

	USER MANUAL FOR THE APPLICATION OF XHC HOSE ASSEMBLIES FOR HIGH- PRESSURE HYDRAULIC SYSTEMS	Document Reference Number: TDS1523
Document Revision Number: 1	Document Revision Date: 06/11/2025	
Document Authored by: Matt Hughes	Document Approved by: Ian Paddock & Steve Wakelin	

WARNING: Failure or improper selection, or improper use of hose, tubing, fittings, assemblies or related accessories (“Products”) can cause death, personal injury and/or property damage. Possible consequences of failure or improper selection and/or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed
- High velocity fluid discharge
- Explosion or burning of the conveyed fluid
- Electrocution from high voltage electric power lines
- Contact with suddenly moving or falling objects that are controlled by the conveyed fluid
- Injections by high pressure fluid discharge
- Dangerously whipping hose
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious
- Sparking or explosion caused by static electricity
- Sparking or explosion while spraying paint or flammable liquids
- Injuries resulting from inhalation, ingestion or exposure to fluids

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

FAIL-SAFE

Hose assemblies and fittings can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode so that failure of the hose assembly or fitting will not endanger persons or property.

User responsibility: Due to the wide variety of operating conditions and applications for hose assemblies and fittings, Hi-Force and its distributors do not represent or warrant that any particular hose assembly or fitting is suitable for any specific end use system.

The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the hose and fitting
- Assuring that the user's requirements are met and that the application presents no health or safety hazards
- Providing all appropriate health and safety warnings on the equipment on which the hose and fittings are used
- Assuring compliance with all applicable government and industry standards

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HANDLING INSTRUCTIONS

Always treat high-pressure hydraulic hose assemblies and applications involving the use of high-pressure hydraulic hose assemblies with extreme caution.

- Hi-Force high-pressure hoses are wire reinforced hoses that operate at elevated pressures and should be treated with respect in relation to the task they perform.
- Hi-Force high-pressure hoses should always be inspected visually by a person with knowledge and experience in dealing with high pressure hoses prior to use. If the outer cover is compromised in any way, frayed, damaged or worn out, the hose should not be used in service.
- End connections should always be inspected visually prior to use for signs of wear, rust, cracks or other deterioration that could cause the end to separate from the hose and become a dangerous projectile. If the end connections are compromised in any way the hose should not be used in service.
- Ensure mating end connections are compatible.
- Always ensure that the maximum working pressure of the hose is not exceeded in the application.
- Always use clean, filtered medium to prolong the life of the hose assembly.
- Always clean hoses after use.
- Always store on a shelf or storage hooks.
 - For short hoses (under 1.5M) they should be stored in a relaxed natural state.
 - For longer hoses (over 1.5M) can be loosely coiled.
- Never use a Hi-Force high-pressure hose with damage to or wires exposed through the outer cover.
- Never use a Hi-Force high-pressure hose that has bubbles, blisters or is kinked.
- Never retain a hose by mechanical means at the sleeves (ferrules). Where required retain using hose restraints.
- Never exceed the hose's minimum bend radius (130mm) or its maximum working pressure.
- Never stand or drive over a hose with vehicles.
- Never use hose assemblies with corroded, deformed or leaking end connections.
- Never use dirty medium in a hose assembly.
- Never bend the hose assembly over scaffolding or pull heavy equipment with the hose.
- Don't expect Hi-Force high-pressure hoses to last forever. Due to the elevated pressures, components wear out more frequently than standard hydraulic applications.

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RECOMMENDATIONS

Hi-Force does not limit the life span of a hose assembly; however, the recommendation is that it should not exceed 6 years.

Ideally high-pressure hoses shall be used regularly. A hose assembly should not be kept in storage more than 2 years between being pressurised. Otherwise, the natural properties of the hose materials cause a loss of compression in the fitting, which may lead to premature leakage of the fitting.

Re-pressure test of the hose assembly is recommended yearly or at least every second year and taken out of service after 6 years. In the service industry a re-pressure test of the hose assemblies is recommended before every project (shutdown, turnaround, etc.) is started and intermittently throughout the project. The pressure test is not required for hose assemblies in continuous use, for example in industrial processes. Static pressure test for 1 minute at Maximum Working Pressure (MWP) x 1.2 and no more than MWP x 1.5 unless established user routines denote a lower test pressure. Document the test and inspection.

Hi-Force advises against the repair of hose assemblies as the safety of a hose assembly that has already been in service is always reduced.

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