

CHEMICAL & PHARMA

Hoses and Couplings



ELAFLEX 



ELAFLEX – CONCENTRATING ON THE ESSENTIALS

Our Products

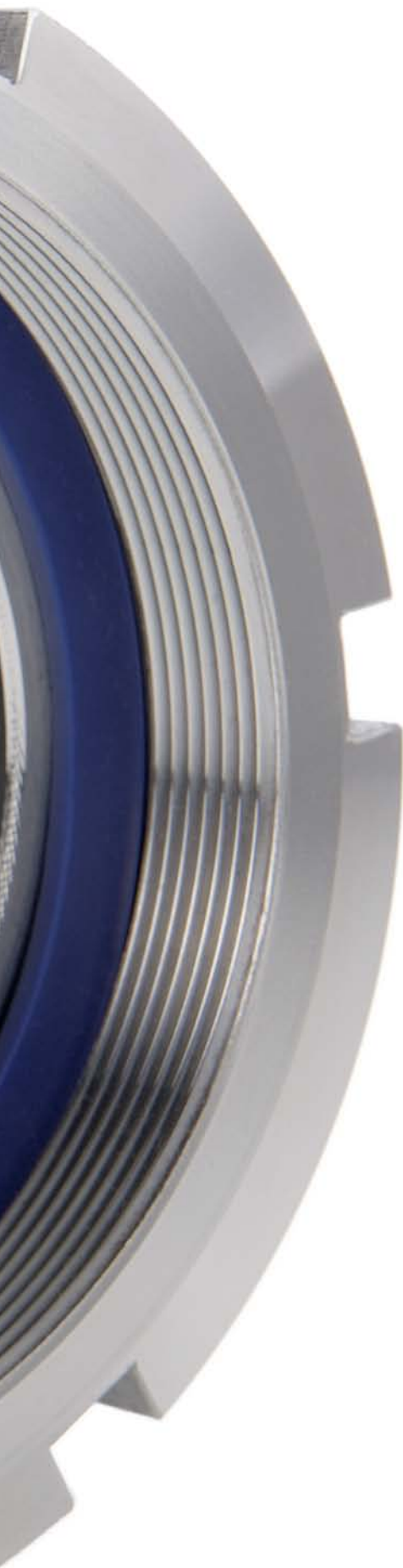
Hoses, fittings, couplings, expansion joints and nozzles setting the standards in industry.

Our Claim

State of the art quality engineering, for the benefit of the customer.

Our Specialty

We combine competence and innovation. Standard-compliant, purpose engineered components and hose assemblies.



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CHEMICAL

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PHARMA

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EXPERIENCE YOU CAN RELY ON.

**Tradition is no added value.
Our eighty years of knowledge is though.**

Elaflex is a specialist company in safe connections for the handling of hazardous goods and sensitive fluids. Since our foundation in 1923 we have developed into a leading, international specialist of liquid handling equipment. We stand for values which are typical of a family owned company: the spirit of innovation, reliability, continuity and flexibility in thought and action.

With this brochure we address manufacturers of chemicals and pharmaceuticals, hauliers, operators of loading terminals, plant engineers and chemicals distributors. On the following pages we show you some of our capabilities and to assist guidance in our detailed catalogue.

Elaflex customers count on our know-how. Quality engineered durable products. A sound investment both in terms of performance and total lifetime cost benefits.



MEDIA TRANSFER, FOR YOUR REQUIREMENTS.





Setting the Standards.

We are a committed partner to our customers. Knowing their problems and challenges enables us to develop and manufacture products which meet the market requirements.

Our competent design and engineering department and the continuous cooperation with renowned industrial partners such as ContiTech are another important factor, which has led to numerous innovations. Some of them you will see in this brochure.

The active participation in the preparation of official standards, qualified employees, our safety philosophy and a quality that deserves its name are also very important to us. Challenge us, we'll keep it flowing for you!



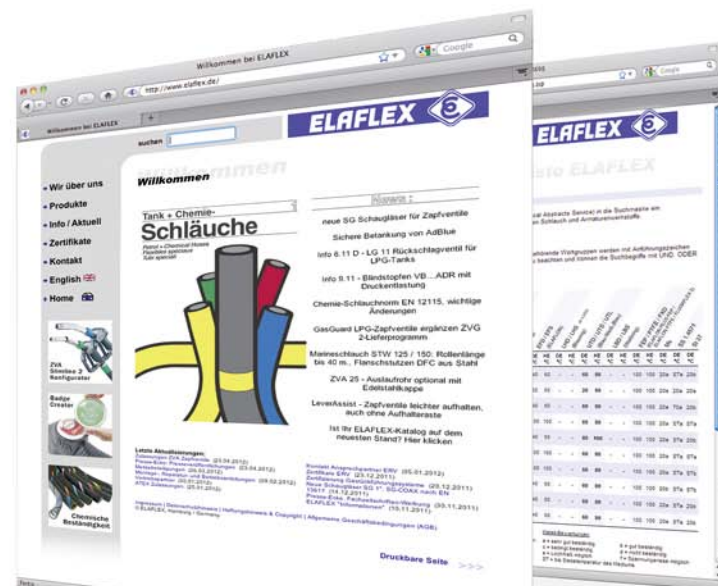
SERVICE, WELL RECEIVED.

Delivery times that meet your expectations.

When asked, Elaflex customers might define our service by facts such as professional technical advice, reliability and field support.

Service also means the ability to supply a major part of our product range ex works with short lead times. Our large 4500 m² warehouse and a 1350 m² workshop helps for an efficient delivery capability. Several hundred kilometers of hose and several hundred thousand couplings and components such as expansion joints are permanently available ex stock.

According to your specification, we supply either assembled products or single components for self-assembly. Our modular



For product information,
resistance charts and cata-
logue pages please click
www.elaflex.de/english



Well informed, at any time.

system, developed over the years, is important both for efficiency and for safe assembling. Hoses and couplings are single source and to the latest industry standards. This ensures compatibility and the possibility to combine complex and special customer design requirements – not unusual for the chemical industry.

Our operational procedures also translate into better service. An up-to-date warehouse management system helps for good inventory accuracy and confirmation of readiness for delivery to the customer. The 'pick by voice' and barcode-assisted stock management minimizes the possibility of incorrect deliveries and speeds up the delivery process.

On our website **www.elaflex.de/english**, all details about our products are at your disposal. Data sheets, Elaflex Information sheets, resistance charts and manuals are constantly updated.

Within this brochure, you will find references to detailed product information. When typing that into the search window of our website, the required data is just a few clicks away.



CHEMICAL HOSES

Setting the standard: no matter what your medium is, you can rely on our quality rubber hoses 'made in Germany'.

Safe, flexible, lightweight – long service life.





UNIVERSAL HOSES

For multiple applications, suitable for a broad range of media. Nominal pressure 16 bar, braided reinforcements, burst pressure > 64 bar. According to EN 12115.

ELAFLON FEP (Ω)

Catalogue page 125



Universal hose with seamless, transparent lining of Teflon® FEP. Suitable for all common media up to +100 °C, briefly up to +130 °C. Conforms to FDA and USP Class VI.

Cover: light grey with OHM conductive stripe (up to DN 50) or black (DN 63-100)

FEP D (without helix):

Pressure hose for discharge and barrel pumps in wet and dry hose systems.

Also suitable as reel hose.

