Instructions & Mounting guidelines for JBM Medical Rail System

Version 2.0

Table of contents

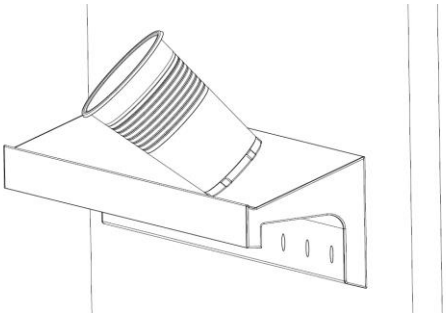
Purpose and application

JBM Medical Rail System – With usability and hygiene in focus,
The new wall rail from JB Medico is designed and developed from one of the leading Hospitals in Denmark Rigshospitalet, with input from the following departments: Cleaning, Infectious Diseases, Maintenance and Biomedical Engineering Department.

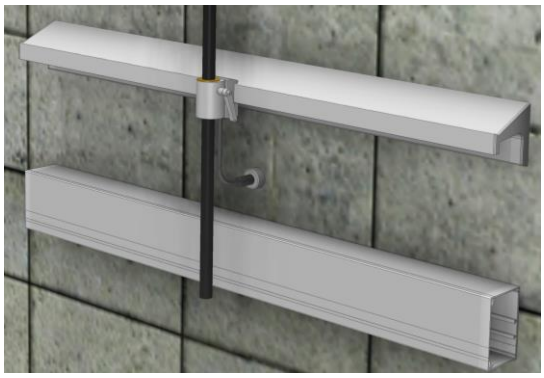
JBM Medical Rail is used for attaching the nursing equipment using; Sliding clamps and other equipment.

There is particular emphasis on solving some of the problems that other rails have.
JBM Medical Rail offers:

- Very hygienic design. The cross-section is made without joints and with large interconnected surfaces to make cleaning as easy as possible
- The Medical Rails top is designed with a steep inclination of 25 degrees to prevent the rail being used for putting down, various objects
- The Medical Rails overhang allows installation of equipment with a long length which used to be in danger of tangling with potential cable trays above/below the rail
- All parts are manufactured and stocked in Denmark, giving a short and attractive delivery time.



The steep inclination prevents the surface to invite for putting down equipment and others.



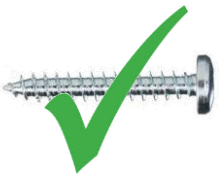
The Medical Rails shape allows long equipment of passing such as cable trays at the top or underneath.

The rails large, continuous surfaces makes cleaning very user-friendly.

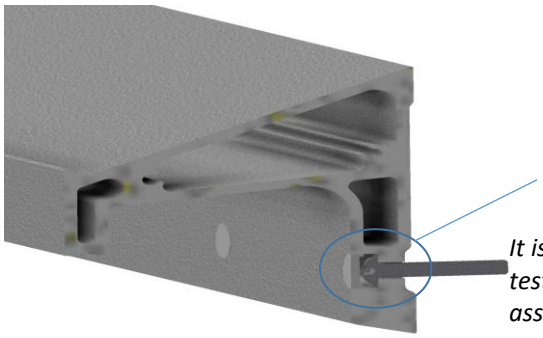
Important - warnings concerning mounting etc.

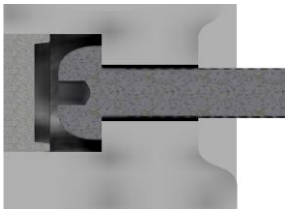
For the installation of the wall rail system, exact knowledge and observance of the enclosed installation instruction are required

Important concerning screws:
The rail is prepared with ~~countersunk~~ **COUNTERBORE** screw holes with cylindrical and levelled hole for accompanying cover plugs. During installation use screws with a levelled head. Screws not included, and because the selection of screws is extensive, there will not be given specific screw types in this manual.



- There must be mounted screws in all screw holes on the rail
- Because of the extensive selection of screws, it is advisable to check if the screws fit into the mounting holes and cover caps fit the screw heads.





It is recommended that you do a test-mounting with screw and cover cap before final assembly, to ensure that the screws fit correctly.

Important regarding CE mark

As the wall rails do not fall under any of the directives for CE marking, the JBM rail is not CE marked.

