

fluair
MV distribution
Factory-built assemblies
at your service

Installation Manual


F400 cubicle

Merlin Gerin

Modicon

Square D

Telemecanique

Schneider
 **Electric**

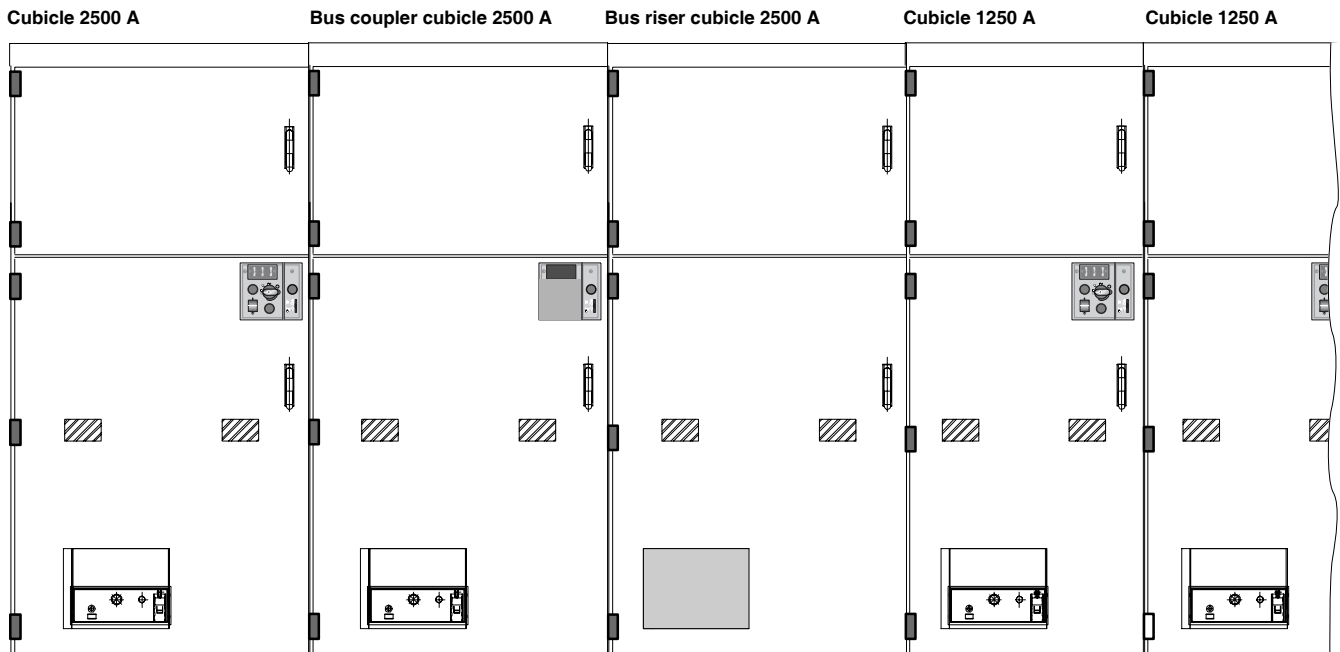
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Handling Instructions

Typical switchboard arrangement



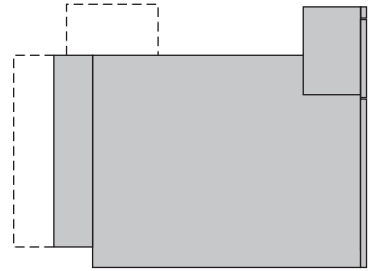
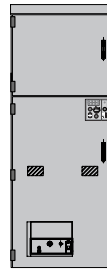
Handling Instructions

Standard cubicle

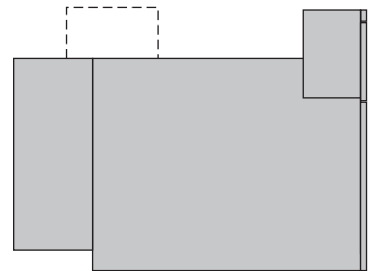
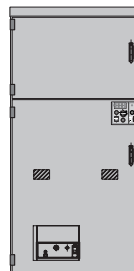
Cubicle type

Cable incoming or outgoing cubicles
simple busbars

1250 A

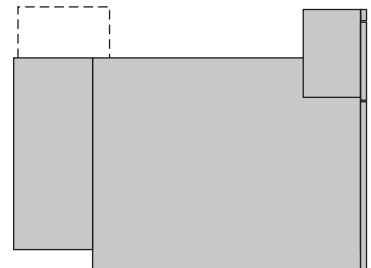
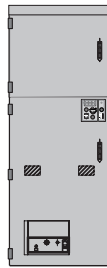


2500 A

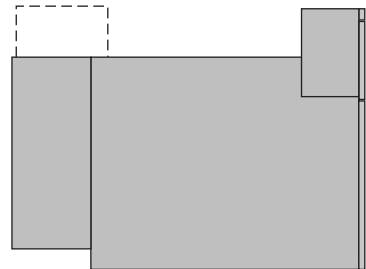
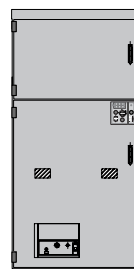


Bus coupler cubicle
simple busbars

1250 A

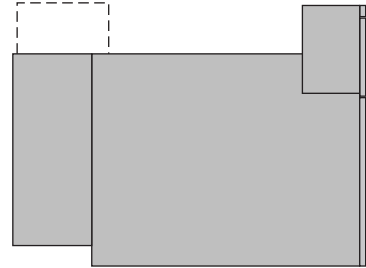
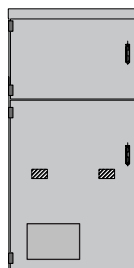


2500 A



Bus riser cubicle
simple busbars

1250 A or 2500 A



Handling Instructions

Standard cubicle

Dimensions	Cable incoming or outgoing				Bar coupling				Bar riser duct			
	1250 A	1250 A	2500 A	2500 A	1250 A	1250 A	2500 A	2500 A	1250 A	1250 A	2500 A	2500 A
Width (cm)	98	107	118	127	98	107	118	127	118	127	118	127
Height (cm) without VT	241	251	241	251	241	251	241	251	241	251	241	251
Height (cm) with VT	249	251	249	251	249	251	249	251	249	251	249	251
Depth (cm)	295 *	301	330**	336**	330	336	330	336	330	336	330	336
Weight (kg) without VT	1165	1472	1640	2005	1110	1352	1165	1530	790	1155	820	1185
Weight (kg) with VT	1390	1732	1870	2235	1230	1572	1390	1755	1010	1375	1050	1415
Packing type	2a	4c	2a	4c	2a	4c	2a	4c	2a	4c	2a	4c

The cubicle weight includes the circuit-breaker weight

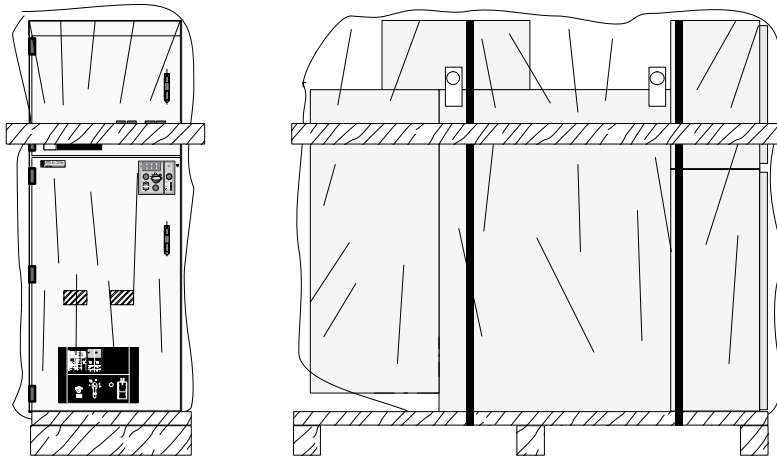
* : 2 cables per phase maximum.

** : 4 cables per phase maximum.

Packing

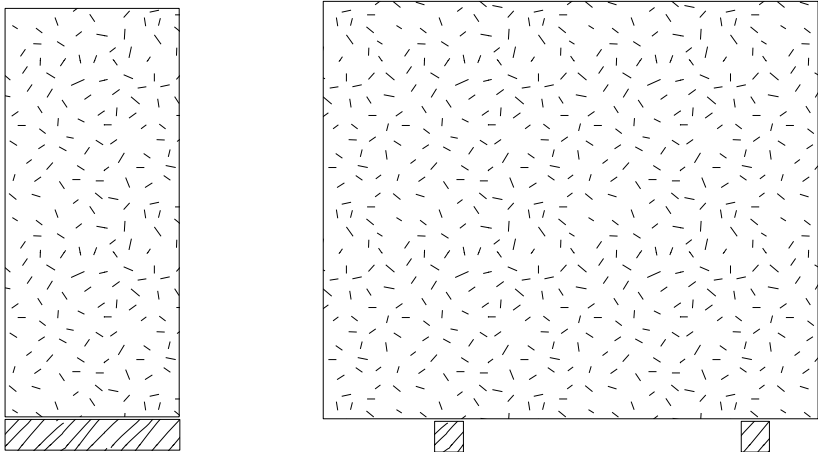
Overland transport packing (2a)

Functional unit



Sea transport packing (4c)

Functional unit



Handling



Walking on the FU roofs is forbidden.

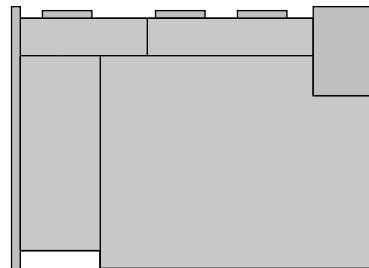
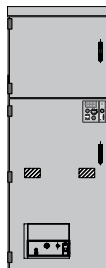
Handling Instructions

Cubicle with internal arc withstand option

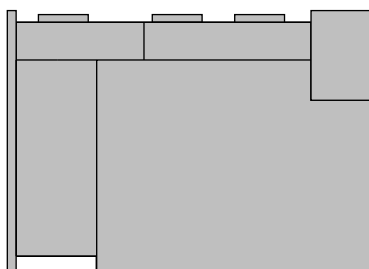
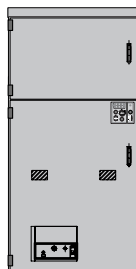
Cubicle type

Cable incoming or outgoing cubicles
simple busbars

1250 A

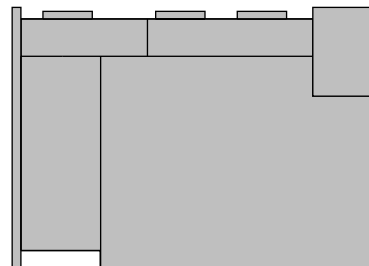
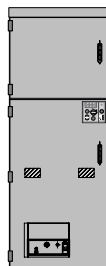


2500 A

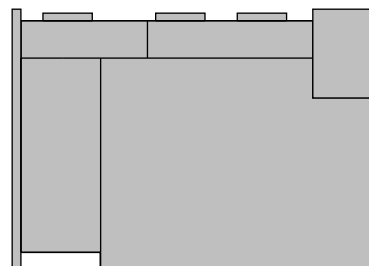
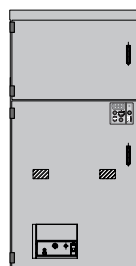


Bus coupler cubicle
simple busbars

1250 A

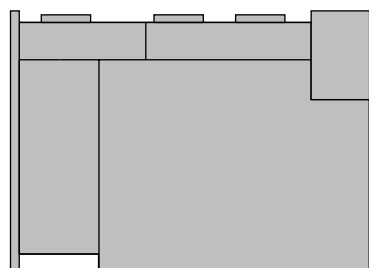
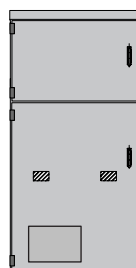


2500 A



Bus riser cubicle
simple busbars

1250 A or 2500 A



Handling Instructions

Cubicle with internal arc withstand option

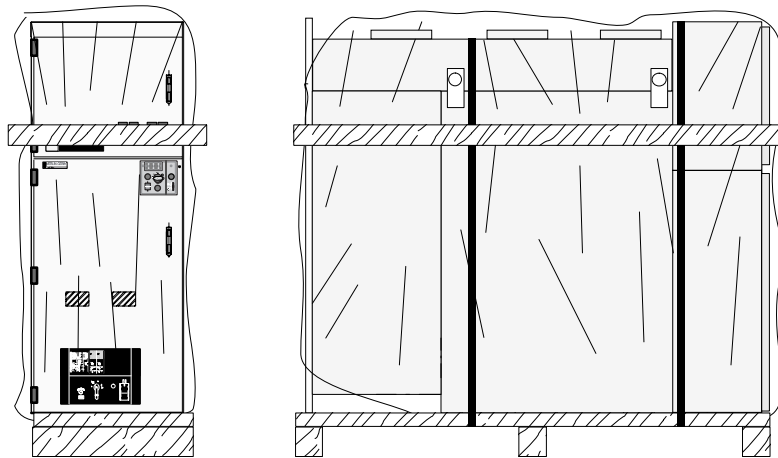
Dimensions	Cable incoming or outgoing				Bus coupling				Bus riser duct			
	1250 A	1250 A	2500 A	2500 A	1250 A	1250 A	2500 A	2500 A	1250 A	1250 A	2500 A	2500 A
Width (cm)	98	107	118	127	98	107	118	127	118	127	118	127
Height (cm) without VT	241	251	241	251	241	251	241	251	241	251	241	251
Height (cm) with VT	249	251	249	251	249	251	249	251	249	251	249	251
Depth (cm)	335	341	335	341	335	341	335	341	335	341	335	341
Weight (kg) without VT	1316	1663	1790	2160	1161	1508	1313	1683	940	1310	970	1340
Weight (kg) with VT	1537	1884	2009	2379	1382	1729	1542	1912	1161	1531	1200	1569
Packing type	2a	4c	2a	4c	2a	4c	2a	4c	2a	4c	2a	4c

The cubicle weight includes the circuit-breaker weight.

Packing

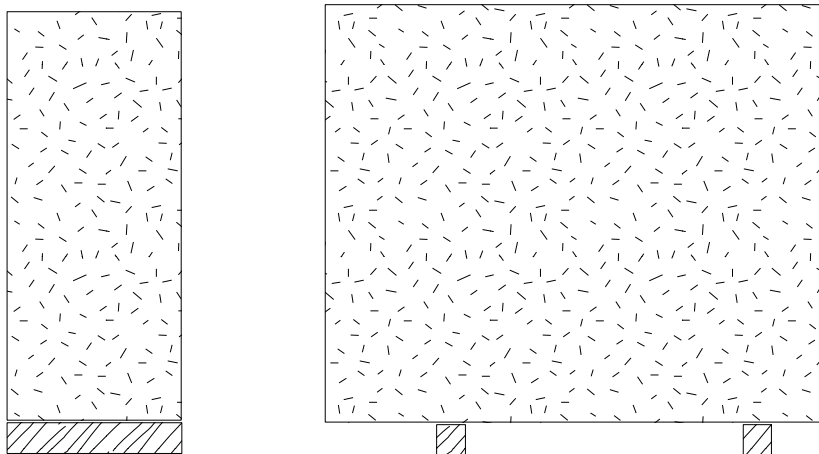
Overland transport packing (2a)

Functional unit



Sea transport packing (4c)

Functional unit



Handling

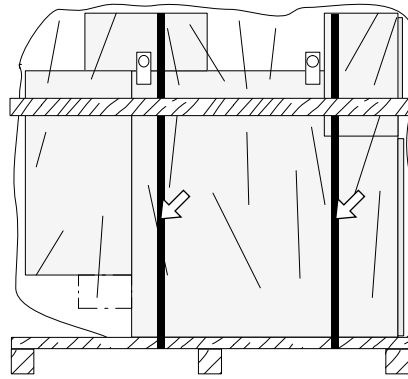


Walking on the FU roofs is forbidden.

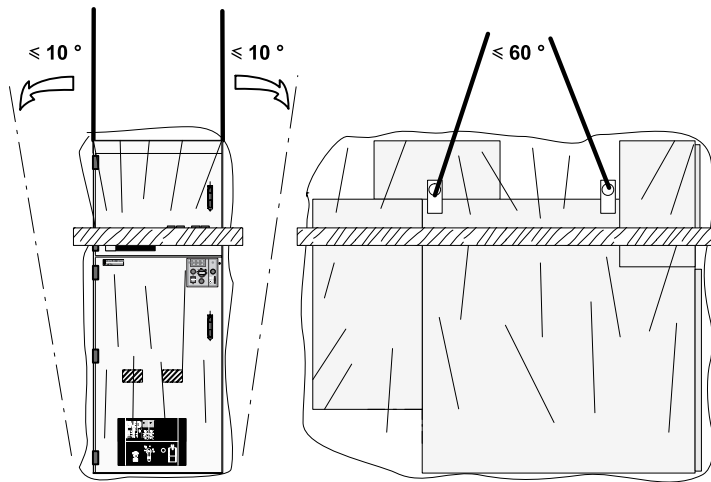
Handling Instructions

Handling by lifting

Functional unit



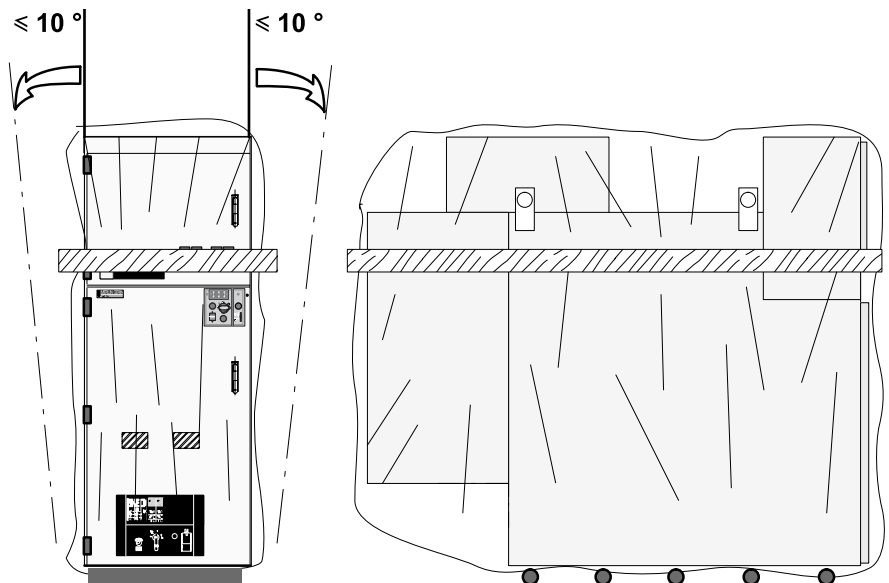
Remove the transport hoops.



