



IEC 61439 -1/2



Betriebsanleitung Instruções de Serviço	Operating Instructions İşletme kılavuzu	Instructions de service Руководство по эксплуатации	Instructivo Instrukcja obsługi	Istruzioni operative 使用说明
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DE	 GEFAHR	Gefährliche Spannung. Lebensgefahr oder schwere Verletzungsgefahr. Vor Beginn der Arbeiten Anlage und Gerät spannungsfrei schalten. Die Installations- und Wartungsarbeiten an diesem Gerät dürfen nur von einer autorisierten Elektrofachkraft ausgeführt werden.
EN		DANGER Hazardous voltage. Will cause death or serious injury. Turn off and lock out all power supplying this device before working on this device. Installation and maintenance work on this device may only be carried out by an authorized electrician.
FR		DANGER Tension électrique. Danger de mort ou risque de blessures graves. Mettre hors tension avant d'intervenir sur l'appareil. Les travaux d'installation et d'entretien de cet appareil doivent uniquement être réalisés par une personne qualifiée en électricité.
ES		PELIGRO Tensión peligrosa. Puede causar la muerte o lesiones graves. Desconectar la alimentación eléctrica antes de trabajar en el equipo. Las tareas de instalación y mantenimiento de este equipo solo puede llevarlas a cabo un electricista autorizado.
IT		PERICOLO Tensione pericolosa. Può provocare morte o lesioni gravi. Scollegare l'alimentazione prima di eseguire interventi sull'apparecchiatura. L'installazione e la manutenzione di questo apparecchio devono essere effettuati solo da un elettrotecnico autorizzato.
PT		PERIGO Tensão perigosa. Perigo de morte ou ferimentos graves. Desligue a alimentação elétrica e proteja contra o religamento, antes de iniciar o trabalho no equipamento. Os trabalhos de instalação e manutenção neste equipamento somente podem ser realizados por eletricistas autorizados.
TR		TEHLÍKE Tehlikeli gerilim. Ölüm tehlikesi veya ağır yaralanma tehlikesi. Çalışmalara başlamadan önce, sistemin ve cihazın gerilim beslemesini kapatınız. Bu cihazın montajı ve bakımı yalnız yetkili bir elektrik teknisyeni tarafından yapılmalıdır.
RU		ОПАСНОЕ НАПРЯЖЕНИЕ. ОПАСНОСТЬ ДЛЯ ЖИЗНИ ИЛИ ВОЗМОЖНОСТЬ ТЯЖЕЛЫХ ТРАВМ. Перед началом работ отключить подачу питания к установке и к устройству. Работы по монтажу и техническому обслуживанию данного устройства должны производиться уполномоченным специалистом по электротехнике.
PL		ZAGROŻENIE Niebezpieczne napięcie. Niebezpieczeństwo poważnych obrażeń lub utraty życia. Przed rozpoczęciem prac wyłączyć zasilanie instalacji i urządzenia energią elektryczną. Prace instalacyjne i konserwacyjne na tym urządzeniu może przeprowadzać wyłącznie posiadający odpowiednie kwalifikacje elektryk.
中文		危险 危险电压。可能导致生命危险或重伤危险。 操作设备时必须确保切断电源。该设备的安装和维护工作仅能由具备专业资格的电工完成。

DA	FARE	Farlig spænding. Livsfare eller risiko for slemme kvæstelser. Inden arbejdet påbegyndes skal anlægget og enheden gøres spændingsfri. Installationer og vedligeholdelser på dette apparat må kun gennemføres af en autoriseret elektriker.
FI	VAARA	Vaarallinen jännite. Vakava loukaantumisvaara tai hengenvaara. Laite ja laitteisto on kytettävä jännitteettömiksi ennen töiden aloittamista. Tämän laitteen asennus- ja huoltotöitä saa suorittaa ainoastaan valtuutettu sähköteknikko.
ET	OHT	Ohtlik ping. Oht elule või raskete vigastuste oht. Enne tööde algust tuleb süsteemi ja seadme pingi välja lülitada. Seadme paigaldus- ja hooldustöid võib teha ainult atesteeritud elektrik.
BG	ОПАСНОСТ	Опасно напрежение. Опасност за живота или опасност от тежки телесни повреди. Преди започване на работа изключете захранването на инсталацията или устройството. Монтажът и техническото обслужване на това устройство се извършват единствено от оторизиран електротехник.
HR	OPASNOST	Opasni napon. Opasnost po život ili opasnost od teških ozljeda. Prije početka radova postrojenje i uređaj spojiti bez napona. Radove instalacije i održavanja na uređaju smije izvoditi samo ovlašteno stručno elektrotehničko osoblje.
EL	KΙΝΔΥΝΟΣ	Επικίνδυνη τάση. Κίνδυνος για τη ζωή ή σοβαρού τραυματισμού. Πριν από την έναρξη των εργασιών απομονώνετε την εγκατάσταση και τη συσκευή από την παροχή τάσης. Οι εργασίες εγκατάστασης και συντήρησης αυτής της συσκευής πρέπει να πραγματοποιούνται μόνο από εξουσιοδοτημένο ηλεκτρολόγο.
GA	CONTÚIRT	Voltas contúirteach. Baol go bhfaighfear bás nó tromghortú. Múch agus dícheangail gach foinse cumhachta a sholáthraíonn an gaireas seo sula ndéanfar obair air. Is ag leictreoir údaraithe ámháin atá cead an gléas a shuiteáil agus obair chothabhála a dhéanamh air.
LV	BĪSTAMI	Bīstams spriegums. Letālu sekūlārā vai smagu traumu riski. Pirms uzsākt darbu, atslēdziet iekārtu un ierīci no barošanas. Šīs ierīces uzstādīšanu un tehniskās apkopes darbus drīkst veikt vienīgi pilnvarots elektrikā.
LT	PAVOJUS	Pavojinga įtampa. Pavojus gyvybei arba sunkaus susižalojimo pavojus. Prieš darbų pradžią atjunkite sistemos ir prietaiso įtampą. Šio įrenginio įrengimo ir techninės priežiūros darbus leidziamā atlikti tik igaliotam elektrikui.
MT	PERIKLU	Vultaġġ perikoluż. Riskju ta' mewt jew koriment serju. Itfu i sakkar il-provviċta kollha tad-dawl li tkun qed tforri d-dawl lil dan it-tagħmir qabel ma taħdem fuq dan it-tagħmir. Ix-xogħlijet ta' installazzjoni u manutenzjoni fuq dan it-tagħmir jist-ġħu jitwettqu biss minn elettriċista awtorizzata.
NL	GEVAAR	Gevaarlijke spanning. Levensgevaar of gevaar voor ernstig letsel. Schakel vóór aanvang van de werkzaamheden installatie en apparaat spanningsvrij. De installatie- en onderhoudswerken aan dit toestel mogen enkel door een geautoriseerde elektricien uitgevoerd worden.
RO	PERICOL	Tensiune periculoasă. Pericol de moarte sau de accidentări grave. Înaintea începerii lucrărilor, deconectați instalația și aparatul de la tensiune. Lucrările de instalare și întreținere pentru acest dispozitiv pot fi efectuate doar de către un electrician autorizat.
SV	FARA	Farlig spänning. Livsfara eller risk för allvarliga personskador. Koppla anläggningen och apparaten spänningsfri innan du påbörjar arbetena. Installation och underhåll av denna apparat får endast utföras av en behörig elektriker.
SK	NEBEZ-PECENSTVÓ	Nebezpečné napätie. Nebezpečenstvo ohrozenia života alebo vzniku ľažkých zranení. Pred začatím práce zariadenie a prístroj odpojte od napäťia. Inštaláčné a údržbárske práce na tomto prístroji môže vykonávať výlučne autorizovaný elektrikár.
SL	NEVARNOST	Nevarna napetost. Nevarnost za življenje ali nevarnost hudih poškodb. Pred začetkom dela je treba pri napravi in aparatu odklopiti napajanje. Inštalacijska in vzdrževalna dela na tej napravi sme izvesti samo pooblaščen električar.“
CS	NEBEZPEČÍ	Nebezpečné napětí. Nebezpečí smrtelného nebo těžkého úrazu. Před zahájením prací odpojte zařízení a modul od napětí. Instalační a údržbářské práce smí na tomto přístroji provádět pouze kvalifikovaný elektrikář.“
HU	VESZÉLY	Veszélyes feszültség. Életveszély vagy súlyos sérelmesveszély. A munkák megkezdése előtt végezze el a berendezés vagy készülék feszültség-mentesítését. Ezen az eszközön a telepítéssel és a karbantartással kapcsolatos feladatakat kizárolag megfelelő felha-talmazással rendelkező villamossági szakember végezheti.

Technical Support:

Internet: <http://www.siemens.com/lowvoltage/technical-support>

PORUGUÊS

ENGLISH

Ler e compreender estas instruções antes da instalação,
operação ou manutenção do aparelho.

Read and understand these instructions before installing,
operating or maintaining the equipment



PERIGO



Tensão perigosa.
Perigo de morte ou ferimentos graves.

Desligue a instalação e o aparelho da corrente antes de
trabalhar.



DANGER



Hazardous voltage.

Will cause death or serious injury.

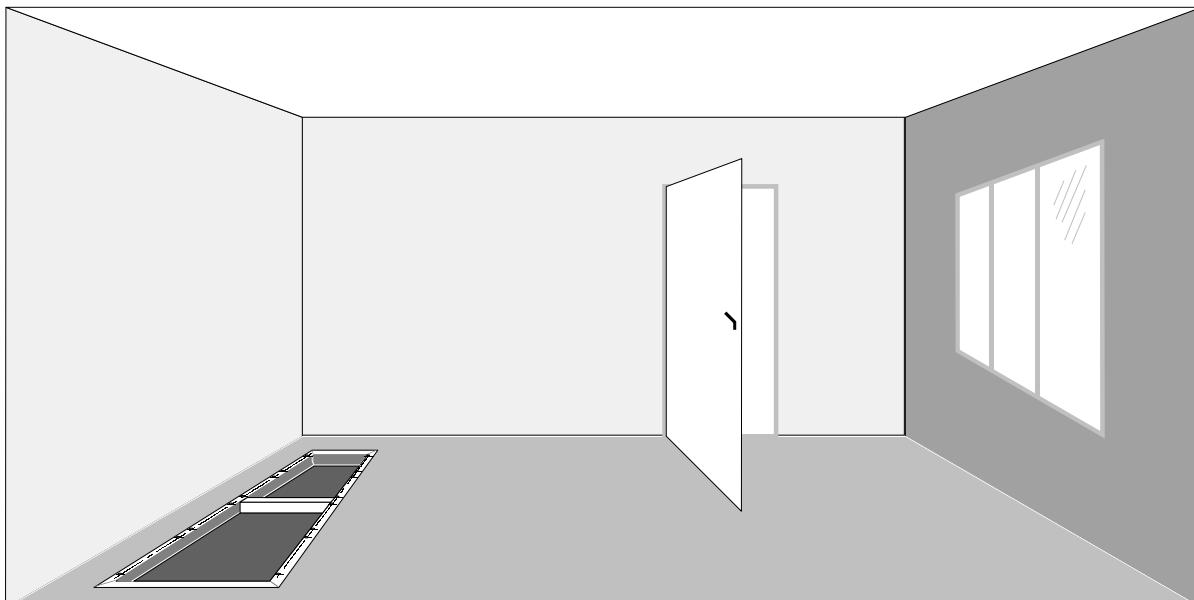
Turn off and lock all power supplying this device before
working on this device.

CUIDADO

O funcionamento seguro deste aparelho só pode ser garantido se
forem utilizados os componentes do fabricante original!

CAUTION

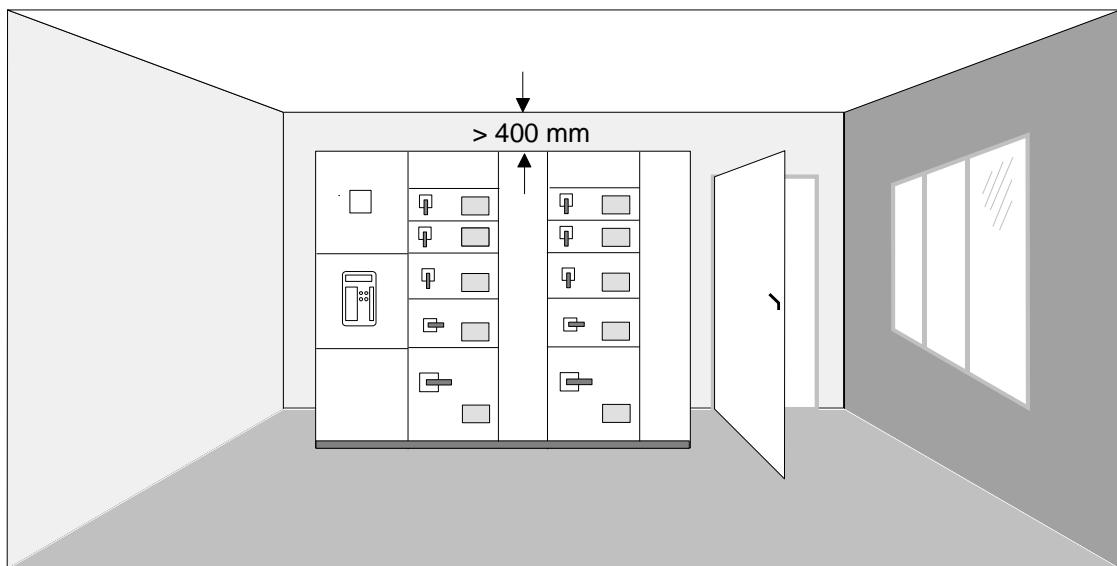
Reliable functioning of the equipment is only ensured with
components from original manufacturer!



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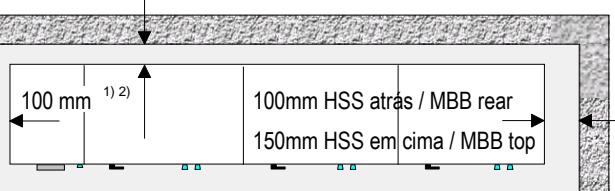
1 Distâncias à parede e larguras das passagens

1 Distances to walls and gangway widths



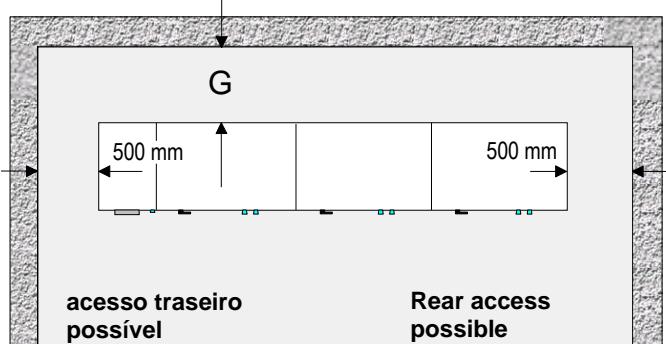
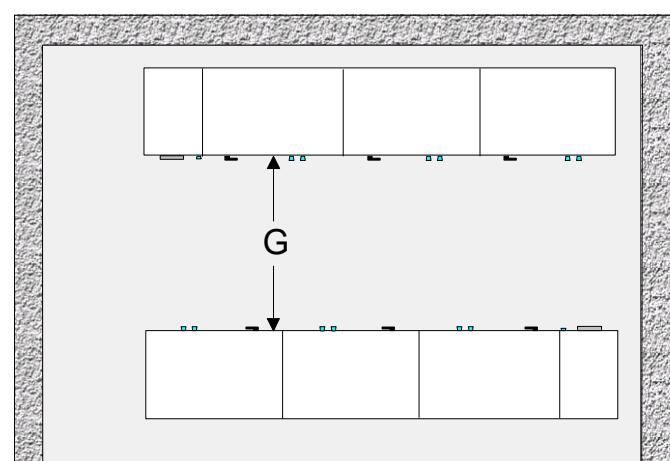
IP30/31/40/41/54: 100 mm
IP43: 150mm

Todas as dimensões se aplicam às medidas da estrutura!
All dimensions refer to the cubicle dimensions!



apenas acesso frontal
1) devido a patilhas de ligação do barramento
2) +35mm parede lateral com parte de design

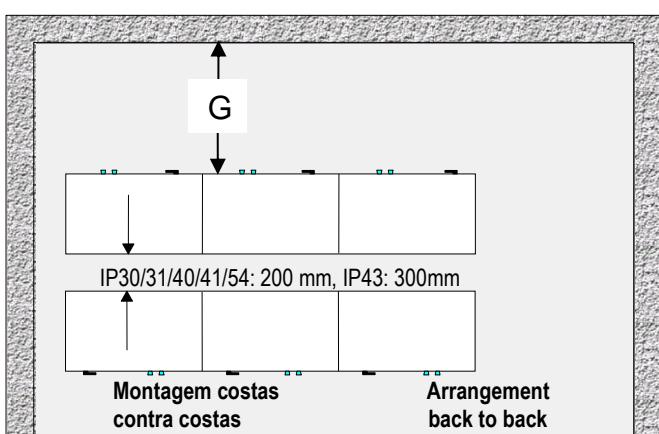
Front access only
1) because of the fishplates of the busbar joints
2) +35mm side panel with design section



acesso traseiro possível

Rear access possible

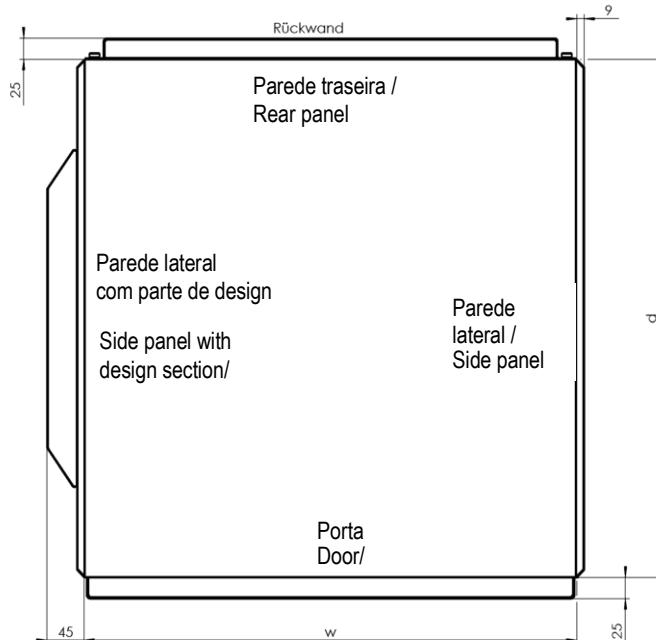
G → DIN VDE 0100-729
IEC 60364-7-729
Normas nacionais específicas
Specific national standards