Available in DN 13 · (19) · (25)

FEP (with helix):

Suction and discharge hose for IBCs and barrels, containers, rail tankers, tankers and fixed installations.

DN 19 · 25 · 32 · 38 · 50 · 63 · 75 · 100

UTD | UTS | UTL (Ω/T)

Catalogue page 121 a



For explanations about 'Ω' or 'Ω/T' conductivity see Elaflex-Information 7.11E

Universal hose with UPE lining: the reliable 'work-horse' for almost all liquid and pasty chemical and petroleum based products and solvents. Due to the white lining and the patented inner conductive OHM spiral stripe the media remains clean, at the same time highest electrostatic safety.

Temperature range -30 °C up to +100 °C depending on medium.

UTD (without helix):

Pressure hose for discharge in wet and dry hose usage. Also suitable as reel hose provided the inner pressure reaches min. 0,5 bar.

Available in DN 13 · 19 · 25 · (32) · (38)

UTS (with helix):

Suction and discharge hose for IBCs and barrels, containers, road and rail tankers and fixed installations. The strong steel helix ensures that the hose maintains its shape during suction and gravity operations.

Available in DN 19 · 25 · 32 · 38 · 50 · (63) · 75 · 100 · (125) · 150

UTL (with helix, externally convoluted):

Due to the external corrugations this type is especially flexible. Lightweight suction and discharge hose e.g. for unloading road and rail tankers, also for other applications where special flexibility and easy handling is required.

Available in DN 50 · 63 · 75 · 100



FLUORFLEX 2 (Ω/T)

Elaflex-Information 2.08E



Universal hose with seamlessly extruded, helically wound lining of Teflon® PTFE virginal, white. Suitable for all common media in use. Exceptional flexibility and tight bending radii. With patented inner conductive OHM spiral stripe for clean media and highest electrostatic safety.

Unique combination of a hose with helically wound PTFE lining suitable for easy self-assembly. It can be cut to length from the reel and assembled with our special hose fittings in the field. With the flexibility to use clamp type safety couplings lead times are significantly reduced. There is no necessity to stock complete replacement hose assemblies any more.

Temperature -20°C to +150°C depending on medium.

FXD (without helix):

Suction and discharge hose (vacuum max. 0,9 bar at 20°C), Suction and discharge hose for IBCs, barrels, containers, road and rail tankers and fixed installations. Ideal use for applications where highest flexibility and PTFE lining is required.

Available in DN 20 · 25 · 40 · 50

ELAFLON PTFE (Ω/T)

Catalogue page 127



The new star among our EN 12115 'Ω/T' hoses: Electrically conductive, seamless lining of Teflon® PTFE, for all commonly used media up to +150°C (depending on medium). Conforms to FDA and USP Class VI.

PTFE D (without helix):

Pressure hose for discharge and barrel pumps in wet and dry hose systems. Also suitable as reel hose.

Available in DN 13 · (19) · (25)

PTFE (with helix):

Suction and discharge hose for IBCs and barrels, containers, road and rail tankers and fixed installations. The strong steel helix ensures that the hose maintains its shape during suction and gravity operations.

Available in DN 19 · 25 · 32 · 38 · 50 · (63) · 75 · (100)



SPECIALITY HOSES

Highly flexible premium chemical hoses with specific properties, for a variety of requirements.

LMD | LMS (Ω/T)

Catalogue page 115



'Blue Band' hose for solvents, with smooth, seamless lining of blue NBR special rubber compound. For most solvents, paints, water lacquer, petroleum products, alcohols, aldehydes, esters and ketones. In short term operation also suitable for aromatic and chlorinated hydrocarbons.

Conforms to EN 12115. Full electrostatic safety. Temperature range -20 °C up to +80 °C depending on medium.

LMD (without helix):

Pressure hose PN 16.

Available in DN 09 · 13 · 19 · 25

LMS (with helix):

Suction and pressure hose PN 16.

DN 25 · 32 · 38 · 50 · 63 · 75 · 100 · (150)

CHD | CHS (Ω/T)

Catalogue page 115



'Lilac Band' - the classic rubber chemical hose, with smooth, seamless EPDM lining. Suitable for more than 75% of all industrial chemicals, also for hot water, cooling water and hot air (not oily).

Conforms to EN 12115. Full electrostatic safety. Temperature range -40 °C up to +100 °C depending on medium.

CHD (without helix):

Pressure hose for discharge and barrel pumps in wet and dry hose systems. Also suitable as reel hose. DN 13 · 19 · 25 · 32 · 38 · 50

CHS (with helix):

Suction and discharge hose for IBC and barrels, containers, rail tankers, tankers and fixed installations. DN 25 · 32 · 38 · 50 · 63 · 75 · 100 · (150)

AMX (Ω)

Catalogue page 123



Ammoniac hose with EPDM lining, for the discharge of water-free, liquid and gaseous ammonia.

Conforms to EN ISO 5771. Full electrostatic safety.

Burst pressure > 125 bar. Temperature range -40 °C up to +55 °C.

AMX (without helix):

Pressure hose PN 25 for the handling of ammonia, for example during the production of fertiliser (urea), chemicals, paper pulp and ammonia water.

Available in DN 13 · 19 · 25 · 50

DN 19-50 at your choice either with textile braid (...PA) or with stainless steel braid (...SS)

**EFL (Ω)**

Catalogue page 113



'FLUORLINE' universal hose, a highly flexible and comparably low-priced dispenser hose with seamless, transparent lining of THV fluoropolymer - suitable for most commonly used media. Non leaching, non discolouring, therefore ideal for highly pure and sensitive products. Conforms to EN 1360, EN 12115. Temperature range -40°C up to +100°C.

EFL 16 / EFL 21 (without helix):

Pressure hoses PN 16, for barrel pumps, AdBlue (DEF) urea refuelling, emission free car refuelling, connecting hose in plant engineering and for robot filling systems.

Available in DN 16 (no colour marking) and DN 21 (blue-white-blue colour marking).

SD (Ω)

Catalogue page 135



Steam hose with EPDM lining and zinc plated steel braids, for wet saturated steam up to 18 bar (210°C) and hot water up to 120°C. For cold water up to 25 bar.

Minimum burst pressure 180 bar (1:10 safety factor).

Corresponds to EN ISO 6134 - 2A

SD (without helix):

Pressure hose PN 18 (25) bar.

DN 13·19·25·32·38·50

**FWS PP | FWS PTFE**

Catalogue page 181



Also available: Composite hoses with Polypropylene or PTFE lining. Multi-layer thermoplastic hose with internal and external helix. Suitable for the handling of a large number of industrial chemicals, in refineries, tank farms, for the loading and unloading of rail cars and tankers.

Flexible and low priced, but less lifespan than our premium EN 12115 rubber hoses. Available as complete and tested hose assembly.

Conforms to EN 13765. Pressure PN 14 bar.

Available in DN 25·38·50·63·75·100·(150)·(200).

DN 100, 150 and 200 also available as Heavy Duty type ('-H').



PAL CHEMICAL HOSES

Traditionally better than the standards.

POLYPAL CLEAN (Ω/T)

Catalogue page 121 c



Universal hose 'CLEAN' with UPE lining and light-grey EPDM cover. Typical use e.g. for pharmaceuticals, clean chemicals, cosmetics, paints and glues, washing and cleaning products, viscous or powdery products and foodstuffs up to +100 °C depending on medium.

Due to the white lining with its patented OHM conductive spiral stripe and the clear, electrically dissipating cover both the transferred media and the factory floor stays clean – with full electrostatic safety.

