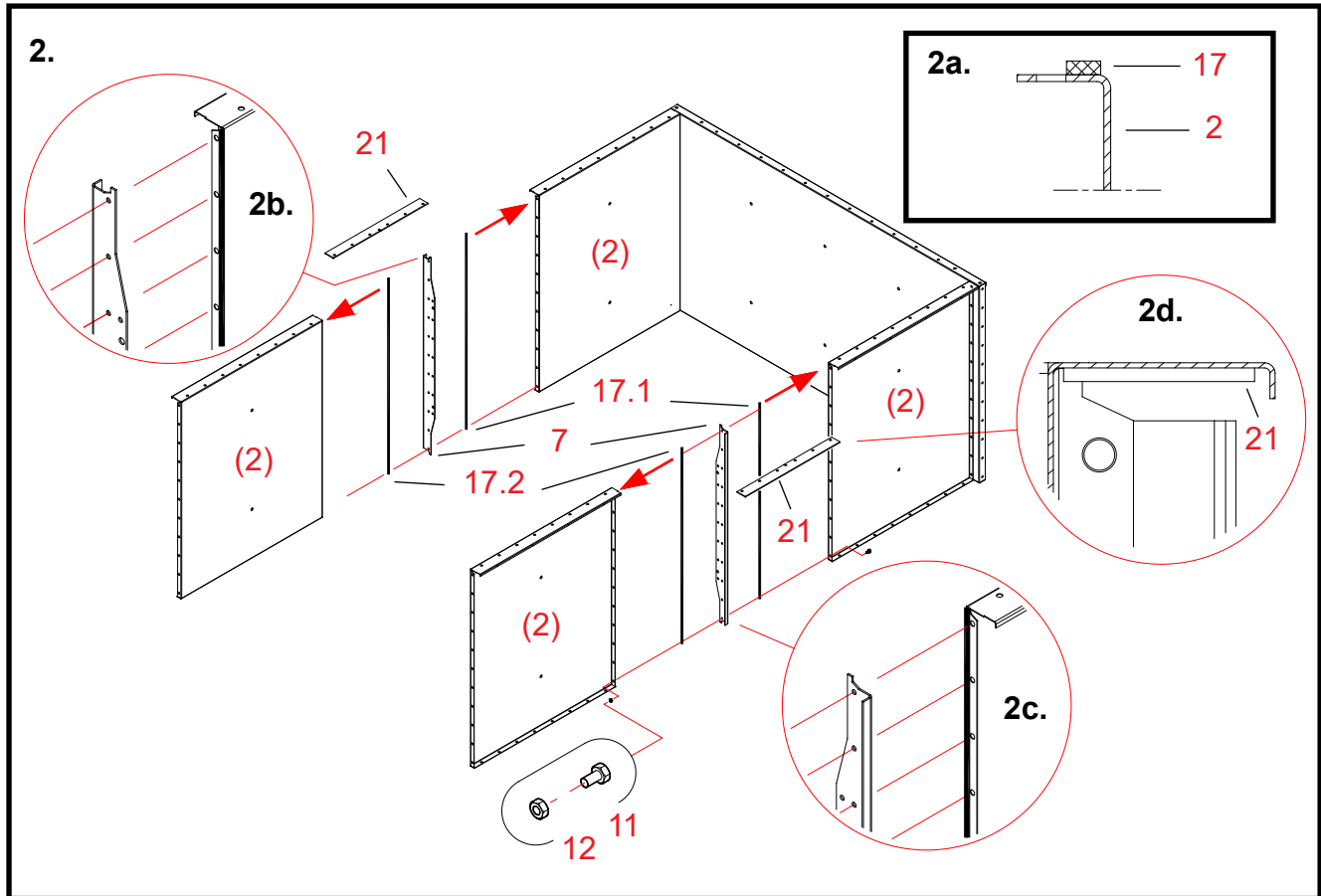
Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.

***We recommend carrying out assembly of the top section on an even plane.
This ensures the ready-assembled top section is straight.***

18 **Fix sealing strips to one end-flange of the two end-plates (parts 2).**
Fix the sealing strips inside the bolthole rows in the flange (see Fig. 1a).

1 **Place the side-plate against the flanges of the end-plates**
Be careful not to damage the sealing strips when installing the side-plate.

12, 13 **Fix the side-plate and the end-plates using bolts and nuts (M8 x 16, 2 pcs./side).**
Install only the uppermost bolt and the second bolt from the bottom in both screw hole rows.
The rest of the bolts will be installed in connection with final assembly of the top section.
The need for support legs and their type is decided during the final assembly (see last page of these instructions).
Tighten the bolts only lightly so that you can straighten the section later.



2. Installing end-plates in the second section module

Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.

18.1 Fix sealing strips to the end-plate flanges (parts 2) of one of the modules.

18.2 Fix sealing strips to end-plate flanges of separate end-plates (parts 2).

Fix the sealing strips inside the bolthole rows in the flange (see Fig. 2a).

Be careful not to damage the sealing strips while installing.

7 Place the vertical supports for the top section between the section module and the additional end-plates.

Look up correct direction for the vertical supports in the detail drawing.

Install the flanges of the vertical supports that remain outside the top section in the position presented in the drawings.

The flanges must be in the position presented in the drawings 2b and 2c when the rain roof for the air channel ends is in use.

