

Attention

- Never test or use hoses with visible damage or hoses that have been rejected.
- Use personal protective equipment at all times.
- Hoses are both delicate and costly. We therefore ask you to handle the hoses with care at all times and to instruct your staff to do the same.
- In accordance with our general terms and conditions, any damage will be charged to the customer.
- Our general terms and conditions are applicable to all our rental deliveries.
- Testing and certification of hoses must be carried out by one of Flowmasters B.V.'s accredited inspectors.

Application

- Hose assemblies used for suction must be vacuum resistant. The user must check this in advance.
- Check the conditions that the hose will be subjected to beforehand. Important parameters are: pressure, vacuum, temperature, type of liquid, concentration and viscosity. These parameters must never be exceeded.
- Pressure shocks and frequently occurring pulse pressures that exceed the maximum working pressure of a hose assembly can lead to leakages or premature hose failure.
- In case of dry substances, you must use a wear-resistant hose.
- Never use hoses near open flames.

Before use

- Always carry out a visual inspection of the hose and couplings before use.
- Important things you need to pay attention to during the visual inspection are:
- Check the hose for discolourations, deterioration, wear and tear, damage to the outer wall, metal braiding/spiral of the hose.
- Check the tightening of nuts, if the couplings are attached to the hose by means of hose clamps or grip clamps.
- Check the inspection date and the certificate for validity and conformity.
- Check that the hose has been cleaned both internally and externally.

General use, assembly and disassembly

- Always move and handle the hoses and couplings carefully. This means you must not drag them along the ground and you must protect them against sunlight, rain, snow, ice and vermin.
- Use the correct lifting equipment: see the relevant instructions on page 3.
- Make sure that the hose is kept free of obstacles as well as heavy or sharp objects.
- The hoses are not suitable for underground use.
- The hose assembly must only be tested with water.
- Do not throw the hose on the ground.
- Clean the hose after use or before lengthy storage.
- Prevent the hose from any abrasions due to vibration or pulsation.
- Provide the correct support for the hoses - see the appropriate instructions on page 3 - in order to prevent sagging.
- Use elbows joints where necessary, such as hose buns. Avoid kinking the hose. It is important that you observe the minimum bend radius.
- Always ensure the hoses are installed tension-free and torsion-free.
- Make sure to check that the pressure on the assemblies is turned off, before disconnecting.

After use

- Clean the hose both inside and outside.
- Always store the hose in a cool and dark environment, always lay the hose in a straight line, not on the ground, and protect it from sunlight, rain and vermin. Preferably store the hoses indoors.

Cleaning

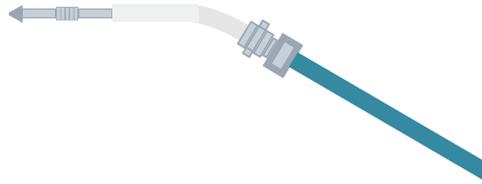
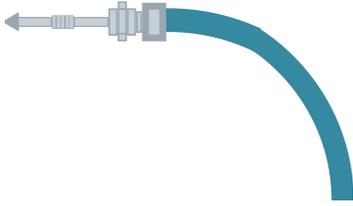
- Always make sure the hose is earthed. This prevents the build-up of static electricity.
- Remove acidic liquids or other reactive liquids before cleaning. This is important to prevent a chemical reaction.
- Place the hose in a straight line on a flat surface.
- The hoses must be rinsed clean using a suitable cleaning fluid, which should be suitable for the pumped fluids. Hoses should never contain any residue from the liquids with which the hose comes into contact during use or from the environment.
- Make sure that all cleaning fluids are removed from the hose.
- CAUTION: make sure that all traces of salt water (seawater) are removed, to prevent corrosion of the inner spiral in the composite hose.
- Customers must always submit a certificate to prove that the hose has been cleaned when returning the hoses.
- CAUTION: In order to prevent damage and premature hose failure, NEVER clean hoses using:
 - Steam or compressed air
 - A high-pressure cleaner, brush cleaner or other mechanical cleaning methods.
- If Flowmasters finds that the hoses have not been cleaned or not cleaned properly, then the hoses will be professionally cleaned by Flowmasters. The costs for this will be charged to the customer.
- The customer will also be charged for any damage that is caused by the failure to clean or failure to clean properly.
- When the hoses are returned, Flowmasters will always ask for a certificate to prove that the hose has been professionally cleaned.

