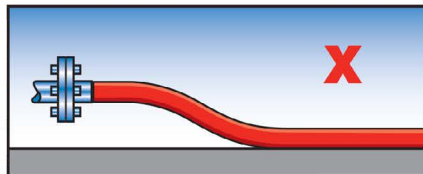


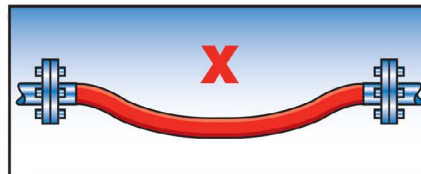
# Composite Hose Handling Guide

Fontenay hoses are manufactured from the finest materials, to the highest specifications, for service in arduous conditions. To ensure long, trouble free service from these robust versatile hoses we advise the following installation procedures

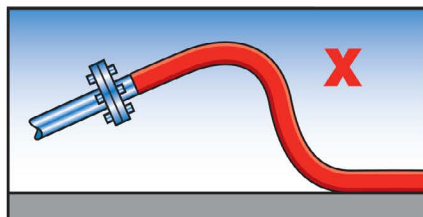
## INCORRECT



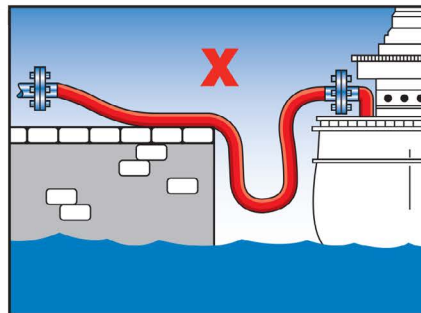
NEVER USE HOSE UNSUPPORTED



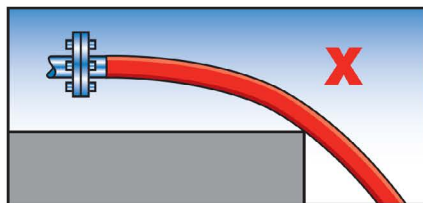
NEVER USE HOSE UNSUPPORTED



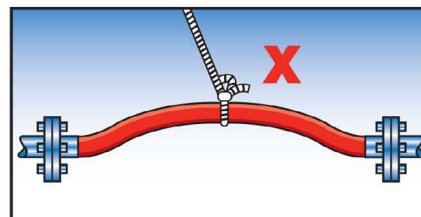
NEVER USE HOSE UNSUPPORTED



NEVER OVERBEND HOSE OR ALLOW HOSE TO HANG BETWEEN QUAY AND SHIP

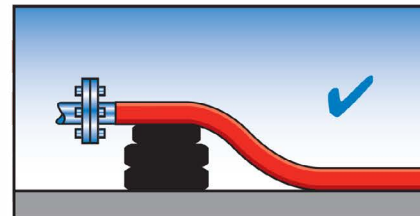


PROTECT AGAINST SHARP EDGES, QUAY EDGE, SHIP'S GUARD RAIL ETC.