Sling up the device using the lifting lugs.
Provide 2 m slings as a minimum.

The slings must not form an angle higher than 60° .
Cubicle gradient must not exceed 10° .

Handling by rolling

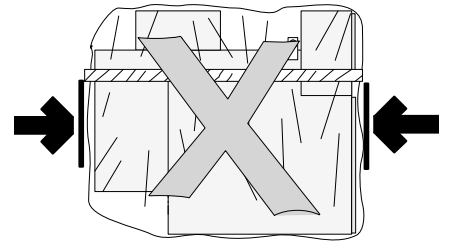
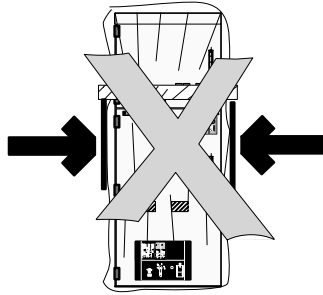
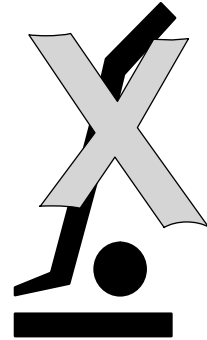


Proceed as shown opposite.

Be careful not to distort the cubicle floor bearing surface.

Handling Instructions

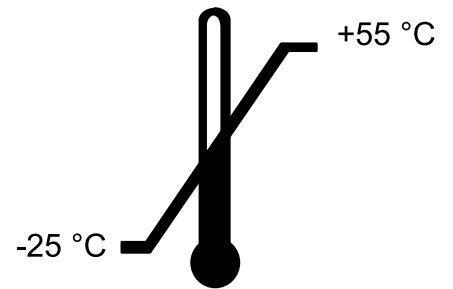
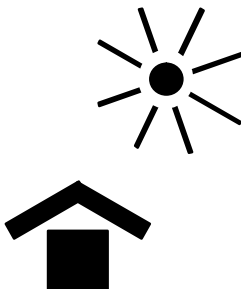
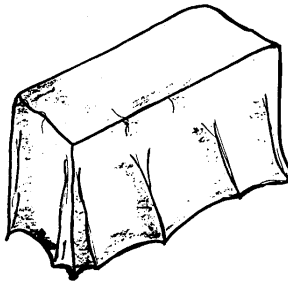
Handling by rolling



Storage

When stored, the equipment must remain in its original packing.

It must be placed on a dry floor or damp-insulating material.



Prolonged storage

For prolonged storage, the device must remain in its original packing.

After prolonged storage, care must be taken to thoroughly clean all insulating parts by means of a dry, clean cloth prior to use.

Handling Instructions

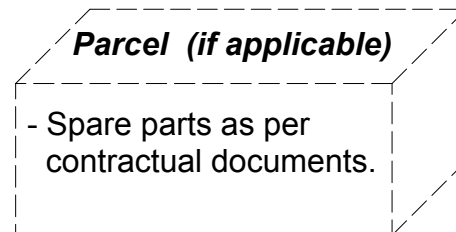
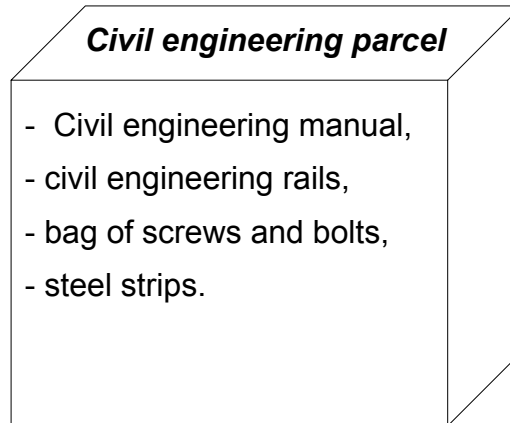
Standard cubicle

List of bags and accessories

Switchboard packing list

Important recommendations:

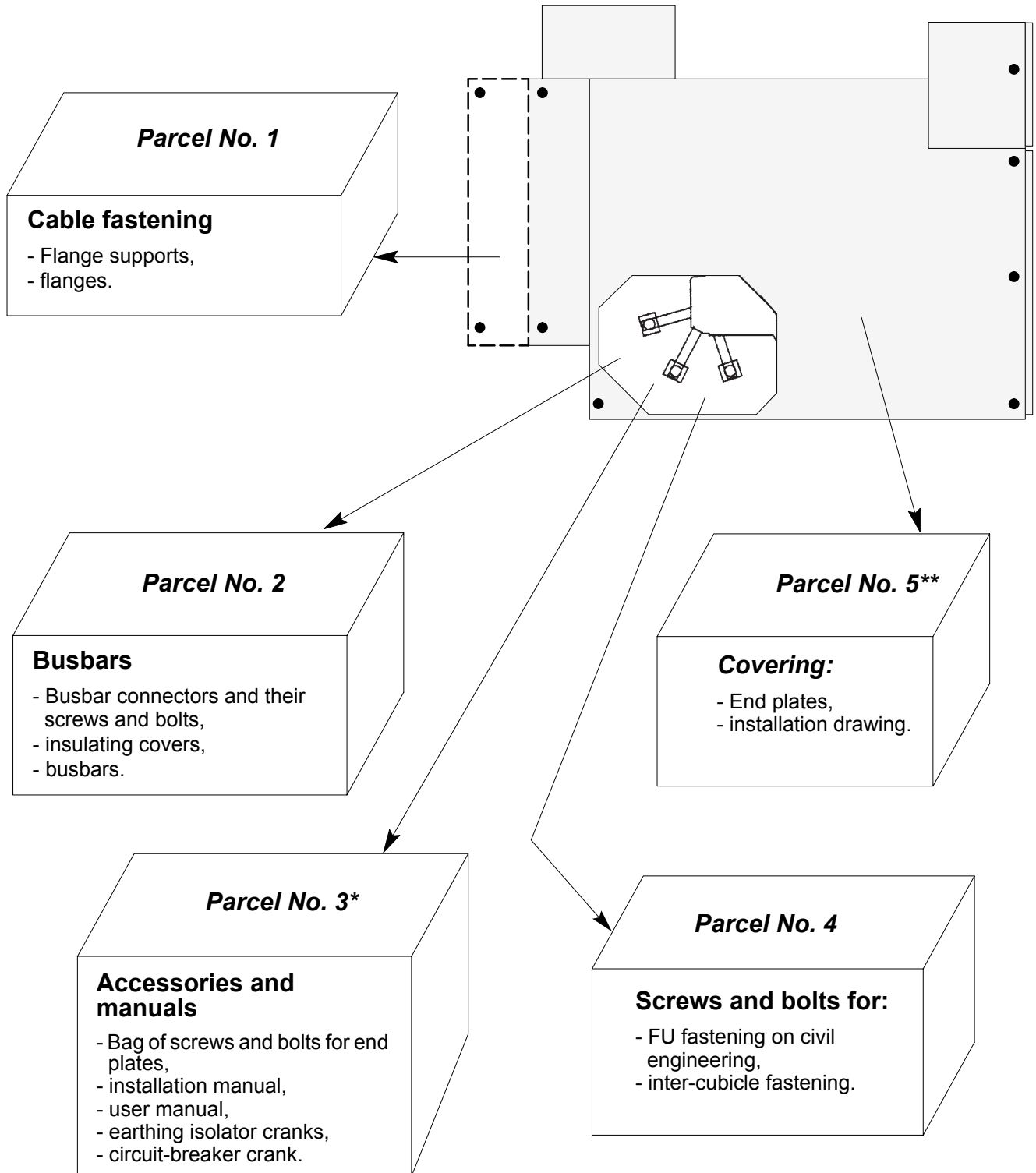
- Unpack the parcels at the time of installing the devices that they contain.



Handling Instructions

Standard cubicle

Cubicle packing list:



(*) Parcel No. 3 is located in the first cubicle of the switchboard (as per single-wire diagram).

(**) Parcel No. 5 is located with the first and last cubicle of the switchboard.

Handling Instructions

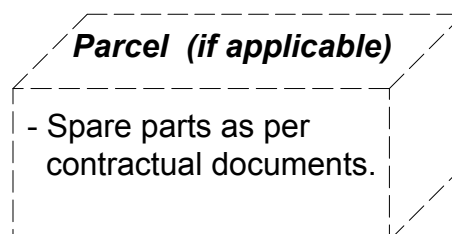
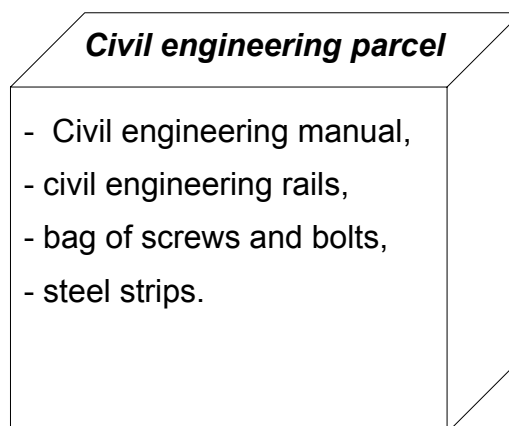
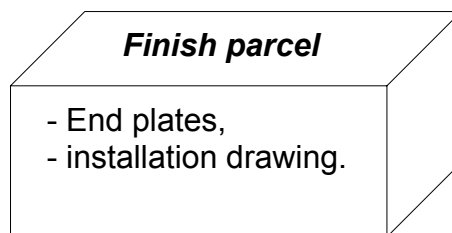
Cubicle with internal arc withstand option

List of bags and accessories

Switchboard packing list

Important recommendations:

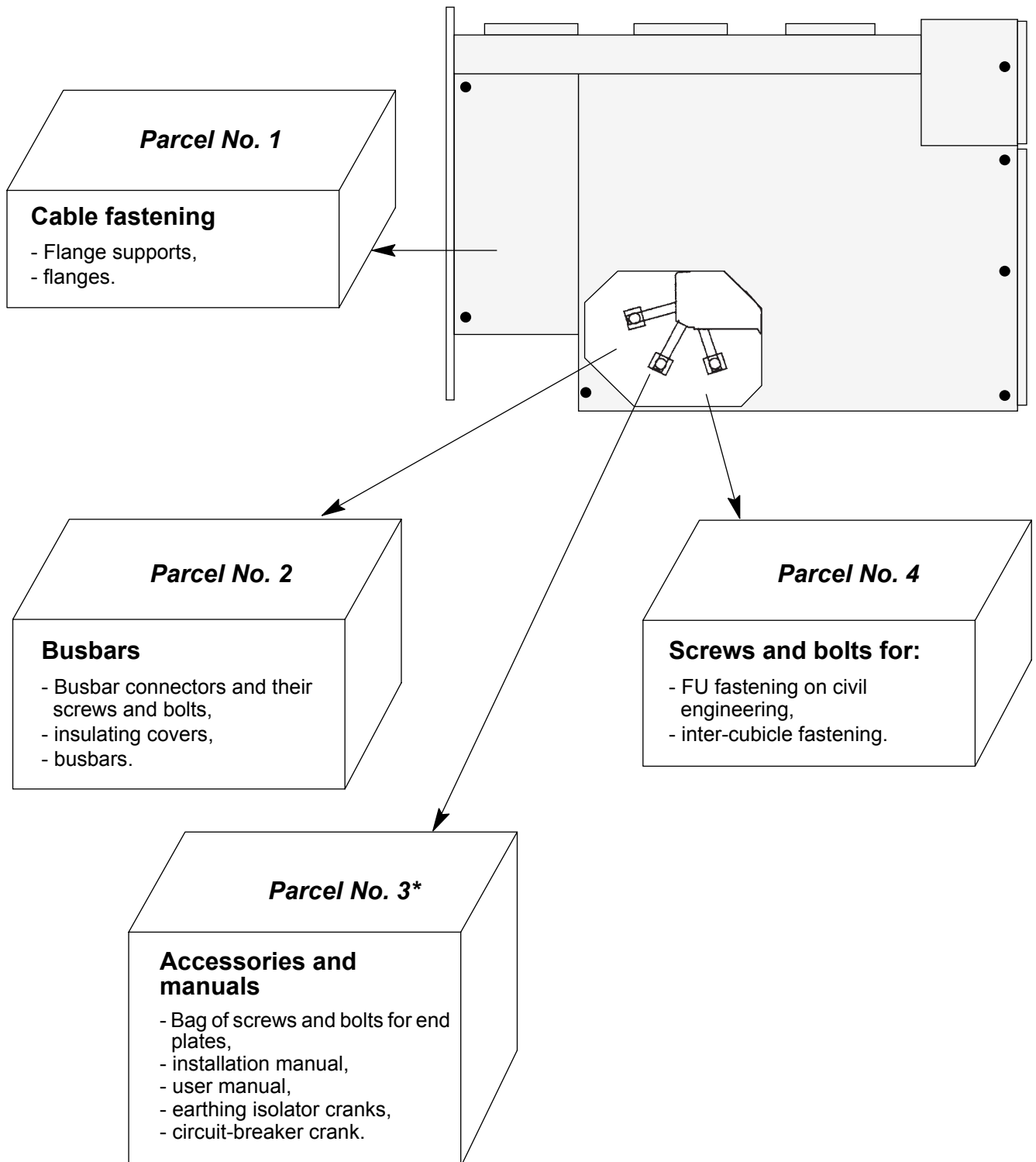
- Unpack the parcels at the time of installing the devices that they contain.



Handling Instructions

Cubicle with internal arc withstand option

Cubicle packing list:



(*) Parcel No. 3 is located in the first cubicle of the switchboard (as per single-wire diagram).

Installation instructions

Unpacking the cubicles

The cubicles must be prepared in the room where they are going to be installed. Avoid impacts and deformation. Unpack the cubicle by removing the wooden uprights and then the plastic cover. Do not remove any component from the cubicles.

Do not remove the parcels of accessories placed in the compartments, except for parcel No. 3 located in the busbar compartment of the first and/or last cubicle as the case arises. It contains the manuals and operating accessories. These parcels must be opened only at the time of installing the devices that they contain.

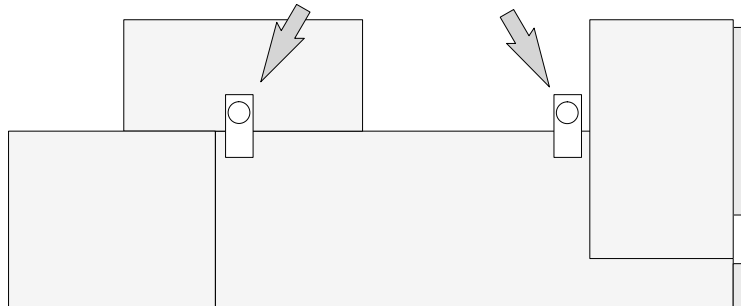
Equipment identification

After unpacking, check that the technical data and descriptions marked on the cubicle rating plates match the specifications of the

contractual documents (see identification chapter in user manual).

Installing the cubicles in the switchboard

Installing the cubicles on the civil engineering



Check conformity of civil engineering by referring to the **Civil Engineering Guide No. 07897174**.

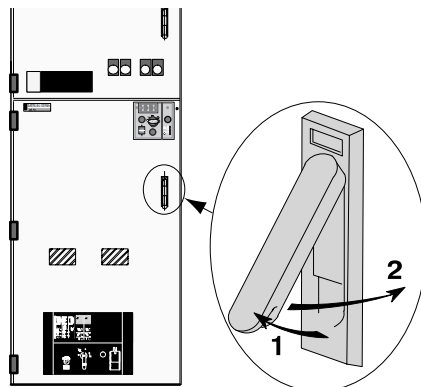
The horizontal position of the mounting rail in particular must be checked before the cubicles are positioned.

By referring to the front side drawing and to the single-wire diagram, start installation with the cubicle in the middle of the switchboard. This handling can be performed par lifting or by rolling.

After handling, remove the lifting lugs and their screws and bolts before coupling the cubicles.

The lugs, screws and bolts must be kept for subsequent handling operations. Repeat these steps with the next cubicles, positioning them on either side of the central cubicle.

Removing the transportation devices from a removable part



Open the access door to the removable part by pulling and then rotating the handle rightwards.

Installation Instructions

Standard cubicle

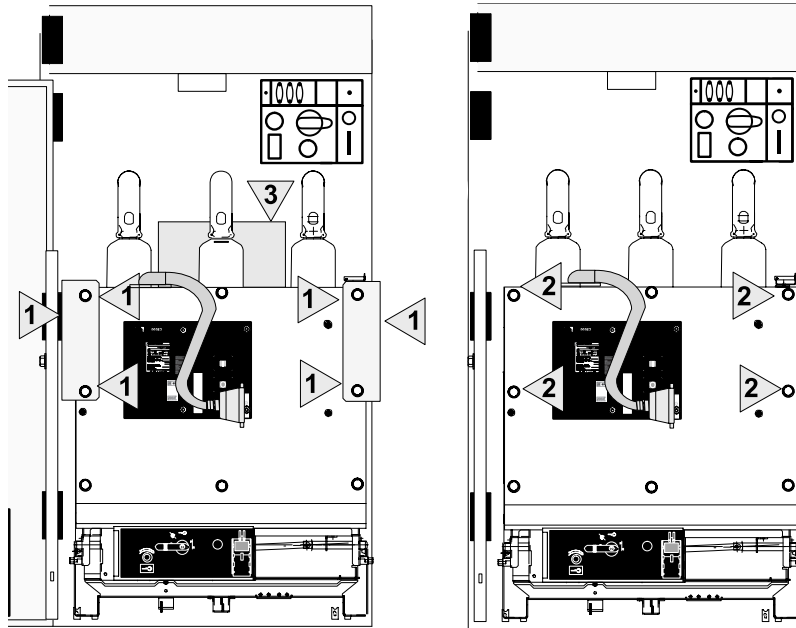
Operating instructions

1: Remove the 2 transport reinforcements (3 screws per reinforcement).

