

# Instructions on the safe use of high pressure hoses

## 1. GENERAL

This leaflet contains general information and instructions for the safe use of high pressure hoses. More detailed descriptions can be found in the operating instructions for the respective model of compressor. The leaflet can also be downloaded from our internet homepage ([www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)):

## 2. INFORMATION ON HOSES AND HOSE PIPES

In accordance with Article 10 of the German Ordinance on Industrial Health and Safety (Betriebssicherheitsverordnung), hose pipes must be checked by a person qualified to do so. The operator must take into consideration the appropriate test requirements (scope of tests, test criteria etc.) of the Ordinance on Industrial Health and Safety as well as all valid standards and provisions.

## 3. PREREQUISITE FOR THE SAFE OPERATION OF HOSE PIPES:

- Ensure hose and hose pipe are used as intended. Do not exceed the maximum admissible operating pressure of the hose pipe!
- Select hose pipe and nominal width that correspond to conditions of use
- Observe the valid standards, provisions or other regulations for the respective area of use and where applicable also adapt the area of use accordingly (e.g. install protective equipment etc.)
- Ensure careful installation and assembly according to regulations
- Check whether external and/or internal cleaning is necessary in a suitable form taking into account any possible classes of cleanliness required
- Hose pipes must be installed and/or secured such, that any kind of hazard can be prevented where possible in the event that the hose pipe fails. Personal protective equipment must be used if it is not possible to prevent all hazards by technical and organisational protective measures,
- High pressure hoses must always be in a perfect condition, and connecting threads must be true to size and without faults. Pay particular attention to damage at the intersection of hose fitting and hose. Do not continue to use the hose if the hose sheathing is torn. The damaged sheathing can lead to water permeating the protective fabric and affecting the material. In this case pressure safety is no longer present.
- Immediately replace damaged hose pipes

## 4. MAIN CAUSES OF DAMAGE TO HOSE PIPES:

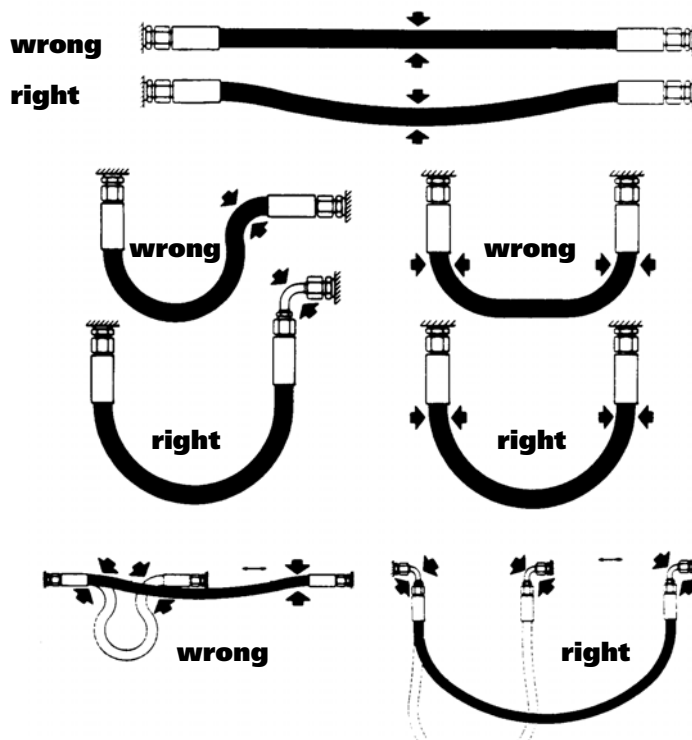
- Mechanical damage
- Bent too strongly – falling below the admissible bending radius
- External influences, e.g. strain through tension, torsion (twisting), compression, crushing, abrasion
- Inadmissible temperature range of the medium and/or environment
- Incompatibility with the medium

## 5. POSSIBLE EFFECTS OF DAMAGE TO HOSE PIPES:

- Damage to the outer layer through to the pressure carrier, which can cause corrosion
- Distortion or brittleness of the outer layer
- Damage to or distortion of the hose fitting
- Bursting of the hose

### 6. INSTALLATION REQUIREMENTS

- Pay attention to correct assembly under all circumstances when installing hose pipes. DIN 20066 Part 4 Hose pipes - Installation must be observed.
- When installing hose pipes pay attention to effortless insertion and removal and that possibilities for inspection exist.
- The length of hoses may change slightly when hoses are pressurised; therefore allow a little slack when installing hoses.
- Do not twist hose pipes during installation because reverse torque can disconnect the hose under pressure.
- Where necessary use elbows or angle pieces.
- It must be ensured that connecting pieces are rigid.
- Check detachable connections for tight connection before commissioning



Hose pipes must not be painted over or have paint etc. applied to them in any other manner.

When installing hose pipes it must be ensured that these are accessible at all times and are not obstructed with respect to their natural position and movement. Appropriate measures must be taken for fastening if the weight of the hose pipe might result in inadmissible load.

### 7. INSPECTIONS

The checklists for hose pipes subject to inspection must be specified by the operator according to the requirements of the Ordinance on Industrial Health and Safety within the framework of the hazard assessment pursuant to Article 3 BetrSichV. The safe working state of hose pipes subject to inspection must be checked by a qualified person within the meaning of Article 2 (7) of the Ordinance on Industrial Health and Safety. Hose pipes must be checked at regular intervals for their functional capability!



**According to TRG 402 (8.2), the recommended test deadline is 6 months under normal operating conditions. We recommend that hose pipes generally be replaced after a maximum of 10 years.**