

Chemical industry



Fluid transfer solutions

Chemical industry

www.trelleborg.com/fluidhandling

TRELLEBORG GROUP LEADER IN POLYMER SOLUTIONS

Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative engineered solutions accelerate performance for customers in a sustainable way.



Trelleborg Coated Systems



Trelleborg Industrial Solutions



Trelleborg Offshore & Construction



Trelleborg Sealing Solutions



Trelleborg Wheel Systems

TRELLEBORG FLUID HANDLING SOLUTIONS

Trelleborg Fluid Handling Solutions is part of the business area Trelleborg Industrial Solutions.

With over 1,000 employees and a head office located in Clermont-Ferrand in France, Trelleborg Fluid Handling Solutions is a leading developer, manufacturer and supplier of low and medium pressure industrial hoses, Oil & Gas hoses, rubber sheeting and matting and expansion joints based on advanced polymer technology.

We provide the optimum high performance solutions for every situation with production sites in France, Spain, Sweden and Turkey.

Trelleborg Fluid Handling Solutions offer a very large range of competitive products, solutions and services that meet your needs and requirements for all types of applications.



Industrial hoses



Oil & Gas hoses



Expansion joints



Rubber sheeting and matting

FLUID HANDLING SOLUTIONS FOR THE CHEMICAL INDUSTRY

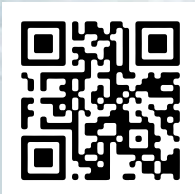


EN
12115

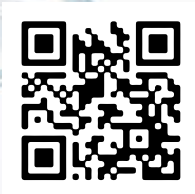
ISO
14001
9001

EN
13765

Discover our Chemical Hose Selector App

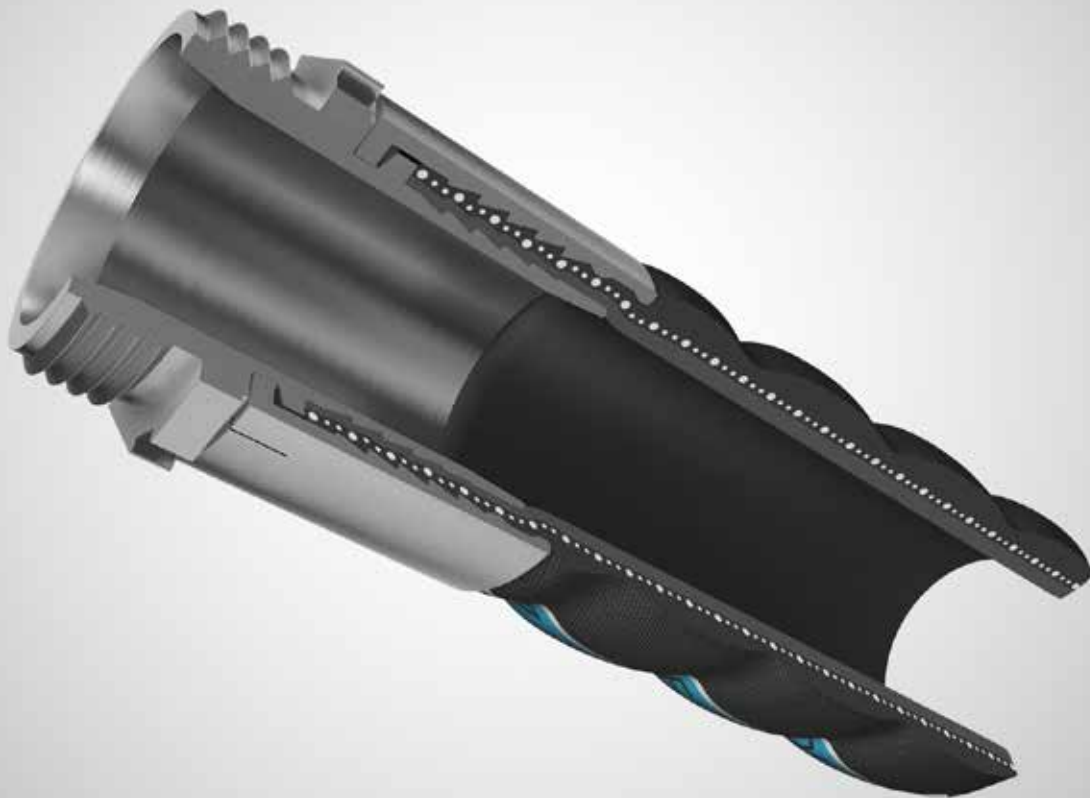


APP STORE



GOOGLE PLAY





COUPLINGS

EACH APPLICATION WITH RUBBER OR COMPOSITE HOSES REQUIRES A SPECIFIC CONNECTION SYSTEM

END CONNECTIONS

In the chemical industry, few factors are more fundamental than your hose connection. The reliability of your service and the safety of your installation depends upon it.

All the couplings we recommend for chemical industry use are designed to prevent any risk of tube damage. They feature adaptable ends that are fully compatible with any legacy couplings and available in a wide variety of materials for each of your applications (bronze, aluminium, stainless steel, polypropylene, or a custom coating).

COUPLINGS FOR RUBBER HOSES

Our new Universal Trelleborg Shank (UTS) gives you more installation options. The UTS can be fitted:

- **By crimping**
Besides making handling easy and harmless, Trelleborg's patented system makes the recovery of existing couplings possible.



- **With half-shell collar (EN 14420)**
These are available in aluminium or stainless steel.