Montagem costas contra costas

Arrangement back to back





Saliência das peças de revestimento da profundidade de campo e da largura de campo
Protrusion of the paneling parts in relation to cubicle depth and cubicle width

W – Largura de campo /
cubicle width

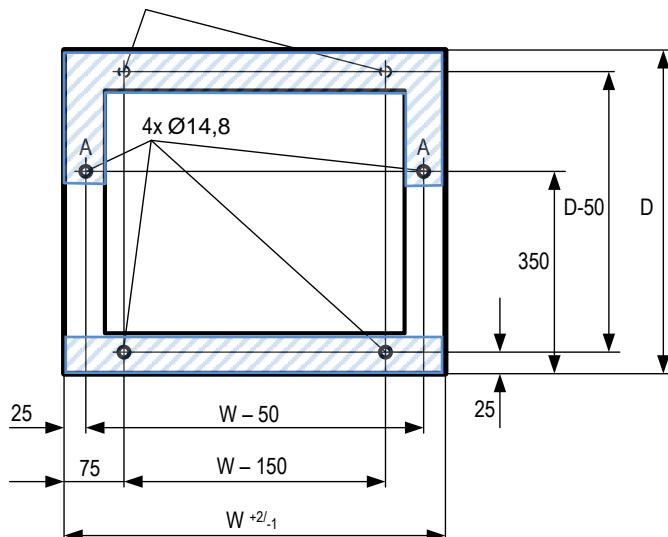
D – Profundidade de campo /
cubicle depth

2 Plano de fixação

2.1 Dimensões

Fixação ao solo para todos os tipos de painel S4/S8 em sistemas com uma frente / Base fixing for all cubicle types in single front switchboards S4/S8

Alternativa A / Alternative to A



W

Largura de campo

Cubicle width

D

Profundidade de campo

Cubicle depth



É necessária uma estrutura de suporte por baixo do campo

Supporting structure beneath section required



Espaços livres no plano de fixação para cabos e guias de barramento

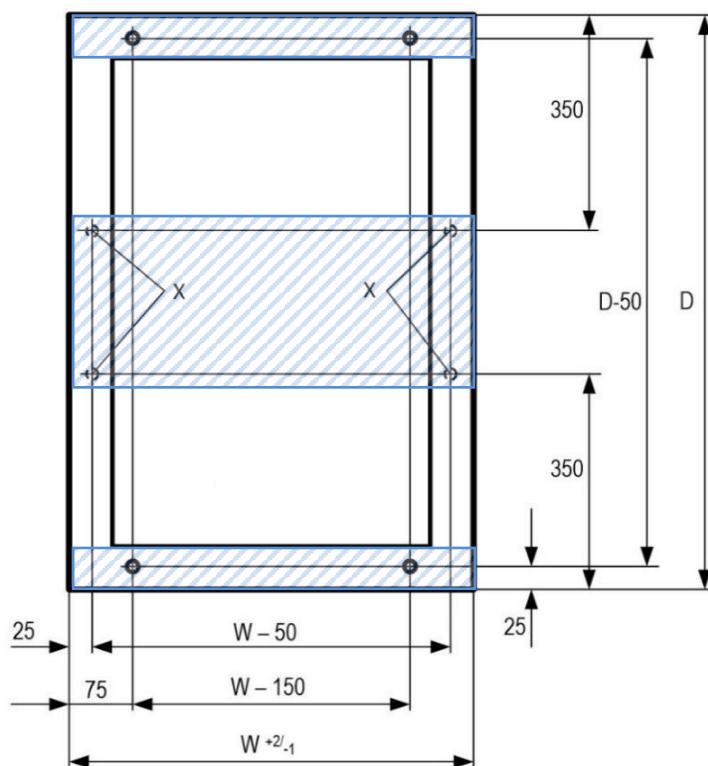
Openings in the fixing plane for cable and busbar entry



somente parcialmente adequada para a inserção de cabos

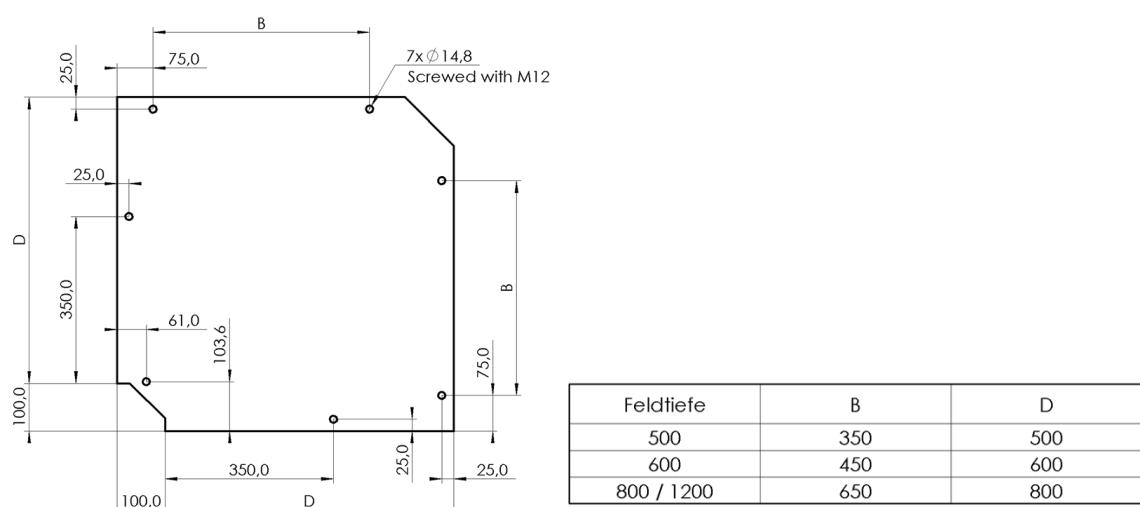
Only conditionally suitable for cable entry

Fixação ao solo para todos os tipos de painel S8 em sistemas de frente dupla / Base fixing for all S4/S8 cubicle types in double front switchboards

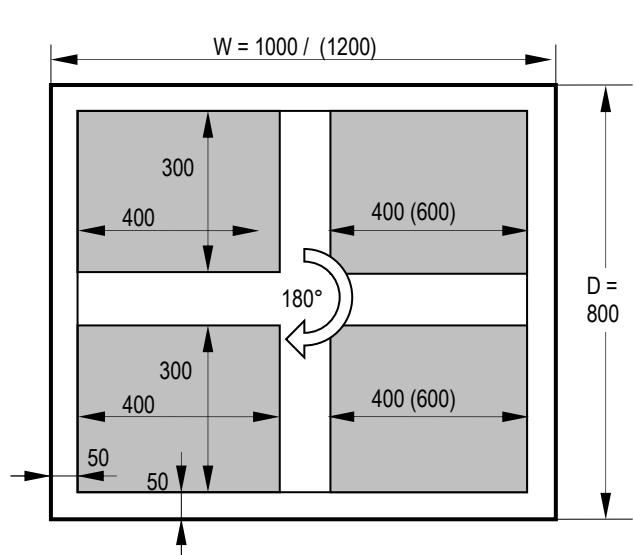
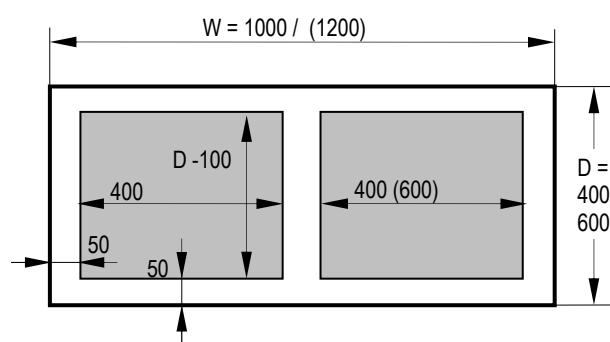
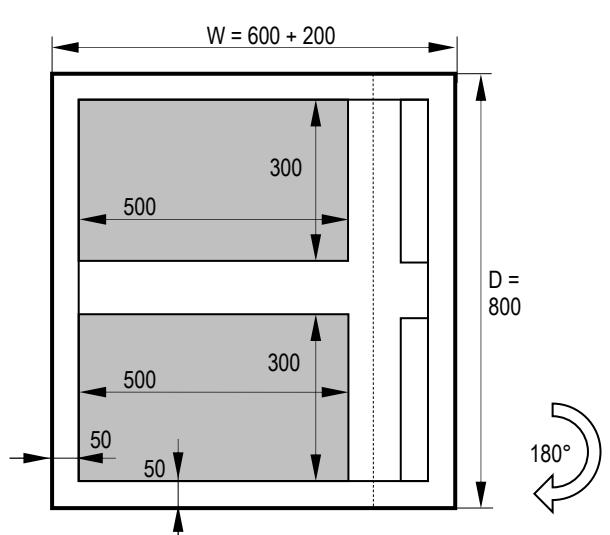
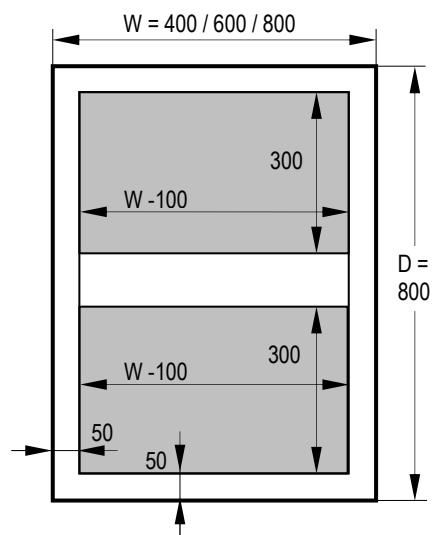
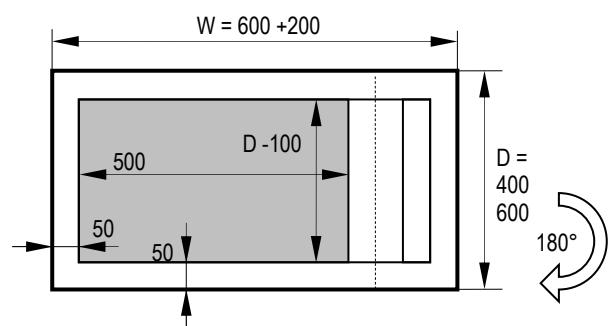
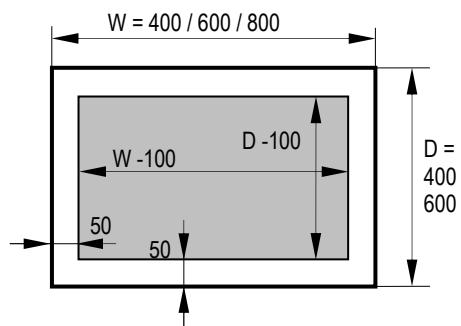


W	Largura de campo	Cubicle width
D	Profundidade de campo	Cubicle depth
X	For Switchboards with increased requirements only (e.g. earthquake, ship, offshore)	For Switchboards with increased requirements only (e.g. earthquake, ship, offshore)
⊕	Holes Ø 14,8	Holes Ø 14,8
	É necessária uma estrutura de suporte por baixo do campo	Supporting structure beneath section required
	Espaços livres no plano de fixação para cabos e guias de barramento	Openings in the fixing plane for cable and busbar entry
	somente parcialmente adequada para a inserção de cabos	Only conditionally suitable for cable entry

Fixação ao solo de secção de canto / Base fixing corner cubicle

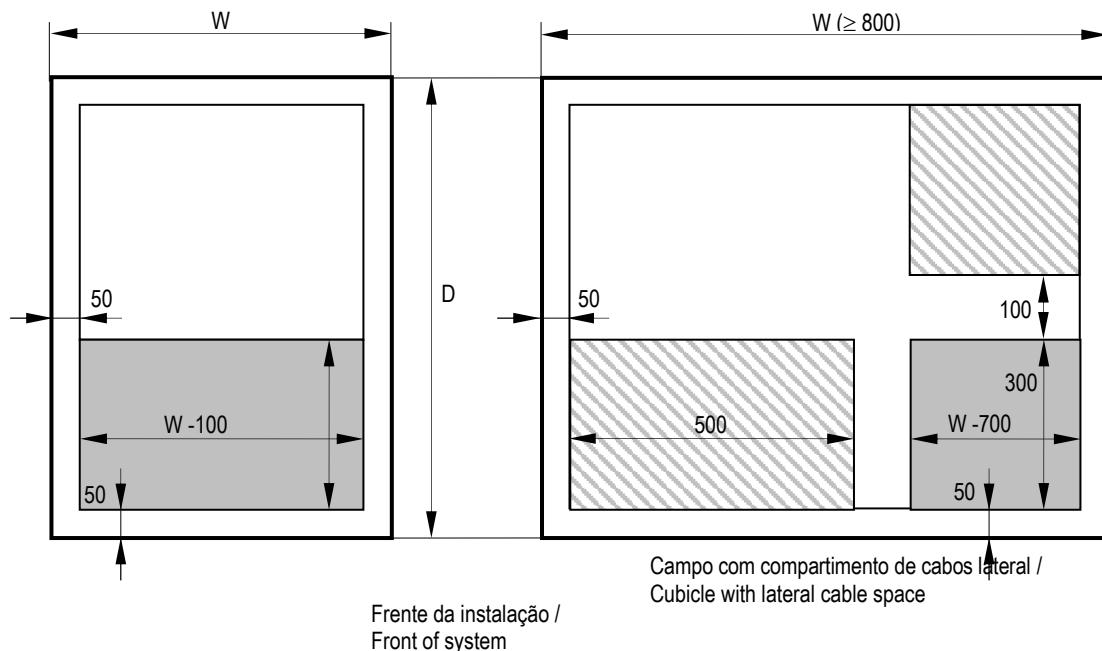


Entrada do cabo para a posição do barramento em cima S4 / Cable entry for busbar position at the top of S4

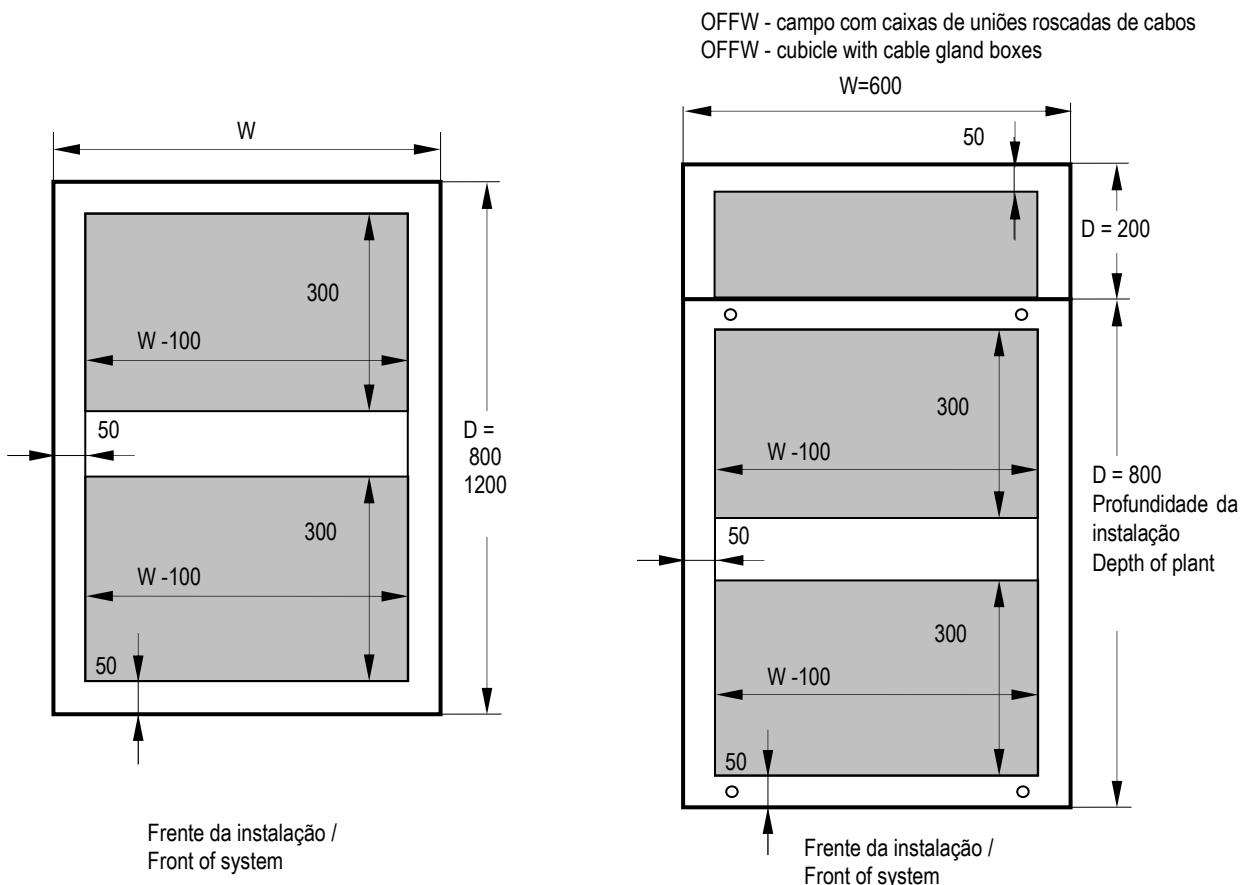


Entrada do cabo para a posição do barramento em cima S8 / Cable entry for busbar position at the top of S8