Conforms to EN 12115. Conform to FDA and USP Class VI.

PCD (without helix):

Pressure hose for discharge and barrel pumps in wet and dry hose systems. Also suitable as reel hose.

Available in DN 13 · 19 · (25) · (32) · (38) · (50)

PCS (with helix):

Suction and discharge hose for IBC and barrels, containers, tanks and fixed installations.

Available in DN 25 · 32 · 38 · 50 · 63 · 75 · 100

POLYPAL PLUS (Ω/T)

Brochure PAL
Chemical Hoses



Universal chemical hose, with seamless, black UPE lining. For almost all liquid and pasty chemical and petroleum based products and solvents up to +100 °C depending on medium. Full electrostatic safety.

Conforms to EN 12115.

POLYPAL PLUS m.W. (with helix):

Suction and discharge hose for IBCs and barrels, containers, tankers and fixed installations.

Available in DN 13 · 19 · 25 · 32 · 38 · 50 · 63 · 75 · 100

**CHEMOPAL (Ω/T)**

Brochure PAL
Chemical Hoses



Classical chemical hose with smooth, seamless lining of chlorbutyl rubber. For a large number of alkalis, acids, acetates, aldehydes, amines, esters, ethers and ketones up to +90 °C depending on medium. Full electrostatic safety. Conforms to EN 12115.

CHEMOPAL o.W. (without helix):

Pressure hose PN 16.
DN 13 · 19 · 25 · 32 · 38 · 50 *)

CHEMOPAL m.W. (with helix):

Suction and pressure hose PN 16.
Available in DN 32 · 38 · 50 · 75 *)

TECNOPAL (Ω/T)

Brochure PAL
Chemical Hoses



Classical chemical hose with smooth, seamless lining of EPDM rubber. For acids, alkalis, salt solutions, alcohols, polar solvents, acetates, aldehydes, ester, ketones, hot cooling water, hot air (not oily) up to +100 °C. Full electrostatic safety. Conforms to EN 12115.

TECNOPAL o.W. (without helix):

Pressure hose PN 16.
DN 13 · 19 · 22 · 25 · 32 · 38 · 50 · 75 *)

TECNOPAL m.W. (with helix):

Suction and pressure hose PN 16.
DN 19 · 25 · 32 · 38 · 50 · 63 · 75 · 100 *)

SOLVAPAL (Ω/T)

Brochure PAL
Chemical Hoses



Solvent hose with smooth, seamless lining of blue NBR special rubber compound. For most solvents, paints, water lacquer, petroleum products, alcohols, aldehydes, esters and ketones. In short term operation also suitable for aromatic and chlorinated hydrocarbons up to +80 °C. Full electrostatic safety. Conforms to EN 12115.

SOLVAPAL o.W. (without helix):

Pressure hose PN 16.
DN 19 · 25 · 32 · 50 *)

SOLVAPAL m.W. (with helix):

Suction and pressure hose PN 16.
DN 25 · 32 · 38 · 50 *)

*) other dimensions on request



FITTINGS AND COUPLINGS

Comprehensive: Do you want threaded, coupled or flanged couplings – in the dry or wet hose system?

We offer a large variety of connection solutions, for highest operational safety.





i Spannfix and Spannloc

guaranteed fit · easy assembling
reusable system · approved



Catalogue page 297

SPANNLOC: Safety bolted clamps EN 14420 of hot stamped aluminium, bolts and nuts of steel zn cr, or stainless. Available in DN 13–200 mm. Also available as special versions nickel-plated, stainless steel or brass.

SPANNFIX: Safety pinned clamps EN 14420 of hot stamped aluminium, lock pin of stainless steel. Available in DN 25–100. Also available as special nickel-plated version.



Spannloc stainless steel



Spannfix nickel-plated



Spannloc nickel-plated



Spannfix (or Spannloc) hose connector

Threaded Hose Couplings

EN 14420-5, with Spannfix/ Spannloc

Catalogue page 221-229



VX ... SS

Male and female stainless steel hose couplings, DN 25–100, standard versions with flat sealing ISO 228 thread. Integrated hose tail, Spannfix or Spannloc clamps.



MC ... SS

Threaded Food Hose Couplings

with Spannfix/ Spannloc

Catalogue page 233



RVX ... SS

Male and female stainless steel hose couplings, DN 25–100, with DIN 11851 food thread. Integrated hose tail, Spannfix or Spannloc clamps.



RMC ... SS

Other Threaded Hose Couplings

Besides special threaded hose couplings (examples see right hand side) we also offer a large selection of threaded caps, plugs, reducing adapters, double nipples and welding nipples - details see Elaflex catalogue section 3.



Catalogue pages 203-205

M | V
Ferrule type



Catalogue page 239

SMS/MS | SVS/VS
For saturated steam, PN 25



Catalogue page 235

SMX/C | SVX/C
Steel zinc pl., chromated



THREADED AND FLANGED HOSE COUPLINGS

EN 14420, EN 14423, EN 14424, DIN 11851 – we ensure that your hose gets a suitable connection fitting. With Spannfix / Spannloc clamps or ferrules.

Flanged Hose Couplings

EN 14420-4, Spannfix / Spannloc

Catalogue pages 271-285



FFC ... SS

SFX ... SS

Versions: hose tail with integrated, fixed or swiveling (lap joint) flange

Clamps: Spannfix or Spannloc

Materials: stainless steel (also coated), alternatively steel zinc plated and chromated, aluminium, polypropylene or brass.

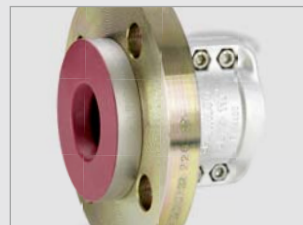
Standards: EN 14420-4; flanges according EN 1092-1 or ASA (ANSI B 16.5). Special flanges for saturated steam according EN 14423.

Sizes: DN 13–200 mm



Coatings + Linings

Information 5.03



In the chemical industry large amounts of aggressive fluids are handled. Often, stainless steel does not have sufficient chemical resistance.

To solve the problem, our stainless steel threaded fittings, couplings and flanges are also available in versions where the areas in contact with the medium are coated.

The preferred solution for most applications is a Teflon® PFA coating (additional type number ... SSE). Many Elaflex standard couplings and flanges are available ex stock with this ruby-red coloured, FDA conform coating.

As an alternative we offer also black E-CTFE coatings, and – for strongly stressed couplings – thick-walled white or black (electrically conductive) PTFE inserts.



TW Couplings EN 14420-6



MB ... SS

Catalogue page 311



VB ... SS

Catalogue page 313



VK ... SS

Catalogue page 311



MK ... SS

Catalogue page 313

The classical tank truck coupling for use with chemicals, of stainless steel 1.4408 – optionally with coating or lining for parts in contact with the medium.

Available in DN 50 · DN 80 · DN 100

MB = dust cap / VB = dust plug

VK = male coupler / MK = female coupler

Safe, rugged and self-tightening System. Decades ago we co-developed this coupling system which is now standardised and, due to its technical advantages, growing in popularity in various countries.

Quality features: 100% dimensions checked with exact measuring equipment thus reliable functioning, compliance with prescribed material specifications, free of shrink holes, electro-polished surface, high wear resistance.

