

CHEMICAL & PHARMA

Hoses and Couplings



EDITION
2018



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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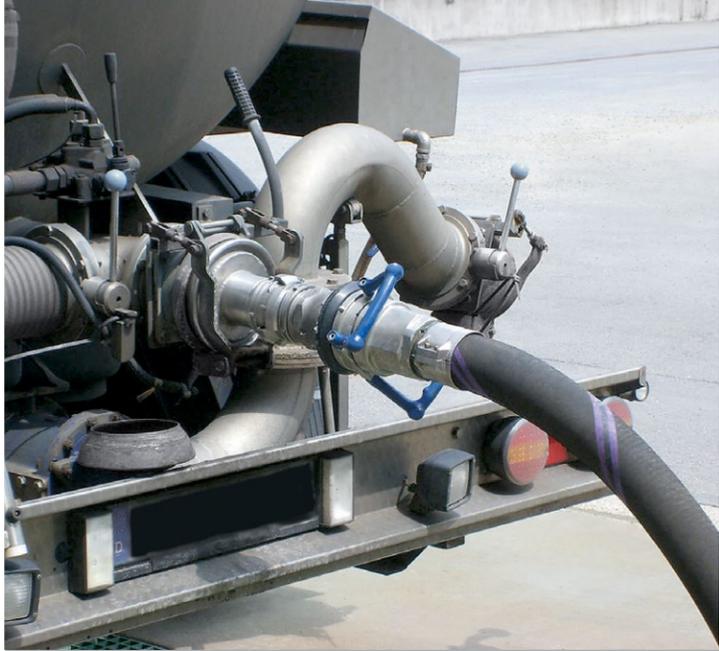
EXPERIENCE YOU CAN RELY ON.

**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.



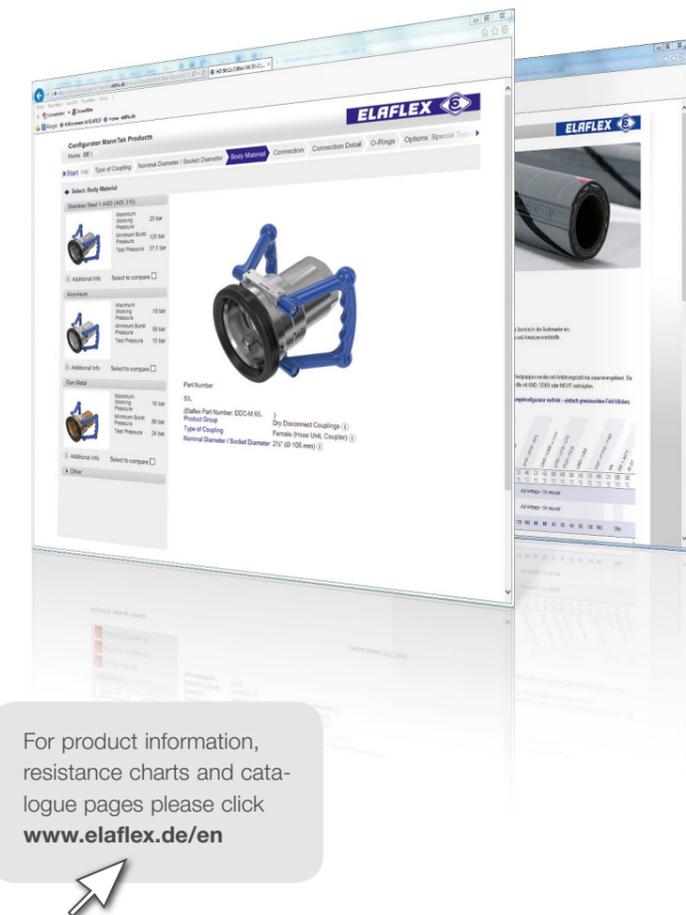
MEDIA TRANSFER, FOR YOUR REQUIREMENTS.

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!



For product information, resistance charts and catalogue pages please click www.elaflex.de/en

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 to supply a major part of our product range ex works with short lead times. Our recently enlarged 5800 m² warehouse and a 1700 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 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.

Well informed, at any time.

On our website www.elaflex.de/en, 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.

Our online www.elaflex.de/en/configurators for hose assemblies, rubber expansion joints, nozzles and MannTek Couplings simplify the selection and combination of all components. They are easy and quick to use and help to find your desired product within no time.

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

Catalogue page 125

Ω
EN 12115
(Ω-C)



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.

