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Cable Management Side Rack Installation Instructions



Region
Europe

Cable Management Side Rack
Installation Instruction

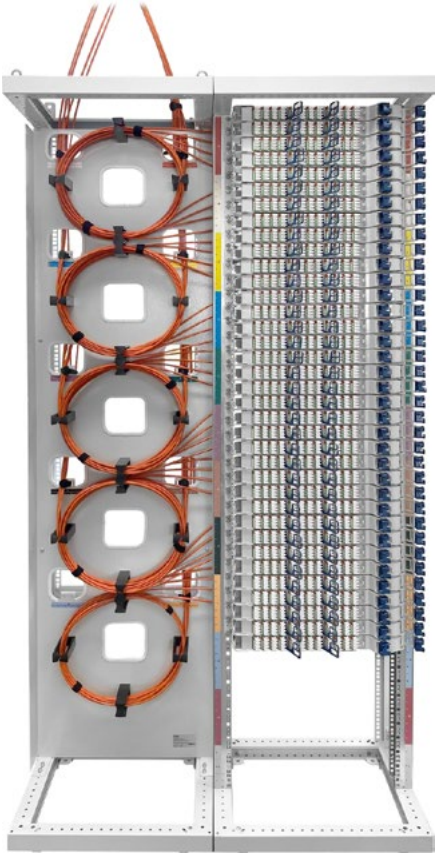


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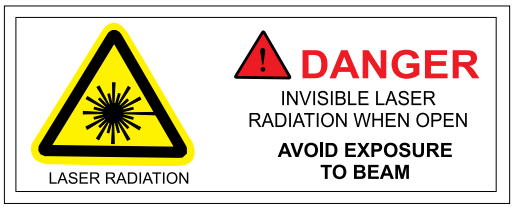
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IMPORTANT INSTRUCTIONS

When using fiber optic equipment, basic precautions should always be followed to reduce the risk of injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Laser light can be visible or invisible and can cause serious eye injury.
   Do not look directly into the end of a fiber optic connector.
   Do not look directly into the end of a fiber optic adapter having a fiber optic connector.
4. Install dust caps or plugs onto unused fiber optic connectors or non-shuttered fiber optic adapters.
5. Use an optical power meter to verify active fibers as necessary.

SAVE THESE INSTRUCTIONS



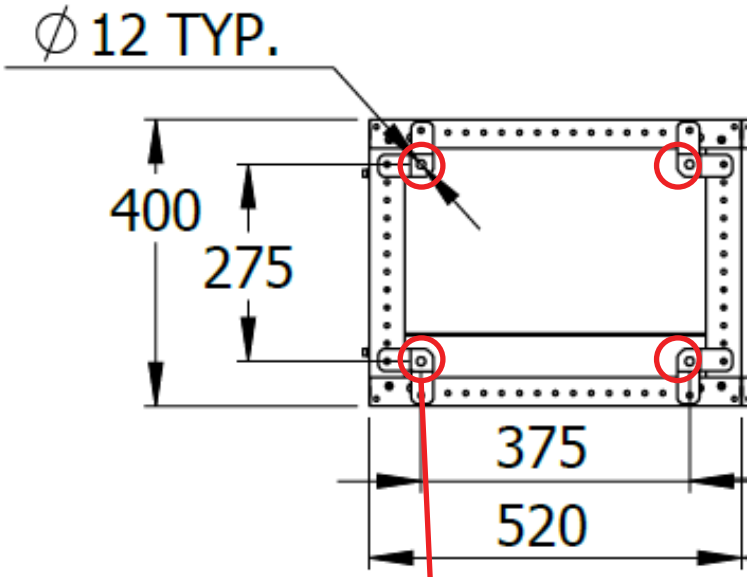
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1. Assembly of the rack

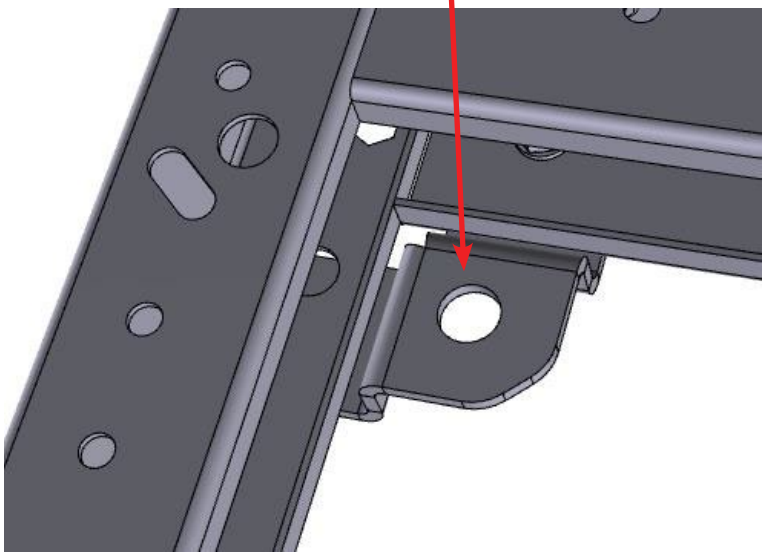
1.1 Floor Mounting and earthing process

1.1.1 Floor Mounting

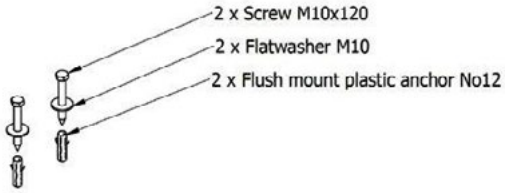
I. Mountinghole positionsand requiredmaterial



Left: Schematic view showing the positions of the 4x floor fixing holes (circled in red).



Below: accessory set for floor mounting.This set is for example only and is NOT included in the scope of delivery. The exact screw types and screw lengths must be adapted to the conditions onsite.



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II. Side rackfloormountingprocedure

Please note: This is an installation for a team of minimum two people. Before starting the installation make sure that:

- there is enough room around the side rack to allow proper installation and maintenance
- the concrete floor is even, leveled and clear from any debris
- a set of suitable screws, washers and anchors for use with a solid concrete floor is used.
  For any other type of floor, the installer must determine adequate installation method and additional materials, if needed

If any of the conditions above are not met or you have other concerns, do not proceed with the installation.

The installation consists of the following steps:

1. The rack has to be placed directly next to the ODF rack (shown on page 7) so that the bottom frames incl. the mounting holes (shown on page 8) perfectly align. This has to be kept in mind when marking the hole positions. Using a pencil or a marker, mark the positions for the four holes with the help of the schematic view on page 4.

2. Make sure that no cables or other pipes are installed in the floor in the area of the holes.

3. Use an electric hand drill to make the four holes (Diameter and depth must be compatible with the accessories to be used).

4. Fully insert the anchors into the holes and tap home with a hammer if necessary.

5. Position the side rack at the mounting site.Thread the screws & washer through the holes and loosely screw them in to the anchors.