2: Fit the 4 mounting screws of the front plate and pin washers.

Tightening torque: 8.5 Nm.

3: Flap locking kit.



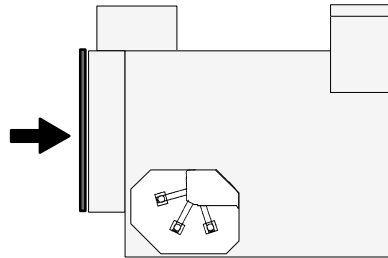
How to extract the removable part (front plate with black background)

To extract the removable part and close the door, refer to "Operating Instructions"

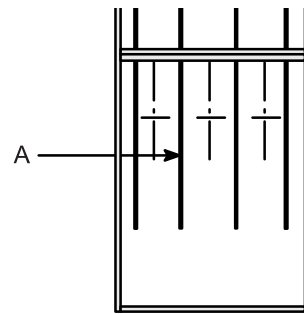
in user manual no. 07897171.

Removing the panels

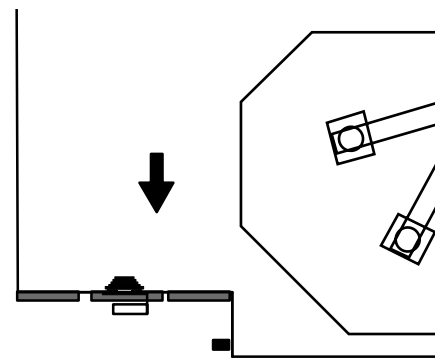
To have access to mounting points, remove the parts opposite:



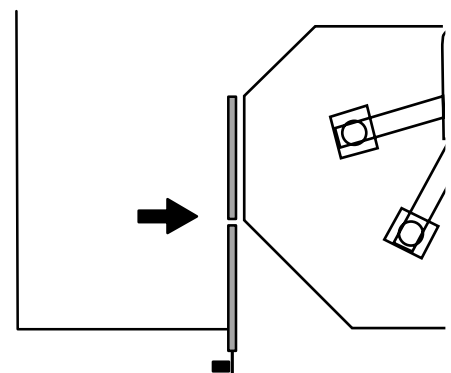
Remove the cable compartment panel.



Remove bindings from shields A (bindings positioned for transport purposes). Remove the four shields A by pulling them.



Remove the cable bushing plates.



Remove the panels providing access to the busbar compartment, from the rear of the cubicles.

Installation Instructions

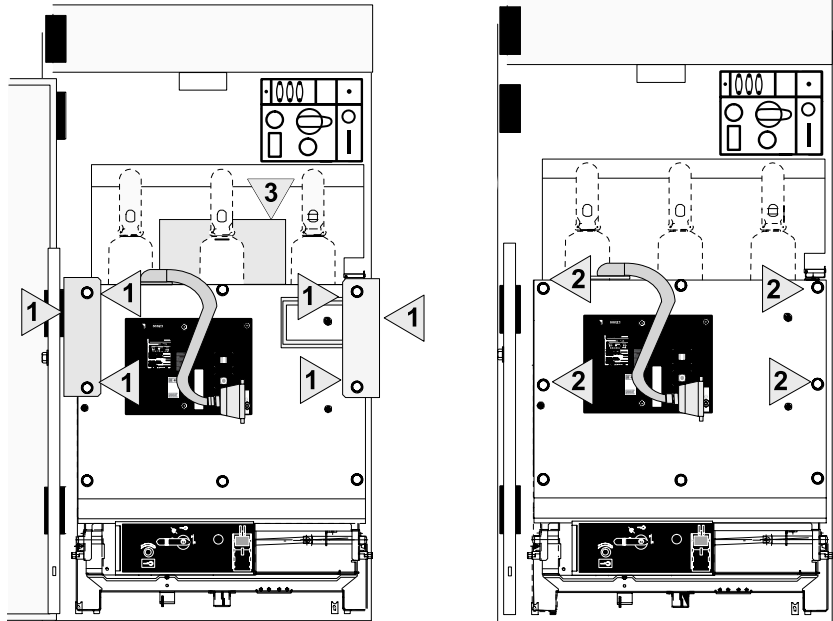
Cubicle with internal arc withstand option

Operating instructions

- 1 Remove the 2 transport reinforcements (3 screws per reinforcement).
- 2 Fit the 4 screws used to fasten the front plate and pin washers contained in the bag of screws and bolts.

Tightening torque: 8.5 Nm.

- 3 Flap locking kit.



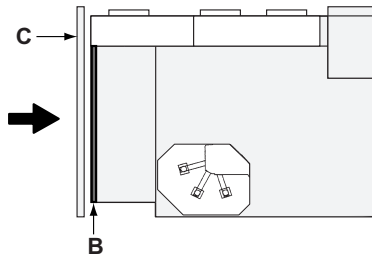
How to extract the removable part (front plate with black background)

To extract the removable part and close the door, refer to "Operating Instructions"

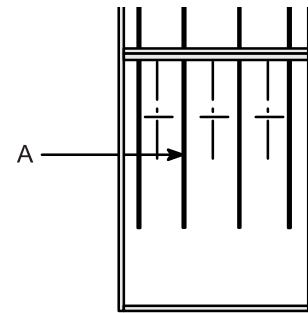
in user manual no. 07897171.

Removing the panels

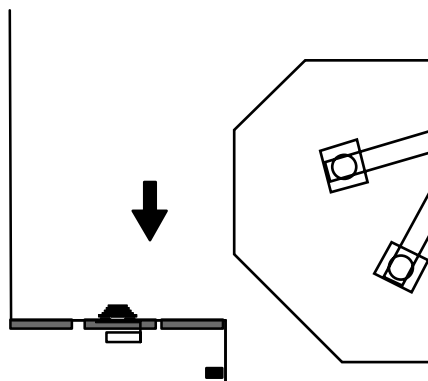
To have access to mounting points, remove the parts opposite:



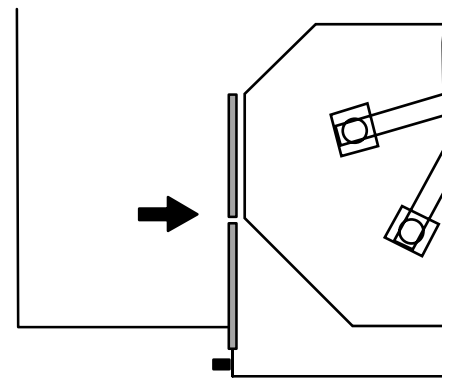
Remove shield C and rear plate B from the cable compartment.



Remove bindings from shields. (bindings positioned for transport purposes). Remove the four shields A.



Remove the cable bushing plates.

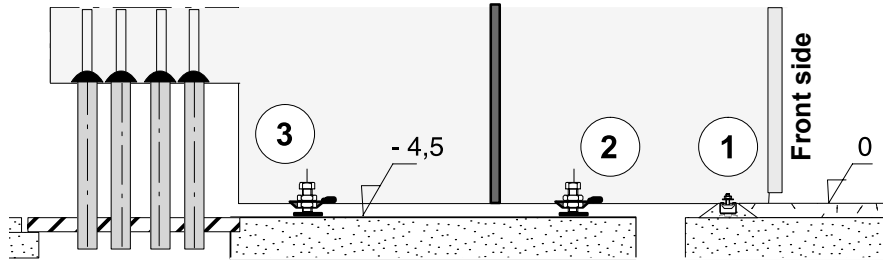


Remove the panels providing access to the busbar compartment, from the rear of the cubicles.

Installation instructions

Floor mounting and cubicle adjustment

Note: Fastening accessories are supplied in parcel No. 4 located in the busbar compartment (refer to **Civil Engineering Guide No. 07897174**).



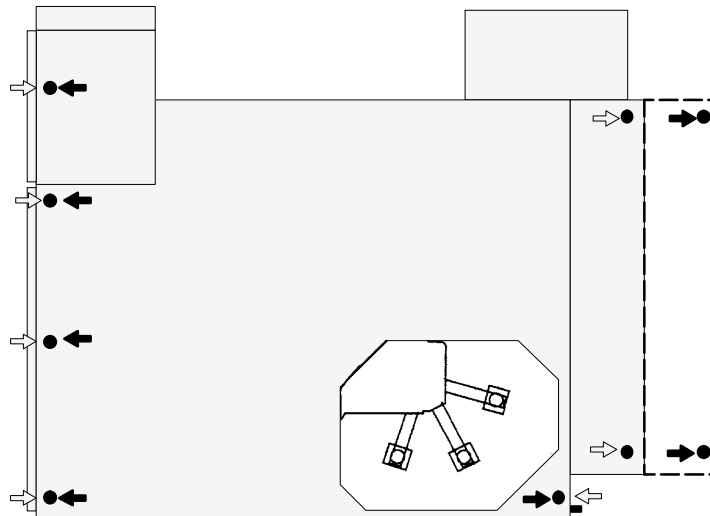
After the removable part has been extracted from the cubicle and the panels have been removed, access to fastening and adjustment points is available:

- 1: 2 mounting nuts on the rail embedded in the floor in the front part of the removable part compartment.
- 2: 2 adjustment jacks in the removable part compartment.
- 3: 2 adjustment jacks in the busbar compartment.

Using jacks **2** and **3**, adjust the horizontal position of the cubicle by means of a level. It is important for the rolling plane of the removable part to be horizontal. Lock the counter-nuts of jacks **2** and **3** in position. Lock nuts **1** in position.

Fastening cubicles to one another

Note: The necessary screws and bolts are contained in parcel no. 4 located in the busbar compartment. The cubicles are fastened to one another by 7 points.



Bolt the front and rear sides to one another as indicated.

⇒ 2 670 mm deep cubicles
➔ 3 020 mm deep cubicles

Plug-in check

Whenever a cubicle has been fastened to the floor and to the previous cubicle, use the circuit-breaker to check that plug-in and interlocking as well as the opening and closing of the flaps are performed correctly.

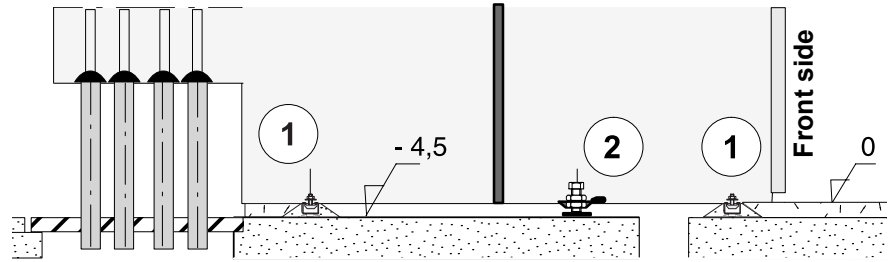
For the insertion and plug-in of the removable part and closing of the door, refer to **"Operating Instructions"** in user manual no. 07897171.

Installation Instructions

Reinforced civil engineering

Floor mounting and cubicle adjustment

Note: Fastening accessories are supplied in parcel No. 4 located in the busbar compartment (refer to **Civil Engineering Guide No. 07897174**).



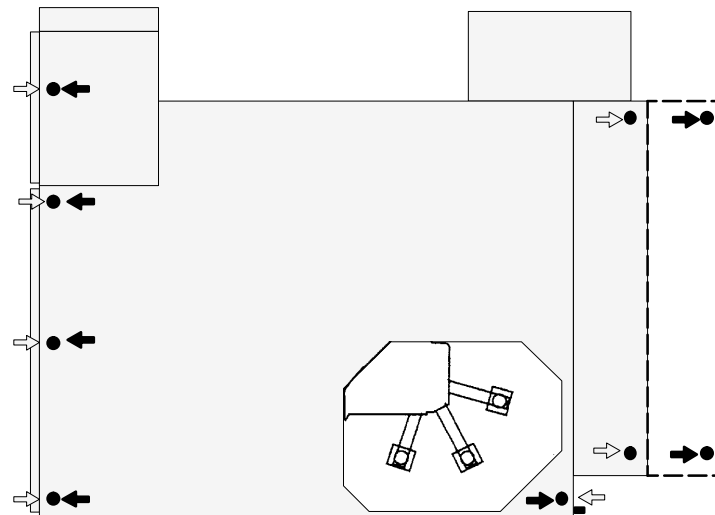
After the removable part has been extracted from the cubicle and the panels have been removed, access to fastening and adjustment points is available:

- 1 4 mounting nuts on the rail embedded in the floor at the front and the rear.
- 2 2 adjustment jacks in the removable part compartment.

Using jacks 2, adjust the horizontal position of the cubicle by means of a level. It is important for the rolling plane of the removable part to be horizontal. Lock the counter-nuts of jacks 2 in position. Lock nuts 1 in position.

Fastening cubicles to one another

Note: The necessary screws and bolts are contained in parcel no. 4 located in the busbar compartment. The cubicles are fastened to one another by 7 points.



Bolt the front and rear sides to one another as indicated.

⇒ 2 670 mm deep cubicles
➔ 3 020 mm deep cubicles

Plug-in check

Whenever a cubicle has been fastened to the floor and to the previous cubicle, use the circuit-breaker to check that plug-in and interlocking as well the opening and closing of the flaps are performed correctly.

For the insertion and plug-in of the removable part and closing of the door, refer to "**Operating Instructions**" in user manual no. 07897171.

Installation instructions

Electrical connections

Screws and bolts and tightening torque

Note: all the necessary screws and bolts are supplied, except for the MV cable connection.

Screws and bolts to be used:

Bolt joint for MV and LV indoor equipment.
Class 8.8 as per Standard NF E 27 005, i.e. yield strength, $R_e \geq 627 \text{ Nm} / \text{mm}^2$.
The screws and bolts must not be lubricated.

Tightening torque

The connections must be tightened by means of a torque wrench, complying with the following torques:

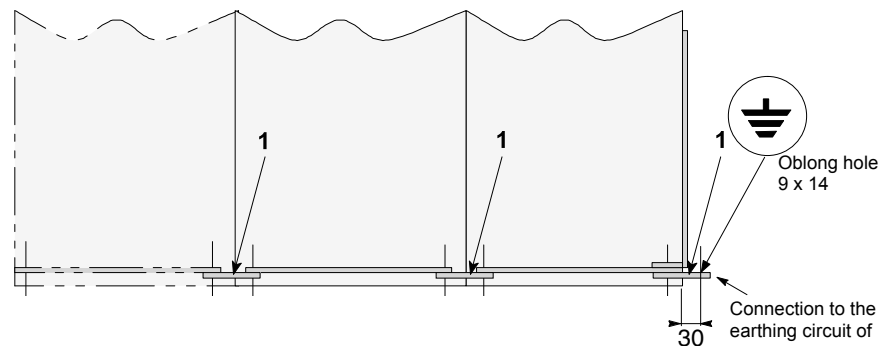
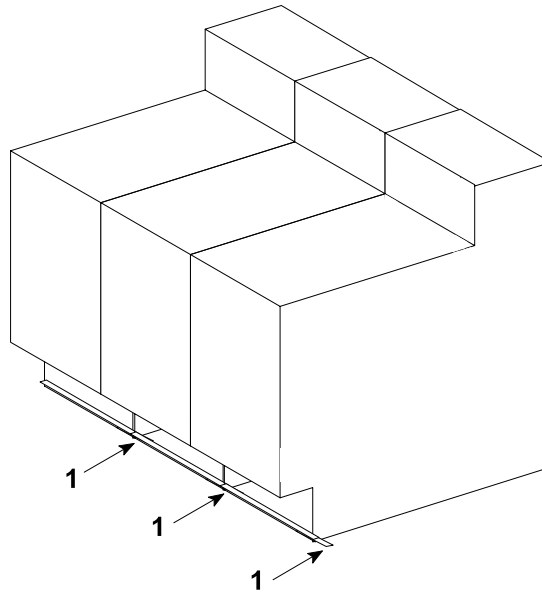
screw	torque in Nm
∅ 6	13
∅ 8	28
∅ 10	50
∅ 12	75
∅ 14	120

Application method:

The force of the bolts tightened to the recommended torques is better distributed thanks to the use of spring washers located on the outer surfaces of the terminal pads and busbars.

If disassembly is performed, replace spring washers.

Connection of the earth bar



Fasten the fishplates 1 of the switchboard main earth bar to ensure the electrical continuity of the various metal frames.

Connect the main earth bar to the earthing circuit of the switchboard end substation.

Installation instructions

Mounting the busbars

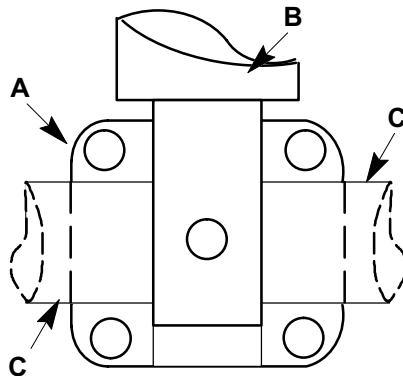
In parcel no. 2 located in the busbar compartment, you will find:

- the busbars,
- connectors and associated screws and bolts,
- insulating covers.

Warning: The bars and all the contact surfaces must be clean on mounting.

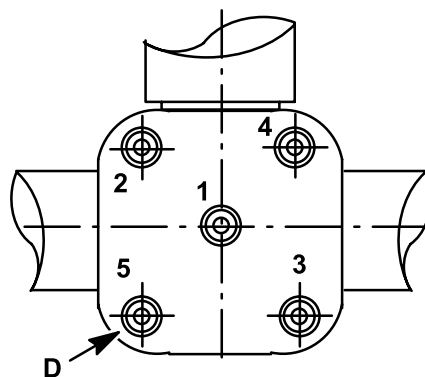
Intermediate busbars

- A:** connector half
- B :** bushing
- C:** bare or insulated bars
- D :** hex socket screw \varnothing 14 + washer
- E :** cover half



The sequence of operations and tightenings **MUST** be complied with.