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

UTD | UTS | UTL

Catalogue page 121 a

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

Ω/T
EN 12115



Universal hose with UPE lining. The most used, reliable hose 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 38 · 50 · 63 · 75 · 100

FLUORFLEX 2

Information 2.08E

Ω/T
DIN 26054



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

Catalogue page 127

Ω/T
EN 12115



The 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

Catalogue page 117

Ω/T
EN 12115

'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.
Available in DN 25·32·38·50·63·75·100·(150)

CHD | CHS

Catalogue page 117

Ω/T
EN 12115

'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. Available in 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. Available in DN 25·32·38·50·63·75·100·(150)

AMX

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

Catalogue page 113

Ω
EN 12115
(Ω-C)

'FLUORLINE' universal hose, a highly flexible dispenser hose with seamless, transparent lining of THV fluoropolymer. Suitable for most commonly used chemical and petroleum based media. Resistant against diffusion, non leaching, non discolouring, therefore ideal for highly pure and sensitive products.

Corresponds 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, DEF/ARLA urea refuelling, emission free car refuelling, as a 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

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.
Available in DN 13·19·25·32·38·50

i FWS PP | FWS PTFE

Catalogue page 181



NEW
Quality from our daughter company Dantec (UK)
Also available: Composite hoses (multi-layer thermoplastic hoses 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 tankers and tankers.

Composite hoses are used where flexibility and easy hose handling are most important. Various types available, delivery as complete and tested hose assembly.

Conform to EN 13765. Working pressure PN 14 bar

Available in DN 25·38·50·65·75·100·150·(200)·(250).
DN 100 to 250 also available as Heavy Duty type ('-H').



PAL CHEMICAL HOSES

Traditionally better than the standards.

POLYPAL CLEAN

Catalogue page PAL 03

Ω/T
EN 12115



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.

White lining with its patented OHM conductive spiral stripe and the clear, electrically conductive cover with OHM conductive stripe. This means, both the transferred media and the factory floor stays clean – with full electrostatic safety.

Conforms to EN 12115. Conform to FDA.

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)

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 | POLYPAL OIL

Catalogue page PAL 01

Ω/T
EN 12115



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

POLYPAL OIL m.W. (with helix): **NEW**

Suction and discharge hose for refineries, petrochemical industry and tanker loading terminals. Suitable e.g. for petroleum products with aggressive / high content of aromatics and other additives. Due to its cover of Chloroprene it is also petroleum resistant from the outside. Available in 50 · 75 · 100

CHEMOPAL

Catalogue page PAL 09

Ω/T
EN 12115



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. Available in DN 13 · 16 · 19 · 25 · (32) · (38) · (50)

CHEMOPAL m.W. (with helix):

Suction and pressure hose PN 16. Available in DN 25 · 32 · 38 · 50 · (63) · 75 · (100) · (150)

TECNOPAL

Catalogue page PAL 11

Ω/T
EN 12115



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. Available in DN 13 · 19 · 22 · 25 · 32 · 38 · 50 · (75)

TECNOPAL m.W. (with helix):

Suction and pressure hose PN 16. Available in DN 19 · 25 · 32 · 38 · 50 · 63 · 75 · 100 · (150)

SOLVAPAL

Catalogue page PAL 13

Ω/T
EN 12115



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. Available in DN 19 · 25 · 32 · (50)

SOLVAPAL m.W. (with helix):

Suction and pressure hose PN 16. Available in DN 25 · 32 · 38 · 50

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.



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.

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 stainless steel

Spannloc (or Spannfix) nickel-plated

Spannfix (or Spannloc) hose connector

Threaded Hose Couplings

EN 14420-5, with Spannfix / Spannloc

Catalogue page 221-229



VX...SS

MC...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.

Threaded Food Hose Couplings

with Spannfix / Spannloc

Catalogue page 233



RVX...SS

RMC...SS

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

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

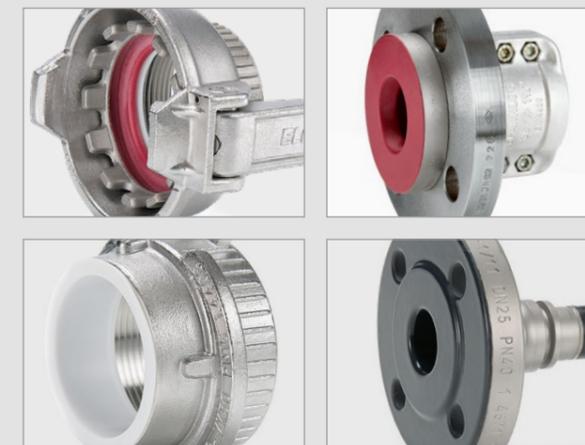
Materials: stainless steel (also coated), alternatively steel zinc plated and cromated, aluminium, polypropylene or brass.

