

Fuel oil/gas boilers

NXR5i



Assembly Instructions

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1 Package list

Before starting to assemble the boiler, refer to the table below to check if you have received all the packages required.

■ Boiler body + Accessories

▶ Boilers supplied with an assembled body

Boiler NXR5i - Number of sections	14	15	16	17	18	19	20	21	22	23	24	25
Assembled boiler body (contents depend upon model)	1	1	1	1	1	1	1	1	1	1	1	1
Cleaning tool kit (contents depend upon model)	1	1	1	1	1	1	1	1	1	1	1	1

▶ Boilers supplied with an unassembled body

Boiler NXR5i - Number of sections	package	14	15	16	17	18	19	20	21	22	23	24	25
Base frame (dimensions depend upon model)		1	1	1	1	1	1	1	1	1	1	1	1
Rear section		1	1	1	1	1	1	1	1	1	1	1	1
Normal intermediate section		9	10	11	12	13	14	14	15	16	17	18	19
Special intermediate section		3	3	3	3	3	3	4	4	4	4	4	4
Front section		1	1	1	1	1	1	1	1	1	1	1	1
Set of assembly rods + Cleaning tools (contents depend upon model)		1	1	1	1	1	1	1	1	1	1	1	1
Standard accessory kit (contents depend upon model)	1	FA 49	FA50 ⁽¹⁾	FA51 ⁽¹⁾	FA52 ⁽¹⁾	FA53 ⁽¹⁾	FA54 ⁽¹⁾	FA55	FA56	FA57	FA58	FA59	FA60
Additional accessory kit (contents depend upon model) ⁽²⁾	1	FA68 ⁽²⁾	FA69	FA70	FA71	FA72	FA73	FA74	FA75	FA76	FA77	FA78	FA79
Plain furnace plate		1	1	1	1	1	1	1	1	1	1	1	1
Flue gas connection plate with opening	Ø 400	1	1	1	1	1	1	1	-	-	-	-	-
Plain flue gas connection plate		-	-	-	-	-	-	-	1	1	1	1	1
Flue gas box		1	1	1	1	1	1	1	1	1	1	1	1
Distributing tube fitting ⁽¹⁾		-	(1)	(1)	(1)	(1)	(1)	1	1	1	1	1	1

⁽¹⁾The distributing tube fitting for NXR5i boilers with 15 to 19 sections is included in the accessory package.

⁽²⁾The diaphragm for NXR5i , 14 section boilers is delivered in the additional accessory kit package.

■ Baffles

Boiler NXR5i - Number of sections	package	14	15	16	17	18	19	20	21	22	23	24	25
Baffles	CM 22	-	1	1	1	1	1	-	-	-	-	-	-
	CM 23	1	1	1	1	1	1	2	2	2	2	2	2

■ Casing fittings

Boiler NXR5i - Number of sections	package	14	15	16	17	18	19	20	21	22	23	24	25
Casing fittings	MR338	1	1	1	1	-	-	-	-	-	-	-	-
	MR339	-	-	-	-	1	1	1	1	1	1	1	1
	MR3	1	-	-	-	-	-	-	-	-	-	-	-
	MR4	-	1	-	1	-	1	1	-	1	-	1	-
	MR5	-	-	1	-	1	-	-	1	-	1	-	1
	FA10	-	-	-	2	2	1	-	-	2	2	1	1
	FA11	2	2	2	1	1	2	3	3	2	2	3	3

■ Variable casing parts

Boiler NXR5i - Number of sections	package	14	15	16	17	18	19	20	21	22	23	24	25
Variable casing parts	FA16	-	-	-	-	1	1	1	1	1	1	1	1
	FA17	-	-	-	-	1	-	-	-	-	-	-	-
	FA18	-	-	-	-	-	1	-	-	-	-	-	-
	FA19	-	-	-	-	-	-	1	-	-	-	-	-
	FA20	-	-	-	-	-	-	-	1	-	-	-	-
	FA21	-	-	-	-	-	-	-	-	1	-	-	-
	FA22	-	-	-	-	-	-	-	-	-	1	-	-
	FA23	-	-	-	-	-	-	-	-	-	-	1	-
	FA24	1	-	-	-	-	-	-	-	-	-	-	1
	FA25	-	1	-	-	-	-	-	-	-	-	-	-
	FA26	-	-	1	-	-	-	-	-	-	-	-	-
	FA27	-	-	-	1	-	-	-	-	-	-	-	-

■ Insulating material for body

Boiler NXR5i - Number of sections	package	14	15	16	17	18	19	20	21	22	23	24	25
Insulating material for body	FA34	1	-	-	-	-	-	-	-	-	-	-	-
	FA35	-	1	-	-	-	-	-	-	-	-	-	-
	FA36	-	-	1	1	-	-	-	-	-	-	-	-
	FA37	-	-	-	-	1	1	-	-	-	-	-	-
	FA38	-	-	-	-	-	-	1	-	-	-	-	-
	FA39	-	-	-	-	-	-	-	1	1	-	-	-
	FA 40	-	-	-	-	-	-	-	-	-	1	1	-
	FA41	-	-	-	-	-	-	-	-	-	-	-	1

■ Control panel

All models can be equipped with one of the following control panels: KSF-CE or KSF-ISR control panel.

■ Accessories - Available as an option*

Boiler NXR5i - Number of sections		14	15	16	17	18	19	20	21	22	23	24	25
Furnace plate with hole Ø 165 / 186 / 210 / 240 or Ø 295		1	1	1	1	1	1	1	1	1	1	1	1
Connecting plate with opening or plain connecting plate - Ø 300 or Plain connection plate		1	1	1	1	1	1	1	1	1	1	1	1
Set of anti-vibration studs	8208-7758	1	1	1	-	-	-	-	-	-	-	-	-
	8208-7759	-	-	-	1	1	1	1	-	-	-	-	-
	8208-7760	-	-	-	-	-	-	-	1	1	1	1	1

* Refer to the applicable price list for the other optional features (control units etc.) which may be used with these boilers.

2 Mounting NXR5i



Warning: Assemble the boiler in the order given by the numbers of each figure, in compliance with all the instructions.

■ Tools required

- 1 JD-TE or JD-TE Plus assembly tool
- 1 Flat screwdriver
- 1 "n°2 posidrive" screwdriver
- 1 10, 13, 16, 17 spanners, 18, 19
- 1 22 tubular box spanner
- 1 27 tubular box spanner
- 1 electric screwdriver + 1 "n°2 Philipps" screwdriver bit
- 1 Stanley knife
- Silicone filler (Supplied)

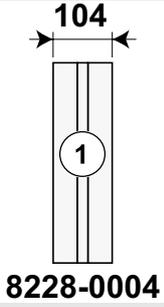
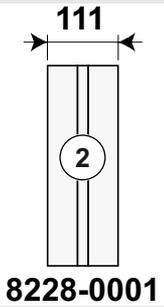
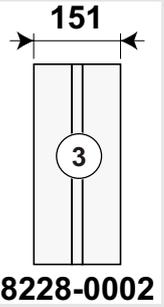
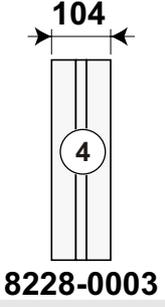
■ Boilers supplied with an assembled body (By special arrangement only)

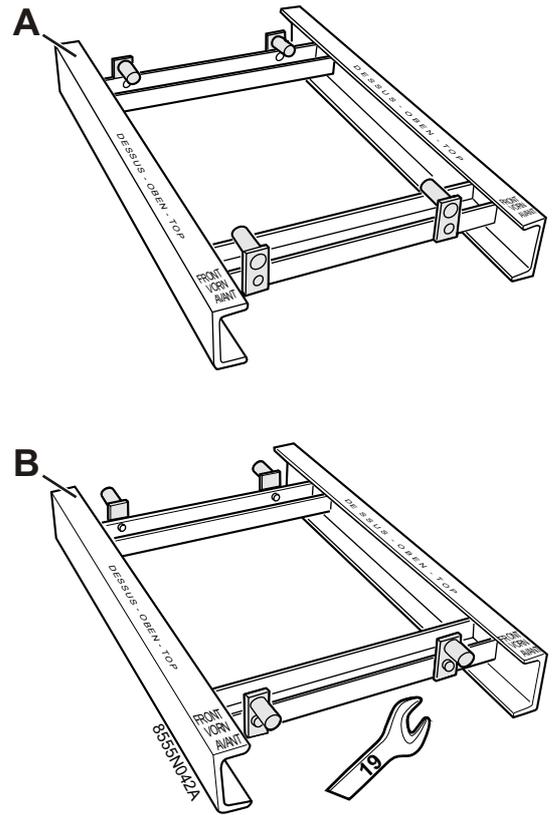
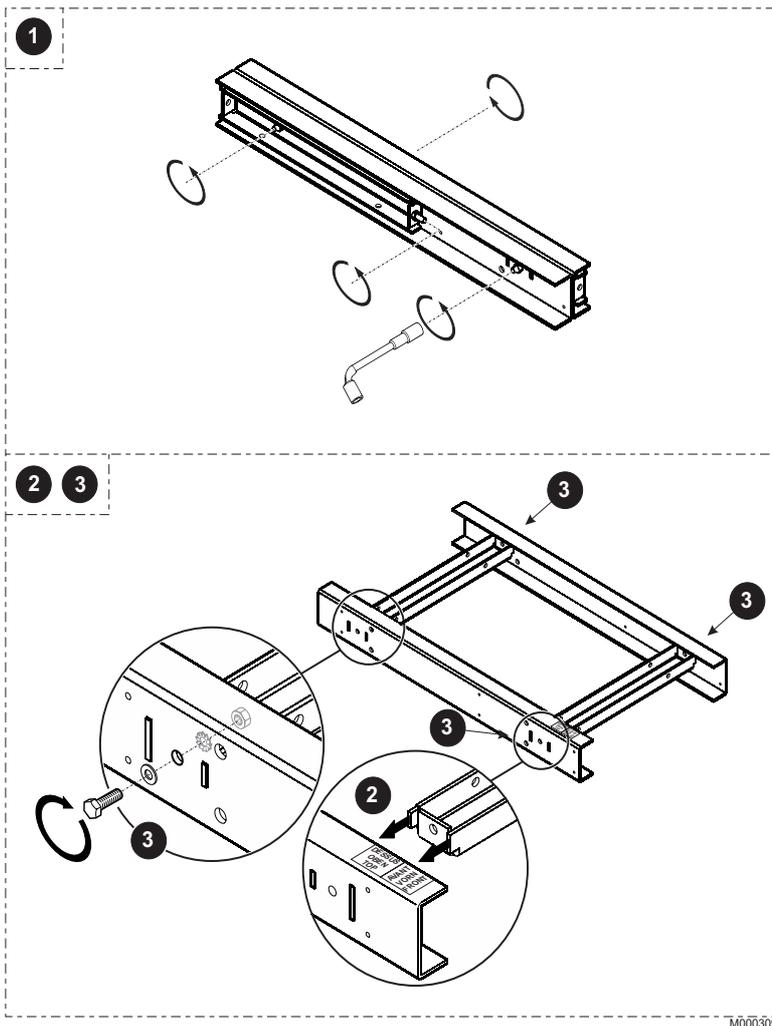
- Hydraulic test: See fig. 17
- Mounting: start assembly from figure 34

■ **Assemble the boiler body from the rear to the front:**

1. assemble the **rear** section,
2. assemble **all** the normal **intermediate** sections,
3. assemble **all** the special **intermediate** sections,
4. assemble the **front** section.

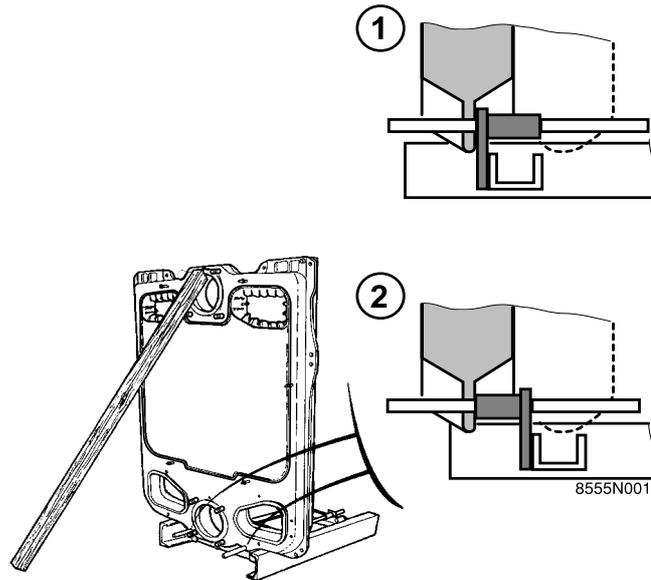
i The number of sections of each type is provided in the table below:

	① Rear section	② Normal intermediate section	③ Special intermediate section	④ Front section
Section type				
NXR5i-14	1	9	3	1
NXR5i-15	1	10	3	1
NXR5i-16	1	11	3	1
NXR5i-17	1	12	3	1
NXR5i-18	1	13	3	1
NXR5i-19	1	14	3	1
NXR5i-20	1	14	4	1
NXR5i-21	1	15	4	1
NXR5i-22	1	16	4	1
NXR5i-23	1	17	4	1
NXR5i-24	1	18	4	1
NXR5i-25	1	19	4	1



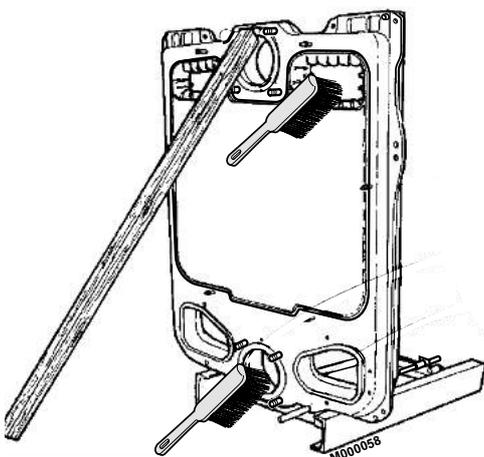
A	Boilers: 14, 16, 18, 20, 22, 24 sections
B	Boilers: 15, 17, 19, 21, 23, 25 sections

- ▶ **1** to **3**: Assembly of the base frame, delivered unassembled.
- ▶ Place the frame on the floor, taking care to note the TOP and FRONT positions.
- ▶ Fit the fastening brackets as shown, depending on the type of boiler (1 Screw Ø 12x40 - 19 spanner).



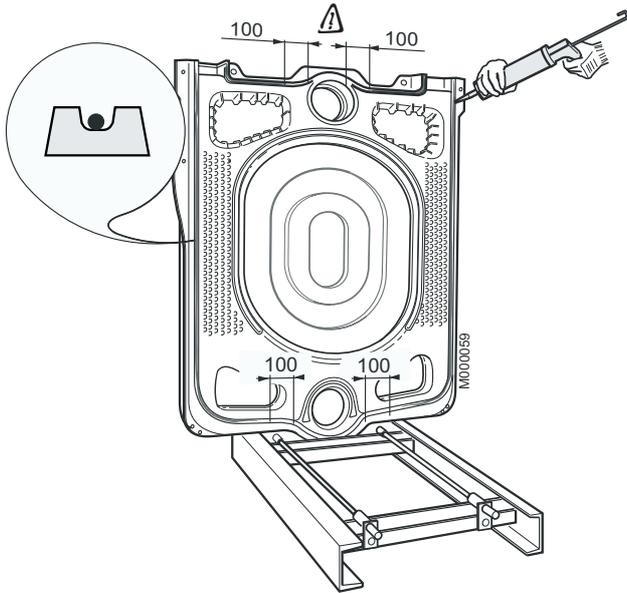
①	Boilers: 14, 16, 18, 20, 22, 24 sections
②	Boilers: 15, 17, 19, 21, 23, 25 sections

- ▶ Establish the location of the frame on the basis of the opening direction of the furnace door and the length of the burner. Leave enough clearance at the rear of the boiler for water connections and the distributing tube. Refer to the installation and maintenance instructions of the boiler, Chapter Boiler location.
- ▶ Fit the rear section on the frame, behind the fastening brackets (see detailed drawing) and prop it up.
- ▶ Insert the lower assembly rods in the holes of the rear section and the fastening brackets of the frame, in order to position the rear section correctly according to the frame



- ▶ Clean all the openings in the section with a brush. Remove any deposit on the bottom of the section.

