



*Where
Industry meets
Rodesta...*



PHARMA



FOOD



INDUSTRY



"More than 70 years of experience" in the Pharma, Food, Industry & Chemicals

PHARMA

Rodesta is an importer and stockholder for technical stainless steel products and hoses for the pharmaceutical industry. We have several products, for instance: sampling valves, couplings, ASME BPE fittings and PTFE hoses. We can supply our products in several designs and styles.

Since 1984 Rodesta is a reliable partner with a professional sales team. Through our many years of experience, we cooperate only together with well-established business partners with unique brands, so you can be sure that all of the supplied stainless steel materials are traceable and meets the latest requirements.

FOOD

Rodesta is since 1984 an important supplier for the maintenance companies, machinery manufacturers, installation companies and technical departments from production sites in the food & dairy industry as well for the business trade companies.

We supply couplings, fittings, valves, tank equipment, process equipment, installation material, welded tubes, hoses and special machined products.

Through our many years of experience we have build a large network of manufacturers with well known trade-marks. This is why we are able to make always an competitive quotation to our customers for small quantities as well for complete projects, our sales specialists shall be pleased to help in any way they can.

We supply the most common products from stock in stainless steel AISI 304L and 316L according to DIN 11851, DIN 11864, DIN32676, BS 4825 and ISO 2037.

INDUSTRY

Rodesta is a reliable partner of technical stainless steel products for the installation branch, welding companies, machinery manufacturers, maintenance companies and subcontractors.

We supply industrial couplings, butt-weld fittings, BSP & NPT threaded fittings, flanges, valves, installation material, welded and seamless tubes and pipes, profiles & bars, hoses, specials and products made to measure.

We supply the most common products from our stock in stainless steel AISI 304L and AISI 316L according to DIN, INCH, EN, ISO, ASTM and ANSI.

Our range of products exists out of more than 52.000 unique products, of course we have aimed to put together an overview, of our products as complete as possible. However, shouldn't you find what you are looking for? Please contact us! Our sales people are able to help you with your request.

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ESPIROFLEX
FABRICA DE TUBERIA FLEXIBLE

PARTNER
FOR THE
BENELUX

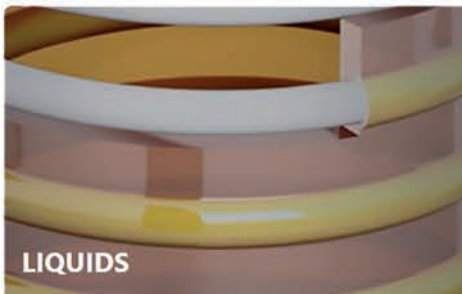
Global leader in the manufacture of technical hoses and flexible tubes

Annual production of more than 40 million m of tube and with a market presence in more than 50 countries, with distribution on 5 continents



The most complete catalogue of the market

Whatever sector you're in, you will find what you are looking for here, among the more than 4,000 items.



LIQUIDS



AIR



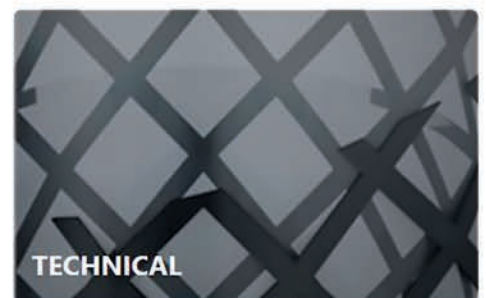
GARDENING



SANITARY



PRESSURE



TECHNICAL

Quality above all

We monitor and check quality in all the manufacturing processes, we have national and international certifications and a great environmental commitment in its production.



MERLETT

Made in Italy

MERLETT
is now
Continental

Products in

PVC

EVA

PU

PP

thermoplastic
elastomers

EUROPEAN LEADER OF FLEXIBLE HOSES



Industrial Hoses

Continental's highly resistant industrial hoses meet national and international standards and individual customer specifications.



Water Hoses



Food & Beverage Hoses



Steam & Cleaning Hoses / Equipment



Air & Multipurpose Hoses



Welding & Gas Hoses



Material Handling & Mining Hoses



Chemical Transfer & Petroleum Hoses



Specialty Hoses



Vacuum Hoses



Marine Hoses



Our products combine long service life with maximum cost effectiveness. That's a promise.



Our systems are designed precisely for the specific use at hand. Built-in durability.



All the developments from our company are certified. Verifiable quality.



We support you with detailed resistance lists. Active product protection.



Design and technology for your success



FOOD APPLICATIONS

GLIDETECH® BUTYL



Premium grade low permeation extra flexible suction and delivery hose suitable for wine and spirits.

glidtech®

SPIRALTECH® BUTYL



Premium grade low permeation light and flexible lorry collecting hose suitable for a wide range of food products. Recommended for wine and spirits.

spiraltech®



CHEMICAL & PETROCHEMICAL APPLICATION

TUFLUOR® PTFE CHEM FULL CONDUCTIVE



Suction and delivery hose designed according to EN 12115 standards for foodstuff, the chemical, pharmaceutical and cosmetic industry, where a flexible connection is required. Tested and certified for use in Atex area (Ex-Zone).



teflon® ptfe

TUFLUOR® PTFE CHEM FULL CONDUCTIVE FORM



Suction and delivery hose designed according to EN 12115 standards for foodstuff, the chemical, pharmaceutical and cosmetic industry, where a flexible connection is required.



teflon® ptfe



COSMETIC & PHARMACEUTICAL APPLICATIONS

TUFLUOR® PTFE PHARM



Suction and delivery hose designed according to EN 12115 standards for foodstuff, the chemical, pharmaceutical and cosmetic industry, where a flexible connection is required.



teflon® ptfe

TUFLUOR® PTFE SIL



Suction and delivery hose for foodstuff, the chemical, pharmaceutical and cosmetic industry, where a flexible connection is required.



teflon® ptfe

silicone

GLIDETECH® PTFE BIOTECH



Suction and delivery hose designed according to EN 12115 standards for foodstuff, the chemical, pharmaceutical and cosmetic industry, where a flexible connection is required. Tested and certified for use in Atex area (Ex-Zone).



glidtech®

teflon® ptfe

TUSIL® BRIGHT



Suction and delivery hose suitable for cosmetic, pharmaceutical and food products.

silicone



INDUSTRIAL SILICONE APPLICATIONS

ALISPIR SIL FORM INOX



Hose for suction and delivery of pre-heated PVC granules, high temperature resistant, used as a connection between hopper and heated barrel. Specifically designed for the process industries where it is necessary a high-performance hose made with tasteless and odorless compound.

silicone

TUSIL® RAD SD



Flexible hose used for suction and delivery of anti-freeze liquid in the cooling systems.

silicone



MATERIALS

TEFLON™ PTFE

TUFLUOR® liner is made with certified TEFLON™ PTFE RESIN



- RAW MATERIAL BEST QUALITY
- HIGHEST SAFETY
- HIGH FLEXIBLE HOSE
- DESIGNED FOR THE CHEMICAL, PHARMACEUTICAL, COSMETIC AND FOOD INDUSTRIES

The liner of white Tufluor® is made with 2 co-extruded adjacent layers:

- the INNER LAYER is **CLEAR, VIRGIN TEFLON™ PTFE** co-extruded tubing, NO PIGMENTS ADDED;
- the OUTER LAYER is **WHITE PIGMENTED TEFLON™ PTFE** co-extruded tubing.

The liner of black Tufluor® is made with **HIGH PURITY CARBON BLACK**. Being **FULLY CONDUCTIVE**, the dissipation of STATIC ELECTRICITY of the assembly is achieved in a SAFER WAY. Due to its ELECTRICAL PROPERTIES, it may be used in EX-ZONES 0 AND 20, 1 AND 21,2 AND 22.

SILICONE

- NO ALTERATION OF THE QUALITY OF THE PRODUCT
- RESISTANCE TO FREQUENT CLEANING AND STERILIZATION
- ODORLESS AND TASTELESS
- FLEXIBILITY

Good long-term **HEAT RESISTANCE** at temperature up to 200°C

Excellent **LOW TEMPERATURE RESISTANCE** with retention of flexibility at -60°C

Excellent **OZONE AND UV RESISTANT**

PHthalates FREE TUBE tested in COMPLIANCE with REACH Regulation (1907/2006/CE)

Complies with **INTERNATIONAL FOOD STANDARDS**

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TECHNOLOGIES

GLIDETECH®

THERMOPLASTIC
GLOSSY COVER

WHEN COVER PERFORMANCE MATTERS

- ABRASION, OIL and CHEMICAL RESISTANCE
- FLEXIBILITY, EASY GLIDE, LOW FRICTION
- BRILLIANT and DISTINCTIVE APPEARANCE
- NON MARKING
- LOW DRAG RESISTANCE
- EASY TO SLIDE

SPIRALTECH®

INNOVATIVE DESIGN
WHEN ERGONOMICS AND
DESIGN ADAPTABILITY MATTER

SPIRALTECH® LIGHT WEIGHT, FLEXIBILITY and BEND RADIUS provide outstanding **ERGONOMIC HANDLING BENEFITS** to the user

SPIRALTECH® ROBUST THERMOPLASTIC, HELIX WIRE DESIGN protects the hose cover from STRONG ABRASION

CRUSH RESISTANT THERMOPLASTIC HELIX

The CRUSH RESISTANT structure allows the hose to RESIST TO MECHANICAL PRESSURE (i.e. from a truck) and to RECOVER ITS ORIGINAL SHAPE

GOOD FLEXIBILITY
CRUSH RESISTANT hoses are MORE FLEXIBLE than standard steel helix reinforced hoses

EN 07/2019

TUDERTECHNICA® is an Italian privately owned Company founded in 1983 and located near Padova (Italy) dedicated to DESIGN AND MANUFACTURE SPECIALTY TECHNICAL RUBBER HOSES for a wide range of applications in the food, chemical, pharmaceutical, cosmetic industries and for other industries requiring high performance hoses.

TUDERTECHNICA® is QUALITY CERTIFIED according UNI EN ISO 9001:2015.

Silicone Hoses for the Food and Pharmaceutical Industries

Flexible hoses and special shapes made of reinforced or extruded silicone, as well as technical solutions to convey fluids in the food, pharmaceutical, chemical and biotechnology industries in aseptic and traceability terms.

Main Standards and Certifications for the Food-Pharmaceutical sector:

- US FDA Standard 21 CFR 177.2600.
- German BfR Standard part XV.
- USP Class VI <88> in vivo tests, 121°C.
- ISO 10993-4, 5, 6 & 10.
- ResAp 2004 (5), according to Reg 1935/2004/EEC, and Reg 10/2011/EEC.
- European Pharmacopoeia 3.1.9.
- 3A Sanitary Standard 18-03 Class I for the flexible hoses.
- 3A Sanitary Standard 62-02 for the fitted hoses DIN and CLAMP.

**"Silicone shapes
according to
your specifications"**



Management System

ISO 9001:2008
ISO 14001 y EMAS



EMAS
GESTIÓ AMBIENTAL
VERIFICADA
ES-CAT-000108



Silicone Hoses for the Industry

Silicone hoses and special shapes with textile reinforcement for all types of motor engines. Flexible solutions to any movement or vibration problem with special designs according to customer needs. Products are tested and certified for the most exigent sectors.

Main Standards and Certifications for the Industrial sector:

- UL 94 Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing.
- SAE J20 Class A, Coolant System Hoses.
- EN45545-2 "Fire protection on railway vehicles - Part 2: Requirements for fire behavior of materials and components" Regulation in the Category R22 and R23.
- Specific certifications according to the normative of our customers.

PTFE hoses

PTFE or Polytetrafluoroethylene has a molecular structure which is based on a chain of carbon atoms. However, unlike some other fluoropolymers each carbon atom in PTFE is linked to two fluorine atoms that form a helical spiral which surrounds the carbon chain and protects it.

The carbon-fluorine bond is one of the strongest in any polymer and it is this structure which accounts for the unique properties of PTFE including excellent chemical resistance.

PVC cover
PVDF braid
Rubber cover
Silicone cover
Stainless steel

"FLEXIBLE solutions"

"Hoses with flared couplings"

- Wide temperature range of -70° C to +260° C.
- Excellent insulation, dielectric properties.
- Extremely low coefficient of friction; non-stick!
- Chemically inert, with the exception of a small number of unusual substances and conditions, including: liquid boiling sodium metal and fluorine gas at high pressure and temperature.
- PTFE is hydrophobic (will not absorb moisture).
- Excellent UV resistance.
- Unlimited shelf life.
- Excellent flex fatigue qualities. Exceeds all other hose rivals.
- PTFE conforms to FDA 21 CFR 177.1550.
- Antistatic PTFE conforms to FDA 21 CFR 178.3297 and is non-leaching.