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

i Coatings + Linings

Information 3.18



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 can be 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.

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

Apart from stamped brass, heavy clamps are now also available in stainless steel, suitable for KSS-SD anti kinking spirals



Catalogue page 239

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



Catalogue page 235

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



QUICK COUPLINGS: 'TW' AND 'CAMLOCK'

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

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.

^{*)} after use the hoses are emptied

i 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 · 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

NEW Elaflex quality from our own production, 100% conform to standard, see Information 11.16.



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. Stainless steel, optionally with PFA-coating for the parts in contact with the medium (additional part number ...SSE).

Available in DN 19 · 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 incl. Spannfix or Spannloc clamps (catalogue page 255). Also available in other materials such as brass or PP.

NEW Female couplers with or without hose tail are also available in EASYLOC® version with automatic lever lock for maximum safety against unwanted opening of the levers and disconnection during operation.



AMKI ... SS EASY

Information 2.18

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').

DDC DRY DISCONNECT COUPLINGS, SBC SAFETY BREAK COUPLINGS

Better under pressure: With MannTek 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, MannTek 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.

Configure online:

<http://manntekconfigurator.elaflex.de>



For more information
please see our brochure
**'MannTek – DDC
Dry Disconnect Couplings'**



For more information
please see our brochure
**'MannTek – SBC
Safety Break away Couplings'**

i 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 25 · 50 · 65 · 80 · 100 · 150 · 200

DN 25 with grip surface | DN 50 with one handle
DN 65 – 100 with two handles | DN 150 / 200 with ring handle



DDC-V ... SS

Catalogue page 347

Male coupler (tank unit), with female thread to EN ISO 228 or flange to DIN, ASA, TW or TTMA.

Sizes DN 25 · 50 · 65 · 80 · 100 · 150 · 200

i SBC Safety Break Couplings



SBC ... SS

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.

Available in 1" · 2" · 2½" · 3" · 4" · 5" · 6" · 8" · 10" · 12"

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. Special type 'SBC-C with cable release': with reusable clamps instead of breaking bolts. The pulling force is transmitted via an integrated cable which is attached to a fixed point.

Available with female or male thread (EN ISO 228 or NPT), with flange (DIN, ASA) or Victaulic coupling. Any combinations possible.

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



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.

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.

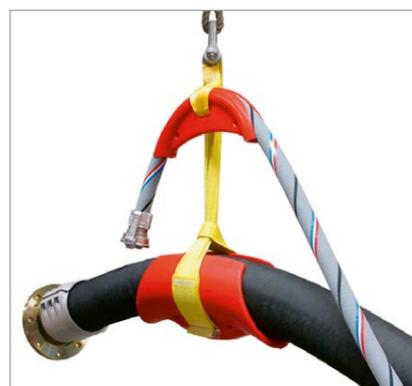
Also for the additional marking to customer's requirement there are possibilities, e.g. with Band-It. If required, we will also gladly take over the assembly of parts supplied by the client.



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)



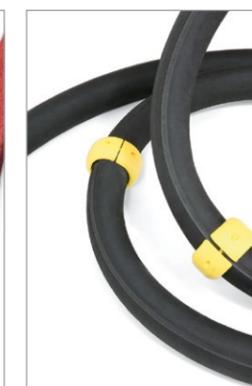
KSS Anti-Kinking Spiral with suitable Spannloc KSS clamps. Patented system for tightly bent hoses - protects the stressed area directly behind the coupling (see Elaflex Information 2.09 E)



KSS Anti-Kinking System 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.

Configure online:

<http://nozzleconfigurator.elaflex.de>

ZVA 25 GR

Information 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, with special seals:

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

ZVA Slimline TD:

Flowrate up to 60 l/min.

ZVA 25 Vi/VD/EP:

Flowrate up to 140 l/min.

ZVA RG | ZVA GBZ

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 AdBlue HV

Catalogue page 521 a



Nozzle with automatic shut-off, for DEF / ARLA urea solution. Dispensing with magnet adapter Elafix 40 to avoid misfuelling.

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

Inner parts stainless steel/plastic, seals NBR.

ZVA AdBlue HV:

Body coated aluminium

Also available: ZVA AdBlue LV for urea refuelling of light vehicles. For urea bulk refuelling we recommend DDC Dry Disconnect couplings.

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, with special seals:

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

ZV 19 TD:

Flowrate up to 100 l/min.