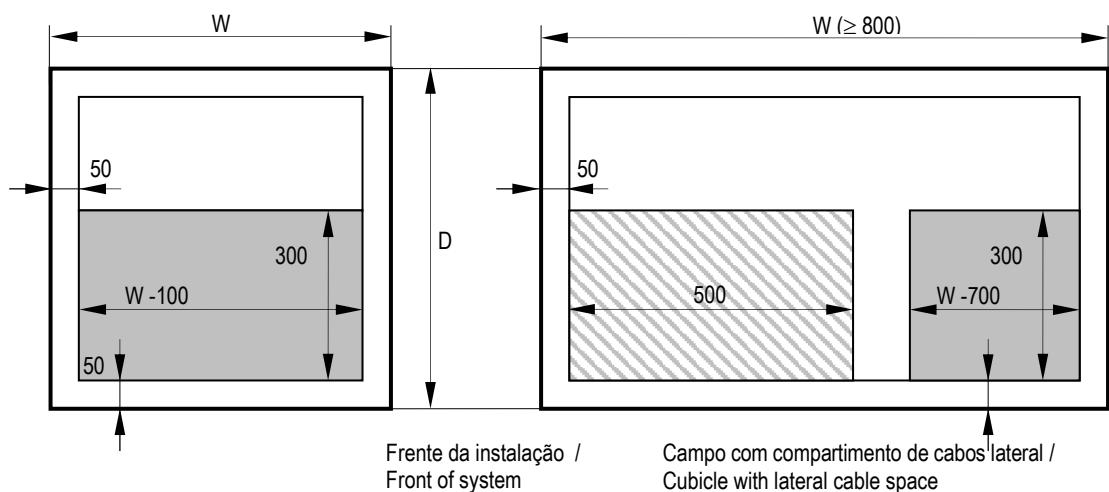
Ligaçāo por cabo à frente / Cable connection, front



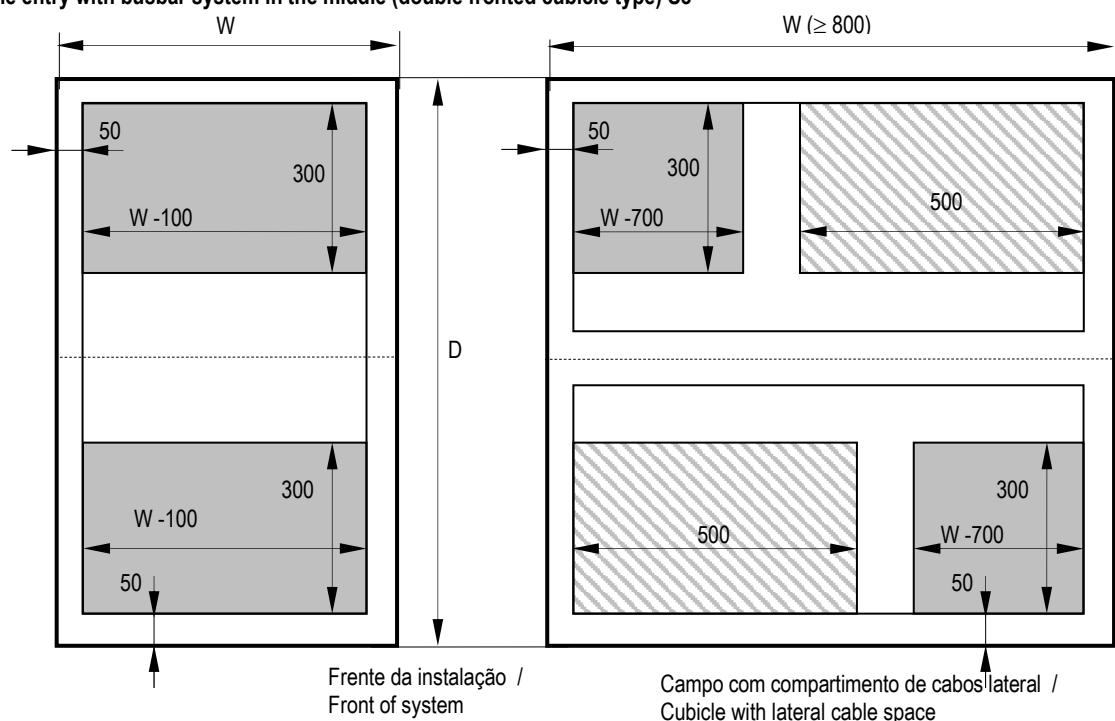
Ligaçāo por cabo atrás / Cable connection, rear



Entrada do cabo para a posição do barramento atrás S8 / Cable entry for busbar position at the rear of S8

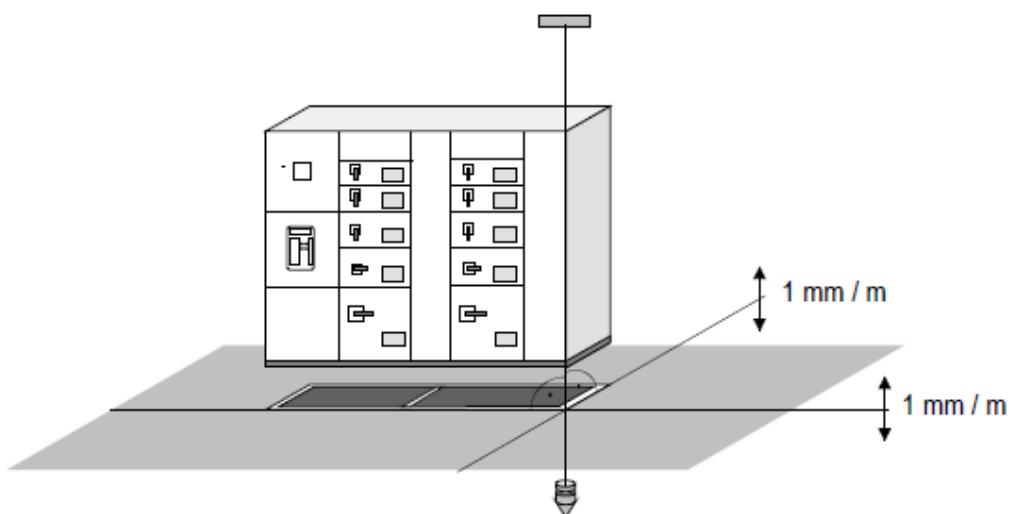


**Entrada do cabo para a posição do barramento ao centro (tipo de campo frente dupla) S8
Cable entry with busbar system in the middle (double fronted cubicle type) S8**

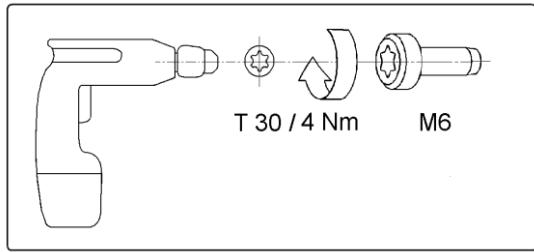


2.2 Tolerâncias para o plano de fixação

2.2 Tolerances for fixing plane



3 Instalação



3.1 Montagem da base

Danger

Perigo de ferimentos.

Observar a proteção no trabalho antes de iniciar os trabalhos.



3 Installation

3.1 Assembly socket

Danger

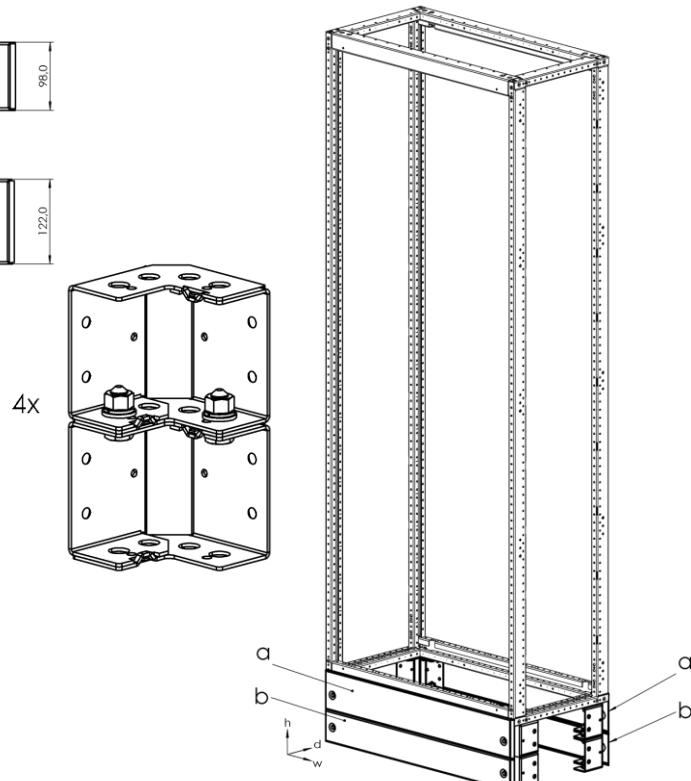
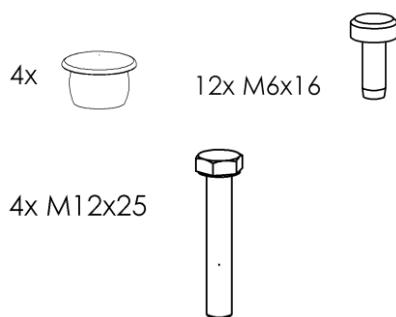
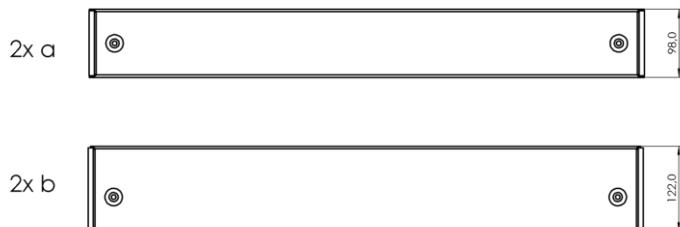
Danger of injury.

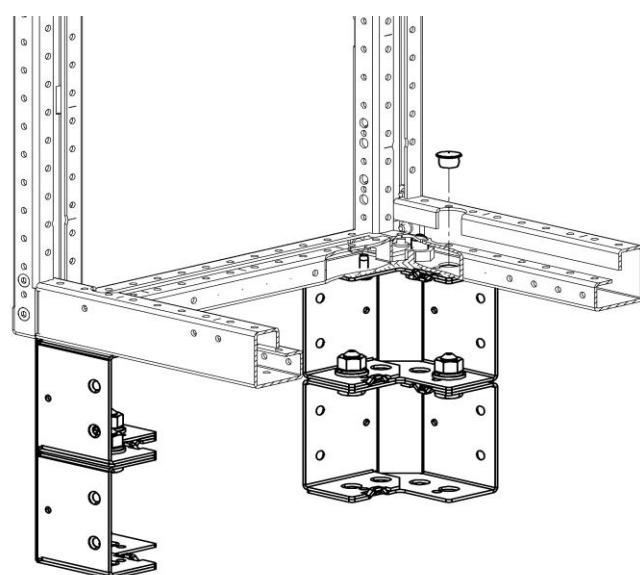
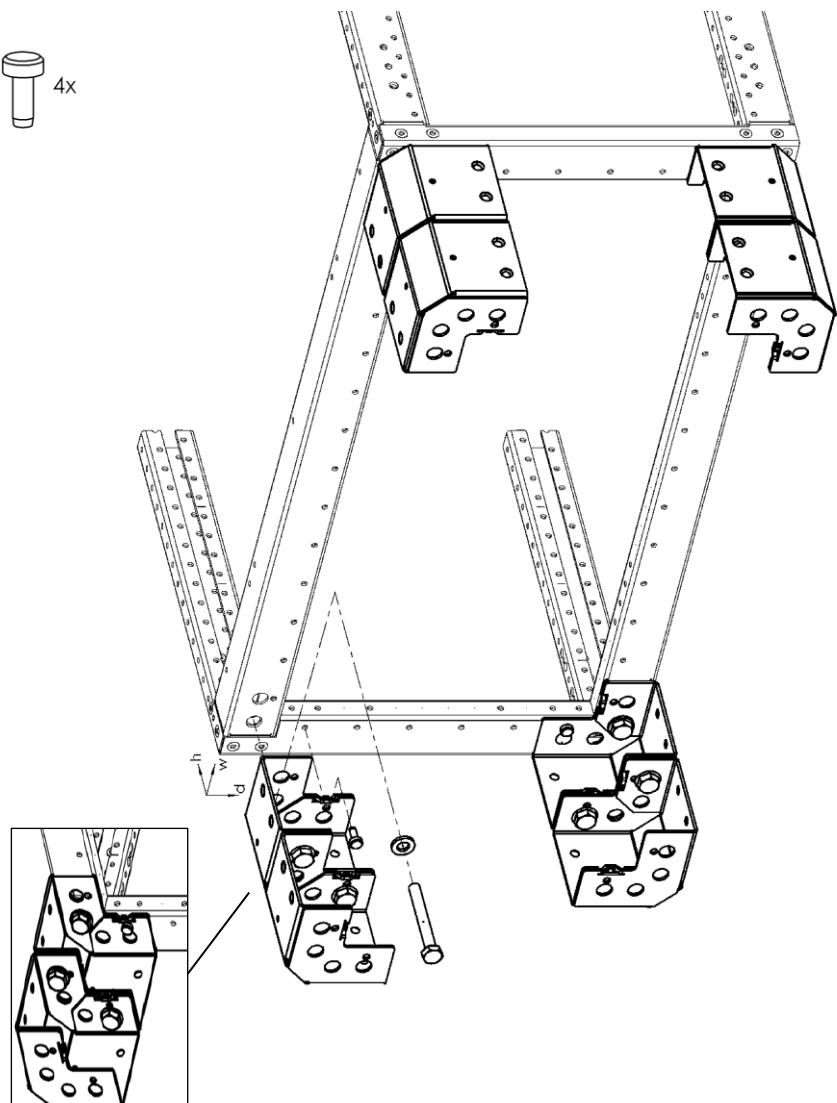
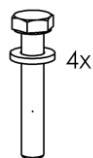
Take all industrial safety measures prior to starting the works.



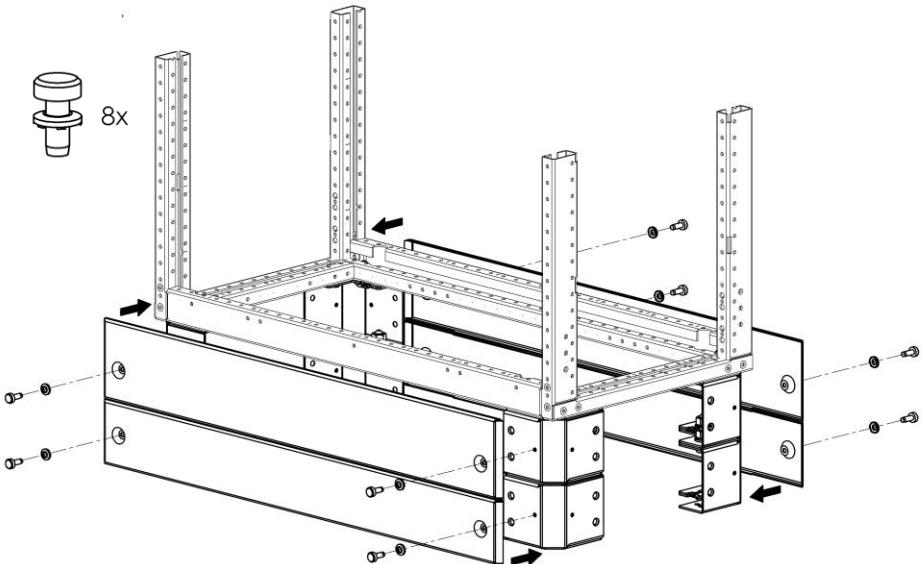
No caso de os campos serem demasiado altos para transportar, a base é fornecida em separado e tem de ser montada na instalação durante a montagem. A seguir é representada a montagem básica de um rodapé, como exemplo.

If the cubicles are too high for transport the socket will be delivered separately. The socket is to be assembled when the switchgear is installed. Below the basic setup of a socket is shown as an example.

