



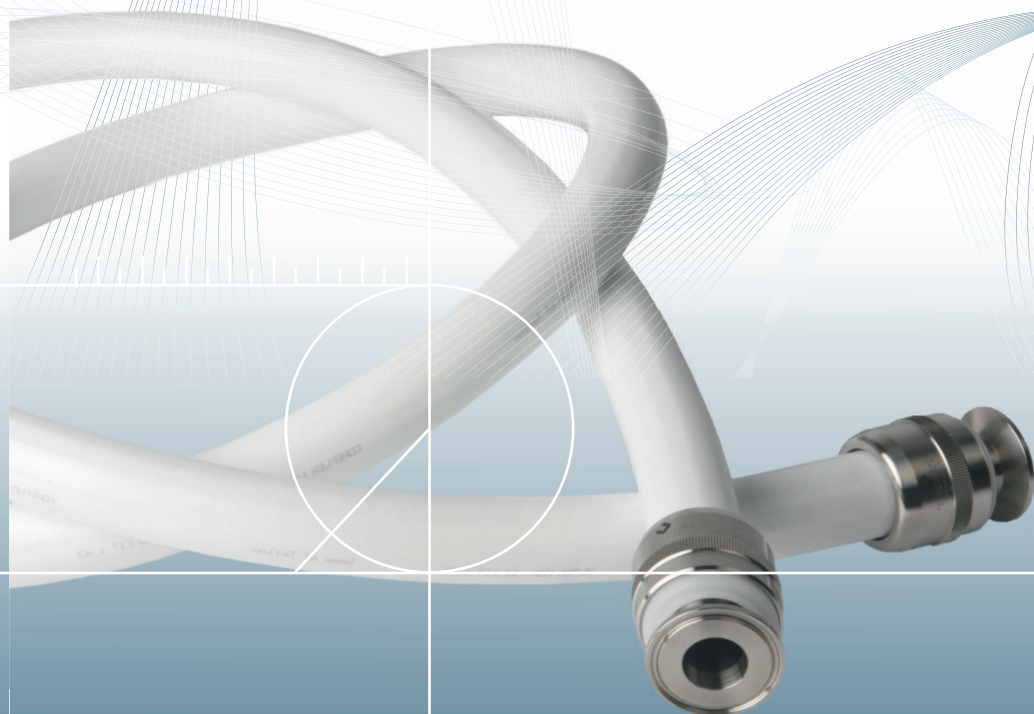
CONNECTORS

Connecting Technology for Pharma & Biotech.

ON-SITE, DRIVE-IN HOSE-TESTING SERVICES



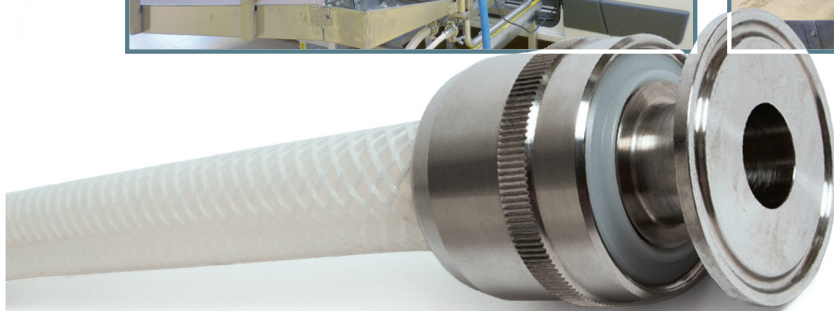
Our mobile test-unit brings the specialized skills, know-how and equipment you need – right into your plant!



CONNECTORS – a NORMA Group brand

www.connectors.ch

PRESSURE TESTING ENSURES REGULATORY COMPLIANCE F



REQUIRES EXPERT SKILLS PLUS SPECIALIZED TESTING EQUIPMENT

The use of assembled hose-lines is regulated by, for example, the European Pressure Equipment Directive 97/23/EC. Depending on the installation, operation and application, lines can be part of a mandatory monitoring system or even require CE marking. Furthermore, today's silicone, PFA and PTFE hoses – including reinforced and electrically conducting versions – are high-tech pieces of equipment with exact performance specifications.

Hose-line installation, repair and testing can only be carried out by trained personnel. Ensuring that your hose systems live up both regulatory and operational demands thus requires expert know-how plus specialized testing instruments.

As a manufacturer of pressurized hoses, Connectors possesses all the required technical expertise and qualifications. Moreover, we also hold all the necessary approvals. We bring all this and more right to your plant. And with our fully-equipped mobile unit on-site, testing can start without delay!