4

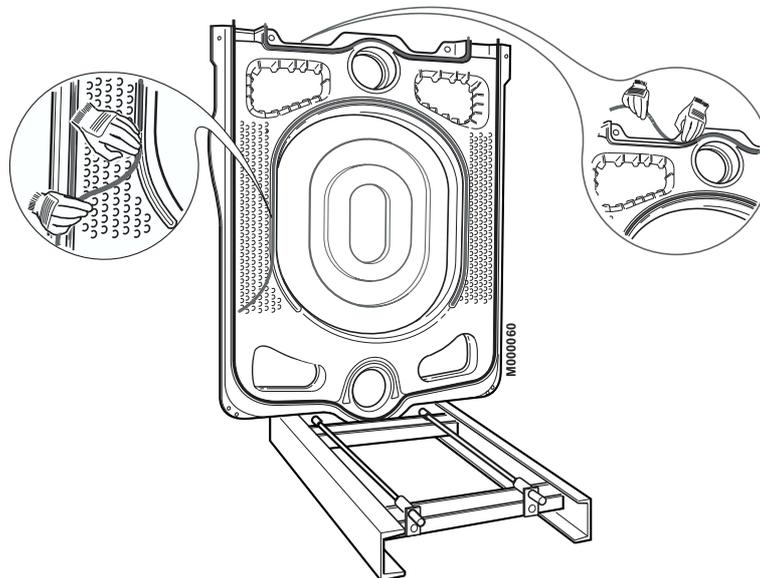


- ▶ Fill the bottom of the U groove (located on the periphery of the section) with a continuous bead of DOW CORNING silicon, diameter approximately \varnothing 5 mm.

! silicon must not be applied 100 to either side of the connection (nipple assembly area).

i Dimensions are given in millimeters.

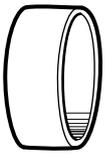
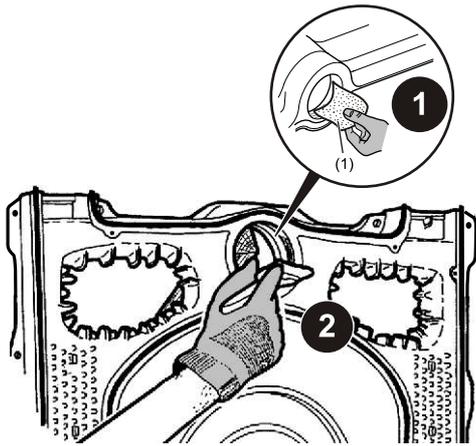
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- ▶ Fit the \varnothing 10.5 mm diameter thermocord into this U groove and into the groove which circles the furnace.

Note: Do not pull on the seal while inserting it. Otherwise, you may stretch it and reduce its thickness.

6



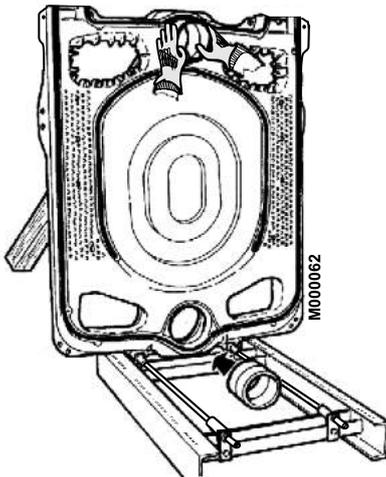
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(1) Sandpaper

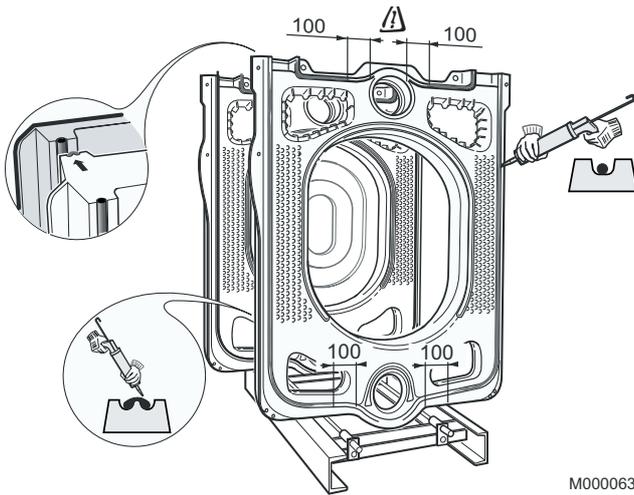
! Handle the nipples with gloves, there might be sharp edges.

- ❶ Remove any traces of rustprotective paint so that the surface is perfectly smooth.
- ❷ Coat with the lubricant supplied with the sections.

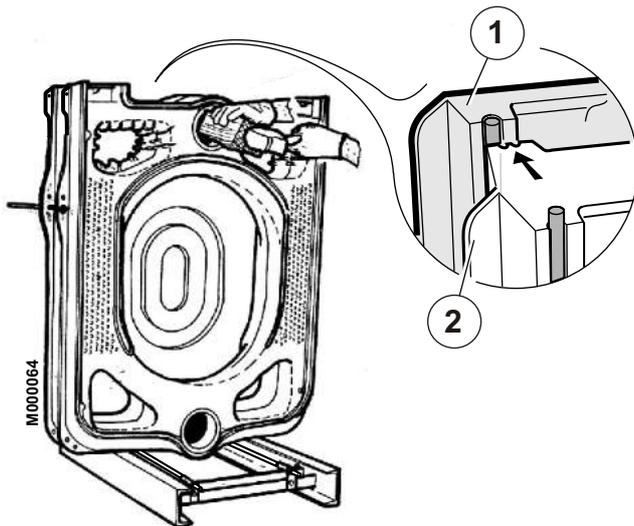
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- ▶ Gently push in the 2 nipples.



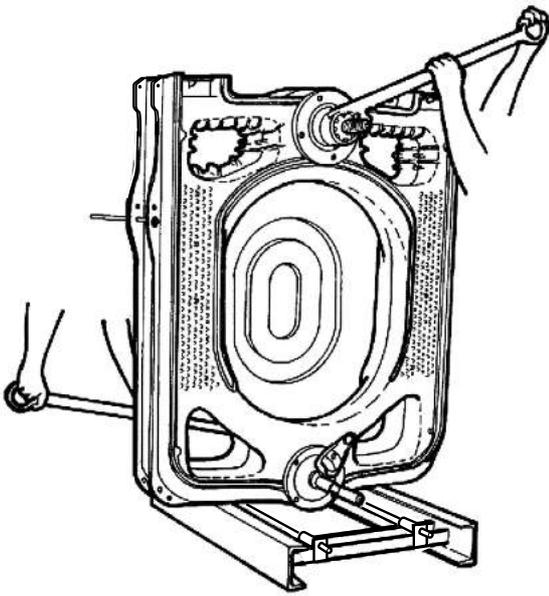
- ▶ Fill the bottom of the W groove opposite the U groove for the intermediary parts (located on the periphery of the section) with a continuous bead of DOW CORNING silicon, diameter approximately \varnothing 5 mm.



- ① Rear section
- ② Intermediate section

- ▶ Place the first normal intermediate section, making sure that it is turned in the right direction, i.e. with the flattening groove against the thermocord.
- ▶ For safety, insert a lateral assembly rod (supplied) in the holes of the 2 sections.
- ▶ Push the section gently and simultaneously on the 2 nipples of the rear section with a hammer and a piece of wood positioned in line with the bores.

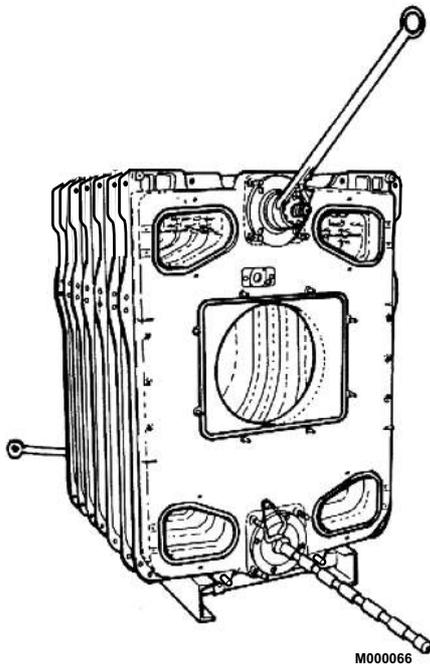
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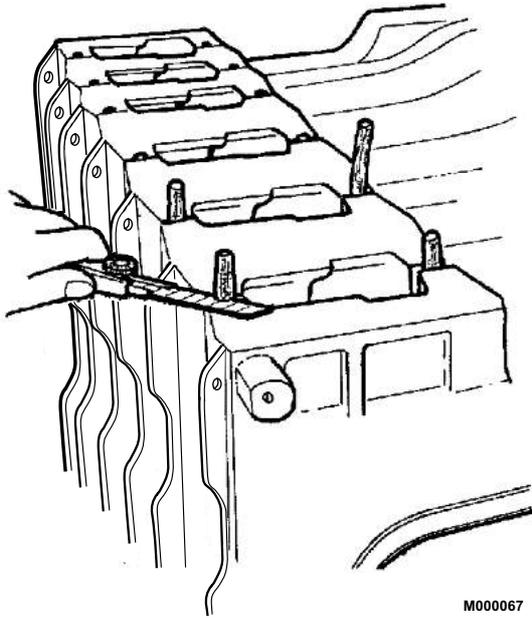
- ▶ Put the assembly tool in position.
- ▶ Tighten gradually so as to bring together the upper and lower connections evenly and simultaneously.

11



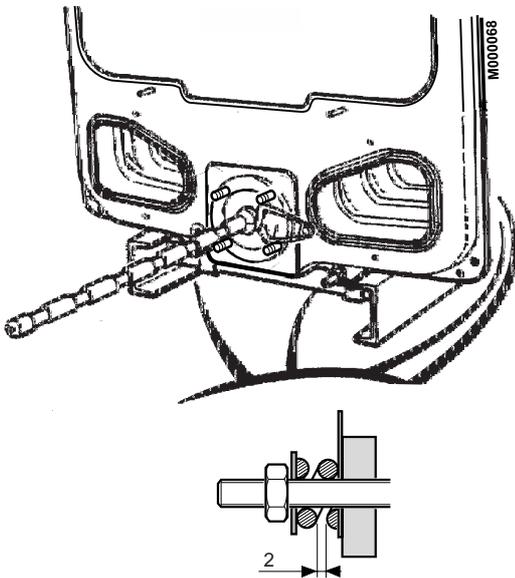
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- ▶ Assemble the remaining intermediate sections one by one, to the procedure stated in figures 3, 4, 5, 6, 7, 8, 9, and 10.
- ▶ First assemble the normal intermediate sections, then the special ones.
Leave the assembly tool in place.

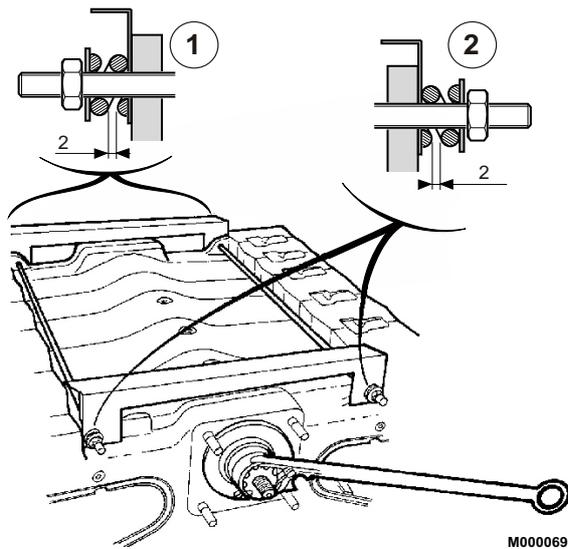


- ▶ Trim off any projecting ends of the thermocords the sweeping covers.

Fitting the upper and lower assembly rods



- ▶ On the lower assembly rods, fit the following at each end in the given order : an expansion spring, a washer and a nut (the holes of the front lugs must be aligned with the holes of the frame brackets as the assembly rods are used to make the boiler body integral with the frame).
- ▶ Stop tightening as soon as the gap between the spring spires is equal to about 2 mm.

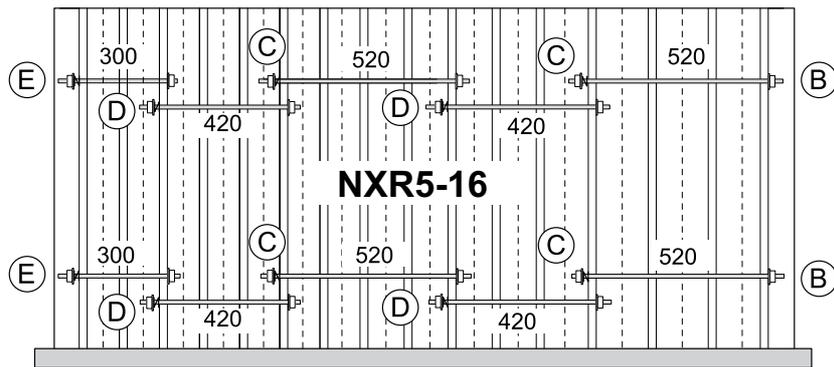
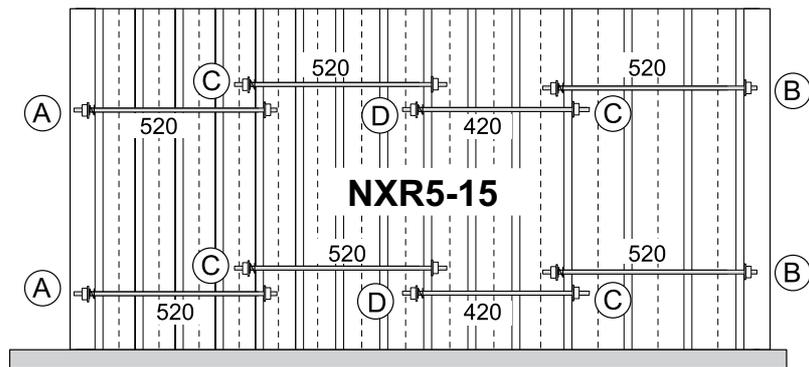
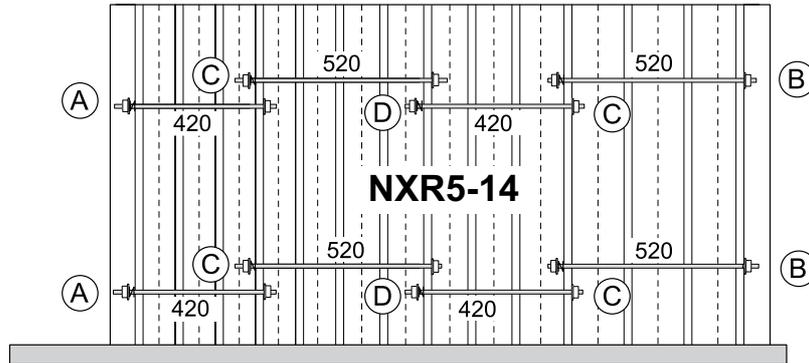
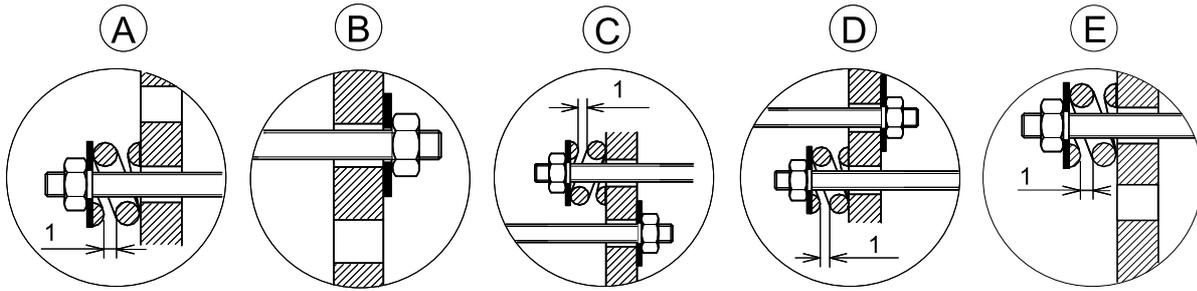


- ① Rear
- ② Front

- ▶ Put in place the upper assembly rods in the two front and rear lugs.
- ▶ Mount the 2 crosspieces (supplied in package MR338/MR339) with their bends turned backwards and fasten them to the rods with an expansion spring, 1 nut and 1 washer
- ▶ Remove the assembly tool.

Assembling the side assembly rods

- ⚠ **The side assembly rods must be assembled from the rear to the front.**
- ⚠ **The rods must be inserted in the holes stated in the diagrams (the lugs of the sections in which the assembly rods are to be inserted have 2 holes).**
- ▶ Place the expansion spring and washer on the rear of each rod.
- ▶ Stop tightening the nuts as soon as the gap between the spires of the springs is about 1 mm.