ZV 400 (500) Vi/VD/EP:

Flowrate up to 400 (650) l/min

i Swivels

Catalogue page 363



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.

Configure online:

<http://ervconfigurator.elaflex.de>



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 bellow 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 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 / EN 16820 for use in the pharmaceutical and biotech industries, as well as for foodstuffs and chemicals.

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).



EPH electrically isolating 'I'



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

Reinforcements:

DN 13-19 stainless steel braids, no helix,
DN 25-50 high-tensile, temperature resistant textile braids,
stainless steel helix

Cover: EPDM blue, satin finish, non electrically conductive, FDA conform*)

Corresponds to DIN 26055-3 / EN 16820, Type A
Available in DN 13 · 16 · 19 · 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 / EN 16820 standard.

Suitable for all commonly used media including pharmaceuticals, temperature range -30°C, up to +150°C, depending on medium, working pressure -0,8 bar (vacuum) up to 16 bar.

EPH-OHM Grey electrically conductive



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

Reinforcements:

DN 13-19 stainless steel braids, no helix,
DN 25-50 high-tensile, temperature resistant textile braids,
stainless steel helix

Cover: EPDM light grey with OHM conductive stripe, satin finish, electrically conductive, FDA conform*)

Corresponds to DIN 26055-3 / EN 16820, Type A
Available in DN 13 · 16 · 19 · 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 / EN 16820 standard.

Suitable for all commonly used media including pharmaceuticals, temperature range -30°C, up to +150°C, depending on medium, working pressure -0,8 bar (vacuum) up to 16 bar.

EPH-OHM electrically conductive



Only available on request.

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

Reinforcements:

DN 13-19 stainless steel braids, no helix,
DN 25-50 high-tensile, temperature resistant textile braids,
stainless steel helix

Cover: EPDM black, satin finish, electrically conductive, FDA conform*)

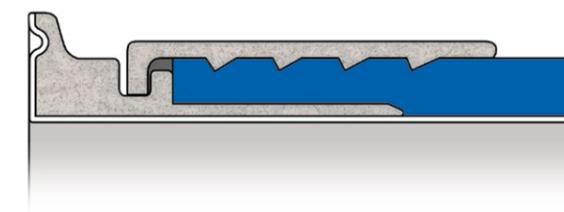
Corresponds to DIN 26055-3 / EN 16820, Type A
Available in DN 13 · 16 · 19 · 25 · 32 · 38 · 50 mm

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 / EN 16820 standard.

Suitable for all commonly used media including pharmaceuticals, temperature range -30°C, up to +150°C, depending on medium, working pressure -0,8 bar (vacuum) up to 16 bar.

Crimping 'free of dead spaces / flared'



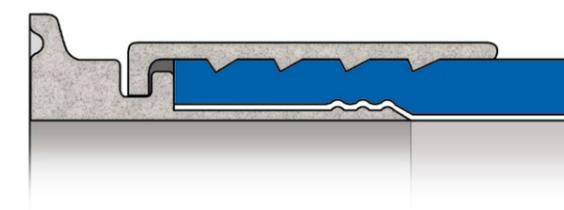
Crimped hose coupling with beaded (flared out) PTFE lining (patented process). Totally free of dead spaces, for highest requirements to media purity.

Suitable for all 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 coupling ferrule (example): ELAFLEX · Type · DIN · DN · PTFE · Serial Number · Month.Year · PT (bar)

Crimping 'gap minimised'