Align the holes in the end-plates with the holes in the vertical supports.

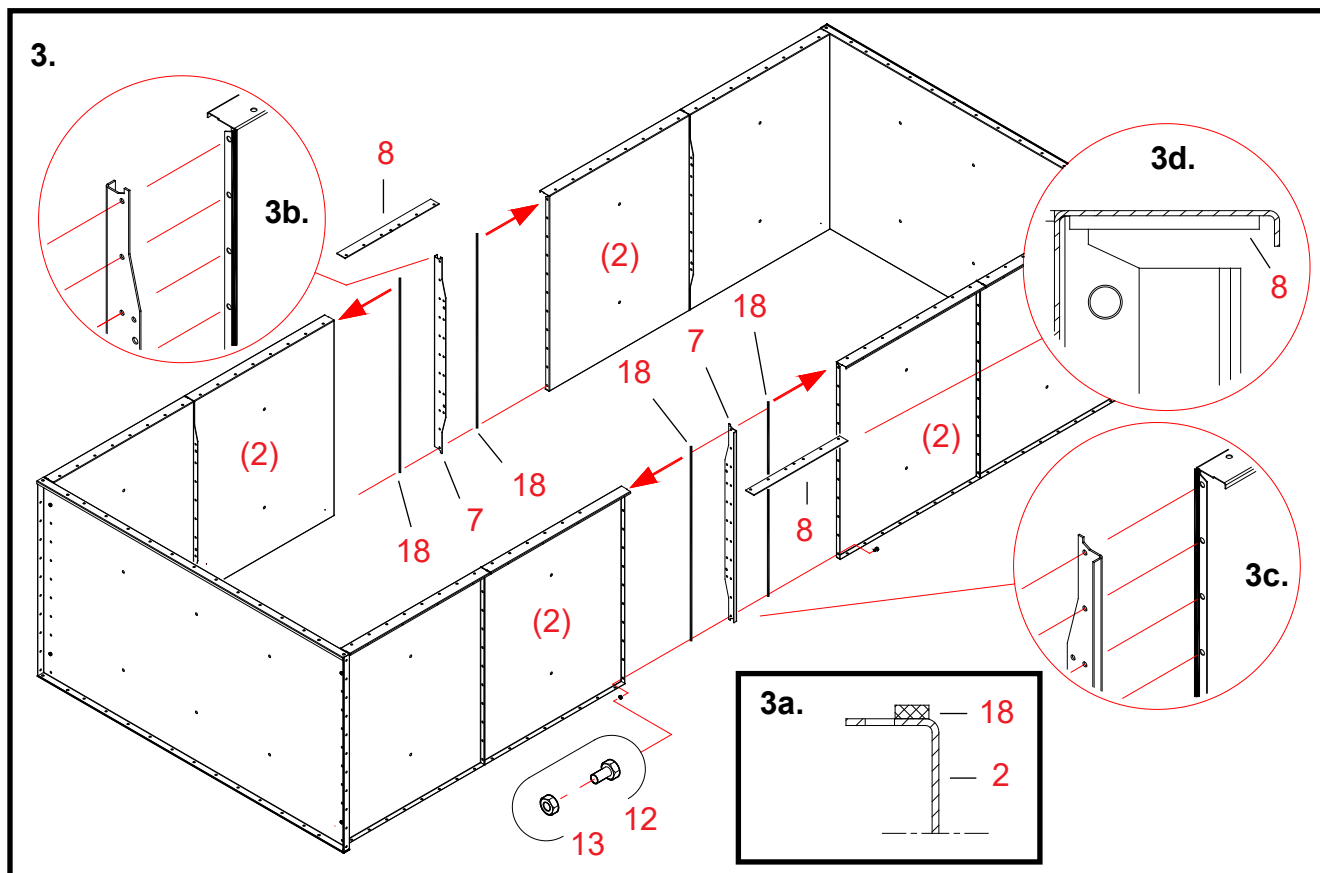
12, 13 Fix the section module and the additional end-plates with their vertical supports.

Fix them in place using bolts and nuts (M8 x 16, 11 pcs./joint).

Tighten the bolts only lightly so that you can straighten the section later.

