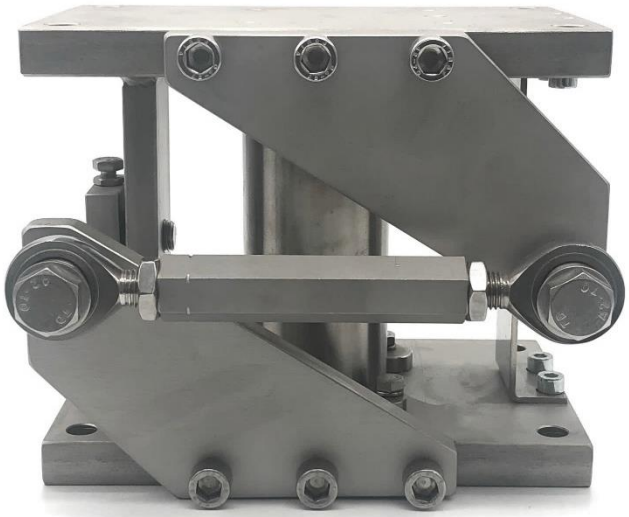
Installation Manual BM-14-910 Mount



Top Plate

Optional stay-rod

Ground Plate

General Information

Please read this **BM-14-910 Mount** installation manual carefully so that you can take full advantage of the application of the load cells.
Take care that the mounts and load cells are applied within their specifications. Certainly during installation, special attention should be paid to exceptional forces exceeding these specifications.
Install the mount(s) in such a way that all bottom plates are at the same height and in the same horizontal plane. The same goes for the top plates. Always make sure that the load cell and/or mount are not loaded with forces exceeding their specifications.
If large load displacements can be expected, stay rods (linkages) should be applied in order to limit uncontrolled lateral forces. Always use shim plates to align multiple mounts in the same horizontal plane and level.
Routine maintenance includes the optical inspection of bolts, plates and force bearing parts, as well as the removal of dirt, dust and debris built up near or between the load cell and/or mount in order to let it move freely.

Model / Capacity	Working Height	Installation Height	Max. Working Load
BM-14-910-0.5-30t	199 mm *7.83 inch*	199 mm *7.83 inch*	150% of the rated load
BM-14-910-40-50t	199 mm *7.83 inch*	199 mm *7.83 inch*	150% of the rated load

Dimensions

Description	Dimensions 0.5 – 30t	Dimensions 40 – 50t
Top Plate	240mm x 150mm	
Ground Plate	240mm x 150mm	
Total Height	199mm	
Recommended Hex Bolt Size for fixing the mounting unit	M12	
Hex Bolt for adjusting lift off protection	M8 x 20	
Hex Bolt for lift off protection	M16 x 25	
Hex Bolt for transport plate/earthing cable fastening	M8 x 12	

Note: Please refer to the parts list on page 5 for an overview of all parts of the mount.

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Detailed Specifications BM-14-910

Capacity **with load cell**	**0.5t – 30t**	**40t – 50t**
Maximum vertical force (down) with dummy loadcell	70 kN	
Maximum vertical force (upwards)	25 kN	
Maximum horizontal force (with stay rod installed)	35 kN	
Maximum horizontal force (without stay rod)	5 kN	
Maximum horizontal movement (without stay rod)	+2 / -2 mm	

Assembly and Installation

Dummy Disassembly

- After all mounting units have been mounted under the tank or frame and all assembly work has been done (welding, etc.) the load cell dummy/dummies can be exchanged for the load cells.
- To do is, remove the 4 fastening screws (M8) of the transport plate and lift the entire construction (container, frame) slightly with a hydraulic jack until the dummy can be moved.
- In order to be able to lift the construction slightly, it may be necessary to turn the lift-off protection adjustment screw upwards, so that it's loosened.
- Then remove the M10 hexagon head screw and the cover plate in the top plate.
- Loosen the 3 screws of the eccentric discs on the ground plate and remove the eccentric disc that is mounted in the direction of the transport plate.
- Now the dummy can be pushed out of the guide sheet towards the transport plate.

Load cell and Pressure Pieces Assembly

Lower Pressure piece *Upper Pressure piece*

- Coat the inside of both of the pressure pieces with a little commercial bearing grease.
- Make sure that the pressure piece with the special contour is at the bottom.
- Place the loadcell in the lower pressure piece and place the upper pressure piece on the load cell.
- Slide the load cell with both pressure pieces into the mounting unit.
- Make sure that the pressure piece rests against the stop of the guide plate at the top.
- Then mount the cover plate back into the top plate with the M10 hexagon screw.
- Now you can carefully lower your construction onto the mounting units.