Hoses

Rodesta supplies flexible hoses designed and manufactured according to the International food standards for the most different demands of the Companies operating in this industry.

Hoses suitable for fatty and non-fatty foodstuff, alcoholic beverages and granular dry food products.

Rodesta can offer complete hoses, pressed with couplings according to DIN 11851, DIN 11864, SMS, RJT, IDF, Tri-Clamp etc.



We can offer a large range of sanitary hoses for liquid and for dry bulk materials.

"Quality"

NBR

PTFE

EPDM

FOOD - hoses

CAD
CLEAN & ASEPTIC DESIGN

One idea,
many solutions

INNOVATIVE VALVE WITH ZERO DEAD LEGS

Int. finishing: $Ra \leq 0,4 \mu m$
Ext. finishing: $Ra \leq 0,8 \mu m$

- More than 40 years of experience in the stainless steel machining.
- Supplying of components for pharmaceutical installations.
- All the products are made only with european AISI 316L stainless steel.
- Production, from pipe fittings up to valves.
- High tech, latest generation CNC machine tools.
- High standards quality like 0,4Ra surface finishing directly on the machine tool working.
- Possibility to personalize any kind of product to fulfill the function specifically required by the client.

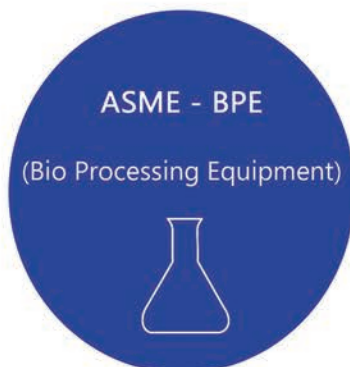
Engineering 3D

Couplings - ASME BPE

In a pharmaceutical production process only one defective part could cause serious consequences and harm. Rodesta supplies only parts which meets the ASME BPE standard, they guarantee absolute safety and reliability.

All parts can be supplied with a certificate according to EN10204 type 3.1.

“Products
with the
BEST
quality”



Surface finish	
0,50	SF1
0,63	SF2
0,75	SF3
0,38 E/Pol	SF4
0,50 E/Pol	SF5
0,63 E/Pol	SF6

“Tri-Clamp”

- ASME BPE Tri-Clamp ferrules
- ASME BPE Tri-Clamp blank ferrules
- ASME BPE Tri-Clamp elbows
- ASME BPE Tri-Clamp reducers
- ASME BPE Tri-Clamp tees
- ASME BPE Tri-Clamp cross pieces
- Tri-Clamp hose nipples
- Tri-Clamp clamps
- Seals FDA approved, USP class VI



Couplings

Rodesta supplies several couplings for the food industry from stock in stainless steel grade AISI 304(L) and AISI 316(L) in DIN, INCH & ISO.

All our couplings are made from forged material and meet the highest requirements.

The inside roughness is always Ra. < 0,8 µm.

Do you require a special size or quality? Please let us know, we shall be pleased to help in any way we can.

*“Delivery
from
STOCK”*

“DIN 11851”



RA <0,8 µm

Execution	Forged material Ra. <0.8 µm
Quality	304L & 316L
Sizes	DN 10 (13mm) to DN 200 (204mm) INCH 1" (25,4mm) to 4" (101,6mm) DN 10 ISO (17,2mm) to DN 150 ISO (168,3mm)
Working pressure	DN 10 to DN 40 (40 bar at 20°C) DN 50 to DN 100 (25 bar at 20°C) DN 125 to DN 150 (16 bar at 20°C)
Gaskets	Perbunan (BUNA-N) -30°C to +100°C EPDM -40°C to +130°C Viton -20°C to +200°C Teflon (PTFE) -50°C to +260°C Silicon (VMQ) -60°C to +200°C Other gasket qualities on request

“SMS - IDF - RJT”

Execution	Forged material Ra. <0.8 µm
Quality	304L & 316L
Sizes	INCH 1" (25,4mm) to 4" (101,6mm)
Gaskets	EPDM -40°C to +140°C



"DIN 11864"

"Large
STOCK"

DIN 11864 = long
DIN 11853 = short



11864-1
11864-2
11864-3



Execution	Forged material Ra. <0.8 µm
Quality	316L
Sizes	DN 10 (13mm) to DN 150 (154mm) INCH 1" (25,4mm) to 4" (101,6mm) DN 10 ISO (17,2mm) to DN 100 ISO (114,3mm)

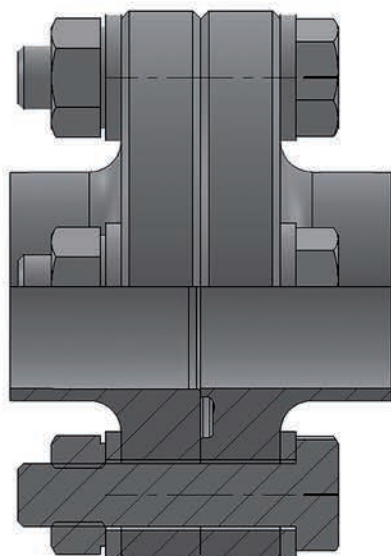
EPDM -40°C to +140°C
Viton -20°C to +200°C
Teflon (PTFE) -50°C to +260°C
Other gasket qualities on request

"Hose couplings"

Execution	Forged material Ra. <0.8 µm
Quality	304L & 316L
Sizes	DN 10 to DN 100



"Flange connection with nut"



Execution	Forged material Ra. <0.8 µm
Quality	304L & 316L
Sizes	DN 10 (13mm) to DN 150 (154mm)

Perbunan (BUNA-N) -30°C to +100°C
EPDM -40°C to +130°C
Viton -20°C to +200°C
Teflon (PTFE) -50°C to +260°C
Silicon (VMQ) -60°C to +200°C
Other gasket qualities on request

Blanks

"Tri-Clamp"

Clamps (several types)

Sight glasses

BSP adaptors / NPT adaptors

AVAILABLE
TYPES

Reducers

Hose Tails

Elbows

Tees

"We have
a large range
of
Tri-Clamp ferrules"

- BS 4825
- DIN 32676
- ISO 1127
- Mini ferrules
- SMS 3008
- SMS 3017
- Schedule 5 / schedule 10 / schedule 40
- SWG
- ASME BPE
- 14 MPW Tank

Execution	Forged material Ra. <0.8 µm
Quality	316L
Sizes	6mm to 323,9mm

EPDM -40°C to +140°C
Silicon (VMQ) -90°C to +200°C
Viton 30°C to +250°C
Teflon (PTFE) -50°C to +260°C
Peek -250°C to +250°C
TFM -200°C to +260°C
Other gasket qualities on request, such as envelope gaskets

FOOD - tri-clamp

Couplings

Rodesta supplies a range of industrial couplings in stainless steel AISI 304(L) and AISI 316(L) for hose and for threaded connection, type camlock according to A-A 59326, EN 14420-7 from size 1/2" to 6", TW according DIN 28450, EN 14420-6 size 2" - 3" - 4" and Storz couplings, hose tail size 25 mm to 205 mm and 1/2" to 6" in several executions.

*"To
connect your
process"*

Camlock couplings

Camlocks are ideal where frequent and fast connections are required on fluid transfer lines



standard	A-A 59326 25.09.98 (MIL-C-27487)
Working pressure	10 bar at 20°C
Quality	stainless steel 316
Temperature	- 20°C tot + 150°C

TW couplings

The classical tank truck coupling for use with chemicals, of stainless steel 1.4408

Available in sizes 50mm · 80mm · 100mm

MB – dust cap / VB – dust plug / VK – male coupler / MK – female coupler / Safe, rugged and self-tightening System.



Storz couplings

Rodesta offers a range of Storz couplings, including; BSP male and female threads, reducers, blank caps and hose couplings.

All Storz types are available in various sizes (from 25mm to 205mm).



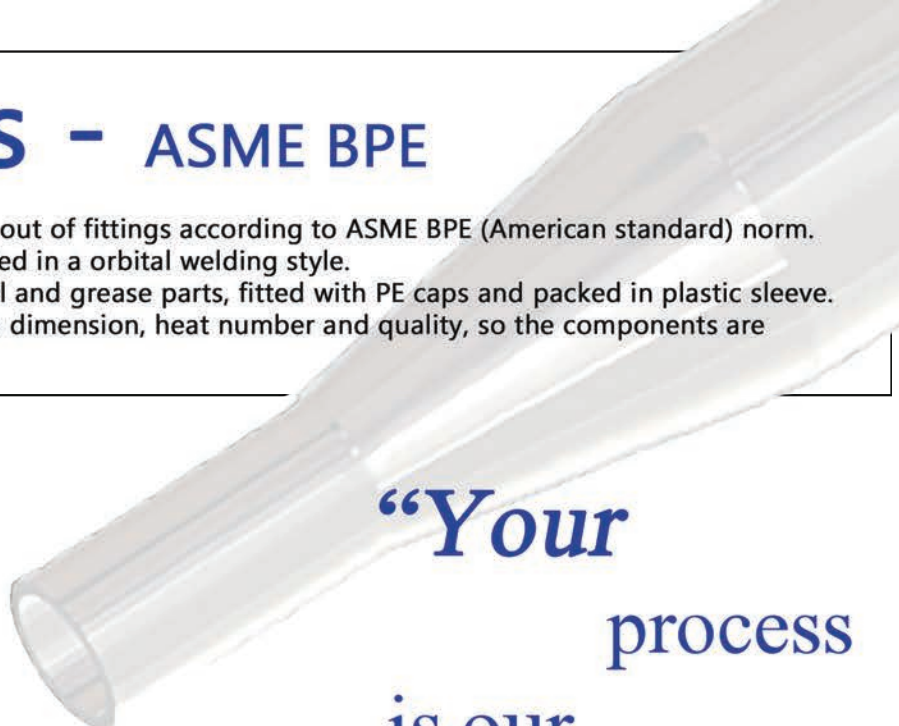
Fittings - ASME BPE

Our range of pharmaceutical products exists out of fittings according to ASME BPE (American standard) norm. The ASME-BPE fittings for welding are supplied in a orbital welding style. The fittings are supplied dry and free from oil and grease parts, fitted with PE caps and packed in plastic sleeve. All components are ineffaceable marked with dimension, heat number and quality, so the components are always traceable.

*“Your
process
is our
CARE”*

ASME - BPE

(Bio Processing Equipment)



“Welding fittings”

- ASME BPE elbows
- ASME BPE welding tees
- ASME BPE orbital reducers concentric
- ASME BPE orbital reducers eccentric
- ASME BPE end caps
- ASME BPE welding crosses

INCH	OD x WT (mm)
1/4"	6,35 x 0,89
3/8"	9,53 x 0,89
1/2"	12,70 x 1,65
3/4"	19,05 x 1,65
1"	25,40 x 1,65
1-1/2"	38,10 x 1,65
2"	50,80 x 1,65
2-1/2"	63,50 x 1,65
3"	76,20 x 1,65
4"	101,60 x 2,11
6"	152,40 x 2,77

Fittings

Rodesta supplies Stainless Steel welding fittings for the food industry, in the grade AISI 304(L) and AISI 316(L), according to the standards DIN 11852, BS 4825, ISO 2037, and SMS 3008.

The inside surface roughness is $Ra < 0,8\mu m$ (welding seam $Ra < 1,6\mu m$). Elbows, Tees, T-bends, crosses and reducers are made from longitudinally welded pipes, bright rolled, with smoothed welding seam, to the standard DIN 11850.

**“Sharp prices
and a
LARGE stock”**

- Elbows 45° - 90° - 180°
- Expanding elbows
- Tees
- Tee bends
- Double Tee bends
- Reducers
- Crosses
- End caps
- Hose nipples

Quality	304L & 316L
DIN 11852	DN 10 (13x1,5mm) to DN 200 (204x2mm)
BS 4825	INCH 1" (25,4x1,6mm) to 4" (101,6x2mm)
ISO 2037	INCH 1" (25x1,2mm) to 4" (101,6x2mm)



DIN 11852
BS 4825
ISO 2037
SMS 3008



Fittings

Rodesta has a large stock program of stainless steel welding and threaded fittings in quality AISI 304(L) and AISI 316(L) in METRIC, INCH, ISO, ASTM, BSP and NPT sizes, such as elbows, T-pieces straight & reduced, concentric- & eccentric reducers and caps. Press fittings according DVGW & KIWA. Cutting ring fittings according DIN 2353 and DIN 3861 size 6 mm up to 42 mm in L and S type. BSP threaded fittings from 1/8" up to 6".