Important regarding mounting

Following guidelines and instructions must be followed to ensure proper installation and use of JBM rail.

- Ensure that all caps are sitting sufficiently stuck on the rail. Any caps that are not stuck should be discarded.
- The maximum load **of the rail should not be exceeded without additional security, such as using a load support rod etc**. ~~Depressurisation etc.~~ (See subsection "Load capacity" page 6.)

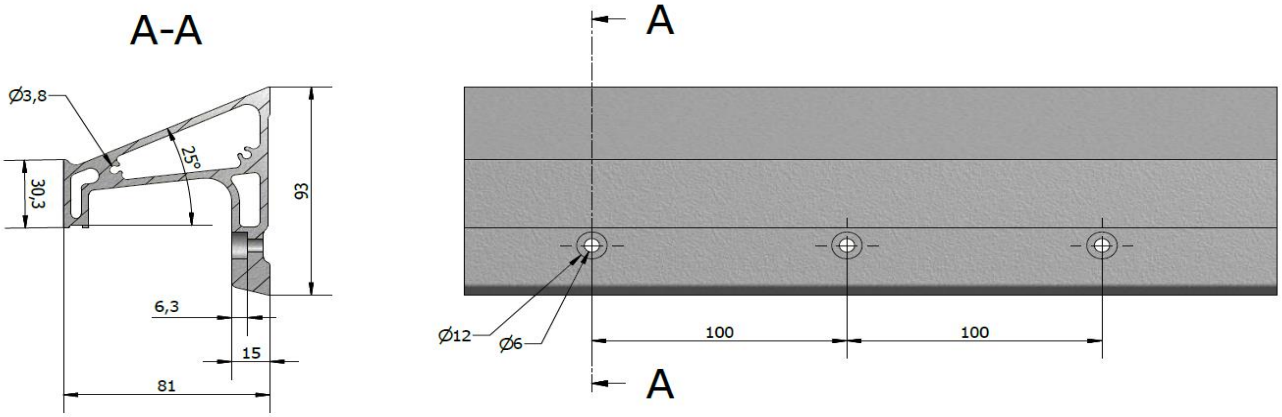
General technical data

JBM rail consists of the hygienic wall rail extruded from aluminium, as well as right- and **left turned end** caps moreover, cover caps for screw holes

JBM Medical Rail
P/N: JBM 100-01-06
The rail is made of extruded aluminum with natural anodized surface.
Length: up to 6m / contact JB Medico for other lengths
Weight: 3,8kg per. meter

End caps for JBM rail
P/N right: JBM 100-01-07
P/N left: JBM 100-01-08
Produced with or without antibacterial plastic.

Cover plugs for screw holes.
P/N: JB 100-01-09
Produced with or without antibacterial plastic (not to be confused with coating) Included with ordering of the rail



JBM rail dimensions. Division between the screw holes are 100mm. ***All units in mm***

Load capacity

JB Medico can not offer guarantees for the load capacity as the quality of the installation depends on which foundation the rail is mounted on.

Therefore there are given the following recommendations:

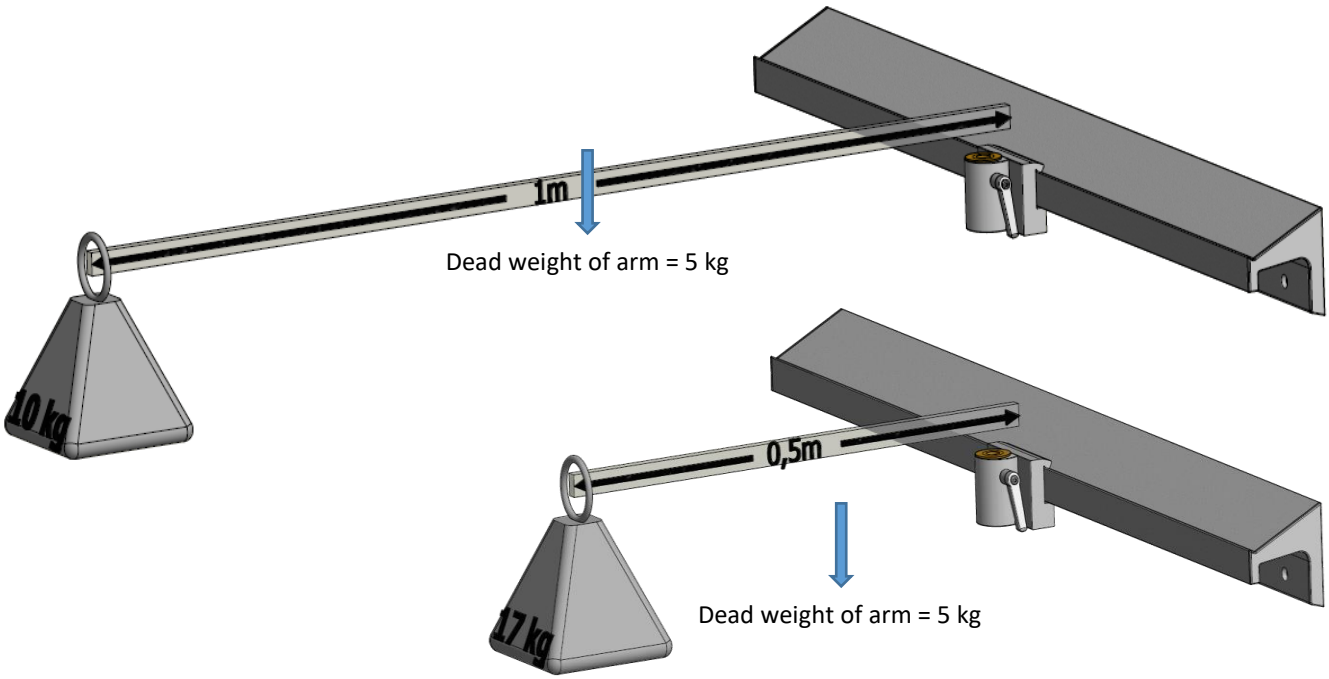
It is recommended to keep the load evenly **distributed** on the rail, and not go over 10kg at 1-meter distance/per. Meter rail.
The load can be increased if the overhang is shortened. See examples below.

The **wall** foundation must be solid and stable and use suitable screws and wall plugs.

The load is resulting from the smaller loads that are mounted on to the rail with its centre of gravity approx. At rail tip, ~~flush with the rail~~ can be operated simultaneously with the torque load.

There must, in each load situation determined whether a slide clamp wide model or unique mounts are necessary to distribute the load on the rail.

In each load situation, it must be determined whether a slide…..
For larger torque loads there may occur minor deflection at the rail.



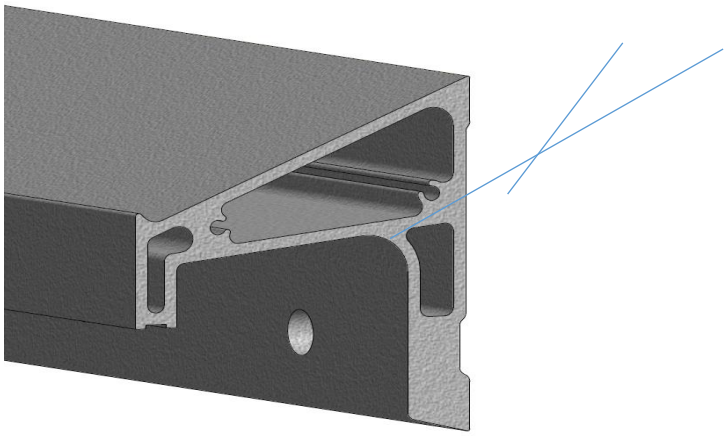
Torque Loads. Shortened "torque arm" can load increases.
Torque load. If "torque arm length" are shortened then the load can be increased

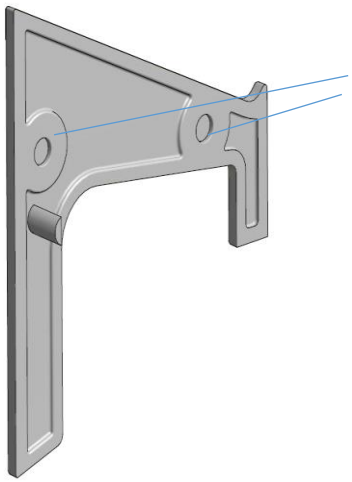
Equipotential bonding

JBM wall rail is prepared to be mounted by equalisation caps at the ends of the rail. The rail has two longitudinal tracks with diameter Ø3,8 to suit 4.2 mm self-tapping screws or M5 thread prior cutting with threaded stud.

