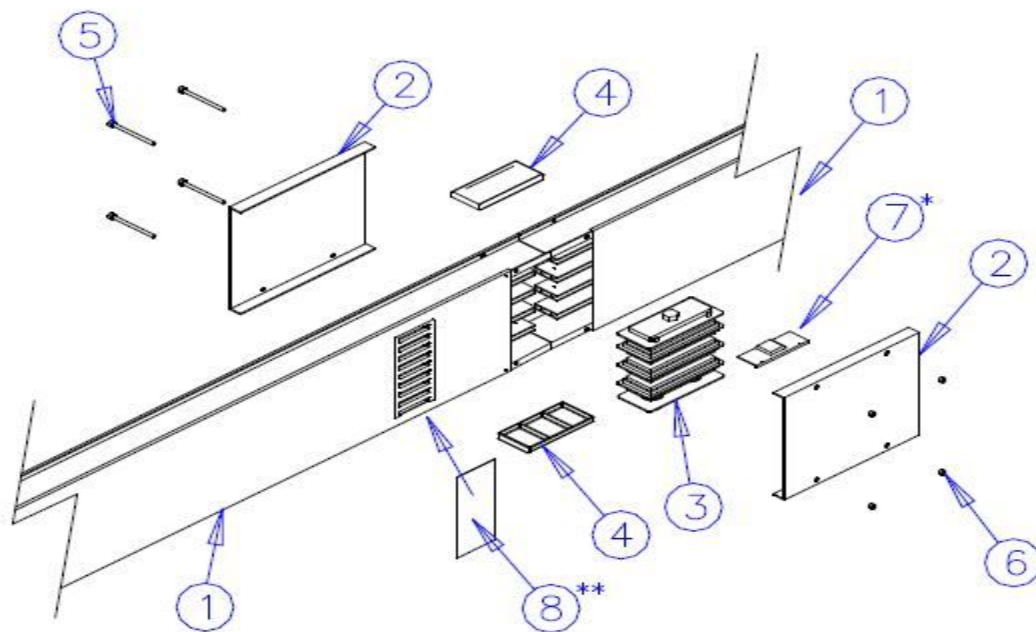


GDA - GDR 63 - 2500 A

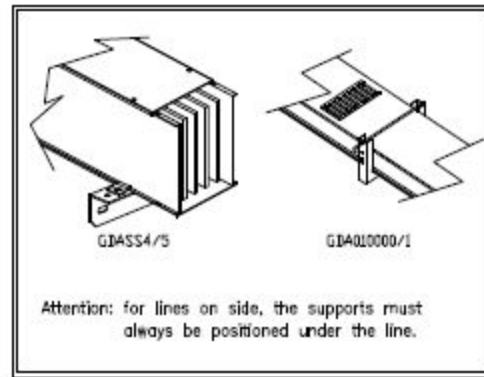
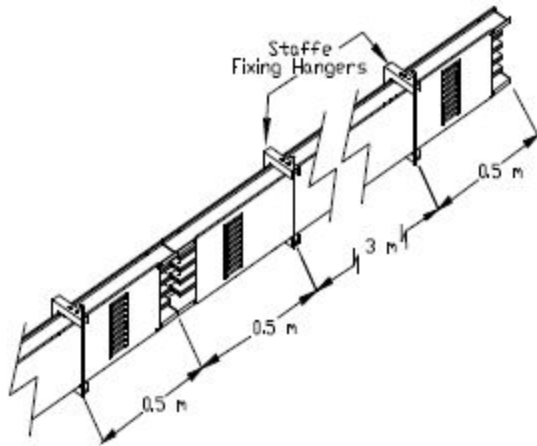
ASSEMBLY INSTRUCTIONS

GDA - GDR



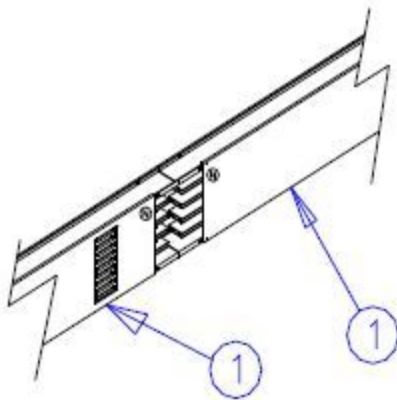
GDA/GDR Joint part list

- 1 GDR straight element
- 2 Aluminium joint cover (IP50 or IP55)
- 3 Monobolt joint
- 4 Lateral cover
- 5 fixing screw
- 6 Hex nut
- 7* GDA5/GDR5 ONLY: PE continuity
- 8** IP55 ONLY: Plug outlet cover (to be fitted by installer)

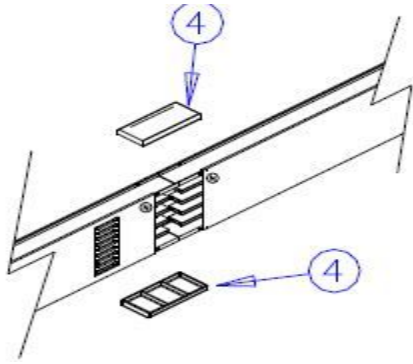


ATTENTION: With the hangers GDASS5, the line cannot be rotate 90 degrees (regarding to the picture up).

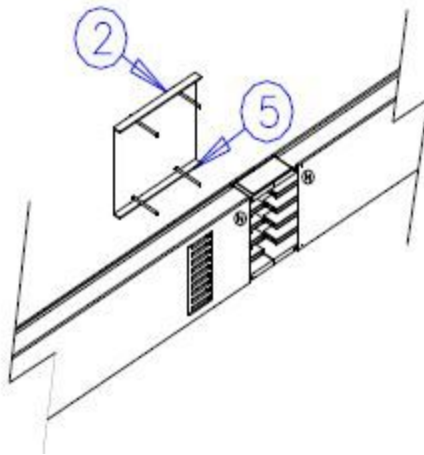
a) Fix the hangers to the wall or channel support system etc. We suggest positioning hangers as indicated in the above diagram. Each 4m straight element will have at least 2 hangers (for elbows and Tees one hanger near the joint). **WARNING:** When considering the position of the busbar run in relation to walls etc you must take into account the dimensions of the end feed box being used



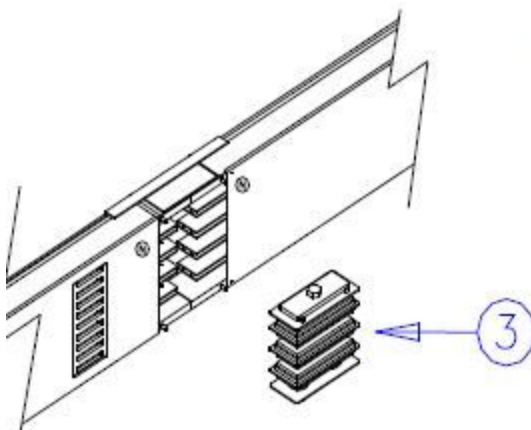
b) Install the 2 busbar elements (1) and bring the two together whilst ensuring the conductors are lined up (L1, L2, L3, N, PE).



c) Insert the tap off cover (4).



d) Install the aluminium joint cover (2) onto the closed part of the case, inserting the fixing screws (5).

