

## Assembly Instructions for Brakes/Crash protection

The manufacturer's operating instructions for the installed brake/crash protection system must generally be observed for assembly and commissioning. For information about the installed variant, please see your order confirmation.

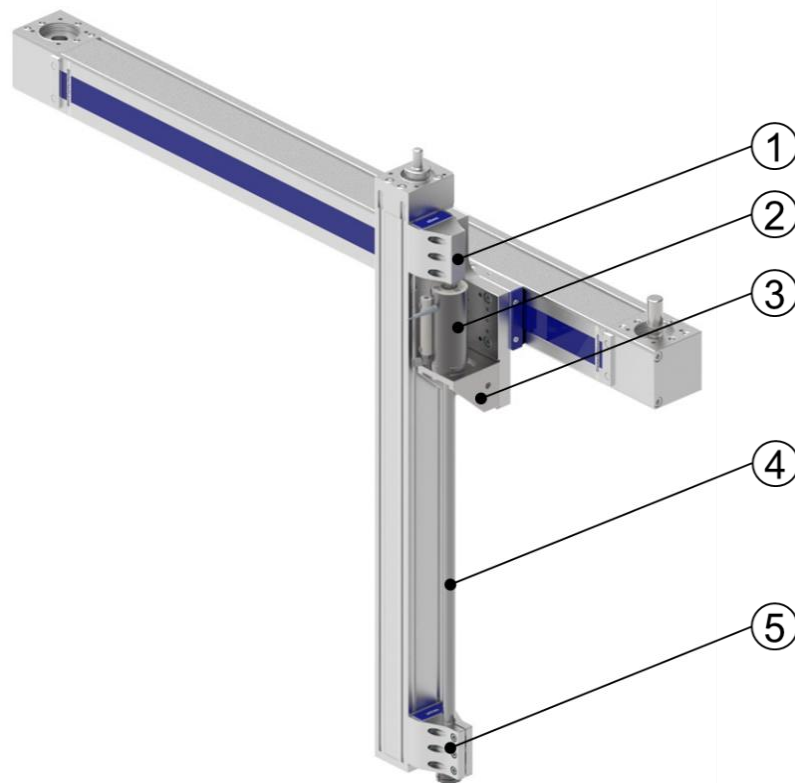
The HSB assembly and maintenance instructions must also be observed.

Assembly and alignment are described below using an example.

A pneumatic ROBA linear stop brake in size 20 from company mayr<sup>®</sup> and a HSB-beta<sup>®</sup> 60-SSS were used here. In the example shown, the linear unit is connected via the carriage plate with a connection plate to the transverse axis. This means that in this variant the profile tube moves. The **brake rod** should always be **subjected to tension** and not pressure **to prevent stress on buckling**. On the other hand, **fastening the brake/crash protection** should **always** be **subjected to pressure**.

The basic rules are as follows:

|                    |                                                              |
|--------------------|--------------------------------------------------------------|
| The profile moves  | The lower brake rod is clamped and secured with slotted nuts |
| The carriage moves | The top brake rod is clamped and secured with slotted nuts   |



|     |   |                                        |   |                             |
|-----|---|----------------------------------------|---|-----------------------------|
| Key | 1 | Upper rod holder (floating via O-ring) | 4 | Brake rod                   |
|     | 2 | Brake/crash protection                 | 5 | Holder, lower rod (clamped) |
|     | 3 | Holder for brake/crash protection      |   |                             |

Figure: 2-axle system, Beta 80-ZSS and Beta 60-SSS (profile moves) with attached Mayr brake

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| Tightening torques [Nm] for fastening screws |     |     |     |      |      |                                                                                                                                                                                                 |
|----------------------------------------------|-----|-----|-----|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fastening screws                             | M4  | M5  | M6  | M8   | M10  | The values specified are standard values. The values must be adapted accordingly for shorter screw-in depths.<br><br>The fastening material supplied must be used and secured with Loctite 243. |
| DIN912/ISO4762-8.8                           | 2.7 | 5.4 | 9.0 | 22.0 | 43.0 |                                                                                                                                                                                                 |
| DIN912/ISO4762-10.9                          | 3.0 | 5.7 | 9.0 | 22.0 | 43.0 |                                                                                                                                                                                                 |
| DIN912/ISO4762-12.9                          | 3.0 | 5.7 | 9.0 | 22.0 | 43.0 |                                                                                                                                                                                                 |

## Method

*Start with the assumption that the brake/crash protection is already pushed onto the brake rod and the rod is fitted in the two holders.*

1. Align the clamped brake rod holder (5) in the centre of the screw-on threads and parallel to the profile tube and tighten (observe tightening torques and lock).
2. Align the holder (3) at the intended location as centrally as possible to the screw connections and put the screws in **loosely** so that movement is still possible.
3. Fit the brake/crash protection (2) on the holder (3) in accordance with the manufacturer's instructions. Make sure that the screws are only **loosely** put in to allow movement.
4. Apply pressure to brake/crash protection (2).
5. Move the profile or carriage (depending on the version) in the direction of the brake rod holder (5) as far as the end position.
6. Depressurise the brake/crash protection (2) so that the holder (3) and the brake/crash protection (2) can be aligned.
7. Tighten the holder (3) (observe tightening torques and lock).
8. Hand-tighten the brake/crash protection (2).
9. Apply pressure to brake/crash protection (2).
10. Then move with the profile or carriage in the direction of the holder of the floating bearing (1) as far as the end position.
11. Depressurise the brake/crash protection (2) so that the holder (1) can be aligned.
12. Screw the holder (1) parallel to the profile tube (observe tightening torques and lock).
13. Apply pressure to brake/crash protection (2).
14. Move the profile or carriage in the direction of the brake rod holder (5) as far as the end position.
15. Depressurise the brake/crash protection (2).
16. Loosen the brake/crash protection screws (2). It should now be possible to turn the brake/crash protection rod (2) without tension. (If this is not the case, steps 4 to 16 must be repeated.)
17. Screw the screws of the brake/crash protection (2) tight (observe tightening torques and lock).