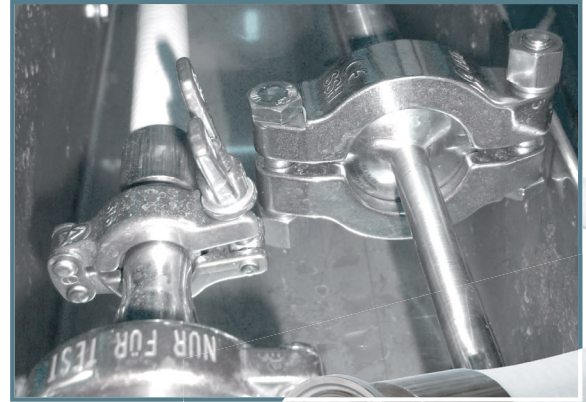
HOSE-LINE TESTING IS ESSENTIAL

Ensuring the safety of employees and the environment is of paramount importance not only for the Pharma & Biotech business sector, but also for all manufacturing industries. Securing the trouble-free and economic production of safe final products is also a common requirement. Maintaining manufacturing equipment in first-class condition is therefore essential.

Hoses are critical for ensuring that your production plant performs as expected. They must work in pressurized environments, convey pure water, chemicals and gases, tolerate recurrent fluctuations in temperatures during sterilization or cleaning processes, and withstand dynamic stress.

It's a tough job. A job that makes hose-line pressure testing essential.

PLUS SAFE AND SECURE OPERATIONS



INDIVIDUAL CONSULTATION CUTS DOWNTIME AND SAVES COSTS

Many factors can lead to hose system failure; high temperatures and pressures plus large fluctuations in both, concentrated fluids, as well as normal wear and aging. Yet the result is always the same; production is halted or jeopardized and the lives and health of your employees put at risk. The economic consequences are serious.

Planned hose-line testing, maintenance and repair protects against such misfortune. Always based on individual consultation, our on-site service helps reduce your machine downtime, save operating costs, and keep the environment in and around your plant secure. It also eliminates the time and costs of external testing and avoids the risk of hose damage or loss during transport.

YOUR EXPERIENCED ON-SITE TESTING PARTNER

A comprehensive range of activities plus extensive experience in the field forms the basis of our on-site operations. Our hose-testing services include:

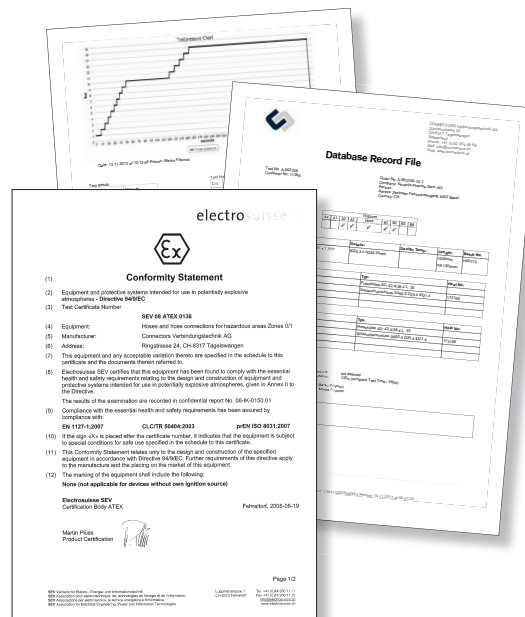
- Initial and periodic testing of new or used hoses (or at our own facilities)
- Advice on CE marking
- Visual checks and expertise (including inner-surface checks with endoscopes)
- Hydrostatic testing with protocols
- Electrical conductivity testing of hose lines
- Individual marking using our engraving machine
- Periodic calibration of testing equipment
- Administering hose lists and documents to support periodic surveillance audits

FAST TESTING PLUS INSTANT RESULTS AND FULL DOCUMENTATION



Our on-site hose testing is quick and efficient. For example, measuring hose-leak tightness at a range of pressures and temperatures takes just a few minutes per hose. Furthermore, the results are available immediately via an informative data record printed out in the mobile unit. This specifies full testing information including batch and heat nos. plus the test pressure chart and results. A handy checklist summarizes the findings.

In addition to this detailed test report, we can provide a Manufacturer's Declaration covering the manufacture and testing of new Connectors hoses according to PED 97/23/EC. We put all these documents directly in your hand.



Applicable regulations, standards and recommendations include:

- EN 12115 Chemical hoses
- EN 10204 Test certificates
- T 002 BG Chemie – safe hose
- DGRL 97/23/EG..... PED (Pressure Equipment Directive)
- Directive 94/9/EG ATEX (use of equipment and protective systems in potentially explosive atmospheres)

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