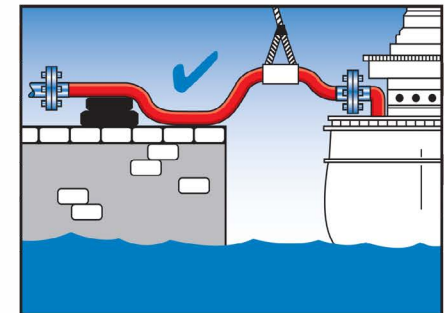


NEVER SUPPORT HOSE WITH SINGLE ROPE

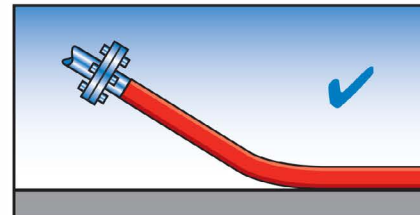
## CORRECT



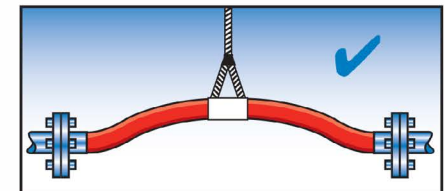
ALWAYS SUPPORT HOSE NEAR COUPLING



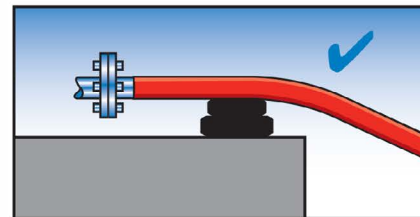
SUPPORT HOSE WITH SLINGS



ACCEPTABLE



SUPPORT HOSE WITH SLINGS WHERE APPROPRIATE



ACCEPTABLE

# Suitability, Testing and Inspection

## Suitability

There are several factors to be considered when ordering a hose. After completing this list of hose requirements, it will be clear what specification of hose is required.

Working pressure; Working temperature; Chemical medium; Viscosity of medium; Cleaning requirements; Risk of cross contamination; External temperature; Mechanical support available ie: cranes, bridles, saddles slings; Environmental considerations; Health and safety.

When selecting a hose for extreme conditions, it is not advisable to select a hose which would, at any time during use, be subjected to simultaneous pressure and temperature and bending radius at the upper limits of its specification. Our technical department will be pleased to give advice on such applications.

## Installation and usage

Incorrect installation can unduly stress hose assemblies leading to a shortened working life or premature failure.

1. Flanged hose assemblies should ideally have one end secured with a swivel flange to lessen any distortion which may occur.
2. Hose assemblies must not be twisted either on installation or whilst in use.
3. Hose assemblies subject to movement whilst operating should be installed in such a way that flexing occurs in the same place.
4. When installing hose assemblies note must be taken of the minimum bend radius specification.

## Cleaning

Hoses should be cleaned after use and before testing. The method used will depend upon service, location and hose type. Flushing out is adequate in most situations using a variety of fluids:- eg: clean water; hot water, sea water, detergents and solvents at ambient temperature.

If sea water is used the hose must be well drained afterwards, to minimise corrosion. Care must be taken that the maximum working pressure of the hose is not exceeded during cleaning. Steam lances should not be used as these can dislodge the inner wire. Compressed air may be used on open ended polypropylene lined hose, but is not recommended for ECTFE lined hose. Mechanical methods of cleaning, such as pigging must not be used, as this could also dislodge a wire.

## Testing

At periods not exceeding 6 months, most composite hoses should be tested for electrical continuity using the following procedure:

1. Lay the hose flat on the ground.
2. Check that the hose is electrically continuous from end to end. This should be done with an OHM metre. The electrical resistance should not exceed 100 OHM per hose assembly.

We recommend the following test procedure should be applied to chemical and general purpose hose every six months, and to oil and spirit hose every 12 months.

1. Drain and thoroughly clean the hose.
2. Visually inspect the hose. Hoses showing any significant damage should not be tested.
3. Lay the hose out straight, allowing space for elongation under pressure.
4. Blank off one end and fill with water, taking care to release all the air from the hose.
5. For the test duration, appropriately pressurise the hose. While this pressure is being maintained examine the hose for any leaks and test for electrical continuity between the end connections.
6. Release pressure and drain. Indelibly mark the hose with test details.

NB: A feature of composite hose is elongation under pressure, which is relatively high compared with rubber hose. This characteristic of thermoplastic composite hose can not be used as an assessment of the condition of the hose or an indication of failure.

## Inspection

Before each operation hoses should be visually examined paying attention to the following points:

1. Displacement of reinforcing wire from their normal pitch.
2. Abrasion or corrosion of the hose outer wire.
3. Abrasion of the reinforcing fabrics below the outer cover.
4. Dents or kinks.
5. Damage or displacement of end fittings.
6. Evidence of leakage from end fittings.

## Repairs

It may be possible to repair hoses which have been damaged in service. Please contact Fontenay for advice.