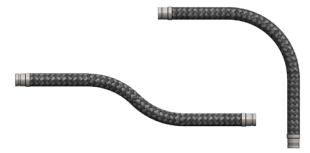
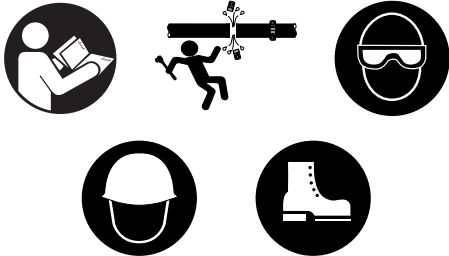


Victaulic® Series BH1 Braided Flexible Hose



WARNING



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

- The installer shall understand the use of this product and why it was specified for the particular application.
- The installer shall understand common industry safety standards and potential consequences of improper product installation.
- It is the responsibility of the system designer to verify suitability of stainless steel flexible hose for use with the intended fluid media within the piping system and external environments.
- The effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on stainless steel flexible hose shall be evaluated by the material specifier to confirm system life will be acceptable for the intended service.

Failure to follow these instructions could cause product failure, resulting in death or serious personal injury and property damage.

Guidelines for the Installation and Use of the Series BH1 Braided Flexible Hose:

NOTICE

- Certain applications may require special testing and analysis prior to hose selection. Actual service life can only be determined through testing under all extreme conditions.

The installation and routing requirements in this document are consistent with the following standards and guidelines: SAE J1273, ISO 17165-2, and Hose Safety Institute Handbook – Design and Specification of Hose Assemblies v1.3.

- When the Series BH1 connects to system components with a Victaulic coupling, the maximum allowable working temperature is that of the coupling and gasket being used. Reference the applicable Victaulic product publication, which can be downloaded at victaulic.com.
- Spikes and pulsations in pressure can cause fatigue and lead to premature failure. The maximum system working pressure (including any surge or peak transient pressure in the system) shall not exceed the maximum pressure rating of the Series BH1 Hose.
- Exposure to chemicals, UV radiation, salt water, and mechanical wear can degrade the Series BH1 Hose.
- Incorrect hose selection for the fluid being conveyed can lead to chemical degradation. The system designer shall verify suitability of the Series BH1 Hose for use with the intended fluid media within the piping system and external environments.
- Store Series BH1 Hoses in their original packaging in a clean, dry, and well-ventilated area.
- Care shall be taken to protect Series BH1 hose from wear, snagging, cuts, and other damage.
- External forces can significantly reduce Series BH1 Hose service life. Mechanical loads that shall be avoided include: tensile, compressive, torsional, and bending loads such that the hose is forced outside the installation guidance given below.
- Avoid installing the Series BH1 hose in systems where the hose is subject to large displacements of continuous motion or aggressive pulsation.
- Avoid installing the Series BH1 in applications involving steam services.
- Avoid installing the Series BH1 in untreated systems and systems that are exposed to atmosphere.

Installation:

- Install the Series BH1 in a manner that allows for ease of inspection and future replacement.
- Use protective sleeves to help prevent abrasion in case of contact with other surfaces.
- Provide enough slack to allow for movement.
- Use swivel-type fittings to help avoid twisting/torsion. Use of swivel-type fittings, flexible couplings, or adapters are required to ensure that the hose is installed with no twists. Use of proper hose clamps may also be required to reduce external mechanical loads.
- Use angled fittings if the minimum bend radius cannot be achieved.
- Verify that Male BSPP ends of a Series BH1 use the suitable seal (provided by Victaulic) when mating up to a BSPP fitting.
- Check for frayed braiding and any other damage just prior to installation.
- Verify that the correct hose length has been specified to avoid excessive stretching or compression. Allow extra hose length to reduce strain on components, to compensate for tolerance stack-up in assemblies, and to allow for hose length changes during pressurization, thermal expansion or contraction, and system component tolerances and movement.