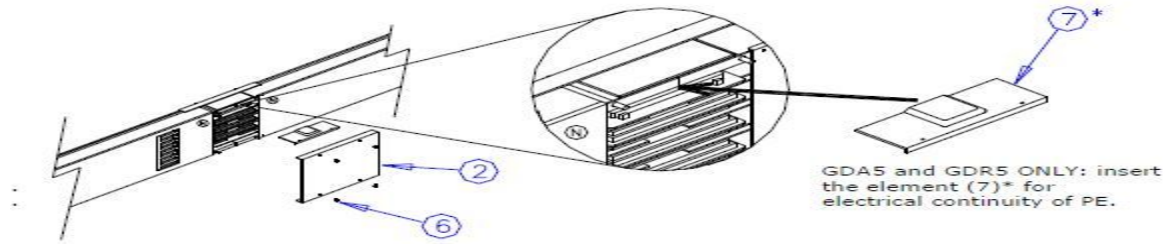


Tightening torque

	A	Without ext. tools	With ext. tool
GDA	63/160	8 Nm	8 Nm
	250/400	30 Nm	17 Nm
	500/1000	40 Nm	22 Nm
	1250/1600	55 Nm	32 Nm
	2000/2500	80 Nm	

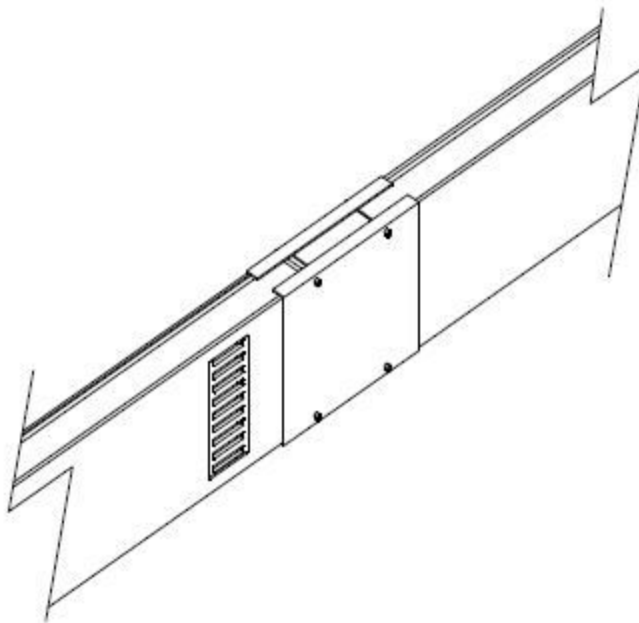
	A	Without ext. tools	With ext. tool
GDR	100/250	15 Nm	15 Nm
	400/800	40 Nm	25 Nm
	1250/1600	60 Nm	35 Nm
	2000/2500	80 Nm	

e) Insert monobolt joint (3) and tighten with a torque wrench.



f) Cover the joint with the remaining aluminium joint cover (2) and tighten the hex nuts (6). Different covers can be supplied to provide rating of IP55.

g) Here is how the completed joint should look.

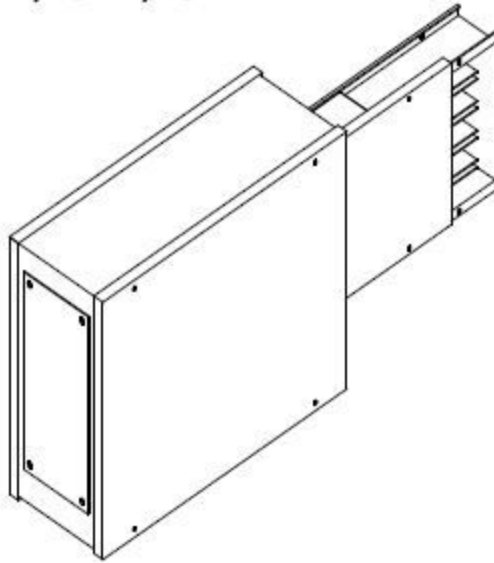


GDA - GDR 63 - 2500 A

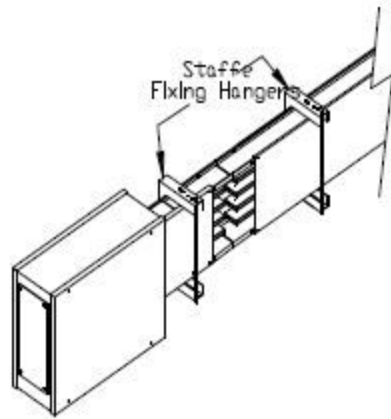
GDA/GDR FEED UNIT/END CAP

VALID FOR:

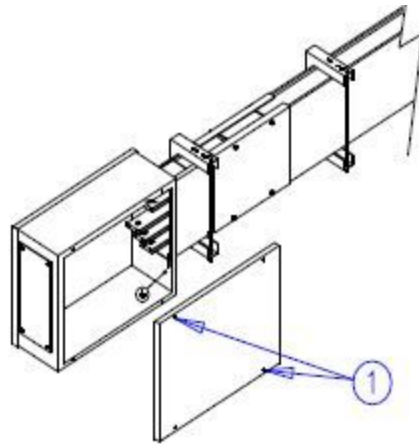
Cod. GDA100020M/21M
Cod. GDA100020/21/22/23-42/43
Cod. GDR100020M/21M
Cod. GDR100020/21/22/23-42/43
Cod. GDA116042/43
Cod. GDR116042/43
Cod. GDR120042/43



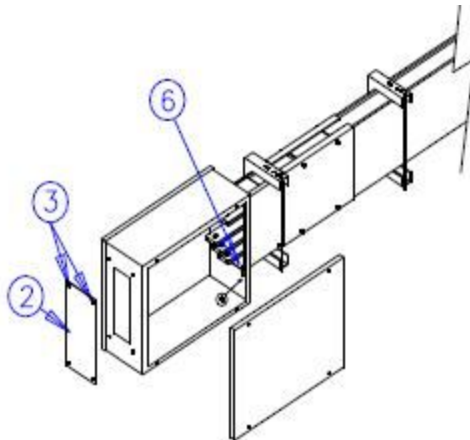
Cod. GDA100027
Cod. GDA100028
Cod. GDA100029
Cod. GDACT4
Cod. GDACT5



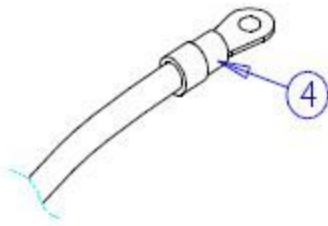
a) Fix the support and mount the feed unit adjacent to the first busbar element as explained above —we suggest you support the feed unit body with another fixing hanger and also appropriate support.



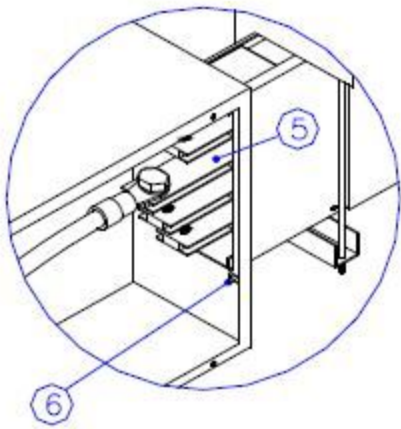
b) Unscrew four screws (1) and remove the lid.



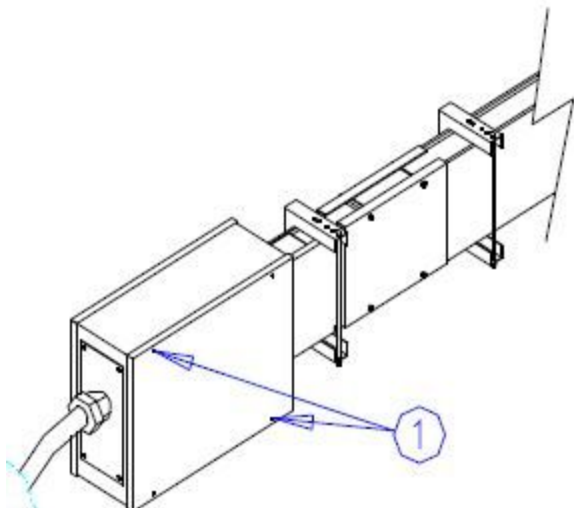
c) Unscrew four screws (3) and remove plate (2) (when the plate is installed).