6. Use a ratchet to tighten the screws.

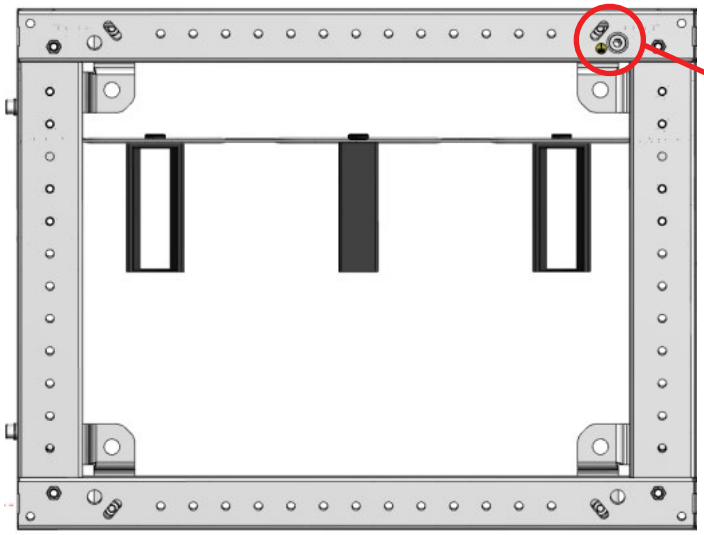
7. After finishing the installation, verify that the side rack is solidly fixed to the floor and that there is no gap between the side rack and the floor

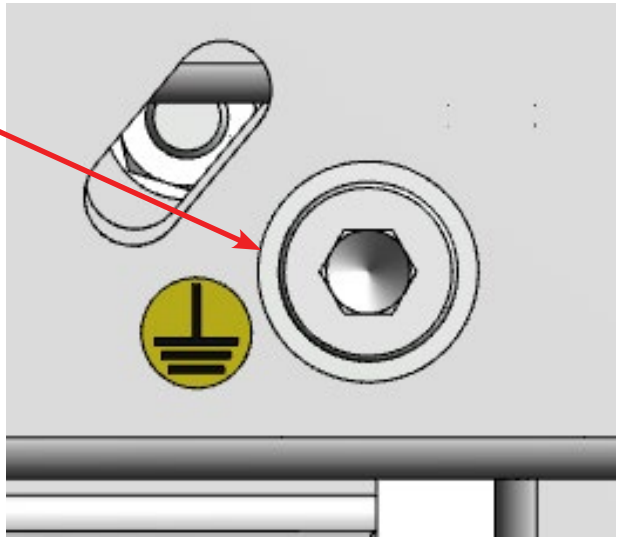
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1.1.2 Side rack earthing procedure

I. Earthingpoint positions





II. Earthing procedure

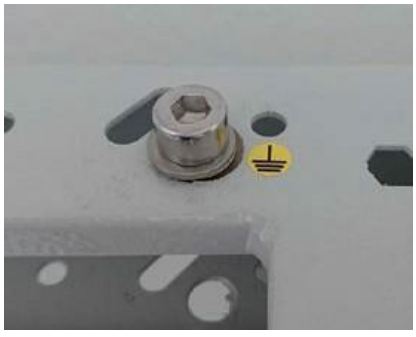
Before starting make sure that:

- there is enough room around the side rack to allow proper earthing procedure
- the concrete floor is even, leveled and clear from any debris
- a suitable and safe ladder is used

If any of the conditions above are not met or you have other concerns, do not proceed.

The earthing points can be found on top of the frames at the positions marked in the figure below:

1. Use a suitable and safe ladder.
2. Use a ratchet with 6mm allenkey insert to loosen the M8 screw.



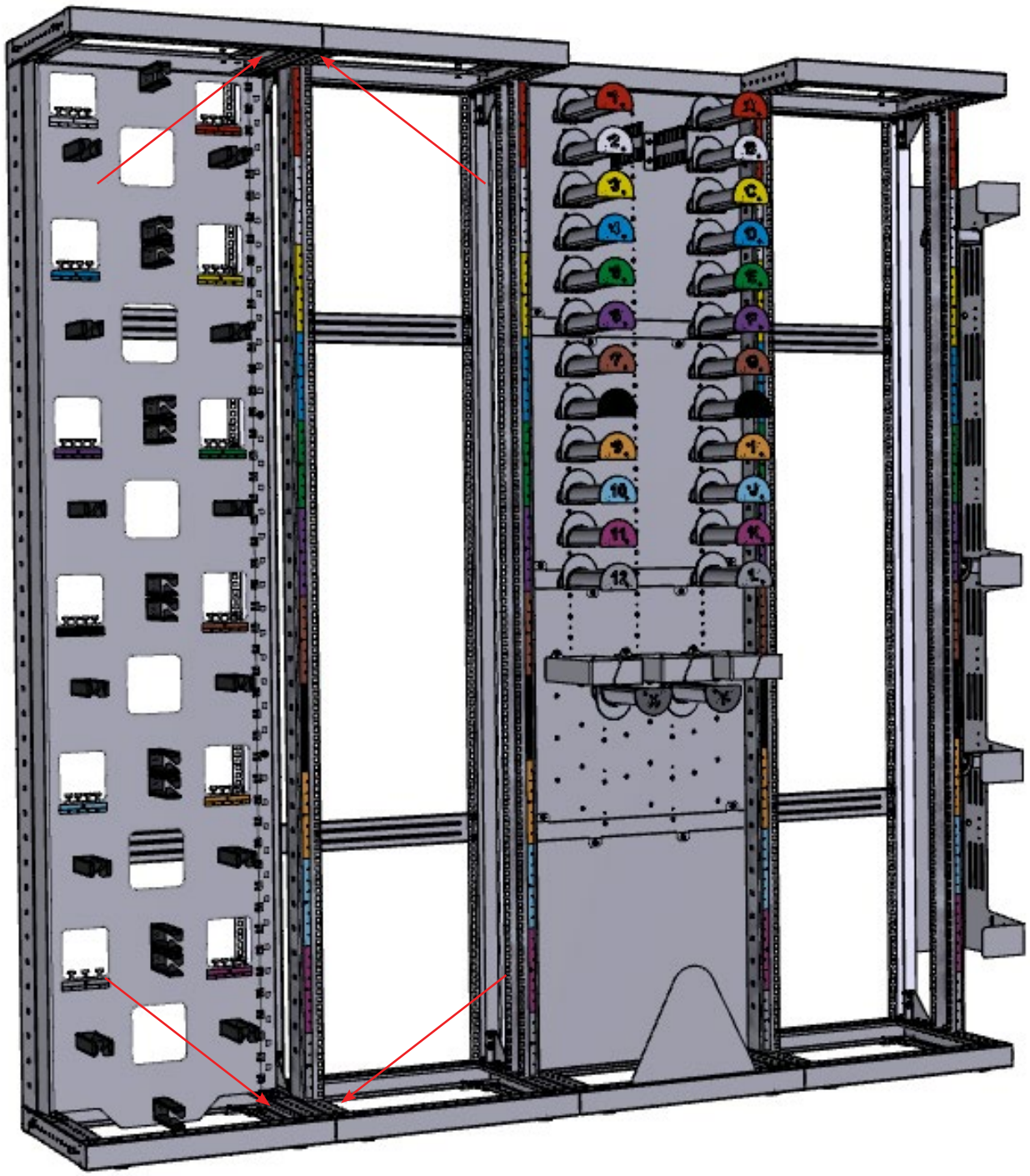
3. Insert the screw first through one washer, then through the M8 ring terminal of the earthing cable, and then through the second washer.
4. Use the ratchet to fasten the M8 screw.
5. Repeat this procedure for all other earthingpoints

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1.2 Mounting the side rack to the main rack

The side rack has to be mounted to the left side of the ODF rack.To make room for the side rack, the cable channel on the left side of the ODF rack has to be removed. The position of the mounting holes is in between the adjacent frames and is marked in red in the image below.