TW Hose Couplings

VKC ... SS with K-Ring

Catalogue page 251



MB ... SS with chain K ... SS

Catalogue page 311

Choose between **one-piece construction** with integrated hose tail (no re-tightening necessary, shorter length, less weight) and the **two-piece construction** with thread connection.

MKX ... SS

Catalogue page 249



VB ... SS with chain K ... SS

Catalogue pages 311, 313

With **Spannfix** or **Spannloc** clamps.

Optionally with cap/plug and stainless steel chain.

Optionally male coupler with yellow protection ring ('K-Ring').



QUICK COUPLINGS: 'TW' AND 'CAMLOCK'

For fast and reliable connections in the dry hose system^{*)}.
Functionality checked and conforms to the standards.

^{*)} after use the hoses are emptied

TW - Special Types

Below, some examples of innovative TW coupling versions are mentioned which have been developed due to customers or law requirements..



MK-A...SS

Catalogue page 313

Female coupler with 'Active Safeguard Lever' to prevent accidental opening of the lever. Available in DN 50 (new) · 80 · 100



MK...SS-90°

Information 13.08

During operation, the TW lever shall always be kept closed so that the coupling can not unlock e.g. to vibration. For use in narrow spaces, couplers are also available with bent lever.



VB 80 ADR SS

Catalogue page 313 / Info 11.08

TW dust plug with automatic pressure release function according to ADR regulation. To disconnect the operator manually opens the mechanical blocking system of the plug, the VB 80 ADR SS can be safely removed.

Cam Locking Couplings EN 14420-7



AMB...SS

Catalogue page 341



AVB...SS

Catalogue page 343



AVKI...SS

Catalogue page 341



AMKI...SS

Catalogue page 343

The internationally most widespread quick coupling type – in stainless steel 1.4571/1.4401/1.4408, optionally with PFA-coating of the parts in contact with the medium (additional part number ...SSE).

Available in DN 25 · 32 · 38 · 50 · 63 · 75 · 100

AMB = dust cap / AVB = dust plug

AVKI = male coupler / AMKI = female coupler

Also available as complete hose couplings with hose tail and Spannfix or Spannloc clamps (catalogue page 255).

Also available in other materials such as polypropylene or special types with automatically locking levers.

DDC DRY DISCONNECT COUPLINGS, SBC SAFETY BREAK COUPLINGS

Better under pressure: With Mann Tek Dry Disconnect Couplings you can couple the wet hose system under pressure – quickly, safely and without product loss.

In the event of pull-away accidents, Mann Tek Safety Break Couplings protect against high environmental and equipment damage.

In some cases, it makes sense to combine both products – e.g. on loading arms.



DDC

Proven and certified system according to STANAG 3756 standard. For rail and road tankers, loading arms, hose manifolds and IBCs. Suitable for a large range of liquid media – coupling under pressure up to 7 bar. Working pressure PN 25.

Standard material for use in the chemical industry: body of stainless steel, seals FPM (Viton®) or FFPM (Chemraz®), Kalrez®), EPDM, HNBR.

To avoid product mix-ups, each DDC can be equipped with a selectivity system.

Plugs (DDC-S) and caps (DDC-K) see catalogue pages 346 +348.

DDC Dry Disconnect Couplings



DDC-M... SS

Catalogue page 345

Female coupler (hose unit) with integrated swivel; thread to ISO 228. Available as single coupling or complete with hose coupling.

Sizes DN 20 · 25 · 40 · 50 · 65 · 80 · 100 · 150

DN 20+25 with grip surface	DN 40+50 with one handle
DN 65–100 with two handles	DN 150 with ring handle



SBC Safety Break Couplings



SBC...SS

Katalogseite in Vorbereitung

Passive safety: SBC Safety Break Couplings (Emergency Break-Away Couplings) are used within hose assembly lines and loading arm systems. They serve to protect against excessive pull forces. Modern construction, low pressure drop. For loading and unloading road and rail tankers, ships; also suitable for offshore use.

At a defined pulling force, the coupling parts separate, valves instantly close on both sides. Product loss, environmental damage and destroyed loading equipment are avoided.

Easy replacement of the breaking bolts on site, no long downtimes.

Available in 1" · 2" · 2½" · 3" · 4" · 5" · 6" · 8"

Types*): 'Industrial Series' for use between hose assembly and a fixed point (e.g. loading arms). Will break at axial force or at angle up to 90°.

'Marine Series' for use between two hose assemblies. Will break at axial force. All types available with female or male thread (EN ISO 228 or NPT), with flange (DIN, ASA) or Victaulic coupling. Any combinations possible.

Standard material for the use in the chemical industry: body of stainless steel, seals FPM (Viton®) or FFPM (Chemraz®, Kalrez®), EPDM, HNBR.

*) also available as type SBC-C with cable release



DDC-V SS

Catalogue page 341

Male coupler (tank unit). At your choice:

with female thread to EN ISO 228 (DN 20 · 25 · 40 · 50 · 65 · 80 · 100 · 150)

with flange to DIN, ASA, TW or TTMA (DN 25 · 40 · 50 · 65 · 80 · 100)



HOSE ASSEMBLING SPECIALIST

A perfect match of hose and fitting.

There are three prerequisites for a perfect hose assembly: suitability and quality of the components, their compatibility with each other and professional assembling.

For decades, this is our 'core competence'. We ensure that our customers receive a suitable combination of hose and coupling – either for self-assembling or as ready-to-use hose assembly.



DG swivels for the protection against hose torsion



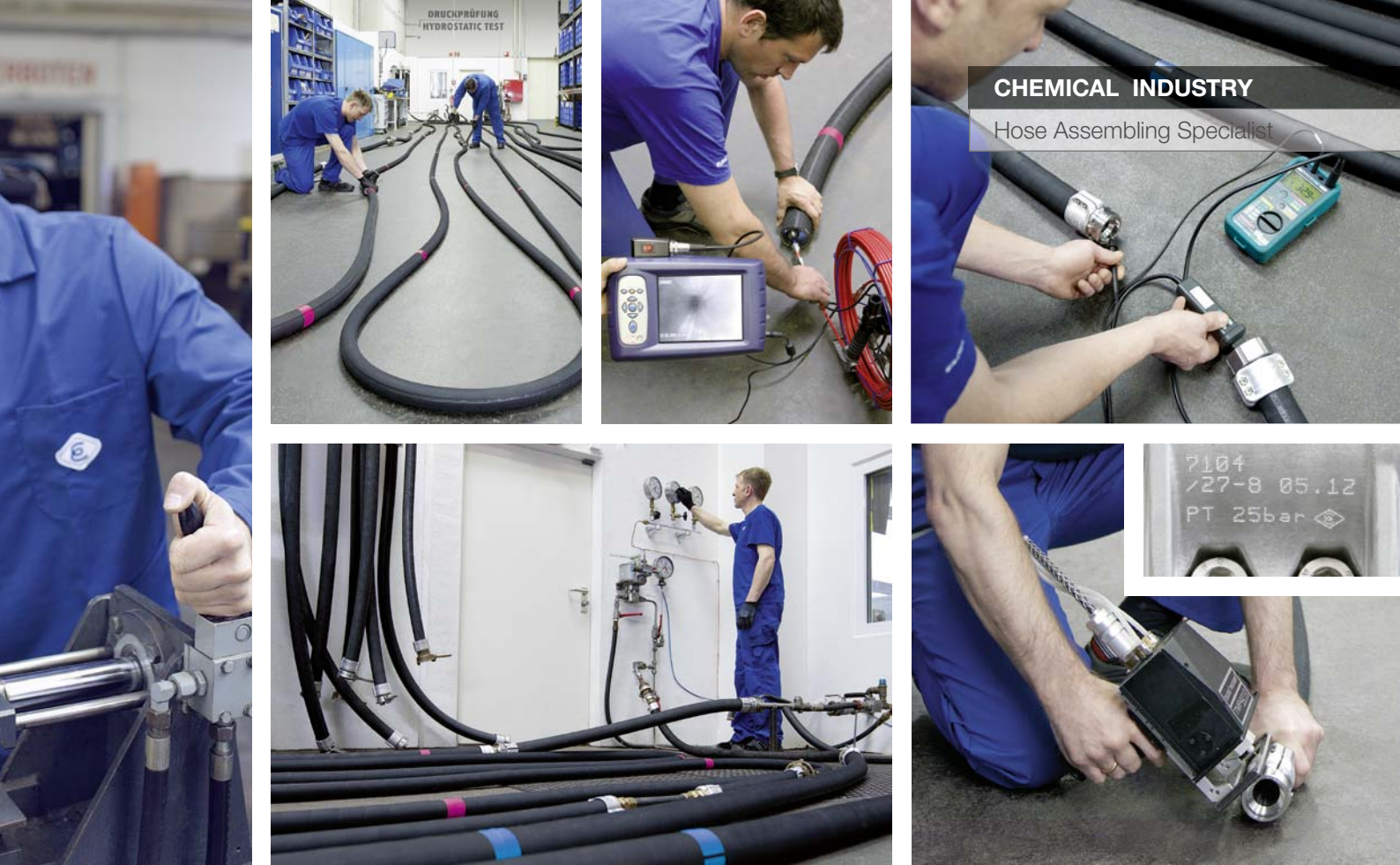
Additional hose assembly marking, e.g. **Band-It**