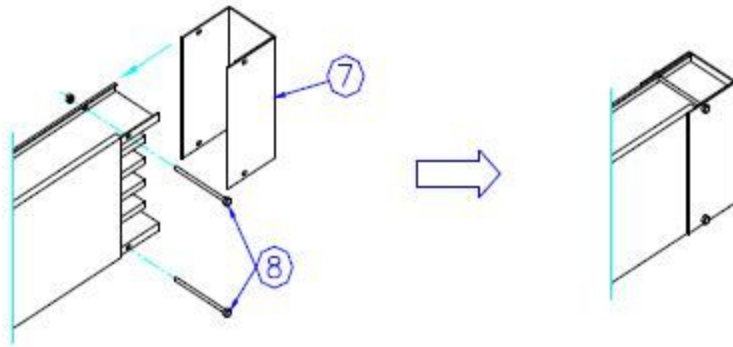
d) Terminate your cables with cable lugs (4).



e) Connect the lug to the bars (5) and to the PE contact (6) by means of screws, nuts and washers. The busbar ends are terminated in a staggered array to assist in access to bolts etc.



f) Close the lid and tighten the four screws (1).



g) Fix the end cap (7) and tighten the four screws (8).

CENTRE FEED UNIT GDA/GDR

VALID FOR:

Cod. GDA100024M

Cod. GDA100024

Cod. GDA100025

Cod. GDA100045

Cod. GDA100055

Cod. GDA120055

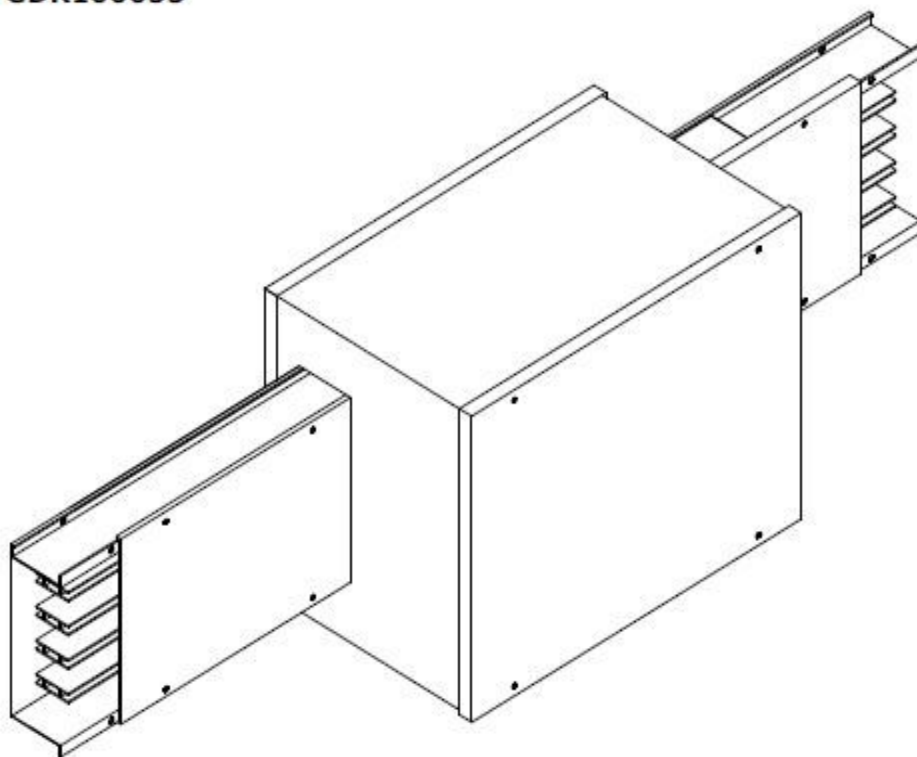
Cod. GDR100024M

Cod. GDR100024

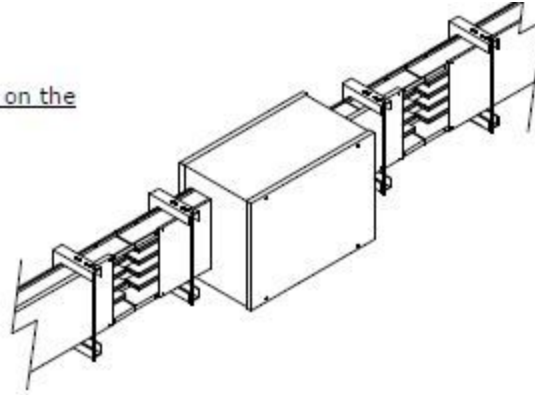
Cod. GDR100025

Cod. GDR100045

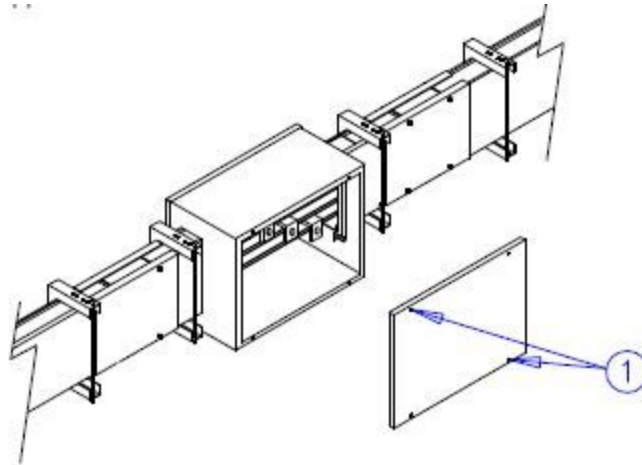
Cod. GDR100055



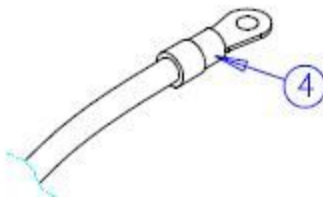
ATTENTION: Pierce the box before mounting on the line, adapt it for allow the cable entrance.



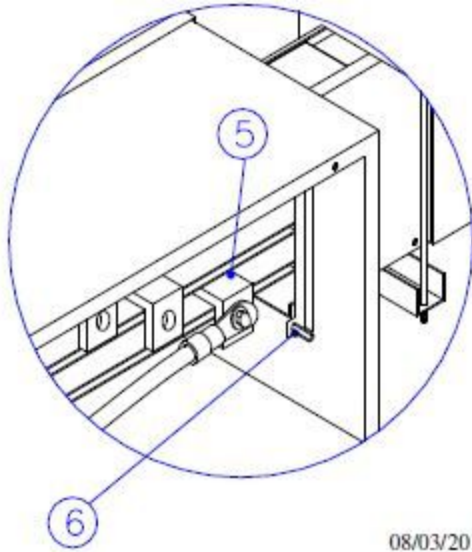
a) Fix the hanger and mount the center feed unit adjacent to the two busbar elements as explained above. We suggest you support the center feed unit box with two fixing hangers as shown in the above diagram.



b) Unscrew four screws (1) and remove the lid.