BSP fittings



NPT fittings



Welding fittings



Cutting ring fittings



Press fittings



Flanges

Rodesta supplies a complete range of stainless steel flanges, according to EN 1092-1 for the food tube dimensions in Metric and INCH sizes to fit perfectly to DIN 11850 tubes, in grade AISI 304L or AISI 316L, suitable for PN6 – PN10 – PN16 – PN40 pressures.

To complete our range of flanges we can supply them with stainless steel bolts, hexagon nuts and flange seals in EPDM, Silicone and Viton quality.



**“WE
CONNECT
YOUR
PROCESSES”**

Flanges for DIN 11850 tubes

DN 10 – 12mm
DN 10 – 13mm
DN 15 – 18mm
DN 15 – 19mm
DN 20 – 22mm
DN 20 – 23mm
DN 25 – 28mm
DN 25 – 29mm
DN 32 – 34mm
DN 32 – 35mm
DN 40 – 40mm
DN 40 – 41mm
DN 50 – 52mm
DN 50 – 53mm
DN 65 – 70mm
DN 80 – 85mm
DN 100 – 104mm
DN 125 – 129mm
DN 150 – 154mm
DN 200 – 204mm



Quality	304L & 316L
Working pressure	PN6 – PN10 – PN16 – PN40
Type	Slip-on flanges & welding neck flanges

Flanges

Rodesta has a large program of stainless steel flanges for the industry in quality AISI 304L and AISI 316L and suitable for PN 6 – PN 10 – PN 16 – PN 40. Sizes depending from type, from DN 15 up to DN 600 and from 1/2" up to 24". The flanges can be supplied with a 3.1 – EN 10204 certificate.

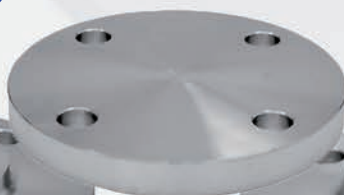
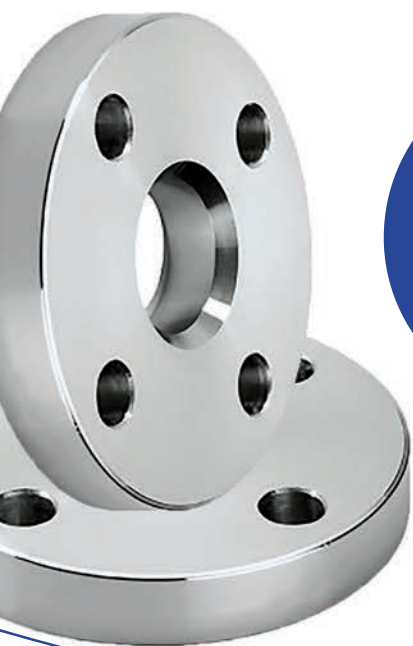
The aluminium flanges PN 10 from DN 10 up to DN 1000 in type A-metric and type C-iso in blank or epoxy coated quality gk.al.si.12.cu.

To complete our range of flanges we can supply them with stainless steel bolts, hexagon nuts and with flange seals in EPDM, Silicon and Viton quality, other qualities on request.

EN 1092-1 (PN6 – PN10 – PN16 – PN40)

Special alloys
like
Hastelloy
Duplex
Super duplex
Titan
and many more!

- Welding neck flange (Type 11)
- Slip-On flange (Type 01)
- Lap Joint flange (Type 02)
- Thread flange (Type 13)
- Blind flange (Type 05)



JIS (Japanese Industrial Standards) according to B2210

Aluminium flanges

Lap Joint according to 2642



Blind flange according to 2527

“We also
produce
**SPECIAL
FLANGES**”

ASTM – ASME/ANSI B16.5
(Class 150 – 300 – 600 – 900 – 1500 – 2500)



- Welding neck flange
- Slip On flange
- Lap-Joint flange
- Thread flange
- Blind flange
- Socket weld flange



INDUSTRY – flanges

Valves

There is no industry that has such strict regulations and demands as the pharmaceutical industry. Suppliers must meet the international rules, for instance the rules of the FDA. The valves supplied by Rodesta comply to those rules and guarantee an undisturbed production process by using high quality stainless steel material, a sophisticated design and a guaranteed sterility.

Rodesta is the supplier with a variety of valves for high purity used in the pharmaceutical industry. All valves are designed for the highest possible hygiene. We work together with suppliers who understand your demands and needs.

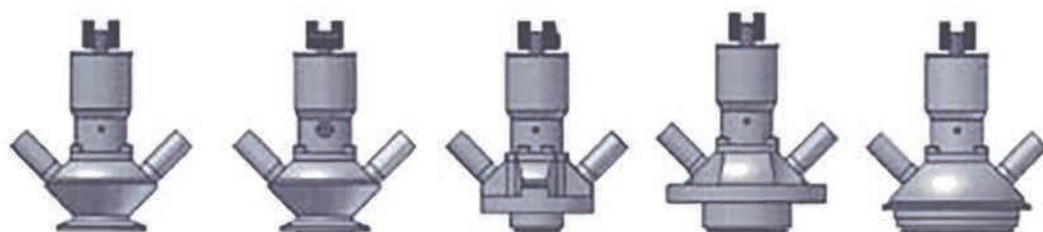
“High purity”

- Membrane valves
- Ball valves
- Needle valves
- Angle seat valves
- Sanitary plug valves
- Check valves
- Safety valves
- Tank bottom valves

Safety
for your
product!

A lot of
possibilities!

PHARMA - valves



Valves

In the development and production of our valves, we have one objective in mind: to supply you a reliable piece of equipment that meets the strict requirements of process technology in every way.

Our valves are based on the criteria of the hygienic design and guarantees the highest degree of safety with respect to hygiene and cleanability of your installation. The modular arrangement of the individual valve series ensure easy handling and minimizes maintenance costs.

Butterfly valves

- Wide range of sizes (DN 10 – DN 150 & 1/2" – 6")
- Extensive line of actuators and accessories, easy to assemble
- Low-wear seals in different materials, hermetically sealed and with high pressure resistance
- Actuators of different sizes, single or double acting
- With control head (protection class IP 65) as option
- Wide choice of pipe connections
- ATEX design

“Our
process valves
YOUR
advantage”

Mixproof butterfly valves

- A safe way to separate incompatible media in CIP or tank systems
- Leakage indication in case of defective seal
- Leakage chamber with flushing connections
- Mechanical forced actuation between valve discs and leakage valves
- Manually or pneumatically actuated

Multi-way butterfly valves

- Choice of 2-way or 3-way design or switching combination
- With mechanical or pneumatic single actuators
- Or mechanically coupled with rod assembly



Ball valves

- Several suppliers / different types
- Also small sizes (DN 10 / 15 / 20)
- PN 6 PN 10 PN 25 PN 40 PN 100
- Flushing connection as option
- Free passage, piggable
- No dead pockets



According to DIN ISO 9001

Production according to PED (Druckgeräterichtlinie 97/23/EG)

Butterfly valves according to „EG Richtlinie 94/9/EG“ (ATEX)

Safety Valves with TÜV approbation

State-of-the-art control methods of:

- Wall thickness
- Surface roughness
- Composition of material
- CVS-values (modulating valves)
- Pressure resistance

Check valves

- Several suppliers / different types
- Horizontal installation is possible
- Suitable for applications with stricter hygienic requirements, sealing chamber design based on aseptic standard DIN 11864



**ALSO
CUSTOMIZED
VALVES!**

Mini valves

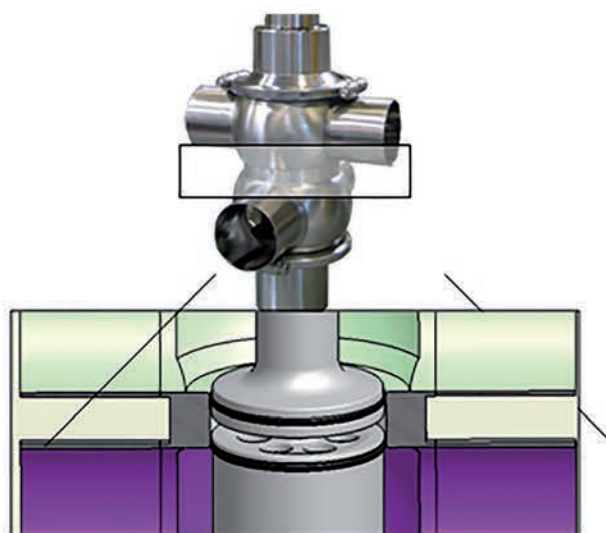
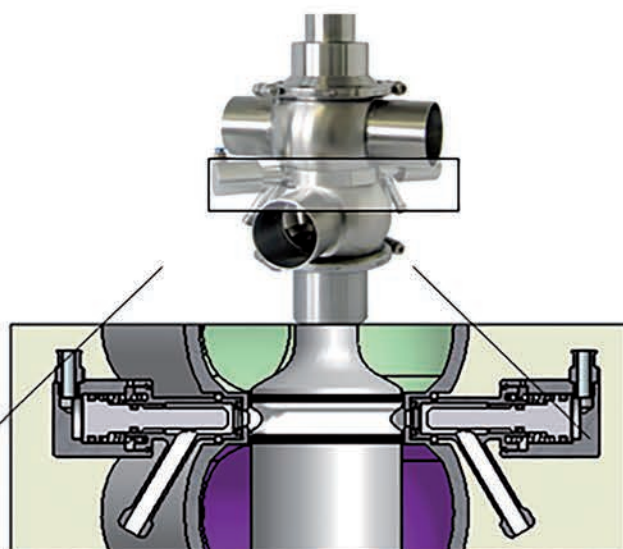
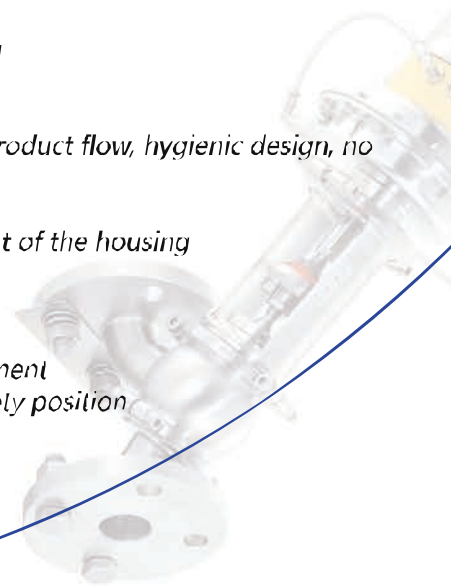
- Miniature housing for DN 10 DN 25 pipes
- Extremely compact design





Seat valves

- Solid valve construction, permitting distortion-free welding
- One-piece valve housing or welded in lower seat
- Symmetrically sealed
- Minimal dead space in spherical housing for streamlined product flow, hygienic design, no domes or sumps
- Excellent cleanability of all product-wetted parts
- Easy maintenance: complete valve housing can be lifted out of the housing
- Minimal number of different seals for each valve size
- Compact design
- Long lifetime
- Modular design of seat valves reduces spare parts requirement
- Turnable actuators with spring chamber to change the safety position



Double seal valves

- For safe media separation in automatic processes
- Minimized switching leakage
- Individual seat lifting as standard
- Cleanable leakage chamber



Double seat valves

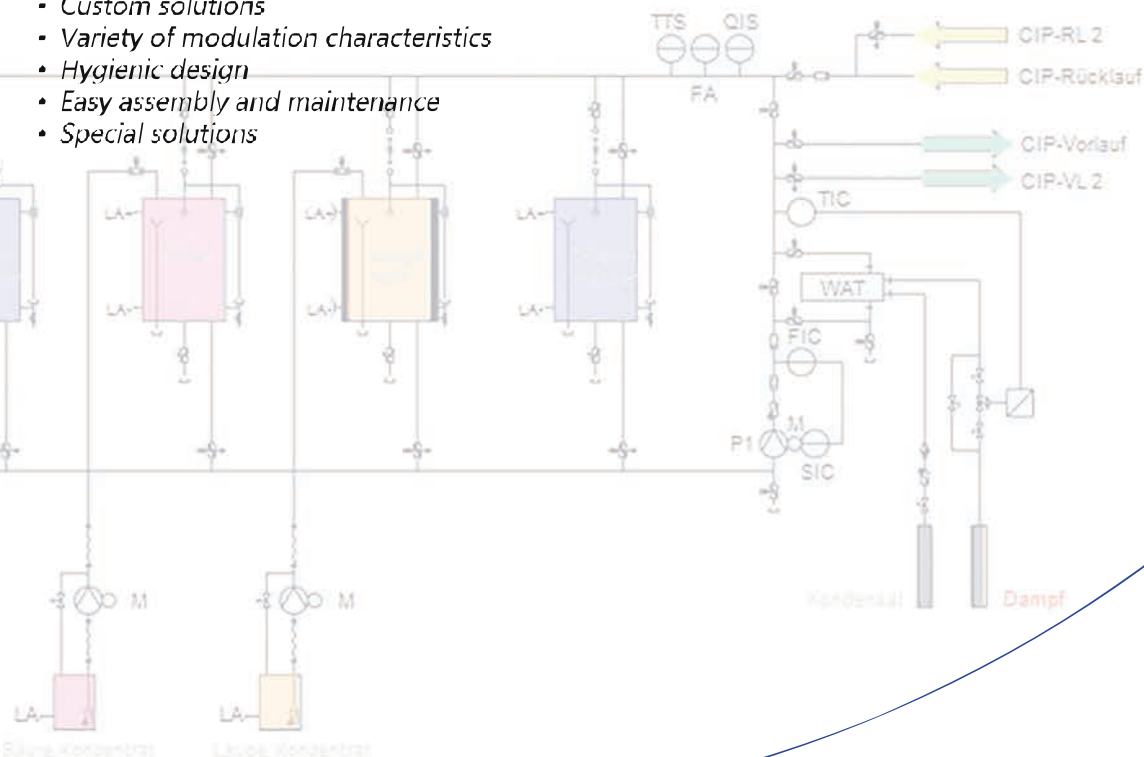
- For safe media separation in automatic processes
- Compact leakage chamber with 2 radial seals
- Cleaning of leakage chamber via 2 force-actuated pneumatic valves
- Single or double balanced design to prevent water hammer
- Simple, maintenance friendly seal replacement
- Optional seat lifting