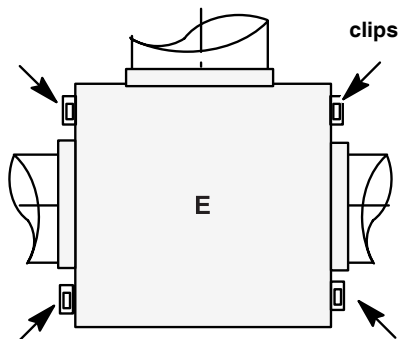
1 Assemble the bars and connectors and fit the fasteners



2 Bring up the screws and nuts to the limit stop in the order shown below, but do not lock them in position: **1-2-3-4-5**

3 Using a torque wrench, tighten the screws in the order recommended above in 2 successive runs.

- 1st run to a **25 Nm** torque
- 2nd run to a final torque of **75 Nm**.

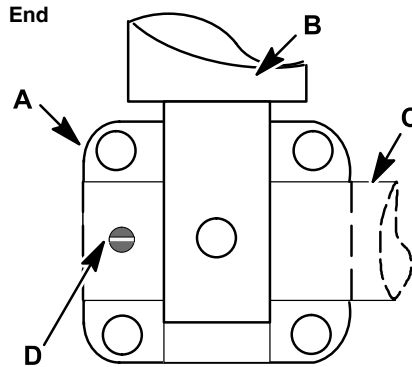


4 Assemble the 2 cover halves **E** by exerting pressure on clips.

Installation instructions

End busbars

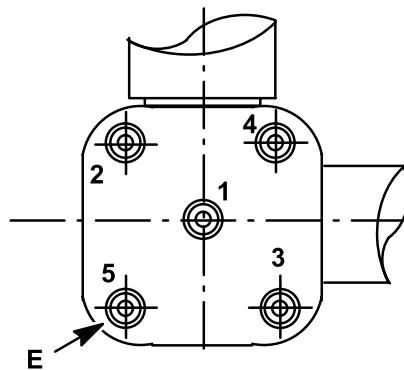
- A: connector half
- B : bushing
- C: bare or insulated bars
- D: screwed-on sleeve
- E: hex socket screw \varnothing 14 + washer
- F: cover
- G: binding



In this case, a sleeve **D** is screwed onto a connector half.

The sequence of operations and tightenings MUST be complied with.

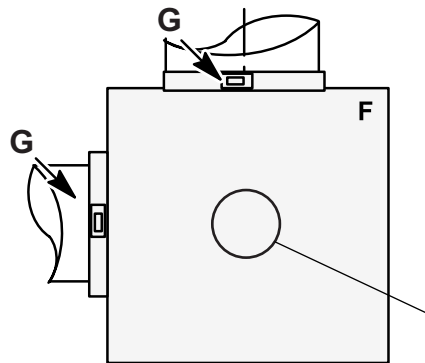
1 Assemble the bars and connectors and fit the fasteners



2 Bring up the screws and nuts to the limit stop in the order shown below, but do not lock them in position: **1-2-3-4-5**

3 Using a torque wrench, tighten the screws in the order recommended above in 2 successive runs.

- 1st run to **25 Nm** torque.
- 2nd run to a final torque of **75 Nm**.

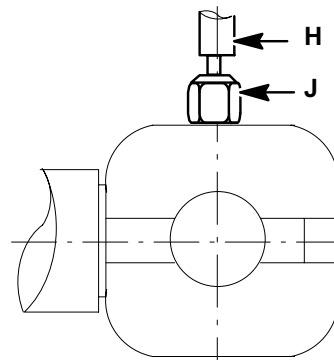


Fit the insulating cover **F** on the connector. Lock it in position by means of two plastic bindings **G**.

Do not cut out.

Specific case: connectors with connections to the busbar VTs

- H: connection bar to VT
- J: nut



Remove the cover by sliding it on the VT connection bar. After loosening the 5 nuts, mount the busbars as indicated previously.

The sequence of operations and tightenings MUST be complied with.

Position the cover by sliding it on the VT connection bar.

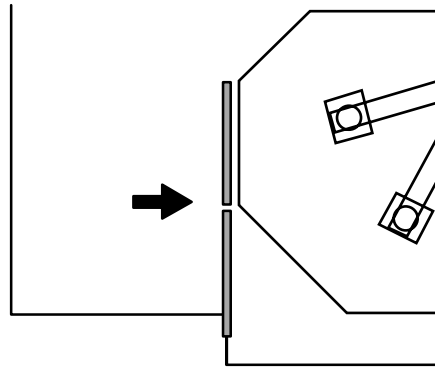
Using bindings, fasten it in the same way as for the end connectors.

In this case, the connection bars **H** to the VTs are fastened to the connectors by means of nut **J**.

These connectors and their insulating covers are supplied already fitted in the cubicle.

Installation instructions

Closing the busbar compartment

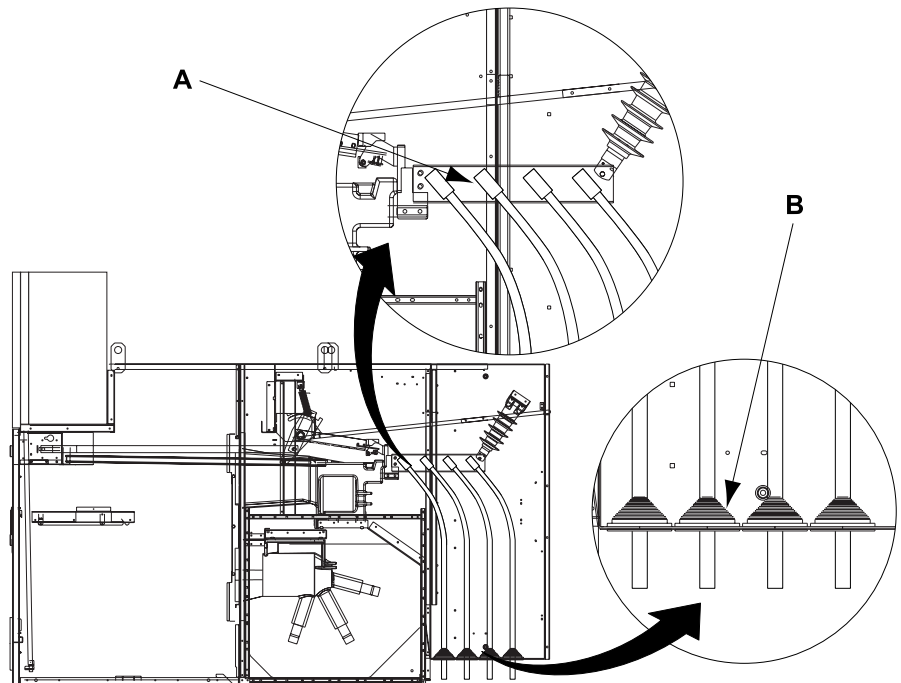


After mounting the busbars, check the cleanliness of the compartment.
On all the cubicles, put back the busbar compartment closing plates before connecting MV cables.

Connecting the MV cables

A : MV cable connection terminal pads.
B : Cable compartment bottom plate.

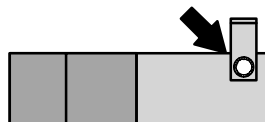
Note: the MV cable accessories (insulating end, lugs, screws and bolts, etc.) are not supplied.



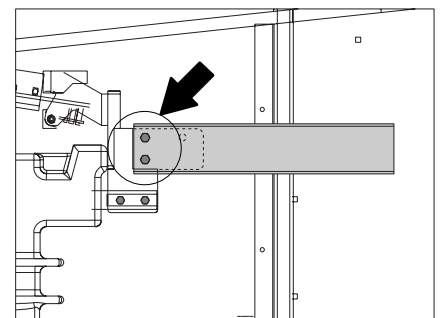
Drilling the connection terminal pads

The terminal pads are to be drilled according to the type of lugs selected.

In standard version, the cable connection terminal pads are not drilled.
In this case, dismantle the terminal pads.



Remove the cable connection terminal pads by removing the insulator mounting screw as well as the screws that secure the terminal pad to the functional CT's.



After drilling the terminal pads, start installing in the reverse order, complying with the tightening torque (see Note related to electrical connections).

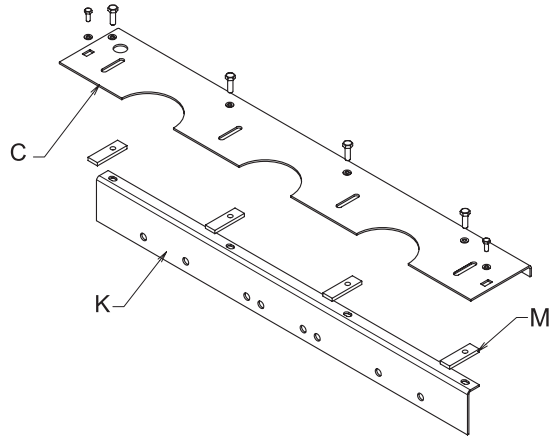
Installation instructions

Mounting the cables

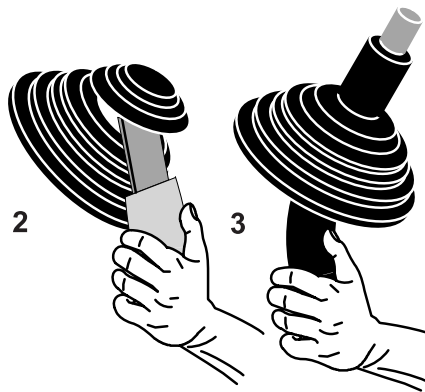
Note: Before mounting the cables, check that the access panels to the busbar compartment are mounted (refer to "Mounting the busbars" Section).



1: Fit angle bracket **K** with spacers **M** under plate **C**.



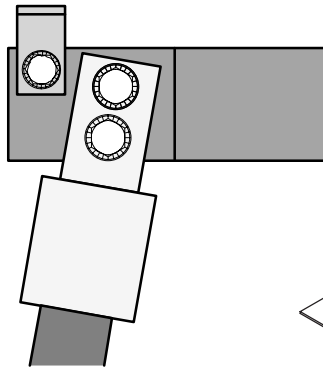
The bag containing the cable fasteners is located in parcel No. 1 located in the cable compartment.



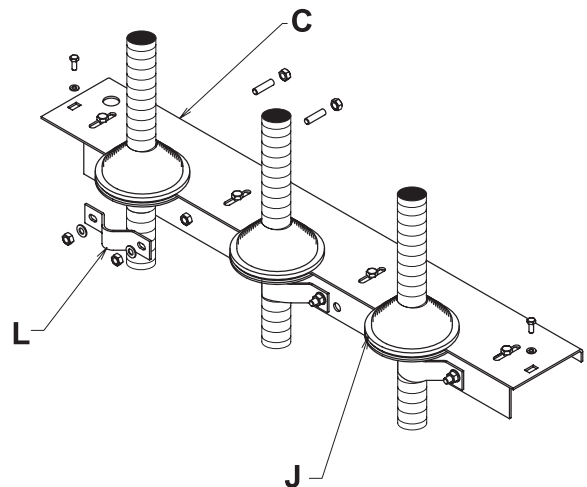
2: Cut cable bushings **J** to the right diameter.

3: Insert the cables before their ends are made.

Mounting with 1 row of cables

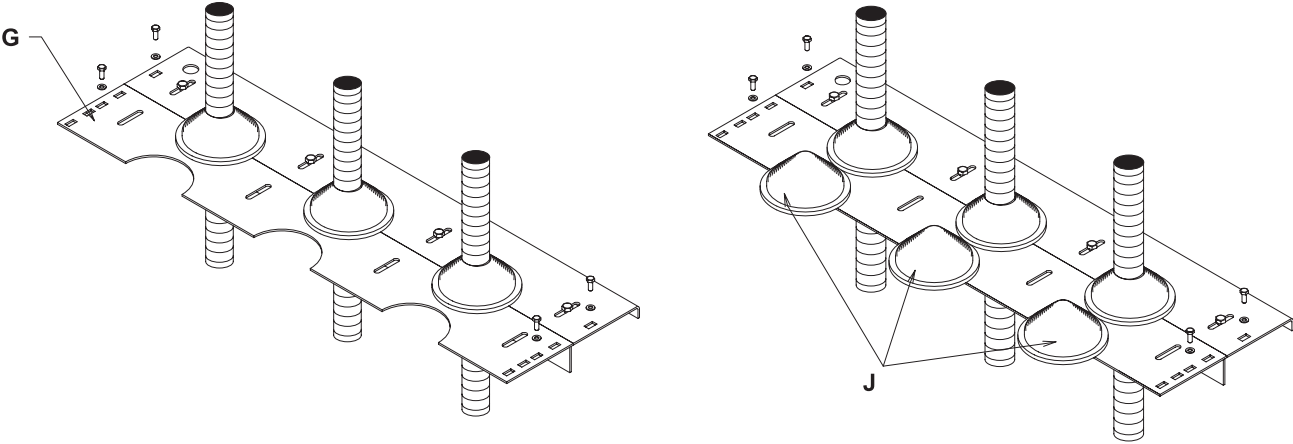


4: Bolt the first row of cables to the connection terminal pads, complying with the recommendations provided in paragraph "fasteners and tightening torque".



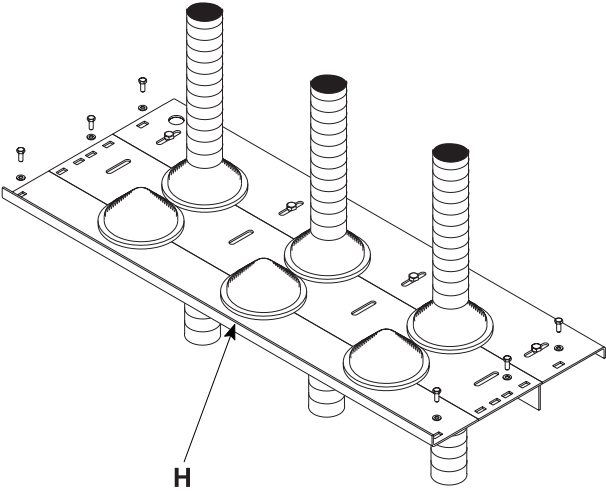
5: Mount pre-cut cable bushings **J** on plate **C**.
Fasten cables to bracket by means of flanges **L**.

Installation instructions



6: Fit second plate G.

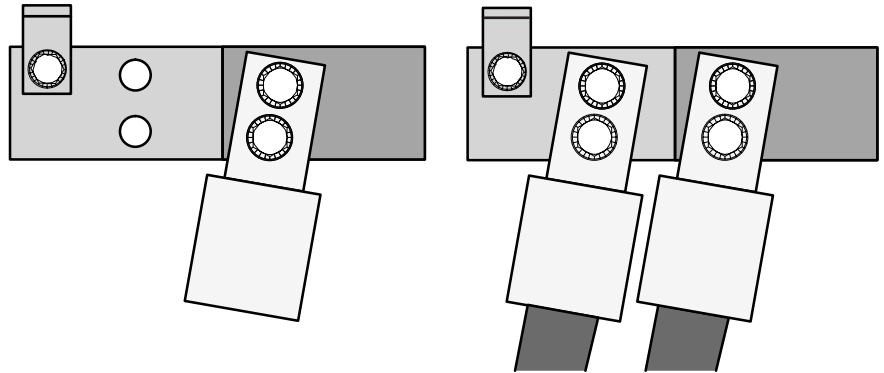
7: Fit cable bushings J not cut out.



8: Fit third plate H.

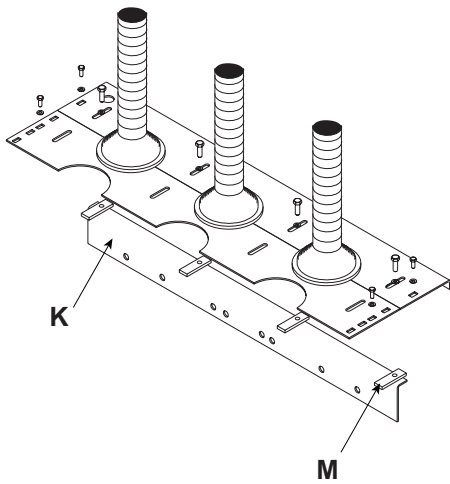
Installation instructions

Mounting with 2 rows of cables

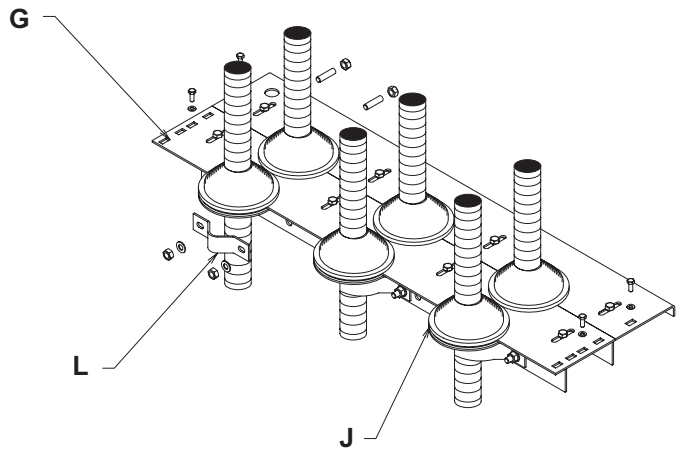


1: Bolt the first row of cables.

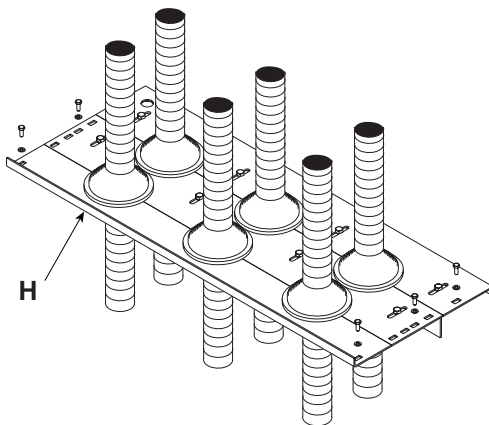
2 then bolt the second row of cables to the connection terminal pads.