HSB 'Hosebun' hose saddle for a professional and material-protecting suspension of hose assemblies (see Elaflex Information 2.09 E)



KSS Anti-Kinking Spiral with suitable Spannloc KSS clamps. Patented system for tightly bent hoses - protects the stressed area directly behind the coupling (see Elaflex Information 2.09 E)



Self-assembling : With few exceptions, all Elaflex hoses are suitable for this. We provide advice for the selection of the single components. The Elaflex modular system and assembly instructions in our catalogue will help for a easy self-assembling. Hoses must be tested by the assembler according to applying regulations.

Self-assembling makes sense when hoses must be cut in different lengths from the reel, fitted with different hose end couplings, in a very short period of time - or for changes and repairs of existing hoses on-site.

Ready-to-use hose assemblies : after consultation, or to your specification, we take care of the rest. Hose cut to length, assembling of hose tail and clamps, mounting accessories,

testing (electrical conductivity and pressure test if applicable), additional marking, quality control and issuing of test certificates.

These services are not only provided by Elaflex but also by our stock-holding and experienced distribution partners.

Accessories : for the protection against kinking, abrasion, torsion and heat we can supply a range of additional parts which will help to prolong the service life of your hose assembly.

Also for the additional marking to customer's requirement there are possibilities, e.g. with Band-It. If required, we will also gladly take over the assembly of parts supplied by the client.



NEW: KSS Anti-Kinking System also for steam hoses



Fire protection covers



AR-HB Hose Beads for improved abrasion protection and eased hose handling



Special seals



NOZZLES FOR CHEMICALS

Media competence: Any car driver has already had a hand on one of our forecourt (petrol station) nozzles. For the dispensing of chemicals into canisters, drums, tanks and IBCs we offer these special versions.

ZVA 25 GR

see Info 3.06



Nozzle with automatic shut-off, for active vapour recovery during the dispensing of solvents into canisters and containers (5-1000 l).

Serves for the protection against harmful vapours and to fulfill emission regulations.

'Open' vapour recovery system, no sealing of the filler opening necessary.

Aluminium body with inner parts of stainless steel, seals of Viton®.

Flowrate up to 140 l/min. Supplied with product and vapour recovery hose assembly to your requirements.

ZVA Slimline | ZVA 25 'Solvent Types'

Catalogue page 524



Catalogue p. 525



Nozzles with automatic shut-off, for solvents and chemicals. Body aluminium, inner parts of stainless steel, available seal sets:

TD = Teflon®, VD = polyurethane, Vi = Viton®, EP = EPDM

ZVA Slimline TD/VD/Vi/EP:

Flowrate up to 60 l/min.

ZVA 25 VD/Vi/EP:

Flowrate up to 140 l/min.

ZVA RG | ZVA GBZ | ZVA VA

Catalogue page 523



Corrosion resistant nozzles with automatic shut-off. Flowrate up to 60 l/min. Inner parts of stainless steel, seals of Teflon®

ZVA RG:

Body red bronze, for corrosive media

ZVA GBZ:

Body bronze, a.o. for drinking alcohol

ZVA VA:

Body stainless, for various chemicals

**ZVA AdBlue | ZVA AdBlue SS**

Catalogue page 521



Nozzles with automatic shut-off, for 'AdBlue' (DEF / ARLA) urea solution. Dispensing only possible with magnet adapter Elafix 40.

Spout OD 19 mm, flowrate up to 40 l/min.

Inner parts stainless steel/plastic, seals NBR.

ZVA AdBlue:

Body aluminium nickel plated

ZVA AdBlue SS:

Body stainless steel

ZV 19 + ZV 400 / ZV 500

'Solvent Types'

Catalogue page 543



Catalogue page 535



Manual nozzles, for solvents and chemicals. Inner parts of stainless steel, available seal sets:

TD = Teflon®, VD = Polyurethan, Vi = Viton®, EP = EPDM

ZV 19 VD/Vi/EP/TD:

Flowrate up to 100 l/min.

ZV 400 (500) VD/Vi/EP:

Flowrate up to 400 (650) l/min

i Swivels

Our nozzles for chemicals are supplied with fixed hose inlet as standard.

To safely avoid hose torsion and to improve nozzle handling, alternatively stainless steel swivels are available in DN 25, 32, 40 and 50.

Capsulated ball bearing with lifetime lubrication, O-ring Viton® FEP-coated.

Temperature max 60 °C, PN 10.

RUBBER EXPANSION JOINTS

Compensating: rubber expansion joints are components for the installation into pipe systems. They serve to reduce vibration and noise, for the compensation of movements and assembly inaccuracies, as well as pipe insert pieces to facilitate inspections.

Our 'ERV' expansion joints are distinguished by a large axial, lateral and angular range of allowable movement, low reaction forces and low inherent resistance. They are perfect noise dampeners and ideally qualified to reduce vibrations - the major part of the piping's structure-borne noise and the low-frequency noise generated by fluids is eliminated. Due to swiveling flanges and smooth bolt holes assembling is easy. High burst pressure, integrated sealing surface with wire core and quality production by ContiTech are advantages that provide for long service life.

From our extensive product range here is a selection of some of the types used in the chemical industry. Due to our large warehouse capacity most ERV types can be supplied ex stock.

ERV-GR

Catalogue page 443



'Green Band' expansion joints for acids, alkalis, chemicals and aggressive chemical waste water.

Liner: Hypalon®, seamless, highly abrasion resistant

Reinforcement: PA textile cord

Cover: Hypalon®

Temperature range (depending on medium) -20 °C up to 100 °C, temporarily up to 110 °C.