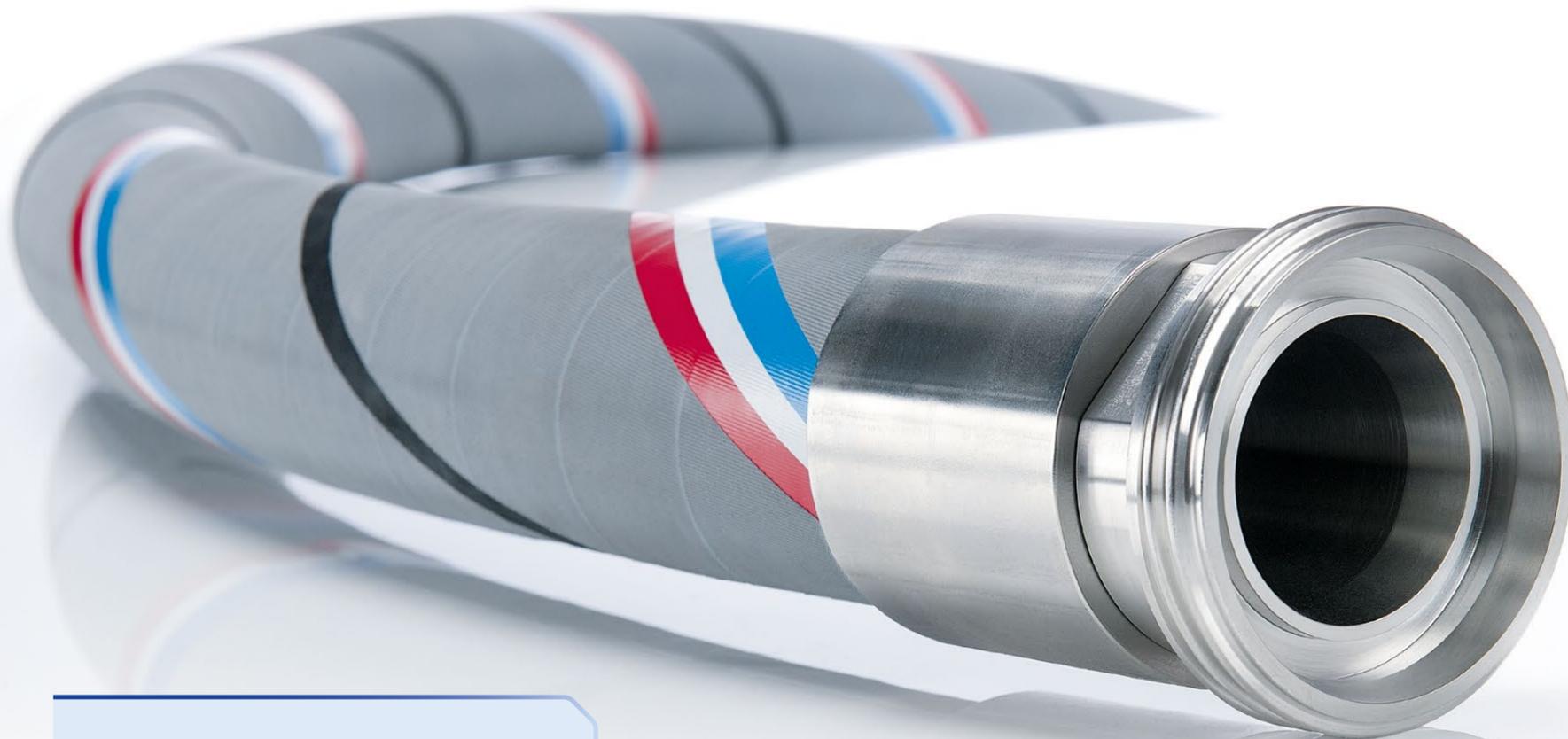
Crimped hose coupling with flush-mounted hose tail. Minimised gap between lining and hose tail. For high requirements to media purity.

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

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

Marking on stainless steel coupling ferrule (example): ELAFLEX · Type · DIN · DN · PTFE · Serial Number · Month.Year · PT (bar)

*) Lining and cover corresponds to FDA guideline 21 CFR 177.1550 and CFR 178.3297 as well as USP Class VI and fulfills the requirements of EU regulations No. 1935/2004 and 10/2011.



HOSE ASSEMBLIES 'CLEAN'

Our new ElaSil® silicone hose assemblies provide the right combination to satisfy high media purity requirements, high flexibility and a large temperature range.

For many other applications in the food, bio and pharmaceutical industry universal hoses to EN 12115 with externally crimped hose fittings and optimised hose tail to minimise dead volume are sufficient and the right economical choice.

Available sizes DN 13–100 mm, broad choice of threaded, flanged or clamp connection types with integrated hose tail. Short lead times due to availability from stock and in-house assembling and testing.

ElaSil®

Information 1.18

NEW



Silicone hose for high media purity requirements with smooth lining of platinum-cured, translucent, phthalate-free silicone. Highly flexible, kink and vacuum resistant, large temperature range -60°C up to +200°C (depending on medium). Conform to FDA, USP Class VI and 3-A Sanitary Standard, suitable e.g. for cosmetics, pharmaceuticals and foodstuffs. Steaming out for cleaning and sterilisation possible, autoclavable.