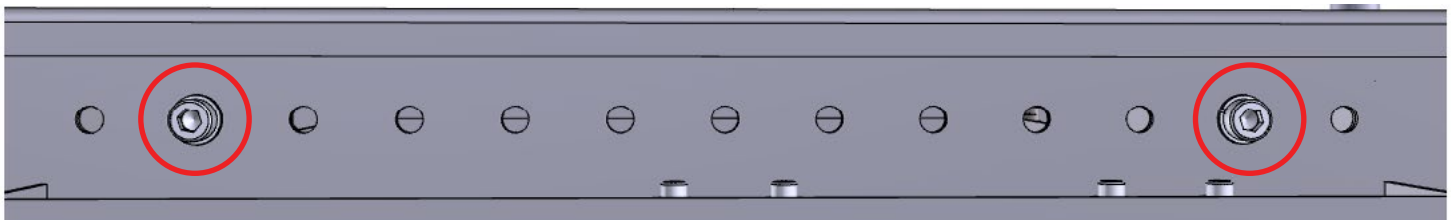


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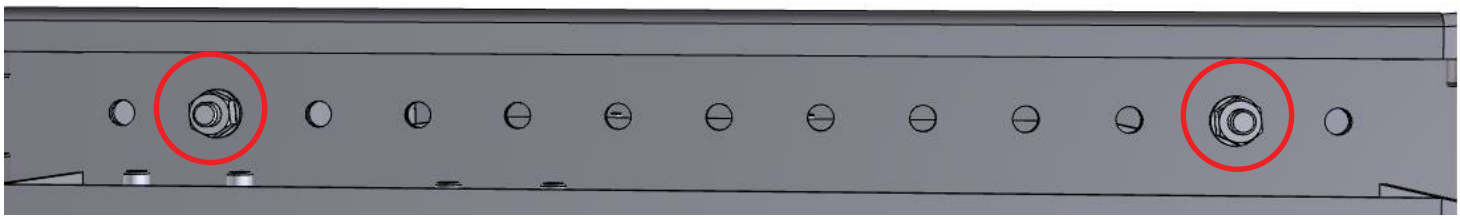
Top of the rack:

Towards the back of the rack use the second hole counted from the back. Towards the front use the second hole counted from the front. Insert the screw and washer from the ODF rack towards the side rack. On the other side attach a snap ring and the nut and fasten it until a tight hold is achieved. All of these items are included with the delivery.

ODF side:



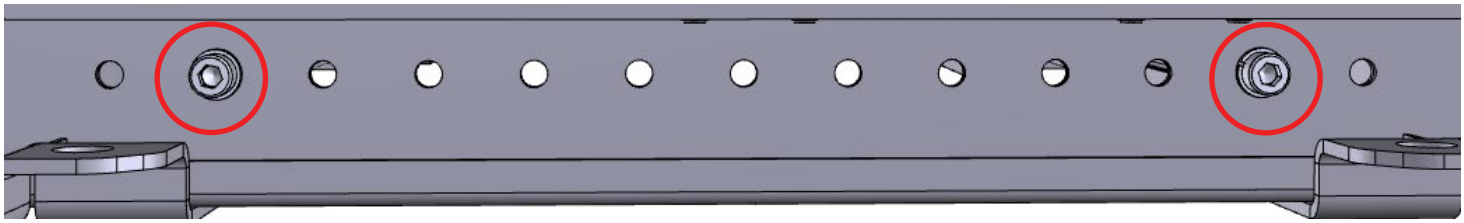
Side rack side:



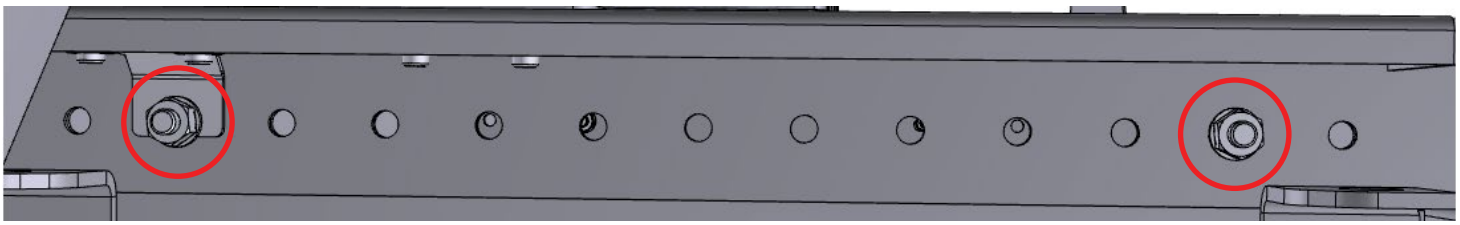
Bottom of the rack:

Towards the back of the rack use the second hole counted from the back. Towards the front use the second hole counted from the front. Insert the screw and washer from the ODF rack towards the side rack. On the other side attach a snap ring and the nut and fasten it until a tight hold is achieved. All of these items are included with the delivery.

ODF side:



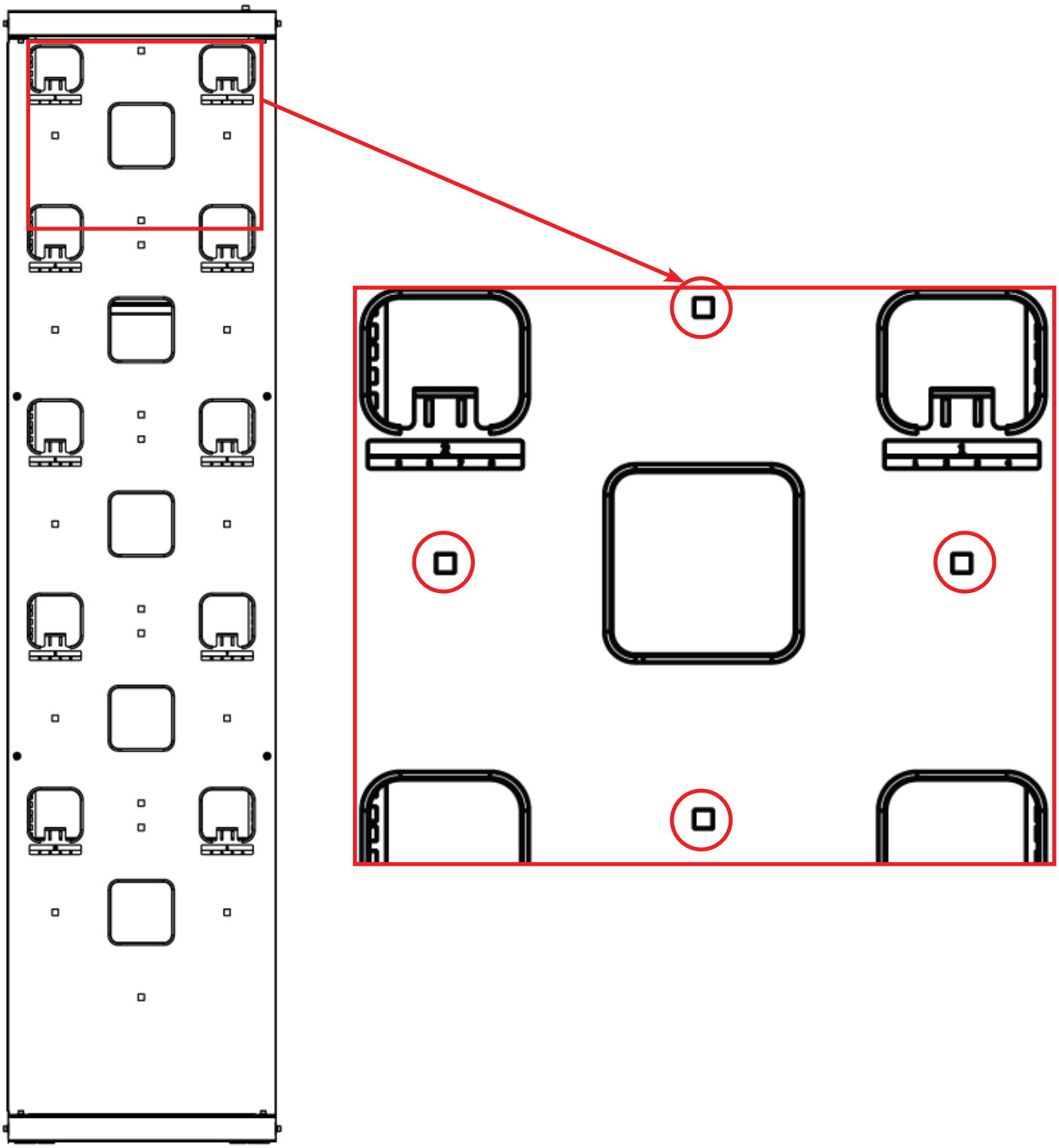
Side rack side:



