

Ⓒ Assembling and Maintenance Instructions for
INDUSTRIAL WALL

MANO RACK

Assembling and Maintenance Instructions for **INDUSTRIAL WALL**

Compulsory :

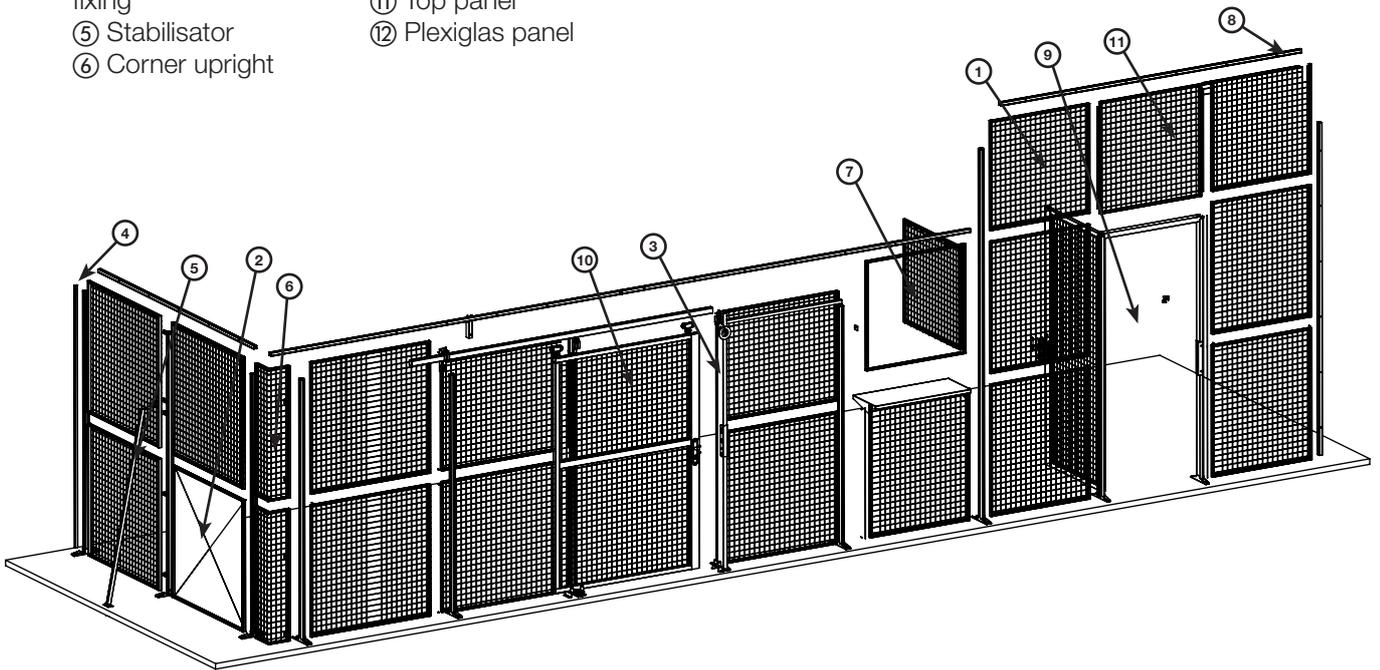
- This industrial wall is designed for an inside use in an industrial environment (building or warehouse) in order to delimit or protect an area.
- This industrial wall shall not be used as machine guard or handrail on a mezzanine floor.
- The mounting has to be realized by competent and skilled staff according to the rules.
- You should refer to the current regulation concerning hygiene and security as far as handling, mounting and use are concerned..
- Take care that the floor is flat and of good quality.
- Take care that the installation will not disturb the security rules (exits and evacuations).

SUMMARY

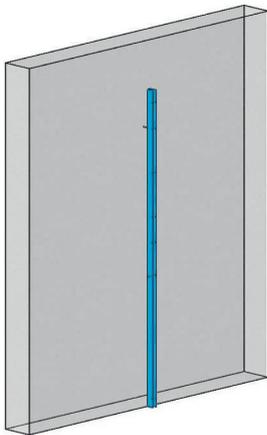
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1 List of the parts

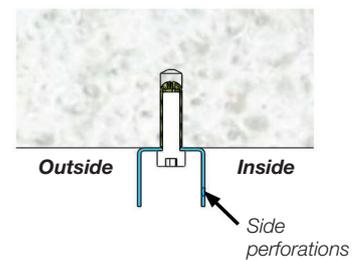
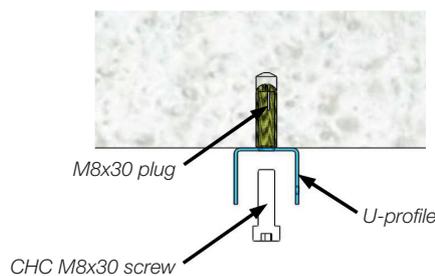
- | | |
|-----------------------------|-------------------|
| ① Mesh panel | ⑦ Service hatch |
| ② Steel panel | ⑧ Top U-profile |
| ③ Upright | ⑨ Leaf door |
| ④ U-profile for wall fixing | ⑩ Sliding door |
| ⑤ Stabilisator | ⑪ Top panel |
| ⑥ Corner upright | ⑫ Plexiglas panel |



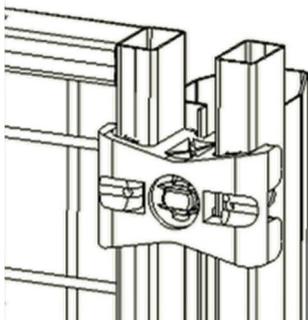
2 Mounting of a U-profile for wall fixing



- Put the profile close to the wall with the perforations inside.
- Fix the U-profile with M8x30 plugs and CHC M8x30 screws. (4 plugs per 3 m U-profile).



3 Mounting of a wall end



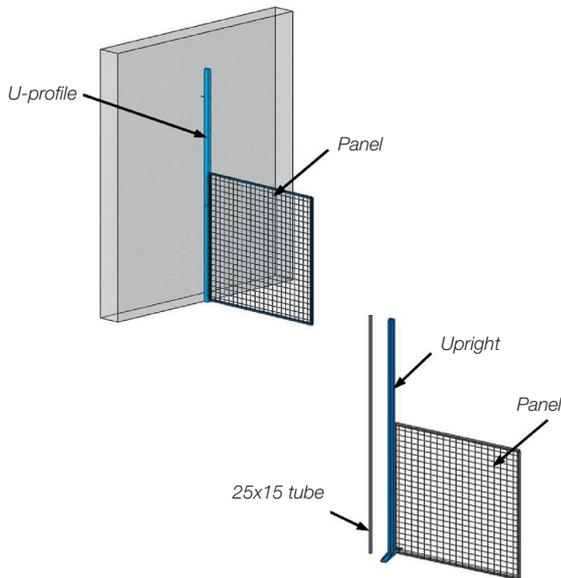
- In order to consolidate the panels (beginning or end of the wall), use a 25x15 tube on one side of the upright and the panels on the other side.
- Then fix the panels and the 25x15 tube together with fastenings.

Nota : Use 4 fasteners for heights 1750/2000/2200/2400.
Use 6 fasteners for heights 2500/2700/3000.

4 Mounting of the panels

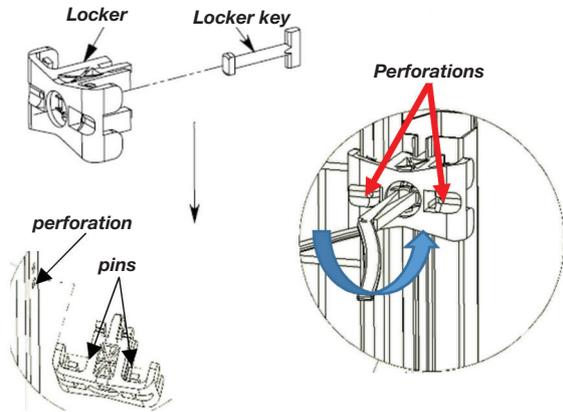
Step 1

- Put the first panel in a U-profile for wall fixing or in a standard upright (see §3).
- First, do not fix the panel in the U-profile.
- Always put the higher panels at the bottom of the wall.



Step 2

- Assemble the locker and the locker key
- Put the locker lug inside the frame perforations
- Put the assembly inside the upright and use the key to turn the locker key of an angle of 90°, in order to block the locker in the upright
- Add 2 self-drilling screw in the 2 holes of the locker.

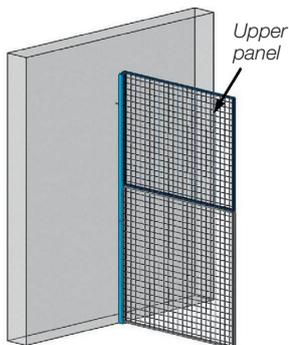


Nota :

Use 4 lockers for heights 1750/2000/2200/2400.
Use 6 lockers for heights 2500/2700/3000.
That is to say 2 lockers per panel.