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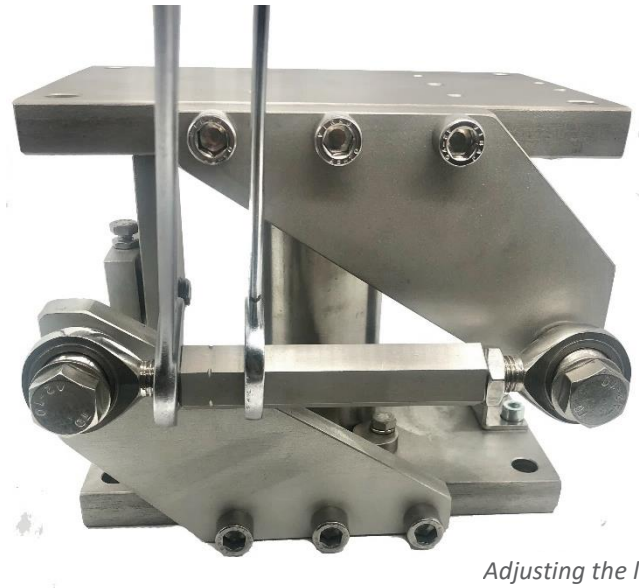
Close-ups of lift-off brackets

- Make sure that the lift-off screw is in the centre of the hole and that there is a gap of 2 to 3mm between the two lift-off brackets.
- Repeat the process until all mounting units are equipped with load cells.
- Only when all load cells are mounted and your construction is completely seated on the load cells, all eccentric discs must be turned towards the load cell and fastened with the screws.
- Thus, your installation unit is aligned without tension and the accuracy of the load cells can be guaranteed.
- Fasten the grounding strap to the top and ground plate with 2 screws from the transport plate (Allen screw M8x12).

Adjusting the linkages



Adjusting the linkage with two wrenches

- Make sure that all stay-rods (linkages) rotate easily.
- If the linkage needs to be readjusted, the two lock nuts must be loosened.
- Hold the linkage with a 24 mm wrench and loosen the lock nut with a second wrench.
- **Attention! 1x left-hand thread (with marking) and 1 x right-hand thread.**
- Adjust the linkage so that it moves easily together with the rod ends.
- Once the linkage is adjusted, the lock nuts must be tightened again.

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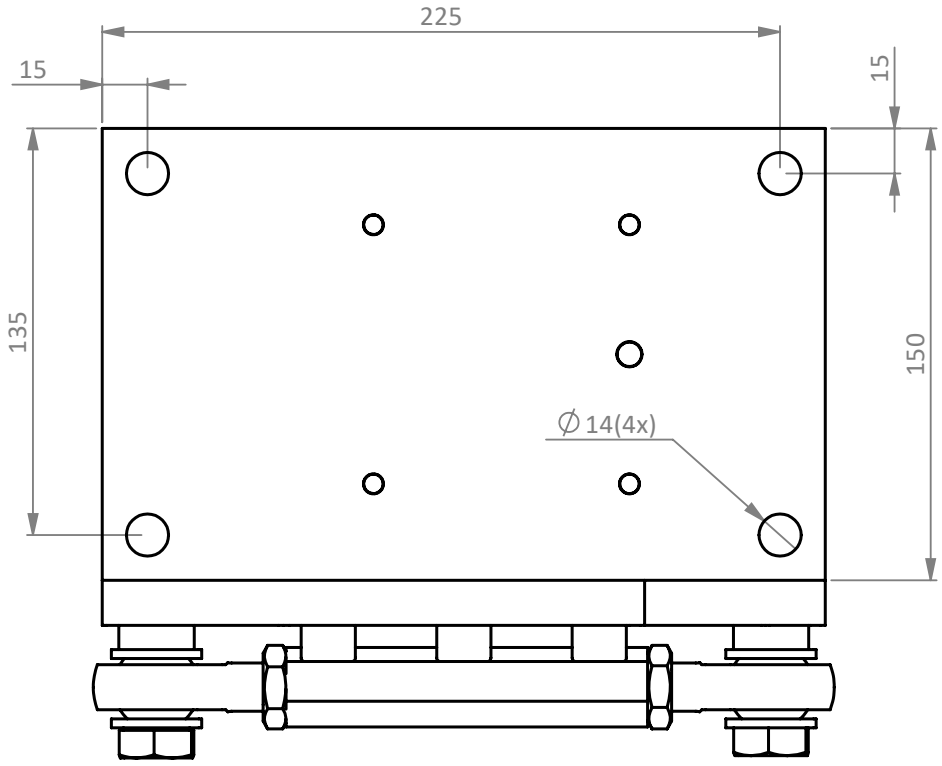
Adjusting the lift-off protection