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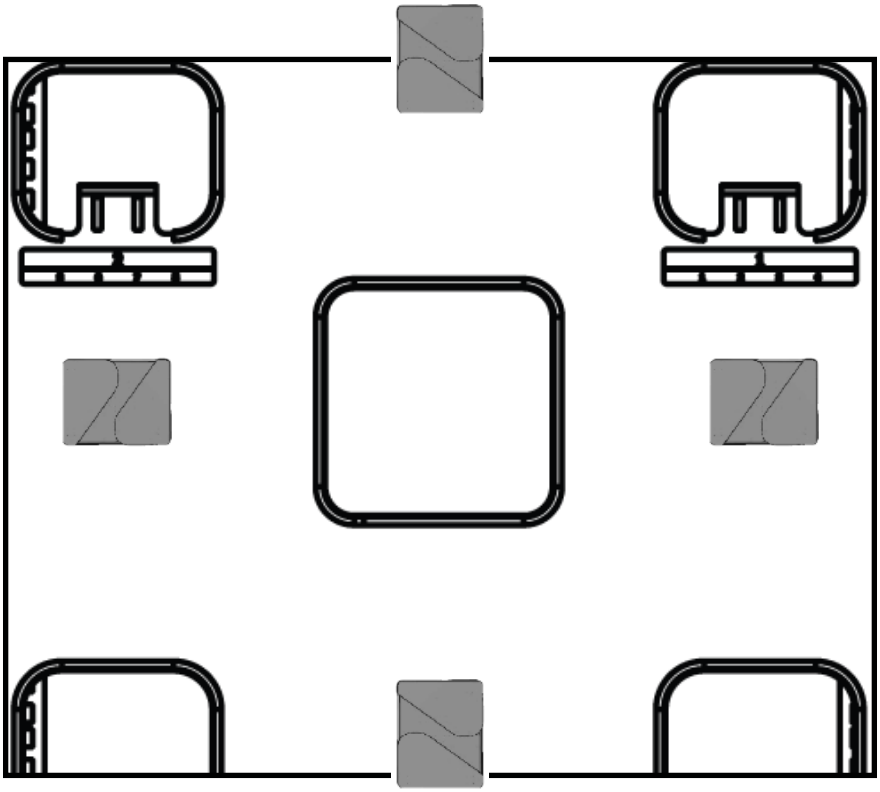
1.3 Mounting the cable managers

Important: To simplify handling, we recommend to mount the cable managers only in the part of the side rack you are working on. The correct timing is further explained in point 2.2 (in step 6).



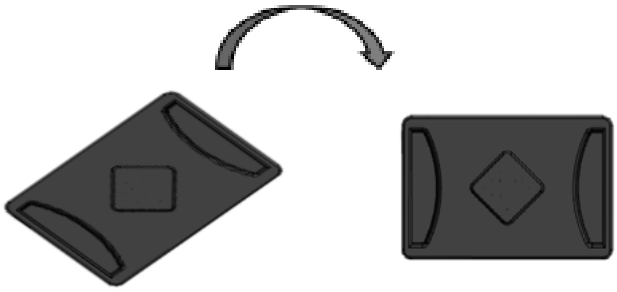
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To form a ring, the cable managers on the left and right side of each area of the pattern have to be positioned with the open sides facing up- and downwards, while the open sides of the top and bottom one are facing to the left and right side. This is shown in the picture below.



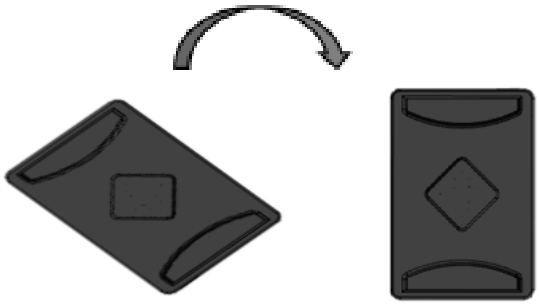
To lock the cable managers into position, they have to be brought through the hole in a 45°angle from the final position. This is shown in the bottom.

Left and right cable manager:



Bring through hole as seen above and then twist 45° to the right to lock in place.

Top and bottom cable manager:

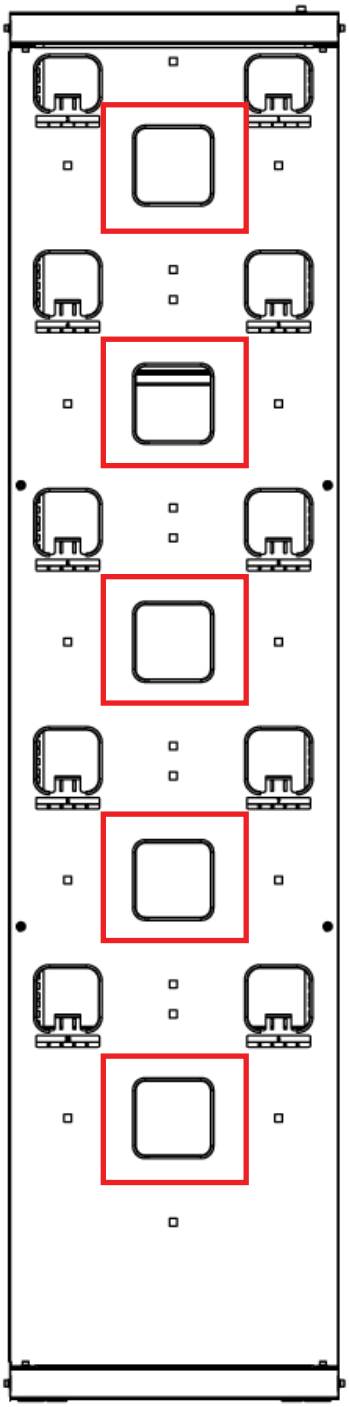


Bring through hole as seen above and then twist 45° to the right to lock in place.

2. Pivoting panel installation process

2.1 Functionality of the fiber management system

2.1.1 Openings for the hand



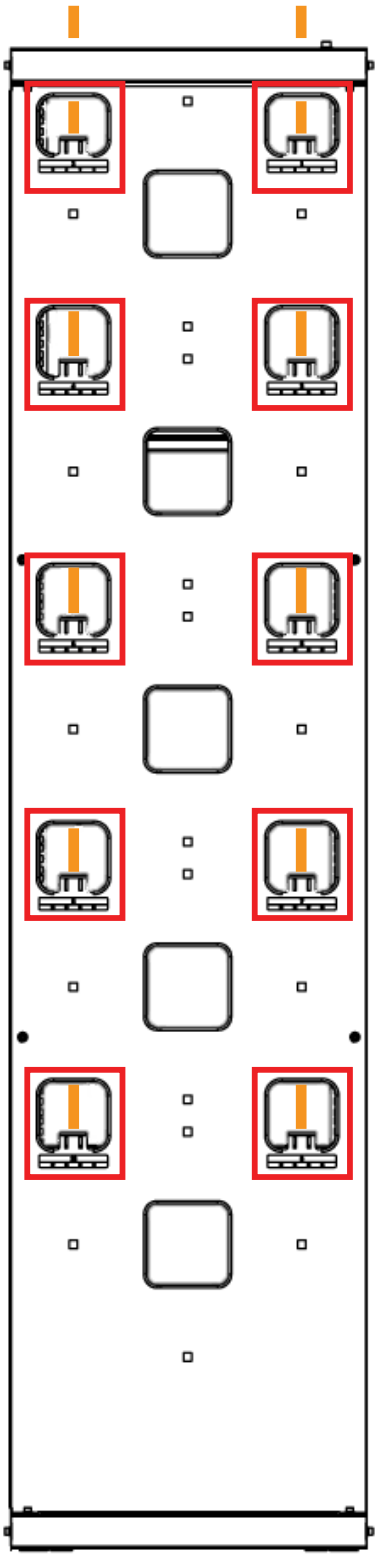
The openings for the hand are located at the center of each cablering and are marked in red rectangles in the image on the left.