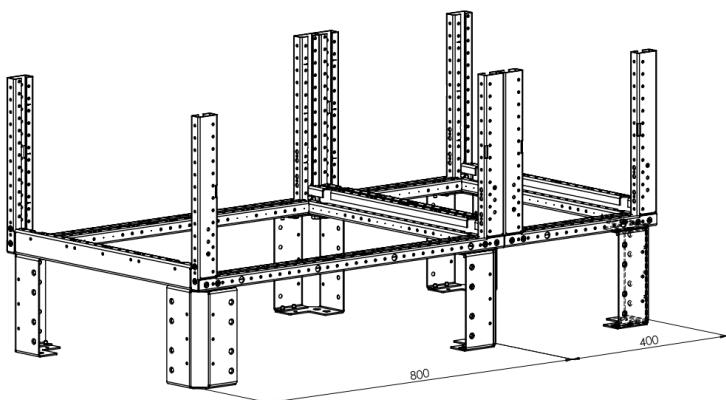




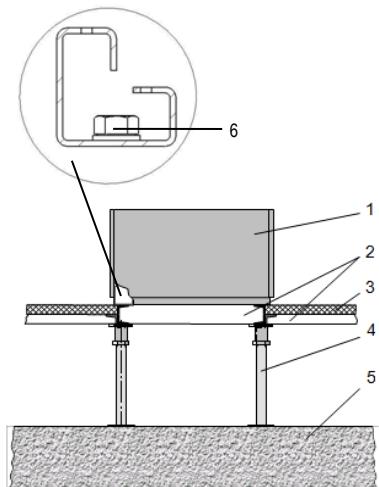
3



Opção: Cubicle depth / profundidade do campo 1200mm (800mm+400mm)



3.2 Instalação em fundo intermediário



Atenção

Os apoios das placas de fundo têm de ter distância suficiente relativamente à aresta inferior da instalação de distribuição, para poderem ser removidas. Ou seja, a distância entre a aresta superior do apoio e a aresta superior da armação de fundação tem de ser maior do que a espessura da placa de fundo.

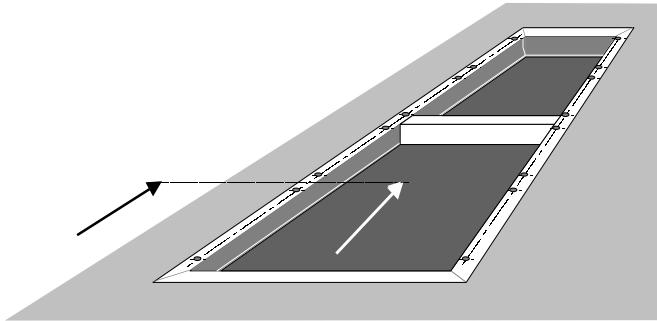
3.2 Installation on false floor

- 1 Instalação de distribuição / Switchboard
- 2 Viga de caixa da fundação / Box girder
- 3 Placa do fundo, colocada / Fitted floor plate
- 4 Apoios, ajustáveis / Support, adjustable
- 5 Piso de concreto / Concrete floor
- 6 Porcas sextavadas M10 + arruela 10,5 DIN125 hexagonal nut M10+washer 10,5 DIN125

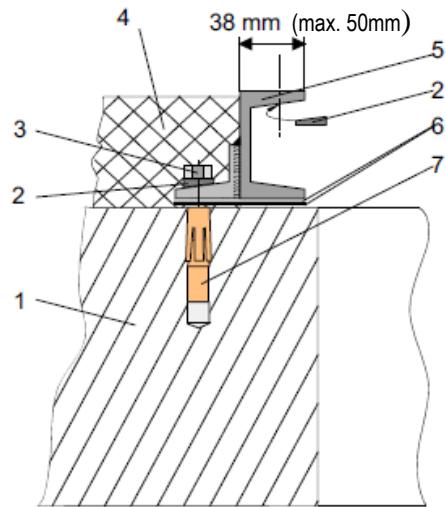
Notice

There must be sufficient space between the bearing surfaces of the base plates and the bottom edge of the switchgear system to allow its removal, i.e. the clearance between the upper edge of the bearing surface and the upper edge of the foundation frame should be slightly larger than the thickness of the base plate.

3.3 Fixação da armação de fundação em concreto



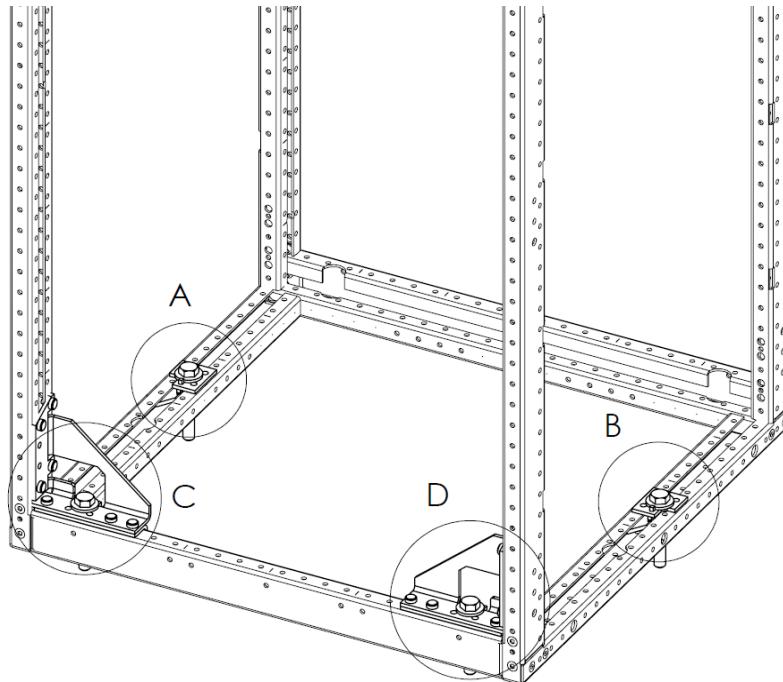
3.3 Foundation frame fixed on concrete



- 1 Laje de concreto / Concrete floor
- 2 Arruela DIN 434 / Washer DIN 434
- 3 Parafuso / Bolt
- 4 Contrapiso / Screed
- 5 Armação de fundação, p. ex. perfil em U DIN 1026– St 37-2 –U50 (max. U100) / Foundation frame, e.g. U-profile DIN 1026-St 37-2 – U50 (max. U100)
- 6 Chapa plana para alinhar / Shims for leveling
- 7 Bucha para serviço pesado / Heavy duty dowel
- 8 Fixação dos campos com parafusos M10 8.8 e arruela 10 DIN125 / Fixing of cubicles with screws M10 8.8 and washer 10 DIN 125

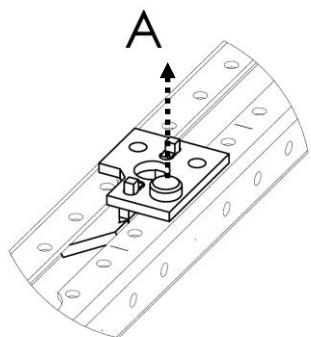
3.4 Fixação para requisitos de sismos e para navios/"offshore"

3.4 Fixing with seismic requirements and for ship and off-shore applications

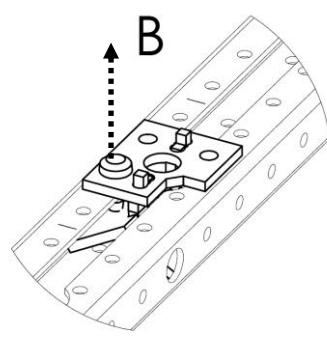


Passo 1

Step 1



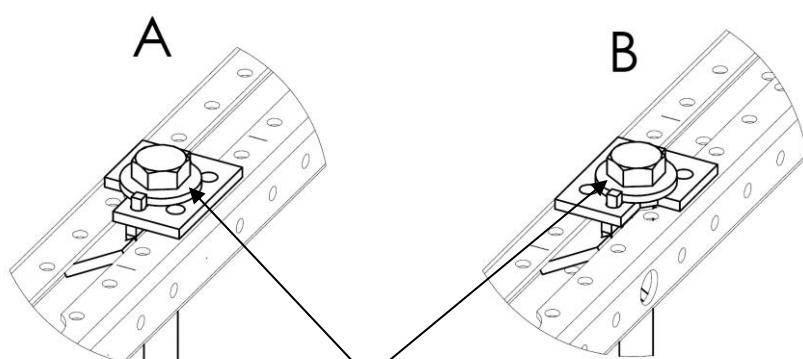
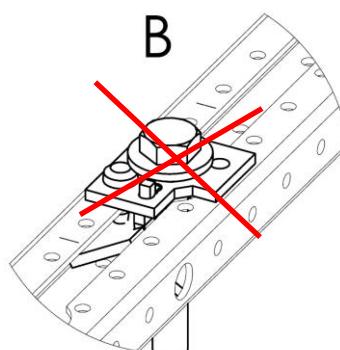
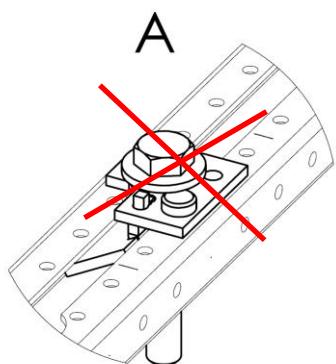
Retirer la vis M6



Remove screw M6

Passo 2

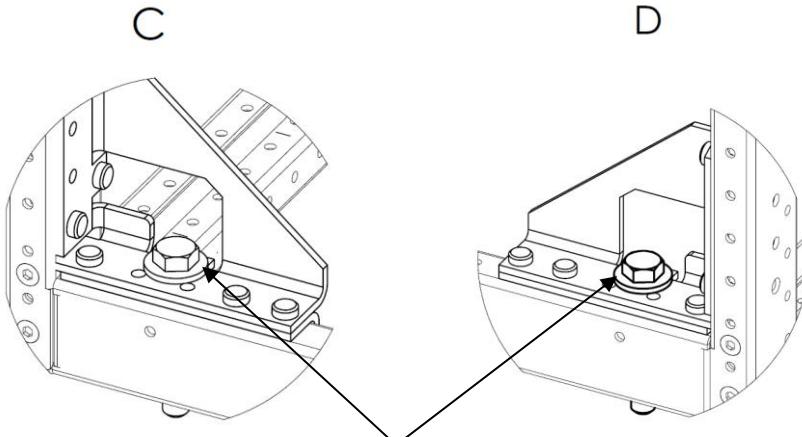
Step 2



Parafuso M12x... 8.8 / Screw M12x... 8,8

Arruela de pressão DIN 6796-12-FST-MECH ZN / Strain washer DIN 6796-12-FST-MECH ZN

Torque de aperto: 70 Nm / Tightening torque: 70 Nm

Passo 3**Step 3**

Parafuso M12x... 8.8 / Screw M12x... 8,8
 Arruela de pressão DIN 6796-12-FST-MECH ZN / Strain washer DIN 6796-12-FST-MECH ZN
 Torque de aperto: 70 Nm / Tightening torque: 70 Nm

As instalações de frente dupla devem ser aparafusadas a partir de ambas as frentes (8x por campo)

Double front switchboards have to be screwed from each front (8x per cubicle)

3.5 Substituição do batente da porta

Desmontar os fechos e as dobradiças e voltar a montá-los do outro lado. As medidas adicionais, no caso de IP43/IP54, estão descritas em 8PQ9801-4AA8x.

3.5 hanging hinge side of doors

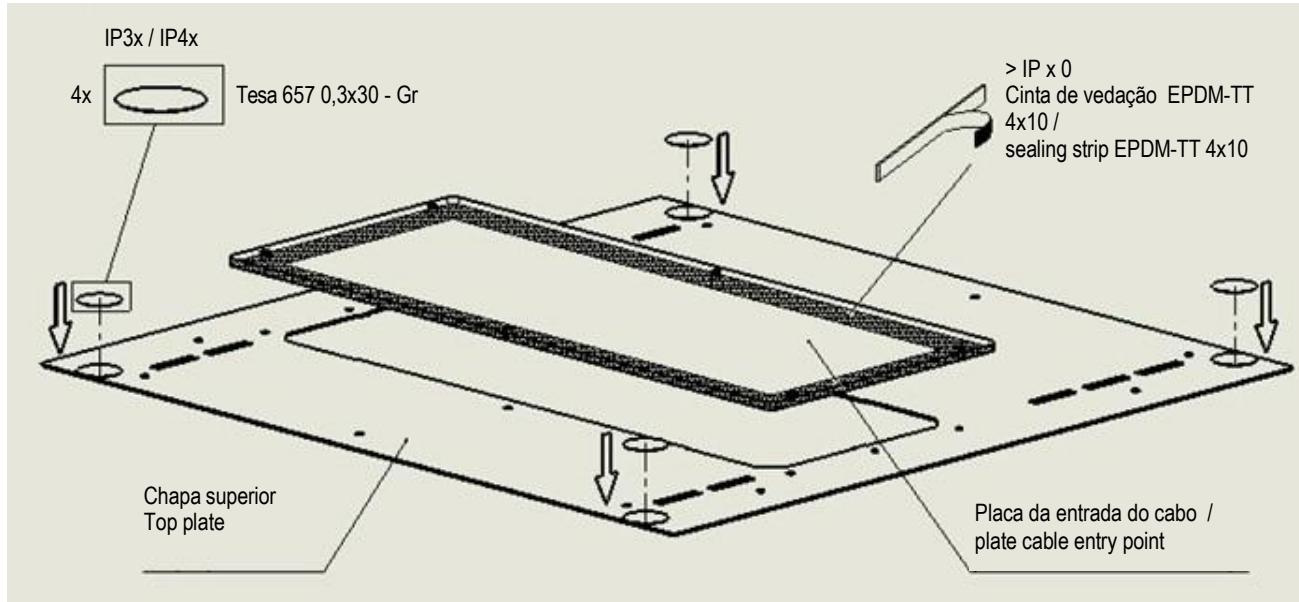
Dismount Locks and hinges and mount them on the other side. For IP43/IP54 additional measures are required, refer to 8PQ9801-4AA86.

3.6 Vedação do teto

Vedante da chapa superior com entrada do cabo

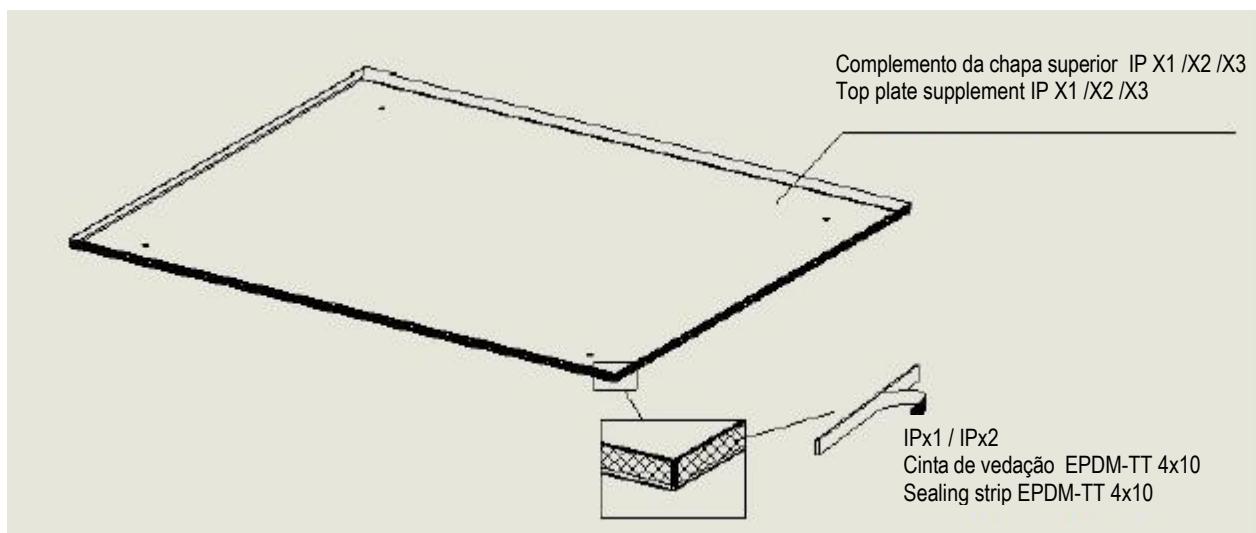
3.6 Sealing top plate

Sealing top plate with cable entry from top



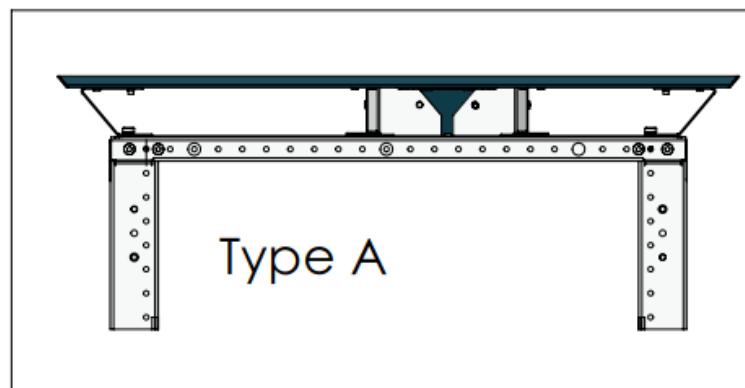
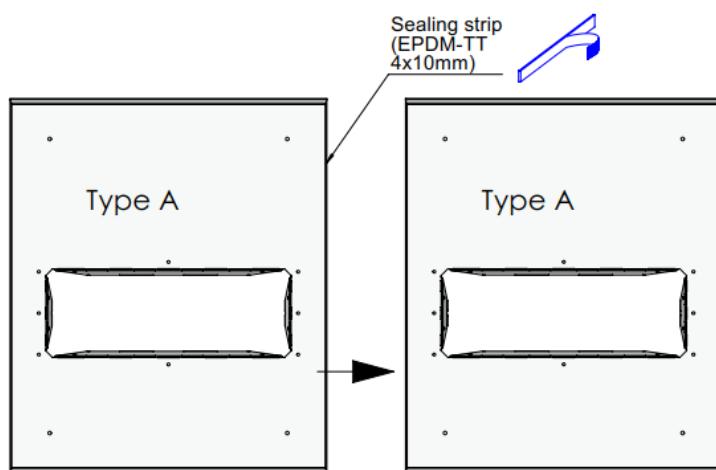
Vedante da chapa superior fechada – guarnição IPX1/X2 /X3
Cinta de vedação para vedar entre os campos