3: Fit angle bracket K with spacers M under plate G



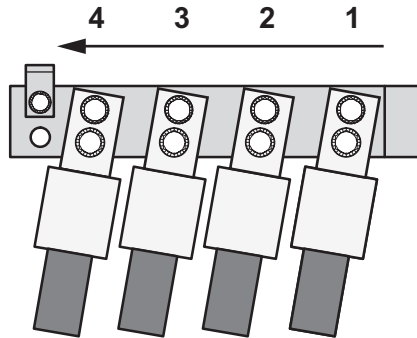
4: Mount precut cable bushings J on plate G. Fasten cables to bracket by means of flanges L.



5: Fit third plate H.

Installation instructions

Mounting with 3 or 4 rows of cables, cubicle 1250 A

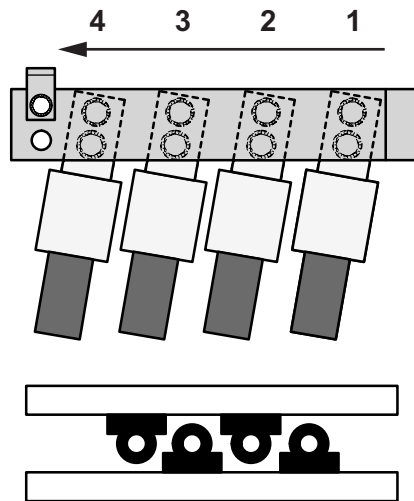


Bolt the row of cables from the right to the left.

Start to mount bottom plates as indicated in the previous pages.

Mounting with 3 or 4 rows of cables, cubicle 2500 A

Only the position for the connection of cables to the terminal pads is different.



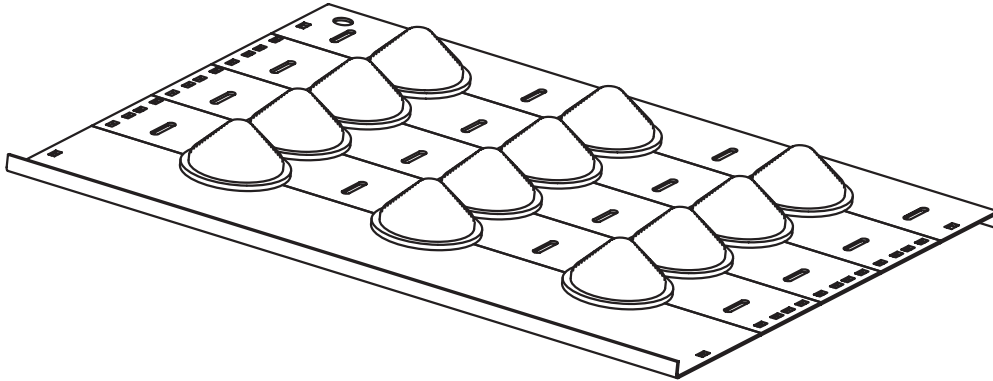
Bolt the row of cables from the right to the left.

Cables are fitted in a staggered arrangement.

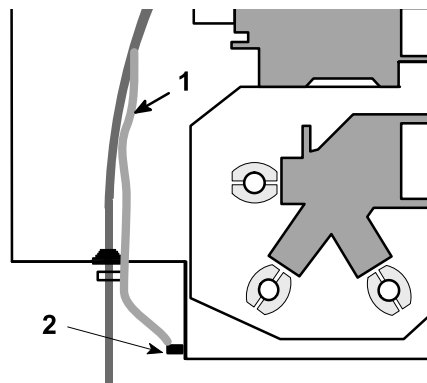
Start to mount bottom plates as indicated in the previous pages.

Installation instructions

Mounting bottom plates with
3 or 4 rows of cables.



Earthing the MV cable shields



Connect bonding jumpers **1** of the MV cable shields to the main earth bar **2** of the switchboard.

Note: Insert jumper with cable through cable bushing.

Installation instructions

Connecting the LV cables

Access to connection terminal blocks

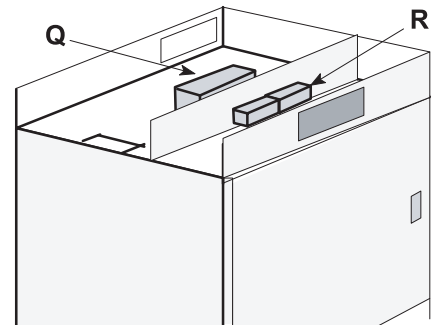
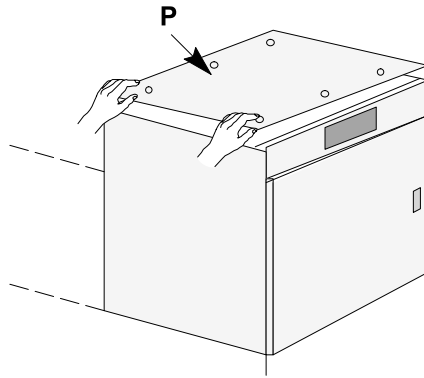
P: plate

Q: terminal block

R: terminal block

S: trough

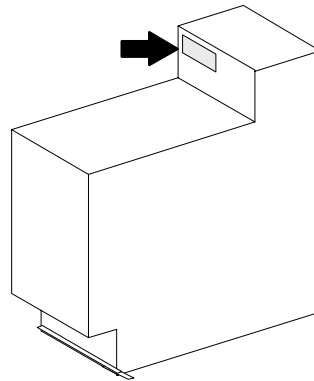
T: aperture



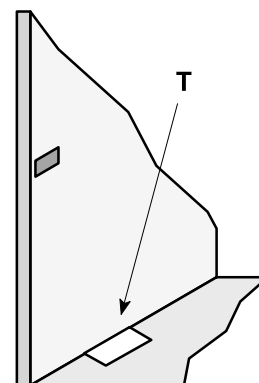
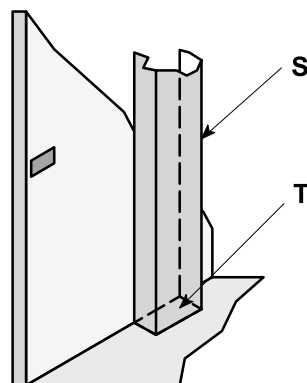
LV terminal blocks are located at the top of the LV compartment.
Loosen fastening screws and remove roof **P**.

Q : Connection terminal block.
R : Auxiliary supply earth bar terminal block.

The low voltage wiring can enter the cubicle in 2 different ways depending on the equipment.



1 Through the rear part of the LV compartment.



2 Through the bottom of the circuit-breaker compartment of each cubicle, with trough **S**, and aperture **T** communicating with the duct.

Max. quantity of cables: 8
Multicore cable \varnothing 20 mm

To have access to aperture **T**, remove trough **S** cover.

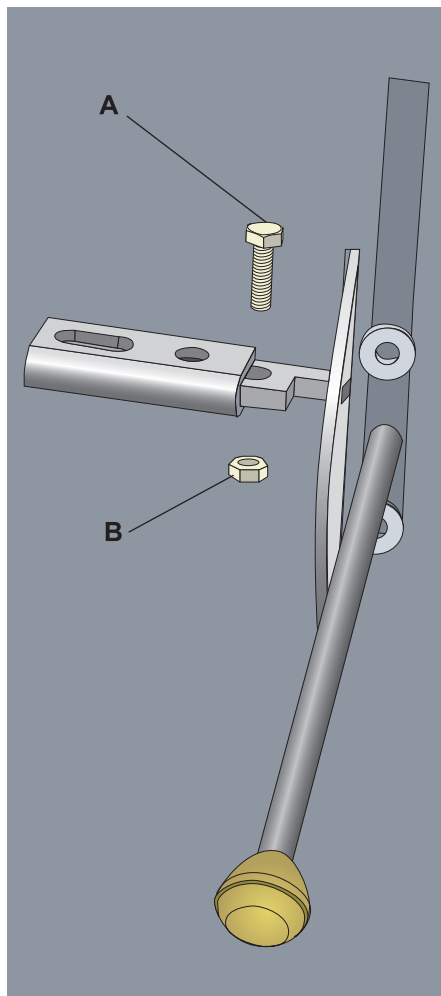
Installation instructions

Preparing the adjustable VTs

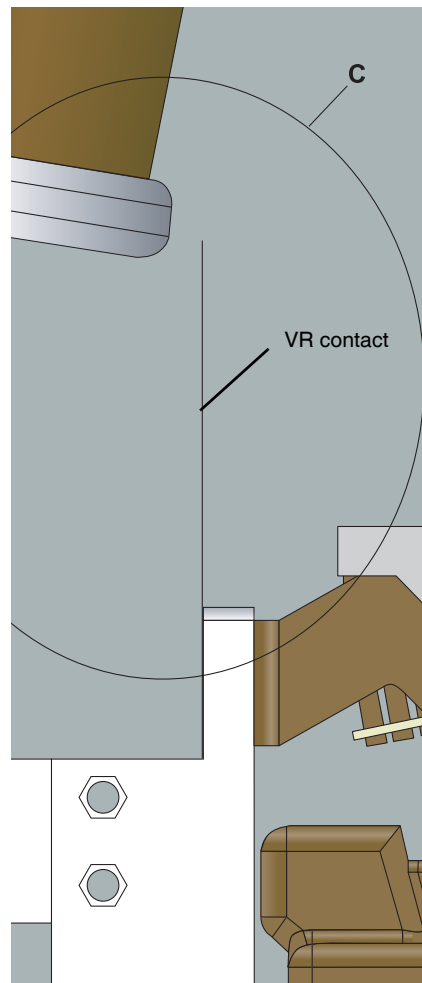
A: screw

B: nut

C: VR contact



For cubicles equipped with adjustable voltage transformers, remove the screw **A** and nut **B** assembly.



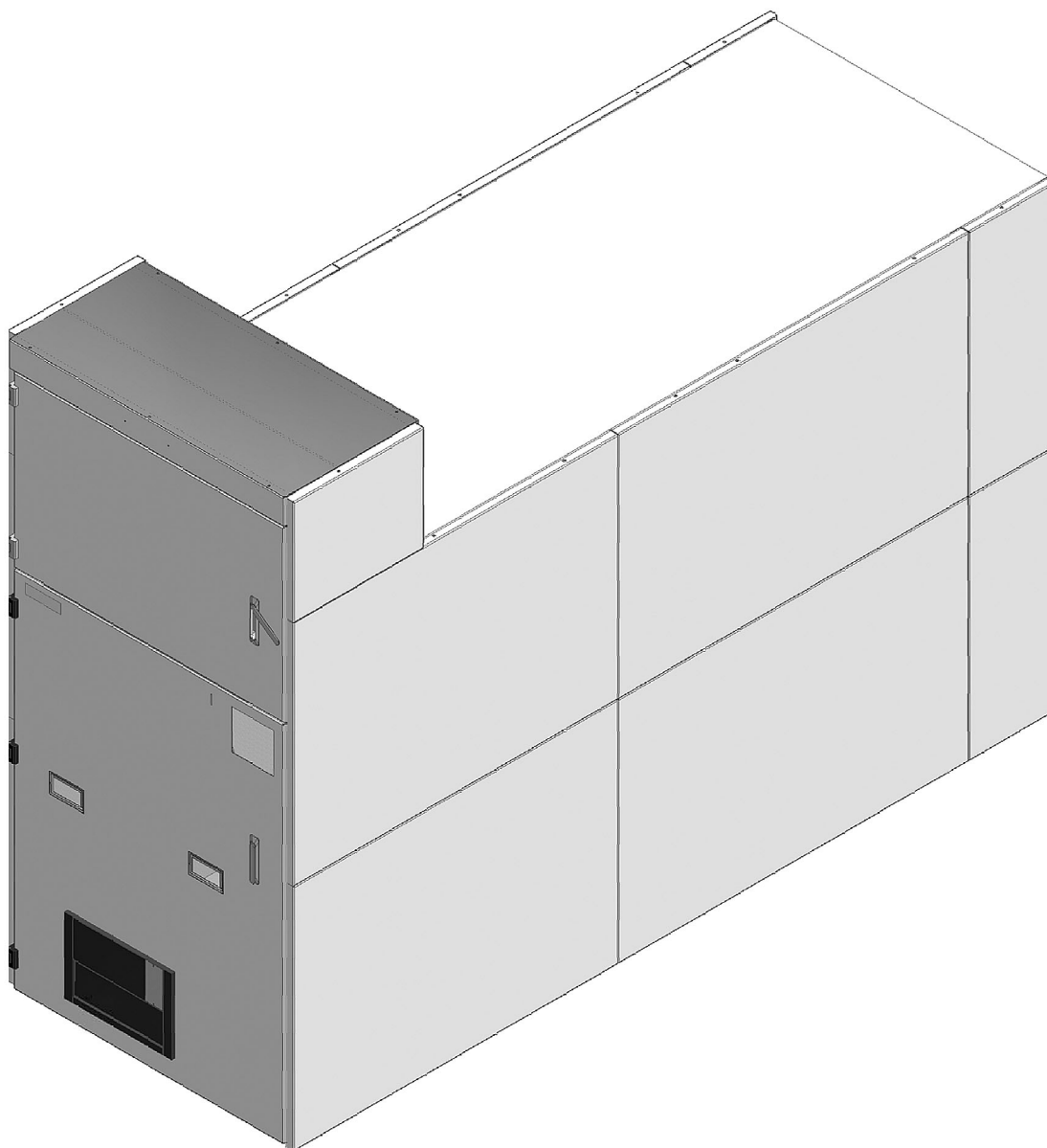
Rotate adjustable voltage transformers once and check that the fuse end is in contact with **C**. To rotate the adjustable voltage transformers, refer to the "**Operating Instructions**" Section in user manual No. 07897171.

Installation Instructions

Standard cubicle

Mounting the end plates

A detailed installation drawing is supplied with the finish parcel.



Component	Component description	51164439 FA	51164439 FB	51164439FC
		Qty	Qty	Qty
51164152F0	Front bottom end plate	2	2	-
51310609F0	Front top end plate	1	1	-
51164154F0	Rear bottom end plate	2	2	-
51164155F0	Rear top end plate	-	2	-
51164440F0	Finish covering	-	-	1

Installation Instructions

Standard cubicle

Mounting the end plates

All fasteners and fastening accessories are located in parcel No.1.
For 3 020 mm or deeper cubicles, an additional parcel contains the extra end plates.

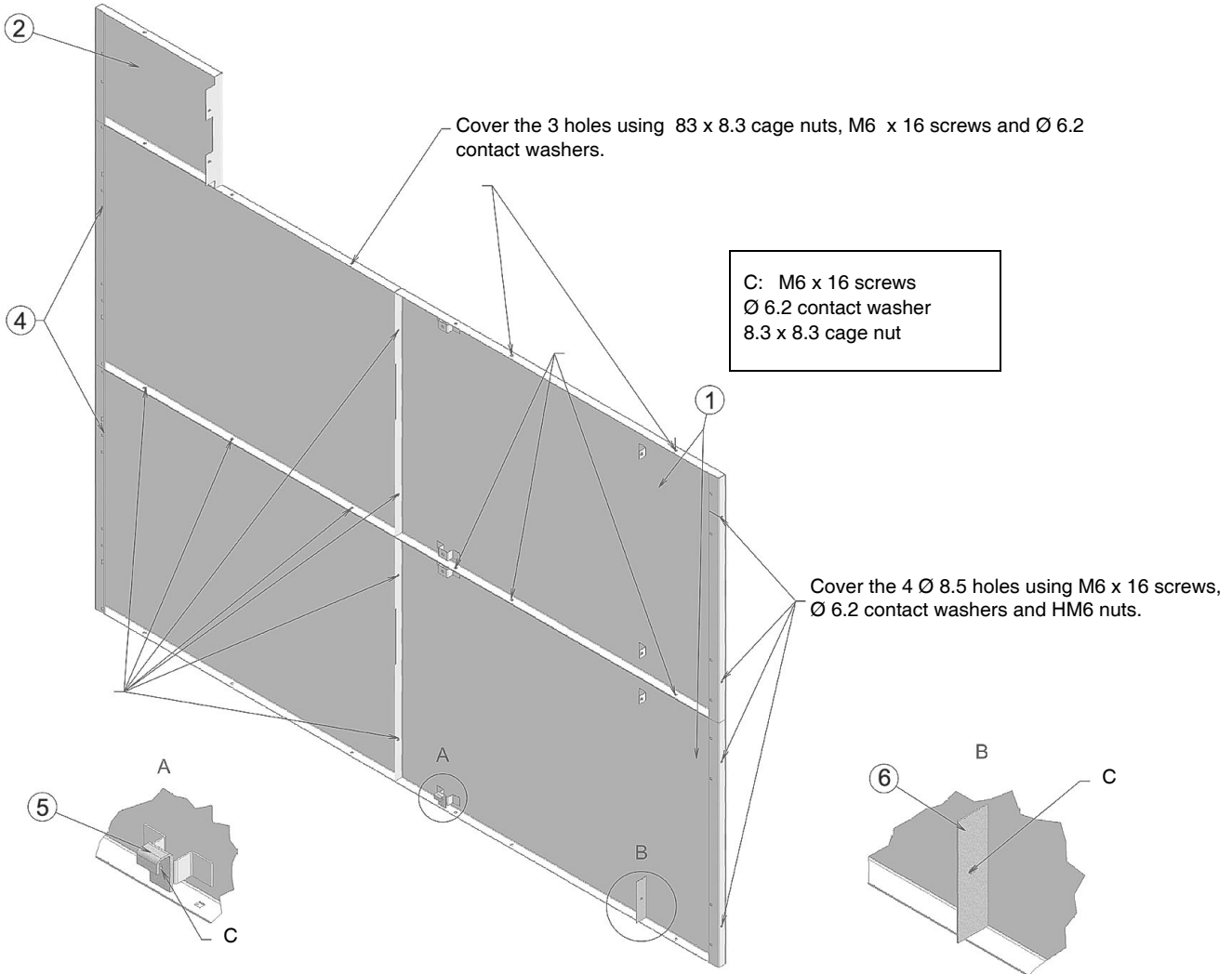
Preparation on the cubicle

Note: the preparation is the same regardless of the FU depth.

1 Fasten angle bracket **D** by means of M12 bolts and washers and M12 cage nuts

Left-hand side

Provide 3 m x 2 m floor space to fit the plates.