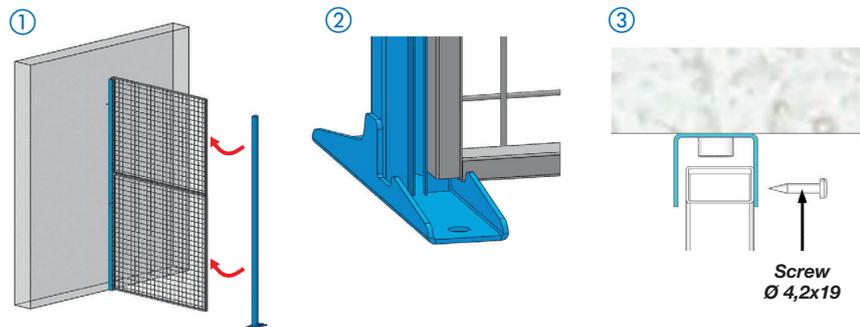
Step 3

Put the upper panel in place.



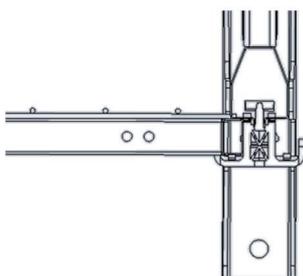
Step 4

- Insert the upright beginning from the bottom ①
- See if the bottom panel is correctly inserted in the upright ②
- If you use a U-profile for wall fixing, fix the panels in it ③



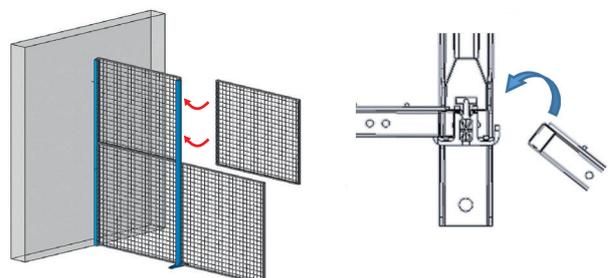
Step 5

Lock the 4 or 6 lockers by upright.



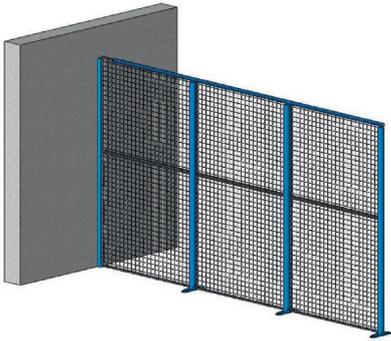
Step 6

- Assemble the next panels
- Put the 2 self drilling screw in the front of the locker



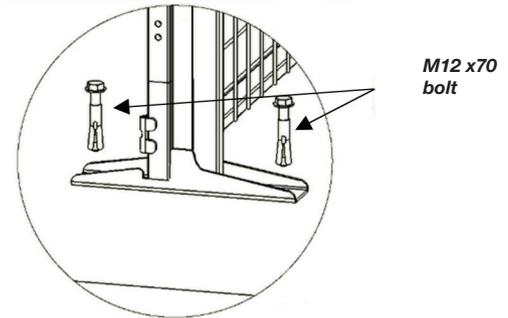
Step 7

- Repeat steps 4, 5 et 6 as many times as necessary.
- Put a 25 x 15 tube at the end of the wall if the wall is ending with an upright (see §3).



Step 8

- Fix to the floor.
- Take care that the uprights are standing right vertically.
- If necessary, use floor wedges.

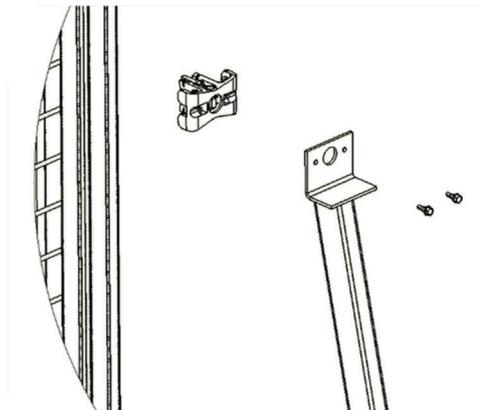


5 Mounting of a stabilisator

It is made of a 35x20 tube with fixing plate and « L » upper fixing.

It gives more rigidity to the wall when it is very long or very high.

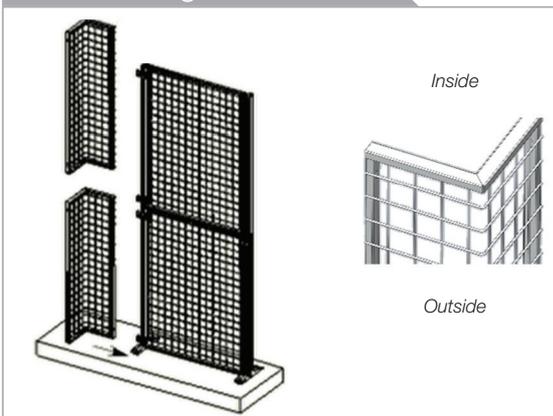
- Put the locker in the upright and lock it
- With the self-drilling screw 4.2x13mm, fix the stabilisator on the locker
- Check the upright verticality
- Fix the stabilisator on the ground with the M12x70 bolts



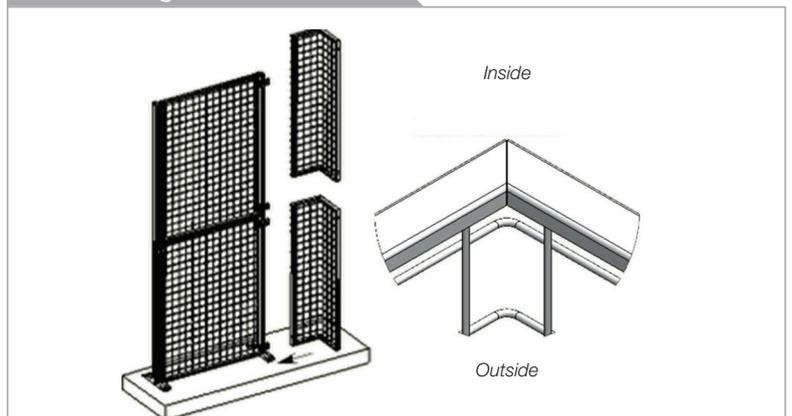
6 Mounting of a corner panel

- The mounting of a corner panel is the same as a standard panel.

Outside angle



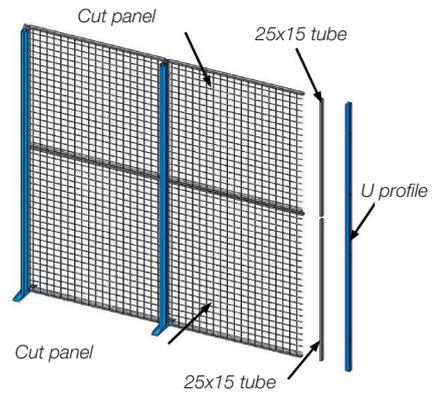
Inside angle



7 Cutting the panels

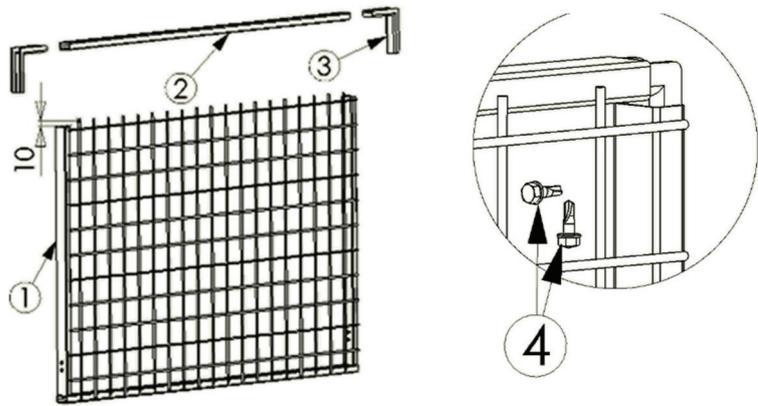
Wall fixing with U-profile

- ① • Cut the panels to the right dimensions.
 - Cut the 25x15 tube to the frame inside dimensions.
 - Insert the panel in the U-profile for wall fixing.
- ② • Insert the 25x15 tube in the U-profile to fix the mesh panel.
 - Fix the 25x15 tube and the frames together with $\varnothing 4,2 \times 19$ screws.



