

Care and Use Instructions for Ultra High Pressure Hose

- High Pressure Safety Do's and Don'ts
- Recommended Tightening Procedures
- Installation Requirements
- Return for Repair Procedures

SPIR STAR[®]

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800-890-7827 ▪ www.spirstar.com

The following is **SPiR STAR's** list of Do's and Don'ts for proper and safe handling of high pressure hose. The improper use of high pressure hose can cause **serious injury or property damage. NEVER handle a leaking hose assembly. Treat any injury from high pressure fluid seriously and seek immediate medical attention.**

- Treat high pressure hose with extreme caution. **SPiR STAR** hoses are wire reinforced hoses, not garden hoses, and they should be treated with the same care as a high pressure containment vessel.
- When using hoses for waterjetting, read and understand Recommended Practices for the Use of Manually Operated High Pressure Waterjet Equipment (WaterJet Technology Association, 314-241-1445, www.wjta.org) prior to use.
- Always visually inspect the hose for damage, cuts, or wear spots before using.
- Check the hose end connections and threads for wear, rust, cracks, mechanical abuse, or other deterioration which could produce a dangerous projectile.
- Know the working and burst pressures of the hose before putting it in service.
- Always use clean, filtered water to prolong hose life. Some chemical plants' water sources are high in sulfur, which attacks stainless steel.
- Always clean, drain, and coil hoses after use. Soap and water usually provide an excellent cleaning agent.
- Always wear protective gloves, eyewear, and garments when handling high pressure hose and waterjet lances.

- Don't use a hose that has cuts, damage, or wires showing through the outer cover.
- Don't use a hose that has been kinked.
- Don't use a hose that has bubbles or blisters in the outer cover.
- Don't exceed the bend radius or pressure rating for each hose.
- Don't run over or crush the hose with heavy vehicles.
- Don't use a hose with corroded or leaking end connections. Take them out of service immediately.
- Don't use hose that has been exposed to chemical attack or over temperature.
- Don't bend the hose over scaffolding or pull heavy equipment with the hose.
- Don't apply torque to the hose assembly.
- Don't let hose support its own weight off towers or buildings.
- Don't expect water jetting or hydraulic hose to last forever.
- Avoid using dirty water or water with sulfur compounds in it. Tests have documented that hoses fail more rapidly when using water sources from chemical plants and refineries.

Be Safe - Replace

WARNING

HIGH PRESSURE

HAZARD

INCORRECT USE

MAY CAUSE

SERIOUS INJURY!

- Read and follow
SPIR STAR's®

written care and
use of instructions

- If you have not
read and understood
the instructions,
or if the instructions
are not available,

**DO NOT USE THIS HOSE
UNTIL YOU HAVE CALLED**

SPIR STAR, LTD.

(800) 890-STAR

**Refer to assembly label for
assembly working pressure.**

**End fittings may derate
hose working pressure.**

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**10002 Sam Houston Center Drive
Houston, Texas 77064**

Be sure to read and understand all warning labels that are associated
with High Pressure Hose and related equipment.