51164439 FA			
Item	Part number	Description	Qty
1	51164144F0	Rear bottom end plate	2
2	51310609F0	Front top end plate	1
4	51164152F0	Front bottom end plate	2
5	51164159F0	End plate hook (bag of fasteners)	1
6	51164199F0	Cover plate (bag of fasteners)	1

Installation Instructions

Standard cubicle

Preparing the panels for 2 670 mm long cubicle

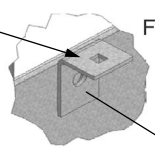
2: Fit the 18 M6 cage nuts.

3: **Assemble** the panels to one another by means of 9 HM6 x 16 screws + ribbed M6 conical washers

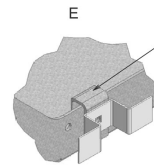
4: **Blanking** with 8 HM6 x 16 screws + ribbed conical M6 washers and M6 nut

5: Fit hook **C** by means of HM6 x 16 screws + ribbed conical M6 washers.

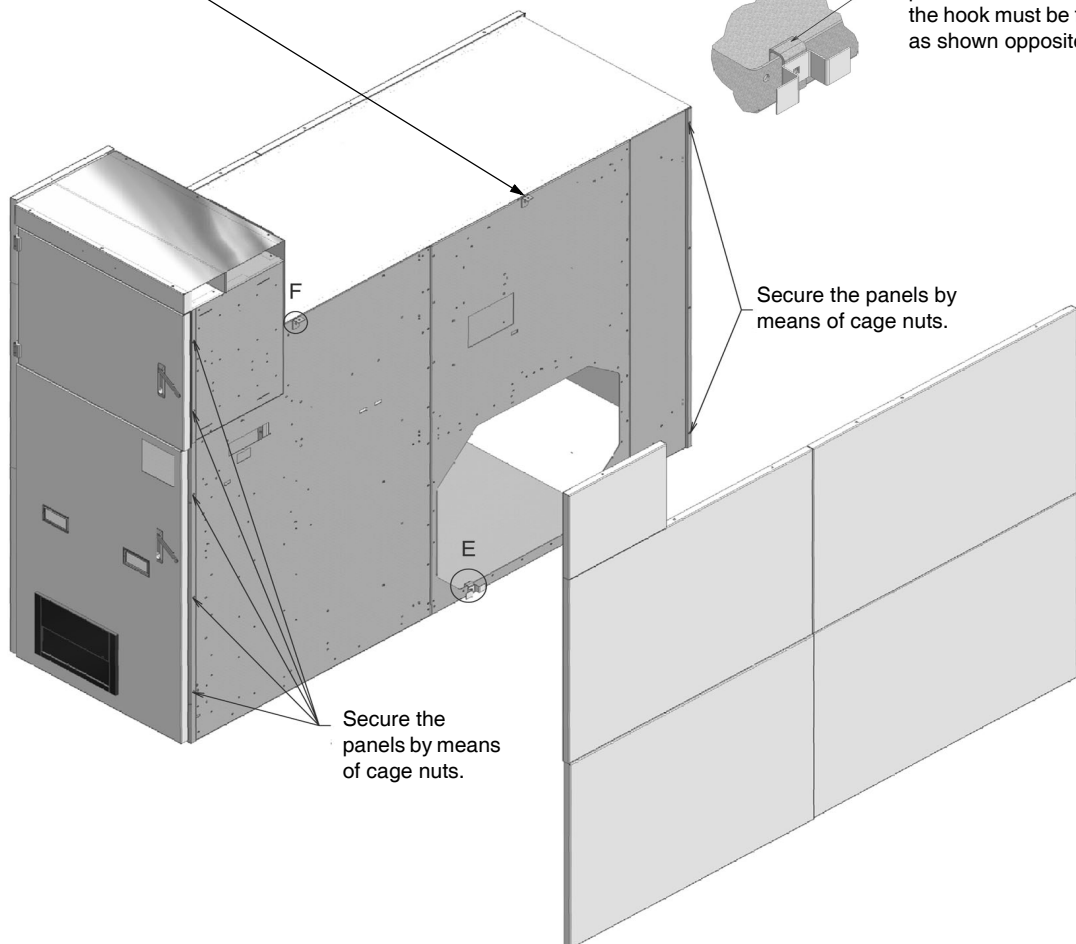
Secure the end plates by means of a 8.3 x 8.3 cage nut, a M6 x 16 screw and a Ø 6.2 contact washer.



Secure the bracket on the cubicle, before installing the panels, by means of an H M12 x 30 screw and a Ø 12 contact washer.



To mount the end plates on the cubicle, the hook must be fitted as shown opposite.



Secure the panels by means of cage nuts.

Secure the panels by means of cage nuts.

Installation Instructions

Standard cubicle

Preparing the panels for 3 020 mm long cubicle

②: Fit the 23 M6 cage nuts.

③: **Assemble** the panels to one another by means of 13 HM6 x 16 screws + ribbed M6 conical washers

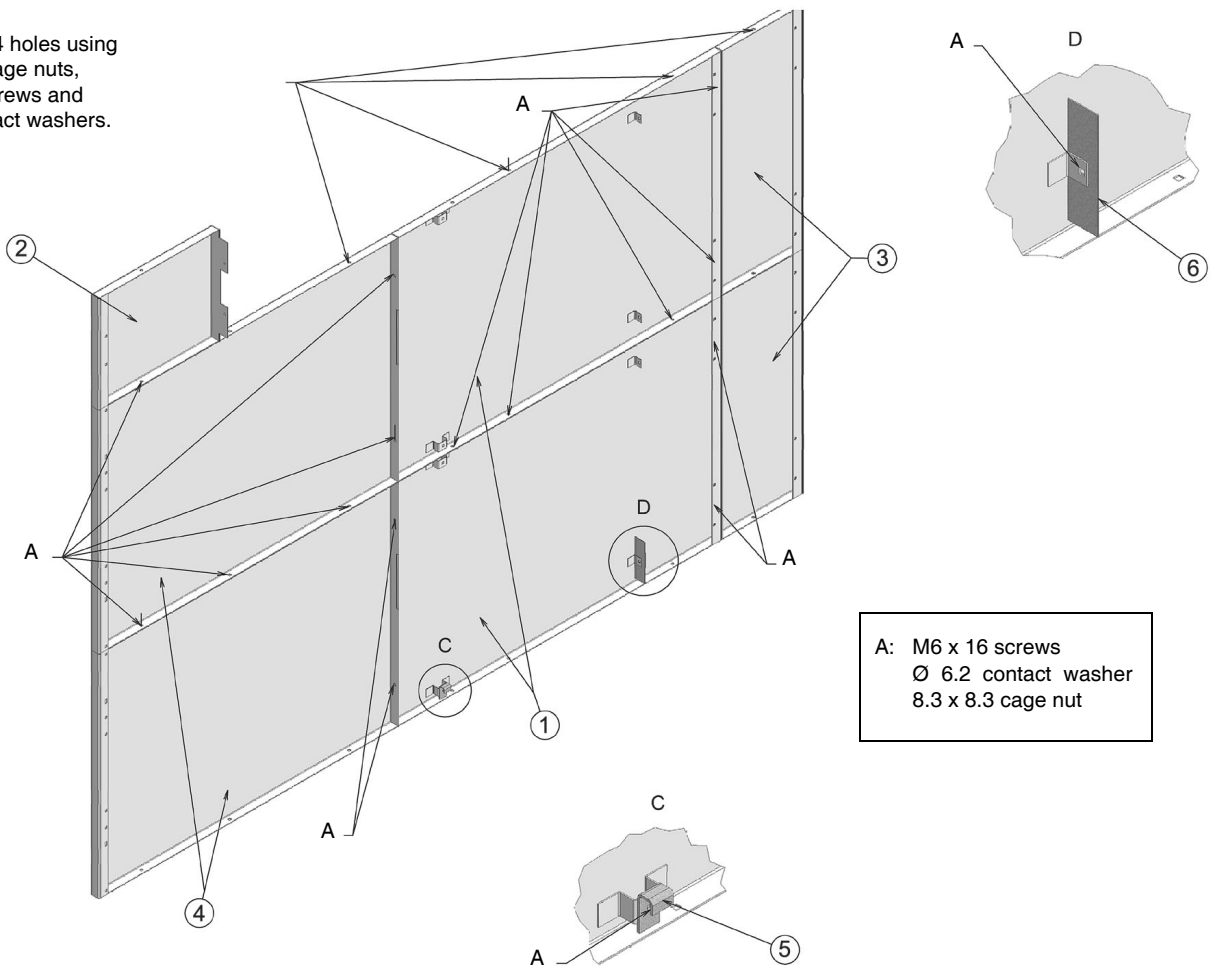
④ **Blanking** with 5 HM6 x 16 screws + ribbed conical M6 washers and M6 nut

⑤ Fit hook **C** by means of HM6 x 16 screws + ribbed conical M6 washers.

Left-hand side

Provide 3.5 m x 2 m floor space to fit the plates.

Cover the 4 holes using 8.3 x 8.3 cage nuts, M6 x 16 screws and Ø 6.2 contact washers.



A: M6 x 16 screws
Ø 6.2 contact washer
8.3 x 8.3 cage nut

51164439 FB			
Item	Part number	Description	Qty
1	51164154F0	Rear bottom end plate	2
2	51310609F0	Front top end plate	1
3	51310655F0	Rear top end plate	2
4	51164152F0	Front bottom end plate	2
5	51164159F0	End plate hook (bag of fasteners)	1
6	51164199F0	Cover plate (bag of fasteners)	1

Installation Instructions

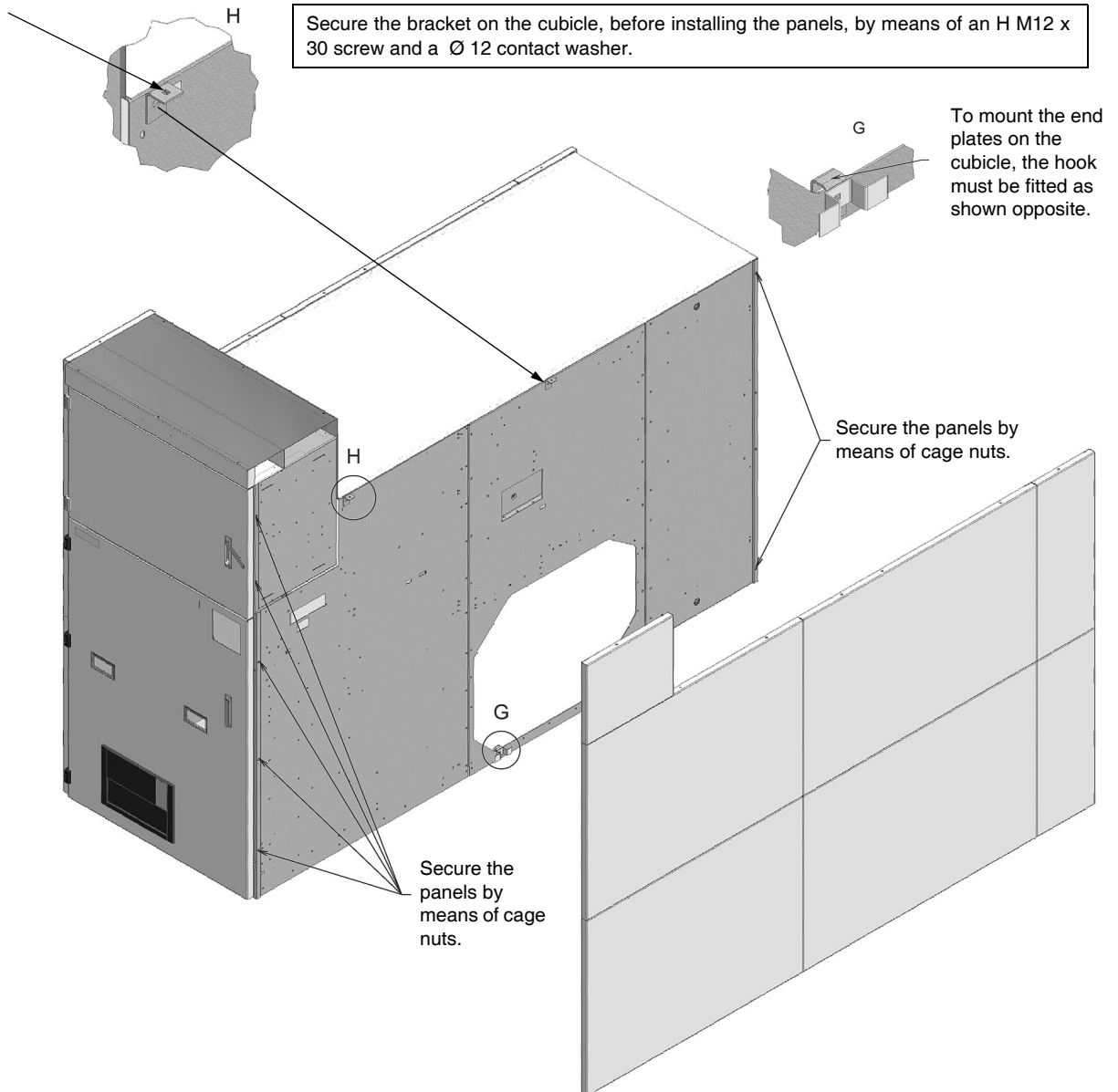
Standard cubicle

Positioning the assembly on the cubicle

- 6: Installing the panels.
- Hook C on the cubicle side
 - Lean on D.
 - Screw the assembly on the sides of the cubicle (9 fastening points) with HM6 x 16 screws + ribbed conical M6 washers + bolt on LV compartment (F)

- 7: After installing the end plates, mount end plate E (at the rear of the cubicle) using HM6 x 16 screws + ribbed conical M6 washers. This operation is performed in the cable compartment of the end cubicle.

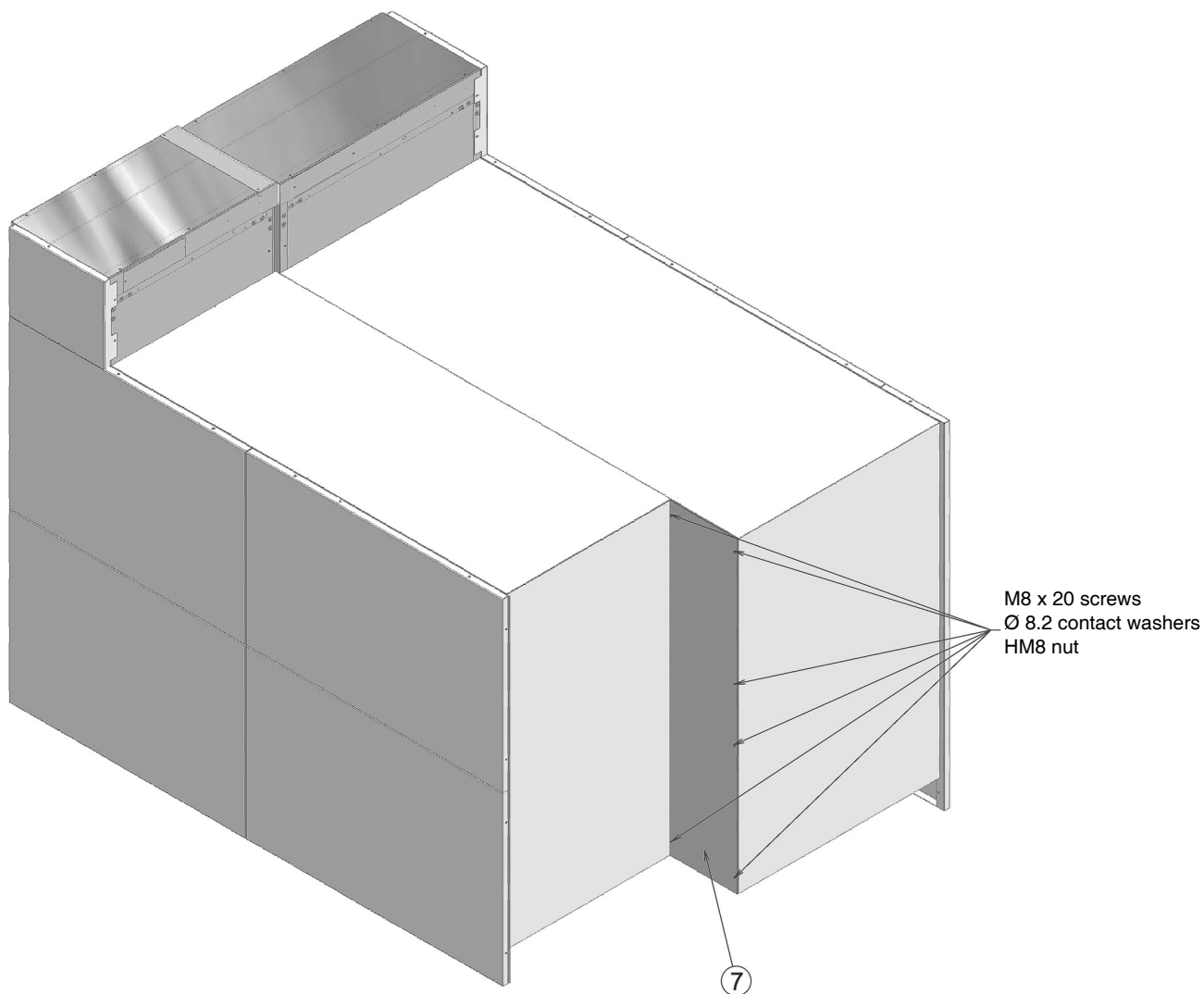
Secure the end plates by means of a 8.3 x 8.3 cage nut, a M6 x 16 screw and a Ø 6.2 contact washer.