Modulating valves



- For the regulation of flow, mixing or distribution of liquids and gaseous media
- Custom solutions
- Variety of modulation characteristics
- Hygienic design
- Easy assembly and maintenance
- Special solutions



Further modulating valve types

- Steam modulating valves
- Stroke modulating valves with piston actuator
- Butterfly control valves
- Arc modulating valves with unrestricted cross-section



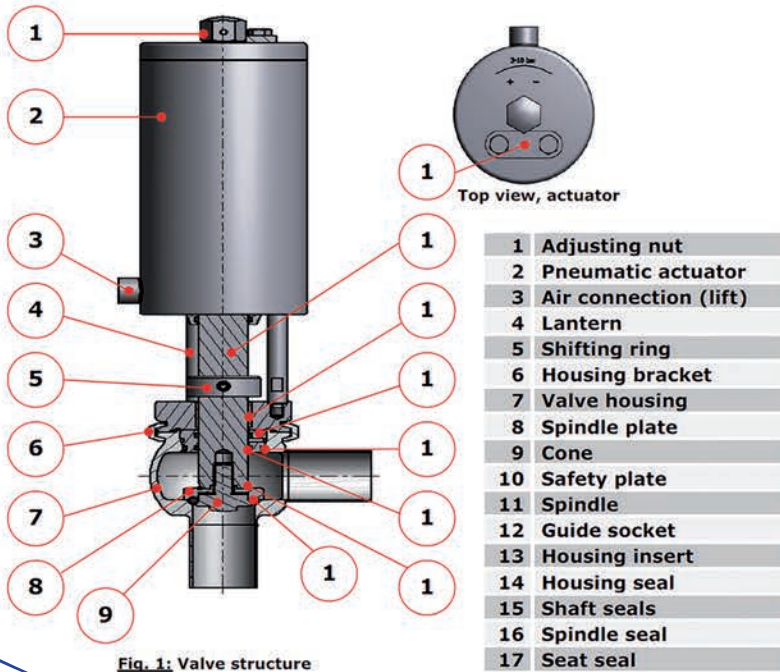
Call us!
We will be
glad to serve
you...

Valve positioners

- DigiPos digital I/P positioned as standard, latern with NAMUR interface (DIN / IEC 534-6) for the integration of other types of controllers
- Single range 4-20 mA
- Calibration of linear, equal percentage or special characteristic curve via interface (RS 232) and visualization software
- Auto calibration for simple start-up
- Contact free positioning, therefore easy to install, non-wearing and intensive vibration
- No internal air consumption in adjusted position
- Partial or split range operation as well as signal inversion possible

Overflow valves

- Safety valve to compensate pressure peaks in pipes
- Response pressure via standard spring adjustable from 0,5 – 6
- Special springs for additional response pressures available upon request
- Pneumatic drive to lift up seat for cleaning bypass line



Bottom drain valves

- For tanks and containers
- Dish shaped connection flange with sloping outlet as extension of container bottom to enable complete drainage
- Clamped valve housing for easy assembly and maintenance, allowing free choice of direction of outlet nozzle
- Installation also possible when floor space is restricted thanks to choice of actuating systems (crank or hand wheel, angular gear, pneumatic cylinder)
- Optional: with modular control head

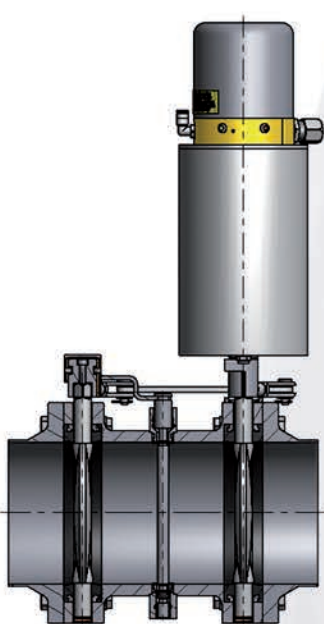
CALL OUR
VALVE
SPECIALISTS!



High pressure sandwich butterfly valves

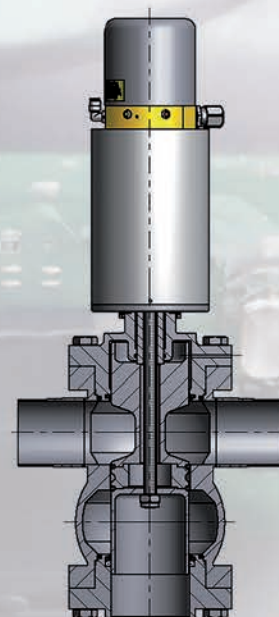
- Available up to 25 bar (depending on nominal diameter)
- Available sizes DN 100 150, and 4" 6"
- No flange gaskets required due to sandwich design
- Also available: high pressure mixproof sandwich butterfly valve

*“The
perfect
solution”*



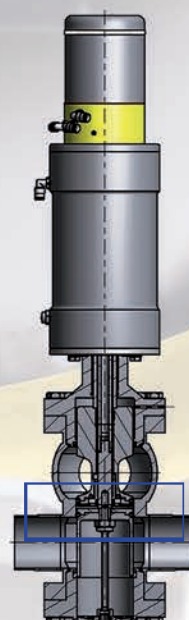
High pressure seat valves VS-HD

- High pressure resistance, up to 10 bar (depending on nominal diameter)
- Gentle product flow optimized design
- Easy maintenance as complete valve insert can be removed from valve housings
- Water hammer proof design (available on request)
- Dead space free spherical housing
- Double balanced
- Optional steam barrier available
- Optional heating jacket available
- Optional electronic equipment with modular control head



High pressure double seat valves VSDS-HD

- High pressure resistance, up to 30 bar (depending on nominal diameter)
- Mixproof function, safe media separation
- Optimized flow characteristics
- Both seats with lifting as standard
- Cleanable leakage chamber
- Switching leakage reduced to a minimum
- Easy assembly and maintenance
- Water hammer proof construction
- Dead space free spherical housing
- Double balanced
- Optional steam barrier available
- Optional heating jacket available
- Optional electronic equipment with modular control head

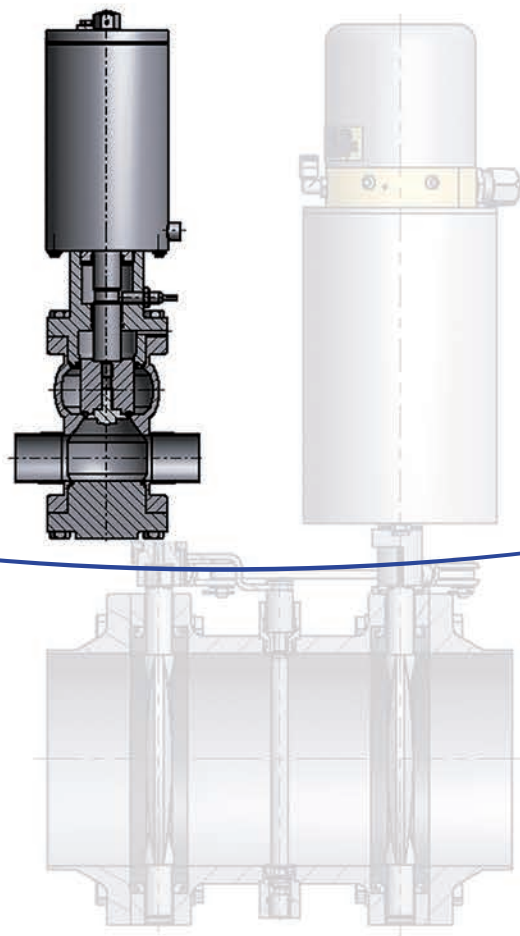


FOOD - high pressure valves

High pressure overflow valves VSÜ-HD

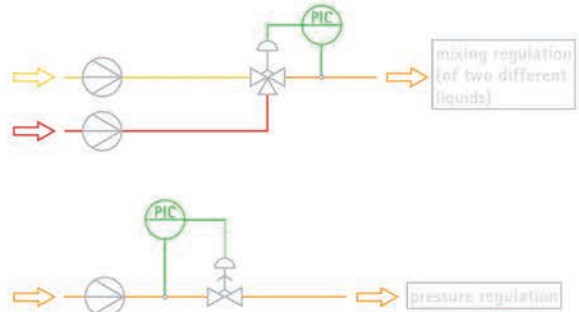
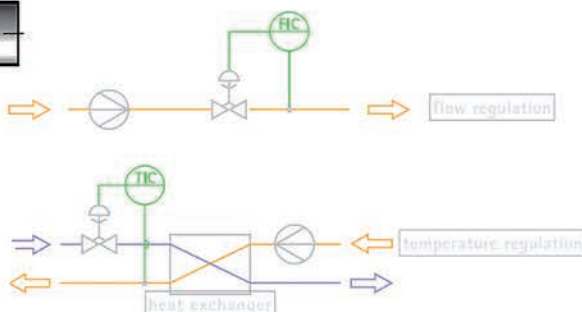
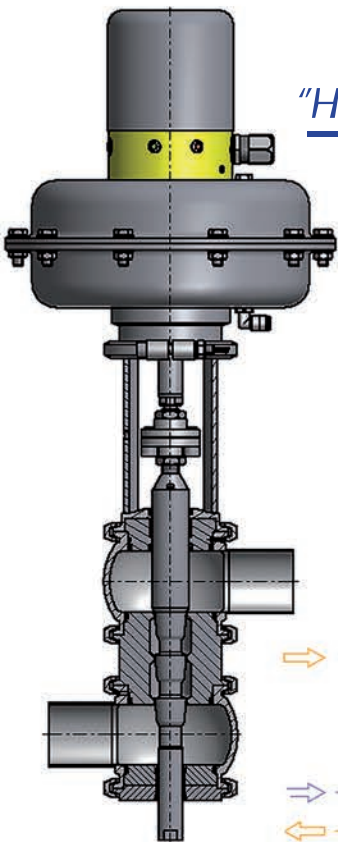
- Available up to 30 bar (depending on nominal diameter)
- Easy adjustable pressure setting
- Pneumatic seat lifting for CIP
- Dead space free spherical housing with optimized flow characteristics

DigiPos
digital I/P
positioner



"High-pressure" Pressure-reducing modulating valves VSR-LID-HD

- High pressure resistance, up to 40 bar (depending on nominal diameter)
- Low cavitation
- Replaceable cone and seats for the integration/modification of different Kvs/Cv values with linear modulating characteristic
- Spherical housings with minimal dead space for streamlined product flow
- Valve seat and housing insert which are flush with the inner wall guarantee complete draining of the valve body

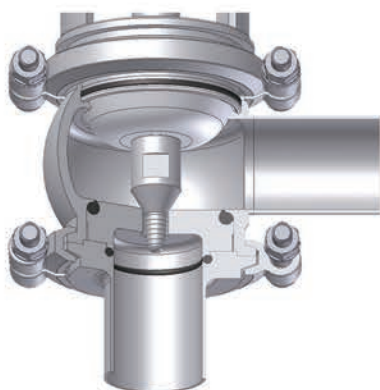


"Aseptic valves"

Rodesta offers a wide range of valves and components that are specially designed to meet the strict requirements of aseptic production processes.