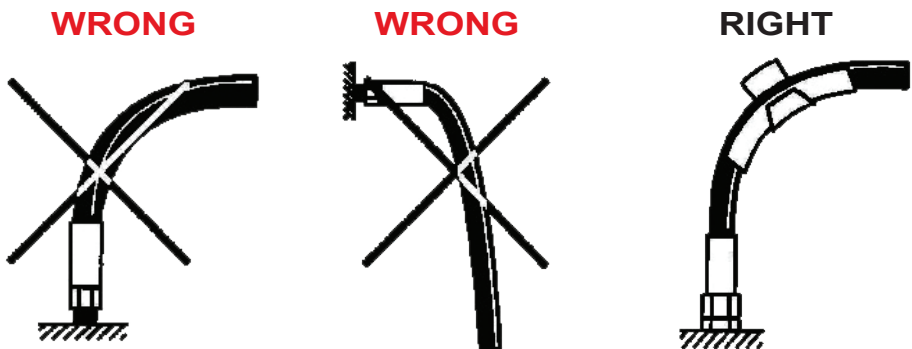
Recommended Tightening Procedures*

Connection	Thread Sizes	Tightening Torque (ft. lb.)
High Pressure		
1/4"	9/16" - 18	25
3/8"	3/4" - 16	50
9/16"	1 1/8" - 12	75
Medium Pressure		
1/4"	7/16" - 20	20
3/8"	9/16" - 18	30
9/16"	13/16" - 16	85
3/4"	3/4" NPSM	90
1"	1 3/8" - 12	125
Type M Swivel		
M9	9/16" - 18	25 - 30
M12	3/4" - 16	40 - 50
M14	7/8" - 14	50 - 60
M16	1" - 12	75 - 85
M21	1 5/16" - 12	100 - 120
JIC		
-4	7/16" - 20	11 - 12
-6	9/16" - 18	18 - 21
-8	3/4" - 16	36 - 39
-12	1 1/16" - 12	80 - 88
-16	1 5/16" - 12	100 - 108
NPT		
1/16"	3/4 - 1 1/2	4 - 5
1/8"	3/4 - 1 3/4	10 - 15
1/4"	1/4 - 18	20 - 25
3/8"	3/8 - 18	20 - 25
1/2"	1/2 - 14	40 - 50
3/4"	3/4 - 14	75 - 80
1"	1 - 1 1/2	100 - 115
BSPP (cone to cone seat)		
1/4"	1/4" - 19	25 - 30

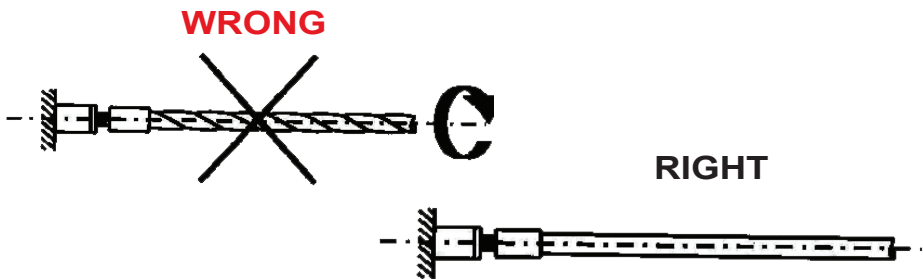
*Torque values are approximate and are based on new and properly installed fittings.

Installation Requirements

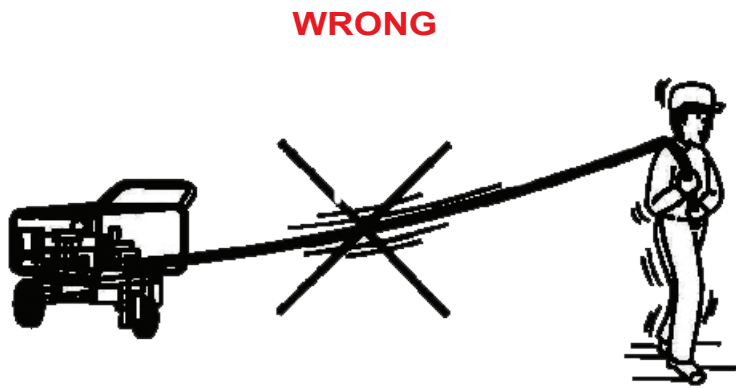
Do not kink the hose near the fitting.



Do not twist the hose.

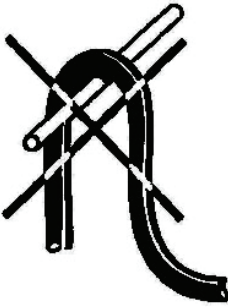


Do not pull equipment with the hose.

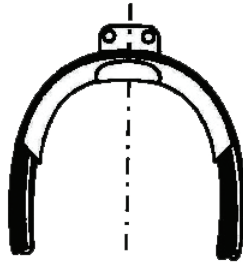


Do not exceed the hose's minimum bend radius.

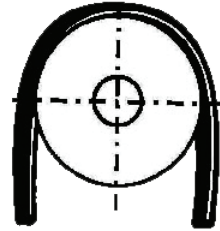
WRONG



RIGHT

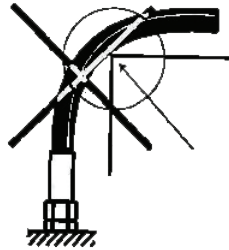


RIGHT

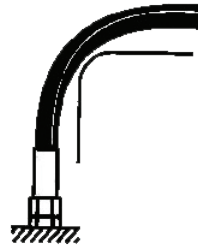


Do not bend the hose over sharp edges.