Available in DN 25 – 700 mm

Shown example: ERV-GR 80.16, i.e. 'Green Band' expansion joint DN 80 with DIN PN 16 flanges of steel, zinc plated and thick film passivated

ERV-R

Catalogue page 407



'Red Band' expansion joints for water, drinking water (var. approvals), cooling and waste water with chemical additives, weak acids and alkalis, salt solutions, technical alcohols, esters and ketones.

Liner: Butyl/EPDM, seamless, low permeation

Reinforcement: PA textile cord

Cover: EPDM, ozone proof

Temperature range (depending on medium) -40 °C to 100 °C, temporarily up to 120 °C.

Available in DN 25 – 1000 mm

Shown example: ERV-R 80.16, i.e. 'Red Band' expansion joint DN 80 with DIN PN 16 flanges of steel, zinc plated and thick film passivated

ERV ... TA | TAS

Catalogue page 467



All ERV types can be fitted with an additional **PTFE lining** with universal media resistance. After receiving your order, flanges are assembled, followed by the production of the lining.

Additional order number:

... **TA**

Additional order number for PTFE lining and PTFE vacuum support ring:
... **TAS**

Temperature range: the maximum temperature depends on the chosen bellows type.

Available in DN 25 – 300 mm

Shown example: ERV-W 80.16 SS TA, i.e. 'White Band' expansion joint DN 80 with DIN PN 16 stainless steel flanges and PTFE lining



VITEX

Catalogue page 447



'VITEX' rubber expansion joints with a wide chemical resistance, among other for hot oils, benzene, toluene, xylol, fuels with aromatic content > 50 %, Biodiesel, aromatic and chlorinated hydrocarbons and mineral acids.

Suitable as flexible safety compensator for petrochemical plants, engines, power stations and flue gas desulphurisation plants.

Liner: FPM, seamless, no permeation

Reinforcement: PA textile cord

Cover: ECO, good resistance against weathering, ageing and ozone; electrically dissipative

Temperature range (depending on medium) -15°C, up to 90°C, temporarily up to 130°C

Available in DN 25 – 200 mm

Shown example: VITEX 80.16 with flanges of steel, zinc plated and thick film passivated

i Flanges / Accessories



Flanges: acc. to DIN PN 6/10/16/25, ANSI B 16.5 150/300, BS 10 table D/E/F, VG 95959, DIN 28460 'TW', JIS 5K/10K/16K, SAE J518c, AS 2129

Flanges with tie rods and angular limiters: tie rods with outer limitation (...**ZS**), tie rods with inner and outer limitation (...**ZSS**) or angular limiters (...**RG**)

Flange materials: steel zinc plated, steel hot galvanized, stainless steel, bronze, aluminium, POM. Coatings with Rilsan® or Halar® an PUR painting possible

Vacuum support spirals and rings of stainless steel: vacuum support spiral for DN 50-300 (...**VSD**), vacuum support ring for DN 125 – 600 (...**VSR**), bolted vacuum support ring for DN 500 – 1000 (...**VSRV**).

Further accessories: stainless inner protection sleeve (...**SR**), flame protection covers (...**FSH**), ground protective covers (...**EAH**)

PHARMA

Clean: Our new product line 'Hose Assemblies for the Pharmaceutical and Biotech Industries'.

Homogeneous elastomer hose construction with smooth Teflon® PTFE lining, for highest requirements to cleanliness, hygiene, easy hose cleaning and universal application possibilities.





ELAPHARM

Hose assemblies to DIN 26055-3, for use in the pharmaceutical and biotech industries.

Your benefit – completely smooth Teflon® PTFE lining. Flexible and homogeneous, kinking-resistant hose construction (all layers including the lining are permanently bonded to each other).

ELAPHARM OHM electrically conductive 'Ω'



^{*)} Lining corresponds to FDA guideline 21 CFR 177.1550 and CFR 178.3297 as well as USP Class 6 / USP Class 28.

Lining: Teflon® PTFE black, el. conductive, seamless, smooth, permanently bonded with reinforcement, FDA conform^{*)}

Reinforcements: aramid yarn braids, steel helix

Cover: EPDM black, seamless, smooth (structure of vulcanization protection foil visible), electrically conductive

Corresponds to DIN 26055-3 Typ B.

Available in DN 13 · 25 · 32 · 38 · 50 mm

Supplied as complete hose assembly. Depending on the coupling types selected there are two alternative crimping methods (see right hand side).

Spirally wound marking white-blue-red with all data required by the DIN 26055-3 standard.

Suitable for all commonly used media including pharmaceuticals, temperature range -30°C, up to +140°C, depending on medium, working pressure -0,9 bar (vacuum) up to 16 bar.

ELAPHARM electrically isolating 'I'

^{**) Cover corresponds to FDA guideline 21 CFR 177.2600 for extractable components and German Federal Institute for Risk Assessment's recommendation BfR 21 for Commodities}



^{*)} Lining corresponds to FDA guideline 21 CFR 177.1550 and CFR 178.3297 as well as USP Class 6 / USP Class 28.

Lining: Teflon® PTFE white, el. non conductive, seamless, smooth, permanently bonded with reinforcement, FDA conform^{*)}

Reinforcements: aramid yarn braids, steel helix

Cover: EPDM blue, seamless, smooth (structure of vulcanization protection foil visible), el. non conductive, FDA conform^{**)}

Corresponds to DIN 26055-3 Typ A.

Available in DN 13 · 25 · 32 · 38 · 50 mm

Supplied as complete hose assembly. Depending on the chosen coupling types there are two alternative crimping methods (see right hand side).

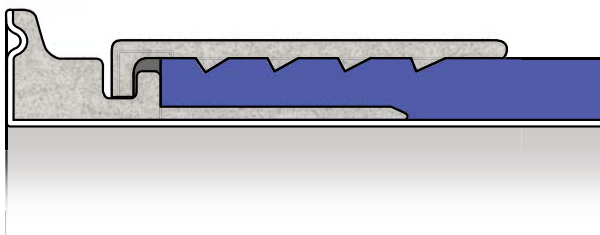
Spirally wound marking white-blue-red with all data required by the DIN 26055-3 standard.

Suitable for all commonly used media including pharmaceuticals, temperature range -30°C, up to +140°C depending on medium, working pressure -0,9 bar (vacuum) up to 16 bar.



NEW

Crimping 'free of dead spaces / beaded'



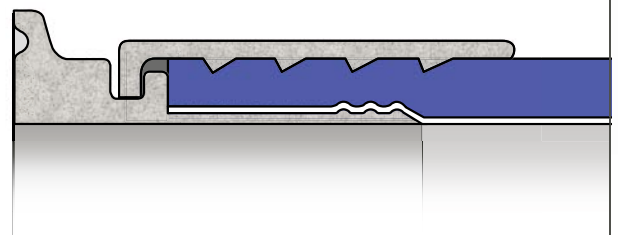
Crimped hose coupling with beaded (flared out) PTFE lining.
Patent pending for manufacturing procedure. Totally free of dead volume, for highest requirements to media purity.

Suitable for both ELAPHARM hose types. Usually used with DIN 32676 (Triclamp) or flanged hose couplings.