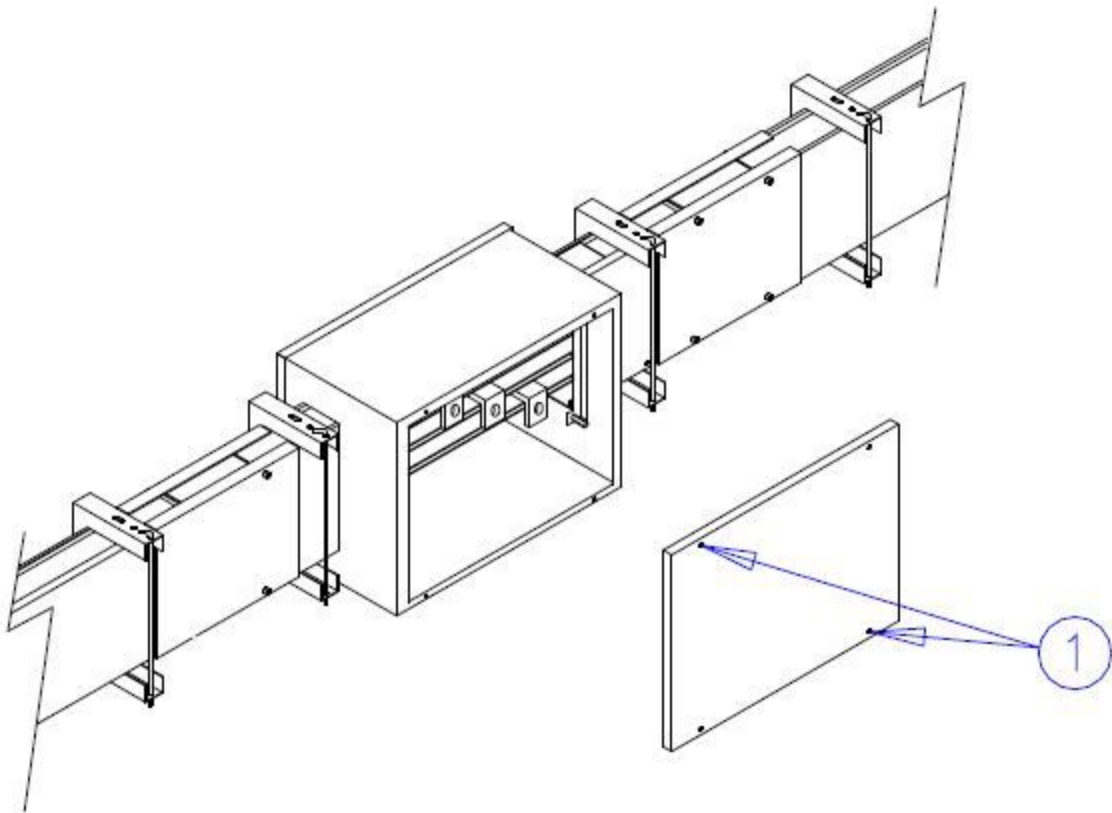
c) Terminate your cables with cable lugs (4) after deciding your entry point into the centre feed unit and drilling the correct sized hole.



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d) Connect cable lug to the bar (5) and to the Pe contact (6) by screws, nuts and washers.

e) Close the lid and tighten four screws (1).



VERTICAL RISERS

HANGER AND INTERNAL BUSBAR CLAMP

VALID FOR:

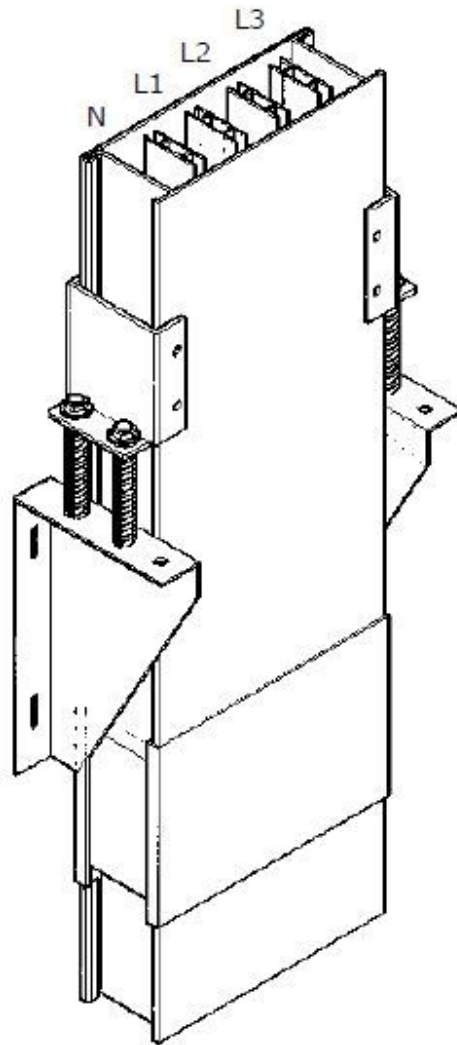
Cod. GDA010002M

Cod. GDA010002

Cod. GDA010003

Cod. GDASSV4

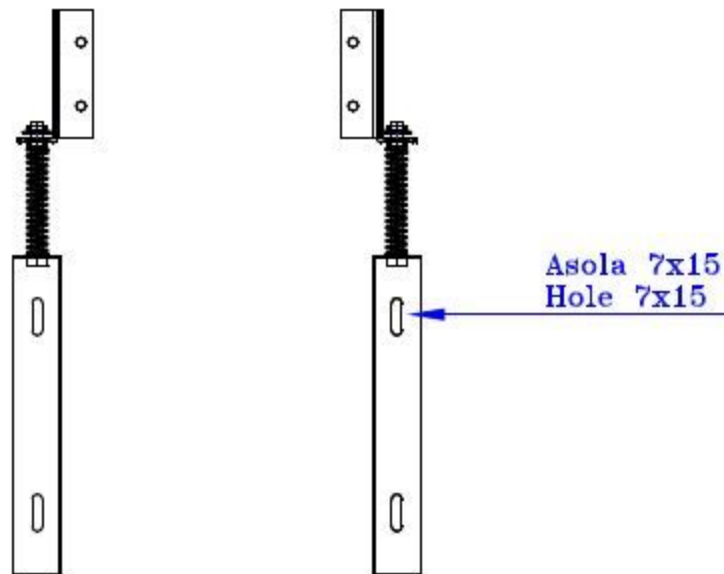
Cod. GDASSV5



GDA - GDR 63 - 2500 A

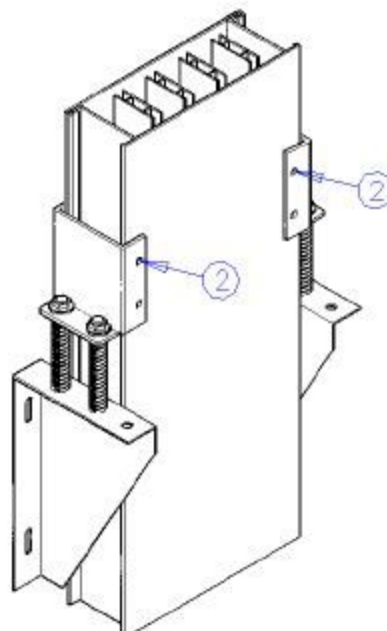
a) Always start the assembly of rising busbar systems from the bottom (after the end feed unit or the switchboard feed unit). Mount the first element with the internal busbar clamp device and attach the hanger for vertical risers to the busbar element..

b) Fix the other part of the hanger for vertical risers to the building.



c) Insert the straight element between the two hangers and screw the four self tapping screws (2) supplied.