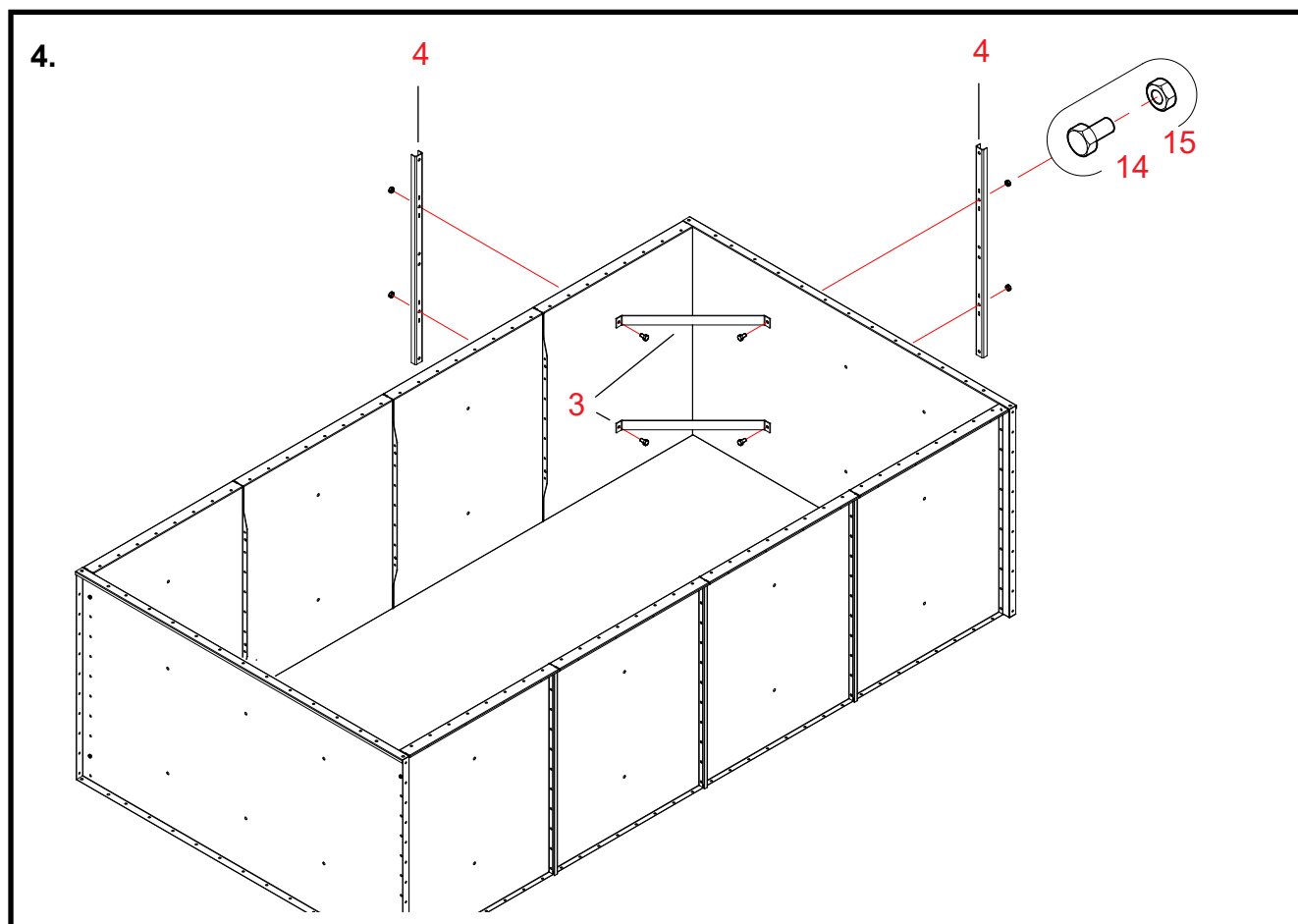
***** Assemble a second similar top section module as instructed in points 1 - 2.

8 Do not put the brace flanges in place until the top section is installed in the dryer (detail drawing 2d).



3. Connecting the top section modules

- Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.
- 18** **Fix sealing strips to the end-plate flanges (part 2) of both modules.**
Fix the sealing strips inside the bolthole rows in the flange (see Fig. 3a).
- *** **Move the section modules close to each other.**
Be careful not to damage the sealing strips while installing.
- 7** **Place the vertical supports for the top section between the section modules.**
Look up correct direction for the vertical supports in the detail drawing.
Install the flanges of the vertical supports that remain outside the top section in the position presented in the drawings.
The flanges must be in the position presented in the drawings 3b and 3c when the rain roof for the air channel ends is in use.
Align the holes in the end-plates with the holes in the vertical supports.
- 12, 13** **Fix the top section modules and their vertical supports using bolts and nuts (M8 x 16, 11 pcs./joint).**
Tighten the bolts only lightly so that you can straighten the section later.
- *** **Check that the section is rectangular. Tighten the bolts in the vertical joints of the section.**
- 8** **Do not put the brace flanges in place until the top section is installed in the dryer (detail drawing 3d).**



