

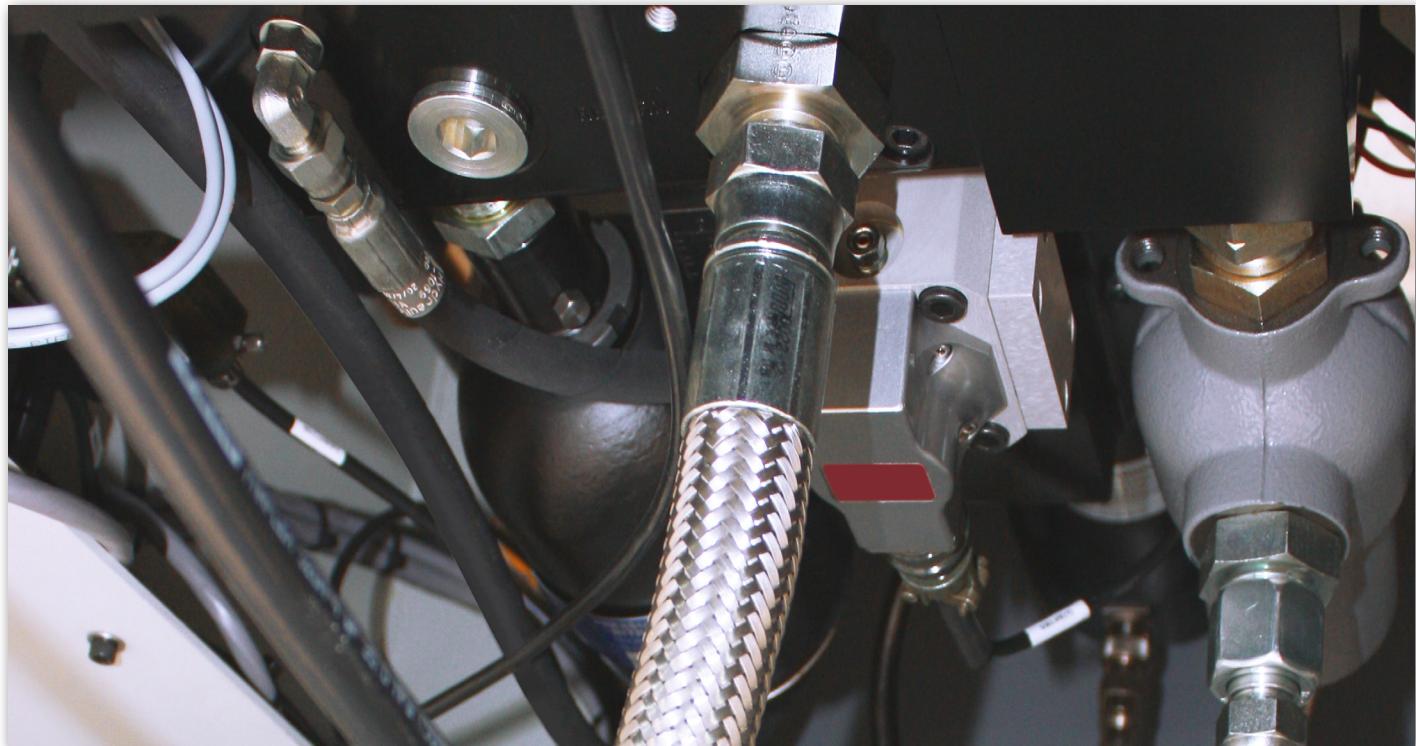
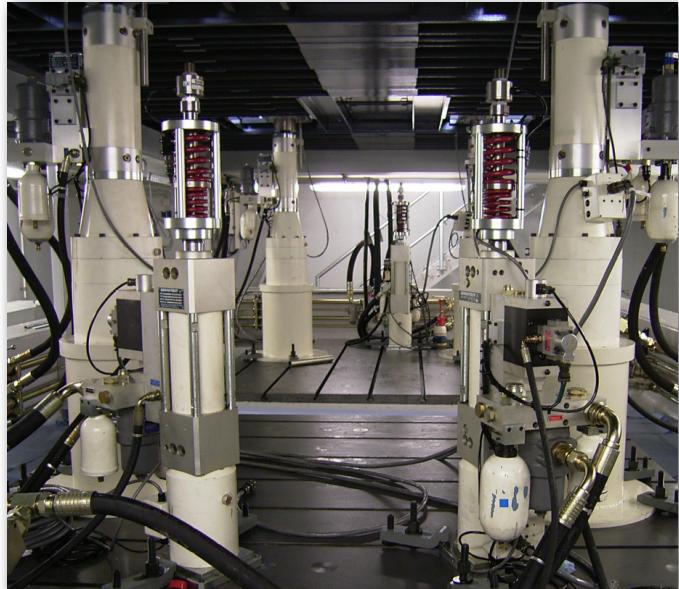
Instron® Professional Services | Hydraulic Hose Replacement

Hoses can often be the forgotten part of hydraulic systems, but their performance and condition can have a critical impact on not only the system performance, but also on the health and safety of your facilities and staff.

Most laboratories will have their own periodic inspection program as part of the site's health and safety policy. Early indications of an impending catastrophic hose failure, such as blistering, fitting weep, and chaffing, will often be detected then, or as part of Instron's professional routine system maintenance. This specialised maintenance will also detect more subtle failure, such as the erosion of the internal hose wall, that can have a marked impact on the performance of the system, especially in such areas as the servo valve.

There are no internationally recognised guidelines specifying how long hydraulic hoses can be used before they should be replaced. However, the following makes reference:

- DIN 20066:2002-10 states that for the production of hose assemblies the hose (bulk hose) must be younger than 4 years according to the hose date of manufacture. The service life of a hose assembly, including any period of storage, should not exceed 6 years.
- ISO has prepared draft guidance stating that the life of a hose assembly, including storage, should not exceed 40 quarters (10 years) from the date of the hose's manufacture.



The safe service lives of hoses are also influenced by additional factors other than time from manufacture. These include, but are not limited to:

- Twisting, pulling, and kinking
- Crushing or abrasion
- Bend radius
- External temperature and exposure to sunlight
- Frequency and amplitude of pressure fluctuations

What can be stated with certainty is that hydraulic hoses have a finite life that ultimately ends in failure. That failure can range from poor system performance impacting on the quality of result data generated, through an expensive and messy laboratory clean up and oil replacement to potentially serious injury of personnel.

A predictive and time-based approach to hose replacement is one of the best practices available.



All our hoses are flushed before and after installation to avoid any contamination and are electrochemically marked with customised information such as date of assembly, hose number and bar pressure for easy identification.

Instron®, working in conjunction with Regent Trist Hydraulics, would recommend that a major service every 5 years, which includes system hose replacement, is one of the best ways to reduce the risk of a major incident while ensuring the quality of performance.

Instron® Professional Services can deliver a comprehensive range of support services aimed at maximising system availability and test quality throughout the life of your materials testing system. Combining planned preventative maintenance with calibration, consultancy, training, and software support, Instron is able to keep your servohydraulic system operating to the highest level of performance and safety.

For more information, please contact your Instron Service Office below.

Instron Professional Services



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Global Support That is Local to You

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