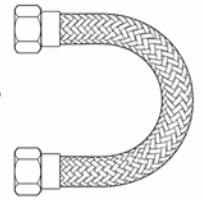


Operating and assembly instructions for metal hose assemblies



When properly installed and operated, metal hose assemblies are very reliable and have a long service life.

1. Operating instructions

The basis for safe operation is exclusively the conditions agreed in the order.

In addition, the design and arrangement with sufficient hose length, proper installation and correct handling must correspond to our technical documents.

Hose assemblies **must be protected against external mechanical damage** and so should not be pulled across the floor or around sharp corners.

Movements during operation must be collision-free.

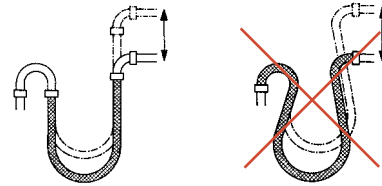
Metal hose assemblies are maintenance-free. However, they should be visually inspected by the operator at appropriate intervals depending on the operating conditions – but at least once a year. Particular attention should be paid to damage such as kinks, corrosion and braid damage. Metal hose assemblies with visible defects must not be used any longer.

Permanently connected hose assemblies should generally be subjected to a pressure test before being put into operation. This also applies to the re-commissioning of hose assemblies after installation and removal or after system modifications.

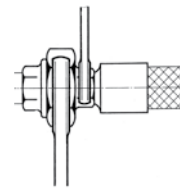
During pressure testing the permissible test pressure must under no circumstances be exceeded!

2. Assembly instructions

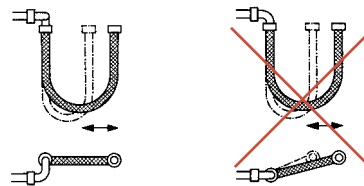
- Before installation, check the hose assembly for any damage, e.g. from transport.
- **Protect the hose assembly from welding or flux splashes;** cover with non-conductive material if necessary.
- **Prevent electrical short circuits** caused by welding electrodes or ground cables, the hose can be damaged.
- Protect the hose assembly from heavy contamination (risk of corrosion, movement restriction!).
- Only use thermal insulation that does not restrict the flexibility of the hose assembly.
- **Do not use insulating material with corrosive components.**



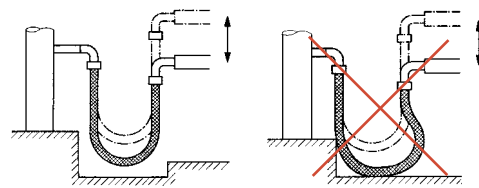
- Select fittings so that **kinking of the hose is prevented** at the connections (elbows, bends, etc.)



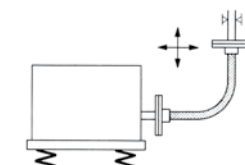
- **Make sure that the installation is free from twisting;** for screw connections, always use a second wrench or pipe wrench to hold it in place



- If possible, install the hose line **in a single plane** to prevent torsional stress during movement



- Ensure that the hose line has sufficient **freedom of movement**. Avoid collision during operation



- When connecting to vibrating units, fix the pipe directly after the hose assembly