4. Installing the short drawbars in the corners of the section

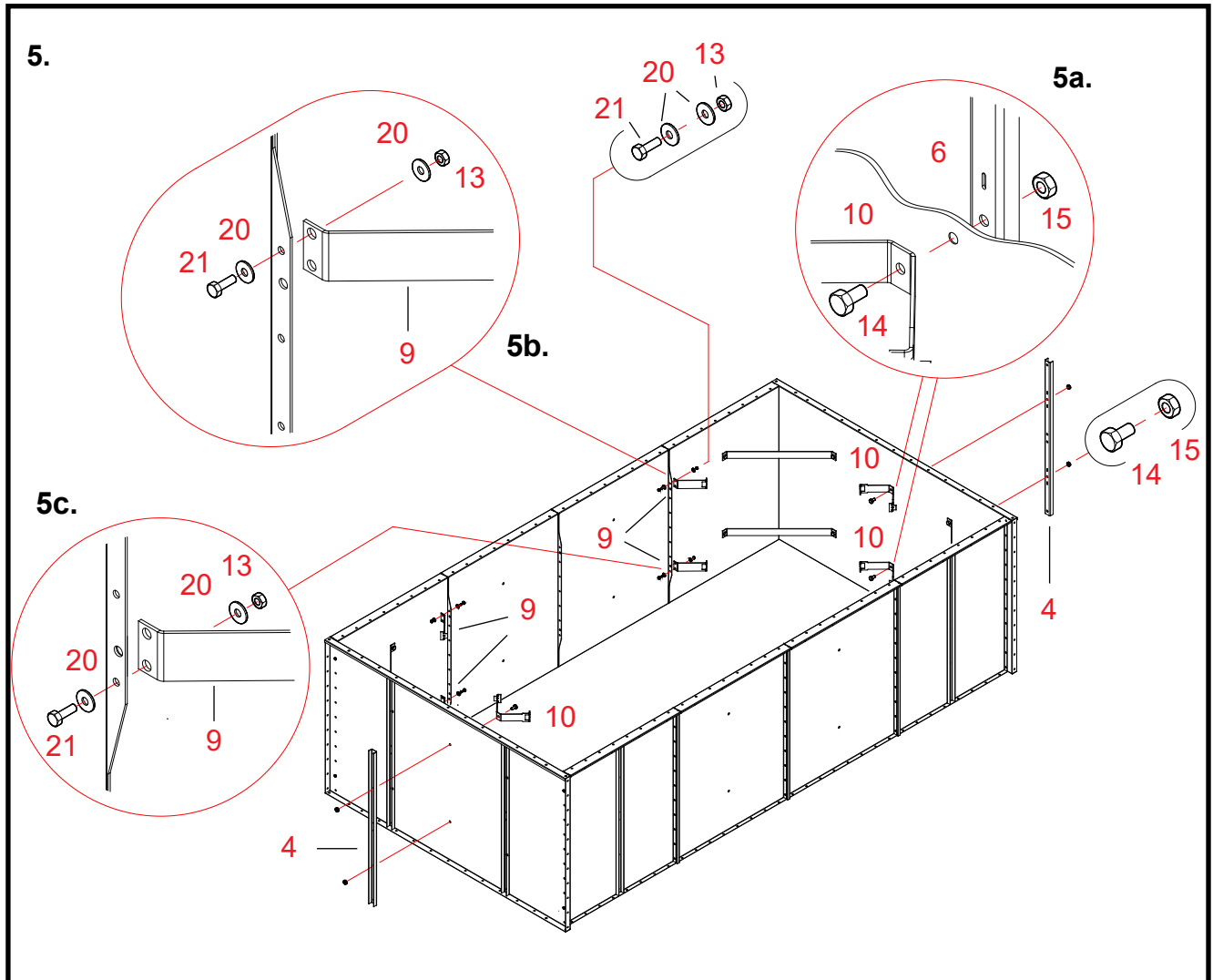
Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the drying section.

3 Install two short drawbars in the corner of the section.

4 Install two U-shaped vertical supports on the outside of the section, at the ends of the drawbars. Align the holes in the drawbars, in the side and end-plates and in the vertical support.

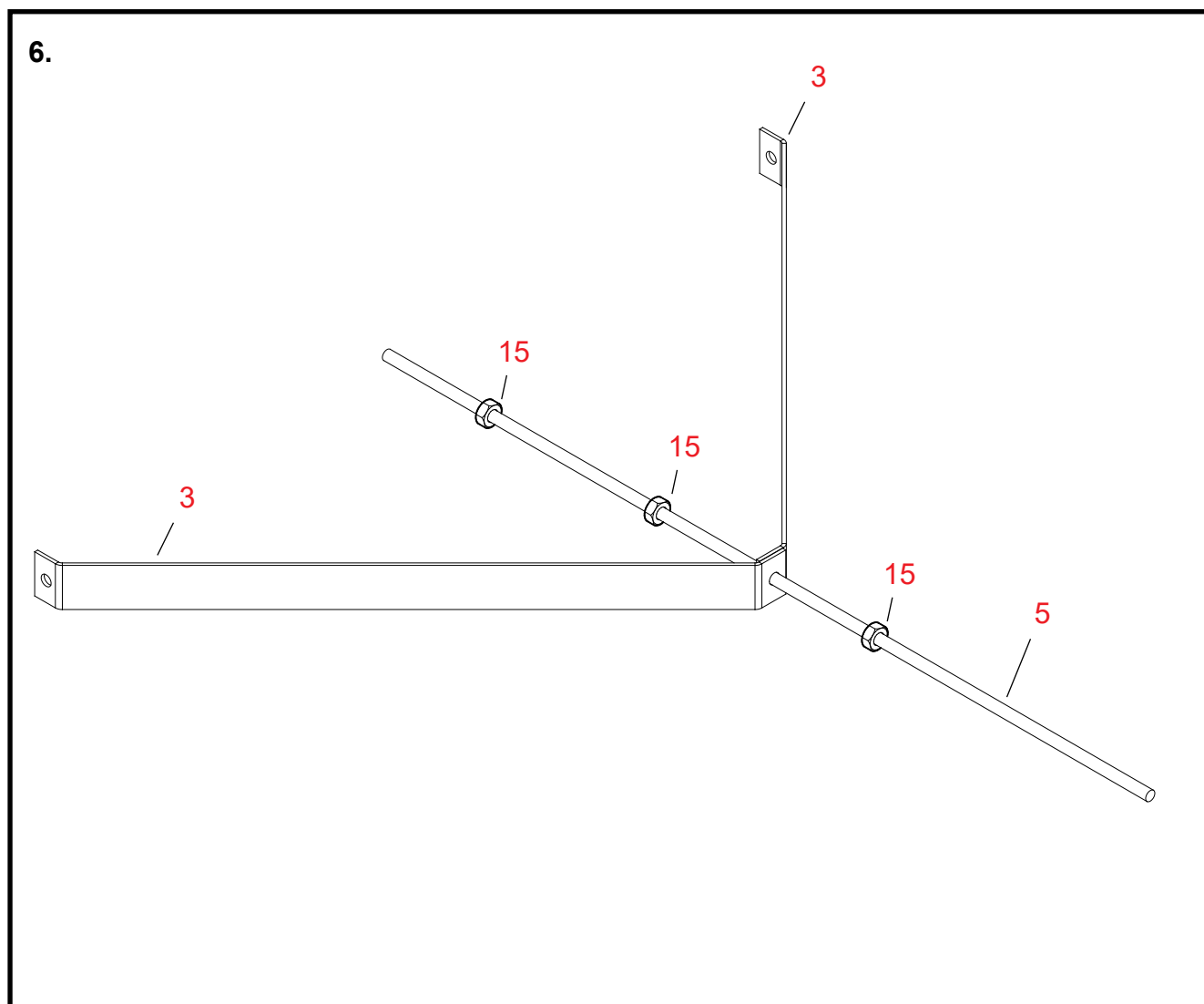
14, 15 Fix the drawbars to the vertical supports inside the section walls using bolts and nuts (M12 x 25). Place the bolt heads on the grain space side.