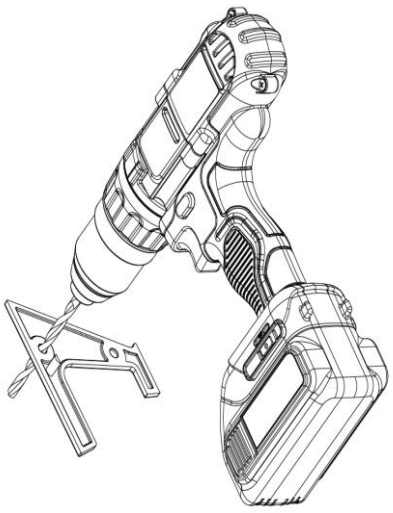
The rail must be balanced so that there can be drilled a hole through the side cap, where there has already been cast embossments of two holes from the back. These two embossments Indicate the screw track.

Longitudinal Ø 3,8mm track



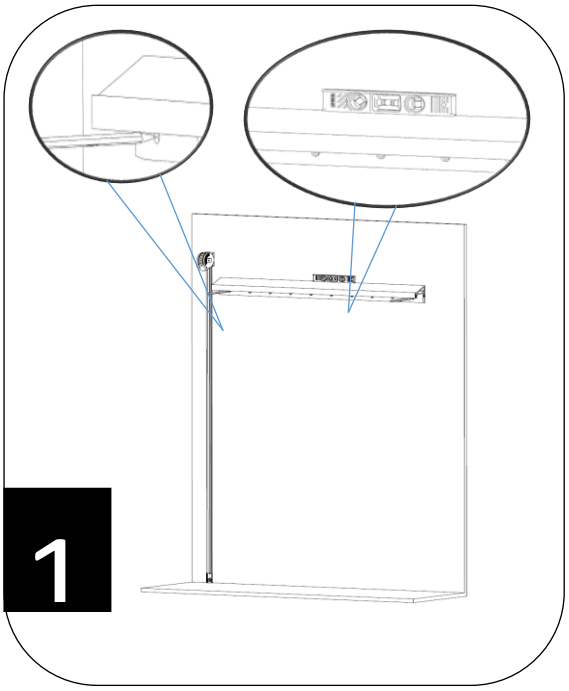


Embossments which indicates where the screw track is located on the rail.

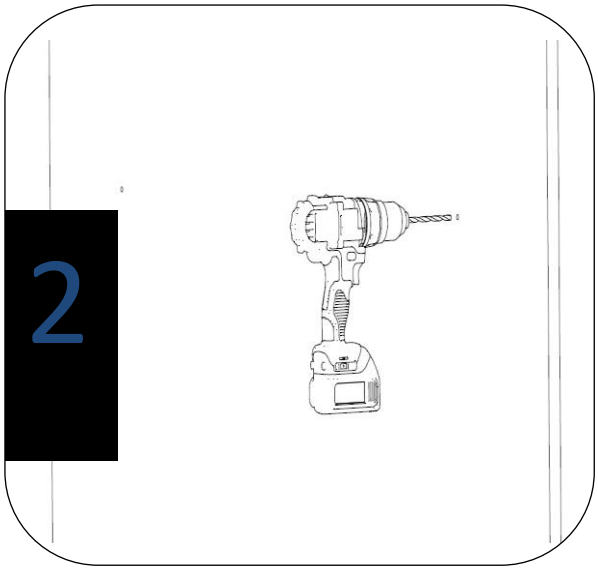


Drilling of the hole for the screw for potential equalization.