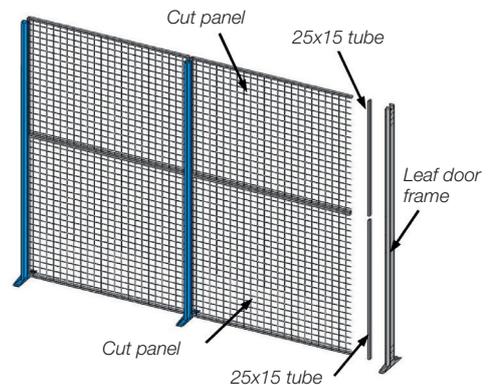
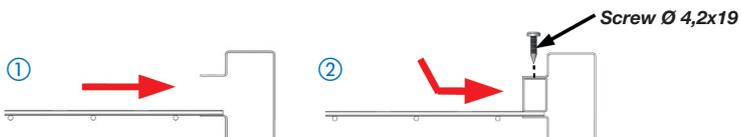
Use of an upright

- ① • Cut a panel at the dimension (keep 10mm more for the mesh or the metal sheet, in order to have an esthetic link).
- ② • Cut the tube at the panel dimension.
- ③ • With the 2 triangles, rebuild the panel.
- ④ • With the self drilling screw 4.2x13mm, lock the triangle in the tubes.
 - The special panel is usable as a standard panel (cf §3)



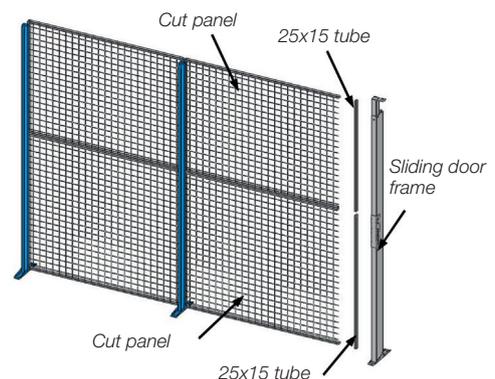
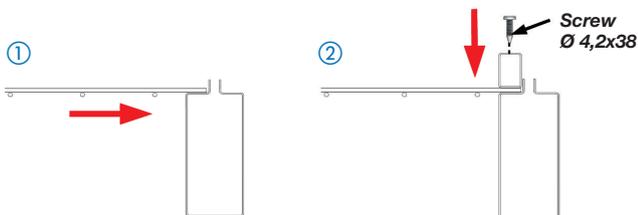
Use of a leaf door frame

- ① • Cut the panels to the right dimensions.
 - Cut the 25x15 tube to the frame inside dimensions.
 - Put the cut panel in the door frame..
- ② • Insert the 25x15 tube in the door frame.
 - Fix the 25x15 tube and the frames together with $\varnothing 4,2 \times 19$ screws.



Use of a sliding door frame

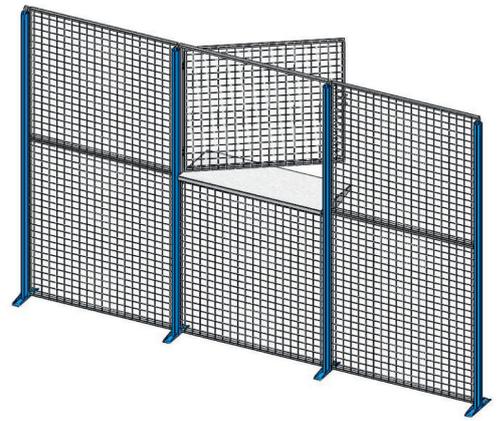
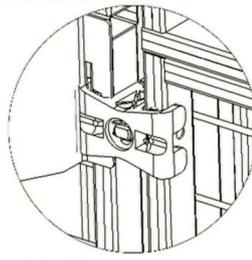
- ① • Cut the panels to the right dimensions.
 - Cut the 25x15 tube to the frame inside dimensions.
 - Put the cut panel in the door frame.
- ② • Put the 25x15 tube close to the door frame.
 - Fix the 25x15 tubes and the frames together with $\varnothing 4,2 \times 38$ screws.



8 Mounting of a service hatch

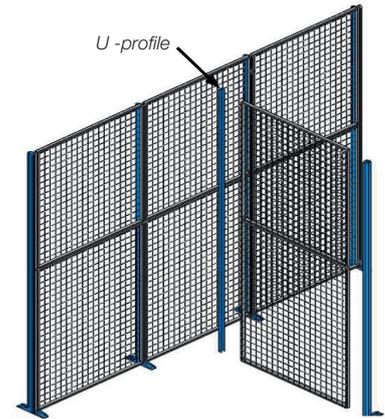
It has to be mounted in the same way as a standard panel.

- Fix the hatch with 4 lockers.
- The shelf has to be inserted in the frame of the hatch.



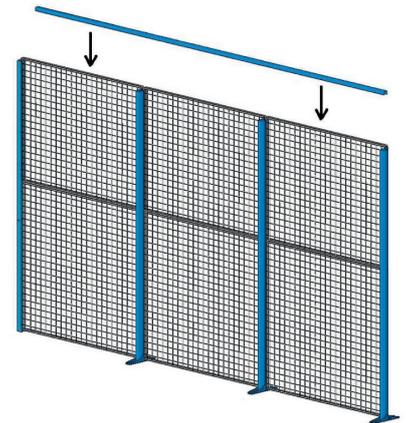
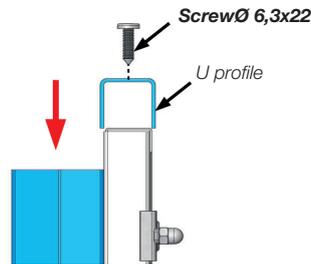
9 Mounting of a side with a 90° angle

- Fix the U-profile for wall fixing in the panels frames with $\varnothing 4,2 \times 19$ screws.
- Insert the panels in the U-profile.
- Install the upright.
- Insert the panels in the U-profile.
- Fix with $\varnothing 4,2 \times 19$ screws.



10 Mounting of the top U-profile

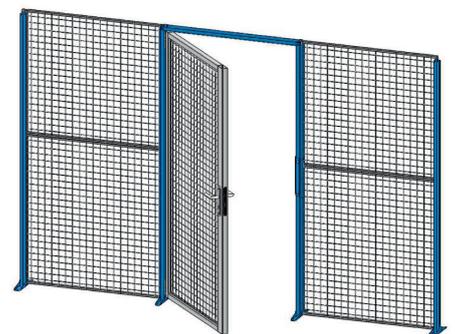
- Put it on the top panels.
- Fix the U-profile with $\varnothing 6,3 \times 22$ screws.
- The U-profile strengthens the wall.



11 Mounting of a leaf door

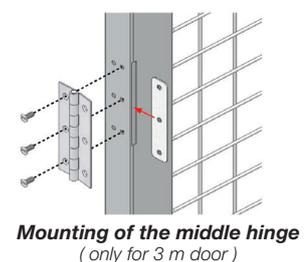
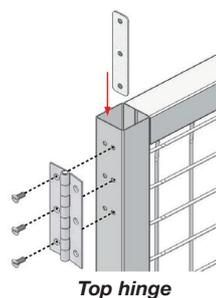
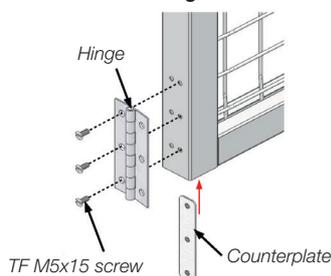
a - Single leaf door

- First choose the opening side of the door.
- To make the mounting easier, it is better to start mounting on the floor with the door laying flat.



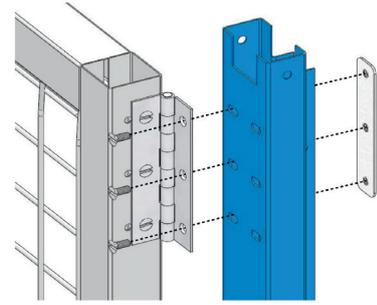
Step 1

Mounting of the bottom hinge



Step 2

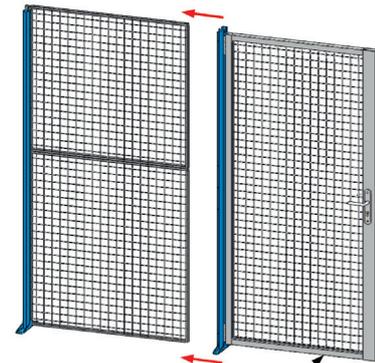
- Assemble the door to the hinged frame with the counterplate and screws M5 x16.
- Do the same for the bottom and for the middle hinge (only for 3 m door).



Step 3

- Insert frame+door in the panels.
- Fix the frame to the panels thanks to Ø 4,2 x 19 screws.
- First check that the uprights are standing right vertically.