COUPLINGS FOR COMPOSITE HOSES

To guarantee a perfect leak-free assembly for your TRELLEX composite hose, we recommend fitting it with Trelleborg's designed crimped-on couplings.



Coupling options include:



BSP or NPT thread couplings



CAM couplings



Guillemin symmetrical couplings



DIN, RJPL, SMS couplings



TRI-CLAMP couplings



Fixed or swivel flanges



EN
12115
Rubber



EN
13765
Composite

RUBBER AND COMPOSITE HOSES AND ASSEMBLIES

TRELLEBORG'S RUBBER AND COMPOSITE HOSES AND ASSEMBLIES ARE SPECIALLY DESIGNED TO MEET THE SAFETY NEEDS AND REQUIREMENTS OF THE CHEMICAL INDUSTRY

A COMPLETE RANGE OF HOSES

Whatever chemical you need to transfer, Trelleborg has a hose that can meet your demands and requirements.

A COMPLETE RANGE OF RUBBER HOSES

In full compliance with EN 12115 ❖

We give you the option to select the tube material (NBR, EPDM, UPE, or FEP) and the size (diameters range from 13 to 150 mm) that will suit you best.

TRELLFLEX COMPOSITE HOSES

In full compliance with EN 13765 ❖

TRELLFLEX composite hoses are constructed with multiple layers of foil wrapped between two steel wire helices. TRELLFLEX's wire coating and foil type (PP, PA, PTFE) are optimized to resist petroleum, chemicals and other liquids.

Diameters range from 25 to 250 mm.

Chemical resistance

Inner tube nature

In full compliance with EN 12115 ❖ or **EN 13765** ❖



NBR

Hydrocarbons such as oil and petroleum with aromatic content up to 50% along with many compatible chemicals.

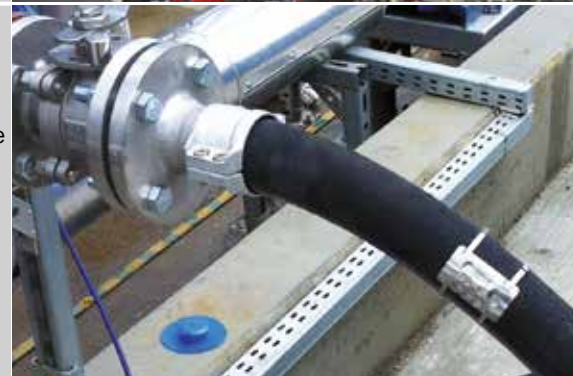
PUMPADUKT S ❖
PUMPADUKT D ❖



EPDM

Strong acids, ketones or alcohols at a wide range of temperatures.

CHEMIKLER EPDM ❖
CHEMIKLER D-EPDM ❖



UPE
PP

A larger range of chemicals, including highly aromatic, chlorinated or oxygenized solvents and aromatic hydrocarbons.

CHEMIKLER UPE ❖
CHEMIKLER L-UPE ❖
CHEMIKLER D-UPE ❖
PHARMAKLER UPE ❖
CHEM 16 UPE SD ❖
TRELLFLEX OIL ❖
TRELLFLEX CHEM ❖



FEP
PTFE

Any chemicals, even at high temperatures, except chlorine trifluoride, dry fluorine gas, oxygen difluoride, and molten alkali metals such as sodium.

CHEMIKLER FEP ❖
PHARMAKLER FEP ❖
TRELLFLEX CHEM PTFE ❖



STANDARDS

EUROPEAN UNION NORMS SPECIFY ALL REQUIREMENTS FOR RUBBER OR THERMOPLASTIC MULTI-LAYER HOSES AND HOSE ASSEMBLIES TO TRANSFER LIQUID OR GASEOUS CHEMICALS

EN 12115

- **Safety factor: 4**
For 16 bar working pressure, minimum bursting pressure is 64 bar.
- **Fire resistance**
No flame after 20 seconds, no spark after two minutes.
- **Capacity to recover OD after crush**
For SD type only, hose must recover over 97% of its original OD when crushed for max. 15%.
- **Highly abrasion-resistant cover**

EN 13765

- **Safety factor: 4**
For type 2 (10 bar) and type 3 (14 bar), full vacuum (-0.9 bar) is also required.
- **Fire resistance**
No flame after 20 seconds, no spark after two minutes.
- **Capacity to recover OD after crush**
For SD type only, hose must recover over 97% of its original OD when crushed for max. 15%.
- **Resistant to heat**
Hose remains tight at test pressure after 200 h at maximum temperature (+80 °C for type 2 and 3).

ATEX

Hose assemblies do not have their own potential sources of ignition that could cause an explosion. However, all preventive measures to prevent an electrostatic discharge should be taken. Within the European Union, this means that all plants with a potentially explosive atmosphere must now have designated ATEX areas.



Our EN 12115 conductive tube hoses have been checked and approved by an ATEX certification body in France (INERIS) and can be safely used in all designated ATEX areas.



OTHER HOSES AND ASSEMBLIES

FOR CHEMICAL APPLICATIONS WITHIN THE TRELLEBORG RANGE

PERFORMER RUBBER HOSES WITH END-FLEX®

END-FLEX specially tailored flanges ensure tube continuity and prevent any contact of the chemical with metal parts. Diameters range from 100 to 400 mm.

STAINLESS STEEL HOSE ASSEMBLIES

These assemblies can transport a large range of chemicals at high pressures and temperatures.

CONVOLUTED PTFE HOSE ASSEMBLIES

These convoluted assemblies make it possible to transfer highly corrosive chemicals even at high temperatures.



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