These openings are used to be able to reach and guide the cables behind the back plate, even when the rack is installed with the back to a wall.

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2.1.2 Openings for cable insertion



The openings for cable insertion are located at the sides of the backplate and are marked in red rectangles in the image on the left.

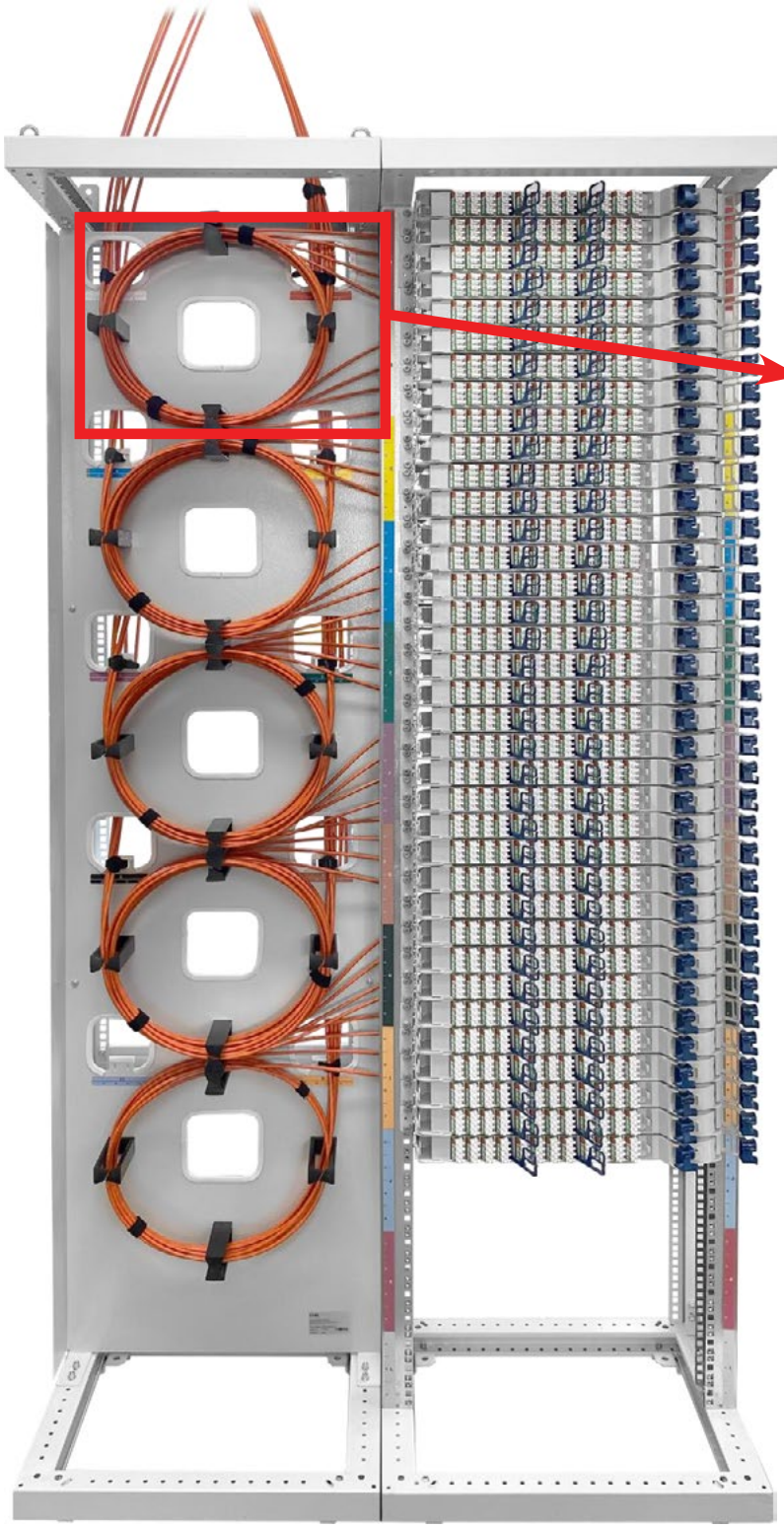
Since the cables are handled behind the backplate (illustrated in the image on the left with orange cables), to save space on the front and have a tidier cable storage, we need thes eopenings to bring them to the front at the position of the corresponding cable managers.

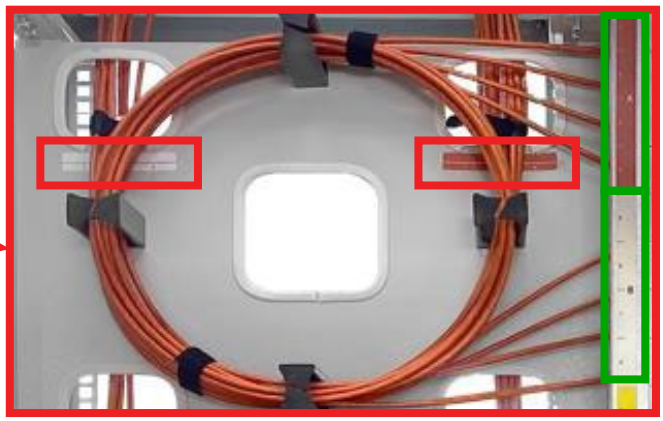
The designation of each panel/ cable to the right opening is describedi n point 2.1.3.

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2.1.3 Color coding





The colored labels underneath the openings for cable insertion (red rectangles) utilize the same colors as the labels on the rails of the ODF rack (green rectangles).