***** Install the short drawbars in the other corners of the section in the same manner.



5. Installing brackets for the long drawbars

- Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.
- 10** **Install four bifurcated brackets (dual) for the long drawbars in the Ø13 holes in the side-plates of the section.**
Check the position of the brackets in the main drawing and in the detail drawing 5a.
- 4** **Install the U-shaped vertical supports on the outside of the section at the brackets for the drawbars.**
- 14, 15** **Fix the bifurcated brackets and the vertical supports using a bolt and a nut (M12x25).**
Place the bolt head on the grain space side. See dwg. 5a.
- 9** **Install the eight smaller brackets (single) for the drawbar in the vertical supports for the end-plates.**
Check the position of the brackets in the main drawing and in the detail drawings 5b and 5c.
- 13, 20, 21** **Fix the brackets to the smaller holes in the vertical supports using bolts, fender washers and nuts (M8x25).**
Place a fender washer against the bolt cap and the nut. See pictures 5b and 5c.



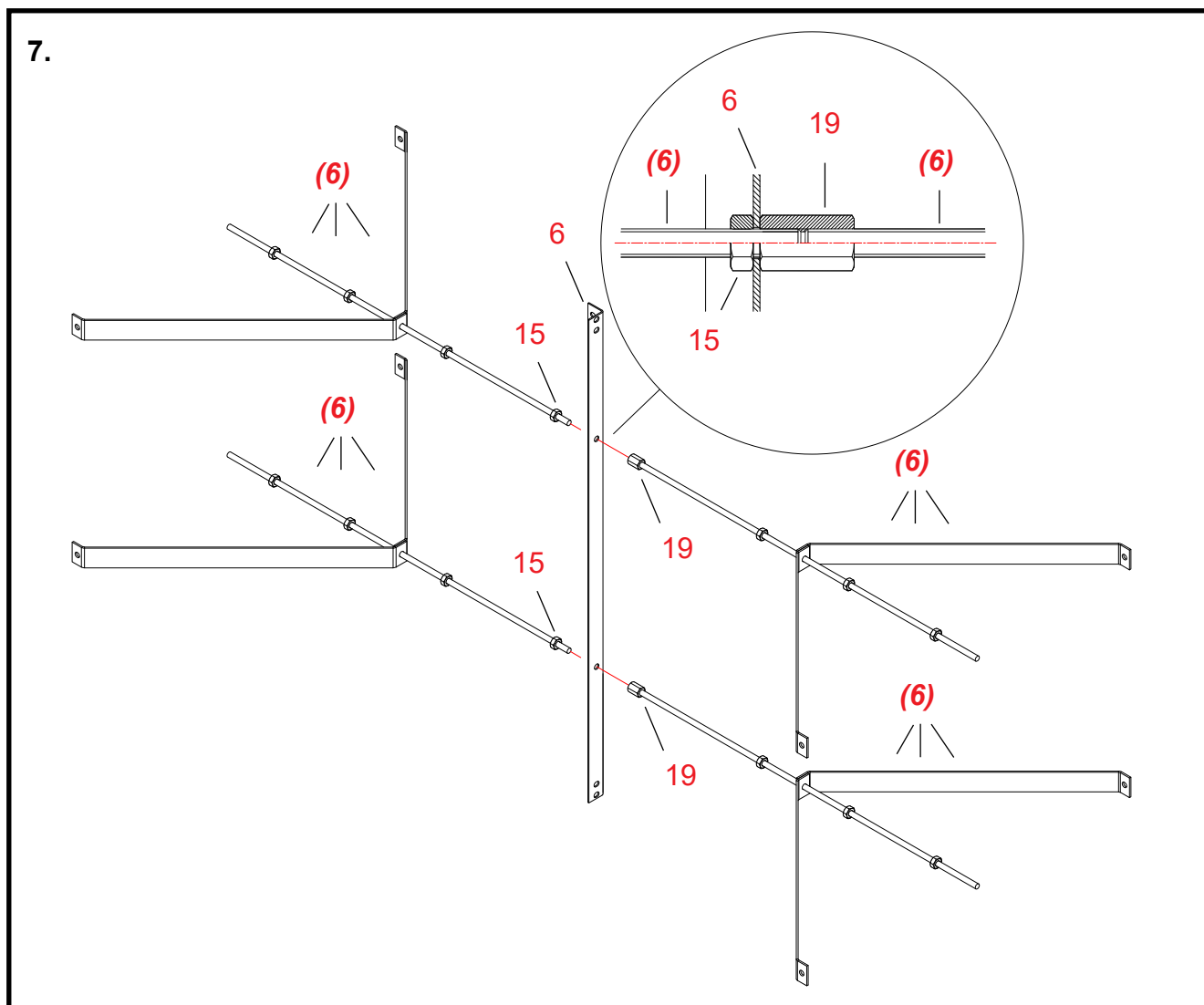
6. Installing the drawbars in the centre

Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.

3, 5, 15 Assemble four set-ups in accordance with the drawing.

The assembly comprises threaded rods (part 5), two short drawbars (parts 3) and M12 nuts (3 pcs. of parts 15).

Do not turn the nuts too closely to the drawbars.



7. Installing the drawbars in the centre

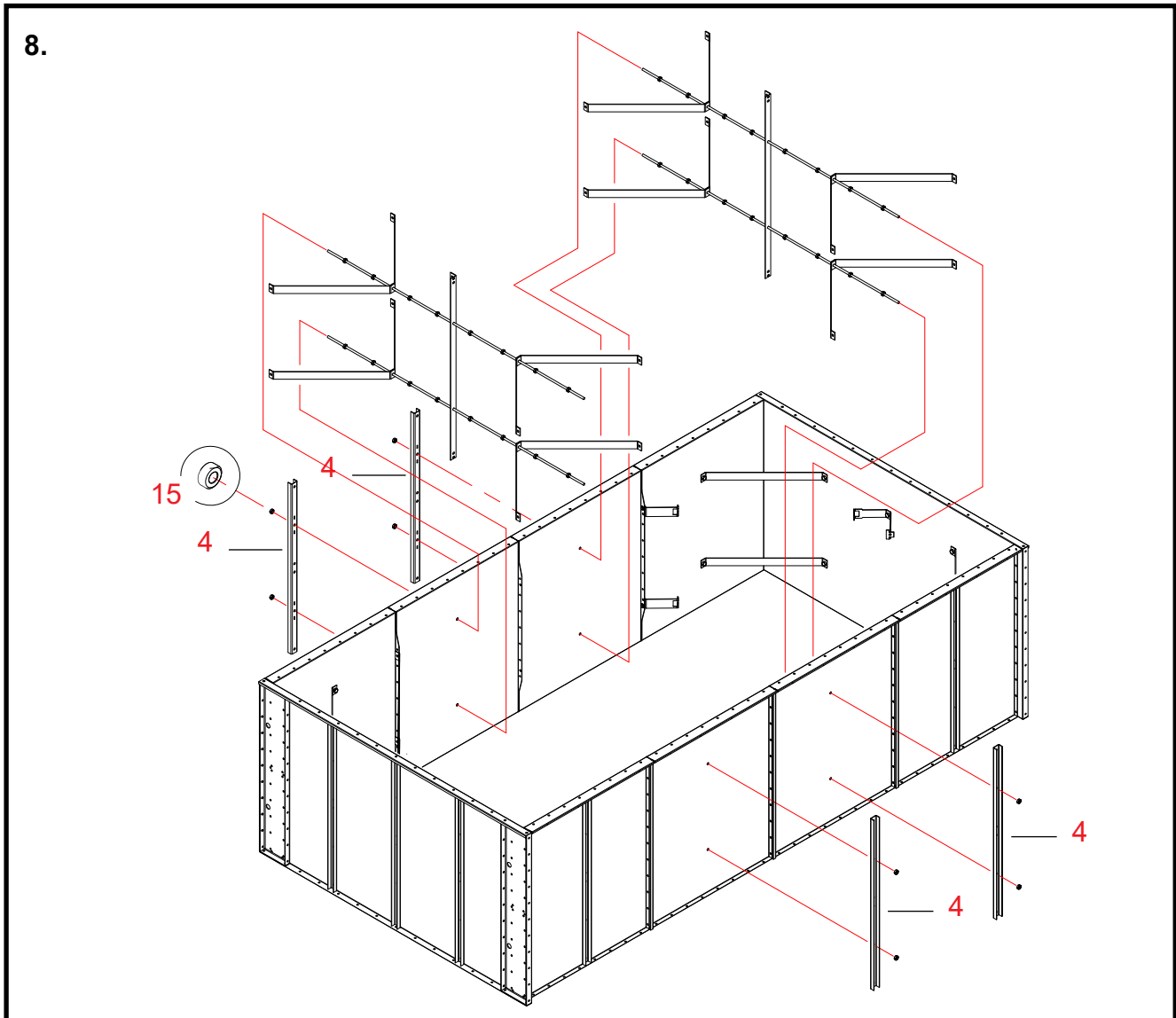
Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.

(6), 6, 15, 19 **Assemble a unit as shown in the drawing.**

The assembly comprises the set-up assembled at the previous stage (**4 pcs. of set-ups, stage 6**), the bearer extension (part 6), the M12 nuts (2 pcs. of part 15) and the M12 extension nuts (2 pcs. of part 19).