Attention:
The distance from the
wall depends on the feed unit.



d) Position the hangers and remaining busbar as outlined above, using at least 2 hangers per 4m length with each hanger approx 500mm from the end of each length. CARE MUST BE TAKEN TO INSTALL THE BUSBAR LENGTHS IN THE CORRECT SEQUENCE WHEN FIRE BARRIERS HAVE BEEN FITTED. THE POSITION OF THESE IS CLEARLY INDICATED BY A RED MARK ON THE BUSBAR ELEMENT. IF FIRE BARRIERS ARE FITTED AS PART OF THE DESIGN OF A RISING MAIN EACH LENGTH WILL BE LETTER CODE (A USUALLY NEAREST TO THE END FEED UNIT).

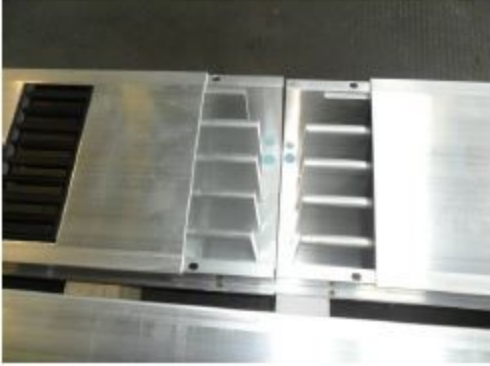




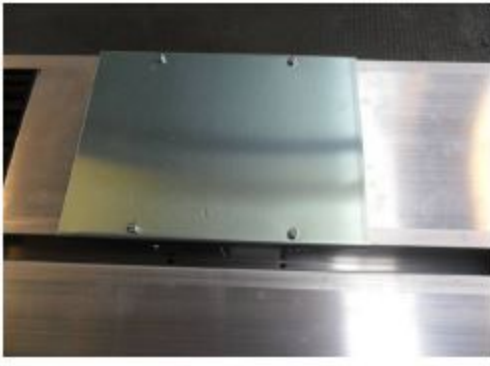
e) For every 150 Kg of busbar, install another hanger for all vertical risers and in any event for every 12 meters of busbar. Larger rated busbars will require more vertical riser hangers.

GDA lines	One hanger for vertical riser every:
63 -160 A	10 elements
250 -400 A	5 elements
500 -1000 A	3 elements
1250 -1600 A	2 elements
2000 -2500 A	2 elements

GDR lines	One hanger for vertical riser every:
100 -250 A	5 elements
400 -800 A	3 elementis
1250 -1600 A	2 elements
2000 -2500 A	2 elements

f) Assemble the tap off boxes and the end cap to finish the installation.

PE JOINT ASSEMBLY GDA5 / GDR5

<p>1</p> <p>Combine the two elements, making sure that the coupling is correct.</p> 	<p>2</p> <p>Insert the monoblock joint with the screw's head on the PE side.</p> 
<p>3</p> <p>Tighten the screw as torque indicated in the catalog.</p> 	<p>4</p> <p>Insert the PE joint with steel springs facing towards the interior of the duct.</p> 
<p>5</p> <p>Push inside the PE joint.</p> 	<p>6</p> <p>Close the connection with metallic coverjoint.</p> 

TAP OFF BOX 32A

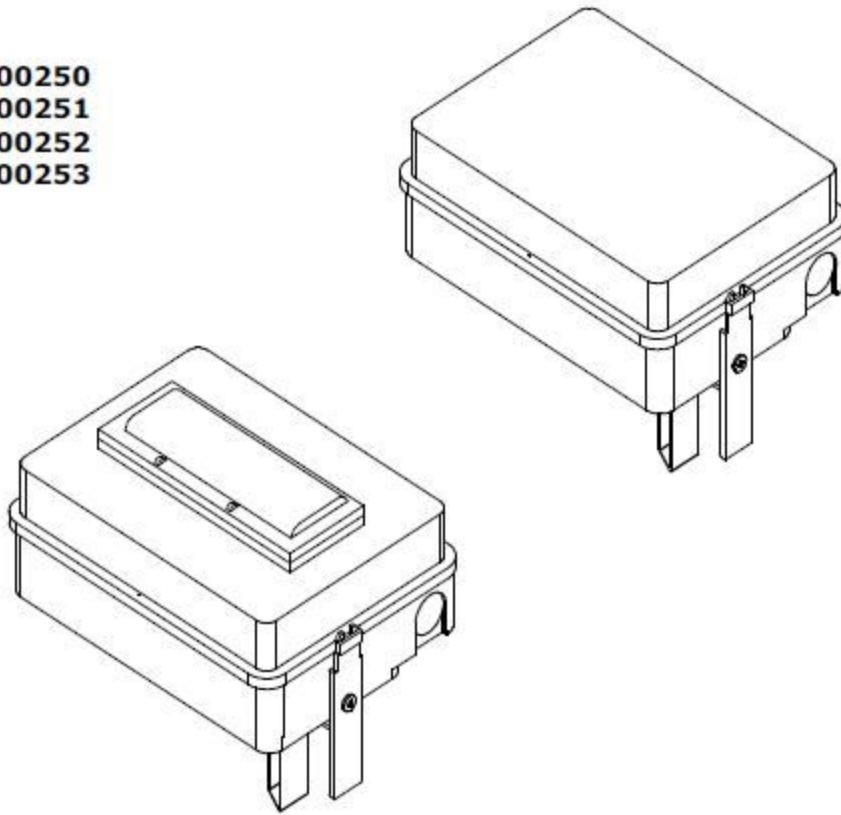
VALID FOR:

Cod. GDA400250

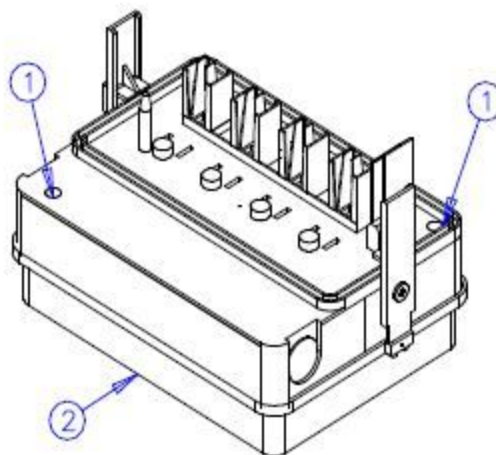
Cod. GDA400251

Cod. GDA400252

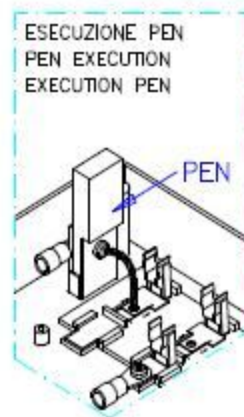
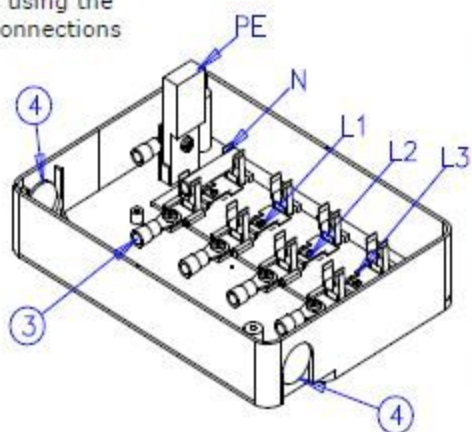
Cod. GDA400253



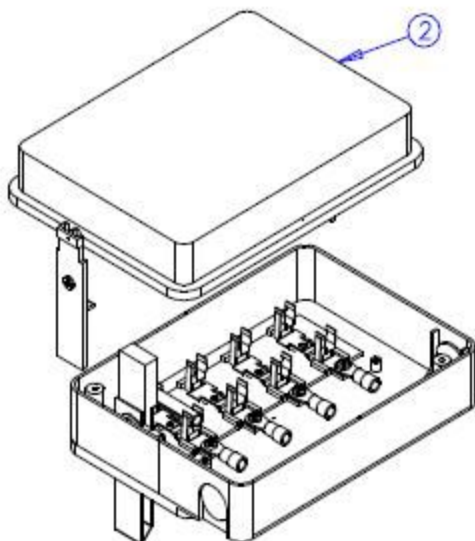
- a) Unscrew the two screws (1) to open the cover (2).