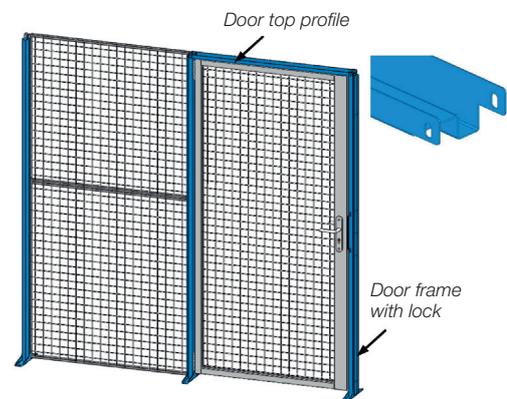
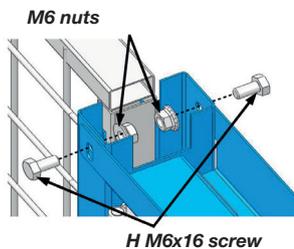
Useful length of leaf doors	
Length of the door in mm	Useful length in mm
1000	950
1200	1150
1500	1450
2000	1893
2400	2293
3000	2893



Assembling of frame + door

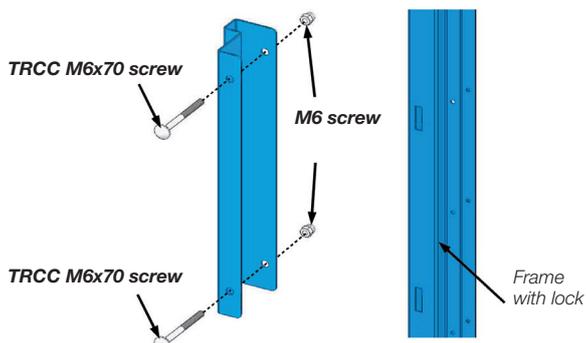
Step 4

- Assemble the door top profile to the hinged door frame with H m6x16 screws and M6 nuts.
- Then fix the frame with the lock to the door top profile with H M6 screws and M6 nuts



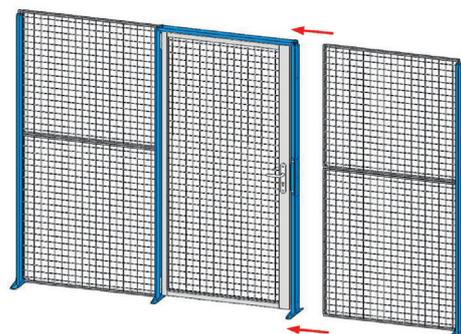
Step 5

- Assemble stop according to the door opening direction using TRCC M6 x 70 screws and M6 nuts.
- The TRCC screw heads should be outside the wall.
- Align stop plate to the door lock.



Step 6

- Insert the next panel.
- Fix the panels in the frame with Ø 4,2 x 19 screws.
- Check that the frames are standing correctly.
- Leave some slack so that the door can move correctly.
- Tighten all the screws.
- Fix the frames to the floor.



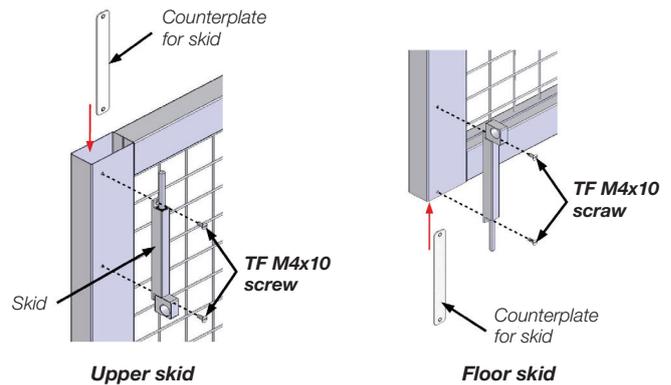
b - Double leaf door

- First check door opening direction.
- To make the mounting easier, it is better to start mounting on the floor with the door laying.
- First fix the hinges on both doors (see simple leaf door step 1).
- Then fix the door to the frames (see simple leaf door step 2).
- Install the door skids (see step 7).
- Install the first frame (see simple leaf door step 3).
- Install the brace over the door (see simple leaf door step 4).



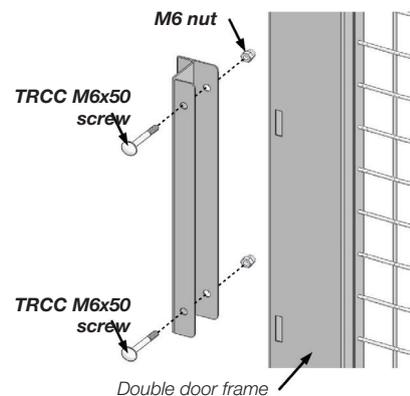
Step 7

- Install the 2 skids of the door frame with counterplates and M4x10 screws.
- Drill the ground on the contact point between the ground and the skid
- Unmount the base of the hammerable bolt M12
- Put the base on the drilled hole



Step 8

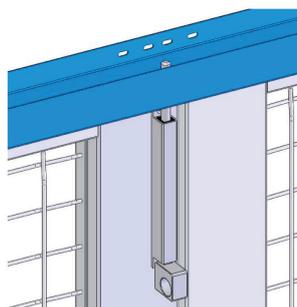
- Install the reception stop with TRCC M6x50 screws and M6 nuts.
- Put the TRCC screw heads outside of the wall.
- Adjust the stop with the door lock.



Step 9

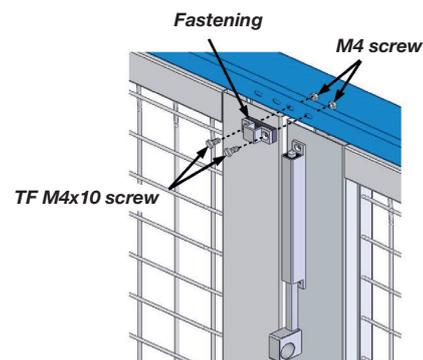
« Pulling » door :

If you have a pulling door, the skid is inserted in the top of the door.



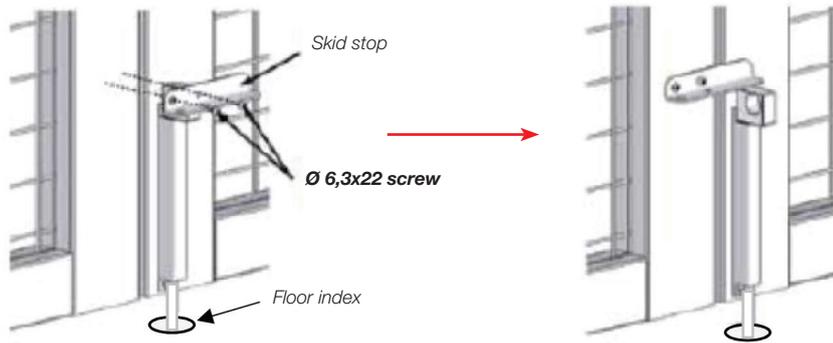
« Pushing » door :

If you have a pushing door, you will have to use a clamp to fix the skid over the door with M4x10 screws and M4 nuts.



Step 10

- Install the stops for the 2 skids with $\text{Ø } 6,3 \times 22$ screws. Only for « pushing » doors.
- Check that all screws of the door and accessories are tightened.

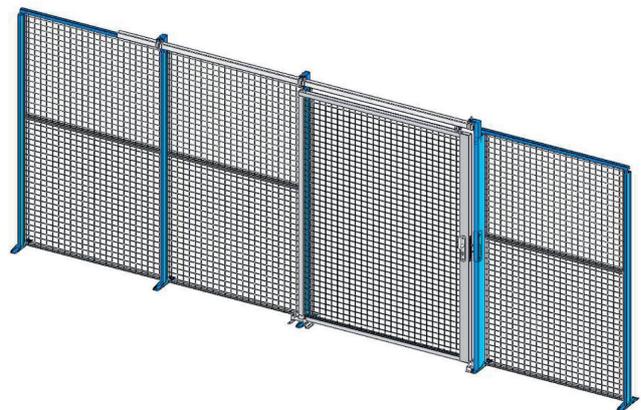


12 Mounting of a sliding door

a - Single sliding door

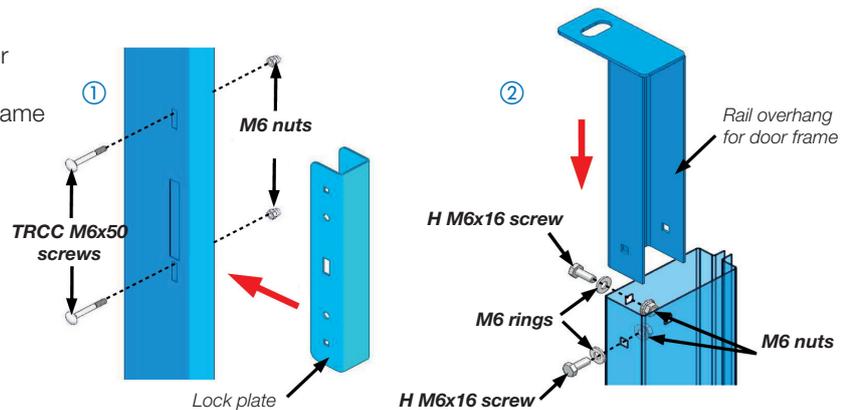
- First check door opening direction.