Your Advantage:

- Encapsulated sealing design ensures minimal dead space
- Durable membranes or metal bellows for chambered sealing of valve spindles
- Complete emptying of product chamber
- Optimal cleanability of valves and fittings
- Quality of product wetted surfaces up to $Ra < 0,4 \mu m$ possible, E-Polishing upon request

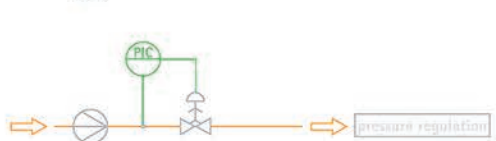
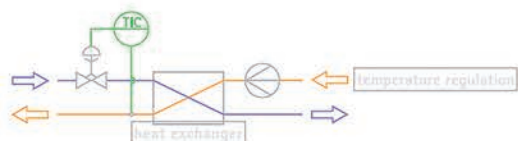
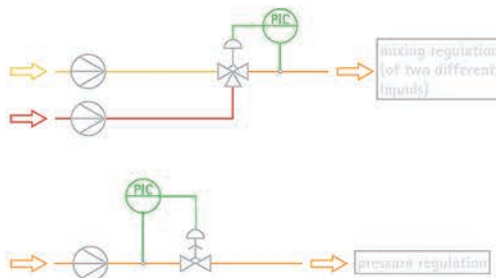
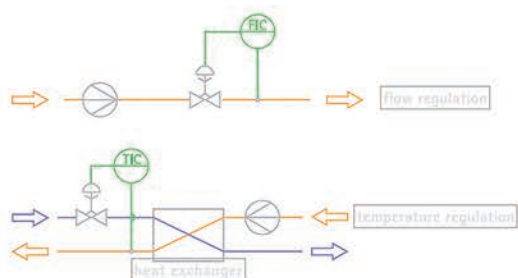


Aseptic Seat valves VS

- Hermetic diaphragm sealing of product chamber, no external contamination possible within aseptic processes

Aseptic modulating valves VSR

- Hermetic diaphragm sealing of product chamber, no external contamination possible within aseptic processes



Aseptic tank bottom drain valves with diaphragm

- Complete drainage through sloping outlet
- Various actuator types permit installation where floor space is restricted
- Hermetic diaphragm seal of product chamber, no external contamination possible within aseptic processes

Hygienic double seat valves VSDS with steam barrier (EHEDG Certified)

- Mixproof function, safe media separation
- Optimized flow characteristics
- Individual seat lifting as standard
- Cleanable/steamable leakage chamber
- Switching leakage reduced to a minimum
- Easy assembly and maintenance
- Water hammer proof construction
- Double balanced



Hygienic Non-return valves TRV

- To prevent the back-flow of fluids in pipes
- Suitable for applications with stricter hygienic requirements
- Sealing chamber design based on aseptic standard DIN 11864



“EHEDG
valves
in our
program”

Call
us for
advice!

Sampling valves

- For sterile sampling and continuous product quality monitoring
- Smooth and ergonomically optimized operability
- Simple manually operated valve up to a fully automated assembly
- Cleaning and sterilization before sampling via flushing connections
- Manual / pneumatic steam valve
- Assortment of approx. 10000 configurations
- Manual actuated steam valve (SIP)
- Pneumatic actuated steam valve (SIP)



FOOD - aseptic valves

EHEDG - Valves

Valves are essential components for all food processing plants and the quality which is used, strongly influences the microbiological safety of the food production process. These valves must therefore comply with strict hygienic requirements. The guidelines apply to all valves used in contact with food or food constituents that are to be processed hygienically or aseptically.

Aside from general requirements with regard to materials, drainability, microbial impermeability and other aspects, additional requirements for specific valve types are also described.

Double seat mixproof valve type VSDS with EPDM gaskets

Component type: valve double seat mix proof valves

Certificate type: Type EL Class I



Butterfly Valve with EPDM and FPM gaskets

Component type: valve butterfly valves

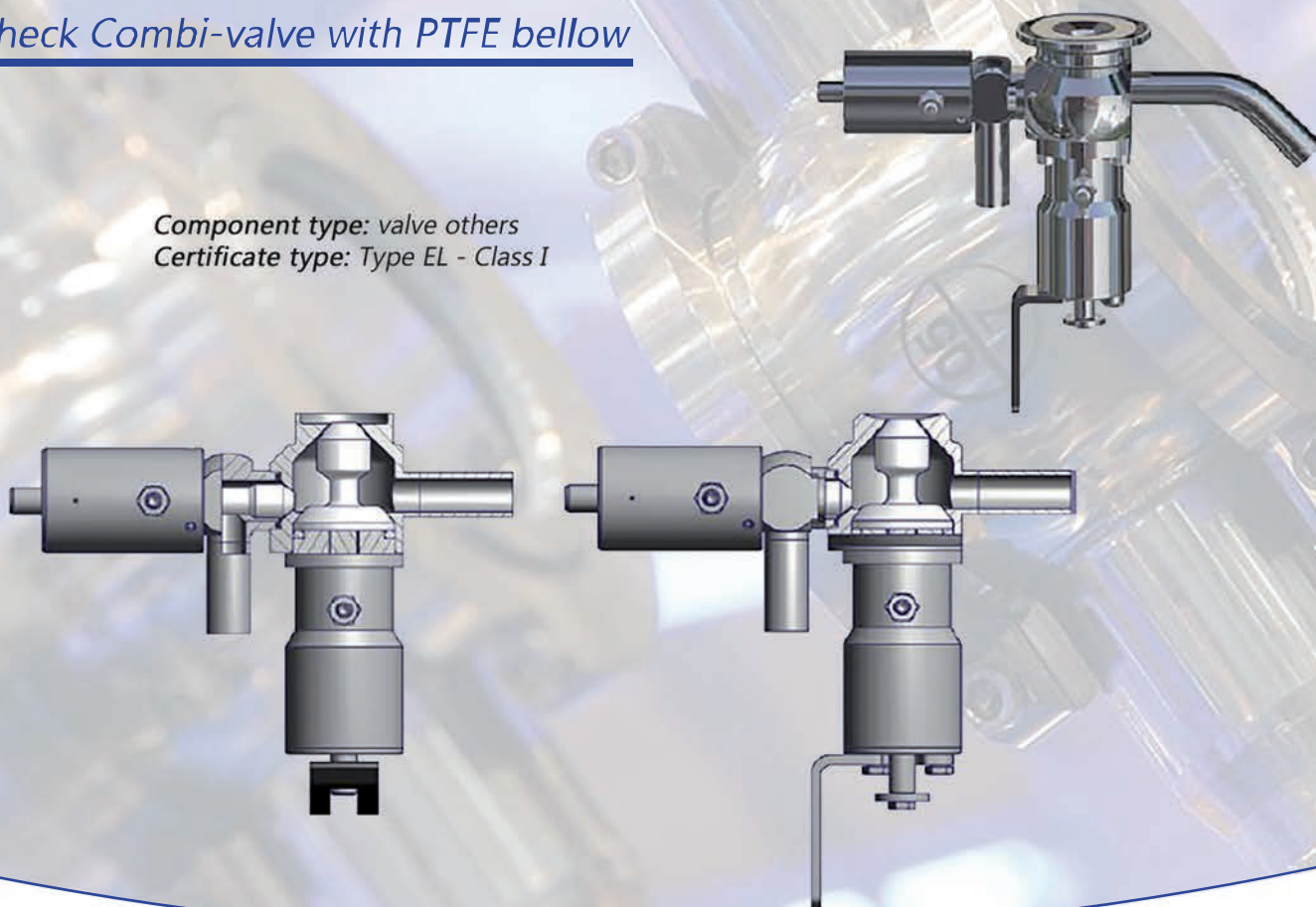
Certificate type: Type EL Class I



“Hygienic
designed valves
for
food processing”

BioCheck Combi-valve with PTFE bellow

Component type: valve others
Certificate type: Type EL - Class I



Aseptic mixproof valve N13 with EPDM gaskets and PTFE bellows

Component type: valve double seat mix proof valves
Certificate type: Type EL Class I



Double seat valve type N1

Component type: valve double seat mix proof valves
Certificate type: Type EL Class I

Valves

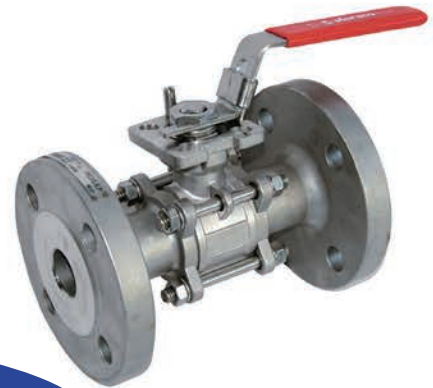
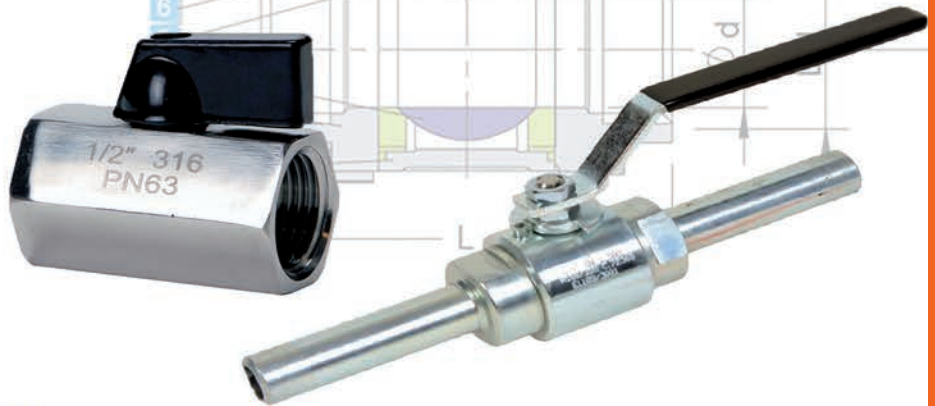
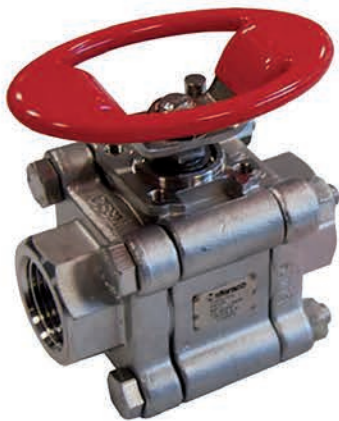
Rodesta has an extensive program of industrial valves in stainless steel in AISI 304(L) and AISI 316(L) quality, like several types of ball valves with thread, welded ends, or with flange connections. Hand operated or pneumatic, "air to air" or "air to spring" operated. If you require a special type of valve, than please let us know, we shall be pleased to help in any way we can.

Ball valves (32 types)

- Mini ball valves (large stock)
- 1-piece ball valve
- 2-piece ball valve (large stock)
- 3-piece ball valve
- 2 way ball valve
- 3-way ball valve
- Wafer type ball valve
- Pneumatic actuated valves
- Electric actuated valves

"Our
expertise
is your
comfort"

Steam ball valves
High pressure ball valves
High temperature ball valves



- Butterfly valves
- Knife gate valves
- Needle valves
- Gate valves
- Globe valves
- Check valves (different types)

Connections

BSP

NPT

BW (Butt weld)

EN flanges

ASTM / ASME flanges

Gaskets

Rodesta offers a wide variety of sanitary gaskets. Hygienic seals are used widely in the biotech, pharmaceutical, dairy, food & beverage, and semi conductor industries to seal clamp connections in sanitary pipe lines. We offer the entire product range of specialty gaskets in several elastomers and fluoroelastomers.

The compounds used in the products supplied by Rodesta will meet your particular engineering requirements, to the exact physical properties needed, as well as complying FDA, USPH, USDA, 3-A sanitary standards and US pharmacopeia Class VI.

*“To secure
your
PRODUCT FLOW”*

*Available
types*

- Metal Detectable/ X ray Inspectable Tri Clamp®
- Tri-Clamp gaskets (lipped and unlipped)
- Envelope Tri-Clamp gaskets
- Orifice plates
- Screen gaskets (Mesh 4 to Mesh 450)
- Sock screen gaskets

QUALITY

- EPDM
- Silicone
- Viton
- Teflon (PTFE)
- Peek
- TFM
- Tuf-Steel (blend of PTFE and 316L stainless steel)

PHARMA - gaskets

Gaskets

Rodesta offers many different sanitary gaskets in a very high quality. We are able to design custom made parts as well, these can be made from a wide selection of validated compounds. We follow current GMP guidelines to secure a reproducible gasket, time after time.

The compounds that we use for our gaskets are carefully selected and meet current requirements for the food Industry. The most common materials are, EPDM, FKM, Silicone, PTFE, Peek & TFM.