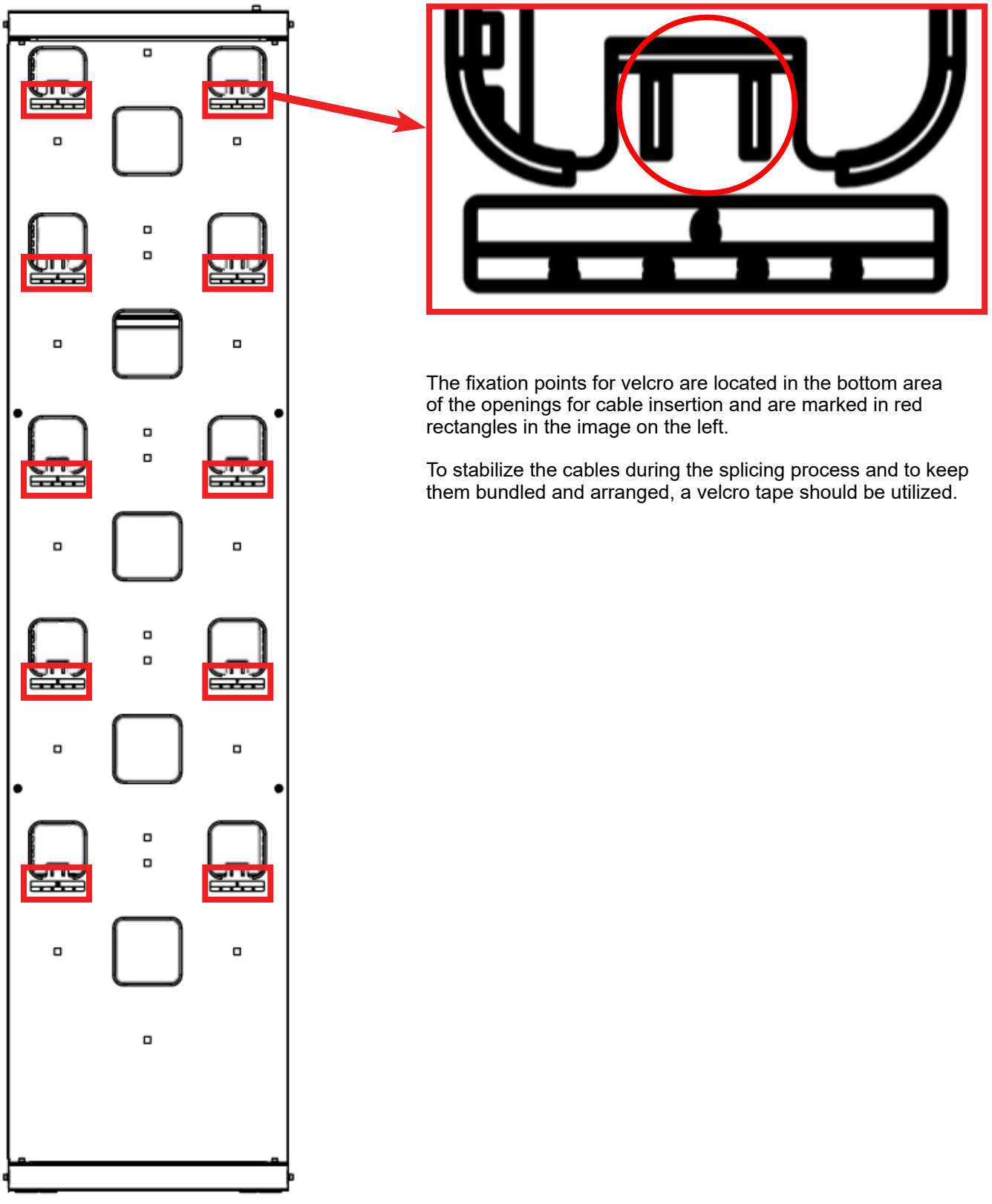
The cables being spliced to the four panels mounted in each color area are all inserted through the opening with the same color. E.g. the first four panels are mounted to the red area. All four cables that are spliced to them are brought through the opening marked with red.

The openings at the same height level (red and white, yellow and blue, green and violet, brown and black, orange and aqua) are utilizing the same cable managers. So eightc ables total per cable ring.

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2.1.4 Fixation points for velcro



The fixation points for velcro are located in the bottom area of the openings for cable insertion and are marked in red rectangles in the image on the left.

To stabilize the cables during the splicing process and to keep them bundled and arranged, a velcro tape should be utilized.

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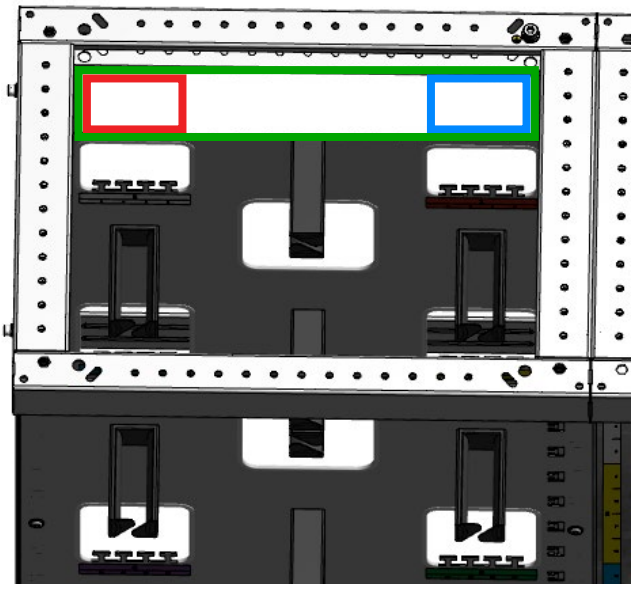
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2.2 Step-by-step manual – Installation process

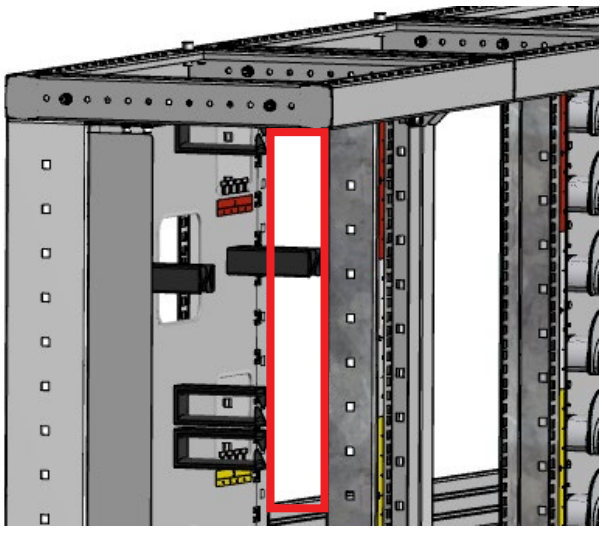
1. The cable is entered from the top of the rack, between the rear frame and the backplate(opening marked with a red rectangle). If the cable is guided through a cable opening on the left side, it has to be brought in towards the left end (green rectangle), if it is guided through a opening on the right side, it has to be brought in towards the right end (blue rectangle).



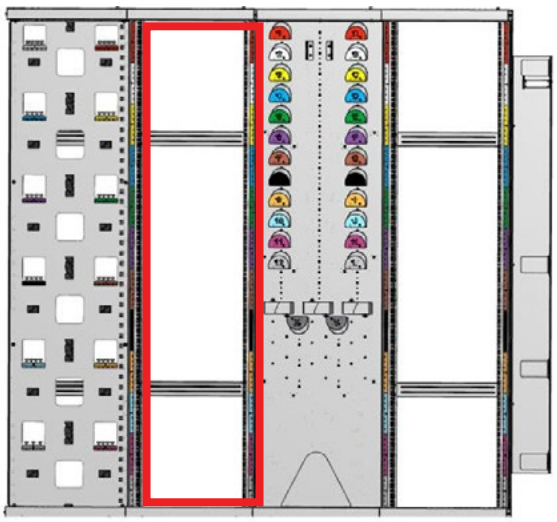
2. Insert the cable through the correct opening, depending on what colored area of the rack the current panel is going to be installed in. Details for correct assignment can be taken from point 2.1.3.

3. Bring the cable through the opening between the ODF and side rack (1.) and then out between the 19“ rails of the ODF rack (2.). It does not matter at which height you guide the cable through the openings, as long as you do not interfere with panels that are already installed in the ODF rack.

1.



2.



4. Use a velcro tape at the cable entry opening to stabilize the cable and to prevent it from moving around too much. Each time you add the next cable through the same opening, you should open the velcro and add the new cable to the bundle.