Materials: coupling with hose tail stainless steel 1.4404, crimping ferrule 1.4301

Marking on stainless steel ferrule:
ELAFLEX · material · Order No. · PS 16 bar · Date

Crimping 'gap minimised'

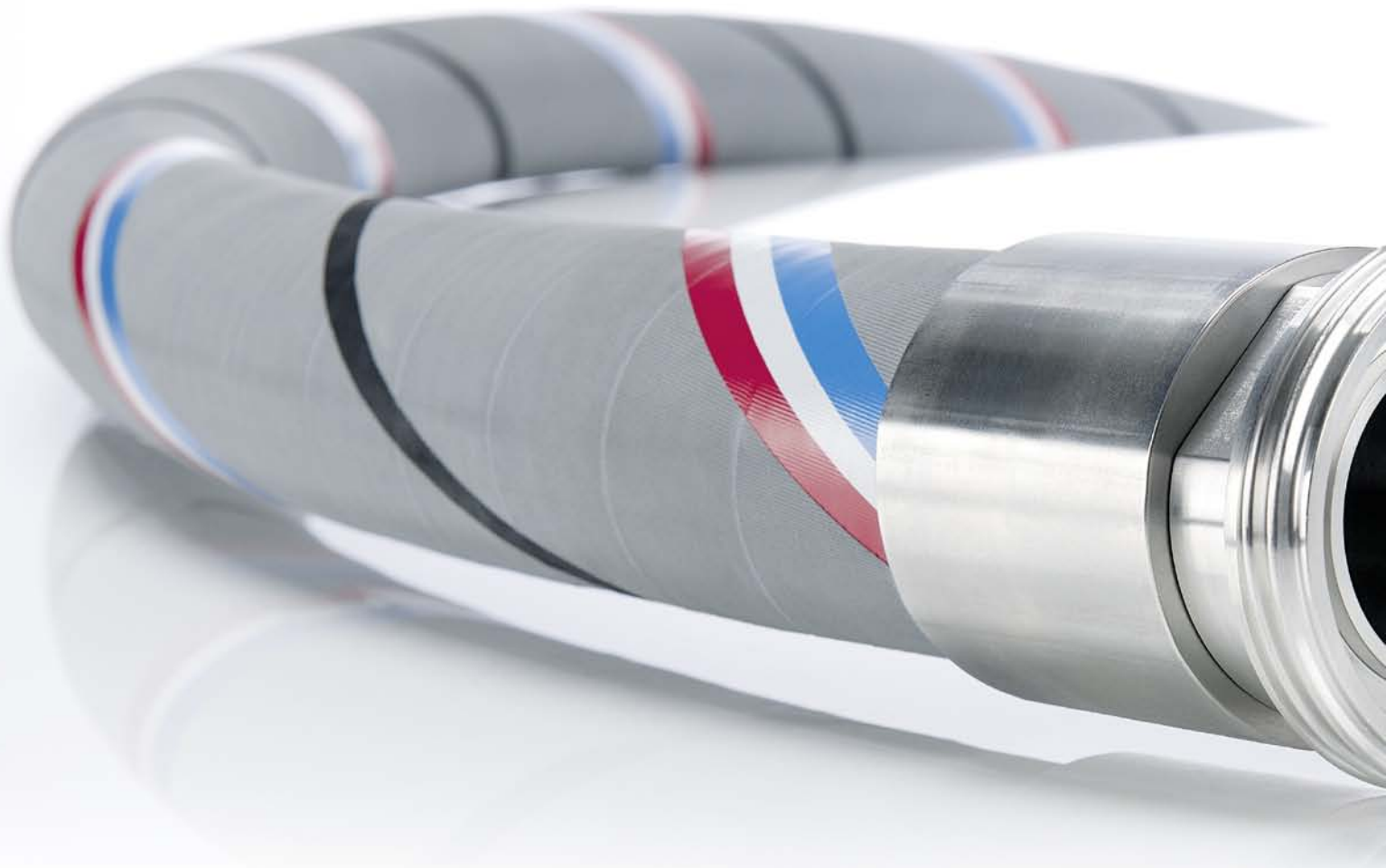


Crimped hose coupling with flush-mounted hose tail. No obstruction of inner cross-section, almost no gap or dead volume between lining and hose tail. For high requirements to media purity.

Suitable for both ELAPHARM hose types. Suitable for all coupling types. Surface finish Ra 0,8 µm – on request lower.

Materials: coupling with hose tail stainless steel 1.4404, crimping ferrule 1.4301

Marking on stainless steel ferrule:
ELAFLEX · material · Order No. · PS 16 bar · Date



ELAFLON PTFE (Ω /T)

Catalogue page 127



Universal hose with electrically conductive, seamless lining of Teflon® PTFE, for all commonly used media up to +150°C (depending on medium).

Corresponds to EN 12115. Conform to FDA and USP Class VI. Steaming out for cleaning and sterilisation up to +150°C, max. 30 min. (open system).

- Detailed description see page 11 of this brochure
- Shown example: as complete hose assembly with crimped-in DIN 32676 (Tricomp) connection

ELAFLON FEP (Ω)

Catalogue page 125



Universal hose with seamless, transparent lining of Teflon® FEP, for all commonly used media up to +130°C (depending on medium).

Corresponds to EN 12115. Conform to FDA and USP Class VI. Steaming out for cleaning and sterilisation up to +150°C, max. 30 min. (open system).

- Detailed description see page 10 of this brochure
- Shown example: as complete hose assembly with crimped-in DIN 11851 foodstuff coupling

NEW

HOSE ASSEMBLIES 'CLEAN'

For many applications in the food, bio and pharmaceutical industry this combination of proven Universal hose according EN 12115 and an externally crimped hose fitting with stainless ferrule is sufficient. At choice – standard couplings to EN 14420, foodstuff fittings or aseptic connections. Important for you: short lead times due to availability from stock and own assembly and testing.

POLYPAL CLEAN (Ω/T)

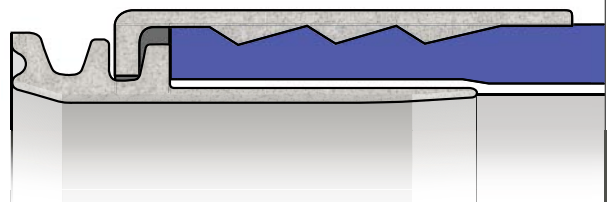
Catalogue page 121 c



Universal hose 'CLEAN' with electrically conductive, seamless UPE lining and light grey cover. Suitable for a large range of media, up to +100°C. Corresponds to EN 12115. Conform to FDA and USP Class VI. Steaming out for cleaning and sterilisation up to +130°C, max. 30 min. (open system).

- Detailed description see page 18 of this brochure
- Shown example: as complete hose assembly with crimped-in stainless steel with ISO 228 thread

Crimping 'Standard'



Crimped hose coupling with hose tail and ferrule of stainless steel, DN 13-100 mm. Choice of couplings according to EN 14420 or foodstuff and pharma couplings such as DIN 32676, DIN 11851, DIN 11864 or flanged couplings.

On request, hose tails with inner ramp to minimize dead volume (see picture above).

Marking on stainless steel ferrule to your requirements.

FLAWLESS CONNECTION

We have enlarged our range of special hose couplings for pharmaceuticals, biotech and foodstuffs: threads, flanges and clamps e.g. according to DIN 11851, 11853, 11854, 11864, 11887, 32676 or ISO 2852.

Upon your enquiry please specify the required coupling type. The pictures on this page only show a selection of the possibilities.