We supply gaskets in all standards such as: DIN32676 (Series A), ISO1127 (DIN32676 Series B), ASME BPE (DIN32676 Series C), ISO2852 and SMS3017 pipe SMS3008

"Designed for Food Industry"



DIN 11864 Aseptic Line



Tri-Clamp



Bund



Without Bund

DIN 11851

Contact us for more information or special requests!

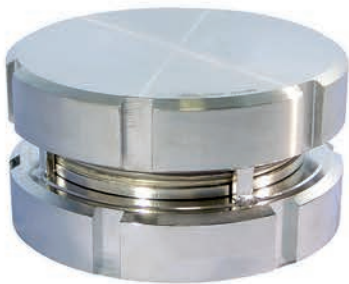


Tank equipment

Our range of tank equipment exists out of a variety of pressure valves, sample valves, level indicators, drain and safety valves, hand operated or pneumatic "air to air" or "air to spring" operated, in grade AISI 304(L) and AISI 316(L).

Furthermore we supply a complete range of sight glasses, if desired with halogen lamp and wiper. We can also deliver spraying heads with several perforation patterns either upwards, downwards or complete 360° spraying perforation.

Pressure equalizing valves



- Available in stainless steel or PE (plastic ABS grey)

*"The best way
to
control
your PROCESS"*

Safety valves



Drain valves



- Bottom drain valves
- Inclined seat valves
- Drain valves
- Butterfly valves

Level indicators



- Available with various connections and outlets

Vacuum valves



- Spring- or weight loaded
- Vertical or horizontal installation

Manways

- Oval manways
- Rectangular manways
- Round manways



Air and draining cocks

- Drain cocks
- Sampling cocks
- Two-way cocks
- Three-way cocks
- Hose cocks



Sight glasses



- For tank bottom or tank wall "with LED light"



Spraying heads

- Static and rotating spraying heads
- Different throughputs and perforation patterns (180° 270° 360°)
- Length of support & connections according to specifications

Sample valves

- Available in hygienic or aseptic design
- Different tank and sampling connections
- Flushing connections as option



"Portable agitators"

- Installation and removal at any time, even with filled container, no product or pressure losses
- One unit can therefore be used for different tanks or containers
- For the mixing, stirring and homogenization of water like or medium viscosity products
- Lasting durability
- Lightweight, portable and easy to handle
- Various agitators sizes and capacities available



FOOD - portable agitators

Process equipment

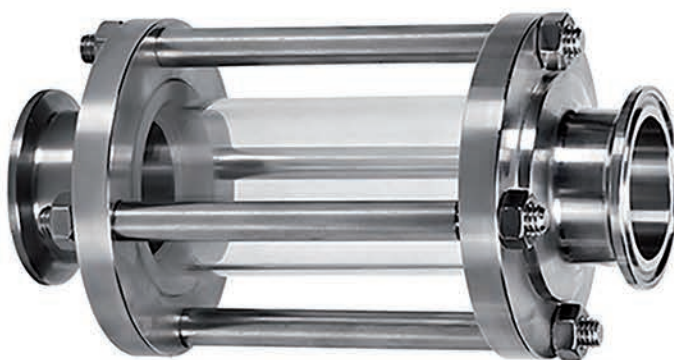
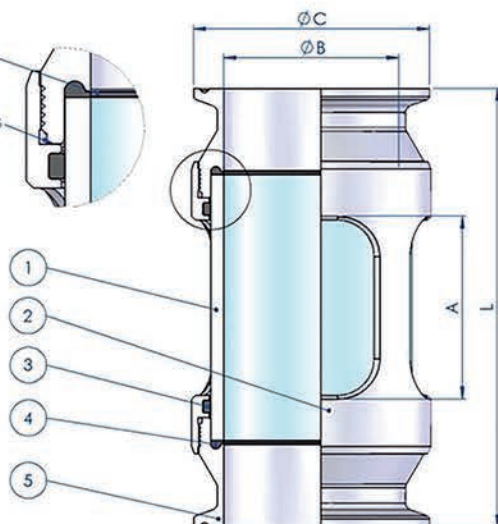
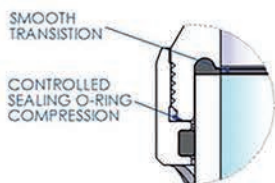
Rodesta supplies AISI 316L process equipment parts for your installations. Several sample valves, In-line sight glasses with Tri-Clamp ferrule connection, membrane housings for filtration, cartridge filter housing from single filter housing up to 48-filter housings and several different types of heat exchangers such as multi-tube, double-pipe and triple-pipe.

Do you need a very special solution for your application?

We offer contract manufacturing and cooperate closely with our customers to produce individualized solutions or complete systems of the highest quality in stainless steel!

*“A better
process?”*

Sample valve with membrane
and flushing connection.
DN 10 & DN 15



Description	Material	Available options
Glass	Borosilicate	-
Body	316L	C22 / AL6XN
Cushion O-ring	EPDM FDA	USP VI / FEP
Sealing O-ring	EPDM FDA	USP VI / FEP
Flange ends	316L	C22 / AL6XN

Process equipment

Rodesta can supply a complete range of process equipment products in stainless steel quality AISI 304(L) and AISI 316(L), for welding connection or with coupling connection, according to DIN 11850, DIN 11864 or Tri-Clamp.

For instance in-line sight glasses with protective stainless steel grating, inspection glass with halogen lamp, in-line cross inspection glass with 2 sight ports provide, with borosilicate glass and alternative with windshield wiper with spare glass, in-line strainers and angle type strainers, dirt traps with several mesh size inserts, flow meters, deairation lantern with glass or stainless steel cylinder.

Dirt traps

- Numerous mesh sizes



Sight glasses

- Different types
- Numerous connections
- Protective grid optional



Strainers

- Numerous mesh sizes
- Gauze as option



Thermometer

- Material, full stainless steel
- Temperature 30°C to +200°C
- Max. pressure 40 bar
- Protection IP31
- Directive 97/23/cc



Process equipment / hoses

Rodesta has several stainless steel process equipment materials, such as meters for temperature and pressure measurement, with BSP or NPT connection. Sight glasses in-line with protective stainless steel grating and inspection glasses type bull-eye. In-line strainers and dirt traps with BSP connection, welded ends or flange connection.

We can supply a large variety of industrial hoses, with all kinds of different connections and in every wished length up to 50 meter. Please ask our sales people and they shall be pleased to help you and to quote you our best possibilities.

- *Sight glasses*
- *Strainers*
- *Manometers*
- *Thermometers*
- *Level switches*
- *Safety valves*
- *Overflow valves*
- *Pressure reducing valves*
- *Steam equipment*

*"The perfect
equipment
for your
PROCESS"*



"Hoses"

*Ask
one of our
specialists
for the
possibilities*

INDUSTRY - process equipment / hoses

Installation materials

Rodesta supplies a wide range of installation material in stainless steel AISI 304(L) and AISI 316(L) for the finishing touch and to complete your installation, for instance a complete range of pipe clamps, welding rosettes, compensators, adjustable stainless steel tank spherical caps with round foot plate, nut spanners, cleaning gel and food grade lubricants.

- Pipe clamps (light and heavy duty)
- Pipe clamps with shank
- Pipe clamps with threaded shank
- Pipe clamps hinged
- Pipe clamps U-type
- Custom made pipe clamps (all sizes are possible)
- Hinged C-spanners
- Hose clips
- Bolts and nuts
- Threaded rods DIN 975



R2000 cleaning gel

R2000
Batch 180406

R2000 CLEANING GEL is a high quality cleaning gel for stainless steel and other food grade materials.

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R2000 CLEANING GEL is a high quality cleaning gel for stainless steel and other food grade materials.

Premium food grade lubricants

NSF International rated H-1/3H
Kosher & Halal Certified
all ingredients are FDA approved

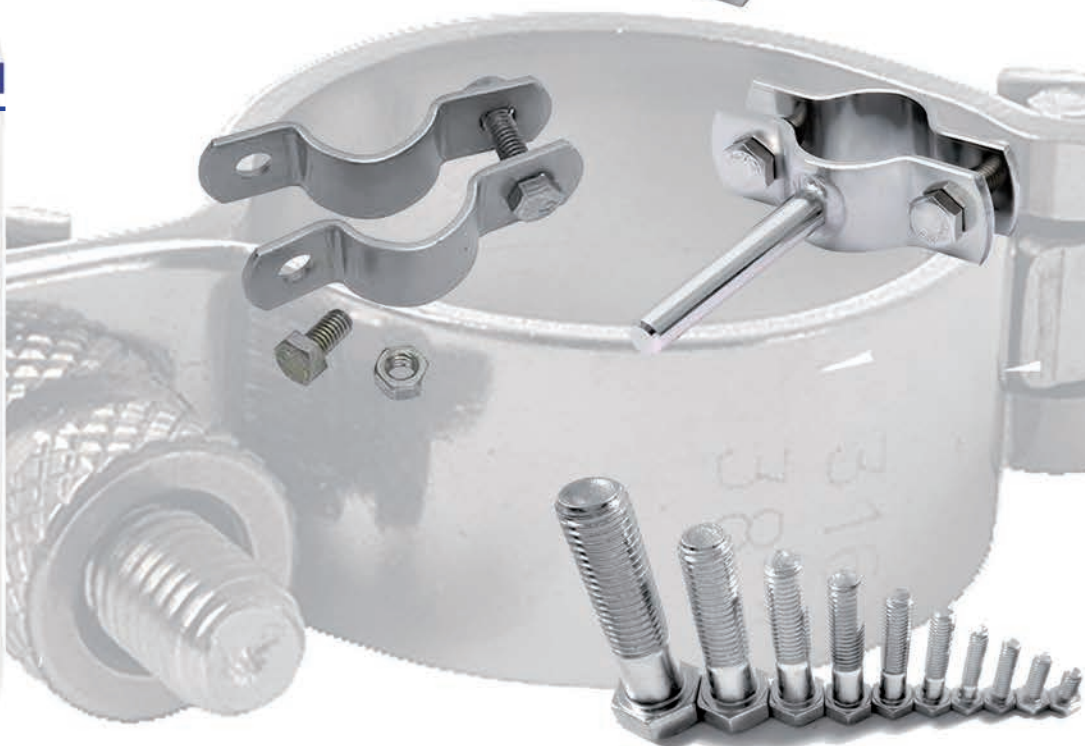


Installation materials

Rodesta supplies a complete range of installation materials in stainless steel AISI 304(L) and AISI 316(L) to complete your installation, such as an wide range of pipe clamps and U-clips in a light or heavy version if wished with stainless steel bolts and hexagon nuts, R2000 cleaning gel and lubricants.

- Pipe clamps (light and heavy duty)
- Pipe clamps with shank
- Pipe clamps with threaded shank
- Pipe clamps U-type
- Custom made pipe clamps (all sizes are possible)
- Hose clips
- Bolts and nuts
- Threaded rod DIN 975
- R2000 cleaning gel

R2000 cleaning gel



Tubes

In the high purity and ultra high purity industries is absolute hygiene during the production process a must. Rodesta offers a complete range of tubes and components in stainless steel quality AISI 316L with an extremely smooth surface. A very good cleaning in place (CIP) prevents nestle of bacteria's, for instance you can produce water for injection (WFI). The tubes we offer are produced, checked, marked and certified according the strictest requirements and guarantees a sublime quality and traceability.

"High Purity Stainless Steel Tubing"

*Tolerances
according to
ASTM A 270
Supplement 2*

INCH	OD x WT
1/4"	6.35 x 0.89
3/8"	9.53 x 0.89
1/2"	12.70 x 1.65
3/4"	19.05 x 1.65
1"	25.40 x 1.65
1½"	38.10 x 1.65
2"	50.80 x 1.65
2½"	63.50 x 1.65
3"	76.20 x 1.65
4"	101.60 x 2.11
6"	152.40 x 2.77

Surface finish

0,50	SF1
0,63	SF2
0,75	SF3
0,38 E/Pol	SF4
0,50 E/Pol	SF5
0,63 E/Pol	SF6

*Surface SF1 or SF4
according to ASME BPE*



Tubes / bars

Rodesta supplies a complete range of stainless steel AISI 304L and AISI 316L, welded and seamless round tubes, square and rectangular tubes, round bars, square bars, flat bars, angle bars, U-bars, T-bars, IPE and IPB bars, capillary, instrumentation and hydraulic tubing, tear plate, perforated plate with round, square or slot holes, plain woven and spot welded wire mesh.