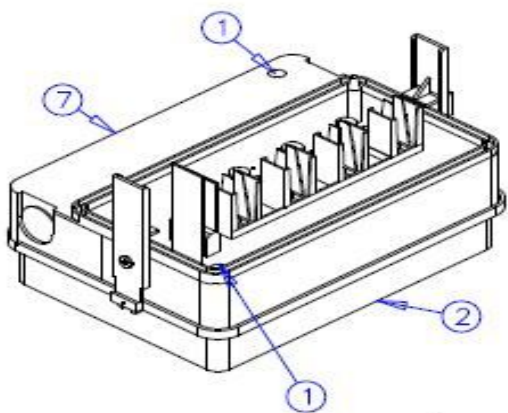
b) Insert cable from the side (4) using the right gland. Make electrical connections with existing terminals (3).



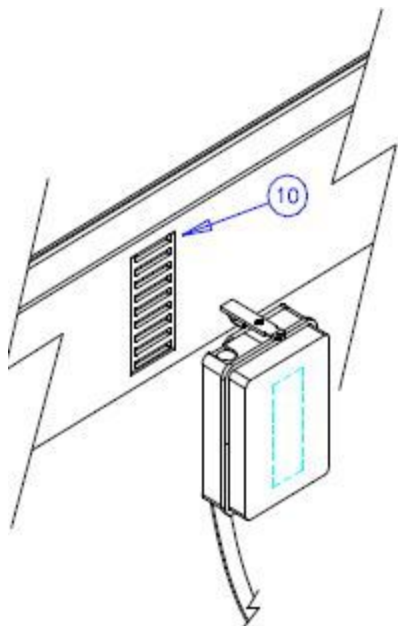
c) Close the cover (2).



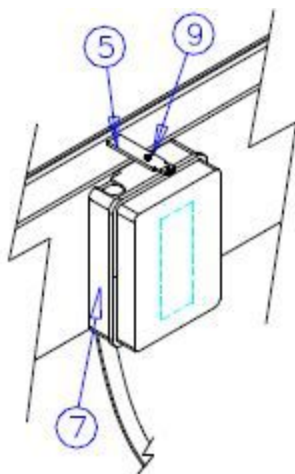
d) Tighten the screws (1) and check if cover (2) is well fixed to the tap off box body (7).



e) Insert tap off box in tap off unit positioned on straight element (10). Check that PE is well connected.



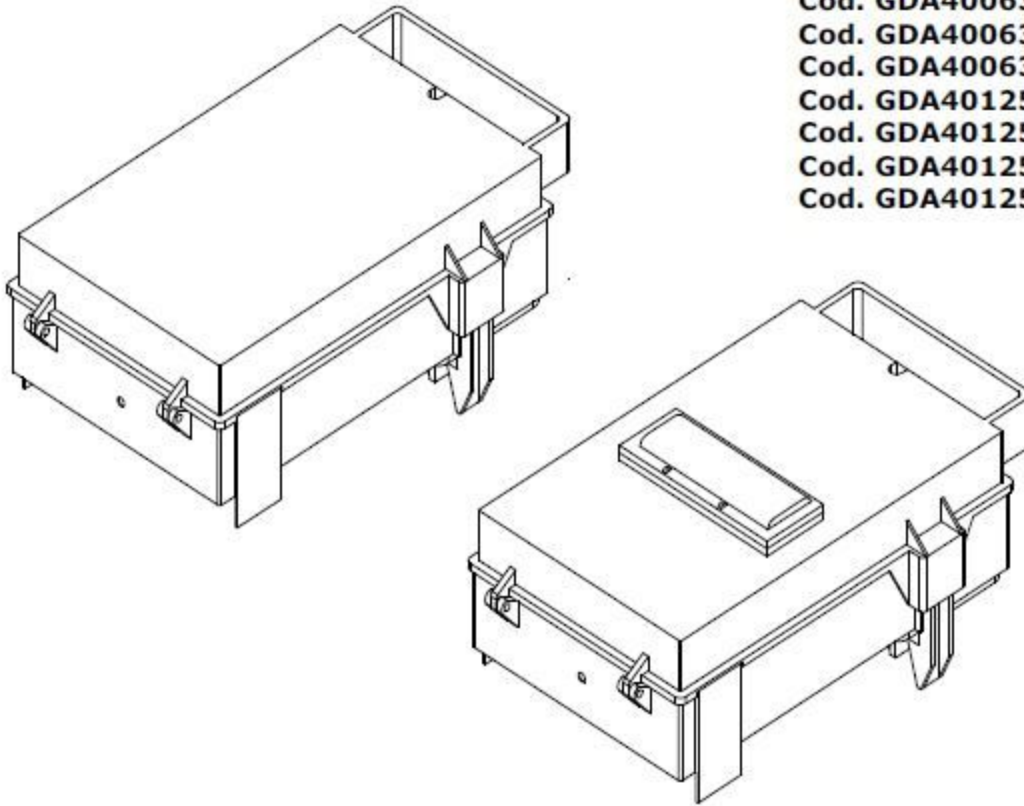
f) Bring the two hooks (5) close to the busbar and fix with screws (9) to the tap off unit body (7).



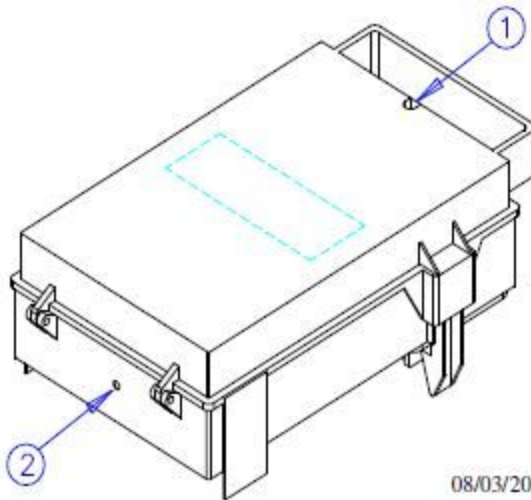
TAP OFF BOX 63/125A

VALID FOR:

Cod. GDA400630
Cod. GDA400631
Cod. GDA400632
Cod. GDA400633
Cod. GDA401250
Cod. GDA401251
Cod. GDA401252
Cod. GDA401253



a) Unscrew the cover screw (1) to open cover.

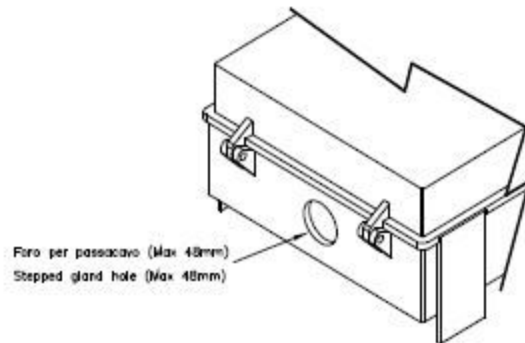


08/03/2017

a) Unscrew the cover screw (1) to open cover.