Put the threaded rods into the holes at the centre of the bearer extension.
Place the threaded rod extension at the centre of the extension nut (see detail drawing).
Tighten the nuts on the bearer extension and in the joint of the threaded rods.

* **Assemble one more identical set-up.**



8. Placing the drawbar units, assembled under point 7, inside the top section

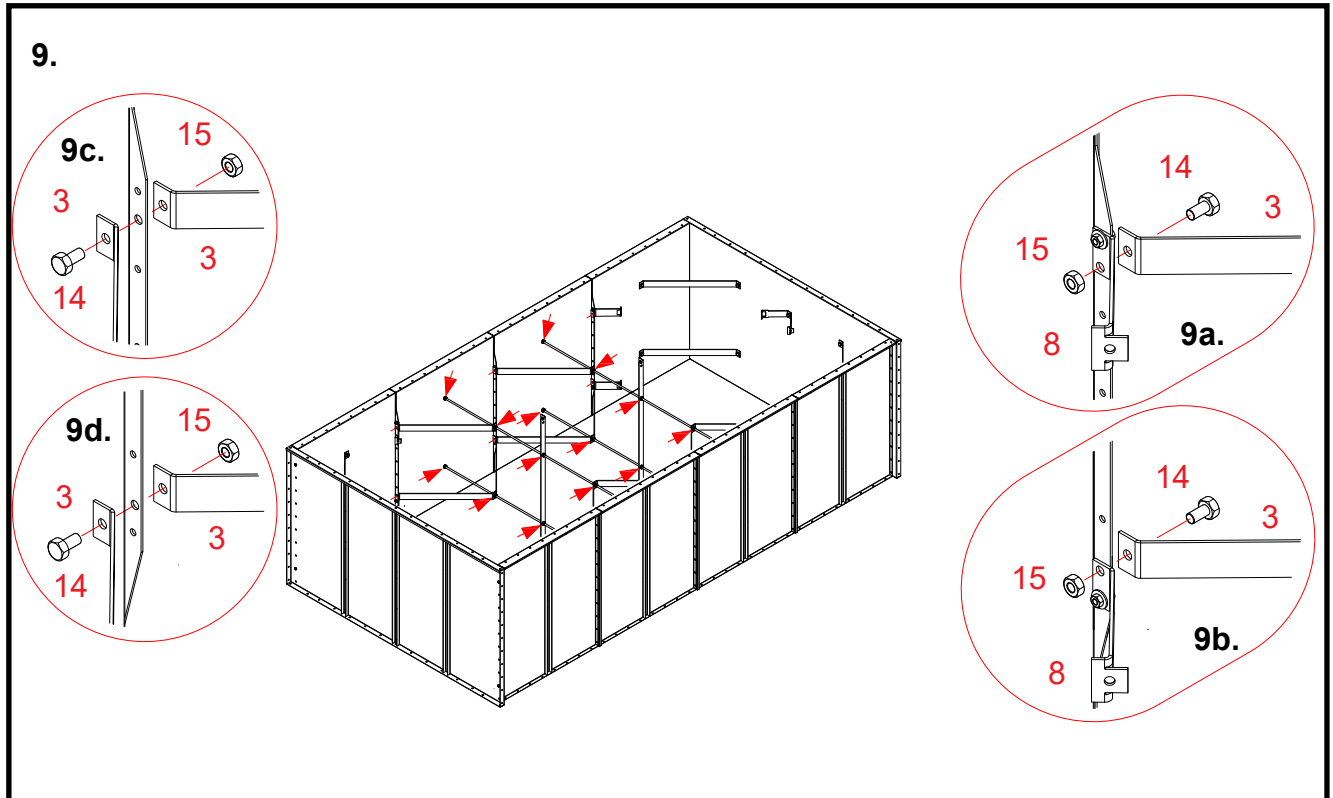
Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.

***Put the ready-assembled top section on about 50 mm high (e.g. wooden) supports.
Then the bearer extension hangs about 23 mm below the lower surface of the section.***

***** **Put two similar drawbar units, assembled in the point 7, inside the top section.**
Aim the longer end of the bearer extension downward.
Thread in the ends of the threaded rods through the Ø 13 holes in the end-plates at the centre.