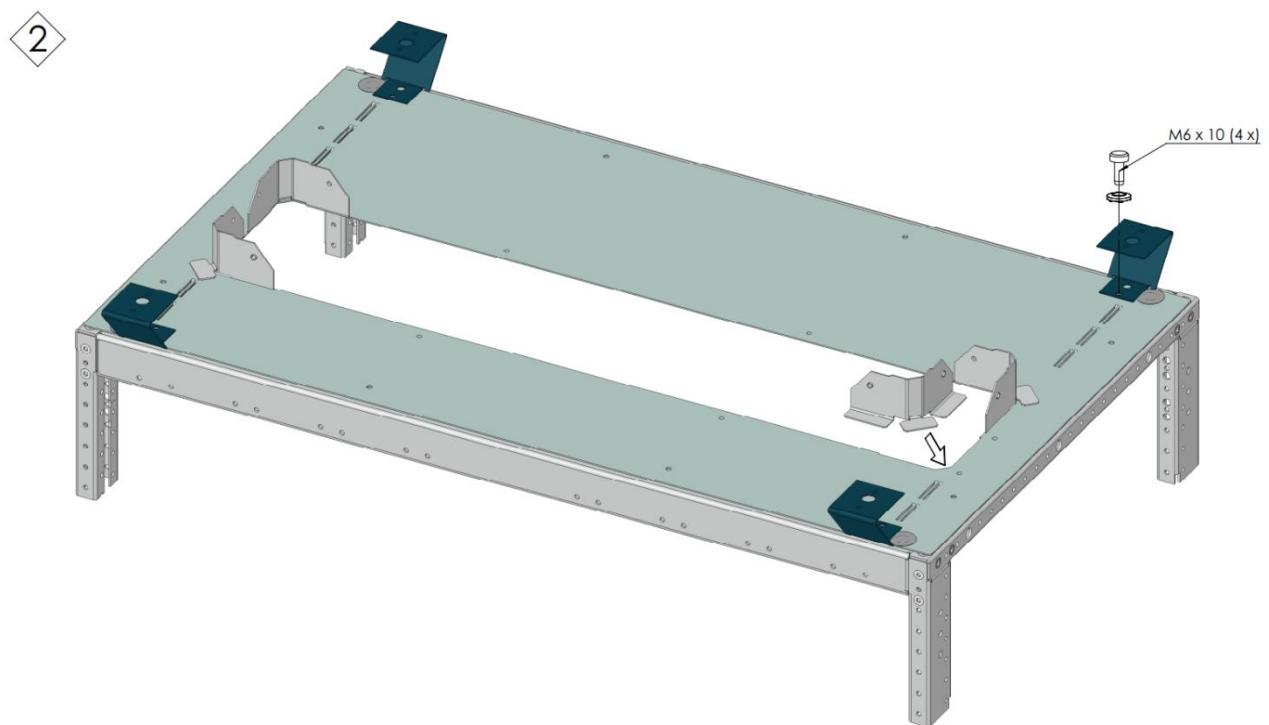
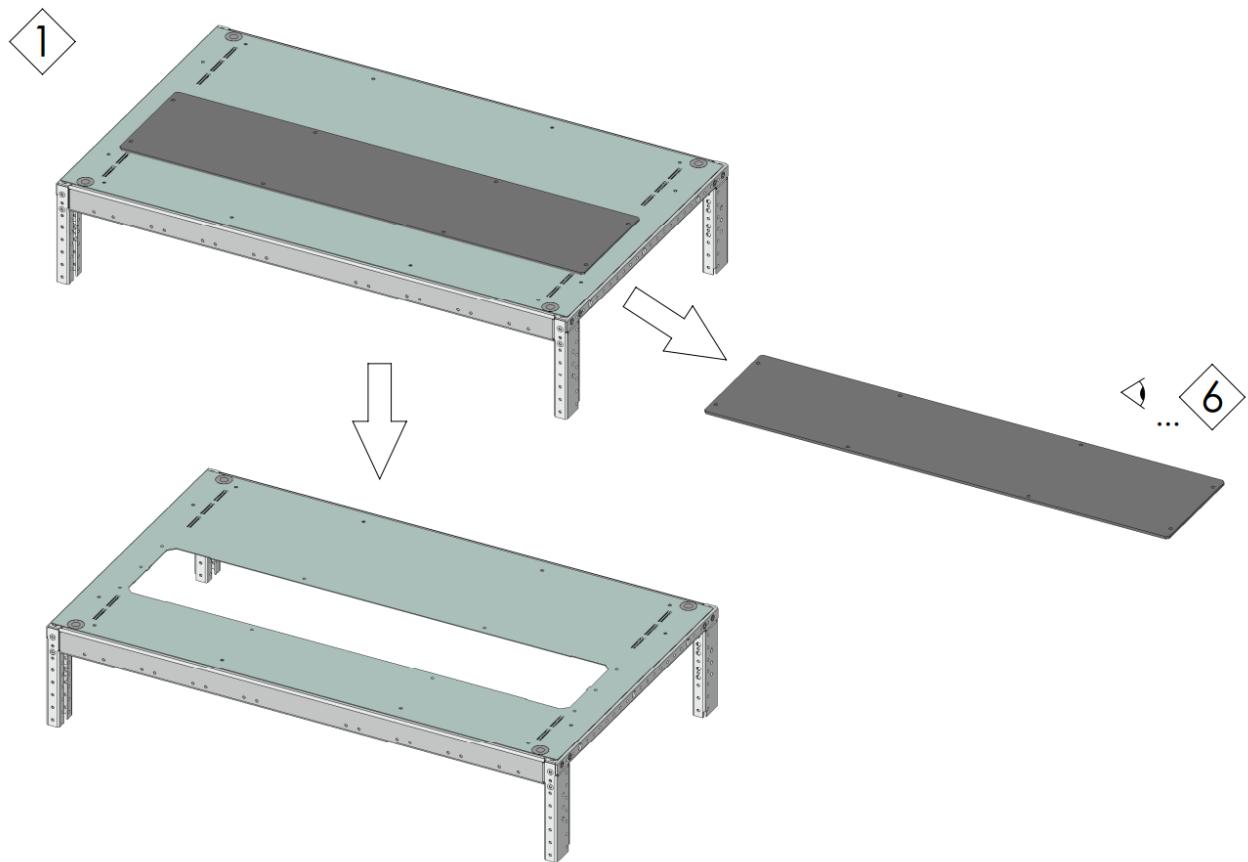
Sealing top plate closed – supplement IP X1 /X2 /X3
Sealing strip at sealing between cubicles



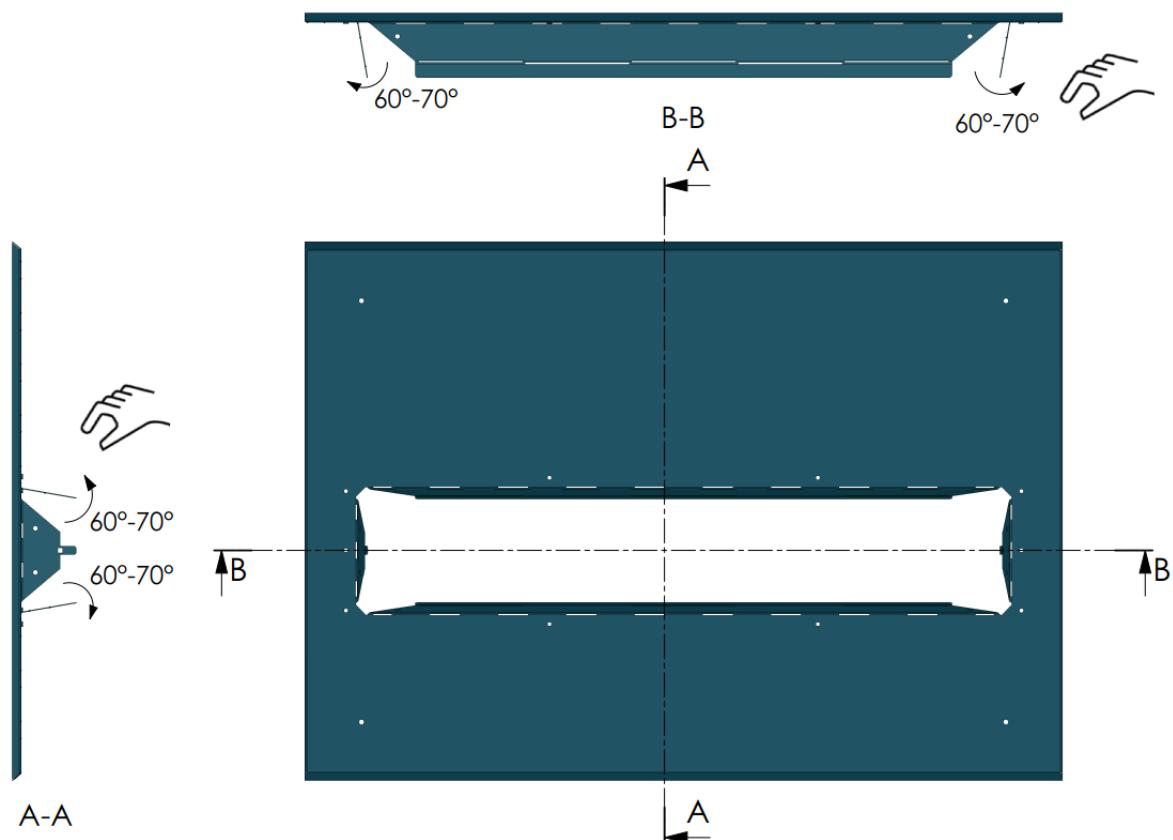
Exemplo de montagem

Example for setting up

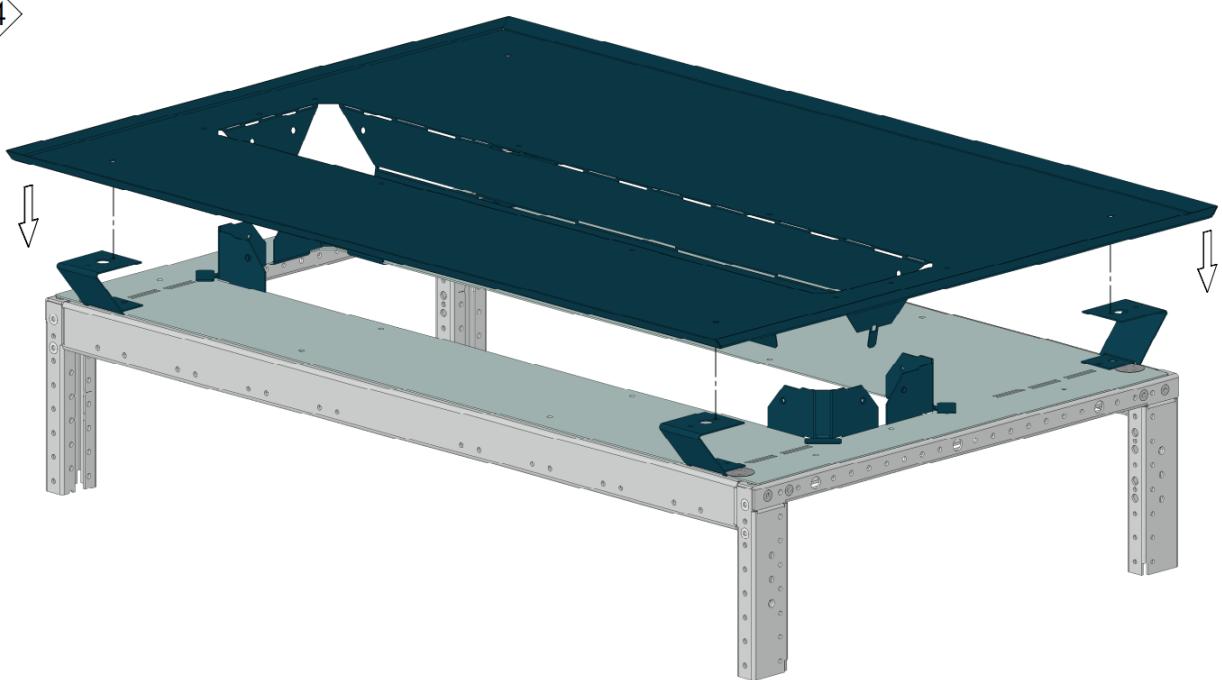




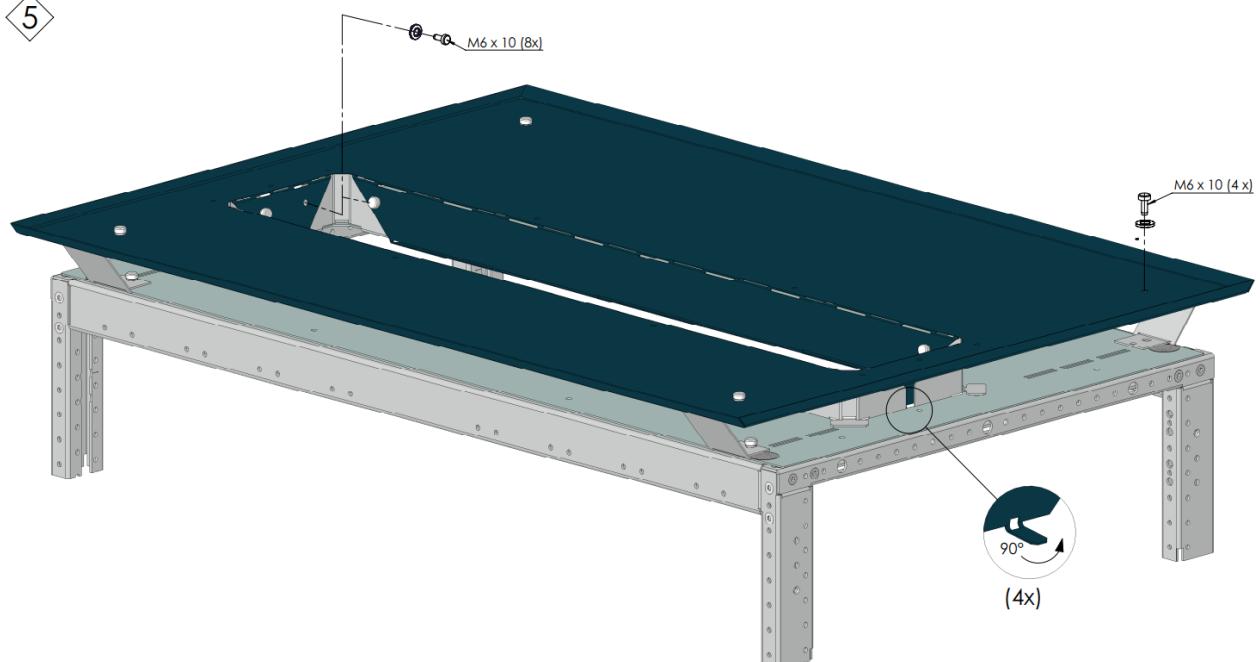
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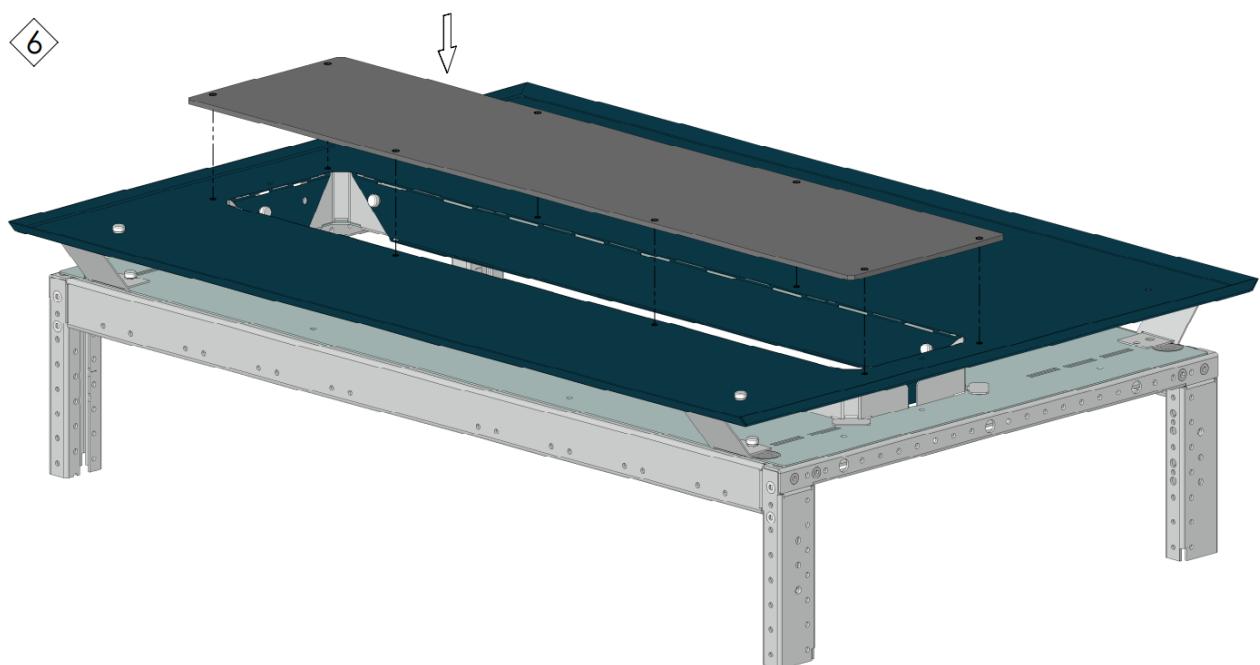
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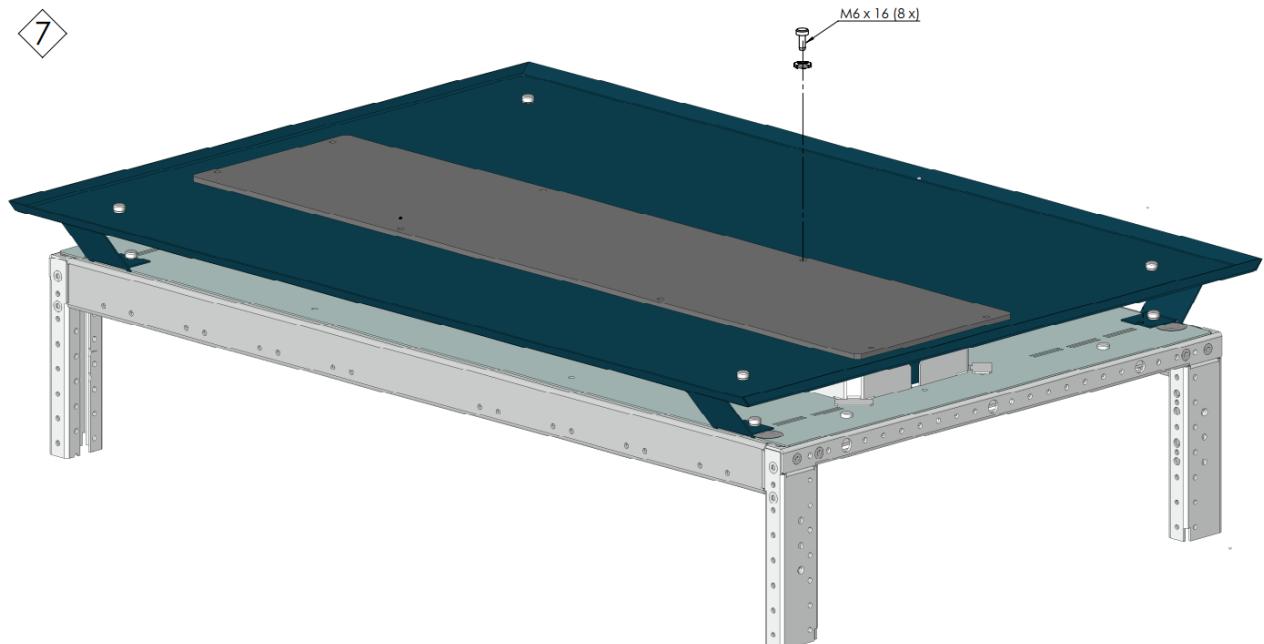
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6