EN10357 Serie A range 2 (previous DIN 11850)
EN10357 Serie B range 1 (previous DIN 11850)
EN10357 Serie C (previous ISO 2037)
EN10357 Serie D (previous BS 4825)

Execution	finish	symbol
not annealed	descaled	CC
not annealed	polished	CD
annealed	descaled	BC
annealed	polished	BD

HYGIENIC ENGINEERING & DESIGN GROUP
EHEDG

FOOD - tubes / bars

Tubes, bars & sheets

Rodesta has an extensive program of stainless steel tubes and bars in AISI 304(L) and AISI 316(L) with certificates according to EN10204 type 3.1. Construction profile tubes and round pipes, capillary, instrumentation and hydraulic tubing. Solid bar material such as round bars according to DIN 671 tolerance ISA H9, square bars according to DIN 178 ISA H11, flat bars hot rolled or slitted according to DIN 1017. Hot extruded or sheared, bended, deburred and straightened from plate equal and unequal angle bars according to DIN 1028/1029, U-bars according to DIN 1026 and T-bars according to DIN 1024. Hot rolled sheets, execution according to EN 10088-2 finish 1D tolerances according to EN 10029 and cold rolled sheets, execution according to 10088-2 finish 2B tolerances according to EN 10258/59.

SHEETS FINISH 2B

- *Perforated sheets*
- *Tear plate*
- *Aluminium tear plate*

Welded tubes according
EN 10217-7, ASTM A-312 or ASTM A-778
Seamless tubes according
ASTM A-269 / ASTM A-312 or EN 10216-5
Seamless Hollow bars according
DIN 17456 or EN 10216-5
Capillary and Instrumentation tubing according
ASTM A-269 or DIN 17458

- *Square tube*
- *Rectangular tube*
- *Round bar*
- *Square bar*
- *Flat bar*
- *Angle bar*
- *U-Bar*
- *T-Bar*





PARTNER
FOR THE
BENELUX

Laveggi: a big family

Since 1947 Laveggi produce and sell manholes and manhole covers on the global market for different sectors, such as food, petrochemical and pharmaceutical sector. Thanks to the certifications Laveggi obtained and with the experience they gained, Laveggi can guarantee the highest quality standards with solutions for any type of use. Moreover, in recent years, their technical department has been equipped to promptly respond for special requests and customization, allowing that all customers receive the required products in a short time.



CERTIFICATIONS

ISO:9001 certification and more. All our products are provided together with their material certification.

Our company is ISO:9001 certified. Additionally, we release certifications about all the materials we use for our products. At the moment you request it, we can deliver the following certifications: '31', 'FDA', 'PED' and 'Moca'.

PARTNER
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BENELUX



Created in 1936, BOYER is the specialist in high pressure manlids and has always been at the cutting edge of research and technology to fulfil the specific needs of the food, pharmacy, cosmetic and chemical industries.

Today, the company has a worldwide reach and is a leader on its market.

"FAST SERVICES
HIGH QUALITY"



Specials / custom products

Rodesta is also your supplier for stainless steel specials for the pharmaceutical industry. For instance various coupling parts, they are machined from bar material like concentric-, eccentric reducers, hose tails with Tri-Clamp ferrule connection and pipe constructions produced in conformity with drawings, supplied by our customers. Surfaces either hand- or electro polished with different roughnesses, up to $Ra. < 0,3 \mu m$.

If you require a special product, please contact our sales department and they will do their upmost best to help in any way they can.

Tri-Clamp eccentric reducer



Tri-clamp hose tail according to drawing



Cleanroom (installation activities)



High purity solutions!

Tri-Clamp venturi according to drawing and client specification



Customized solutions according specifications



Specials / custom products

Rodesta is specialized in stainless steel custom made products, produced in conformity with drawings supplied by our customers, such as small tanks, machined coupling parts, tubing systems with couplings, constructions made from square or rectangular tubes, cabins for save explosion free filling from barrels, cylinders, bottles and jerry cans. Also we can supply Stainless steel panels and valve manifolds.

CALL US!

Stainless steel tanks



Machined parts according specification



Installation activities

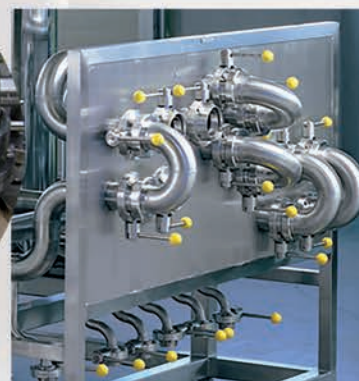


Welded parts

WE OFFER SOLUTIONS!



Customized solutions according specifications



FOOD - specials / custom products

Certifications & registrations



**HAYNES LUBRICANTS – THIS PRODUCT RANGE
WILL MAKE YOUR EQUIPMENT SING**



Designed for maximum efficiency, Haynes Lubricants are specifically formulated with the highest quality base oils and additives to meet the unique demands placed on all types of food processing and packaging equipment. Listed below are four of our best-selling products. You won't be disappointed by their performance.

**Haynes® Manufacturing Company is
the World's Leading Manufacturer of
Premium Food-Grade Lubricants.**



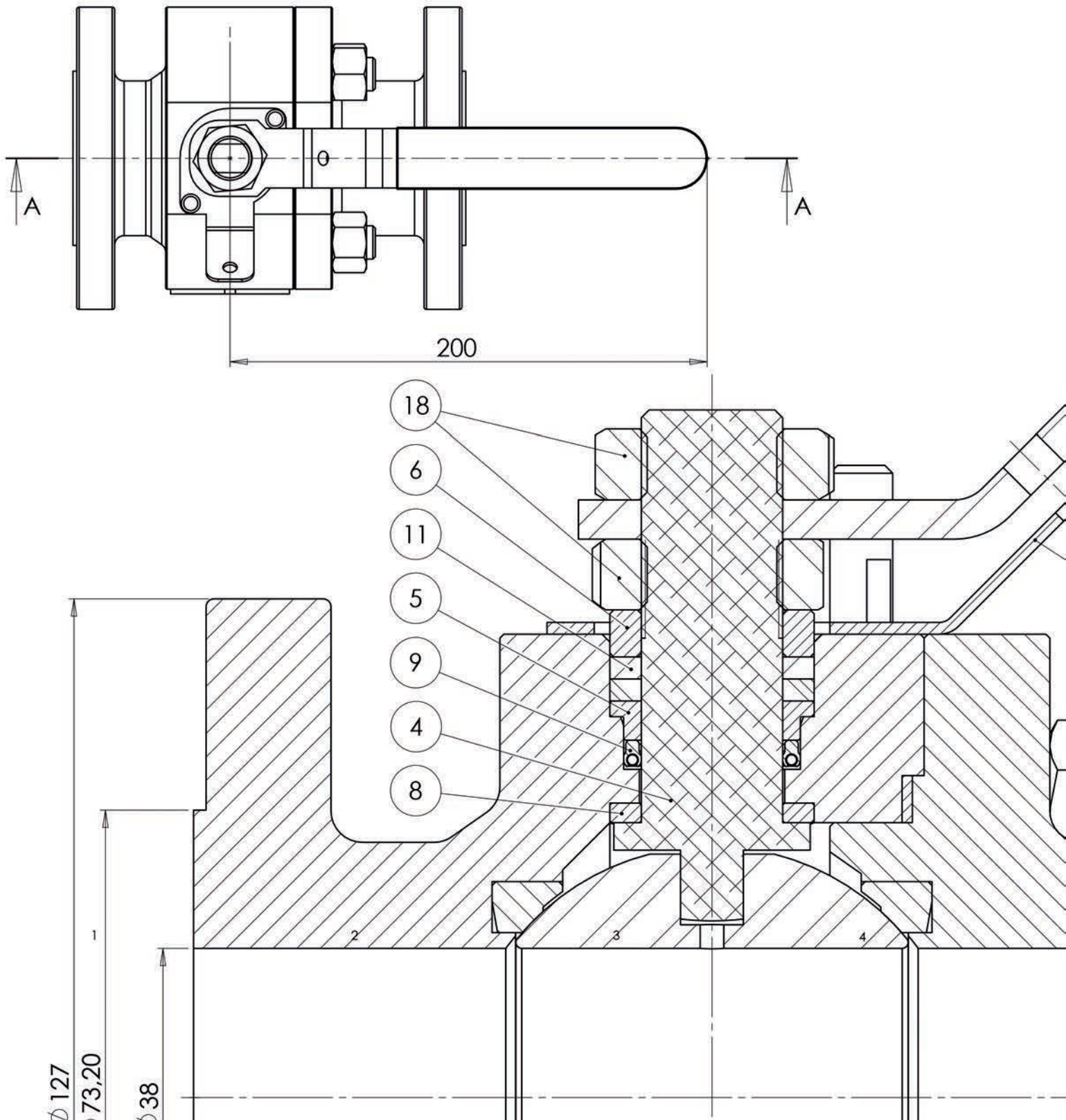
NEW



Vegetable-Based Lubricant

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For further information on Rodesta B.V. Terms and Conditions, visit www.rodesta.com.



Pharma & Food sizes					
DIN 11850	Reihe 1	Reihe 2	Reihe 3	Netherlands	
DN 10	12 x 1	13 x 1,5	14 x 2	12 x 1,5	
DN 15	18 x 1	19 x 1,5	20 x 2	18 x 1,5	
DN 20	22 x 1	23 x 1,5	24 x 2	22 x 1,5	
DN 25	28 x 1	29 x 1,5	30 x 2	28 x 1,5	
DN 32	34 x 1	35 x 1,5	36 x 2	34 x 1,5	
DN 40	40 x 1	41 x 1,5	42 x 2	40 x 1,5	
DN 50	52 x 1	53 x 1,5	54 x 2	52 x 1,5	
DN 65	70 x 2	70 x 2	70 x 2	70 x 2	
DN 80	85 x 2	85 x 2	85 x 2	85 x 2	
DN 100	104 x 2	104 x 2	104 x 2	104 x 2	
DN 125	129 x 2	129 x 2	129 x 2	129 x 2	
DN 150	154 x 2	154 x 2	154 x 2	154 x 2	
DN 200	204 x 2	204 x 2	204 x 2	204 x 2	
All sizes in mm					

Pharma & Food sizes					
INCH	BS 4825	ISO 2037	SMS 3008	ASME BPE	Netherlands
1/4"	6,35 x 1,25			6,35 x 0,89	
3/8"	9,53 x 1,25			9,52 x 0,89	
1/2"	12,7 x 1,63			12,7 x 1,65	
3/4"	19,05 x 1,63	20 x 1,2	18 x 1	19,05 x 1,65	
1"	25,4 x 1,63	25 x 1,2	25 x 1,25	25,4 x 1,65	25,4 x 1,25
1-1/4"	31,8 x 1,63	32 x 1,2	32 x 1,25		31,8 x 1,5
1-1/2"	38,1 x 1,63	38 x 1,2	38 x 1,25	38,1 x 1,65	38,1 x 1,5
2"	50,8 x 1,63	51 x 1,2	51 x 1,25	50,8 x 1,65	50,8 x 1,5
2-1/2"	63,5 x 1,63	63,5 x 1,6	63,5 x 1,6	63,5 x 1,65	63,5 x 1,5
3"	76,2 x 1,63	76,1 x 1,6	76,1 x 1,6	76,2 x 1,65	76,1 x 1,5
4"	101,6 x 2,11	101,6 x 2	101,6 x 2	101,6 x 2,11	101,6 x 2
6"				152,4 x 2,77	
All sizes in mm					

Industry sizes					
ISO / DIN	ISO	ISO	ISO	ISO	METRIC
1/8" - DN 6	10,2 x 1,6	10,2 x 2	10,2 x 2,3		
1/4" - DN 8	13,5 x 1,6	13,5 x 2	13,5 x 2,3		
3/8" - DN 10	17,2 x 1,6	17,2 x 2	17,2 x 2,3		
1/2" - DN 15	21,3 x 1,6	21,3 x 2	21,3 x 2,5		
3/4" - DN 20	26,9 x 1,6	26,9 x 2	26,9 x 2,5		25 x 2
1" - DN 25	33,7 x 1,6	33,7 x 2	33,7 x 2,6	33,7 x 3	30 x 2
1-1/4" - DN 32	42,4 x 1,6	42,4 x 2	42,4 x 2,6	42,4 x 3	40 x 2
1-1/2" - DN 40	48,3 x 1,6	48,3 x 2	48,3 x 2,6	48,3 x 3	44,5 x 2
2" - DN 50	60,3 x 1,6	60,3 x 2	60,3 x 2,6	60,3 x 3	54 x 2
2-1/2" - DN 65	76,1 x 1,6	76,1 x 2	76,1 x 2,6	76,1 x 3	70 x 2
3" - DN 80	88,9 x 1,6	88,9 x 2	88,9 x 2,6	88,9 x 3	84 x 2
3-1/2"	101,6 x 1,6	101,6 x 2		101,6 x 3	
4" - DN 100	114,3 x 1,6	114,3 x 2	114,3 x 2,6	114,3 x 3	104 x 2
5" - DN 125		139,7 x 2	139,7 x 2,6	139,7 x 3	129 x 2
6" - DN 150		168,3 x 2	168,3 x 2,6	168,3 x 3	154 x 2
8" - DN 200		219,1 x 2	219,1 x 2,6	219,1 x 3	204 x 2
10" - DN 250		273,0 x 2	273,0 x 2,6	273,0 x 3	256 x 3
12" - DN 300		323,9 x 2		323,9 x 3	306 x 3
14" - DN 350				355,6 x 3	356 x 3
16" - DN 400				406,4 x 3	406 x 3
18" - DN 400				457,2 x 3	
20" - DN 500				508 x 4	508 x 3
All sizes in mm					