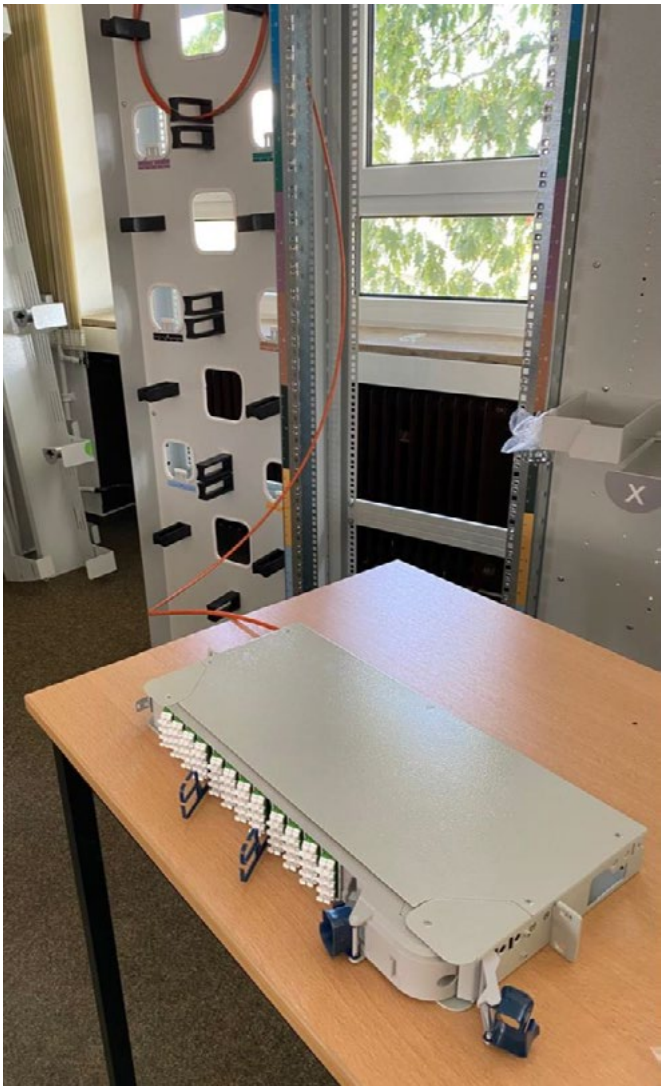
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5. Attach and splice the cable to the pivoting panel according to the installation manual for the ODF. You can view the installation manual by scanning the QR-code on the inside of the panel.



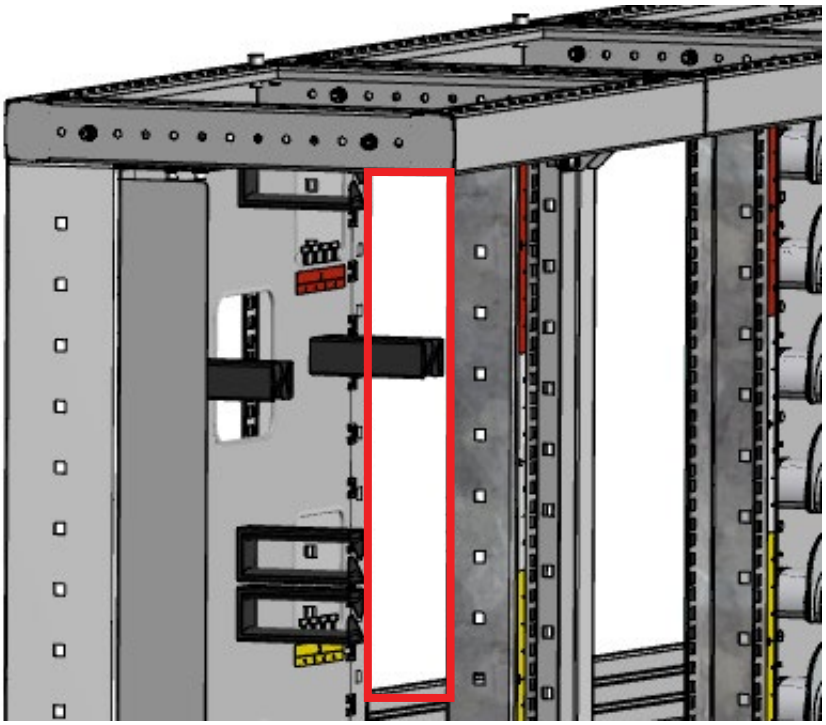
We recommend carrying this step out on a table placed in front of the rack.



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6. Mount the cable managers in the area the panel is designated for. Tof orm a complete cable ring, you need four pieces. The mounting process is defined in Point 1.3 of the manual

7. Mount the panel into the ODF rack in the designated height unit. While bringing it close to the rack, move the overlength through the slot shown below into the side rack. Also take care that the cable is not damaged or getting caught on anything.



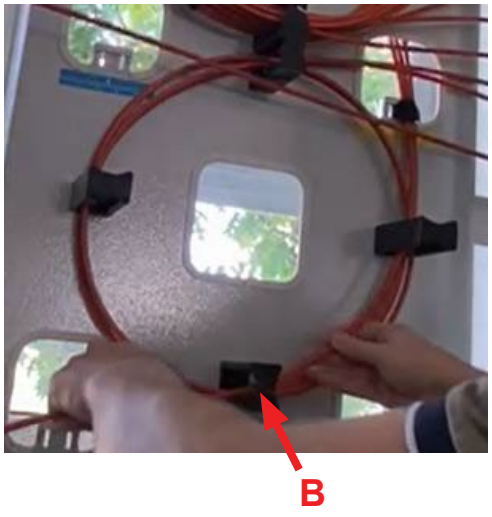
8. Store the overlength of the cable, which is spliced to the panel, inside of the side rack.



The following images give you a visualisation of the process, while the different cable routes and regulations can be found in point 2.3. The method we used was determined to be a simple and reliable method and is simply a recommendation. As long as all regulations from point 2.3 are kept, the method can be modified to personal preference.

Bring the cable that is fixated to the cable insertion point through the first(A) and second cable manager(B).

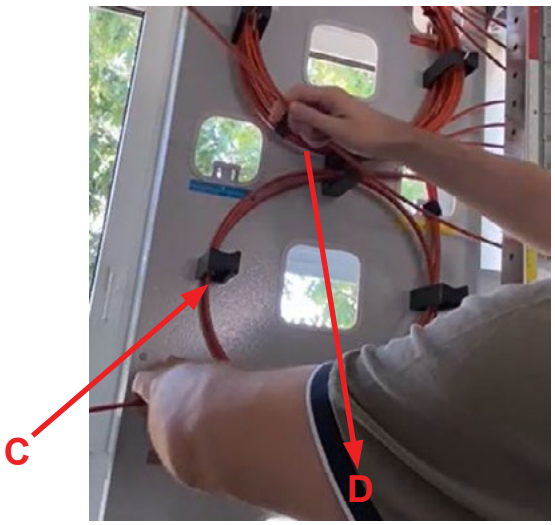




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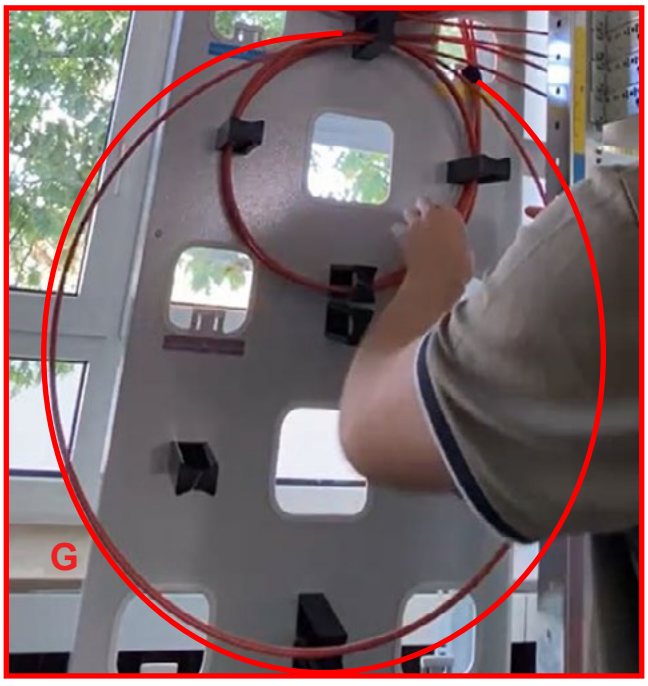
While continuing to the next cable manager (C), grab the cable closely towards the other end (close to the panel) and bring it downwards. This creates a loop of the cable.



