INOX HOSES GLOBAL

CORROFLEX™ HOSES OF DISTINCTION

Installation Instructions for Flexible Hose Systems

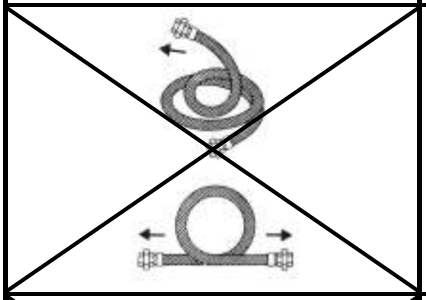
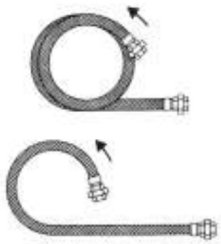
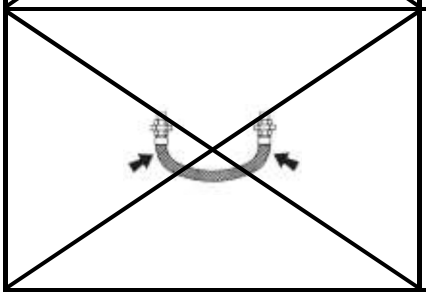
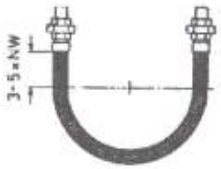
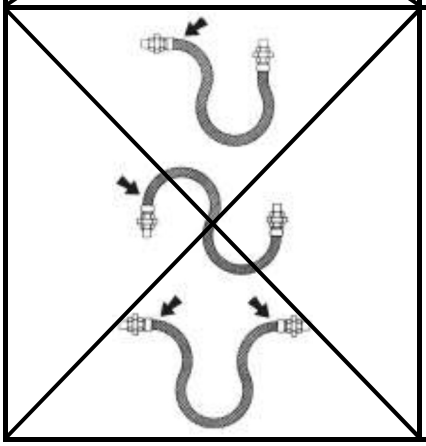
Intended Use: Hose lines must be used exclusively for their intended purpose. Key parameters—such as permissible pressure, minimum bending radius, temperature range, and compatibility with the media conveyed—are specified in the accompanying documentation, including the manufacturer's declaration, data sheet, declaration of conformity, or product labelling.

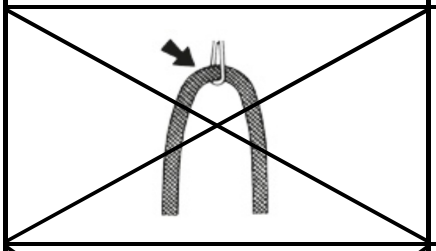
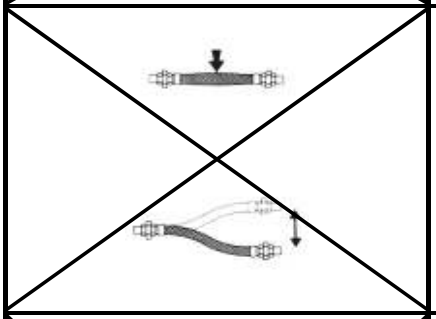
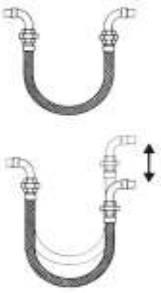
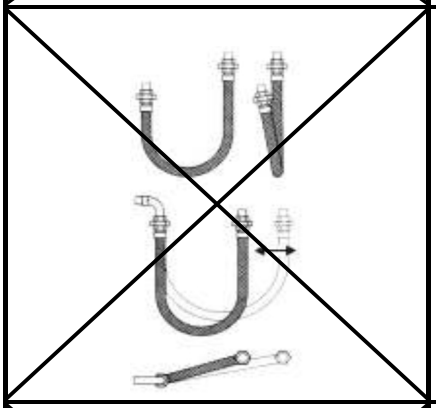
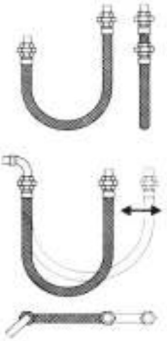
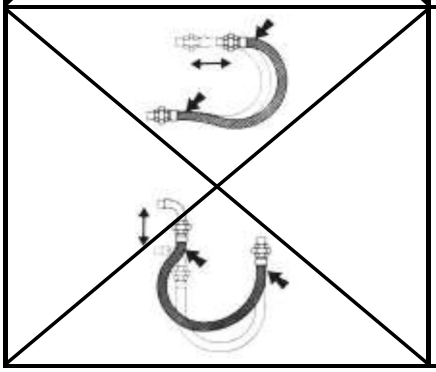
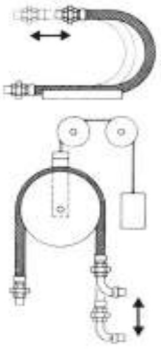
Installation must follow the guidelines in this manual, as well as the relevant standards such as DIN 20066 ("Hose line installation"), DGUV Rule 113-020, and DGUV Information 213-053 (T002), along with established industry best practices.

To ensure proper functionality and avoid premature wear or failure, the following points must be observed:

- Hose lines must be installed so that their natural positioning and movement are not restricted.
- Hose lines must not be subjected to tensile, torsional, or comprehensive stresses during operation due to external forces, unless they are specifically designed and built to withstand such loads.
- The minimum bending radius specified by the manufacturer must not be exceeded (refer to the data sheets).
- Hose lines must be protected from mechanical, thermal, or chemical damage caused by external factors.
- Before commissioning, all detachable connections must be checked for tightness.
- If there is any visible external damage, the hose line must not be put into operation.
- Before use, ensure the hose line is clean. Clean it appropriately if needed.
- For hose lines requiring electrical continuity (potential equalisation) in accordance with TRGS 727, inspect and retrofit as necessary.