- Adjust the lift-off distance of the lift-off protection with the M8 set screw (0.5-1mm clearance) and lock it with the corresponding nut.

Top View



Note: *maximum width including the stay rod assembly is 209mm.*

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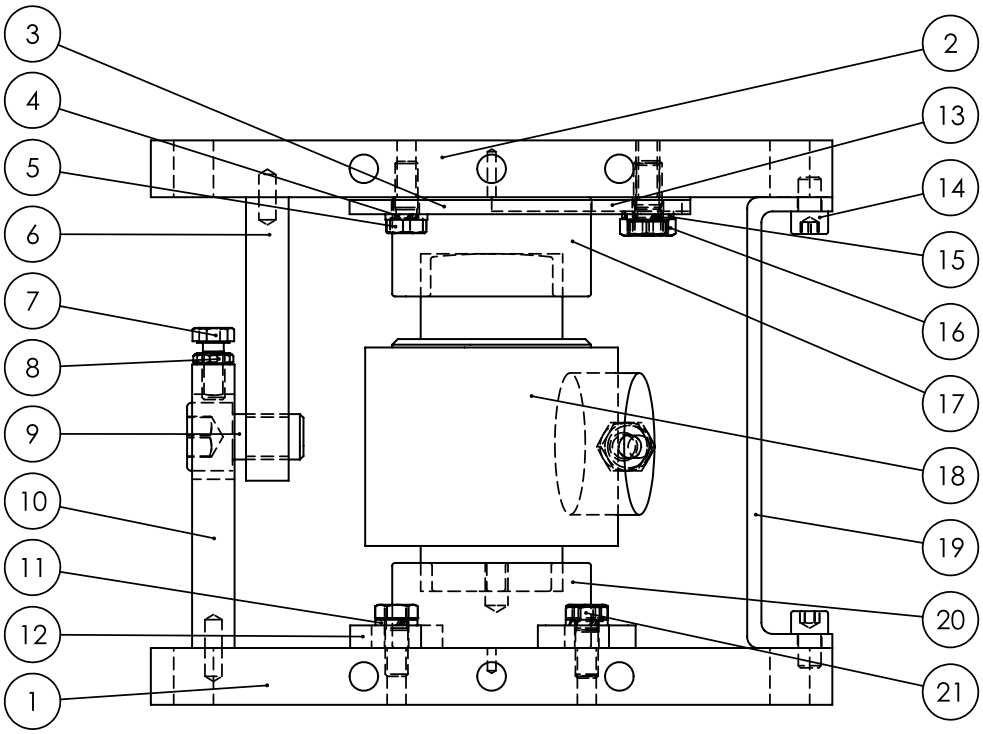
Part List BM-14-910 Mount



No.	Description	Quantity	Dimensions
1	Ground plate	1	240 * 150mm
2	Top plate	1	240 * 150mm
3	Positioning plate	1	
4	Positioning plate washer	4	
5	Positioning plate hex bolt	4	M8 x 20
6	Upper lift off protection	1	
7	Hex bolt for adjusting lift off protection	1	M8 x 20
8	Thin hex nut for lift off protection	1	M8
9	Hex bolt for lift off protection	1	M16 x 25
10	Lower lift off protection	1	
11	Thin washer	4	
12	Eccentric washer	4	
13	Fastening plate	1	
14	Socket head screw for transport plate/earthing cable fastening	4	M8 x 12
15	Thin washer	1	
16	Hex bolt for fastening plate	1	M10 x 20
17	Upper Rocker support	1	
18	Dummy loadcell / loadcell	1	
19	Transport plate	1	
20	Lower Rocker support	1	
21	Hex bolt for eccentric washers	4	M8 x 20
-	Earthing cable	1	

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