7



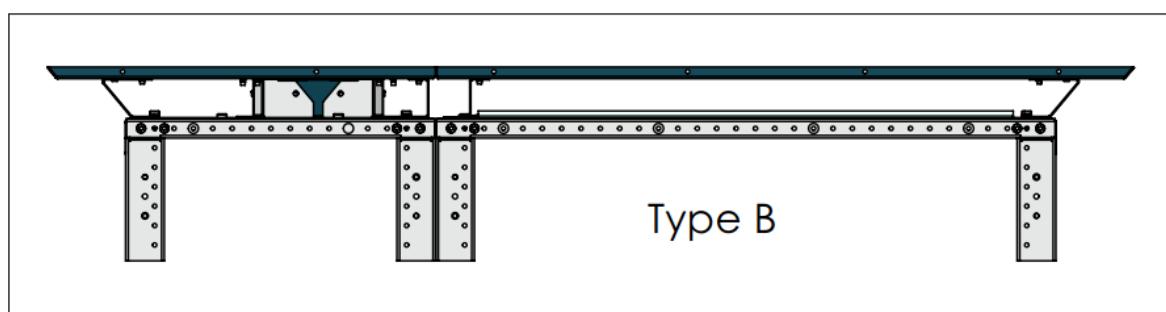
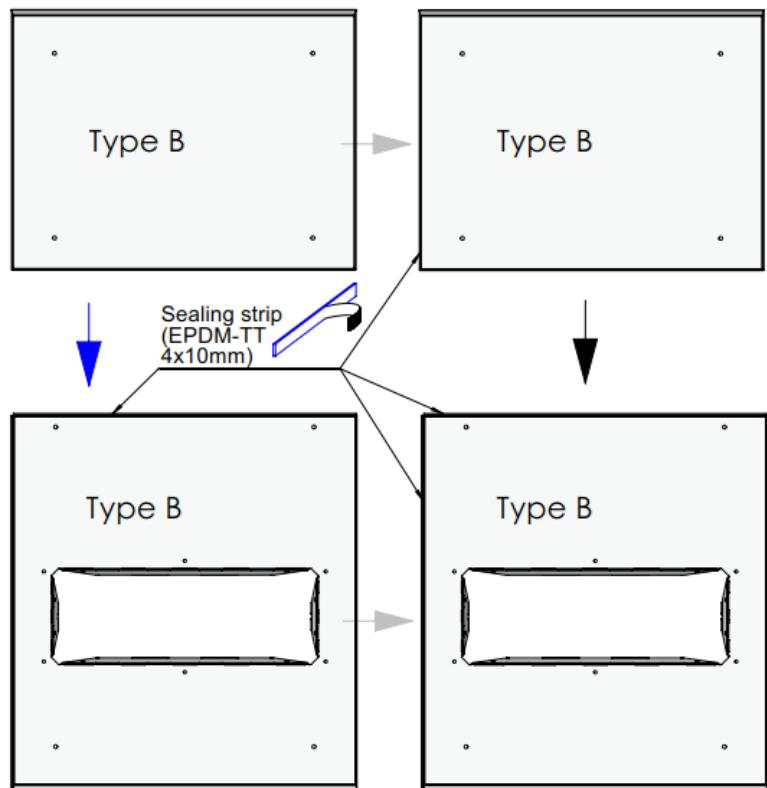
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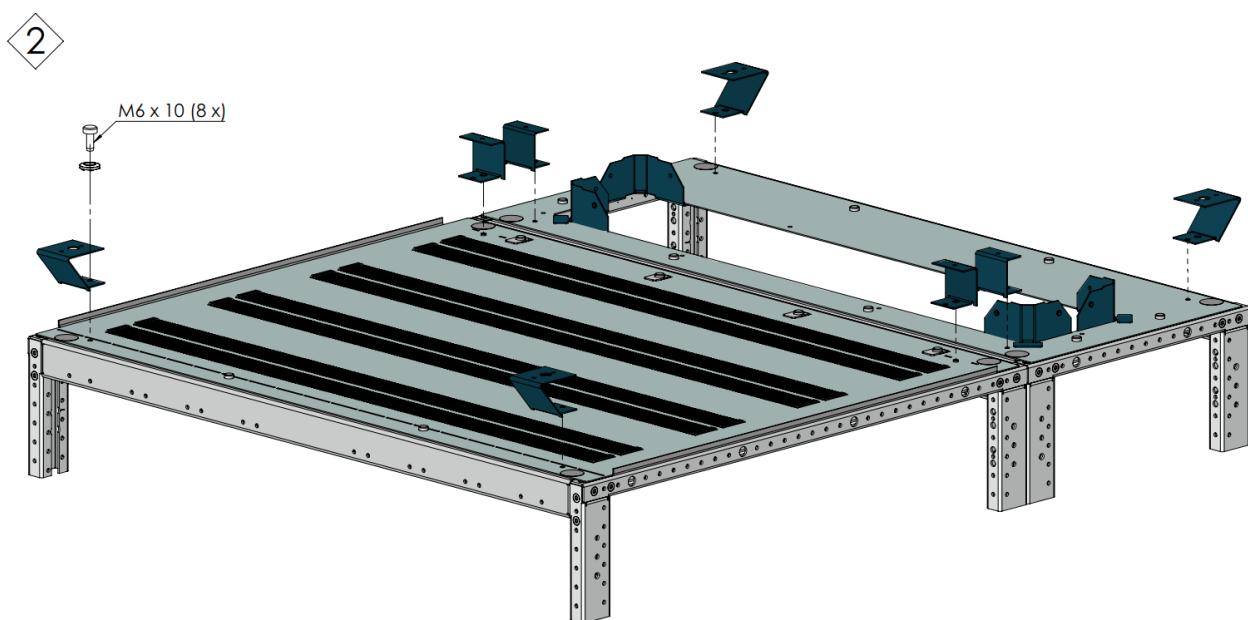
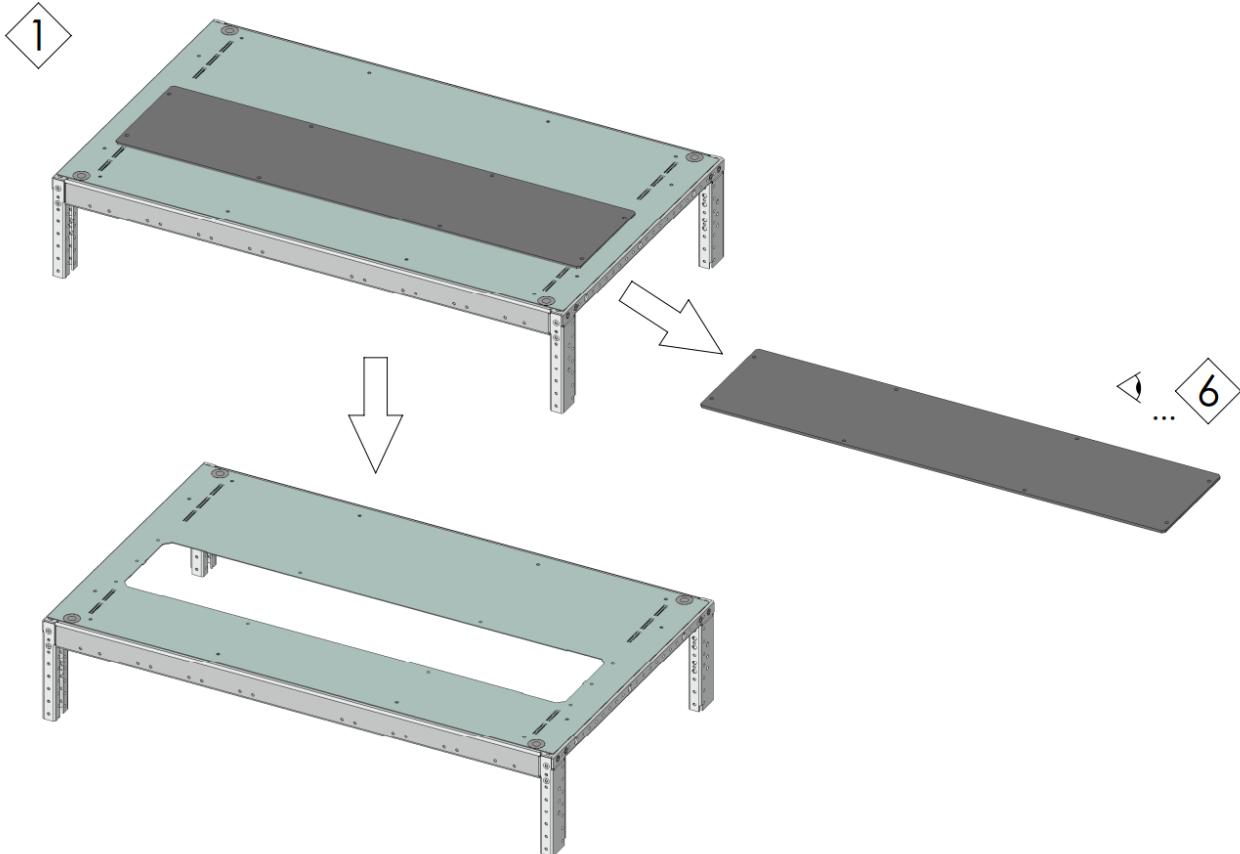
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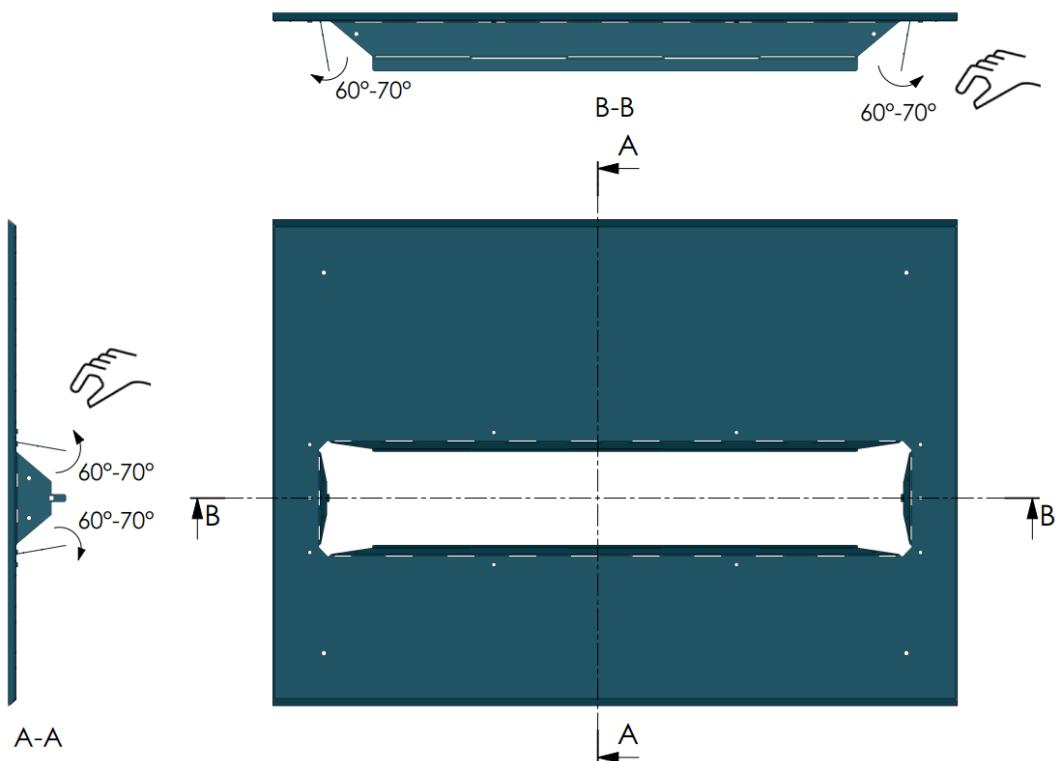
...