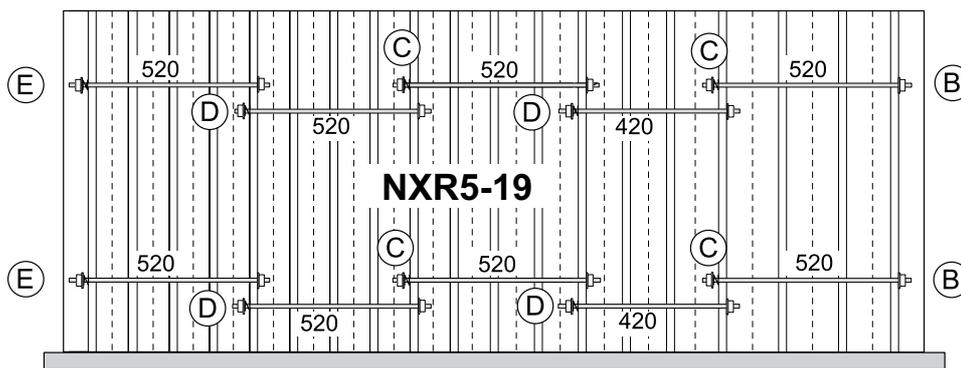
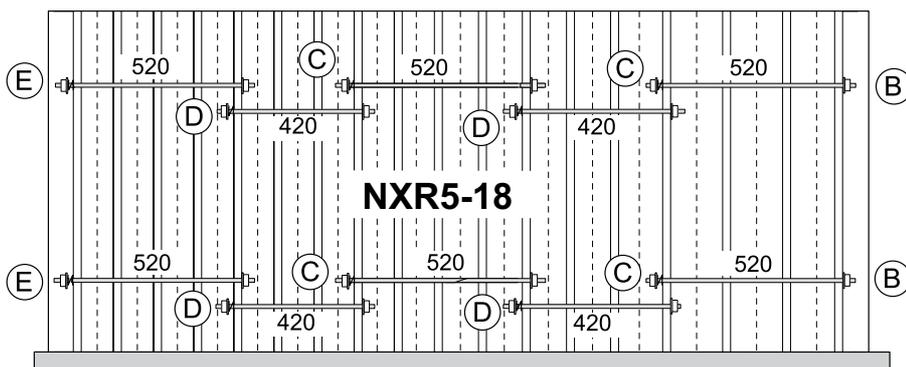
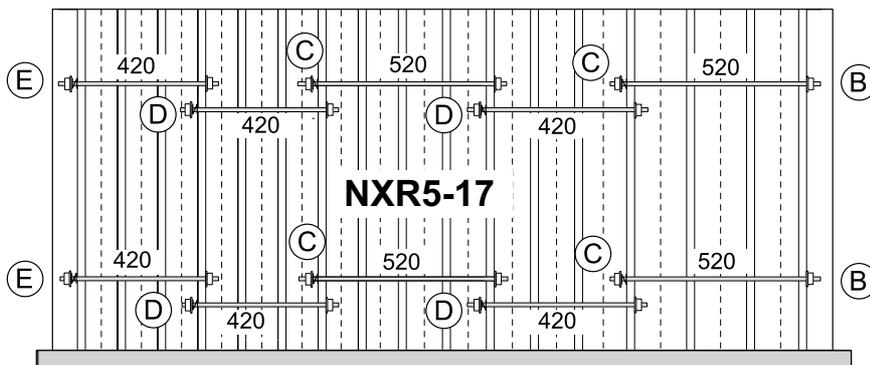
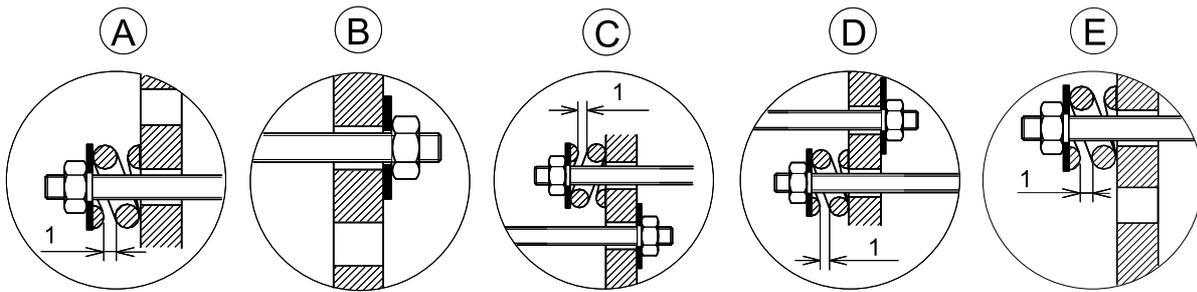


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① Rear

② Front

i Dimensions are given in millimeters.

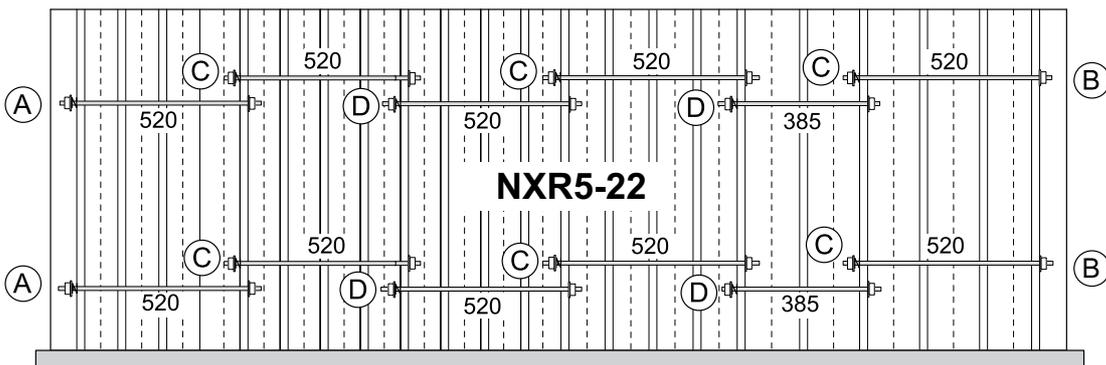
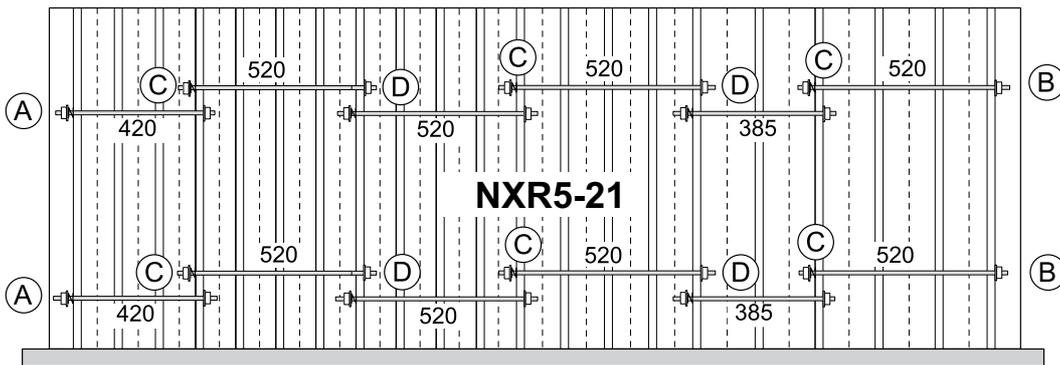
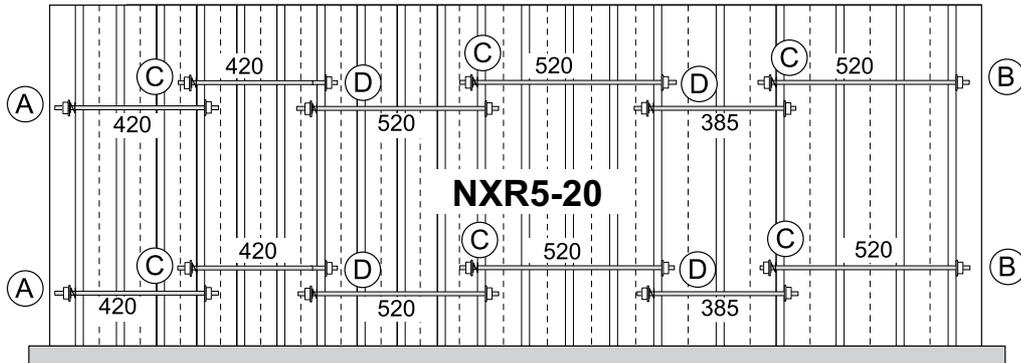
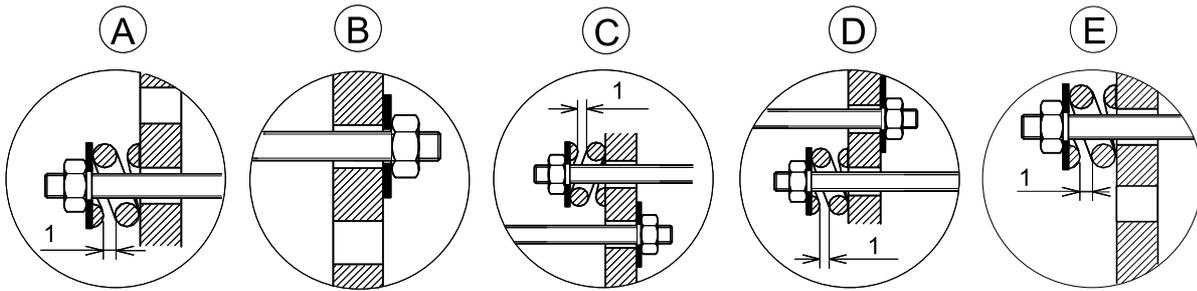


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① Rear

② Front

i Dimensions are given in millimeters.

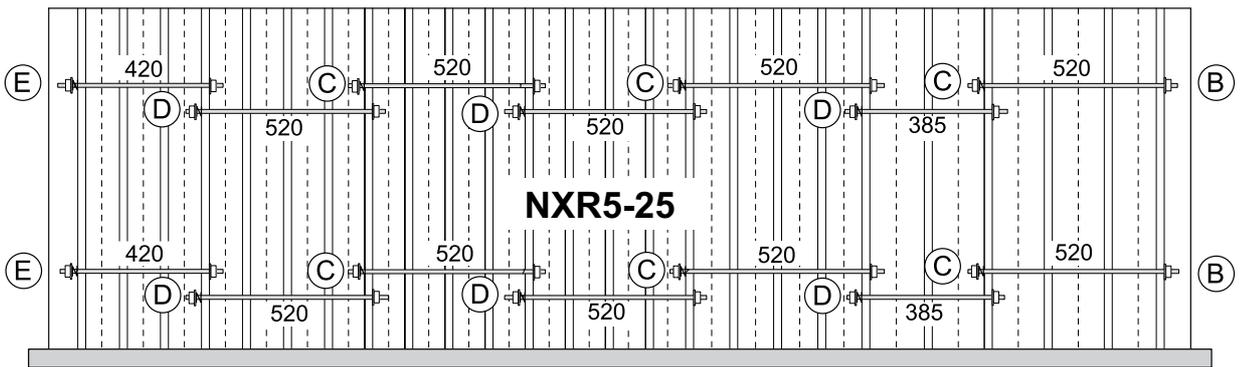
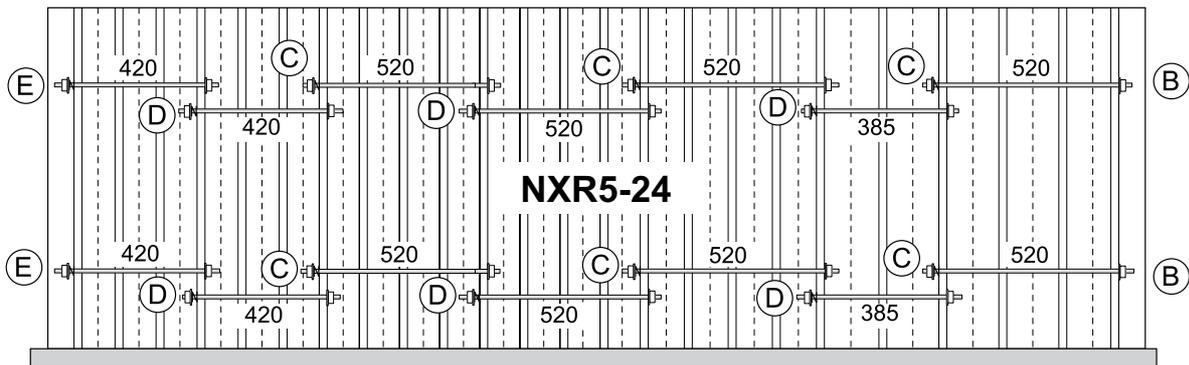
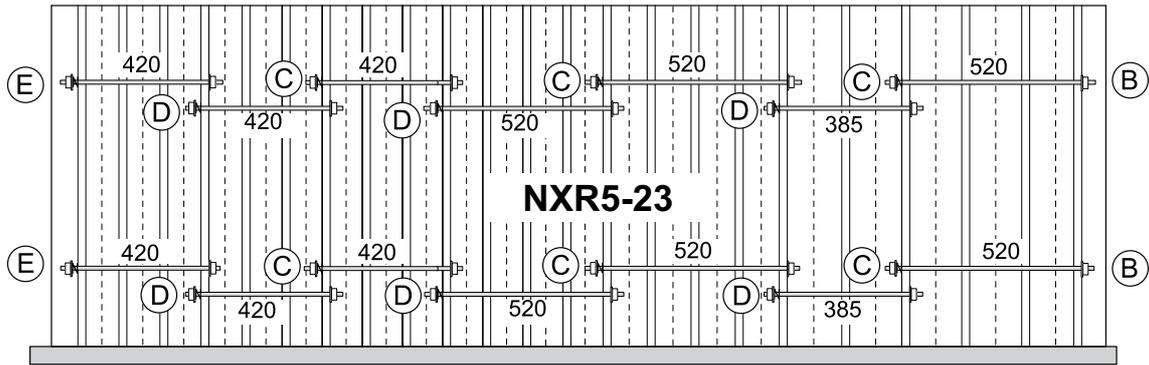
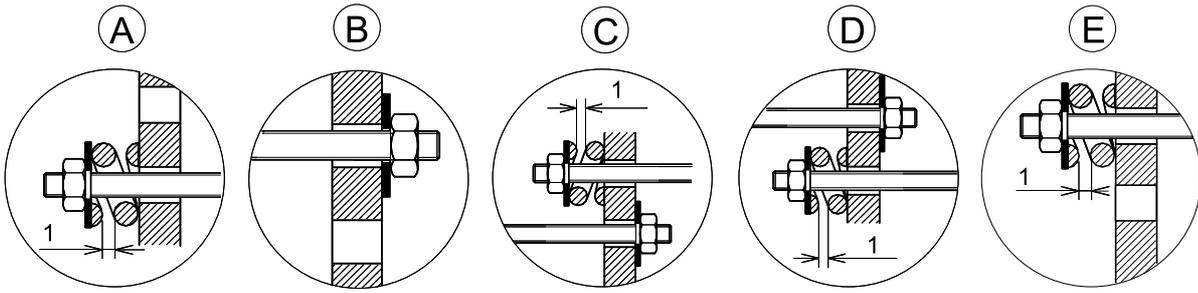


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① Rear

② Front

i Dimensions are given in millimeters.



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① Rear

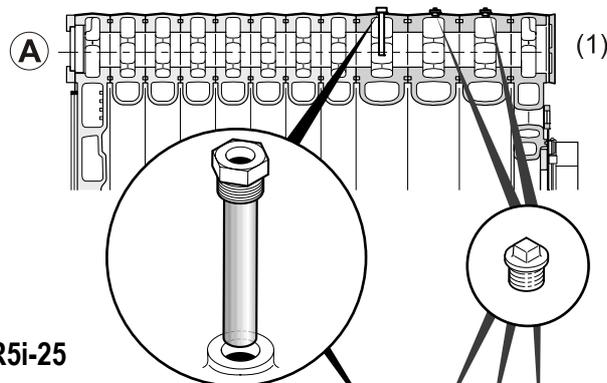
② Front

i Dimensions are given in millimeters.

Assembling the pocket and the plugs

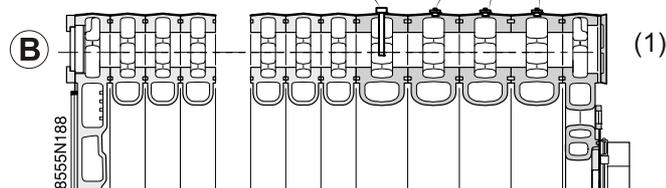
NXR5i-14 to NXR5i-19

Front



NXR5i-20 to NXR5i-25

Front

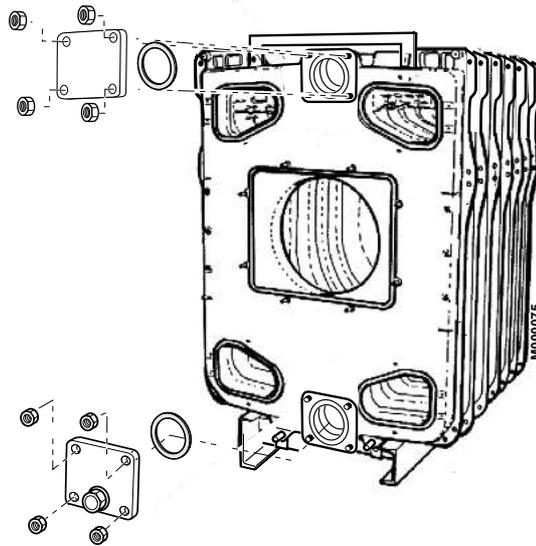


(1) Front

- ▶ Assemble the pocket for the thermostats and thermometer in:
 - the third special intermediate section - 150 mm wide, 1/2" hole for NXR5i-14 to NXR5i-19
 - or
 - the fourth special intermediate section - 150 mm wide, 1/2" hole for NXR5i-20 to NXR5i-25.
- ▶ Plug the 2 free 1/2" holes for NXR5i-14 to NXR5i-19 or the 3 free 1/2" holes for NXR5i-20 to NXR5i-25 in the special intermediate sections.

