



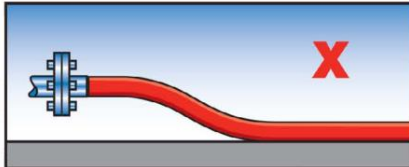
COMPOSITE HOSE HANDLING GUIDE

DOCUMENT NUMBER: FF-Q-102

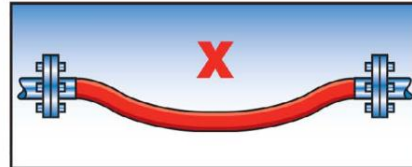
DOCUMENT REVISION NUMBER: 02

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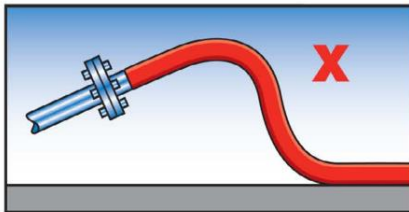
INCORRECT



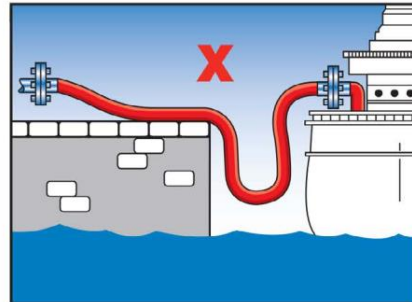
NEVER USE HOSE UNSUPPORTED



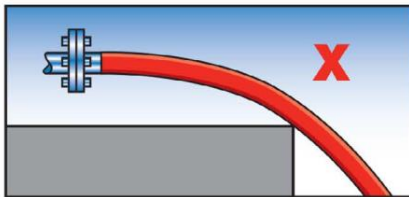
NEVER USE HOSE UNSUPPORTED



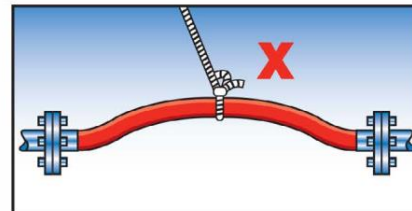
NEVER USE HOSE UNSUPPORTED



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

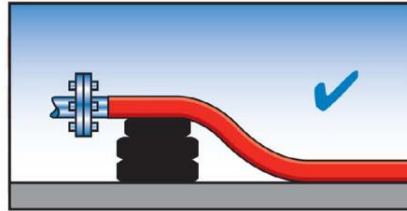


PROTECT AGAINST SHARP EDGES, QUAY EDGE, SHIP'S GUARD RAIL ETC.

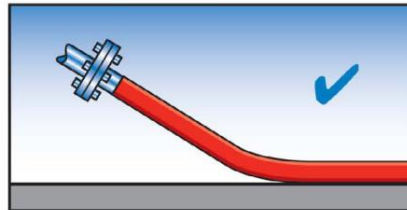


NEVER SUPPORT HOSE WITH SINGLE ROPE

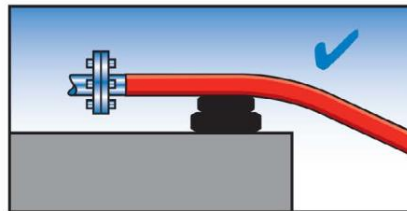
CORRECT



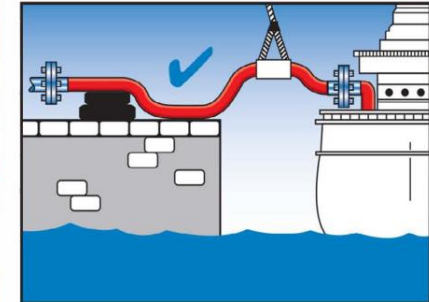
ALWAYS SUPPORT HOSE NEAR COUPLING



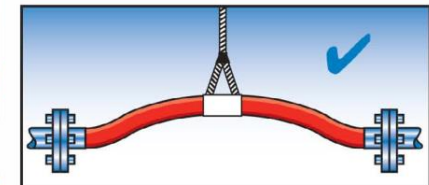
ACCEPTABLE



ACCEPTABLE



SUPPORT HOSE WITH SLINGS



SUPPORT HOSE WITH SLINGS WHERE APPROPRIATE



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Suitability, Testing and Inspection

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.

When selecting a hose for extreme conditions, it is not advisable to select a hose which would, at anytime 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 lesson 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 instances, using a variety of fluids:-eg: clean water, hot water, detergents and solvents at ambient temperature.

Care must be taken that the maximum working pressure of the hose is not exceeded during cleaning. Steam lances should not be used as this can dislodge the inner wire. Compressed air may be used on open ended polypropylene lined hose, but is not recommended for PTFE lined hose. Mechanical methods of cleaning, such as pigging must not be used, as this could also dislodge the 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 hose is electrically continuous from end to end. This should be done with an OHM metre. The electrical resistance should not exceed 100Ω per hose assembly.

Hydrostatic testing

We recommend testing be carried out every 12 months. Using the following procedure.

1. Drain and 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 extract all air from the hose.
5. Appropriately pressurize the hose (1.5 times working pressure). While the pressure is being maintained examine the hose for any leaks.
6. Release the pressure. Drain the hose and conduct continuity test.

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 wire.
4. Dents or kinks.
5. Damage or displacement of end fittings.
6. Evidence of leakage from end fittings.

Repairs.

For any repairs to composite hoses damaged in service. Please contact FUEL FLEX.