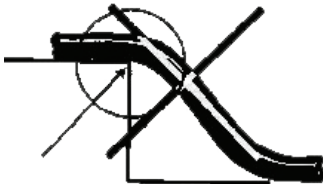
WRONG



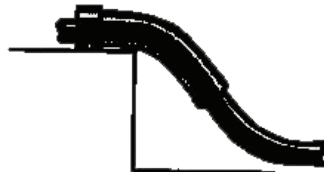
RIGHT



WRONG



RIGHT



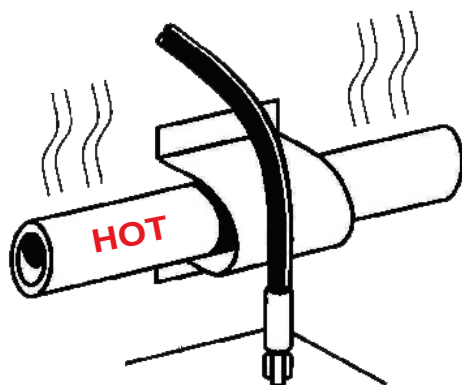
Do not pull on hose loops, this can kink the hose.

WRONG



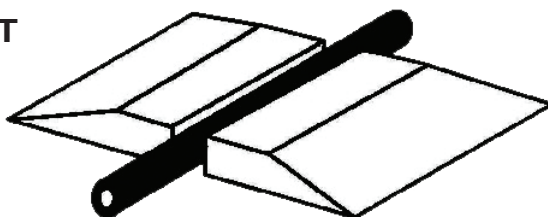
Protect the hose against hot objects.

RIGHT



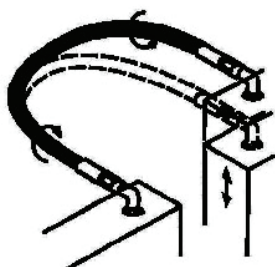
Protect the hose from being run over in traffic areas.

RIGHT

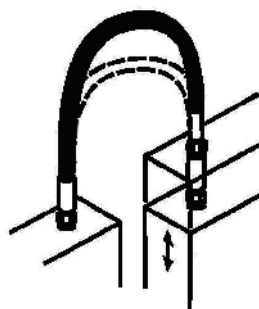


Avoid torsion.

WRONG



RIGHT



Return Goods Authorization (RGA) Procedure

In an effort to increase the speed and efficiency of which we perform repairs and pass on cost savings to our customers; **SPIR STAR** is implementing the following guidelines for the repair of thermoplastic hoses.

Before a hose is sent back for repair, the following inspection should be performed to help you the customer determine if it can be repaired.

- Is the spiralized wire exposed on over 20% of hose?
- Is the cover bubbled or inflated on more than 20% of hose?
- Does the hose have excessive kinks, bare spots, or cuts?
- Is the hose covered in tar or grease?
- Who is the manufacturer of the hose? (If it is not **SPIR STAR** hose we cannot repair it)
- Has the hose been used in an Ultra High Pressure application, 30,000 psi and above, for more than 60 days? (Date of manufacture is stamped on end fitting)

If the hose appears to have one or more of the above signs, this will deem the hose to be non-repairable and should not be sent in. Please note that Ultra Pressure Hose (30,000 psi and above) is non-repairable after 60 days of field use. By performing this simple visual inspection, it will save you time and money. Ultimately, this will cut down on the time and handling when the hoses arrive at our facility. **Any hoses that are non-repairable and have the above criteria for not sending in a hose will be subject to a \$15.00 disposal fee per hose.**

Please call us for a RGA# BEFORE sending the hose to us. NO REPAIRS, RETURNS, OR WARRANTY WORK WILL BE ACCEPTED WITHOUT AN RGA NUMBER. You can contact our repair department at (281) 664-7841 to obtain an RGA form. Upon receipt of the repair hose at our facility, they will undergo a detailed inspection by our technicians who then determine if a hose is repairable or non-repairable. This is usually completed within a one week timeframe. Once this inspection is performed, we then notify the customer of what the repairable lengths are. If a hose is determined to be non-repairable, no further action will be taken and the hose is either thrown away or returned to the customer. Please note that if we do not receive a response to repair the hose within 30 days of first contact, we will dispose of the hose.

We thank you for your continued cooperation at making the repair process more streamlined and quicker.



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