16

Fitting the upper and lower front flanges

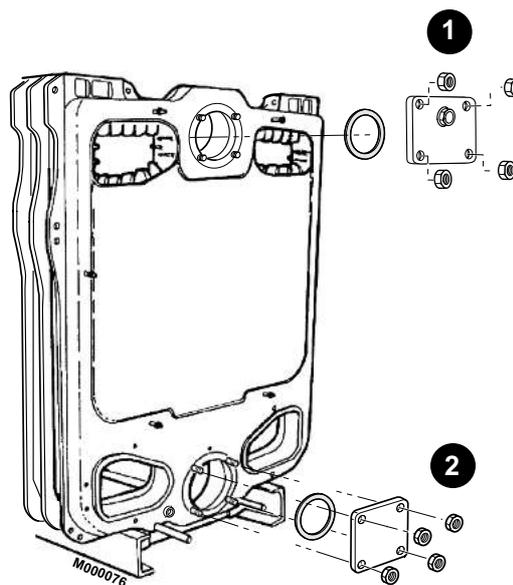


- ▶ Fit the plain flange onto the upper connection of the front section (using 4 H 18 nuts), with the Ø 170x222 gasket in between (first soak the gasket in warm water).
- ▶ Fit the flange with the sludge removal hole onto the lower connection of the front section (hole in the lower part of the flange) using 4 H 18 nuts, with the gasket in between (soak in warm water first).

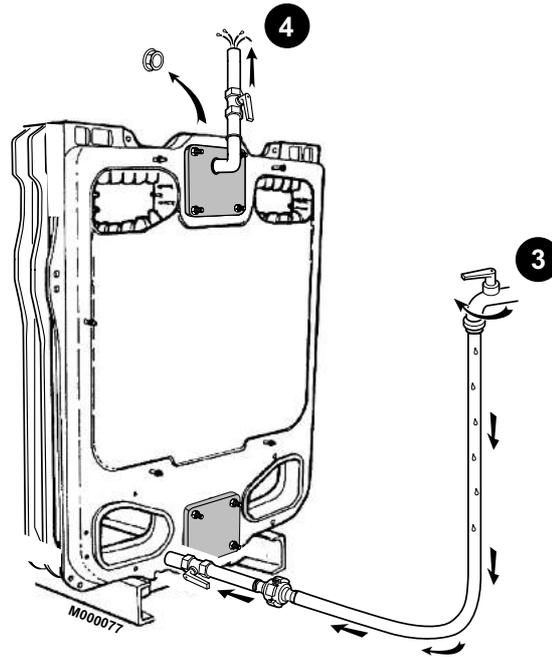
17 Hydraulic test

⚠ After assembling the boiler body, the installer must carry out a water tightness test at a pressure equal to 1.3 times the operating pressure (that is 7.8 bar mini) for 10 minutes at least. The test must be done at room temperature.

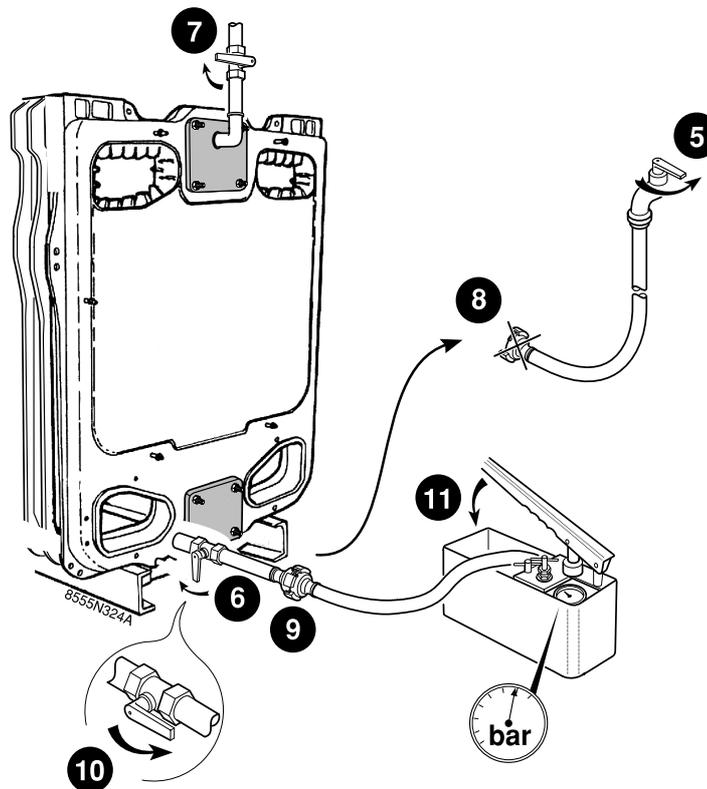
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- 1 Fit a square flange with hole facing upwards onto the upper flange with outlet piece.
- 2 Fit a blind square flange onto the lower flange with return piece.

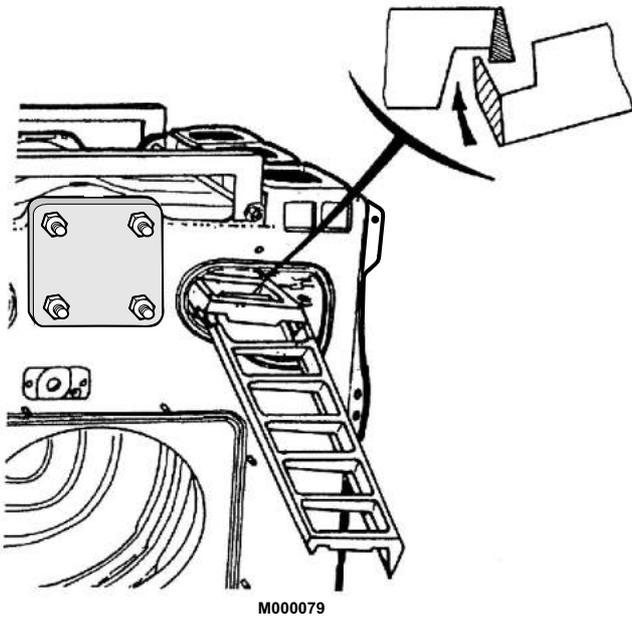


⚠ Ensure that all the air in the boiler is vented to avoid any bursting of the body.



- ▶ Maintain pressure for at least 10 minutes: 7,8 bar.
Any drop in pressure indicates a leakage in the boiler body.
- ▶ After the hydraulic test, drain the boiler.
- ▶ Remove all of the specific parts fitted to the rear section (parts used to carry out the hydraulic test).

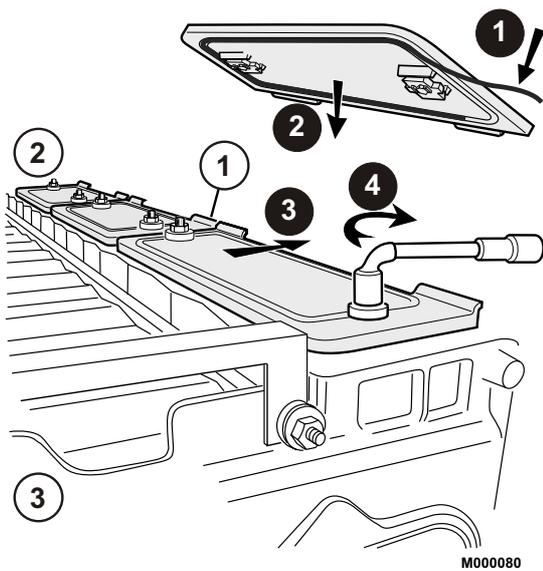
Assembling the baffle plates



Boiler	NXR5i-14	NXR5i-15 to NXR5i-19	NXR5i-20 to NXR5i-25
Total number of baffle	4	6	8
Pack no.	CM 23	CM 22 + CM 23	2 x CM 23

- ▶ Put the baffle plates into place in the upper front flue ways, taking care to interlock them with each other before fitting them.

Assembling the sweeping covers



Type	Thermocord length
1	1335 mm
2	1110 mm
3	890 mm
4	665 mm

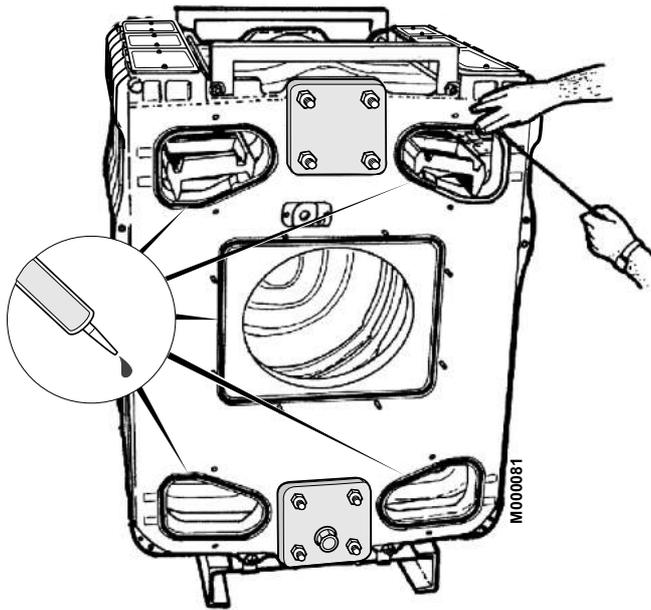
- ② Rear
- ③ Front

- ▶ The covers are numbered from 1 to 4, and must be fitted with a thermocord ①. The length of the cord is given above, according to the model of the storage tank.
- ▶ Place the 2 no. 1 sweeping covers (with the handles turned outward ①) on either side of the boiler starting from the front. Distribute the other covers evenly.

i Each cover is fitted with a system whereby it can only be mounted with the handles turned outward.

- ▶ Fit the two locks of each cover between the sections.
- ▶ Push the cover towards the outside of the boiler, to the closed position ③.
- ▶ Fasten the two brass nuts of each cover ④.

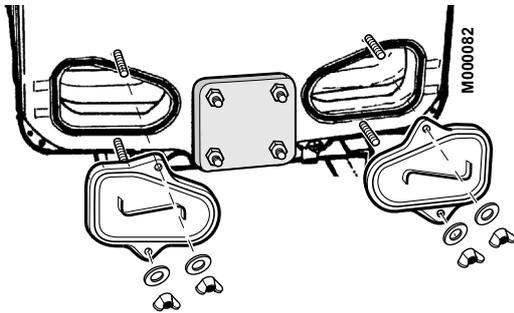
Cover model	No. 1	No. 2	No. 3	No. 4
Boiler type	Number of sweeping covers per type			
	Front	←----->		Rear
NXR5i-14	2		6	
NXR5i-15	2	4		2
NXR5i-16	2	4	2	
NXR5i-17	2	6		
NXR5i-18	2	2	6	
NXR5i-19	2	6		2
NXR5i-20	2	6	2	
NXR5i-21	2	8		
NXR5i-22	2	6	2	2
NXR5i-23	2	6	4	
NXR5i-24	2	8	2	
NXR5i-25	2	10		



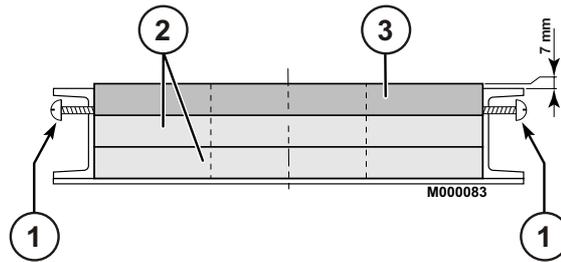
- ▶ Insert the thermocord in the sealing groove on each side and hold it in place with a few drops of silicone filler.

21

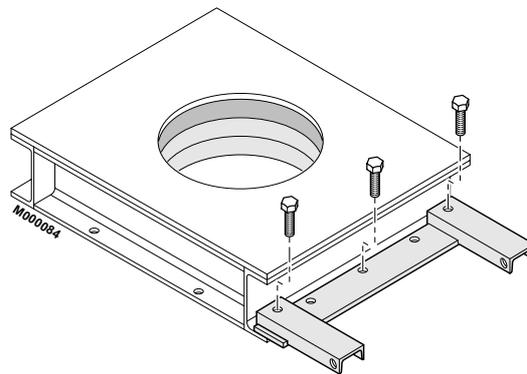
Putting in place the lower trap doors



- ▶ Insert the thermocord in the sealing groove of the 2 lower flue ways, on the rear and front of the boiler.
- ▶ Put the 4 trap doors on the lower flue ways and fasten with the wing nuts.



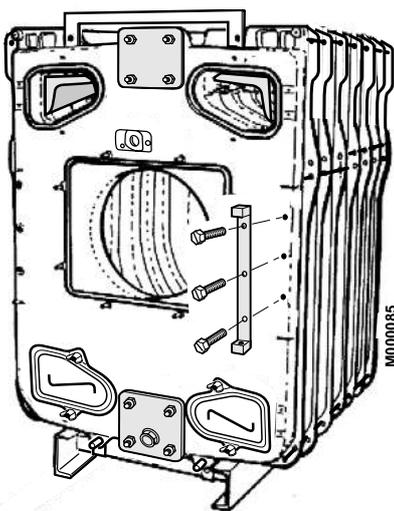
- ① 2 screws SIM 3.94x25.4
- ② Refractory felt
- ③ Rigid refractory plate
- ▶ Put the furnace door insulating material in place and retain it with the 4 screws SIM 3.94x25.4.



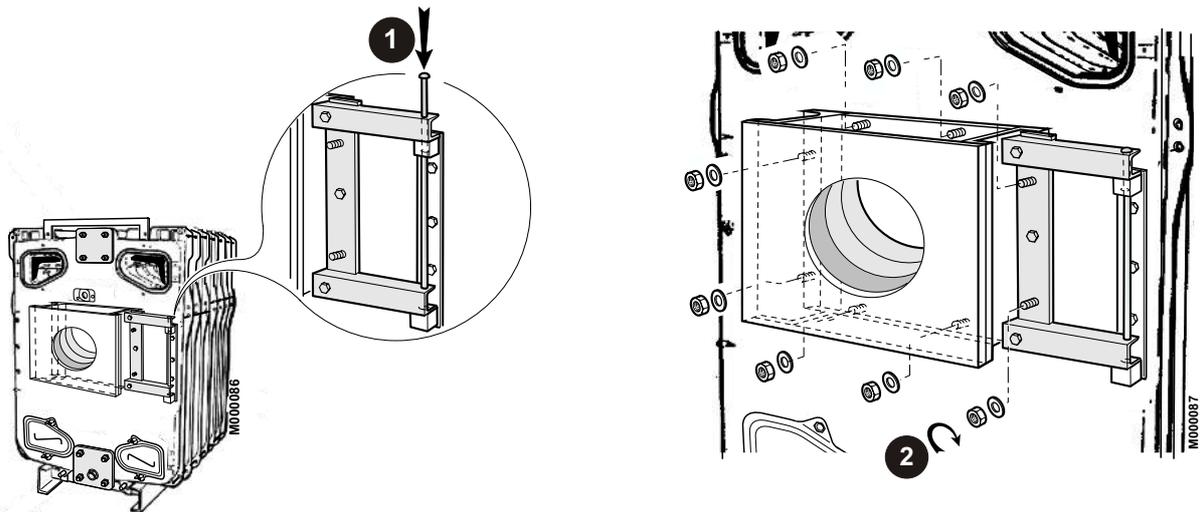
- ▶ Place the furnace door on the floor and fasten the articulation onto the door with 3 screws HM 12.

23

Installing the hinge of the furnace door

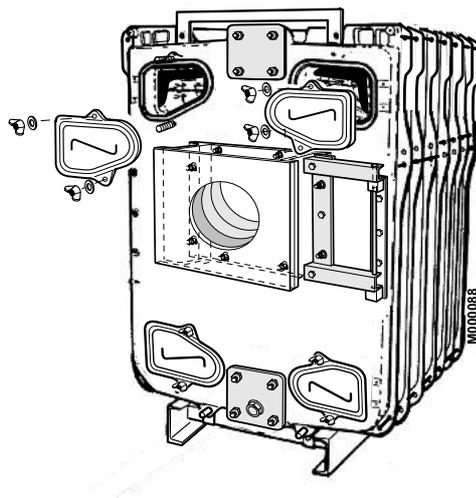


- ▶ Fix the furnace door hinge on the right or left-hand side of the front section by means of 3 screws HM 12x25.



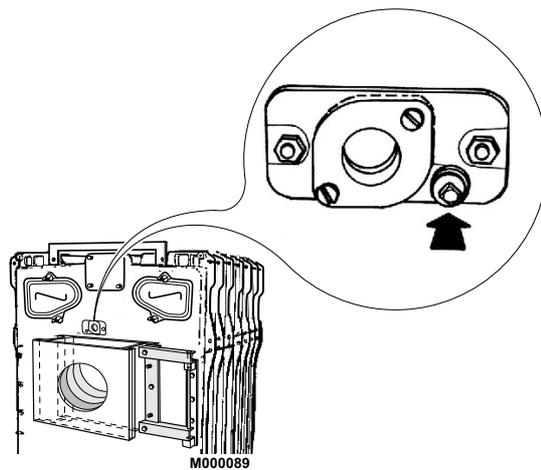
- ❶ Fit the door onto the hinge by inserting the pin.
- ❷ Close the furnace door on the 8 studs and fasten with 8 washers and nuts.