Useful length of leaf doors	
Length of the door in mm	Useful length in mm
1000	870
1200	1070
1500	1370
2000	1765
2400	2165
3000	2765



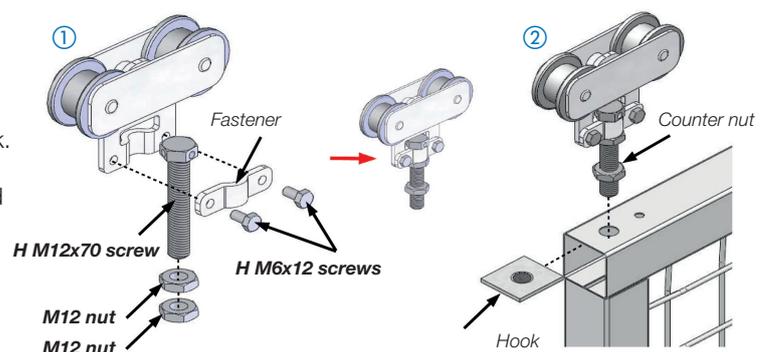
Step 1

- Fix the lock plate on the door frame with TRCC M6 x 50 screws and M6 nuts.
 - The TRCC screw heads should be on the side of the sliding door.
 - Do not tighten, wait for adjustment
- Install the rail overhang for sliding door frame according to door opening.
 - Fix the rail overhang for sliding door frame with H M6x16 screws and M6 nuts.



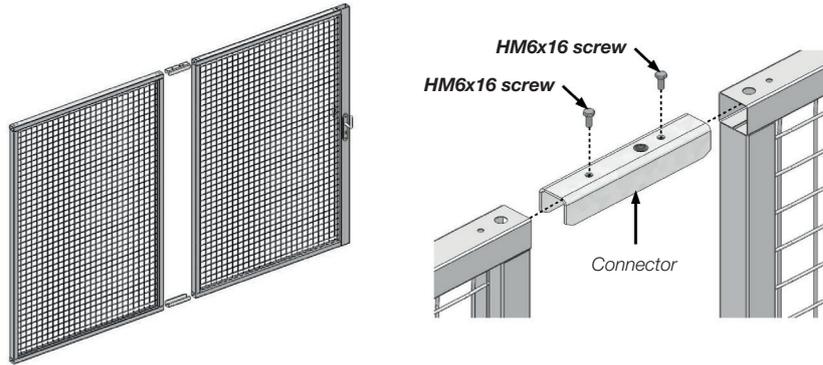
Step 2

- Assemble the rollers for sliding door.
 - Do not tighten the screws until the door has been aligned
- Fix the rollers on the door with hooks and clamp using nuts.
 - You need 2 rollers for the door panel with the lock.
 - If the door is wider than 1500 mm, you will need 3 rollers. You need 2 for the panel with the lock and 1 for the other panel.



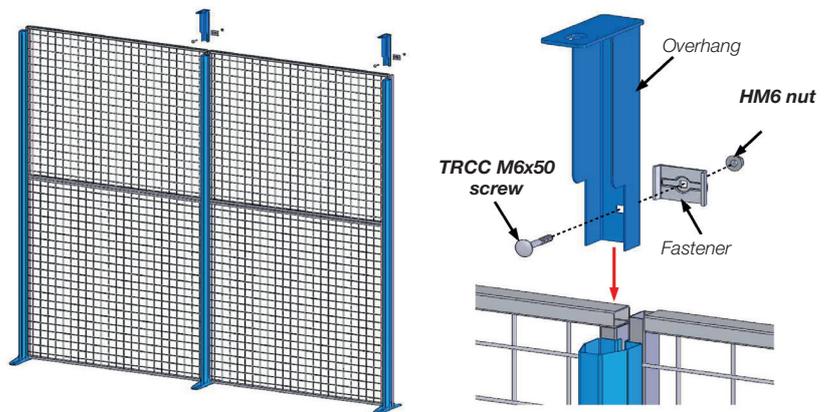
Step 3

- If the sliding door is wider than 1500 mm, the door panels are joined together with 2 connectors and HM6 x16 screws.



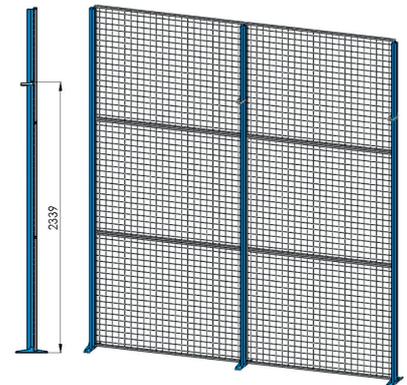
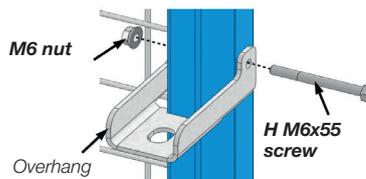
Step 4

- Fix the overhangs on the uprights that will carry the door rail.
- Fix first the clamp to the overhang and then insert into the upright.



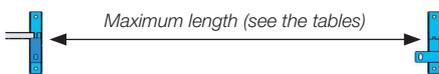
If the wall is higher than the sliding door, install the overhang horizontally in order to fix the rail.

- Make a M6 hole in the upright at door height + 139 mm.
- Example :** door 2200 mm = hole at 2339 mm from the floor
- Fix the horizontal overhangs with HM6 x 55 screws and M6 nuts.

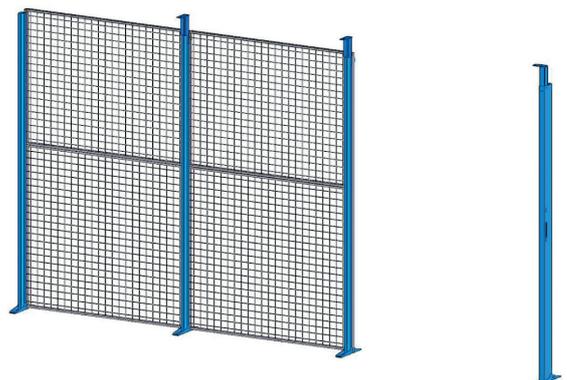


Step 5

Install the frame according to the maximum dimensions (see the tables) and adapt frame foot plates to upright foot plates.

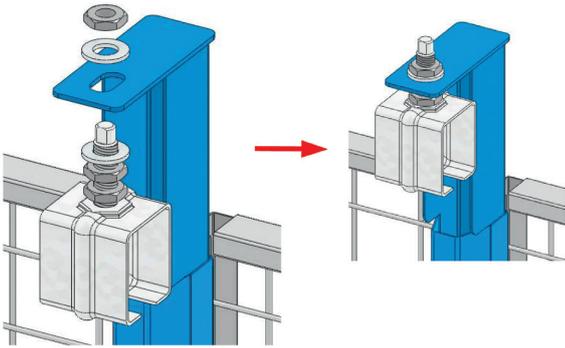


Length (mm)	Maximum length	
	H. 2200 mm	H. 3000 mm
1000	924	924
1200	1124	1124
1500	1424	1424
2000	1819	1819
2400	2219	2219
3000	2819	2819

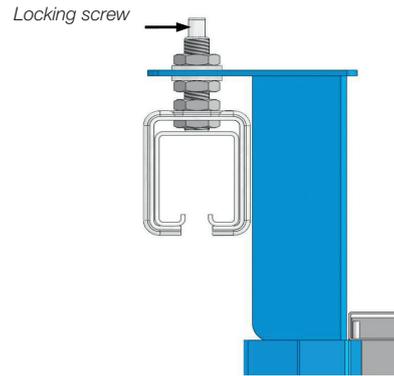


Step 6

- Fix the rail supports to the overhang supports.
- Do not screw the parts together in the aftermath in order to adjust the door.

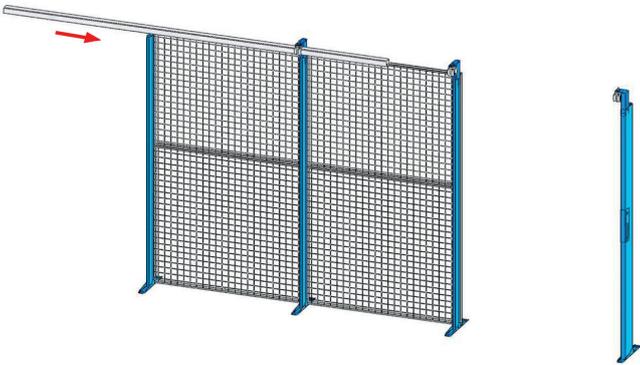


The rail supports allow to lock the rail with the screw.



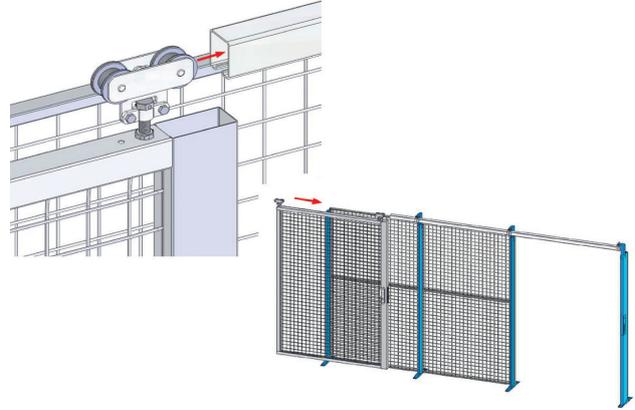
Step 7

Insert the rail in the supports



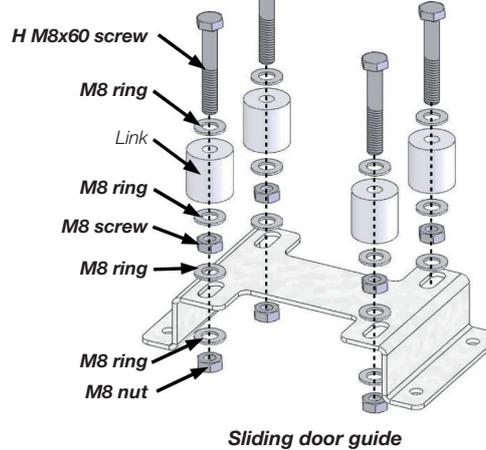
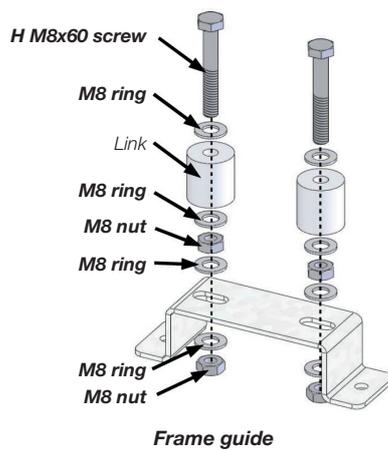
Step 8

Let the door with rollers slide into the rail.