- Shown example: hose assemblies with EN 14420-7 Camlock, DIN 11851 foodstuff thread and DIN 32676 Triclamp connection

ELAFLON PTFE

Catalogue page 127

Ω/T
EN 12115



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 (Triclamp) connection

ELAFLON FEP

Catalogue page 125

Ω
EN 12115
(Ω-C)



Universal hose with seamless, transparent lining of Teflon® FEP, for all commonly used media Medien 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

POLYPAL CLEAN

Catalogue page 121 c

Ω/T
EN 12115



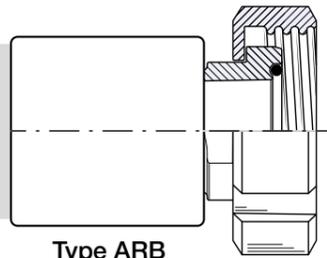
Universal hose 'CLEAN' with electrically conductive, seamless UPE lining and light grey cover. Suitable for a large range of media, up to +100°C. Corresponds to EN 12115. Conform to FDA. Steaming out for cleaning and sterilisation up to +130°C, max. 30 min. (open system).

- Detailed description see page 14 of this brochure
- Shown example: as complete hose assembly with crimped-in stainless steel with ISO 228 thread

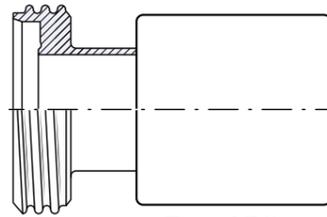
FLAWLESS CONNECTION

Elaflex supplies their hoses for pharmaceuticals, biotech and foodstuffs as complete hose assemblies in fitted lengths, with crimped couplings. We offer a large variety of threaded, flanged or clamp connection types as well as welding ends with integrated hose tail, interface e.g. according to DIN 11851, 11853, 11864, 11866, 11887 or 32676.

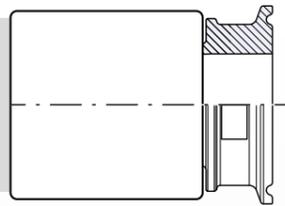
Configure online:
<http://hoseconfigurator.elaflex.de>



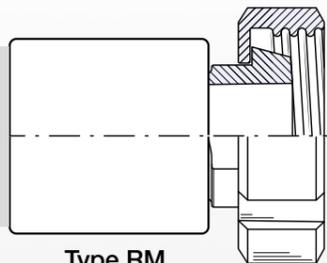
Type ARB
(Aseptic Screw Connection, Female)
DIN 11864-1 / 11853-1



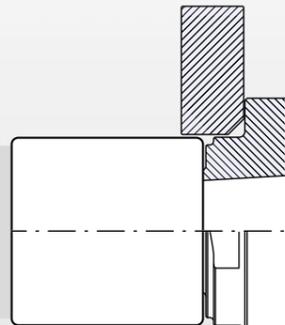
Type ARG
(Aseptic Screw Connection, Male)
DIN 11864-1 / 11853-1



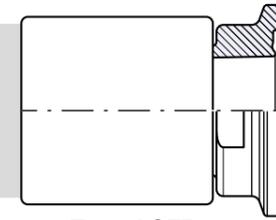
Type CF
(Triclamp / Clamp Flange)
DIN 32676



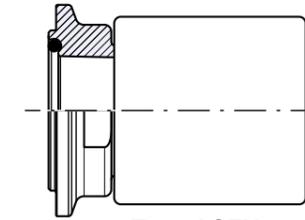
Type RM
(Dairy Coupling, Female)
DIN 11851



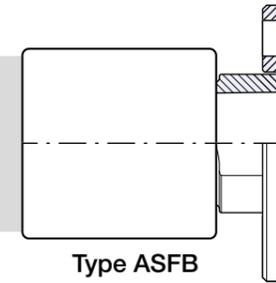
Type SF
(Flanged Hose Coupling, Swiveling Flange)
EN 1092-1 or ASA (ANSI B 16.5)



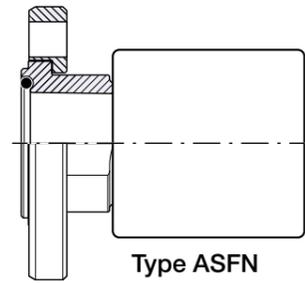
Type ACFB
(Aseptic Clamp Flange with Notch, Male)
DIN 11864-3 / 11853-3



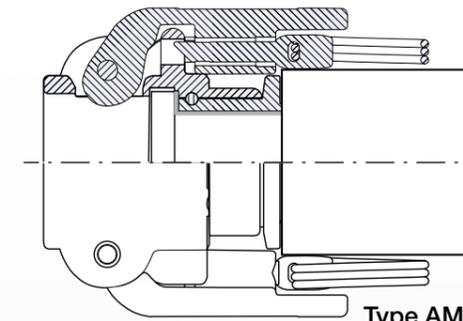
Type ACFN
(Aseptic Clamp Flange with Groove, Female)
DIN 11864-3 / 11853-3