25



- ▶ Fit the 2 doors of the upper flue ways (wing nuts).

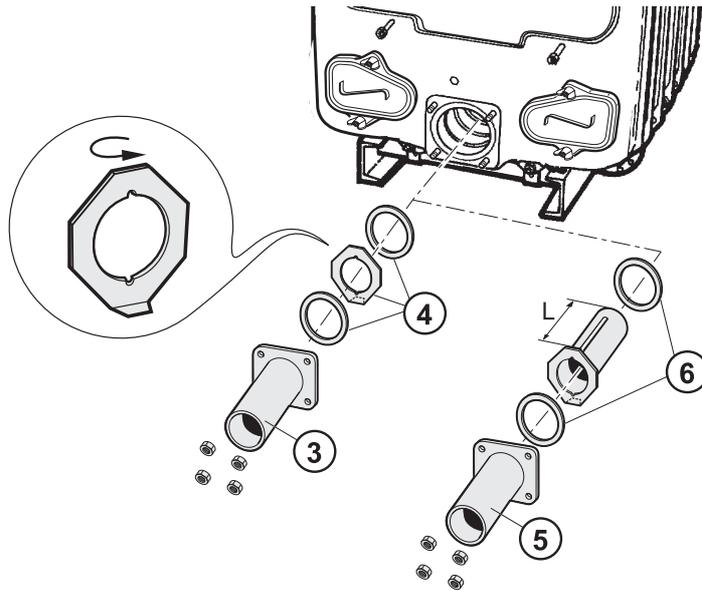
Flame inspection window



The flame inspection window is fitted with a 1/4" tapped hole for ventilation (optional).

- ▶ if a ventilation system is used, connect the hole to the one provided for that purpose before the burner combustion head.

Assembling the return flange on boilers NXR5i-14 to NXR5i-25



C003941-A

• NXR5i-14:

NXR5i-14	
③	Package FA 49
④	Package FA68

- ▶ Fit the boiler return flange, intercalating a seal Ø 170x222 previously soaked in tepid water.
- ▶ Fit the heating return flange with a Ø 170x222 gasket in between and fix it with 4 nuts H 18.

• NXR5i-15 to NXR5i-25:

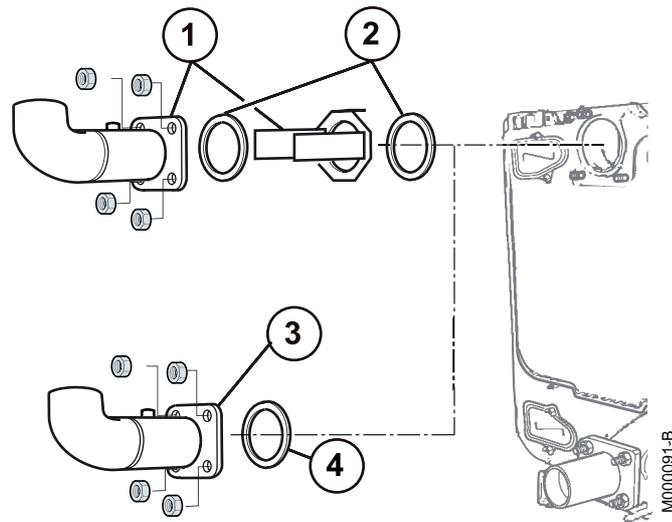
⑤=Package FA50 to FA60

⑥=Package FA69 to FA79

- ▶ Fit the water balancing tube onto the boiler return with a Ø 170x222 gasket in between (first soak the gasket in warm water).
- ▶ Fit the heating return flange with a Ø 170x222 gasket in between (first soak the gasket in warm water) and fix it with 4 nuts H 18

Boiler type	Length mm
NXR5i-15, NXR5i-16	380
NXR5i-17 to NXR5i-19	600
NXR5i-20 to NXR5i-22	880
NXR5i-23 to NXR5i-25	1210

Assembling the outlet flange on boilers NXR5i-14 to NXR5i-25



- **NXR5i-14 to NXR5i-15:**

① = Package FA42 to FA 50

② = Package FA61 to FA69

- ▶ Place the nozzle turned outside from the boiler with a $\varnothing 170 \times 222$ gasket in between (first soak the seal in warm water).
- ▶ Assemble the flange with angled piece so that the angle is turned upward, with a $\varnothing 170 \times 222$ gasket in between (first soak the gasket in warm water) and fasten with 4 nuts H 18.

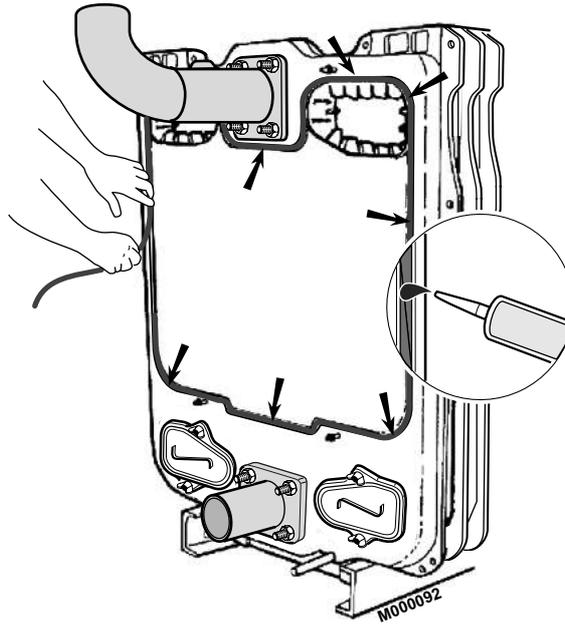
- **NXR5i-16 to NXR5i-25:**

③ = Package FA51 to FA60

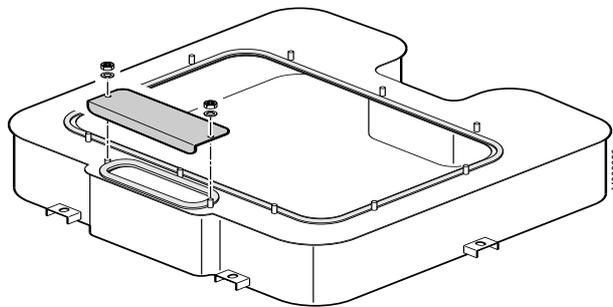
④ = Package FA70 to FA79

- ▶ Assemble the flange with angled piece so that the angle is turned upward, with a $\varnothing 170 \times 222$ gasket in between (first soak the gasket in warm water) and fasten with 4 nuts H 18.

Fitting the boiler outlet flange

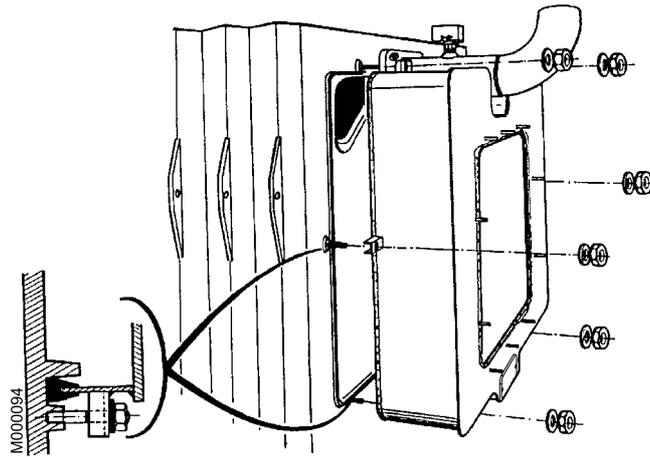


- ▶ Carefully insert the $\varnothing 15$ gasket in the groove of the rear section and hold it in place with a few drops of silicone.

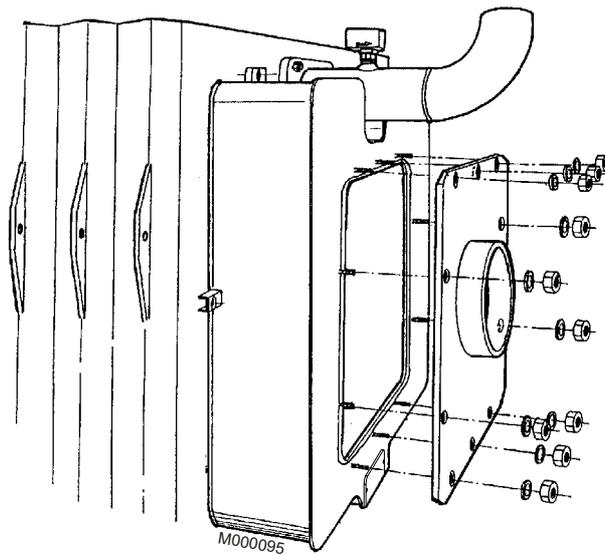


⚠ Before assembling the flue gas box, grease all bolts, studs and screws with high-temperature grease (not supplied).

- ❶ Put in place the thermocord .
- ❷ Put the sweeping cover in place and fasten with 2 nuts H 10 and $\varnothing 10$ washers.

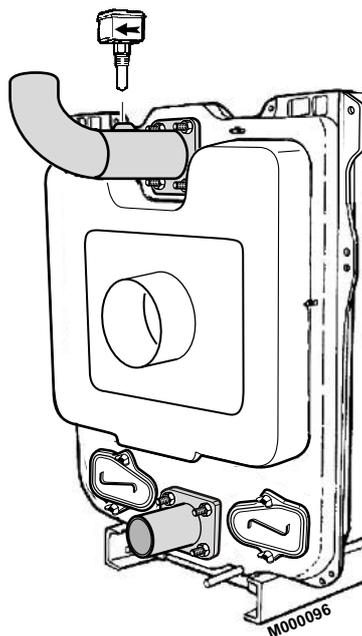


- ▶ The flue gas outlet is fastened to the rear by means of 6 studs, washers and Ø 12 nuts.



- ▶ First adapt the steel connecting plate to the chimney connection flue, then fasten that plate or the plate with a connecting piece with 10 nuts H10 and Ø10 washers.

Assembling the flow switch

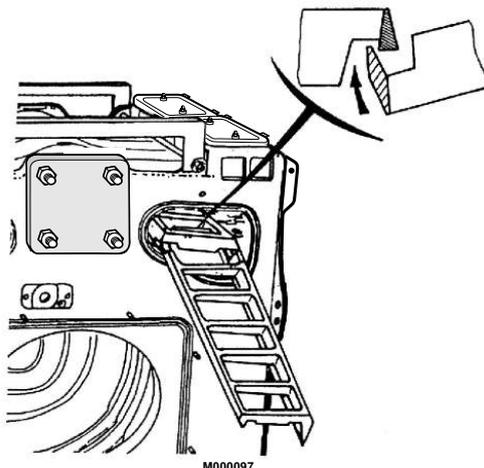


- ▶ Fasten the flow switch on the sleeve tube.
The direction of the arrow head on the collet must be the same as the flowing out of the water in the tube.

Boiler	Flow switch Code no.
NXR5i-14	8802-4745
NXR5i-15	8802-4746
NXR5i-16	8802-4736
NXR5i-17	8802-4738
NXR5i-18	8802-4752
NXR5i-19	8802-4753
NXR5i-20	8802-4754
NXR5i-21	8802-4755
NXR5i-22	8802-4757
NXR5i-23	8802-4757
NXR5i-24	8802-4759
NXR5i-25	8802-4759

34 Boilers supplied with an assembled body (By special arrangement only)

Fitting the baffle plates

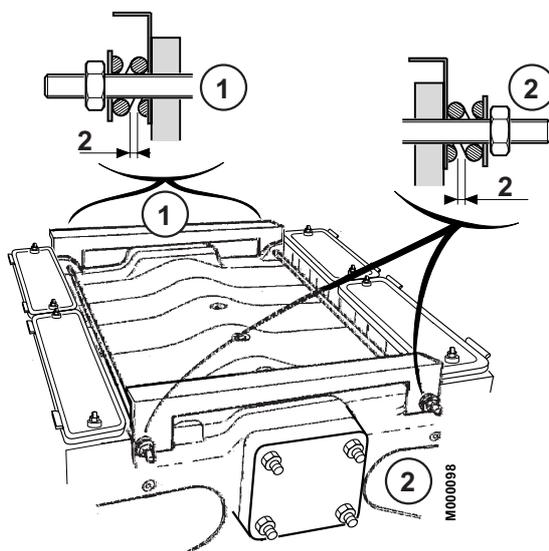


- ▶ Put the baffle plates into place in the upper front flue ways, taking care to interlock them with each other before fitting them.

Boiler	NXR5i-14	NXR5i-15 to NXR5i-19	NXR5i-20 to NXR5i-25
Total number of baffle	4	6	8
Pack no.	CM 23	CM 22 + CM 23	2 x CM 23

35 Boilers supplied with an assembled body (By special arrangement only)

Assembling the upper crosspieces package MR338 or MR339



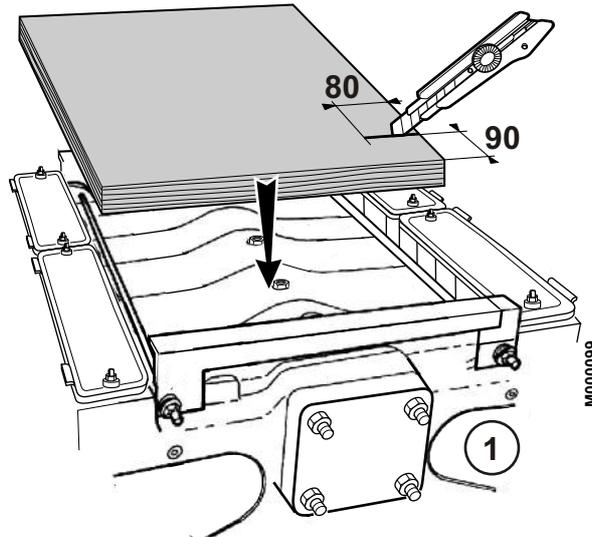
- ① Rear
- ② Front

i Dimensions are given in millimeters.

- ▶ Mount the 2 crosspieces and fasten them onto the rods with an expansion spring, 2 nut and 2 washer.

36 NXR5i-14 to NXR5i-17: Package FA30 to FA36

Assembling the top insulating material



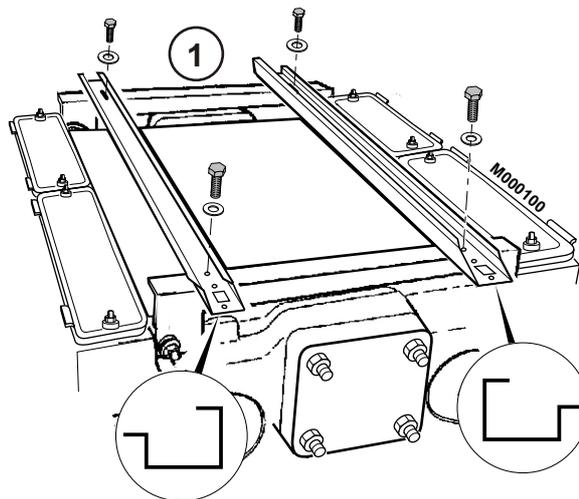
① Front

- ▶ Put in place the 600 mm wide (packages FA30 to FA36) top insulating material on the body of the boiler.

Number of sections	14	15 or 16	17
Length (mm)	1800	2100	2200

37 NXR5i-14 to NXR5i-17: Package FA17 to FA27

Assembling the cable channels

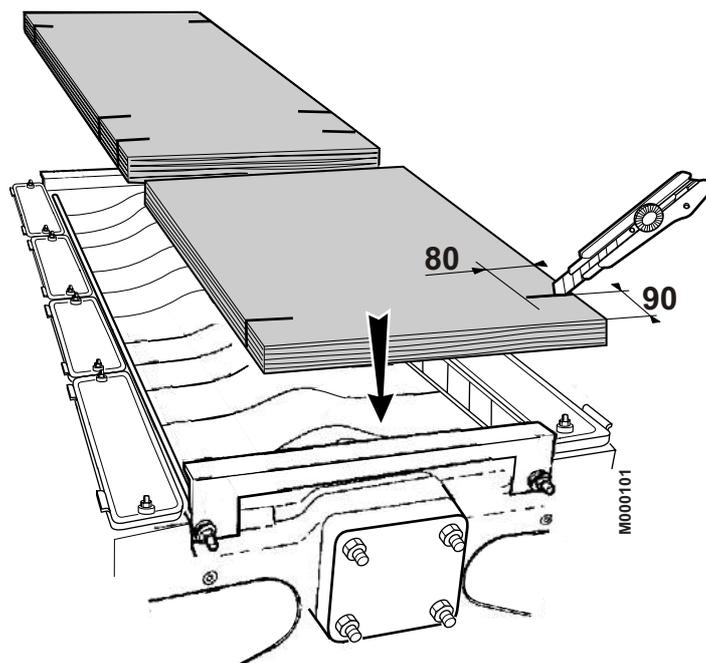


① Rear

- ▶ Place the cable channels so that their bevelled end is to the front.
- ▶ Fasten with 2 screws H8 x 16 + L8 washers in the third hole starting from the front and opposite the special nut.
- ▶ Fasten at the rear with 2 screws H8 x 16 + L8 washers opposite the oblong holes and special nut.