Note: During installation, the hose must be secured with a second tool (e.g. spanner, pliers) to prevent twisting—see illustration.

Wrong	Correct	
		Pulling on the ends of a rolled-up metal hose introduces torsional stress, which can damage the hose and cause it to exceed the minimum allowable bending radius. Always roll and unroll metal hoses properly to prevent torsional stress and maintain the correct bending radius.
		Using a hose that is too short can cause it to kink at the connection points. Ensure there is a straight section on each end of the hose equal to 3–5 times the nominal diameter (DN), calculated from the required bending radius. Using a larger bending radius than the minimum required will significantly extend the service life of the hose.
		Installing a hose with tight or sharp bends near the connections will cause kinking and reduce hose life. Add a straight section of 3–5 times the nominal width (NW) at each connection point in addition to the bending radius. Selecting a bending radius larger than the minimum permissible will greatly improve the hose's durability and performance.

Wrong	Correct	
		Placing the hose on a saddle or roller with an appropriate diameter prevents it from kinking excessively.
		If the braiding lifts off the metal hose, pressure resistance is no longer guaranteed. Axially installed metal hoses with braiding are therefore not permitted as expansion compensators. This source of error can also be avoided by using pipe bends.
		Torsional movements lead to the rapid failure of metal hoses and are usually caused by incorrect installation. Ensure that the tube axes are parallel, or that the tube axes and direction of movement are in the same plane.
		An unfavourable installation, as shown on the left, should be avoided if possible. If this is not possible, a support or roller with a counterweight must be installed to prevent the hose from sagging.

Congratulations on your purchase of a Corroflex® product made in Germany. With over one hundred years of experience in the gas industry, we are confident that you will enjoy the long-lasting quality of our products, provided you follow the instructions below. Should you need further information or assistance with handling or repairs, please do not hesitate to contact us at orders@aes-sales.com or +44 1235510717. We look forward to hearing from you.

We guarantee that the hose systems we supply, along with all associated components, fully comply with current regulations, laws, and state-of-the-art standards.

Before delivery, every product undergoes rigorous strength, leakage, and functionality testing in accordance with the requirements specified for the respective gas type. All systems and components intended for oxygen service are thoroughly cleaned to be free from oil and grease and are manufactured from suitable materials.

We would like to draw your particular attention to the following standards and regulations, which guide both the testing of our products and the design of our material procurement processes:

PED – Pressure Equipment Directive 2014/68/EU

DGUV – Rule 100-500 2.26 (BGR 500 2.26): Operation of work equipment, Chapter 2.26: Welding, cutting and allied processes

DIN EN ISO 10380 – Piping: Corrugated metal hoses and metal hose assemblies

DIN EN ISO 14113 – Gas welding equipment: Rubber and plastic hoses and hose assemblies for industrial gases, up to a pressure of 450 bar

DIN 20066 – Fluid power: Hydraulic hose assemblies – Dimensions and requirements

DVS Code of Practice 0221 – Recommendations for risk assessment and safety evaluation of gas supply systems for welding, cutting and allied processes

Health, safety, and accident prevention regulations were strictly observed during the manufacture of the hose systems. These systems have been designed and produced according to the latest state of the art. However, if operated by unqualified personnel, the system may pose potential hazards.

The operator is responsible for defining appropriate inspection intervals for the equipment, based on the specific environmental and working conditions. For guidance, we recommend referring to DVS Data Sheet 0221.

All individuals involved in the operation, commissioning, maintenance, or repair of the hose systems must carefully read and fully understand the operating instructions—particularly the section titled “Safety Instructions.” These instructions must be handed over to the operating personnel, who must confirm that they have received and understood them.

Qualified personnel are defined as individuals who, through their training, experience, and instruction, as well as their knowledge of relevant standards, regulations, accident prevention measures, and operating conditions, have been authorised by the person responsible for system safety to carry out the required tasks. They must be capable of identifying and avoiding potential hazards (for a detailed definition of qualified personnel, see DIN VDE 0105-100).

These individuals should also be familiar with first aid procedures and local emergency services. It is assumed that all essential tasks—such as transportation, assembly, installation, commissioning, maintenance, and repair—are performed by qualified personnel or supervised by responsible specialists.

In the event of any damage to or destruction of any part of the corrugated metal hose, the entire installed length must be replaced. Any alterations to the hose will render it non-compliant with the applicable standards.

Safety Instructions

Any working method that compromises the safety of the hose systems must be strictly avoided. The operator must ensure that only qualified and authorised personnel are permitted to work on the hose systems—this is especially critical when working with gas equipment.

The responsibilities for all tasks related to the operation of the system must be clearly defined and followed to avoid any ambiguity regarding safety responsibilities.

The operator is required to inspect the hose systems at least once per work shift for any visible damage or defects. Before commissioning, ensure that the system is free from contamination such as dust, oil, grease, or solid particles—this is particularly important for hoses used with oxygen. Any changes, including shifts in operating behaviour that may affect safety, must be reported immediately. The operator must also ensure that the hose systems are operated only when they are in perfect working condition.

It is the user’s responsibility to keep the workplace in and around the hose systems clean and well-organised, using appropriate instructions and routine checks.

Any unauthorised modifications to the hose systems will void the manufacturer’s liability for any resulting damage to the system.