If you prefer not to clean the hoses yourself, Flowmaster can take care of this for you. Let us know when you request your quote.

We will then include the costs for cleaning

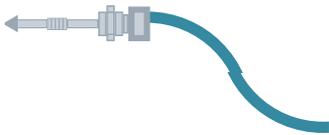
Wrong

Good

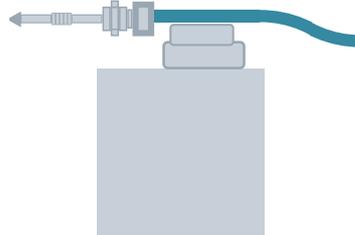
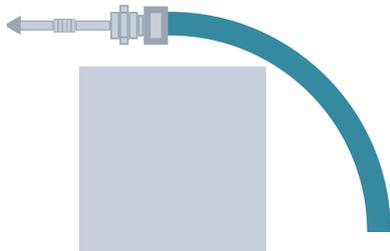


Avoid an excessive bend after the coupling. Fit a 45°/90° bend.

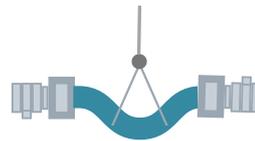
and/or



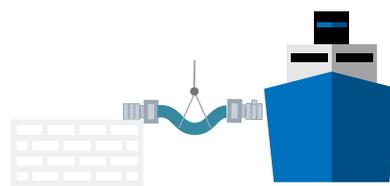
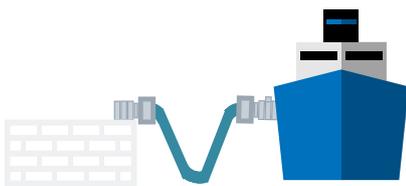
Support the hose behind the coupling.



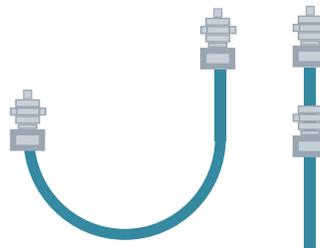
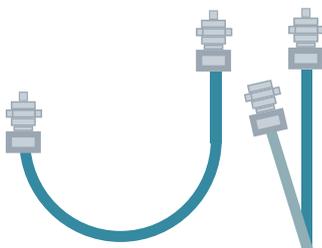
Protect the hose against sharp corners, parts, etc.



Use a sling or hose saddle to support the hose. In case you use a sling: never use a single rope.

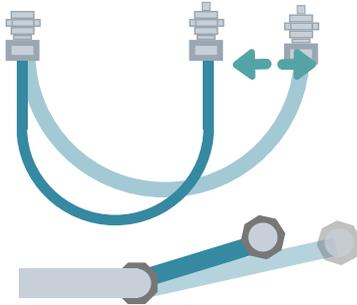


Never allow a hose to hang between the dock and the ship without support.

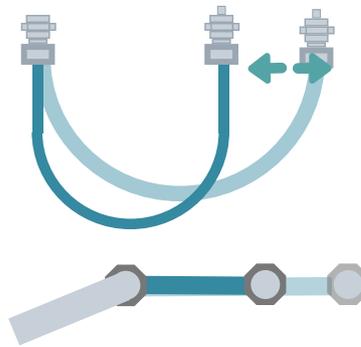


Avoid twisting. The connections must be aligned.

Wrong



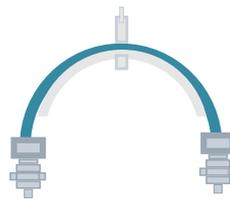
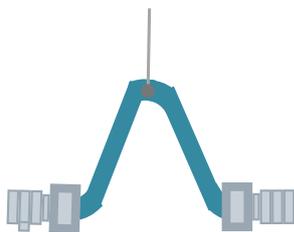
Good



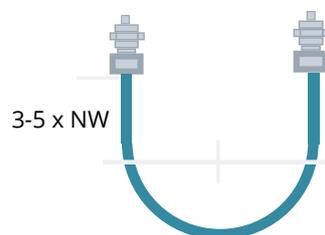
Avoid twisting.
The direction of movement
and the hose itself must be
aligned.



Avoid twisting and kinks at all
times by rolling and unrolling
the hoses correctly.



Never use an unsupported
hose, as this increases the
risk of kinks. Use a hose
saddle or sling.



Avoid any kinks after
couplings. Make sure that the
hose length is sufficient for an
unsupported straight section
of at least 3 to 5 times the
nominal diameter.