Installation Instructions

Standard cubicle

Inter-cubicle lining



51164439 FC			
Item	Part number	Description	Qty
7	51164440F0	Finish covering	1

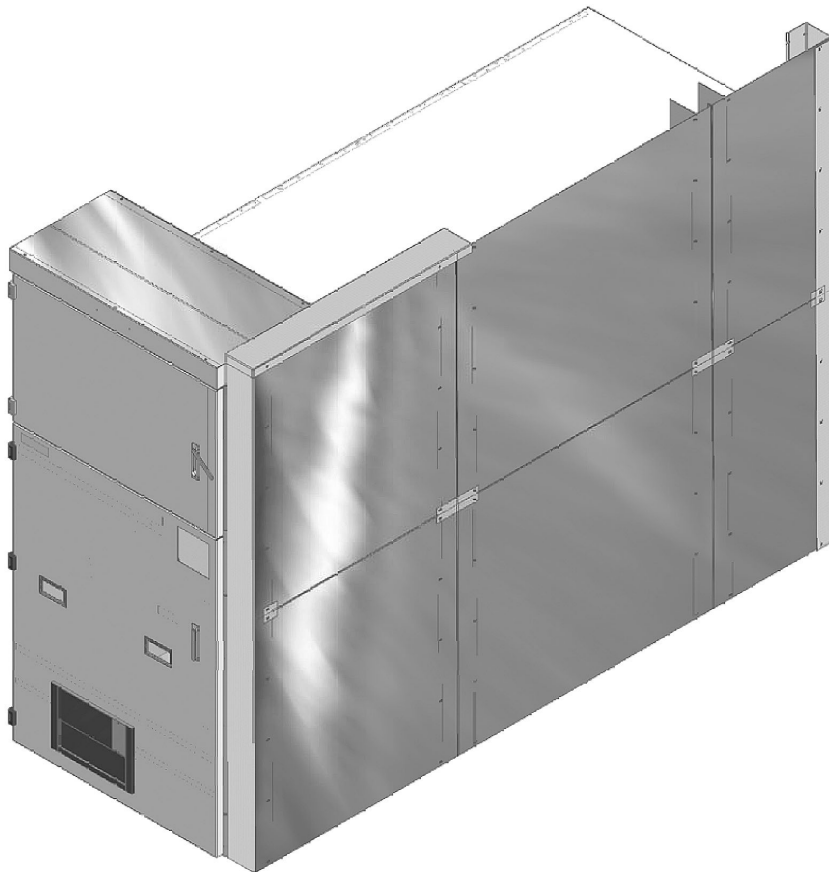
Installation Instructions

Cubicle with internal arc withstand option

Mounting the end plates

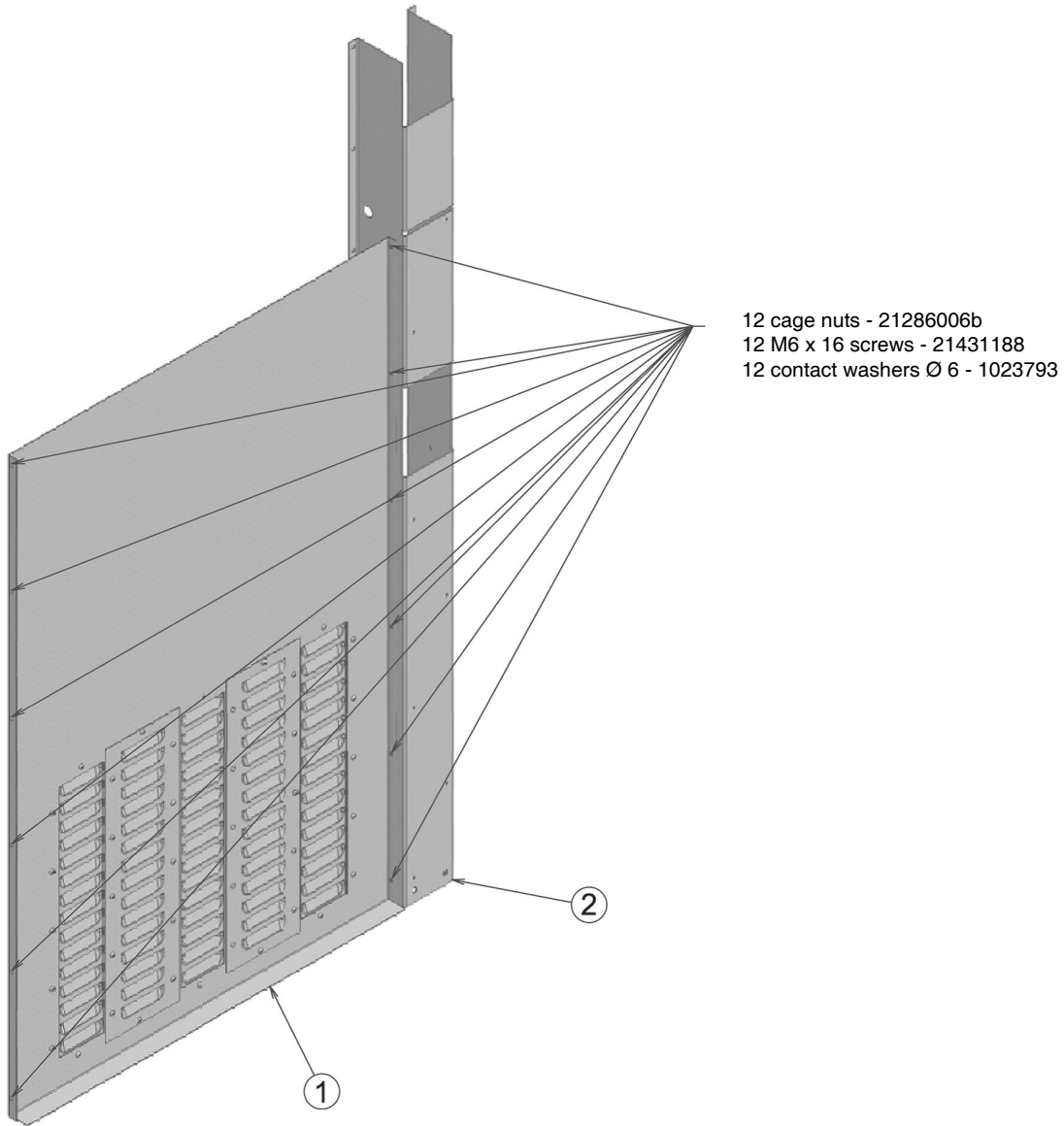
A detailed installation drawing is supplied with the finish parcel.

Warning: Before fitting the end plates, you must remove the panels at the rear of the device.



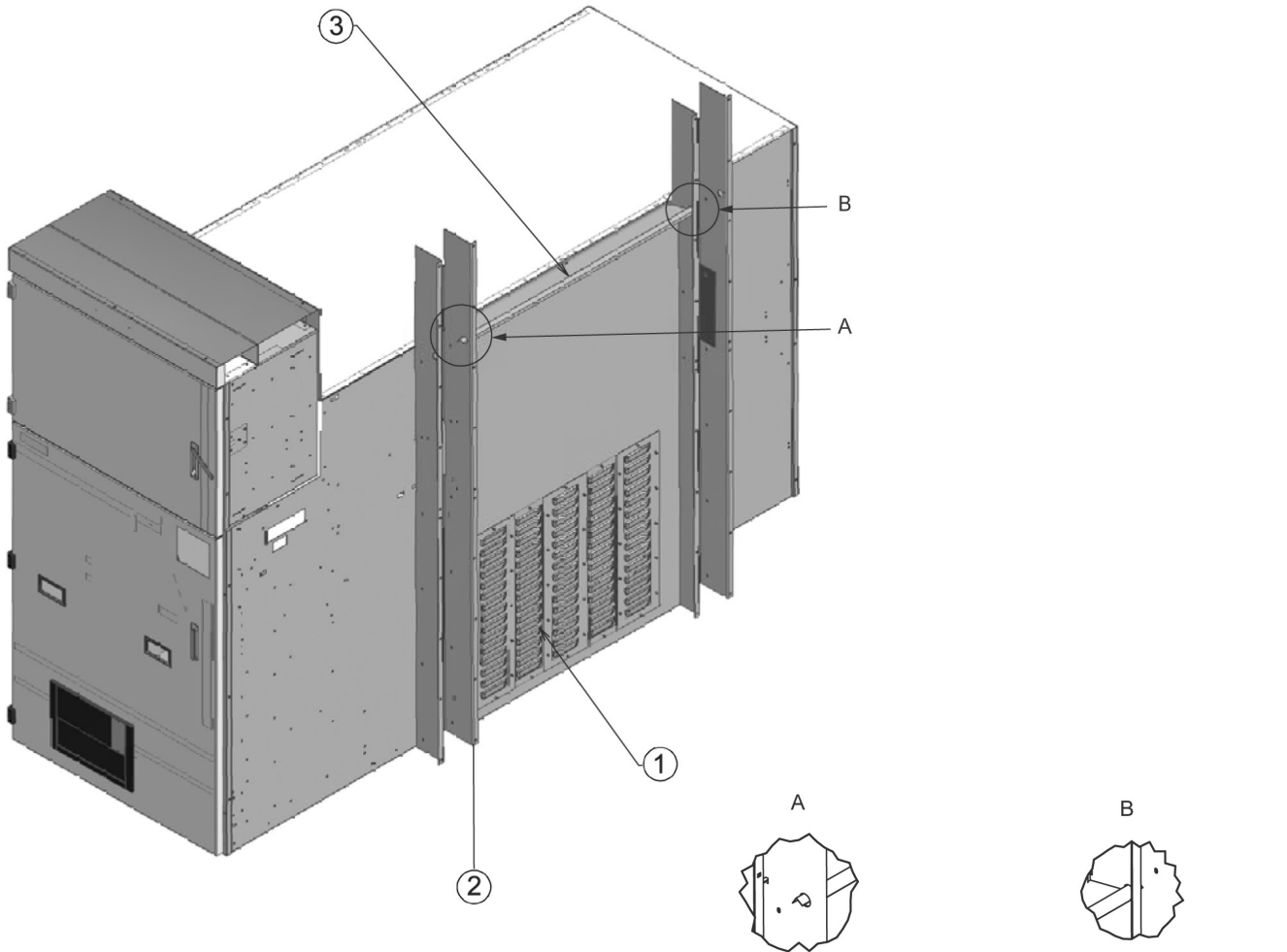
Parts list				
Item	51164439FE	51164439FF	Description	Qty
1	51310623F0	51310623F0	Fire-protective plate	1
2	51310610F0	51310623F0	Omega IA end plate	2
3	51310622F0	51310622F0	IA chimney flap	1
13	51310611F0	51310611F0	IA end beam	2
15	51310621F0	51310617F0	Rear R-H bottom end - IA	1
16	51310620F0	51310615F0	Front R-H bottom end - IA	1
17	51310619F0	51310614F0	Rear R-H top end - IA	1
18	51310618F0	51310612F0	Front R-H top end - IA	1
19	51310618F0	51310612F0	L-H and R-H middle bottom end - IA	1
20	51310613F0	51310613F0	L-H and R-H middle top end - IA	1
21	51310645F0	51310645F0	Connecting end panel	2
22	51310845F0	51310846F0	R-H IA LVC end	1
24	51310847F0	51310847F0	Connecting end panel	2
25	51310710F0	51310710F0	Omega cover	1

Installation instructions



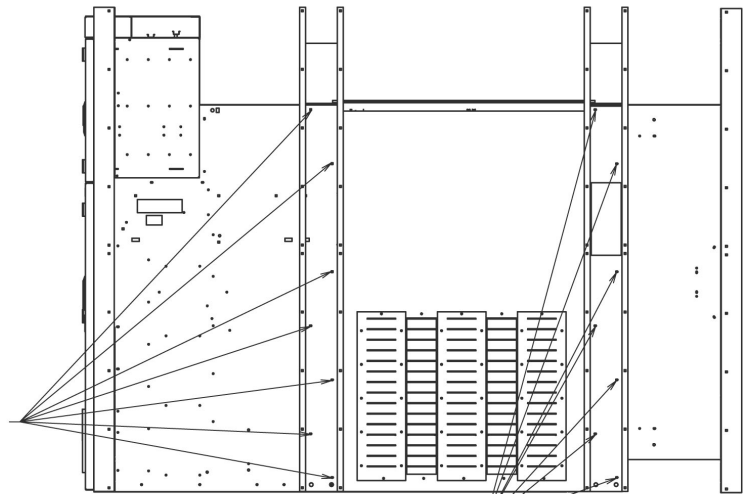
Parts list				
Item	51164439FE	51164439FF	Description	Qty
1	51310623F0	51310623F0	Fire-protective plate	1
2	51310610F0	51310610F0	Omega IA end plate	2

Installation instructions



For the right-hand end:
 7 HM6 x 16 screws - 21431188
 7 M6 cage nuts - 21286006b
 7 M6 washers 1023793

For the left-hand end:
 8 HM6 x 16 screws - 21431188
 8 M6 cage nuts - 21286006b
 8 M6 washers 1023793

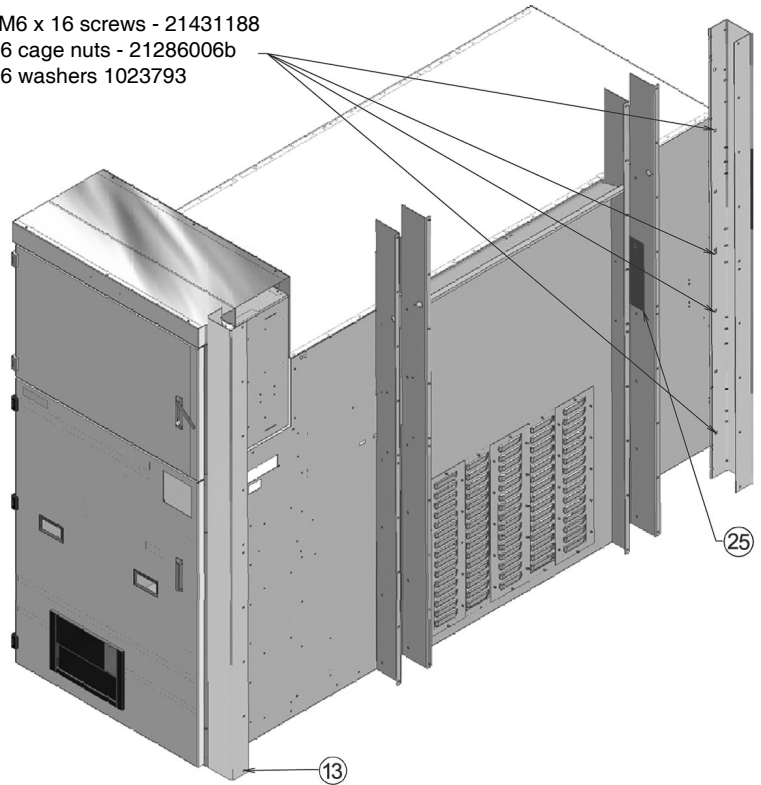


7 HM6 x 16 screws - 21431188
 7 M6 cage nuts - 21286006b
 7 M6 washers 1023793

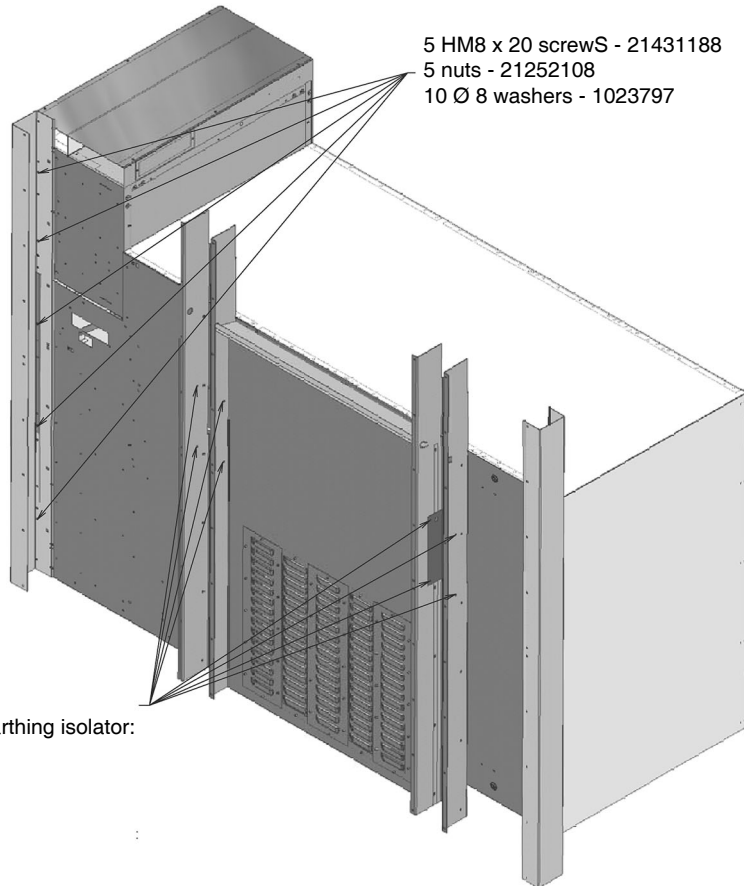
Parts list				
Item	51164439FE	51164439FF	Description	Qty
1	51310623F0	51310623F0	Fire-protective plate	1
2	51310610F0	51310610F0	Omega	2
3	51310622F0	51310622F0	Chimney flap	1

Installation instructions

4 HM6 x 16 screws - 21431188
 4 M6 cage nuts - 21286006b
 4 M6 washers 1023793



5 HM8 x 20 screws - 21431188
 5 nuts - 21252108
 10 Ø 8 washers - 1023797



On the right, with a device with earthing isolator:

1 x 51310710F0
 4 HM8 screws - 21252108
 4 HM8 nuts - 21252108
 8 Ø 8 washers - 1023797