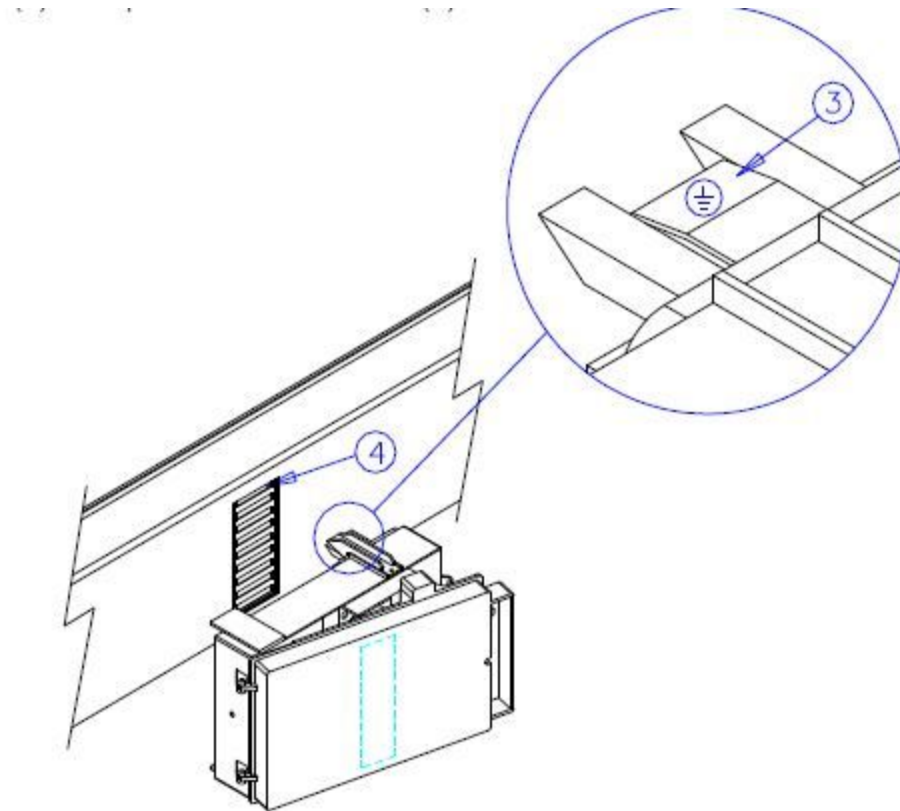
GDA - GDR 63 - 2500 A

b) Drill the tap off body to accept your cable gland.

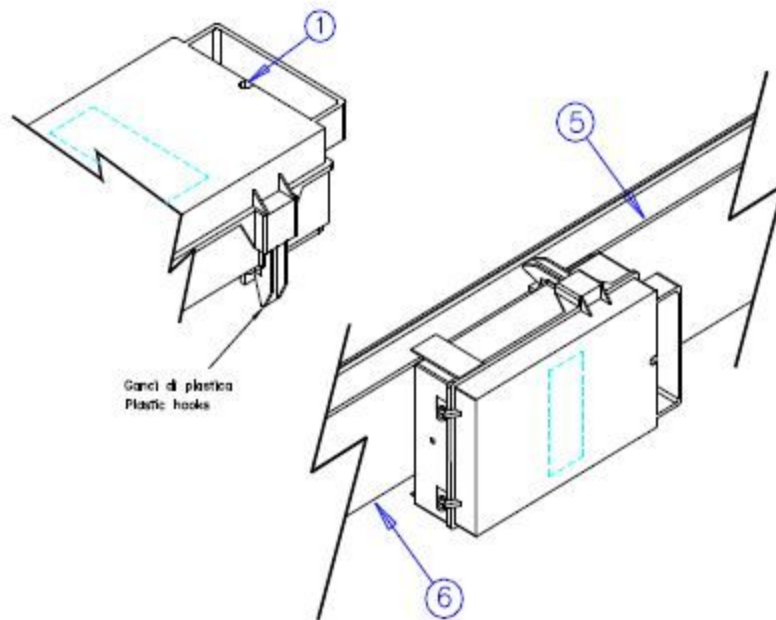


c) insert cable and carry out all electrical connections. Check that the internal tap off box must be clean and check that there is not copper filaments or other conductive objects.

d) Open the cover and insert carefully the tap off box into the tap off unit and check that PE contact (3) correspond with line PE contact (4).

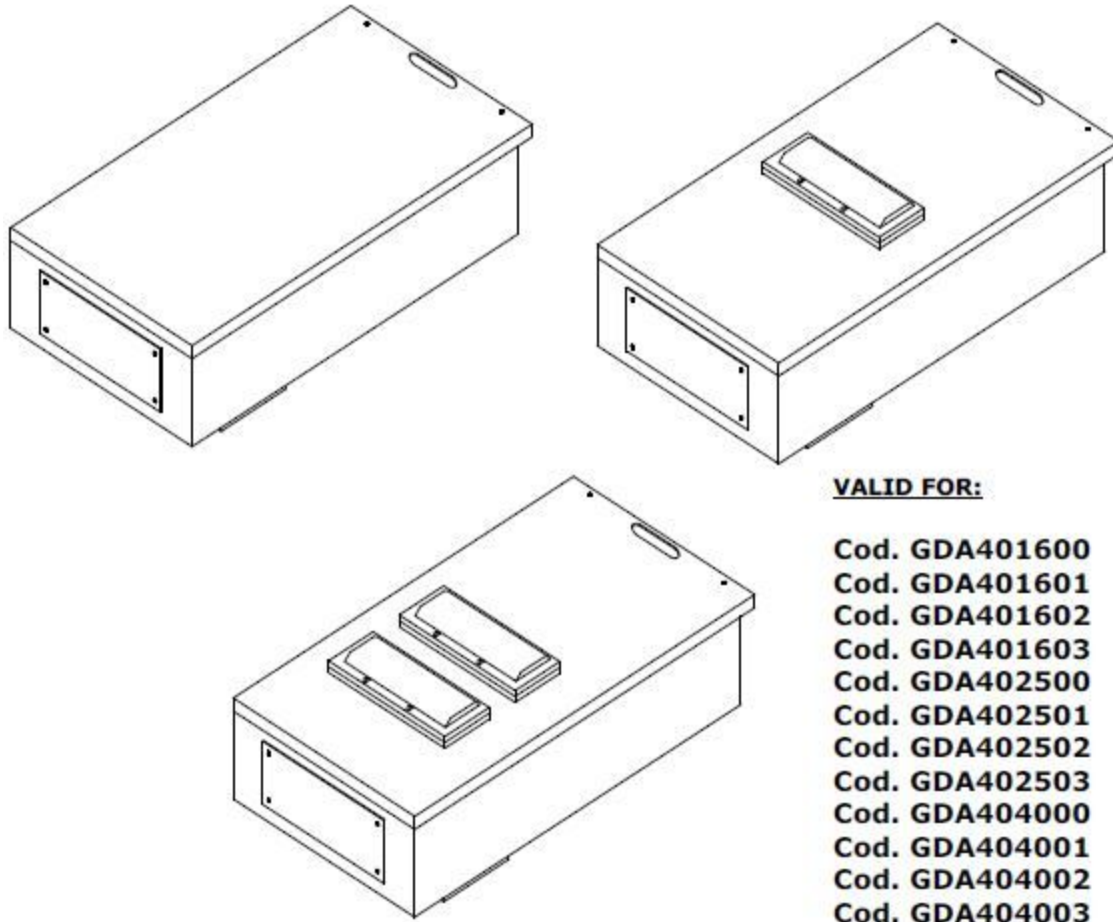


e) Push the tap off box until the two lateral plastic hooks has released. The lateral hooks must hook up to the busbar edges (5).



f) Close cover and screw to secure (1).