38 NXR5i-18 to NXR5i-25: Package FA37 to FA41

Assembling the top insulating material

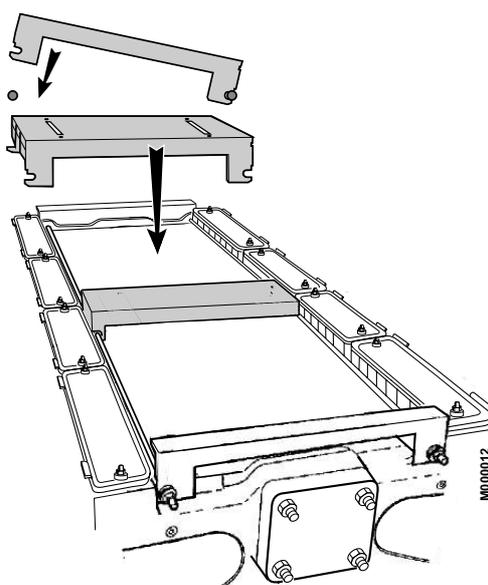


- ▶ Put in place the 2 pieces of insulating material (width 600 mm, packages FA37 to FA41) on the body of the boiler.
- ▶ Push the insulating material under the front and rear crosspieces.

Number of sections	18	19	20	21	22	23	24	25
Length (mm)	2 x 1200	2 x 1200	2 x 1300	2 x 1400	2 x 1400	2 x 1500	2 x 1500	2 x 1600

39 NXR5i-18 to NXR5i-25: Package FA6

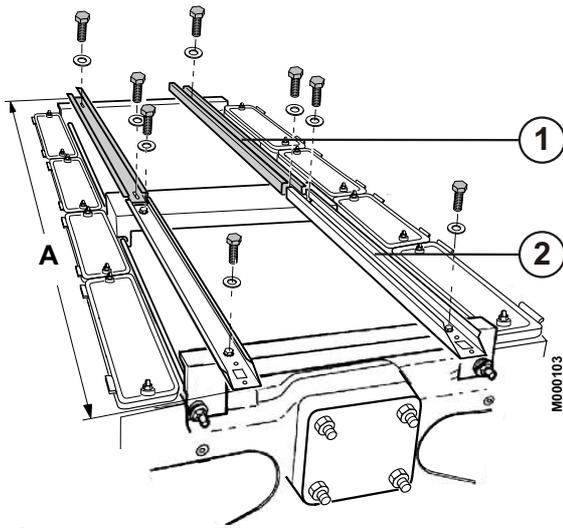
Assembling the intermediate piece



- ▶ Assemble the intermediate piece on the assembly rods by fitting one slotted side onto one rod and using the flexibility of the other rod.

40 NXR5i-18 to NXR5i-25: Package FA16 to FA24

Assembling the cable channels



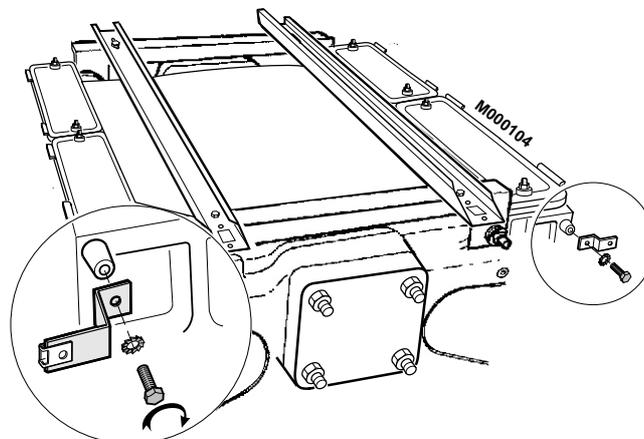
- ① Package FA16
- ② Package FA16 to FA24

Number of sections	18	19	20	21	22	23	24	25
Length (mm) - A	2510	2600	2800	2910	3000	3110	3200	3310

- ▶ Place the cable channels so that their bevelled end is to the front.
- ▶ Fasten with 2 screws H8 x 16 + L8 washers in the third hole starting from the front and opposite the special nut.
- ▶ Fasten them to the intermediate piece and the rear crosspieces with 2 screws H8 x 16 and L8 washers.
- ▶ Align the 2 additional cable channels with the two others.
- ▶ Fasten them to the intermediate piece and the rear crosspieces with 4 screws (H8 x 16) and L8 washers.

41 package MR338 or MR339

Assembling the casing positioning brackets

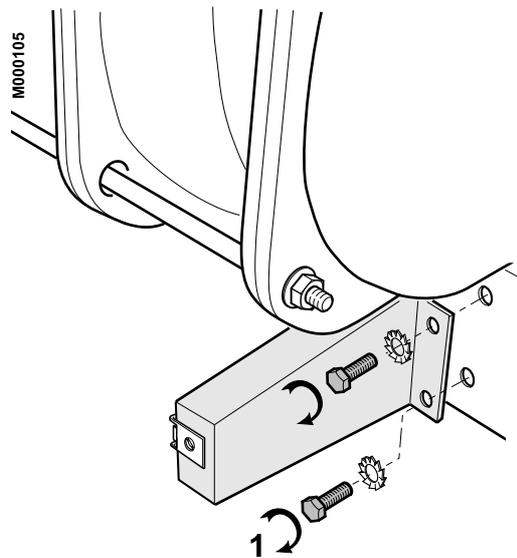


- ▶ Fasten the positioning brackets (package MR338 or MR339) onto the right and left-hand upper bosses of the front section with: 2 screws H8 x 16 + 2 serrated washers (13 mm spanner).

42 package MR338 or MR339

Assembling the lower rail support brackets

- Example for a NXR5i-14



- ▶ Fasten the lower rail support brackets using H8 x 16 screws + Serrated washer.

i for the assembly direction, see the drawings below.

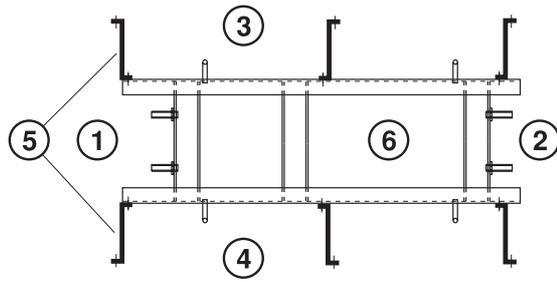
Assembly direction of lower rail support brackets

(seen from the top of the frame)

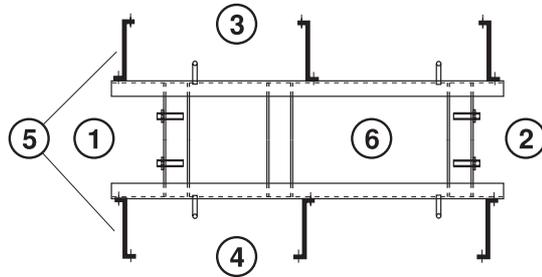
- ① Rear
- ② Front
- ③ Right-hand side
- ④ Left-hand side
- ⑤ Rail support brackets
- ⑥ Base frame

i 2 lower rail support brackets and 2 upper rail brackets are left unused with 18, 19, 20 and 21 sections.

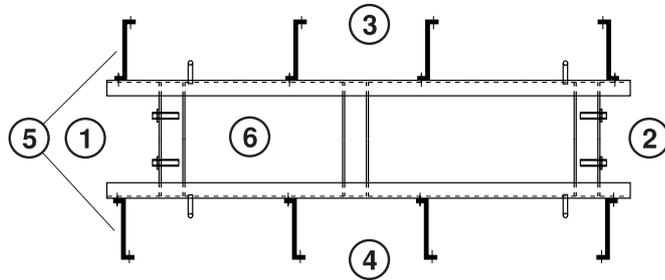
NXR5-15
NXR5-17



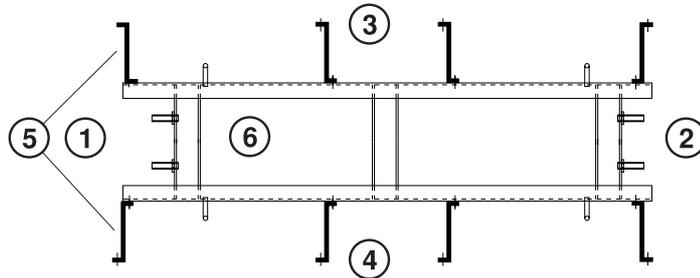
NXR5-14
NXR5-16



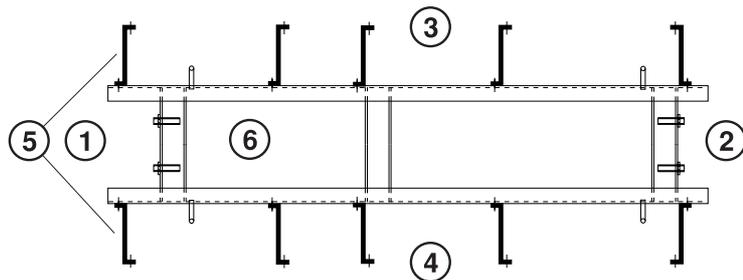
NXR5-18
NXR5-20



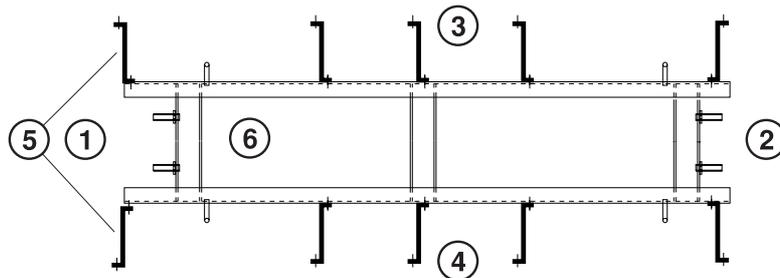
NXR5-19
NXR5-21



NXR5-22
NXR5-24

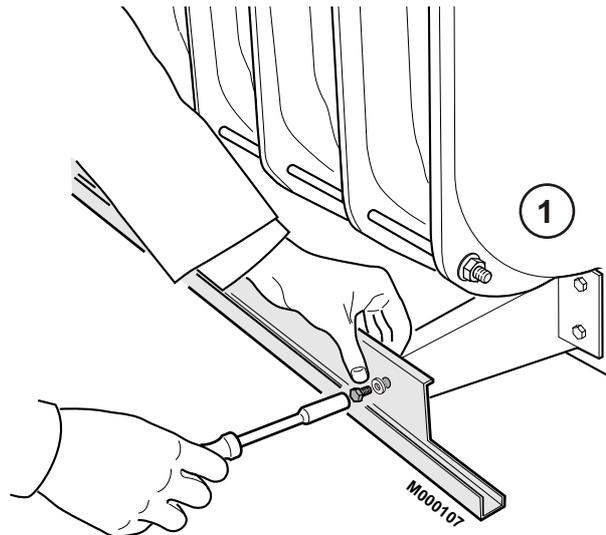


NXR5-23
NXR5-25



C003942-A

43 Package FA17 to FA27



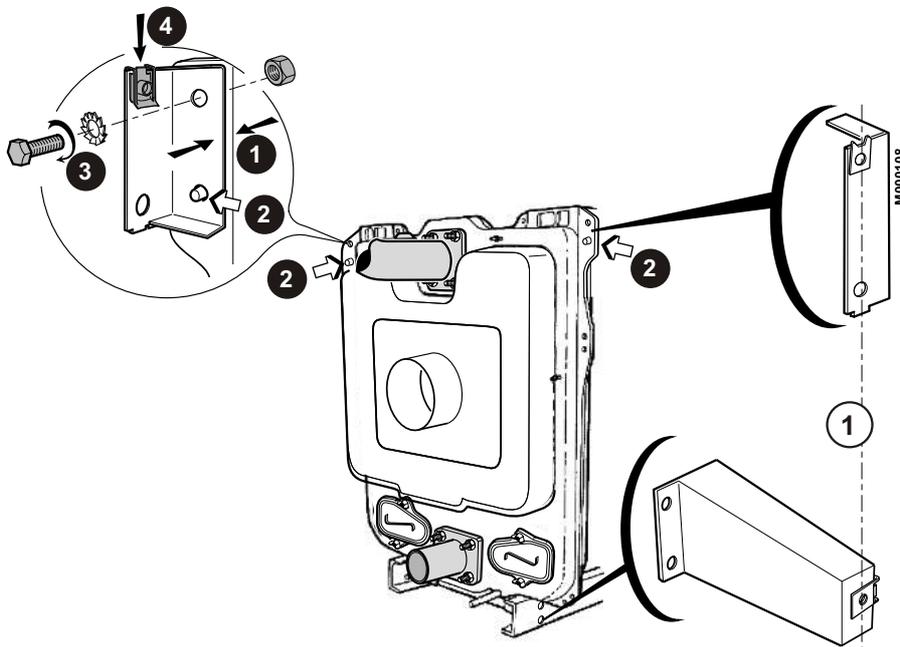
① Front

- ▶ Fasten the lower rail with H8 x 30 screws and L8 washers.
- ▶ The other rail support brackets are fastened opposite the holes provided on the lower rail.

 Length required while assembling the 2-piece rails (boilers with 18 to 25 sections), see fig. 46.

44 package MR338 or MR339

Assembling the fastening brackets of the upper and lower rails

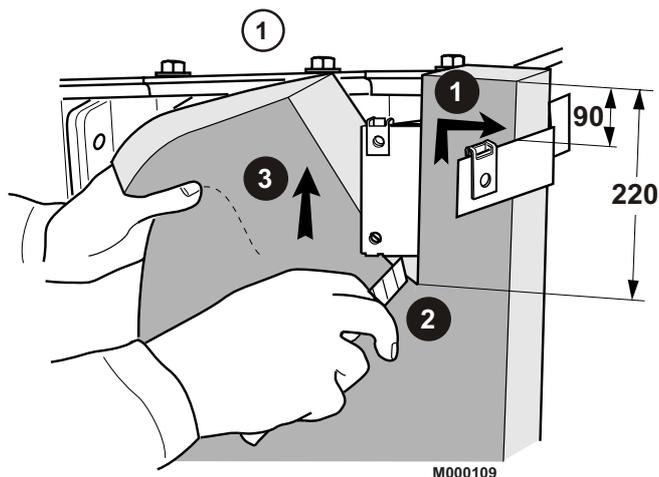


① Imperative alignment.

- ▶ Fix the fastening bracket of the upper rails (package FA5 or FA6) on the upper lug **①** (these brackets must be vertically aligned with the lower rail support brackets).
- ▶ Fit the bracket onto the stub **②**.
- ▶ Fasten with 1 screw H10 x 50 and serrated washers and H10 nuts **③**.
- ▶ Assemble 1 "Rapid" nut on the top of the bracket **④** with the tapped shaft on the inside.

45 Package FA30 to FA41

Installing the insulating material

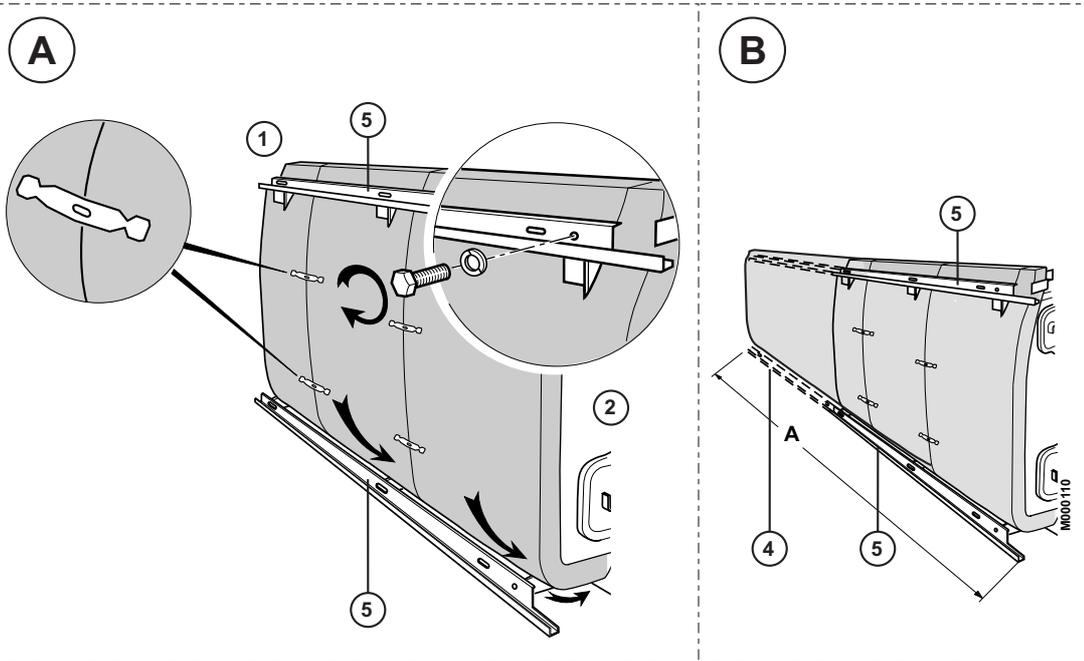


① Front

- ▶ Place the side insulating material against the positioning bracket ① and cut it so that it is flush with the upper lug on which the rail fastening bracket is fixed, along a 220 mm length ②.
- ▶ Push the insulating material in behind the lug and the rail fastening bracket ③.
- ▶ Distribute the insulating material evenly so that you have the same side insulating material on either side of the boiler.
- ▶ Cut the insulation similarly along the fastening brackets.