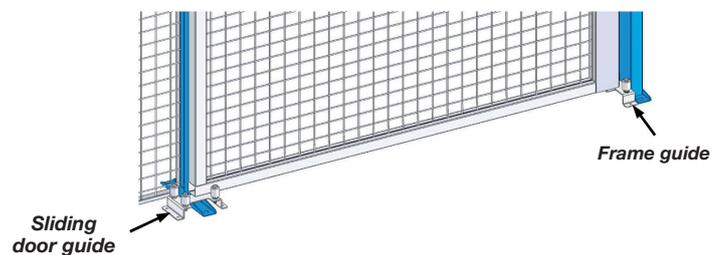


Step 9

- Assemble the door guides.
- Do not screw the parts together until everything is in the correct position.

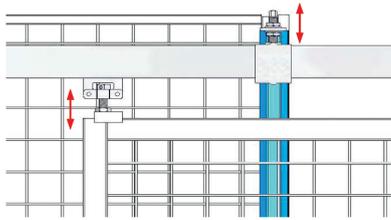


- Install the door guides.
- Fix the guides to the floor with M6x60 bolts

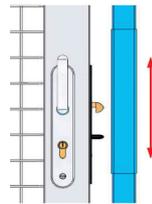


Step 10

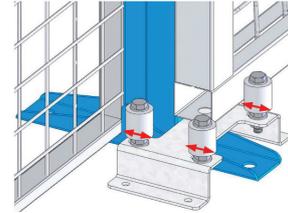
- Adjust the door.



Adjust the height of the door



Adjust the lock

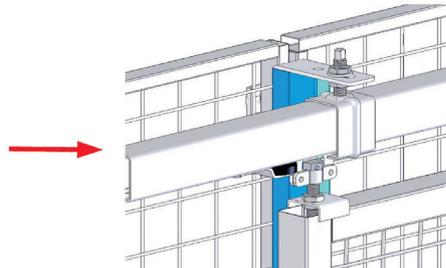
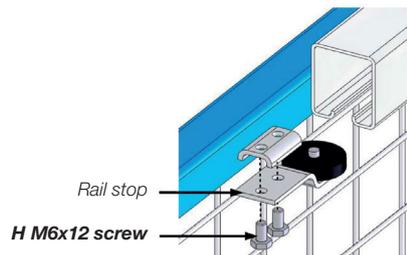


Adjust the door guides

- When everything is adjusted, then tighten the screws.

Step 11

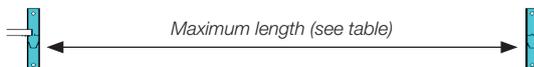
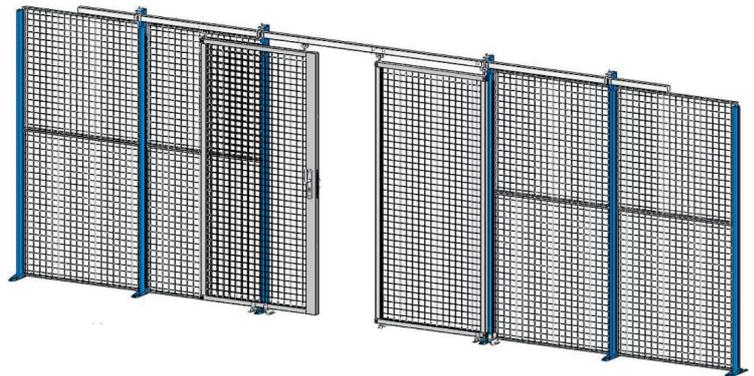
- Install the rail stop.



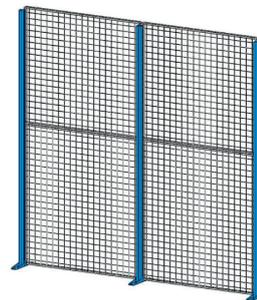
b - Double sliding door

Useful length of double sliding doors	
Length of the door in mm	Useful length in mm
2000	1725
2400	2125
3000	2725

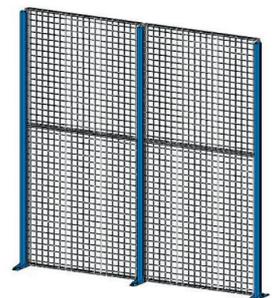
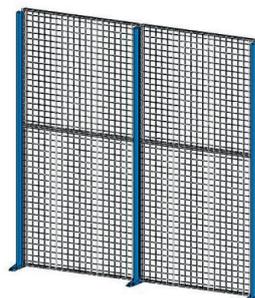
- First check door opening direction.
- Fix the rollers on the sliding doors (2 rollers per panel). (see sliding door step 2).
- Install the wall upright to leave the free passage of the double sliding door. (see table).



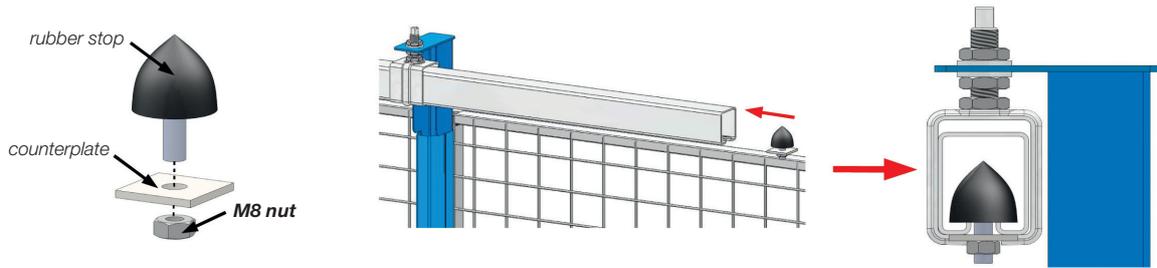
Maximum length/ installation of the upright		
Length (mm)	H. 2200 mm	H. 3000 mm
2000	1785	1785
2400	2185	2185
3000	2785	2785



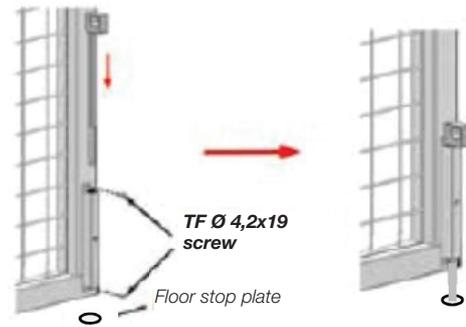
- Install the 2 next panels.
- Put the overhang supports on the uprights that will carry the rail (see single sliding door step 4).
- Fix the rail supports to the overhang supports. (see single sliding door step 6).
- Insert the rail in the supports. (see single sliding door step 7).



- Assemble the middle door stop and insert it in the rail.
- Put the door stop in the middle of the door opening (do not tighten at once).



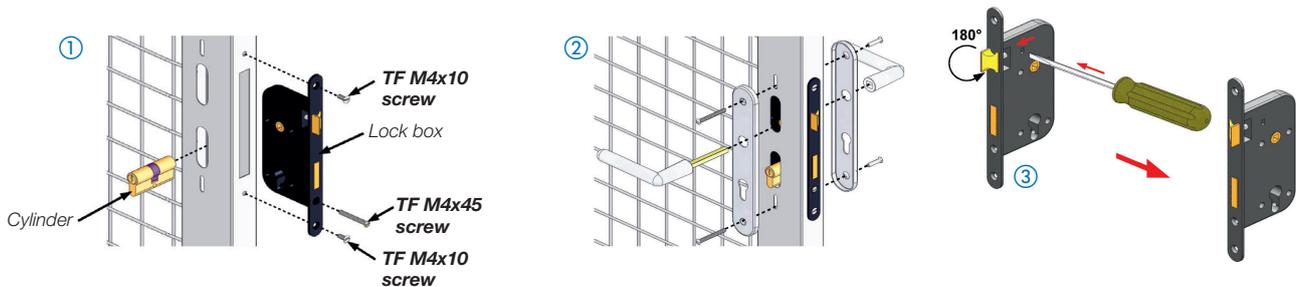
- Insert the 2 door panels in the rail according to the door opening. (see single sliding door step 8).
- Assemble the 2 guides of the sliding door.
- Put the guides on the door uprights (see single sliding door step 9).
- Adjust the door panels (see single sliding door step 10).
- Insert the rail stops (see single sliding door step 11).
- Fix the crutch on the door with diameter 4,2x19 screws.
- Fix the floor stop plate with M6x40 plugs.