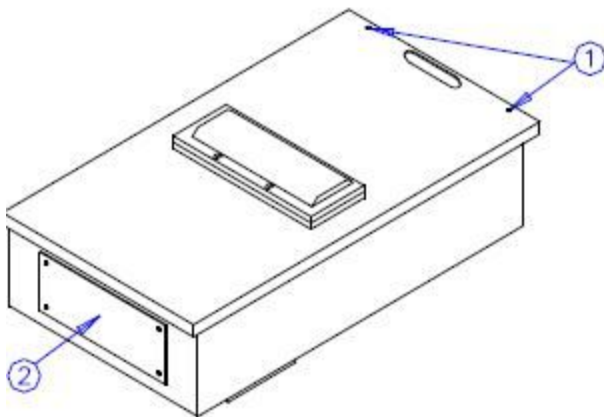
TAP OFF BOX 160/250/400A



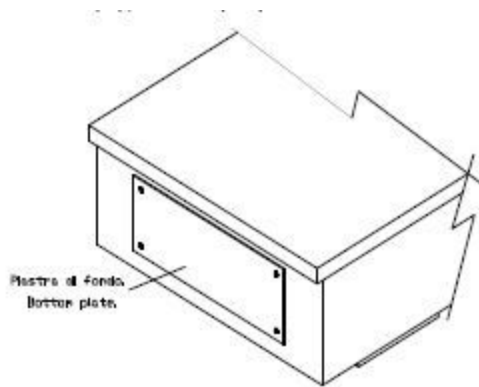
VALID FOR:

Cod. GDA401600
Cod. GDA401601
Cod. GDA401602
Cod. GDA401603
Cod. GDA402500
Cod. GDA402501
Cod. GDA402502
Cod. GDA402503
Cod. GDA404000
Cod. GDA404001
Cod. GDA404002
Cod. GDA404003

a) Unscrew the cover screws (1) to open the cover.

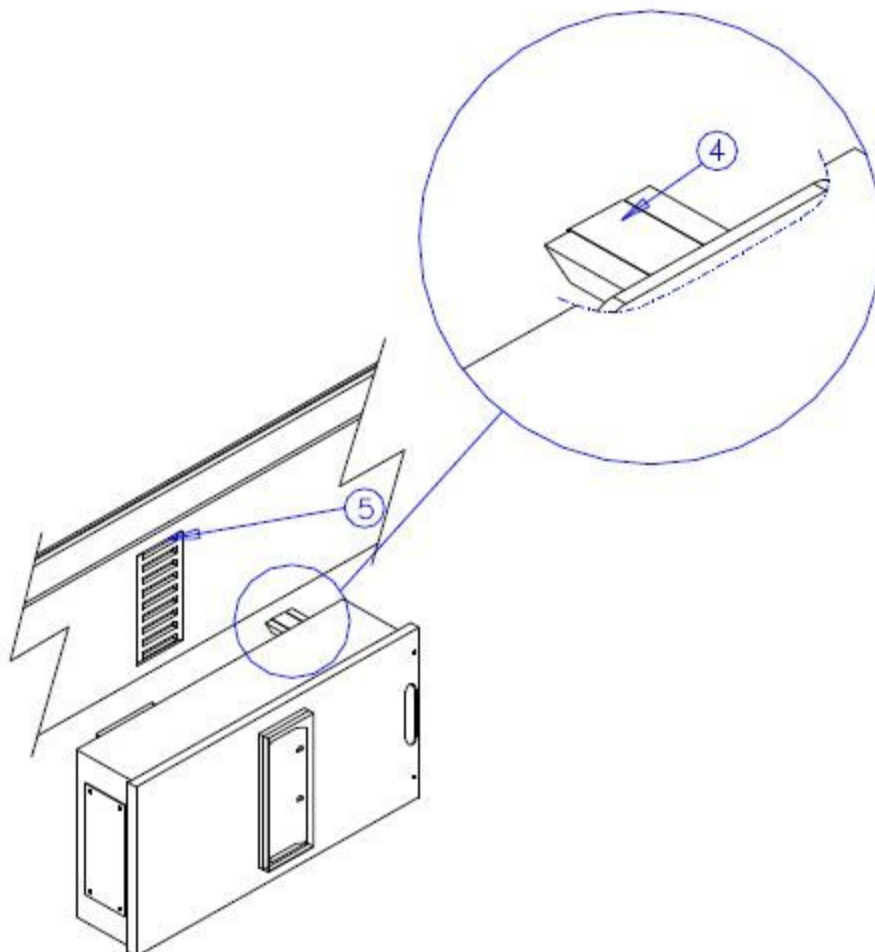


b) Drill the tap off body gland plate with the hole required for your cable gland (2).

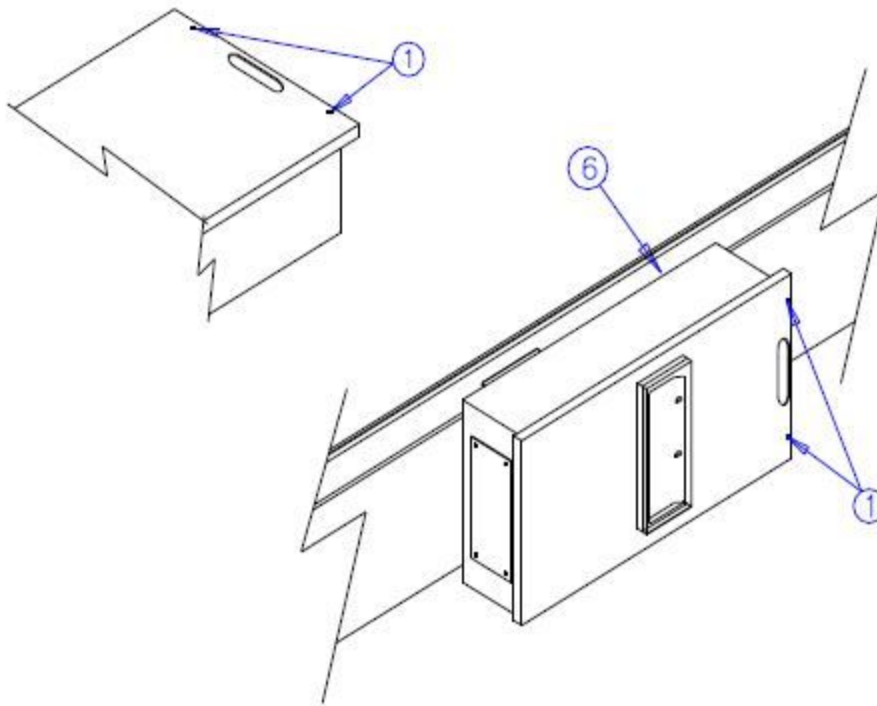


c) Insert the cable and carry out all electrical connections. Check that the internal tap off box is clean and check that there is not copper filaments or other conductive objects.

d) Open the cover, open the hooks and insert carefully the tap off box into the tap off unit and check that PE contact (4) correspond with line PE contact (5).



e) Push in the tap off box and hook up the hooks to the bus duct (6) and tighten the screws.



f) Close cover and screw to fix it (1).

FINAL INSTRUCTIONS

When the installation is completed you must check:

- 1) The bolts are correctly tightened
- 2) The line is assembled with no stress on the joints, which means keeping a maximal deviation of 3 cm from the axis per 4m length (both vertically and horizontally)
- 3) Carry out the necessary testing in accordance with current regulations.