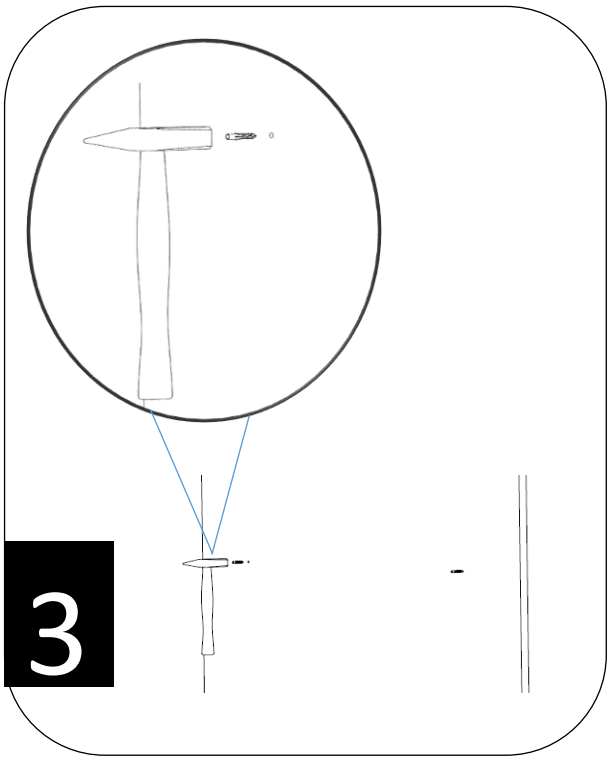
Mounting Instructions



1. The rails desired height is determined and the two outer holes are marked from the grid when it is at level.

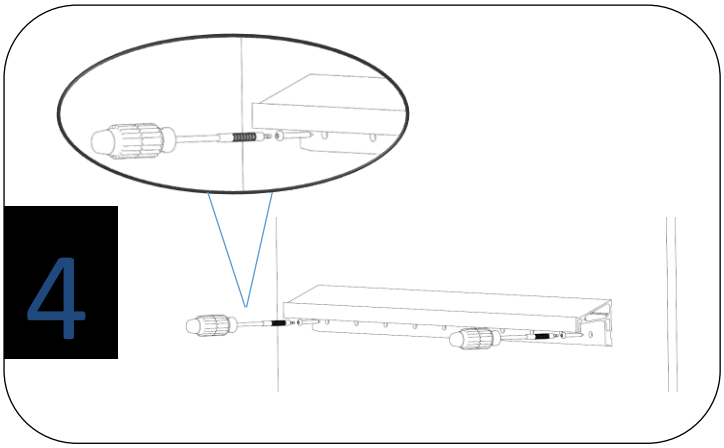


2. The two outer holes are drilled with a drill suitable for the rawl plugs and foundation.

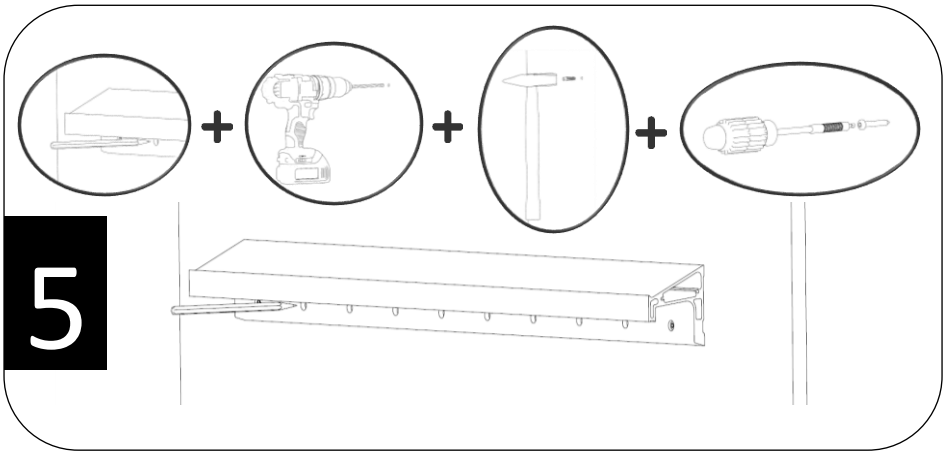


3. The rawl plugs are hammered in the wall.

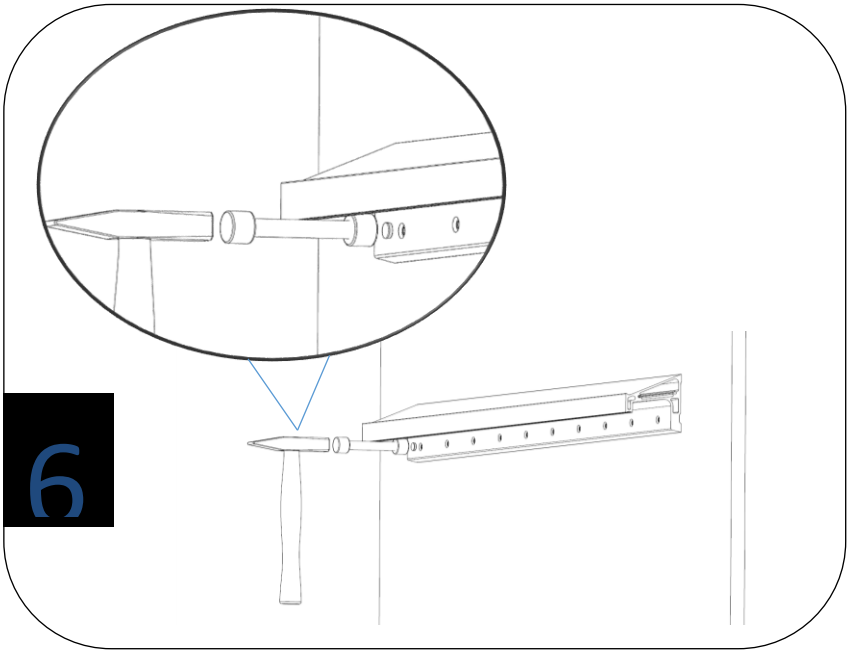
Mounting Instructions Continued



4. The rail is mounted by screws in the two outer holes.(See page 4 for screw types.)



5. The remaining holes are marked. The rail is removed and the remaining holes are drilled and rawl plugs are hammered in.
Then the rail can be mounted with bolts.