Type ASFB
(Aseptic Flange with Notch, Male)
DIN 11864-2 / 11853-2



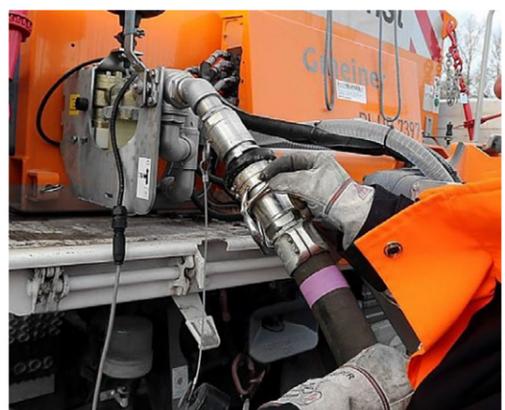
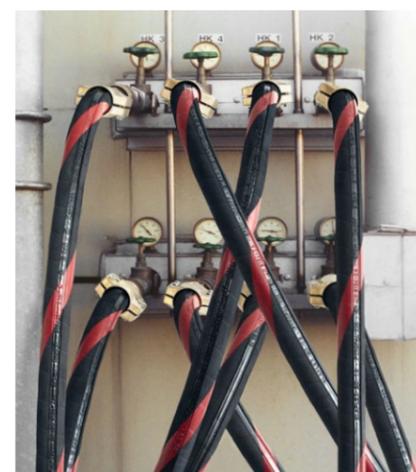
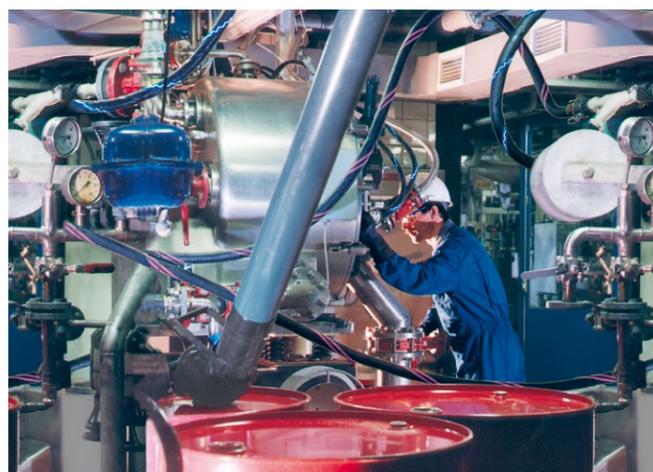
Type ASFN
(Aseptic Flange with Groove, Female)
DIN 11864-2 / 11853-2

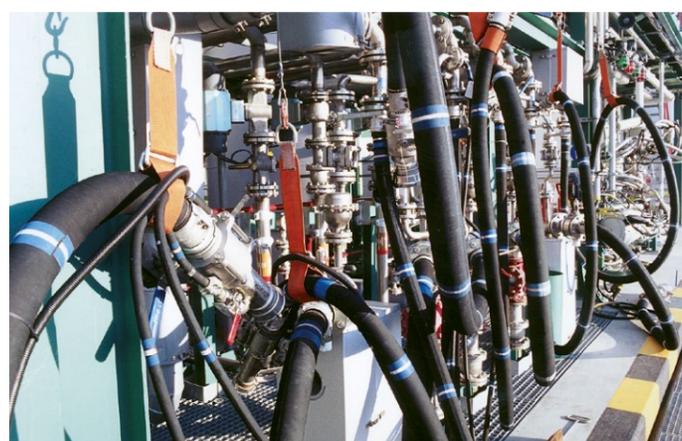
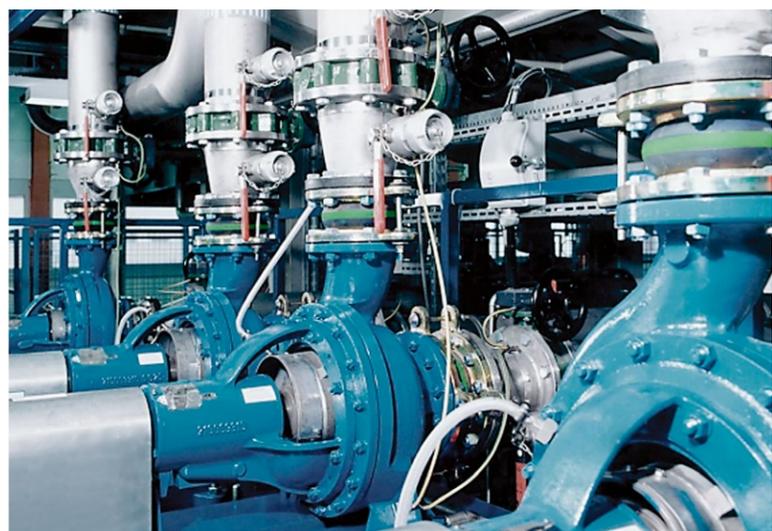