Type B

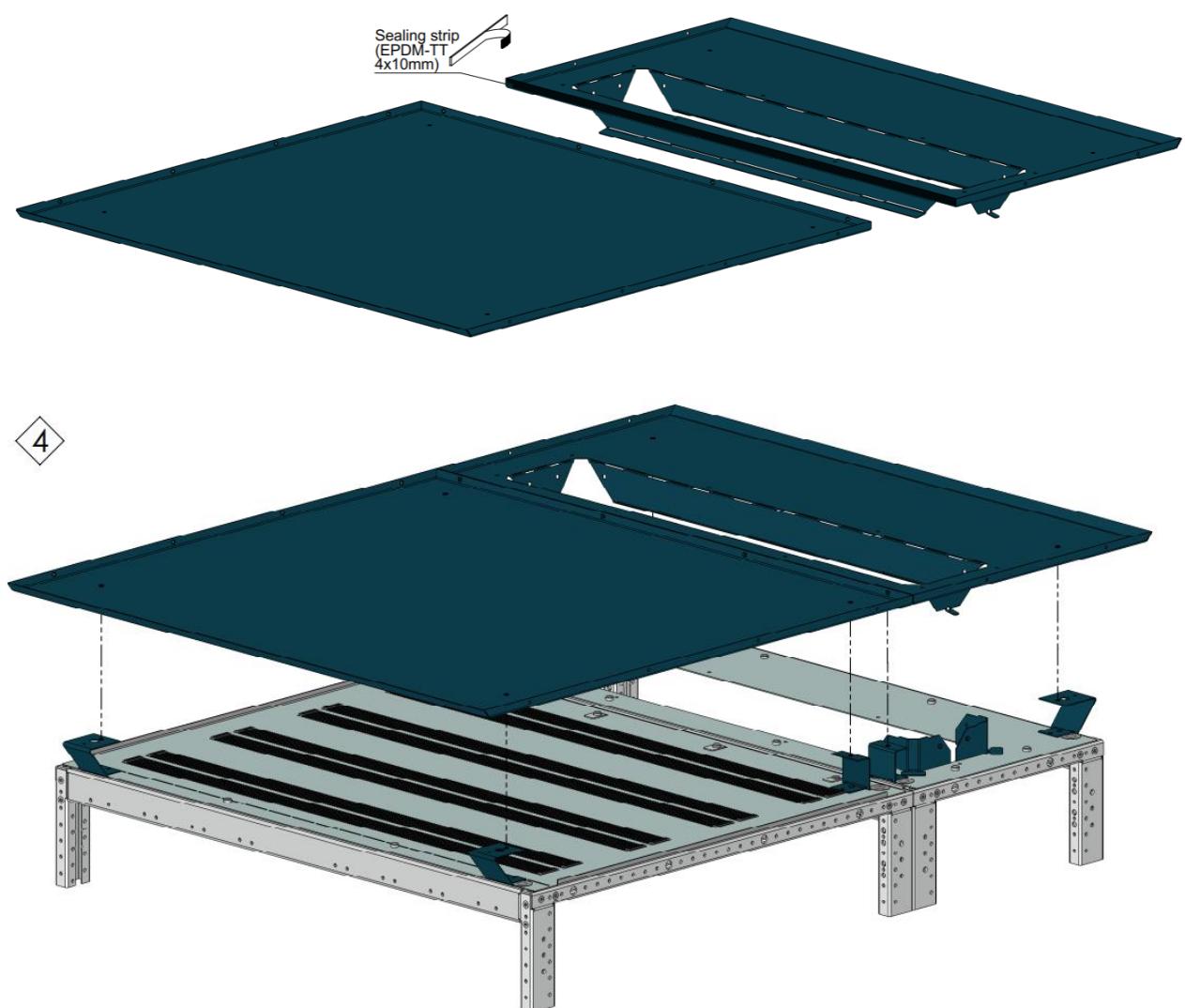


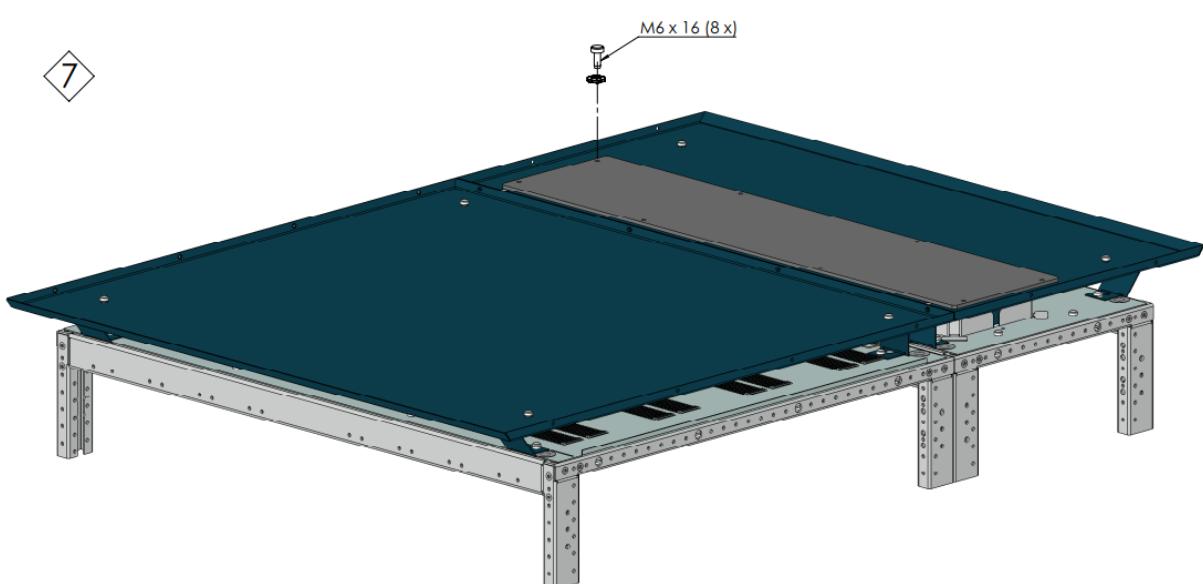
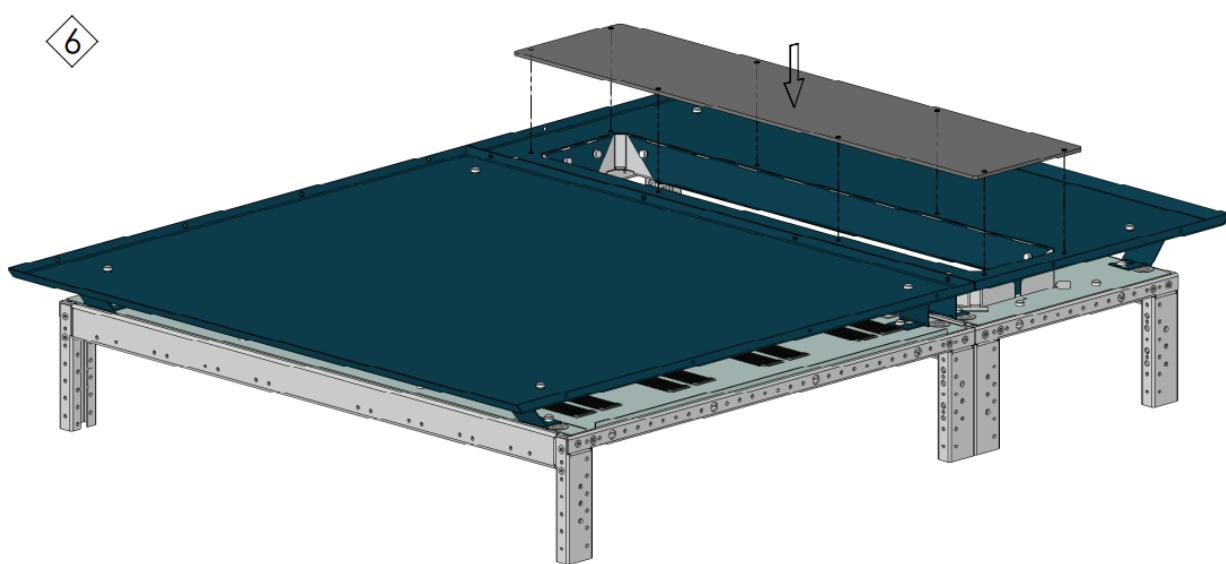
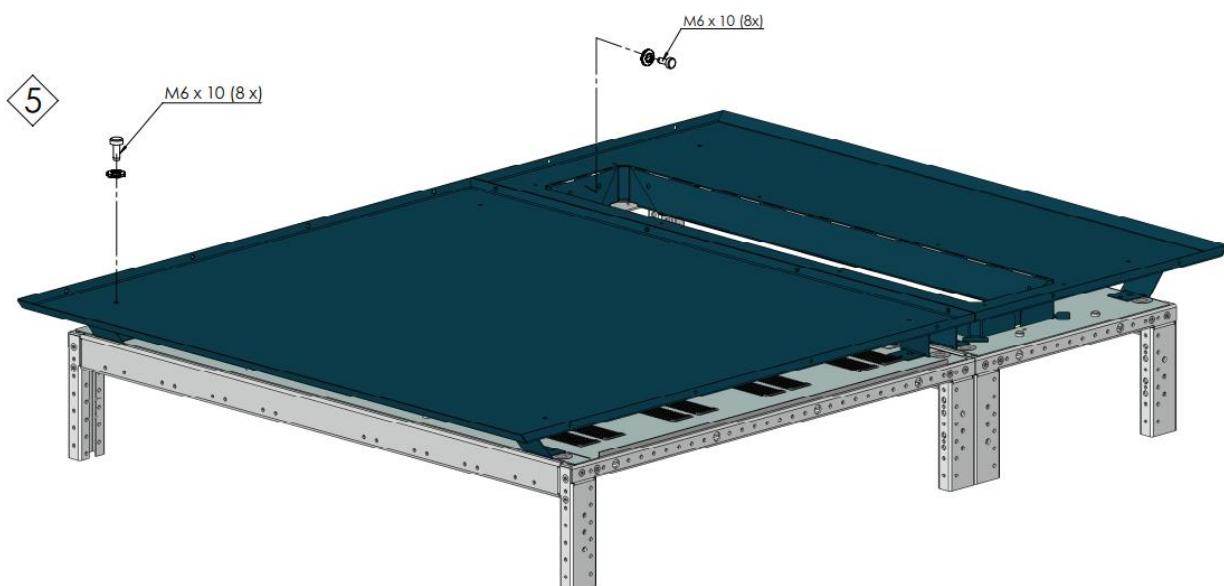


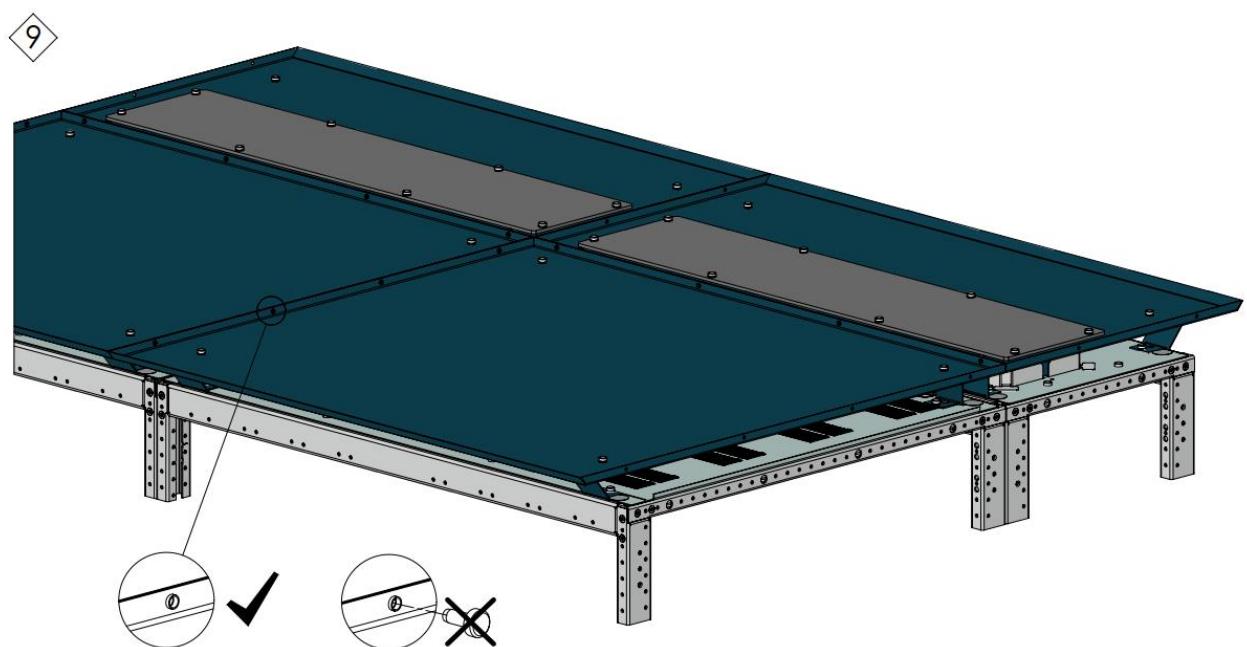
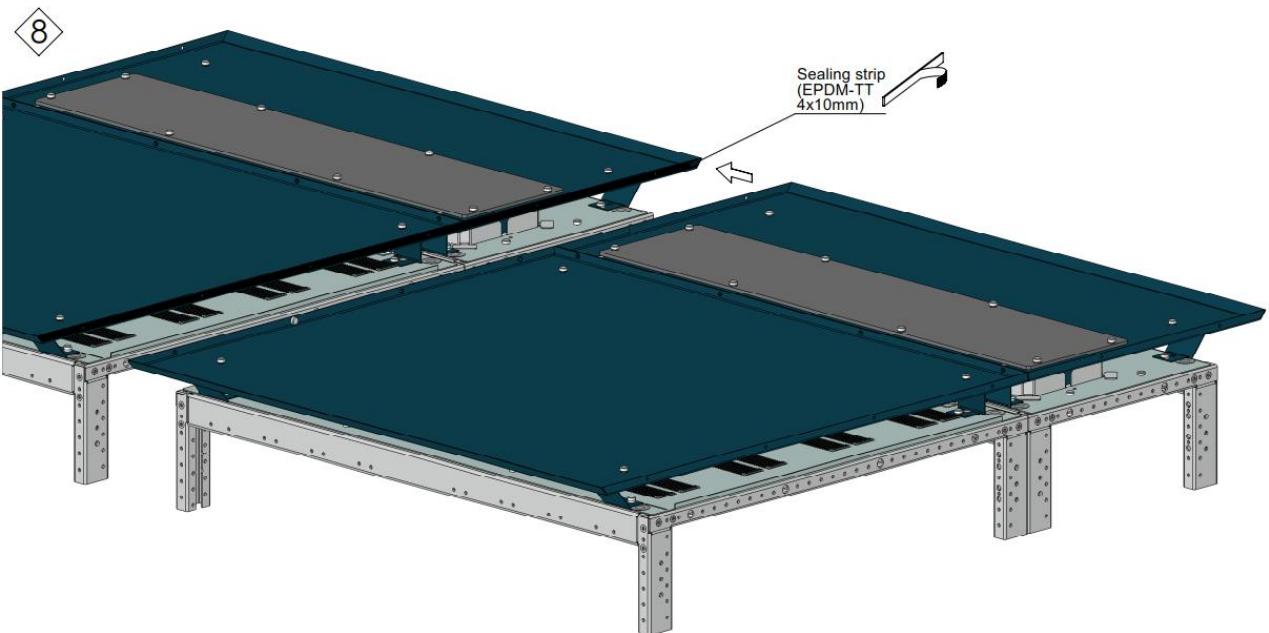
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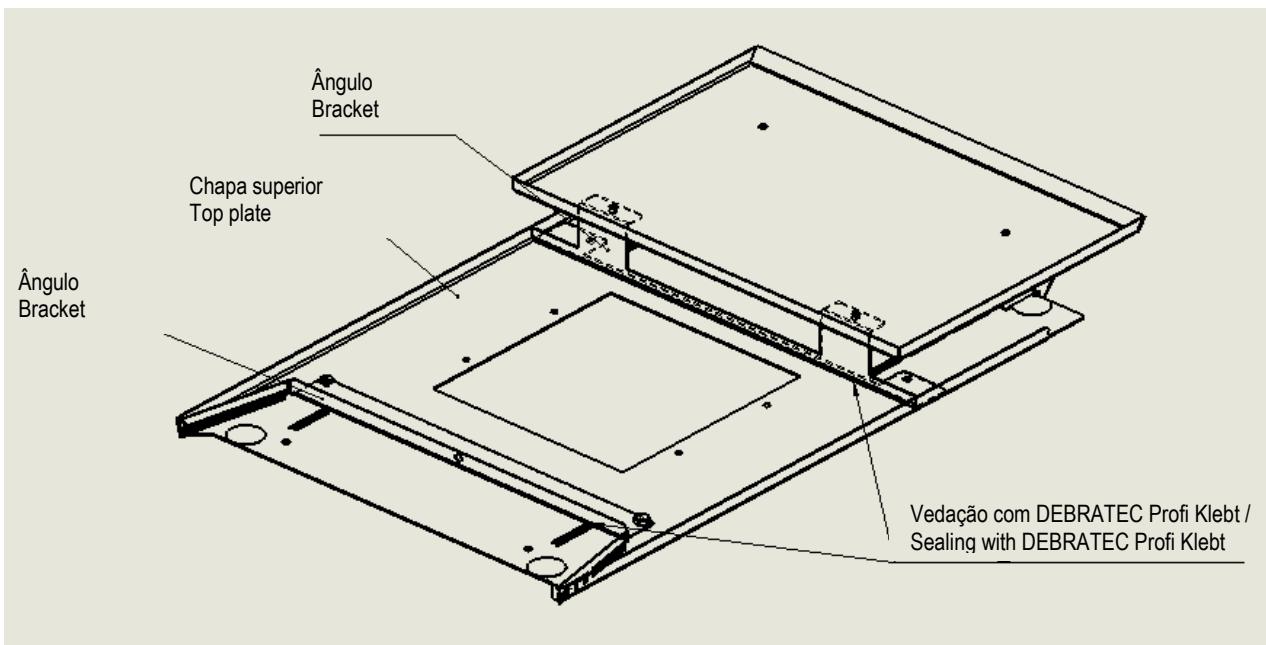






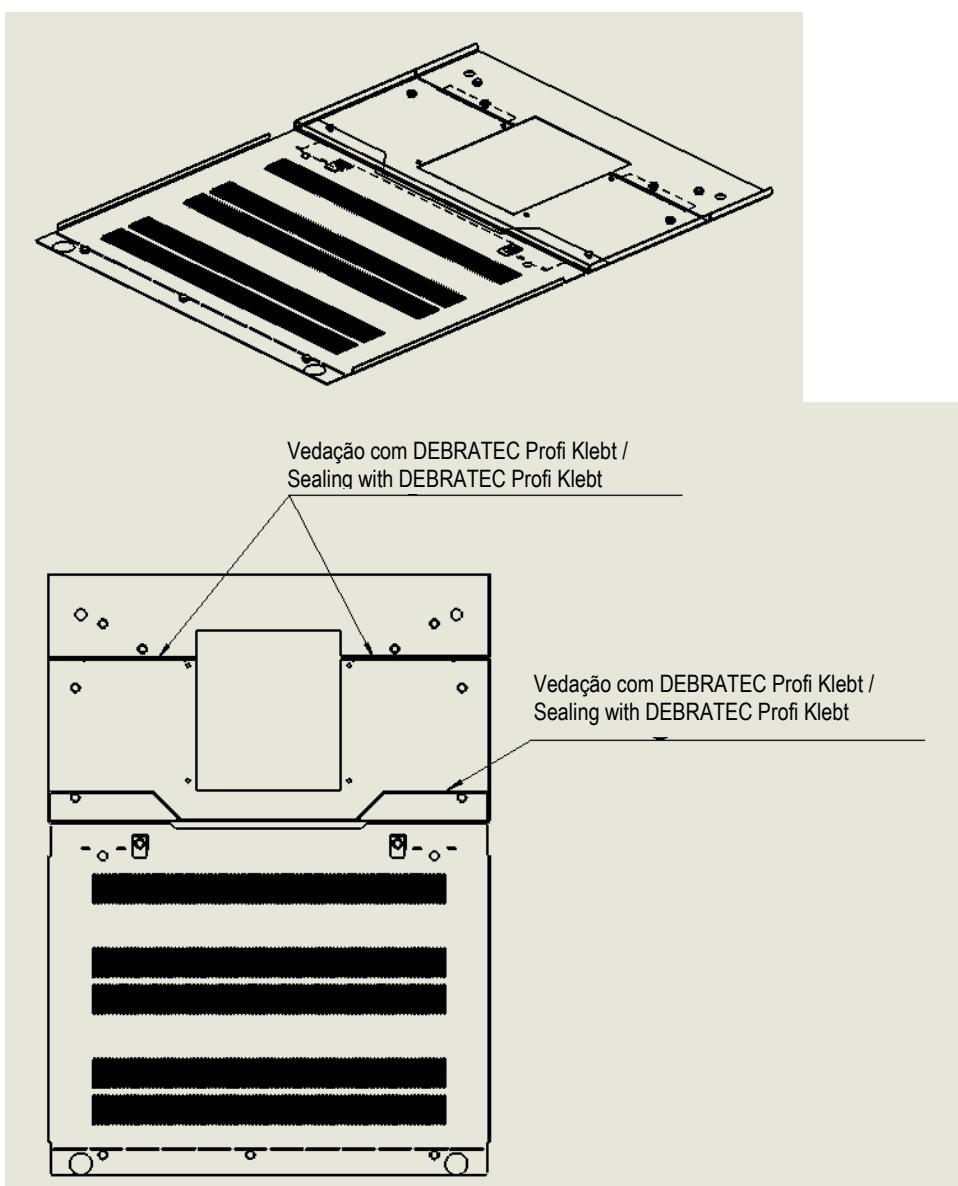
Chapa superior na ligação por barramento com barramento principal atrás (IPX1/X2/X3)