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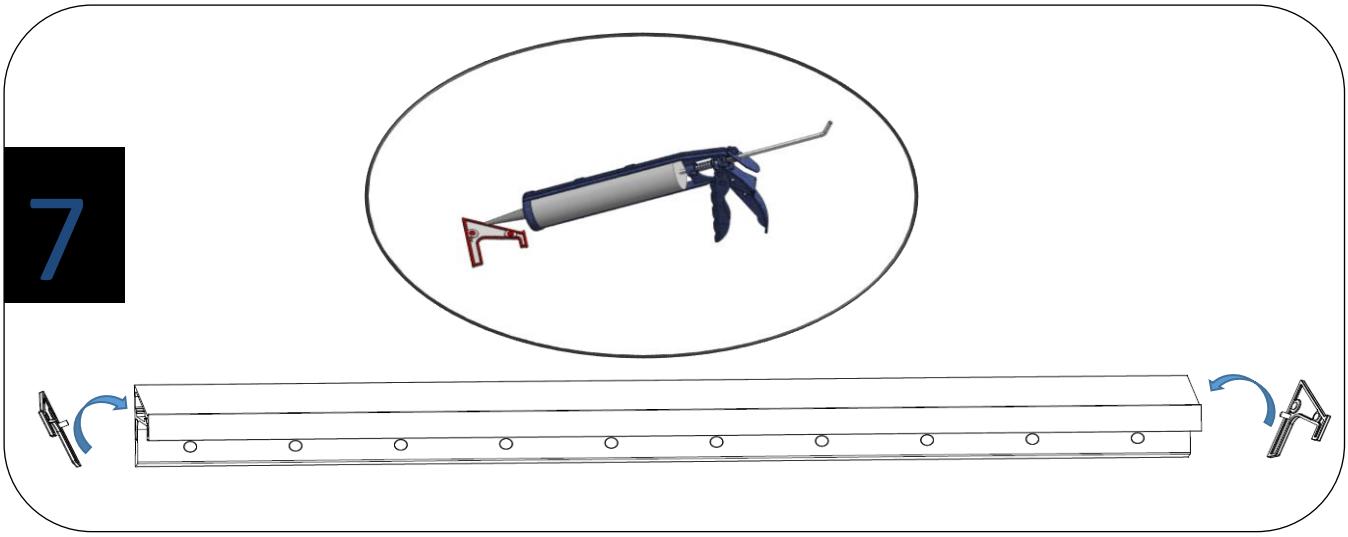
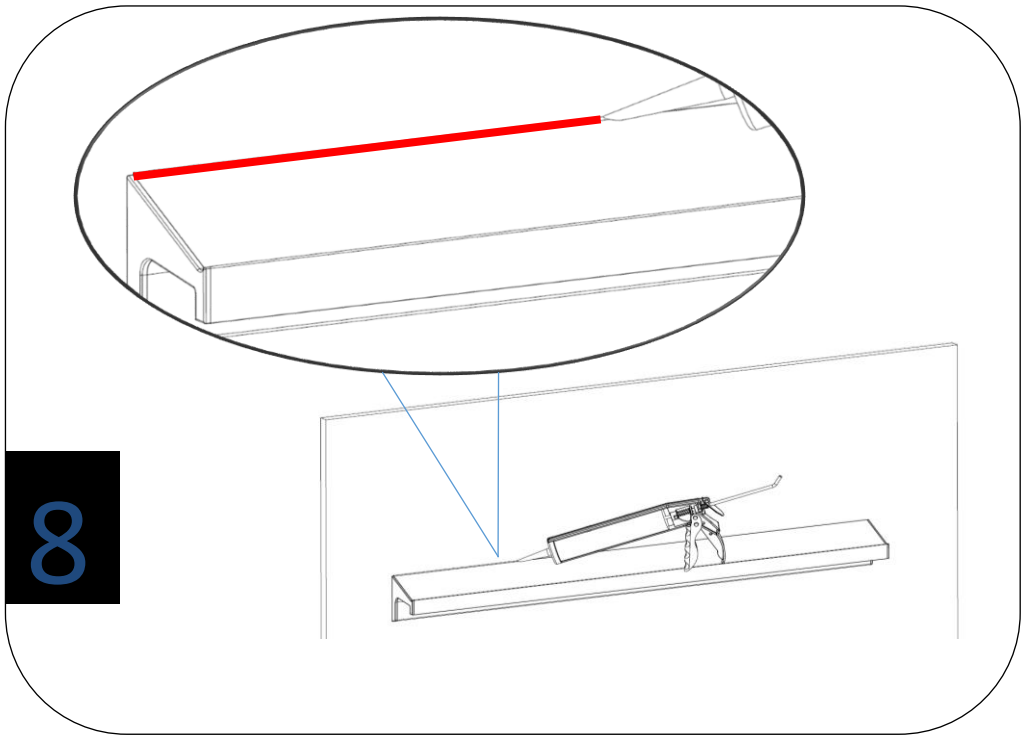
After the rail is mounted on the wall, and all screw holes are plugged-off. The plugs are turned with the flat side against the rail. The plug is conical, so it can easily get a hold of the rail. The plugs are hammered into the rail using JBM mandrel. Alternatively, a plastic rod or piece of wood are used. It is important that the percussion is flat and the surface is sufficiently larger than the plug diameter. So that the cork does not risk being knocked deeper into the rail than the surface.

Mounting Instructions Continued



7. The end caps for rail are mounted using an industrial sealer. The end caps are supplied with joint sealants all the way round the face. The cap is then orientated properly on the