Type AMK EASY **NEW**
(Cam & Groove Coupling, EASYLOC Female Coupler)
EN 14420-7

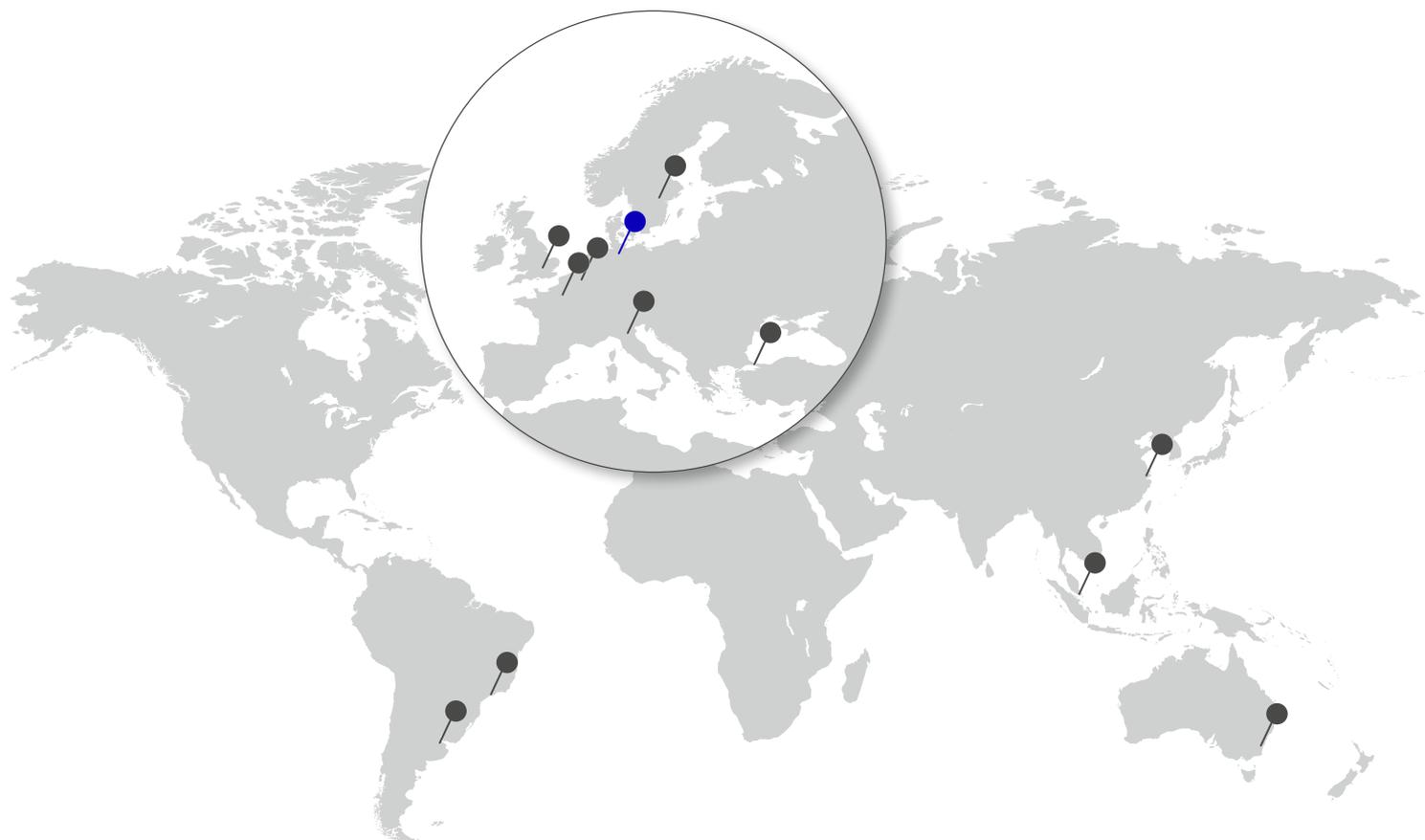








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