Push both cables into the top cable manager, starting with the end closer to the panel (E) and followed by the end originating from the cable fixation opening (F). This will lead to you having one loop already installed and a second larger loop (G).

Important: The size of the second loop might vary, depending on how much overlength you used when splicing the panel. The picture is exemplary.

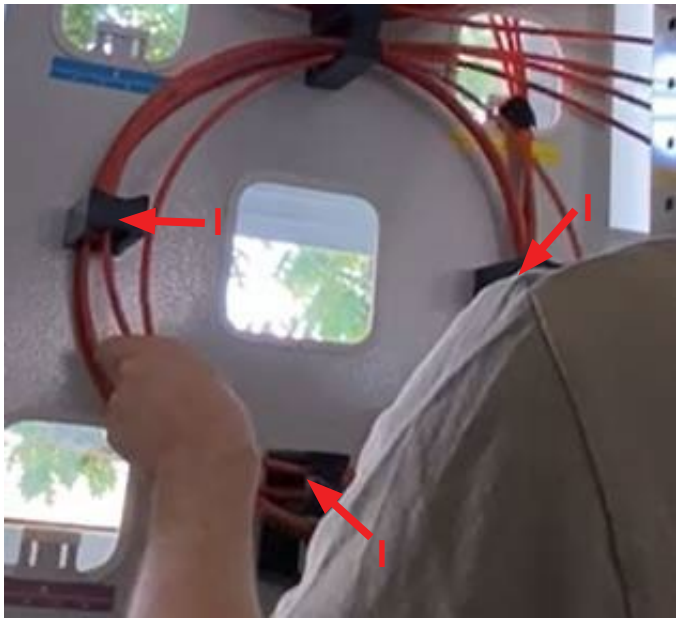


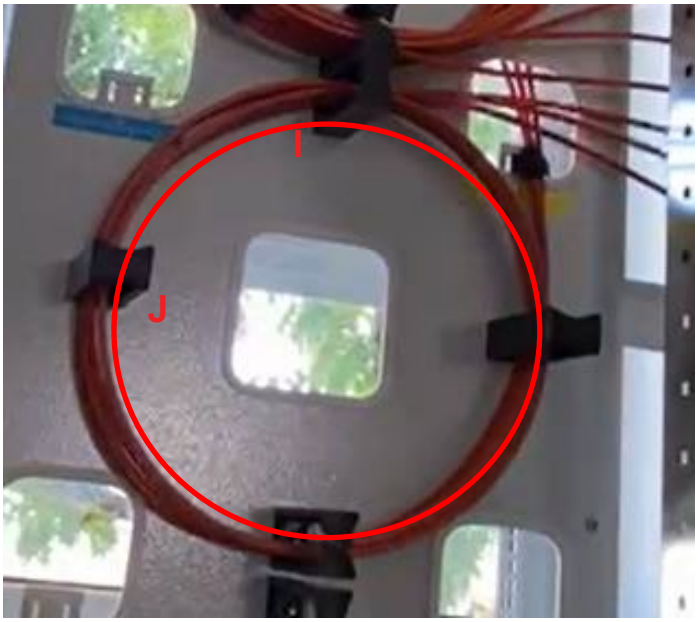


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Push the cable back towards the cable insertion (H), until the second loop is small enough to clip it into the fiber managers (I). If the velcro tape hinders you, open it up until the cable is pushed back far enough. After this step is completed, you will have a tidy ring with two loops (J).

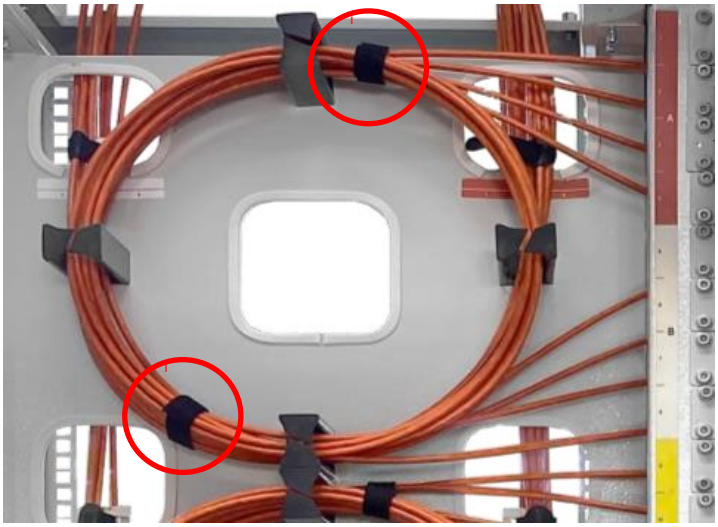




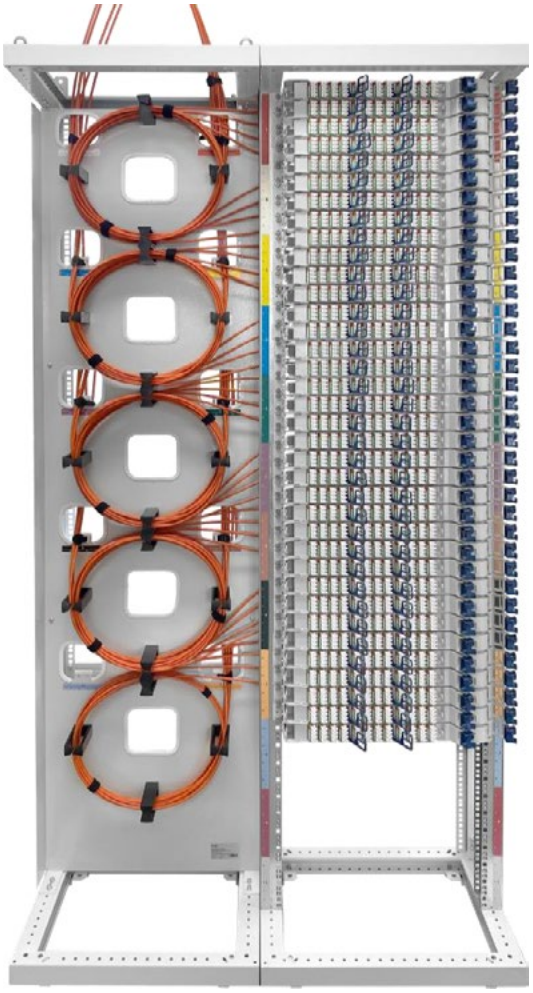


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After installing the amount of cables required for the cablering (maximum of eight cables), we recommend to bundle it in two places with a velcro tape (red rings), to keep it tidy and to relief pressure on the cable managers.



Below is an overview of a fully terminated rack, with the maximum capacity of panels installed.



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2.3 Cable routes and regulations

There are two different cable routes. One is for cables entering through cable insertion openings on the left and the other one for cables entering through the right. The regulations are added in as comments next to the image.

Route for cables entering from the left:



When the cable is entering on the left side of the backplate, the ring is stored as seen in the image on the left.

The required overlength is two loops of the cable.

Areas marked with colors white, blue, violet, black and aqua are stored in this fashion.

These products may be protected by one or more patents. For further information, please visit: www.ppc-online.com/patents

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Cable Management Side Rack
Installation Instruction

Route for cables entering from the right:



When the cable is entering on the right side of the backplate, the ring is stored as seen in the image on the left.

The required overlength is two loops of the cable.

Areas marked with colors red, yellow, green, brown and orange are stored in this fashion.

These products may be protected by one or more patents. For further information, please visit: www.ppc-online.com/patents

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