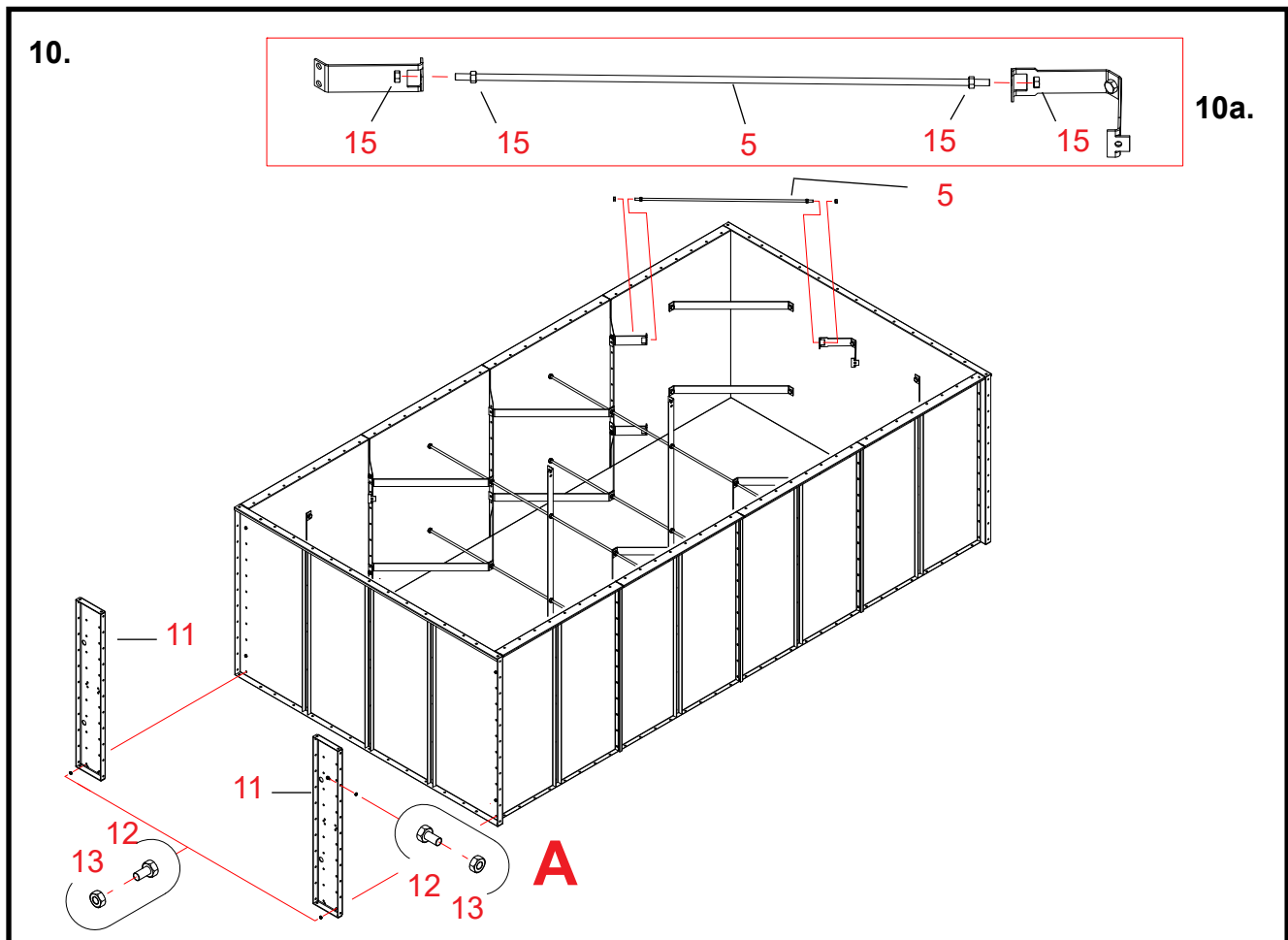
4 **Install the U-shaped vertical supports on the outside of the section.**
Put the vertical supports on the ends of the threaded rod sticking out of the section.
Centre the threaded rods so that their ends sticking out of the section are equally long.

15 **Fix the vertical supports on the outside of the section using nuts (M12).**



9. Fixing the drawbars of the drawbar units inside the section

- Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.
- 14, 15** **Fix the drawbars (parts 3) inside the section to the vertical supports at the end-plate joints.**
 Use the Ø 13 holes in the vertical supports for attachment.
 Place the ends of the bars in accordance with the detail drawings 9a and 9c (in the middle of the section).
 Place the ends of the bars in accordance with the detail drawings 9b and 9d (in the middle of the section).
 Use bolts and nuts (M12 x 25) for attachment. The smaller brackets for the long drawbar (single, parts 8) in the vertical supports for the end-plates are fastened using the same bolts. Tighten both bolts.
- * **Tighten the M12 nuts in the threaded rods against the drawbars and the side-plates of the section.**
 Ensure that the end-plates of the section or the drawbars do not bend as a result of tightening.
- * **Tighten the M 12 nuts against the bearer extension.**



10. Fixing the long drawbars inside the section and attaching the support legs, if any

- Parts The numbering of work stages refers to reference numbers in the spare parts drawing for the top section.
- 15** **Twist the nuts (M12) onto both ends of the threaded rods (parts 5).**
Turn the nuts so deep on the rods that you will be able to insert the ends of the threaded rod in the drawbar brackets (picture 10a).
- 5, 15** **Insert the threaded rods in the brackets, turn another nuts on them and tighten them against the brackets.**
- 11** **As required, attach support legs to both ends of the top section.**
Refer to beginning of chapter "Delivery packages of top sections (A70923) for 4W" for instructions on how to select the support leg.
Align the holes in the end-flange, in the side-plate and in the support leg.
- 12, 13** **Fix the side-plate, the end-plates and the support legs in place using nuts and bolts (M8x16, 9 pcs./side).**
Two of the bolts were put in place during assembly of the top section.
Tighten the bolts only lightly so that you can straighten the section later.
- 12, 13** **Fix the support legs to the side-plate flanges using nuts and bolts (M8 x 16, 11 pcs./side).**
If the dryer will be equipped with air channels extending all the way up, do not put bolts A (in the drawing) in place yet.
- *** **Check the joints and rectangular shape of the top section. Tighten all bolts.**