K3.2 Hose Lines Operating Instructions (Supplement to hose)

1 Principle

Caution: The hose line can be work equipment as well as plant components subject to monitoring in accordance with the Pressure Equipment Directive (Directive 2014/68/EU) or ATEX (Directive 94/9/EC). Appropriate testing and certification requirements must be observed by the operator.
In the case of plant components requiring monitoring, the hose line is labeled with the technical operating data. For hose connections not subject to monitoring, the conditions of use specified in the supplier's data sheets apply. They must be acknowledged before commissioning. The safety precautions on the system must also be checked.

2 Assembly

Please observe the standard DIN 20066 Part 4 Hose assemblies - installation (installation instructions, laying), the leaflet T002, edition 7/2005 (BGI 572), as well as our leaflet K3.2 Hose assemblies assembly and treatment.

In order to ensure the operability of hose assemblies and not to shorten their service life by additional stress, the following rules must be observed:

Hose assemblies must be installed in such a way that they are accessible at all times and are not hindered in their natural position and movement. Hose assemblies must not be subjected to tension, torsion or compression during operation due to external influences. The smallest bending radius of the hose specified by the manufacturer must not be undershot. Hose assemblies must be protected against damage from external mechanical, thermal or chemical influences. Hose assemblies with inliners must be specially protected from damage caused by buckling and deformation. If external damage is visible, do not put the hose line into operation. Before commissioning, check the detachable connections for tightness.
If necessary, the hose line must be cleaned in a suitable manner before commissioning.

3 Hose assemblies in fire-endangered environment

Like other system components, hose assemblies must be protected against fire. Special attention must be paid to the medium in the pipe or its vapors with regard to the risk of fire or explosion.
In the event of fire, appropriate extinguishing devices must be set up and extinguishing measures taken. Hoses that have been exposed to fire must be replaced. If no temperature monitoring devices are available, it can be assumed that the maximum temperature permitted for the hose has been exceeded.

4 Hose lines in explosion-hazardous areas

Hose assemblies which are used in potentially explosive atmospheres must comply with the regulation on devices and protective systems for use in potentially explosive atmospheres (VGSEB / ATEX 95) and be provided with a declaration of conformity.
In the case of hose assemblies requiring equipotential bonding, this must be checked and, if necessary, retrofitted.
(M-conducting = conducting outer core).
For media with no or low conductivity, preferably Ohm-conductive hoses should be used (inner core conductive).
To avoid inductive sparks due to stray currents through the conductively connected hose connections, an insulating flange can be inserted in special cases.
The conductive connections of the hoses to the hose connections must be checked periodically. Test instruments as described in prEN ISO 8031:2007 section 4.1.1.3 (test lamp) are suitable for this purpose.

5 Metal hose lines

Metal hose lines with PTFE inner core, which are not provided with a heat-insulating outer sheath, are more likely to burn when used with hot media due to their high conductivity. The above metal hose lines are conductive (M-conducting) via the outer mat.
Particular attention must be paid to possible damage to the wire braiding or deformation, e.g. kinking.
During storage and operation, no exposure to chlorides, bromides or iodides, foreign rust or rust film is allowed.

6 Operation

The pressure and temperature values stated in the data sheets of the hoses must not be exceeded during operation. The information noted in the DRG questionnaire and taken into account by the supplier must also be observed.
Pressure shocks must be avoided. Control measures and pressure compensation components must be provided on the system side to protect the hose lines.

For the correct use of hose assemblies, the comprehensive notes in leaflet T002 (BGI 572) must be observed.

For hose assemblies of special design or for applications which could not be considered here, the detailed provisions of the corresponding data sheets must be observed.

7 Periodic inspection

Connectors recommends that all customers periodically check the hoses used and train their employees accordingly. The following checks should be carried out at the following intervals:

Check / Training	Intervalls
• Visual inspection (cuts, cracks, kinks)	Daily, continuous
• Pressure test	2x yearly
• Training of employees at the customer's premises by Connector's specialists	1x yearly, if required
• Test possibility through connectors (mobile test station)	If required