Boiler type	Side insulating material (mm)			
	Front	<----->		Rear
NXR5i-14	1200	600		
NXR5i-15	1200	400	400	
NXR5i-16	1200	400	600	
NXR5i-17	1200	400	600	
NXR5i-18	1200	1200		
NXR5i-19	1200	1200		
NXR5i-20	1200	400	400	600
NXR5i-21	1200	400	1200	
NXR5i-22	1200	400	1200	
NXR5i-23	1200	600	1200	
NXR5i-24	1200	600	1200	
NXR5i-25	1200	400	400	1200

Fitting the rails



- ① Rear
- ② Front

A: 14 to 17 sections:

- ▶ Fix the upper rail with H8 x 30 screws and L8 washers (the first hole from the front end of the rail must be opposite the first fastening bracket, and similarly with the other brackets).
- ▶ Push the insulating material behind the lower rail and underneath the boiler.
- ▶ Join the pieces of insulating material to each other with the clips.

B: 18 to 25 sections:

- ▶ Fix the upper rail with H8 x 30 screws and L8 washers (the first hole from the front end of the rail must be opposite the first fastening bracket, and similarly with the other brackets).
- ▶ Fix the additional upper and lower rails, making sure you comply with dimension A (see table below).
- ▶ Push the insulating material behind the lower rail and underneath the boiler.
- ▶ Join the pieces of insulating material to each other with the clips.

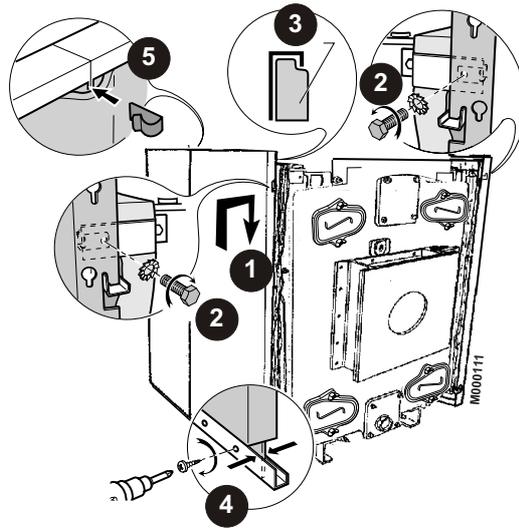
..

Boiler	Package ④	Package ⑤
NXR5i-14	-	FA24
NXR5i-15	-	FA25
NXR5i-16	-	FA26
NXR5i-17	-	FA27
NXR5i-18	FA16	FA17
NXR5i-19	FA16	FA18
NXR5i-20	FA16	FA19
NXR5i-21	FA16	FA20
NXR5i-22	FA16	FA21
NXR5i-23	FA16	FA22
NXR5i-24	FA16	FA23
NXR5i-25	FA16	FA24

Length required while assembling the 2-piece rails (boilers with 18 to 25 sections):

Number of sections	18	19	20	21	22	23	24	25
A (mm)	2500	2615	2765	2875	2965	3075	3165	3275

Assembling the side casing panels



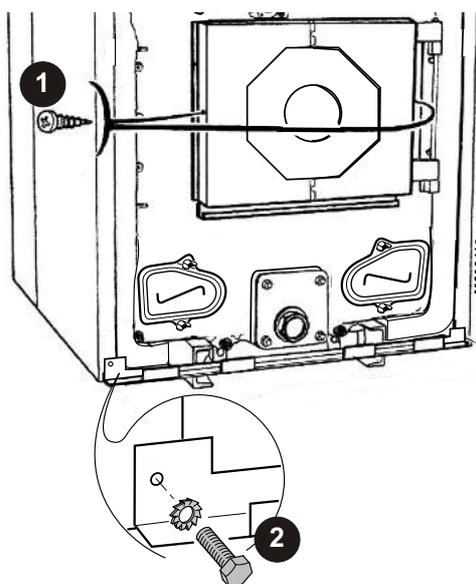
- 1 First assemble the panels on the front using the assembly length table opposite and continue up to the rear section.
- 2 Fix the front side panels to the positioning brackets with H8 x 16 screws and serrated washers.
- 3 Push the insulating material into the top of the side panels 3 and fasten the panels to the lower rails by means of the self-drilling screws with the electric screwdriver (2 screws per panel) 4.
- 5 Fasten the side panels to each other with the clips.

Boiler type	Side panels (mm)				
	Front	←-----→		Rear	
NXR5i-14	800	600	600		
NXR5i-15	940	600	600		
NXR5i-16	1050	600	600		
NXR5i-17	940	600	400	400	
NXR5i-18	1050	600	400	400	
NXR5i-19	940	600	600	400	
NXR5i-20	940	600	600	600	
NXR5i-21	1050	600	600	600	
NXR5i-22	940	600	600	400	400
NXR5i-23	1050	600	600	400	400
NXR5i-24	940	600	600	600	400
NXR5i-25	1050	600	600	600	400

Panels
 400 mm long panel in package FA10
 600 mm long panel in package FA11
 800 mm long panel in package MR3
 940 mm long panel in package MR4
 1050 mm long panel in package MR5

48 package MR338 or MR339

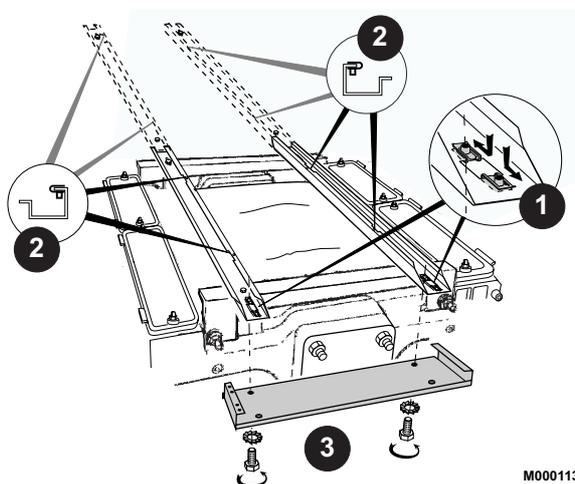
Assembling the furnace door and lower crosspiece panels



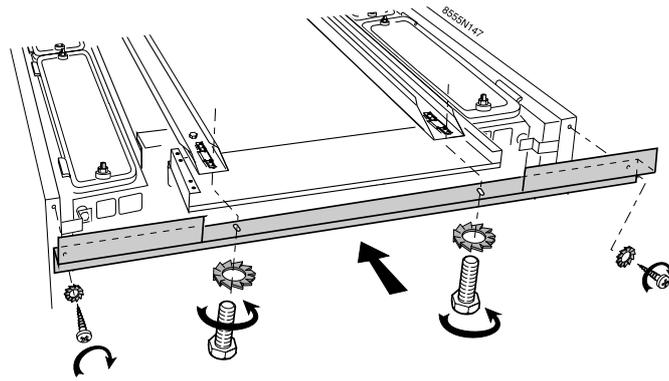
- 1 Put the furnace door panel in place (package MR338 or MR339) and fasten with 2 tapping screws (\varnothing 3.94 x 12.7). The furnace door panel may be cut in 2 at the micro-joints.
- 2 Fix the casing support lower crosspiece (package MR338 or MR339) by means of 2 screws (H6 x 20) and 2 serrated washers.

49 package MR338 or MR339

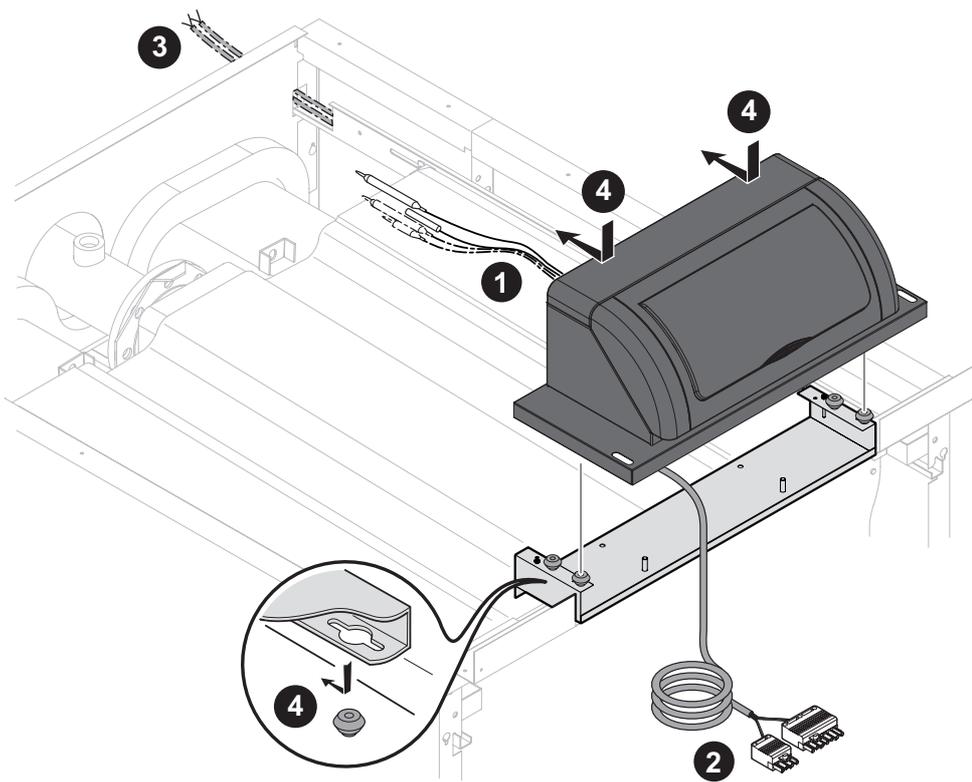
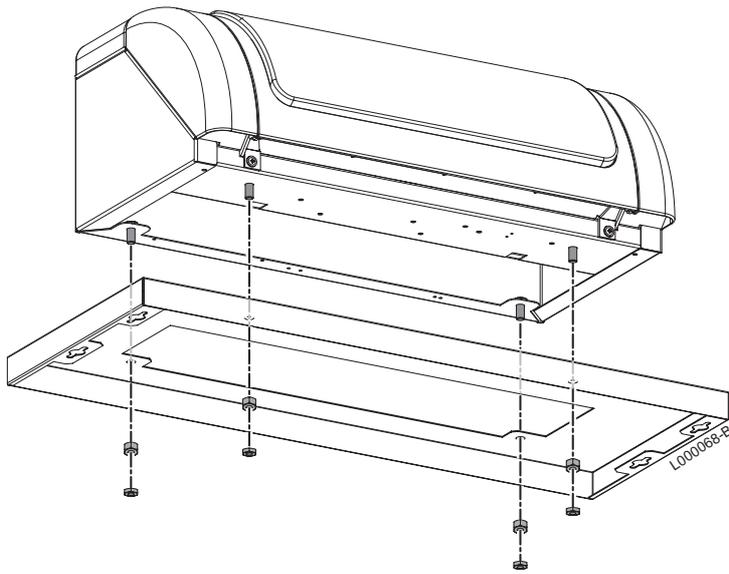
Assembling the control panel bracket (all control panels)

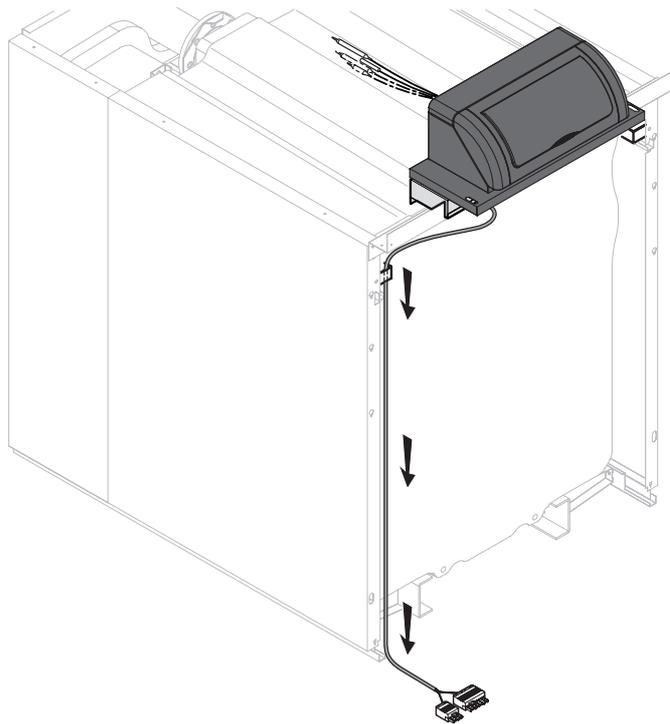


- 1 Fit the 4 "Rapid" nuts on the front of the cable channels.
- 2 Fit the "Rapid" nuts in the slots 2:
4 "Rapid" nuts for 7 to 17 sections.
8 "Rapid" nuts for 18 to 25 sections.
- 3 Fix the control panel bracket (package MR338 or MR339) underneath the 2 cable channels by means of 2 screws (H8 x 16) and 2 serrated washers.

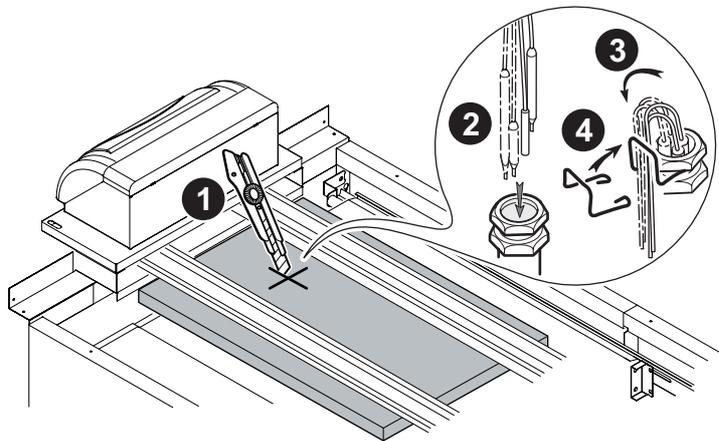


- ▶ Fit the front cross piece (2 Screw H8 x 30, 2 Self-tapping screw $\text{\O} 3,94 \times 12,7$ + Serrated washers).





C003956-B



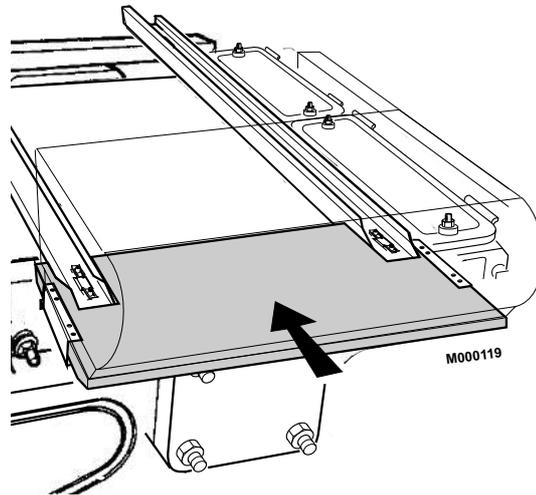
C003957

54 Electrical connections

- ▶ All connections are made with the terminal boxes designed for that purpose on the back of the boiler's command board.

 See the "Electrical Connections" section of the instructions supplied with the control panel.

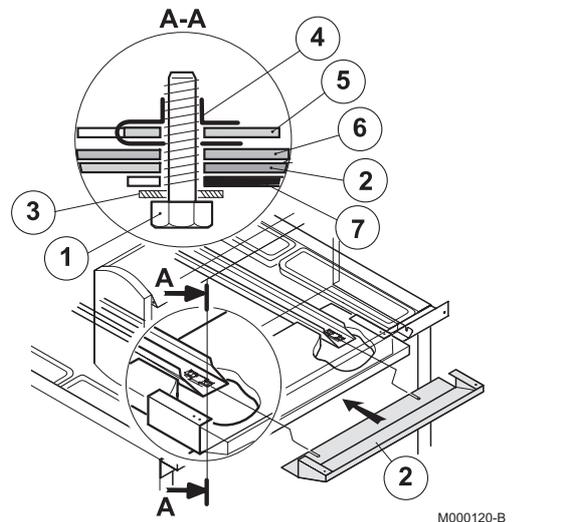
55 Installing the insulating material



- ▶ Put in place the insulating material as shown above.