Aseptic Connections



DIN 11864-1, with thread



DIN 11864-2, with flange



DIN 11864-3, with clamp



Tri-Clamp Connections



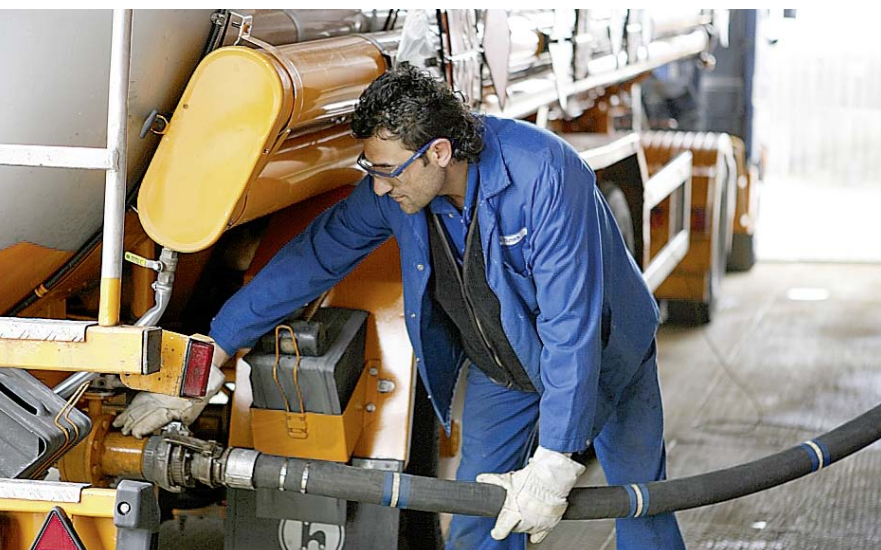
DIN 32676, Tri-Clamp

Couplings for foodstuffs, chemicals and pharmaceuticals

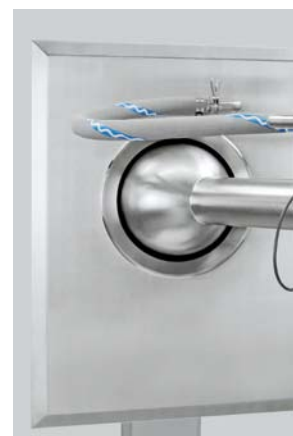


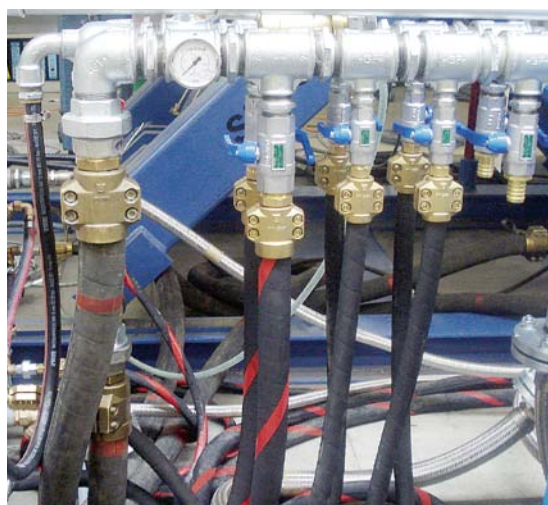
DIN 11851, foodstuff threaded coupling

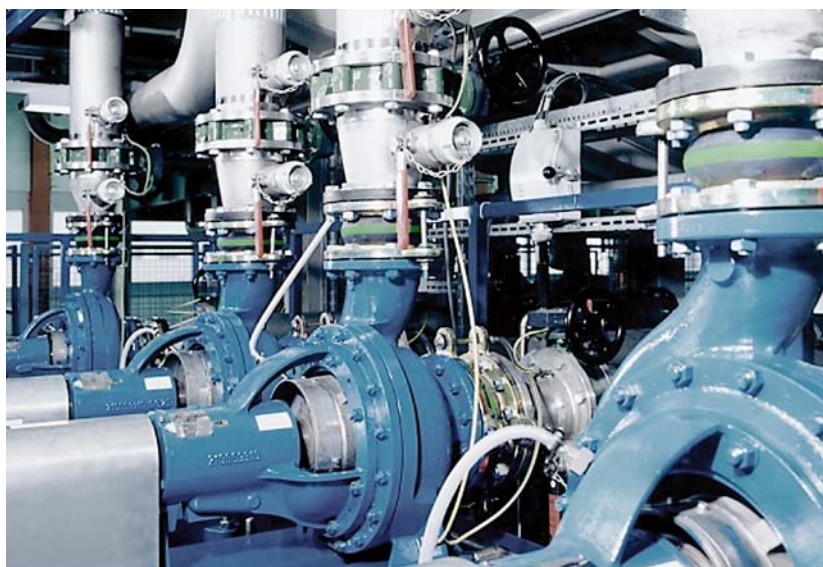














Our Global Presence For You



 ELAFLEX NV Belgium	Merksemsesteenweg 192 2100 Deurne (Antwerp) Tel. +32 3 32 80 420 Fax +32 3 32 43 740 E-Mail: info@elaflex.be Internet: www.elaflex.be
ELAFLEX ITALIA SRL Italy	Via Industriale 28 25086 Rezzato (BS) Tel. +39 030 259 07 21 Fax +39 030 259 07 33 E-Mail: elaflex@elaflex.it Internet: www.elaflex.it
ELAFLEX AB Sweden	Mariehällsvägen 42 Box 20151 16102 Bromma Tel. +46 8 980 130 Fax +46 8 980 134 E-Mail: elaflex@elaflex.se Internet: www.elaflex.se
ELAFLEX LTD Great Britain	Riverside House Plumpton Road Hoddesdon, Herts EN11 0PA Tel. +44 1992 45 29 50 Fax +44 1992 45 29 11 E-Mail: sales@elaflex.co.uk Internet: www.elaflex.co.uk
ELAFLEX FRANCE SARL France	Le Saint James Park 3, Chemin de la Dîme 95700 Roissy en France Tel. +33 1 34 29 00 60 Fax +33 1 34 29 00 19 E-Mail: info@elaflex.fr Internet: www.elaflex.fr
ELAFLEX Latin America S.A. Argentina	Talcahuano 925 piso 1º (B1640CZE) Martinez Buenos Aires Tel. +54 11 4717-5846 E-Mail: frank.depoli@elaflex.com Internet: www.elaflexlatinamerica.com
L.G. EQUIPMENT PTY. LTD. Australia	Unit 29 / 58 Box Road Taren Point NSW 2229 Tel. +61 2 9525 0945 Fax +61 2 9525 0459 E-Mail: info@gasguard.com.au Internet: www.gasguard.com.au
ELAFLEX Representation Office Asia/Pacific	Mr. Klaus Frost The Seafront on Meyer 59 Meyer Road #10-11 437880 Singapore Tel. +65 634 811 80 Fax +65 634 811 83 E-Mail: klaus.frost@elaflex.com
ELAFLEX Representation Office China	Mr. Jing Fan Room 2204, Liang You Mansion 618 Shang Cheng Road 200120 Shanghai, P.R. China Tel. +86 21 505 414 54 Fax +86 21 58 76 13 78 E-Mail: elaflex@sh163.net

Contact data of our approximately
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ELAFLEX - Gummi Ehlers GmbH

Schnackenburgallee 121
22525 Hamburg | Germany

Tel. +49 40 540 00 50
Fax +49 40 540 00 567
E-Mail info@elaflex.de
Internet www.elaflex.de