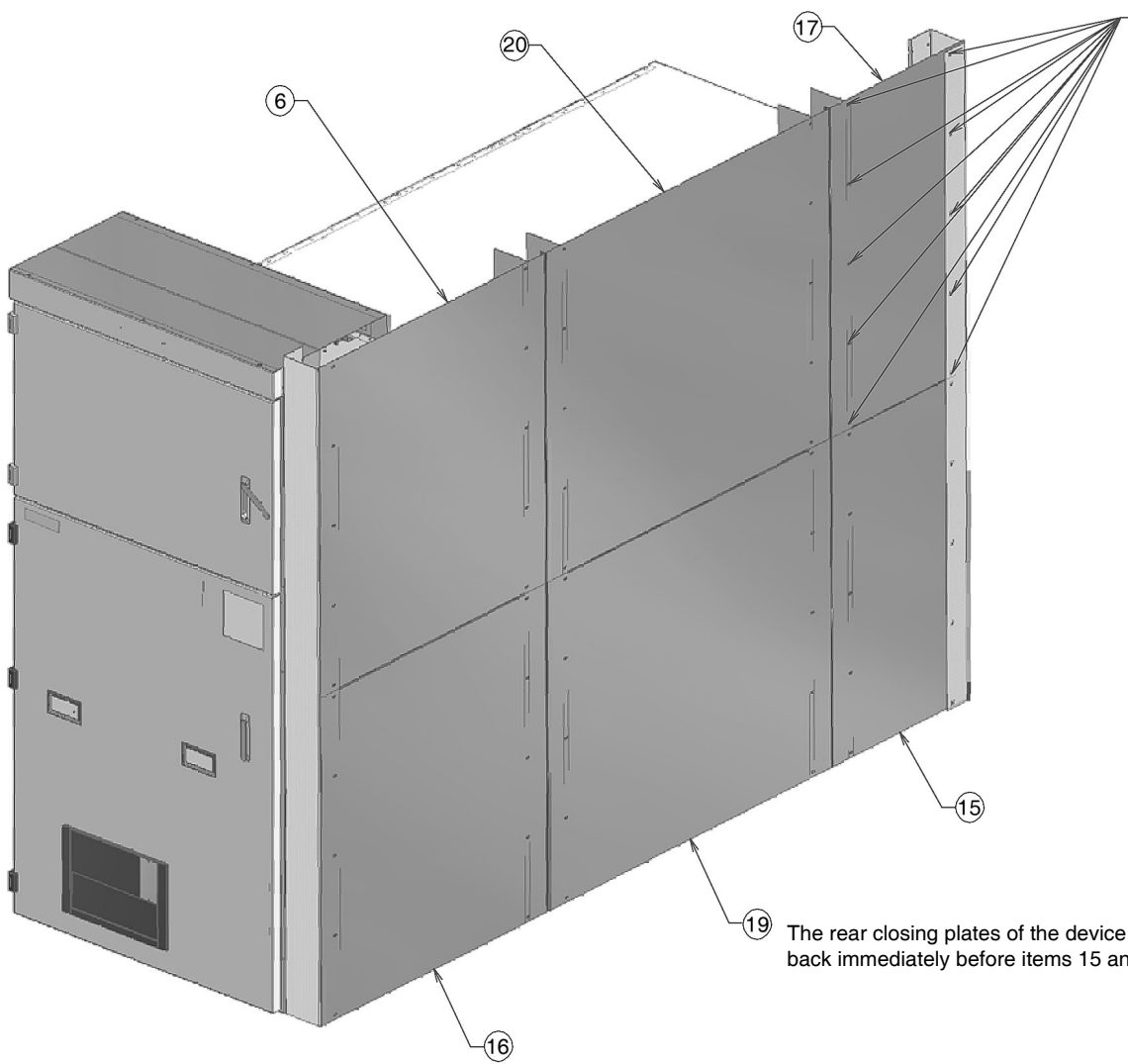
On the left or on the right, with a device without earthing isolator:

1 x 51310710F0
 8 HM8 screws - 21252108
 8 HM8 nuts - 21252108
 16 Ø 8 washers - 1023797

Parts list				
Item	51164439FE	51164439FF	Description	Qty
13	51310710F0	51310710F0	Omega	2
25	51310611F0	51310611F0	End beam	1

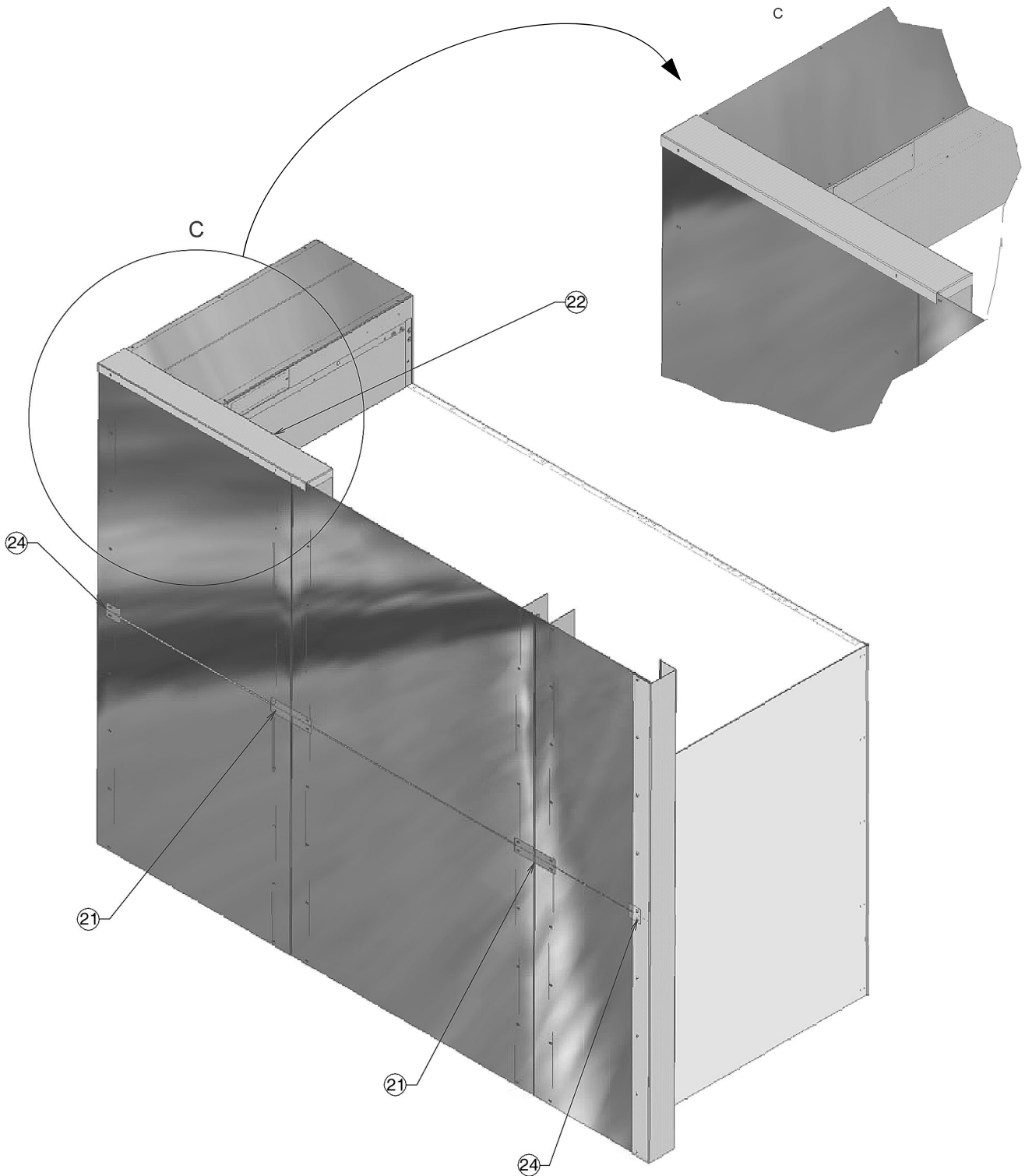
Installation instructions

60 HM6 x 16 screws - 21431188
 60 cage nuts - 21286006b
 60 Ø 6 washers - 1023793



Parts list				
Item	51164439FE	51164439FF	Description	Qty
6	51310618F0	51310612F0	Front top end	1
15	51310621F0	51310617F0	Rear bottom end	1
16	51310620F0	51310615F0	Front bottom end	1
17	51310619F0	51310614F0	Rear top end	1
19	51310616F0	51310616F0	Middle bottom end	1
20	51310613F0	51310613F0	L-H and R-H top end - IA	2

Installation instructions

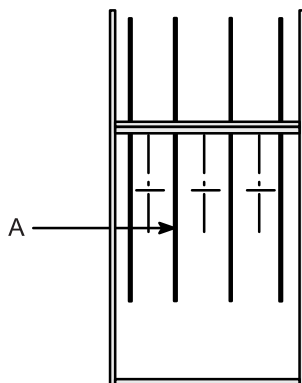


Parts list				
Item	51164439FE	51164439FF	Description	Qty
21	51310645F0	51310645F0	Connecting end panel	2
22	51310845F0	51310846F0	R-H LVC IA end	1
24	51310847F0	51310847F0	Connecting end panel	2

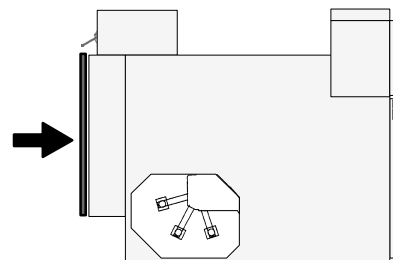
Installation Instructions

Standard cubicle

Closing the MV cable compartment



After mounting the MV cables and end plates, check the cleanliness of each MV cable compartment.
On all cubicles, put back the four shields **A**.

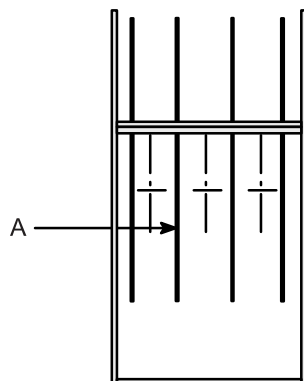


Put back the rear plate of the cable compartment.

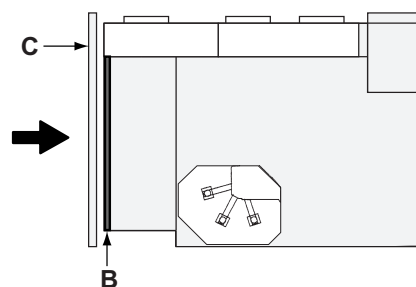
Installation Instructions

Cubicle with internal arc withstand option

Closing the MV cable compartment



After mounting the MV cables and end plates, check the cleanliness of each MV cable compartment.
On all cubicles, put back the four shields **A**.



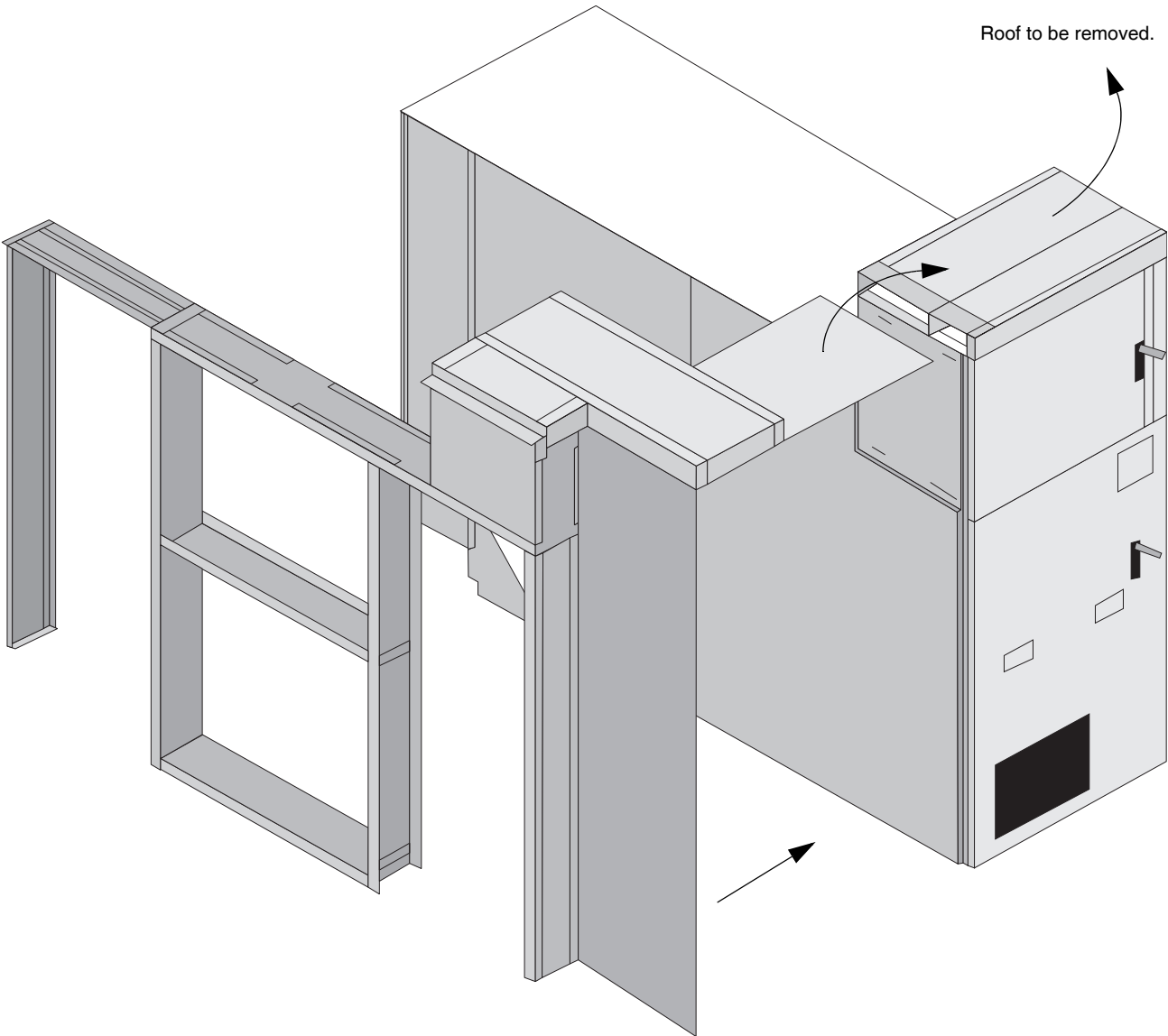
Put back rear plate **B** of the cable compartment.
Put back shield **C**.

Installation Instructions

Standard cubicle

Mounting the duct between F400G and F400NL

The transition duct between F400G and F400NL is supplied as a kit.
A detailed installation drawing for the duct is supplied in the parcel.



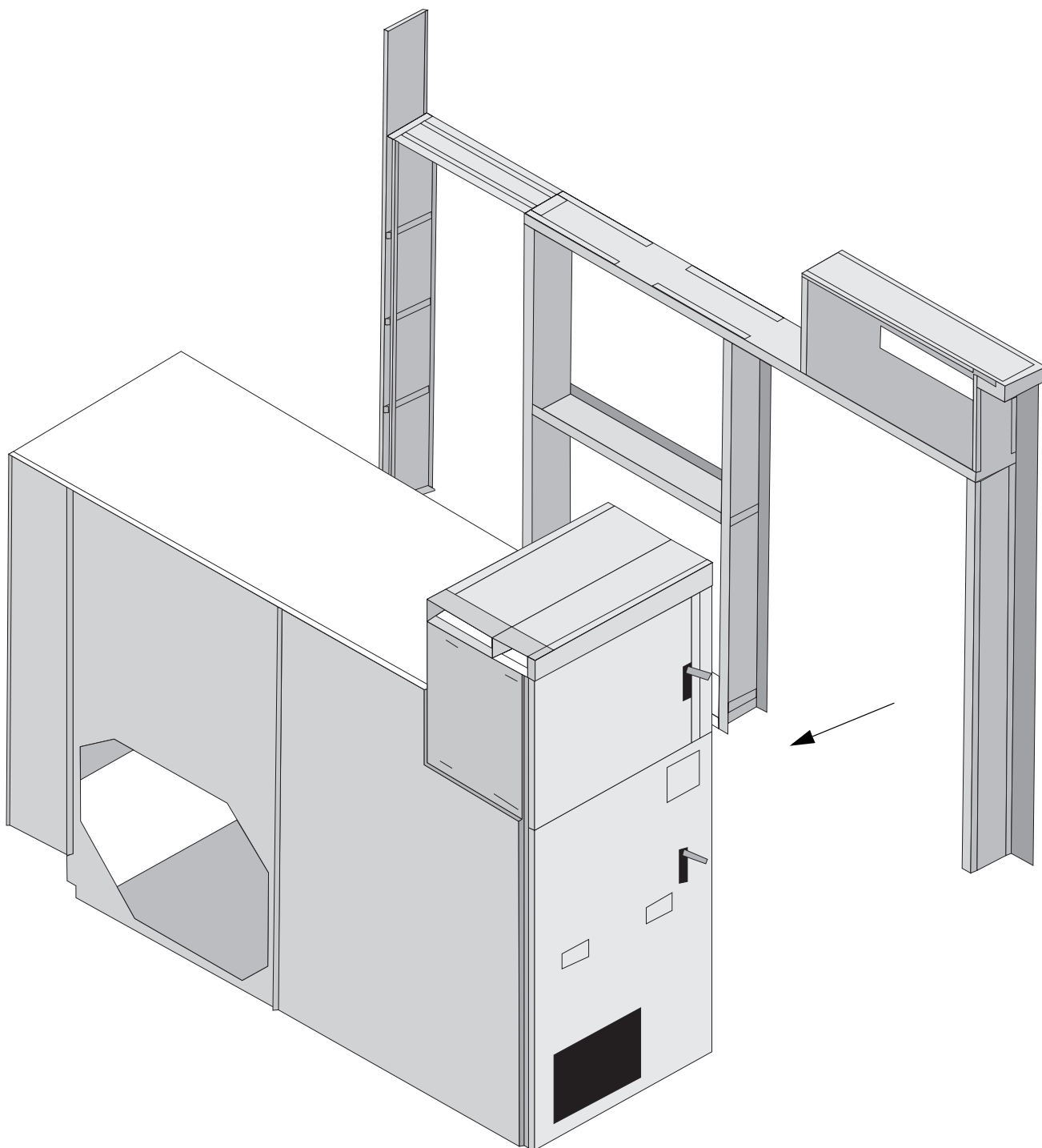
The transition duct is fastened between F400G and F400NL.

Installation Instructions

Cubicle with internal arc withstand option

Mounting the duct between F400G and F400NL

The transition duct between F400G and F400NL is supplied as a kit.
A detailed installation drawing for the duct is supplied in the parcel.



The transition duct is fastened between
F400G and F400NL.

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