Victaulic® Series BH1 Braided Flexible Hose

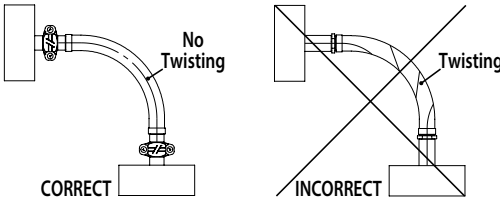
Installation (Continued):

Install the Series BH1 so that relative motion of system components does not produce twisting – Use two wrenches when making threaded connections to help prevent the hose from twisting. Twisting of the hose will result in reduced pressure capability and can cause loosening of fittings during system pressurization.

For hoses with a fixed threaded end and a grooved end, fully install the threaded end prior to installing the grooved end to prevent torsion in the braided hose. Install Victaulic couplings per the published installation instructions, which can be downloaded at victaulic.com.

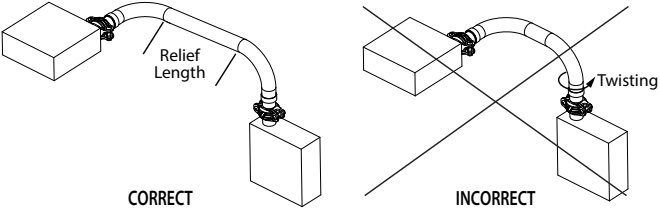
For hoses with two fixed threaded ends, a union connection is required at a minimum of one of the ends to ensure no torsional loading is present in the assembly.

Swivel-type fittings may be used to help avoid twisting/torsion.



For hose routing that involves two or more bends in different planes (e.g., horizontal followed by vertical) – A relief length of hose is recommended between the bends. This allows the hose to:

- Relax and transition naturally between directional changes
- Minimize torsional twisting or braid separation
- Maintain the hose's internal structural integrity and rated performance



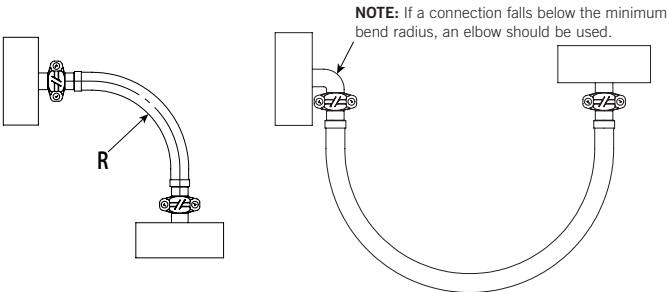
Minimum Bend Radius:

Installation of a Series BH1 at less than the minimum listed bend radius may significantly reduce service life of the hose. Any bends that are less than the minimum bend radius shall be avoided.

Below is a listing of the minimum bend radius requirement per hose diameter:

Hose Size	Minimum Static Bend Radius
inches DN	inches mm
3/4 DN20	2 51
1 DN25	2 1/2 64
1 1/4 DN32	3 76
1 1/2 DN40	3 1/2 89
2 DN50	4 1/2 114

Hose Size	Minimum Static Bend Radius
inches DN	inches mm
2 1/2	8 203
3 DN80	10 254
4 DN100	13 330
6 DN150	19 483

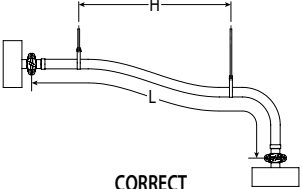


Hose Support Recommendations:

Horizontal runs of braided hose longer than 4 feet/1.2 m (“L” dimension shown) shall be supported approximately every 2 to 3 feet/0.6 to 0.9 m (“H” dimension shown) depending on hose diameter, operating pressure, and media weight.

Vertical runs shall be supported every 3 to 6 feet/0.9 to 1.8 m depending on hose diameter, operating pressure, and media weight.

Hose supports shall be loose-fit clamps or saddles that allow axial movement but prevent sagging, fatigue, braid pinching, and excessive stress on hose ends and fittings.



Post-Installation Inspection and Testing:

Perform a visual inspection of the hose assemblies prior to any leak and pressure testing. If any of the following conditions are noted, the hose assembly shall be removed from the system, discarded, and replaced:

- Hoses that have been bent to a radius smaller than the minimum bend radius
- Hoses that have been cut, cracked, or otherwise damaged
- Hoses that have frayed braid wire
- Fittings that contain damage such as scratches on sealing surfaces and deformation

After visual inspection has occurred, pressurize the system gradually to verify proper assembly and check for leaks. Depressurize and drain the system before attempting to replace or adjust any system components.