rail, so that the cap profile is flush with the rails. Put firm pressure on the cover on the rail, until the sealant binds sufficient. Attaching the covers ends with the excess sealant filler is wiped off the rail afterwards and left neat and hygienic.



8. Potential finishing sealeant.

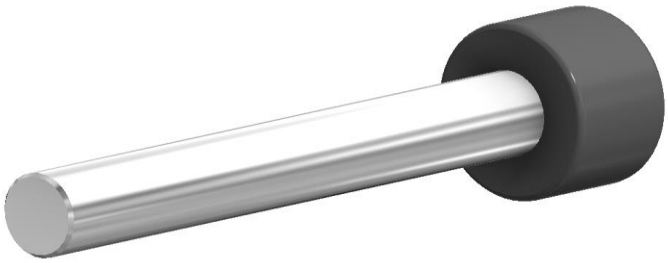
It is recommended to complete the mounting of JBM rail with a finishing joint sealant between rail and wall to improve hygiene and ensure sealed cavity behind the rail. The sealing may be performed using suitable industrial sealants.

Accessories

JB Medico carries a large selection of equipment for installation on the wall rails.

JBM mandrel for mounting plugs

The tool makes mounting plugs easy and fast and prevents plugs from being mounted too deep in the rail.



Mandrel for correct mounting the plugs
P/N: JB 101-00-00