13 Mounting of the lock

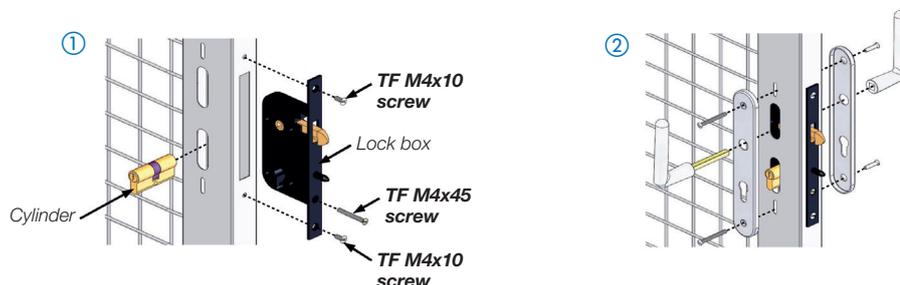
Lock for leaf door

- Insert the lock in the door and fix it with M4x10 screws.
 - Insert the cylinder in the lock and fix it with M4x45 screws.
- Mount the handles with the screws.
- To turn the lock hatch, insert a screwdriver in the hole and push the small button.
 - Turn the nose to 180°.



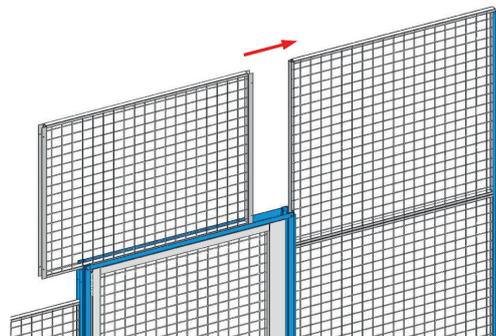
Lock for sliding door

- Insert the lock in the door and fix it with M4x10 screws.
 - Insert the cylinder in the lock and fix it with M4x45 screws.
- Mount the handles with an angle of 90° with the supplied screws.



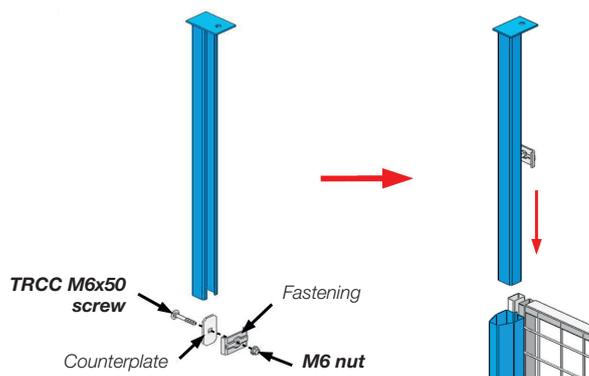
14 Mounting of a top panel

- Insert the top panel on the panel.
- Fix it with $\varnothing 4,2 \times 19$ screws. (4 per panel).



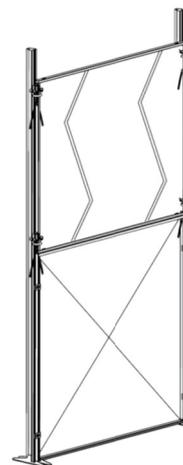
15 Mounting of a ceiling fixing

- Assemble the counterplate with the clamp.
- Insert it in the ceiling fixing.
- Insert in the upright.
- Fasten the ceiling fixing to the upright.
- Fix the ceiling fixing to the ceiling (screws not supplied)..



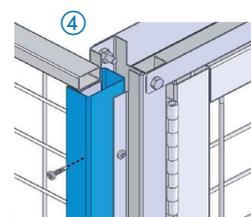
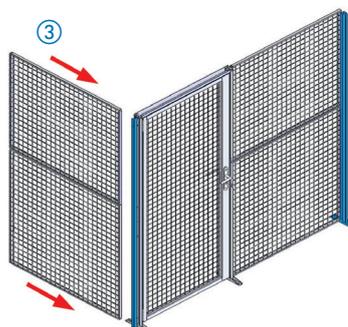
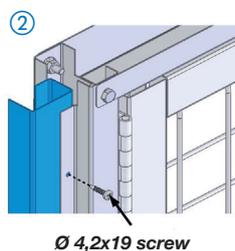
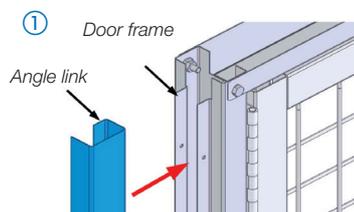
16 Mounting a plexiglass panel

- The mounting of the plexiglass panel is the same as the standard panel.



17 Mounting of an angle link for leaf door

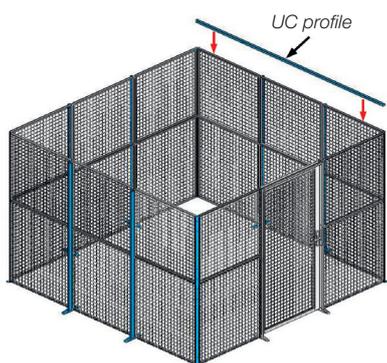
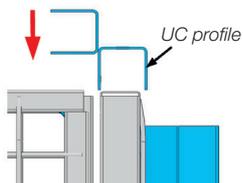
- ① • Insert the angle link profile in the leaf door frame.
- ② • Fix the angle link profile in the frame with screws diameter 4,2x19.
- ③ • Insert the panels in the angle link profile.
- ④ • Fix the panels in the angle link profile with screws diameter 4,2x19.
 - Use 2 screws per panel (module).



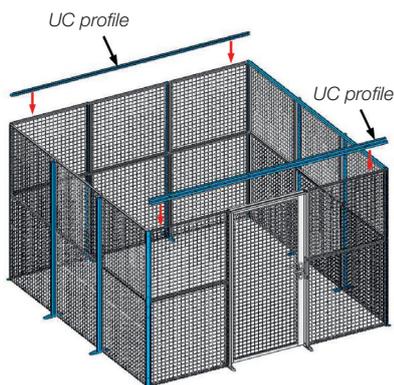
18 Mounting of a roof

Roof with 4 sides wall

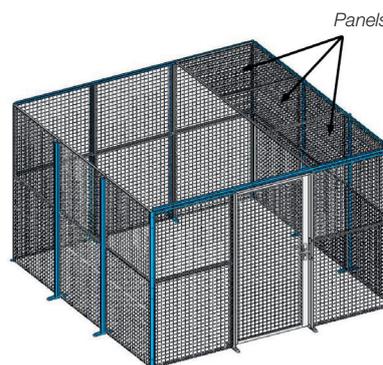
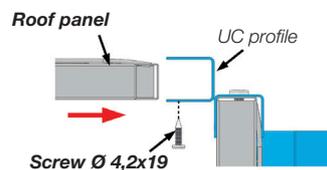
- ① • When you have mounted the 4 sides of the wall, insert the UC profile instead of the U top profile.
 • To not fix the UC profiles at once.



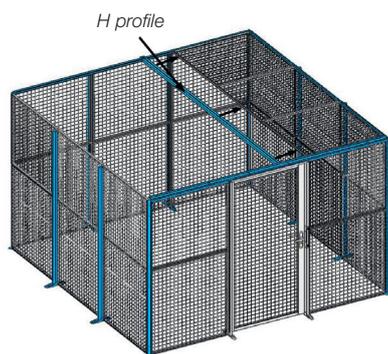
- ② Make the same for the 2 side UC profiles.



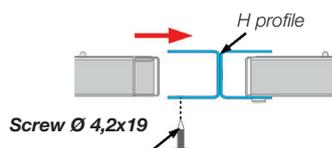
- ③ • Insert the first panels in the UC profiles.
 • Adjust the last panel if necessary (see § 7 – cutting of the panels)..



- ④ • Assemble the H frame with 2 finition U frames and the M6x12 screw
 • Fit the H frame on the roof panel
 • Fix the H frame with the self-drilling screw 4.2x19.



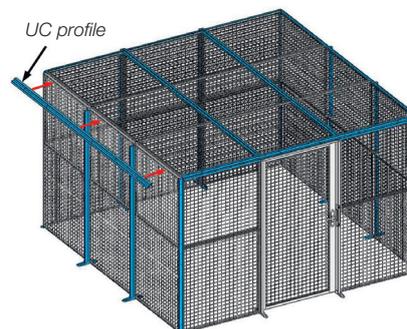
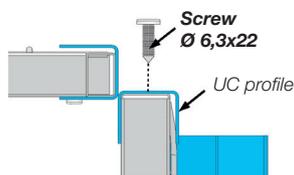
- ⑤ • Fix the H profile from the bottom side with screws diameter 4,2x19.
 • Insert the next roof panels in the H profile and the UC profiles.