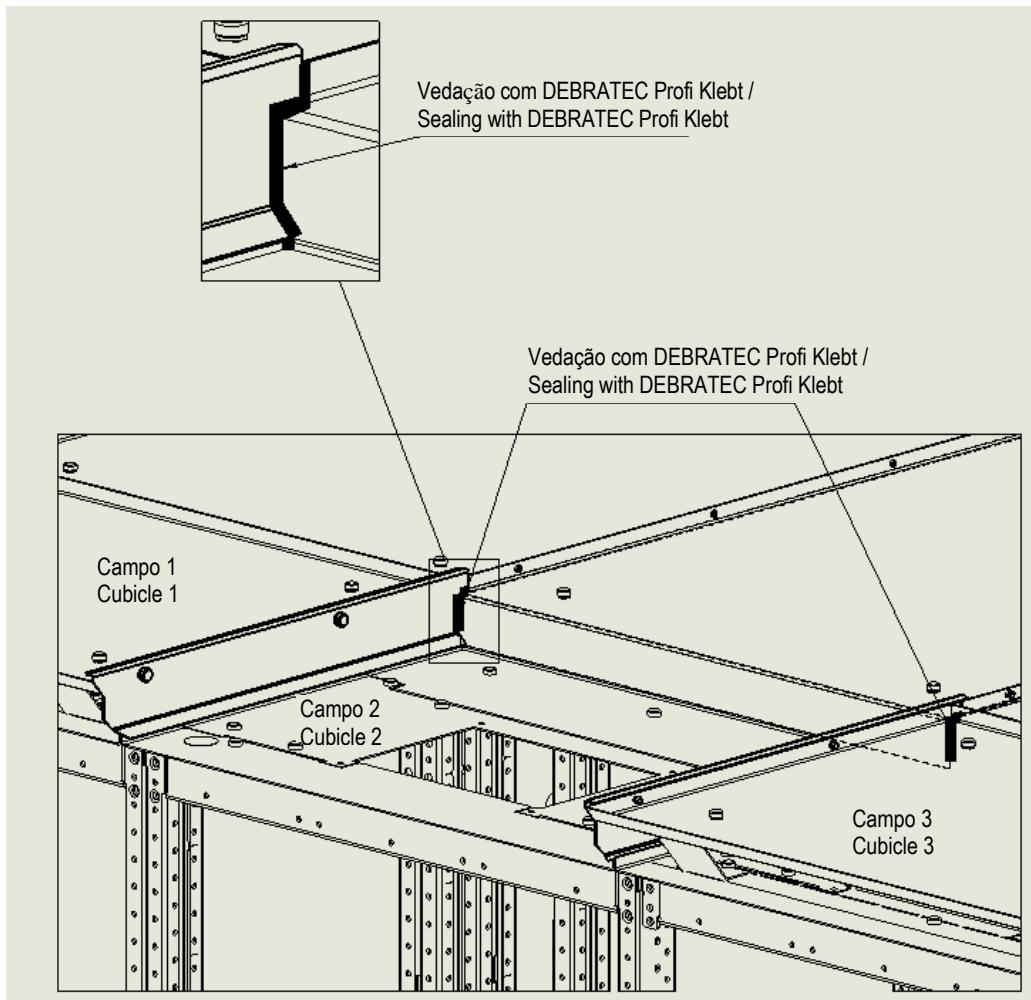
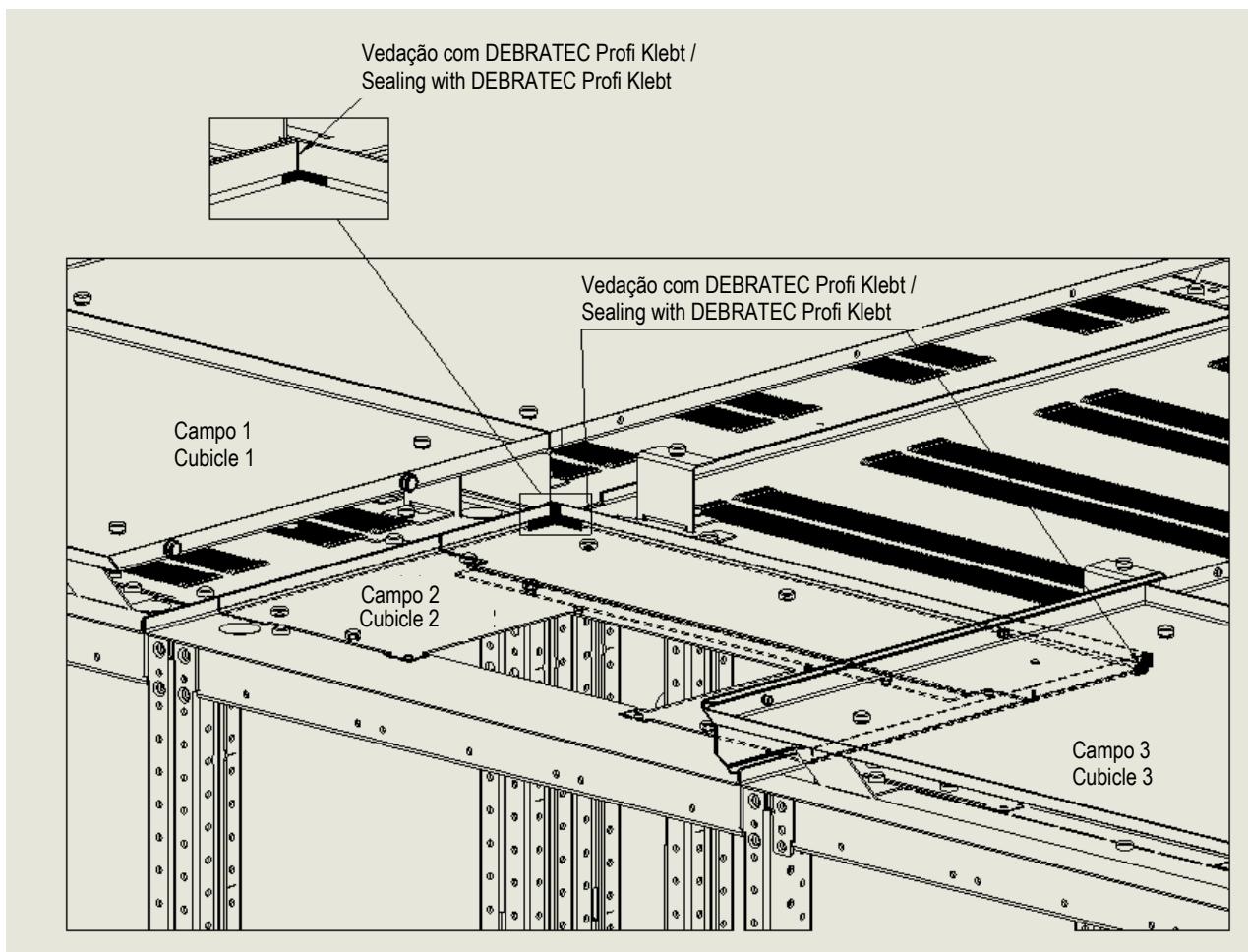
Top plate with connection of busbar trunking system with main busbar at the rear (IP X1 /X2 /X3)



Chapa superior na ligação por barramento com barramento principal em posição superior (IPX1/X2/X3)

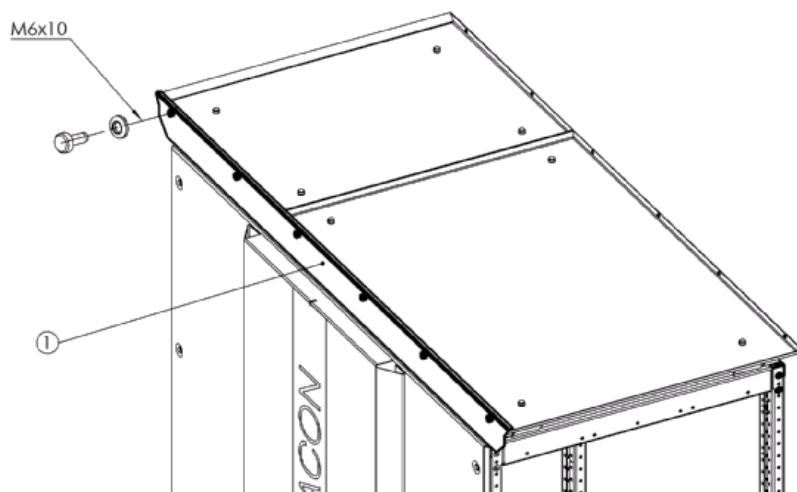
Top plate with connection of busbar trunking system with main busbar at the top (IP X1 /X2 /X3)



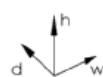


Fecho lateral da instalação IP 42/43

Lateral plant closure IP 42/43

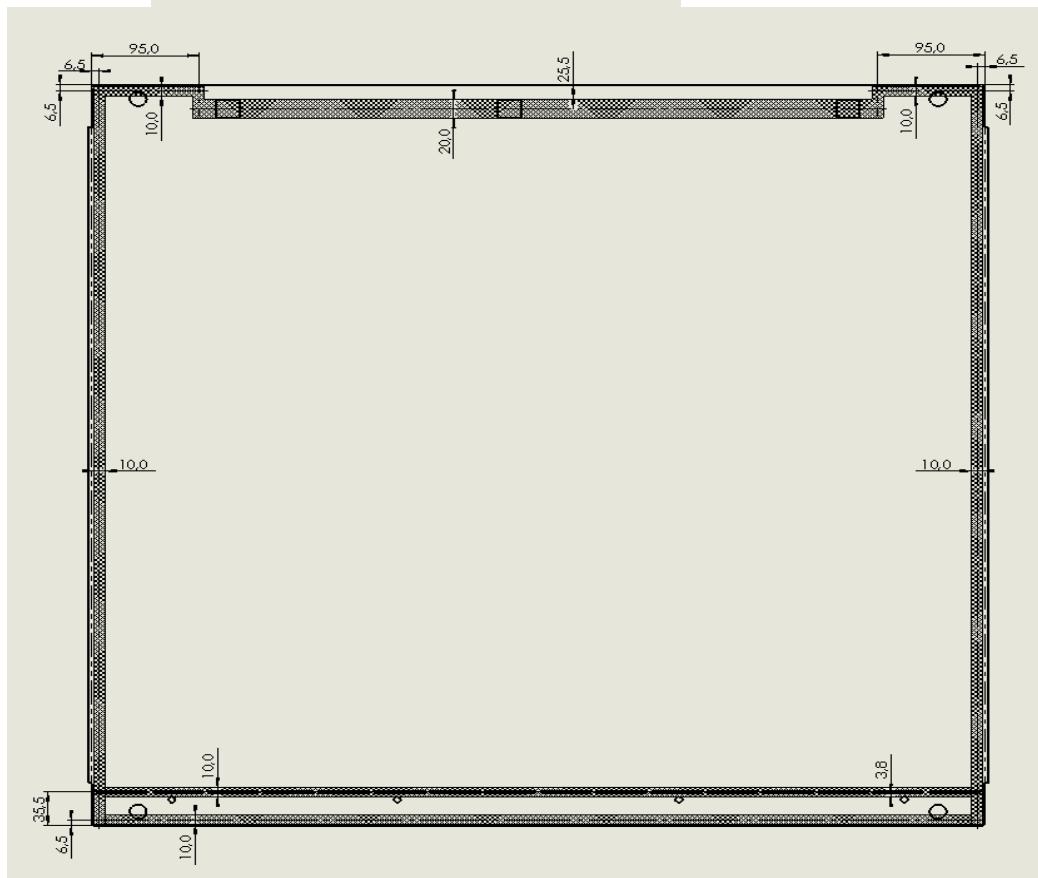
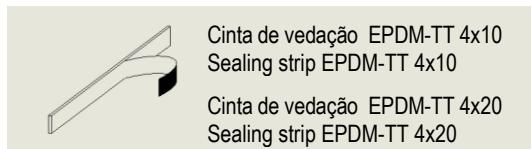


Profundidade da instalação [mm] Depth of plant [mm]	Número de parafusos M6x10 para fixação de peça ① Number of screws for fixing of part ①
500	4x
600	4x
800	4x
1000	6x
1200	6x



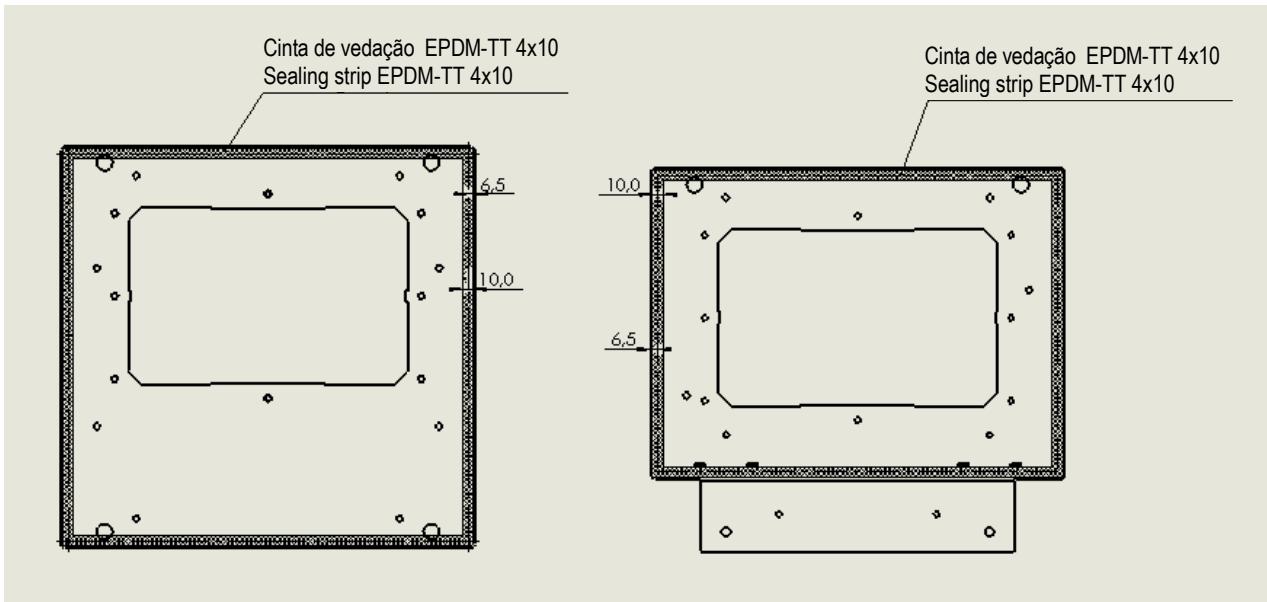
Vedante da chapa superior IP54
Chapa superior fechada

Sealing top plate IP 54
Top plate closed



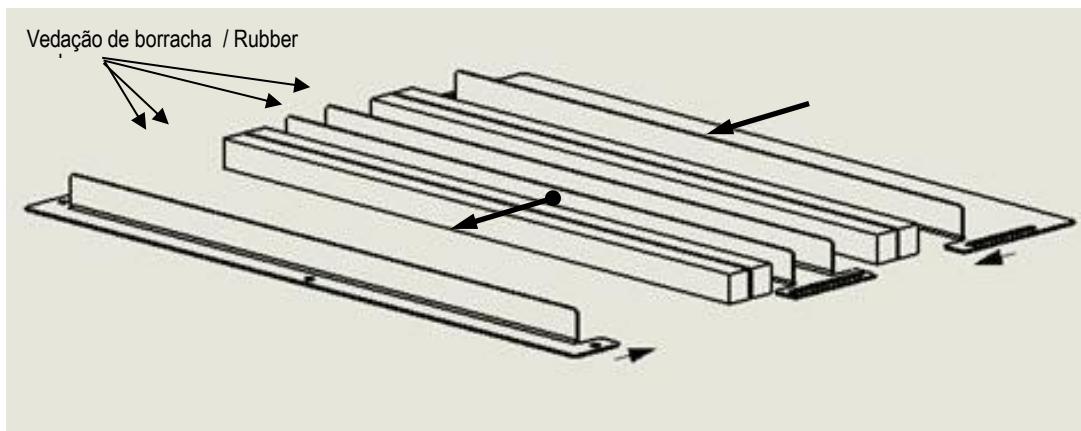
Chapa superior com entrada do cabo

Top plate with cable entry



Vedante da chapa de deslize

Sealing cable entry



4 Desobrigação

A versão inglesa do manual de instruções deverá prevalecer em caso de conflito de significado para outras versões ou traduções!

4 Disclaimer

The English version of the Operating Instructions shall prevail in the event of conflict in meaning to other versions or translations in any other language!