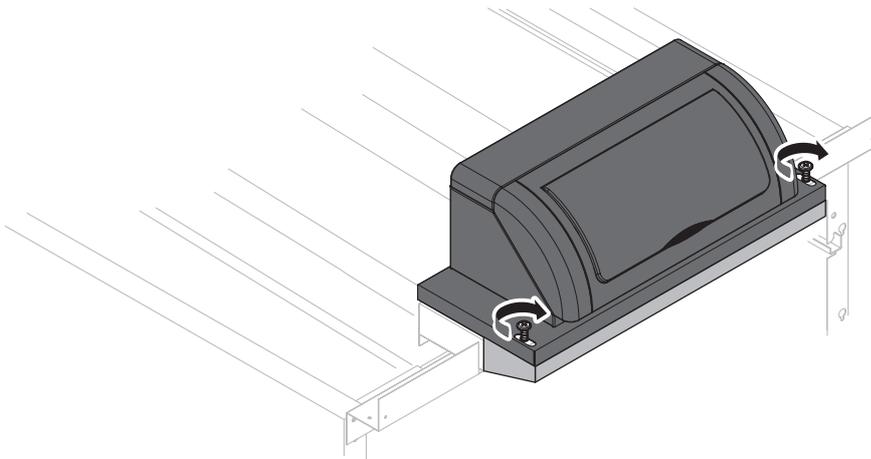
56 package MR298 or MR299

Fitting the cap



- ① Mounted screw
- ② Control panel trim
- ③ Serrated washer
- ④ "Rapid" nut
- ⑤ Cable channel
- ⑥ Control panel bracket
- ⑦ Front crosspiece

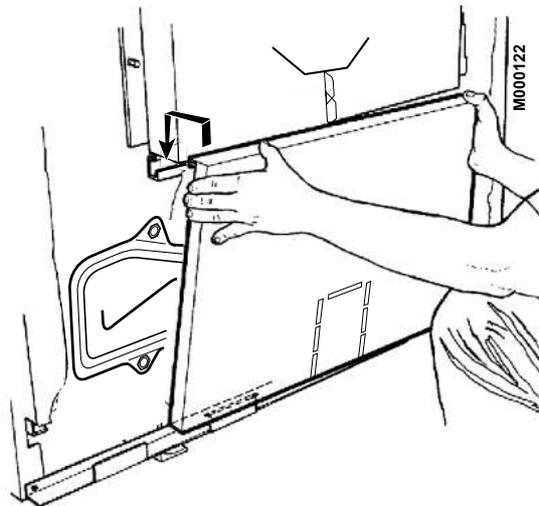
- ▶ Unfasten the screws ① (mounted in fig. 56).
- ▶ Slide the control panel trim ② along the screws ①.
- ▶ Fasten the screws ①.



C003958-B

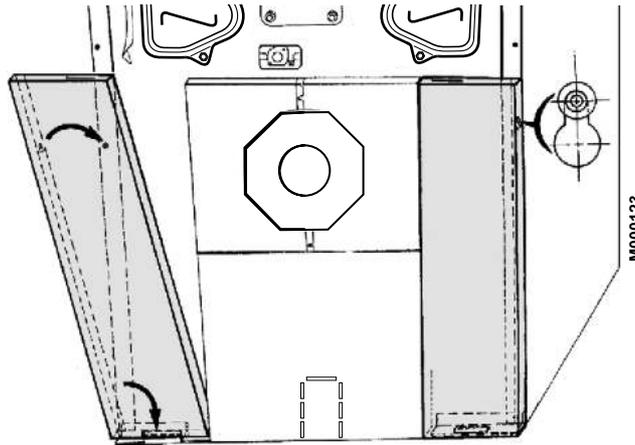
- ▶ Fix the trim to the control panel using 2 tapping screws and serrated washers.

58 package MR338 or MR339



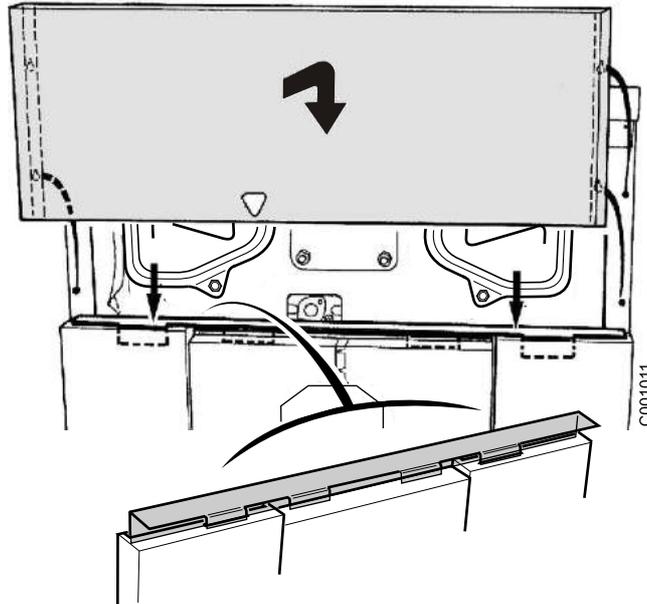
- ▶ Place the insulating material in the lower central front panel (black cloth facing outward).
- ▶ Fit the lower central front panel (package MR338 or MR339) onto the lower front crosspiece and fix it to the furnace door panel.

59 package MR338 or MR339



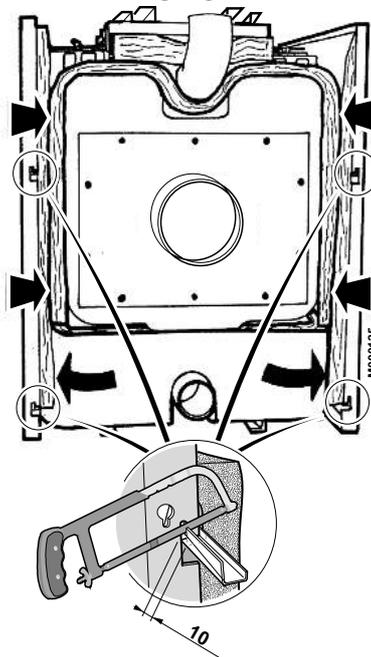
- ▶ Fit the left and right-hand side front panels (package MR338 or MR339) onto the lower front crosspiece and fit them onto the studs of the side panels.

60 package MR338 or MR339



- ▶ Place the retaining crosspiece (package MR338 or MR339) on the left and right-hand front panels, taking care to place the 2 central tabs behind the furnace door panel.
- ▶ Fit the upper front panel (package MR338 or MR339) onto the side panels via the 4 studs.

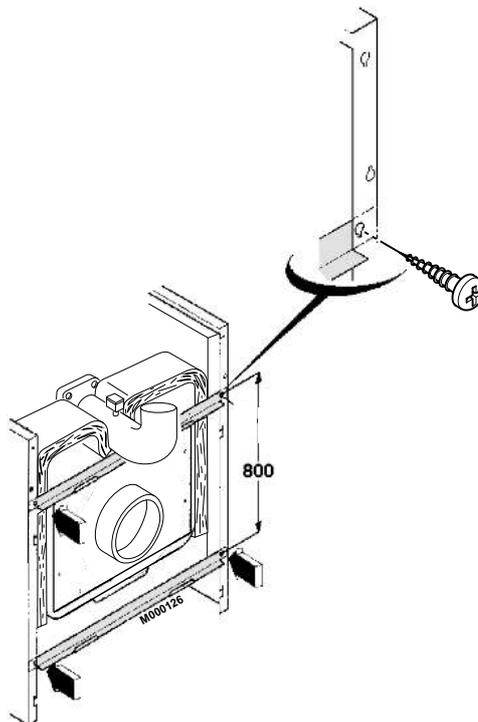
61 package MR338 or MR339



- ▶ Put in place the insulation of the flue gas box and the lower rear insulating material (package MR338 or MR339).

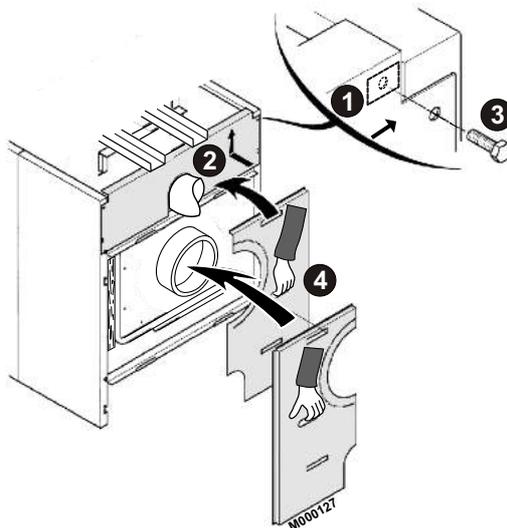
⚠ If the side crosspieces overlap at the rear by more than 10 mm, we advise you to saw them off using a hacksaw.

62 package MR338 or MR339



- ▶ Put in place the 2 rear crosspieces (package MR338 or MR339) behind the bend of the rear side panels and fasten each crosspiece to the side panels using 2 screws (\varnothing 3.94 x 12.7).

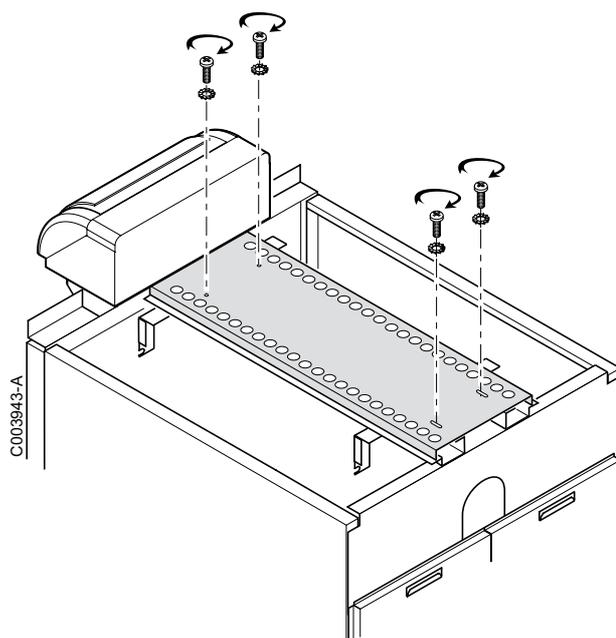
63 package MR338 or MR339



- ▶ Put the 2 clip-on nuts in place on the side panels **1**.
- ▶ Fit the upper rear panel (package MR338 or MR339) onto the studs and push it up **2**.
- ▶ Fasten with 2 screws (H8 x 16) and serrated washers **3**.
- ▶ Fit the 2 lower rear panels (package MR338 or MR339) onto the rear crosspieces **4**.

64 NXR5i-14 to NXR5i-17: Package FA17 to FA27

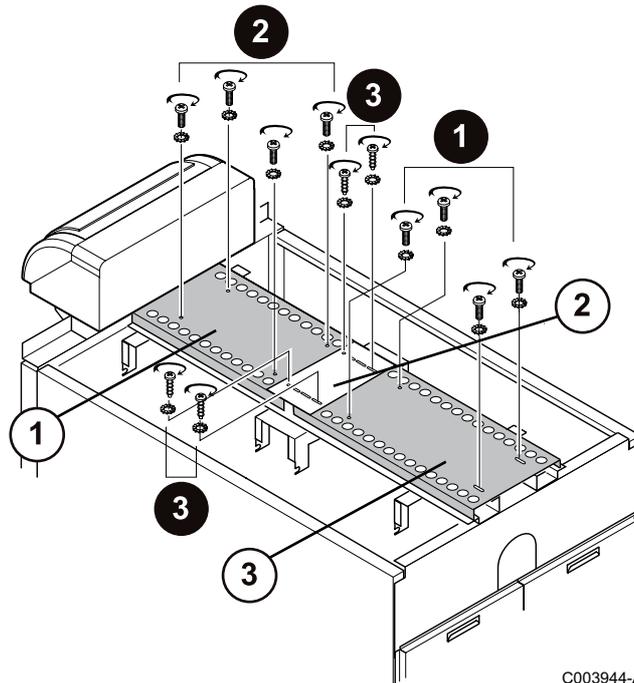
Fitting the walkway



- ▶ Place the central plate on the cable channels with the round holes towards the front of the boiler.
- ▶ Fasten with H8 x 30 screws and serrated washers.

65 NXR5i-18 to NXR5i-25

Fitting the walkway



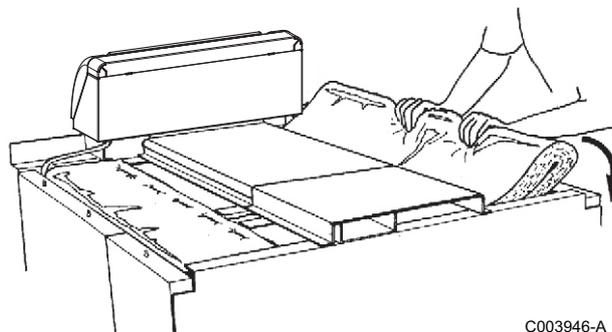
① Package FA17 to FA24

② Package MR339

③ Package FA16

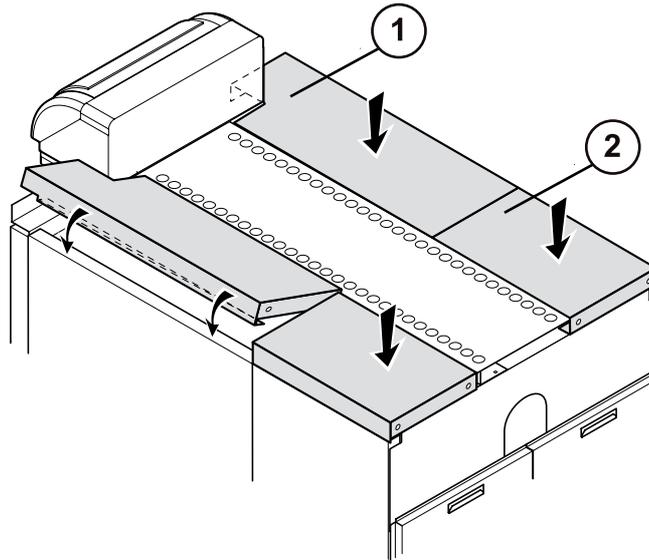
- ▶ Place the rear plate, which is 1200 mm long ①.
- ▶ Fasten with 2 screws (H8 x 30) and serrated washers.
- ▶ Place the front plate with the round holes towards the front of the boiler ②.
- ▶ Fasten with 4 screws (H8 x 30) and serrated washers.
- ▶ Fasten the joining plate ③ with the round holes towards the front of the boiler with 4 tapping screws and serrated washers.

66 Package FA30 to FA41



- ▶ Put in place the sweeping cover insulating material (packages FA30 to FA41):

- NXR5i-14 to NXR5i-17: 2 pieces.
- NXR5i-18 to NXR5i-25: 4 pieces.

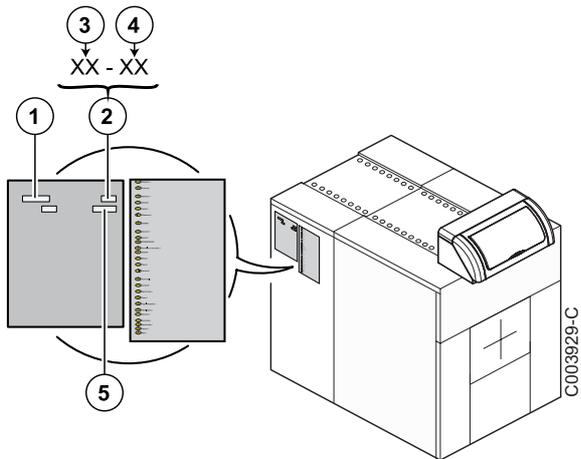


C003947-A

- ① Package MR338, MR339, MR3 to MR5.
- ② Package FA10 to FA11.
- ▶ Place the side covers (package FA10 - FA11, MR3 to MR5, see table) from the front to rear. They have the same lengths as the side panels.

Boiler type	Central and boiler side covers (mm)				
	Front	<----->			Rear
NXR5i-14	800	600	600		
NXR5i-15	940	600	600		
NXR5i-16	1050	600	600		
NXR5i-17	940	600	400	400	
NXR5i-18	1050	600	400	400	
NXR5i-19	940	600	600	400	
NXR5i-20	940	600	600	600	
NXR5i-21	1050	600	600	600	
NXR5i-22	940	600	600	400	400
NXR5i-23	1050	600	600	400	400
NXR5i-24	940	600	600	600	400
NXR5i-25	1050	600	600	600	400
Cover packages	400 mm long panel in package FA10 600 mm long panel in package FA11 800 mm long panel in package MR3 940 mm long panel in package MR4 1050 mm long panel in package MR5				

3 Data plate



- ① Boiler type
- ② Manufacturing date
- ③ Year of manufacture
- ④ Week of manufacture
- ⑤ Serial no. of the appliance

▶ Glue the rating plate and CE marking on the casing of the boiler in an easily visible location.

CE
1312

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Subject to alterations.

25/09/2012



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