- ⑥ Fix the roof panels in the H profile with diameter 4,2x19 screws.
 Repeat this operation as many times as necessary

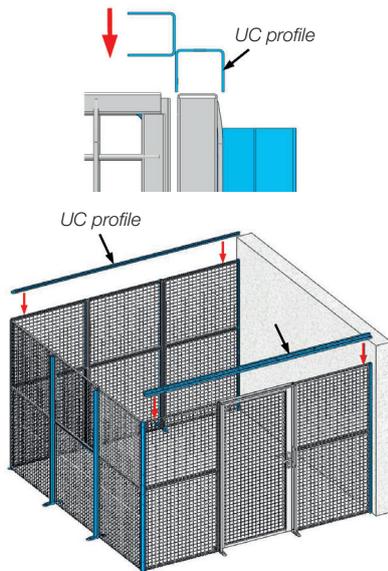


- ⑦ • Insert the last UC profile on the roof panels and the wall panels.
 • Fix the UC profiles from the upper side with diameter 6,3x22 screws

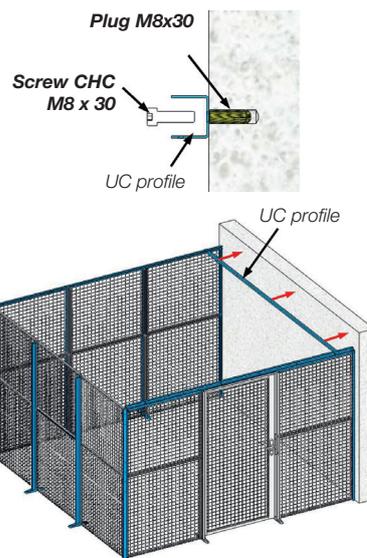


Roof with 2 or 3 sides wall

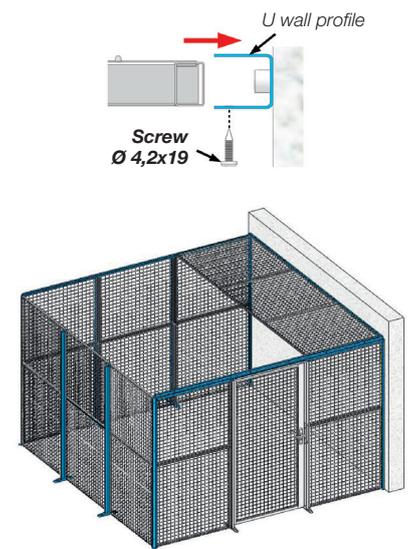
- Insert the UC profiles on the wall.
 - Do not fix the UC profiles at once.



- Fix the U wall profile at the same height than the UC profiles with M8 x 30 plugs and CHC M8 x 30 screws.



- Install the first panels in the UC profiles and U wall profile.
 - Adjust the last panel if necessary. (see § 7 – cutting of the panels).
 - Fix the roof panels in the U wall profile and in the UC profile with diameter 4,2x19 screws
 - Continue the mounting, see **§ 4 roof on 4 sides wall.**



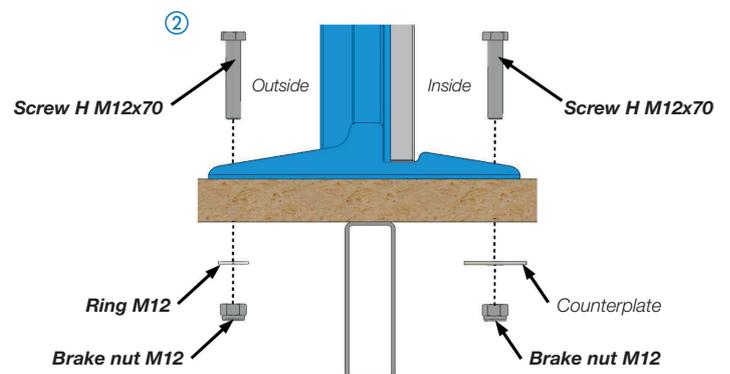
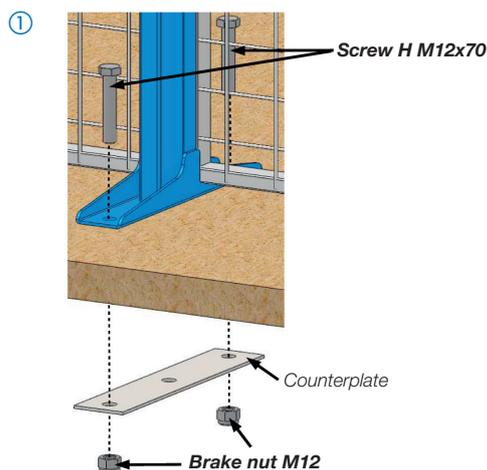
19 Mounting of an industrial wall on a mezzanine floor

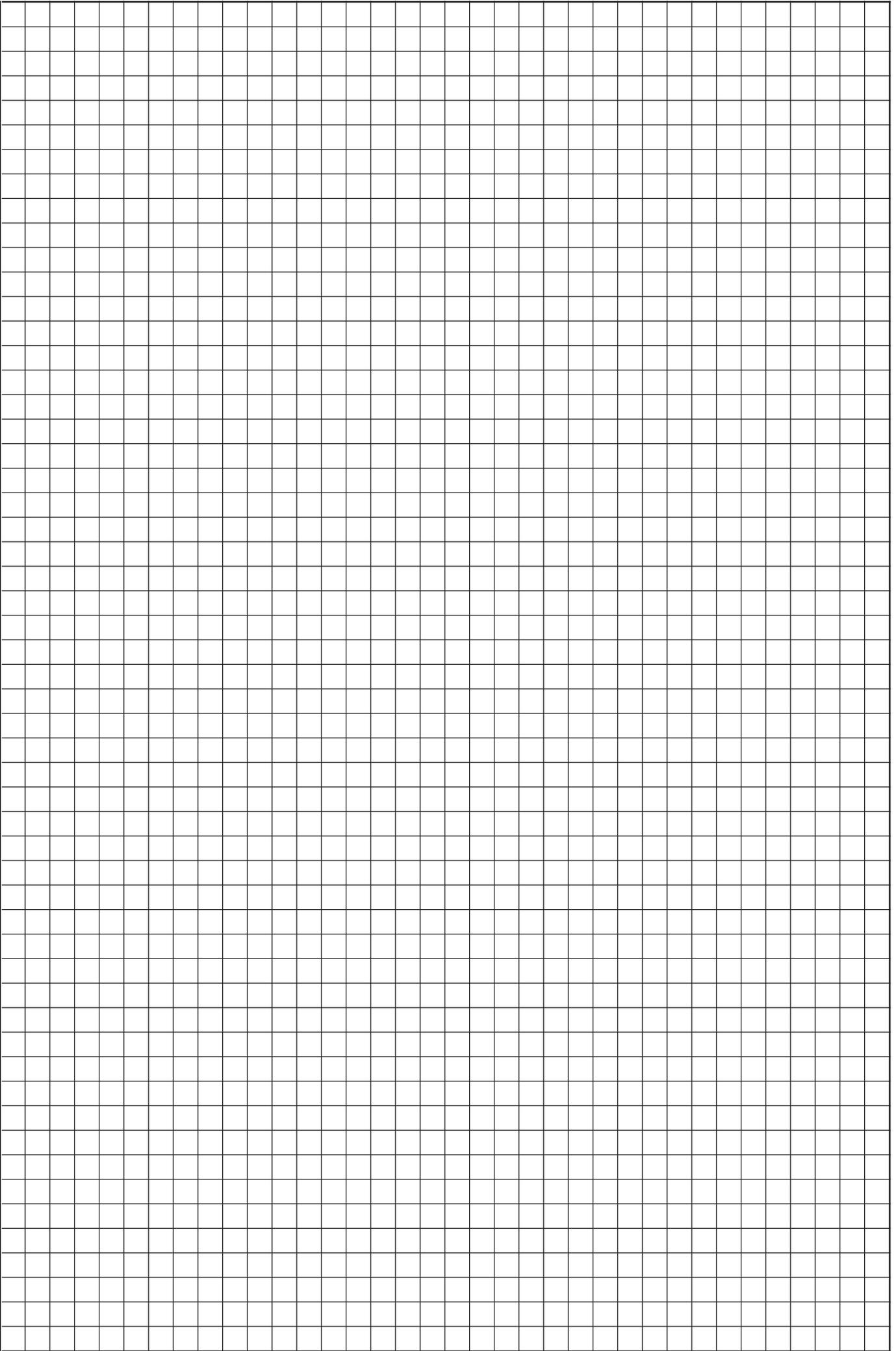
Important : The industrial wall shall not be used as handrail.

When you mount an industrial wall on a mezzanine floor, use counterplates to fix uprights, screws M12x70 and brake nuts M12.

2 possibilities to fix of the counterplates :

- ① : no hindrance under the upright footplate.
- ② : A beam under the upright.







MANO RACK