Industry sizes					
ISO	GAS sizes	Schedule 5S	Schedule 10S	Schedule 40S	Schedule 80S
1/8" - DN 6	10,2 x 2		10,29 x 1,24	10,29 x 1,73	10,29 x 2,41
1/4" - DN 8	13,5 x 2,35		13,72 x 1,65	13,72 x 2,24	13,72 x 3,02
3/8" - DN 10	17,2 x 2,35		17,15 x 1,65	17,15 x 2,31	17,15 x 3,20
1/2" - DN 15	21,3 x 2,65	21,34 x 1,65	21,34 x 2,11	21,34 x 2,77	21,34 x 3,73
3/4" - DN 20	26,9 x 2,65	26,67 x 1,65	26,67 x 2,11	26,67 x 2,87	26,67 x 3,91
1" - DN 25	33,7 x 3,25	33,40 x 1,65	33,40 x 2,77	33,40 x 3,38	33,40 x 4,55
1-1/4" - DN 32	42,4 x 3,25	42,16 x 1,65	42,16 x 2,77	42,16 x 3,56	42,16 x 4,85
1-1/2" - DN 40	48,3 x 3,25	48,26 x 1,65	48,26 x 2,77	48,26 x 3,68	48,26 x 5,08
2" - DN 50	60,3 x 3,65	60,33 x 1,65	60,33 x 2,77	60,33 x 3,91	60,33 x 5,54
2-1/2" - DN 65	76,1 x 3,65	73,03 x 2,11	73,03 x 3,05	73,05 x 5,16	73,05 x 7,01
3" - DN 80	88,9 x 4,05	88,90 x 2,11	88,90 x 3,05	88,90 x 5,49	88,90 x 7,62
3-1/2"	101,6 x 4,05	101,60 x 2,11	101,60 x 3,05	101,60 x 5,74	101,60 x 8,08
4" - DN 100	114,3 x 4,50	114,30 x 2,11	114,30 x 3,05	114,30 x 6,02	114,30 x 8,56
5" - DN 125		141,30 x 2,77	141,30 x 3,40	141,30 x 6,55	141,30 x 9,52
6" - DN 150		168,28 x 2,77	168,28 x 3,40	168,28 x 7,11	168,28 x 10,97
8" - DN 200		219,08 x 2,77	219,08 x 3,76	219,08 x 8,18	219,08 x 12,70
10" - DN 250		273,05 x 3,40	273,05 x 4,19	273,05 x 9,27	273,05 x 12,70
12" - DN 300		323,85 x 3,96	323,85 x 4,57	323,85 x 9,52	323,85 x 12,70
14" - DN 350		355,60 x 3,96	355,60 x 4,78		
16" - DN 400		406,40 x 4,19	406,40 x 4,78		
18" - DN 450		457,20 x 4,19	457,20 x 4,78		
20" - DN 500		508,00 x 4,78	508,00 x 5,56		
22" - DN 550		558,80 x 4,78	558,80 x 5,56		
24" - DN 600		609,60 x 5,54	609,60 x 6,35		
30" - DN 750		762,00 x 6,35	762,00 x 7,92		
All sizes in mm					

Standards

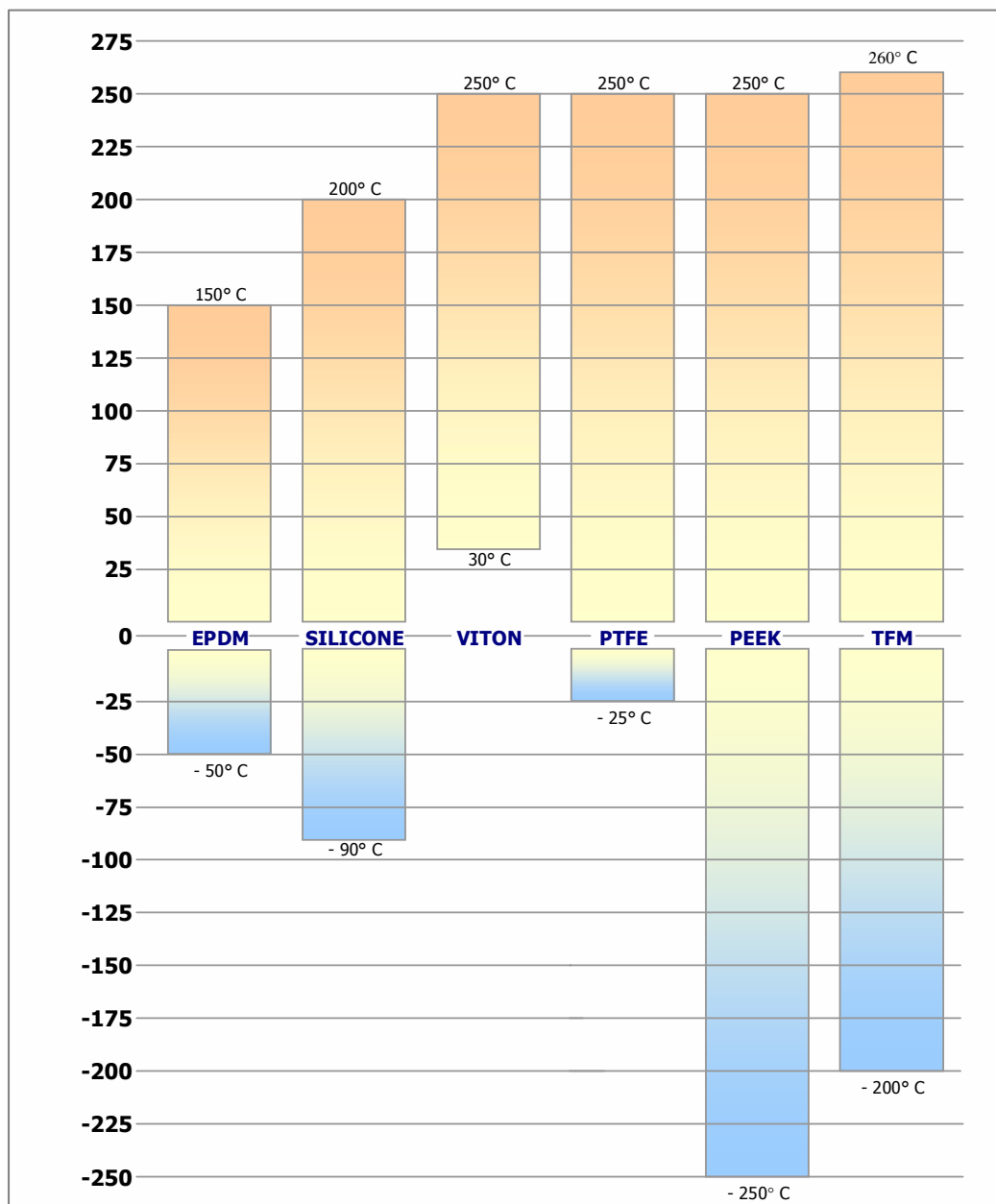
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing Materials
BS	British Standard
DIN	Deutsches Institut für Normung
EN	European standard
ISO	International Organisation for Standardization
SMS	Swedish Manufacturing Standard
DIN 11850	Dairy tube (old standard), EN 10357 is the new standard
DIN 11851	Dairy couplings
DIN 11852	Dairy welding fittings
DIN 11854	Dairy hose couplings
DIN 11864-1 Reihe A	Aseptic union, metric dimensions
DIN 11864-1 Reihe B	Aseptic union, ISO dimensions
DIN 11864-1 Reihe C	Aseptic union, INCH dimensions
DIN 11864-2 Reihe A	Aseptic flange coupling, metric dimensions
DIN 11864-2 Reihe B	Aseptic flange coupling, ISO dimensions
DIN 11864-2 Reihe C	Aseptic flange coupling, INCH dimensions
DIN 11864-3 Reihe A	Aseptic clamp coupling, metric dimensions
DIN 11864-3 Reihe B	Aseptic clamp coupling, ISO dimensions
DIN 11864-3 Reihe C	Aseptic clamp coupling, INCH dimensions
DIN 11853	Aseptic coupling DIN 11864, but short version
DIN 11865	Pharmaceutical welding fittings
DIN 11866	Pharmaceutical tubes
DIN 11867	Pharmaceutical welding bends, suitable for a pigging system (large radius)
ASME BPE	Pharmaceutical tubes and welding fittings
BS 4825 Part 1	Hygienic tubes
BS 4825 Part 2	Hygienic welding fittings
BS 4825 Part 3	Tri-Clamp connection
BS 4825 Part 4	IDF
BS 4825 Part 5	RJT
EN 10357	Stainless steel sanitary tubes for the food industry (new standard)
EN 10217-7	Stainless steel tubes for applications under pressure (above 0.5 bar)
EN 1092-1	Stainless steel flanges
DIN 17455	Stainless steel tubes for general applications
DIN 17457	Stainless steel tubes for special applications
DIN 17458	Stainless steel seamless tubes for special applications
SMS 1220	Stainless steel welding bends
SMS 3008	Stainless steel tubes
SMS 3017	Stainless steel tubes
ISO 2037	Stainless steel tubes for the food industry
ISO 1127	Stainless steel tubes
ISO 2851	Stainless steel bends and tees for the food industry
ISO 2853	Stainless steel couplings for the food industry
ASTM A213	Stainless steel seamless tubes
ASTM A269	Stainless steel tubes for general applications
ASTM A270	Stainless steel tubes for dairy, hygienic and food industries
ASTM A312	Stainless steel tubes
ASTM A403	Butt welding fittings

DIN 32676 Series A	Concerns the mm dimensions, equal to the DIN 11850 Reihe 2
DIN 32676 Series B	Concerns the ISO dimensions and are also called ISO 1127
DIN 32676 Series C	Concerns the Inch sizes and are exactly the same as the ASME BPE A270 sizes
H1	Inner surface Ra < 1.6µm, Seam area inside Ra < 3.2µm
H2	Inner surface Ra < 0.8µm, Seam area inside Ra < 1.6µm
H3	Inner surface Ra < 0.8µm, Seam area inside Ra < 0.8µm
H4	Inner surface Ra < 0.4µm, Seam area inside Ra < 0.4µm
H5	Inner surface Ra < 0.25µm, Seam area inside Ra < 0.25µm
DIN 11850 / EN 10357 BC	Pickled / annealed
DIN 11850 / EN 10357 BD	Polished / annealed
DIN 11850 / EN 10357 CC	Pickled / not annealed
DIN 11850 / EN 10357 CD	Polished / not annealed

Gasket materials - chemical compatibility

PROPERTY	EPDM	SILICONE	VITON	PTFE	PEEK	TFM
Tensile Strength	Good/Excellent	Good	Good/Excellent	Excellent	Excellent	Excellent
Electrical Properties	Excellent	Excellent	Good	Excellent	Excellent	Excellent
Weather Resistance	Excellent	Excellent	Good	Excellent	Excellent	Excellent
Ozone Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Heat Resistance	Excellent 150°C	Excellent 200°C	Excellent 250°C	Excellent 250°C	Excellent 250°C	Excellent 260°C
Cold Resistance	Good/Excellent -50°C	Excellent -90°C	Good -30°C	Failed -25°C	Excellent -250°C	Excellent -200°C
Steam Resistance	Good	Good	Good	Excellent	Excellent	Excellent
Tear Resistance	Good	Excellent	Fair	Excellent	Excellent	Excellent
Abrasion Resistance	Good/Excellent	Good/Excellent	Good	Excellent	Excellent	Excellent
Acid Resistance	Good/Excellent	Good	Good	Excellent	Un-Rivalled Excellence	Excellent
Petroleum Oil Resistance	Poor	Good	Excellent	Excellent	Excellent	Excellent
Flame Resistance	Poor	Poor	Good	Excellent	Excellent	Excellent
Vegetable Oil Resistance	Good (most)	Good (intermittent)	Excellent	Excellent	Excellent	Excellent
Ozone Sunlight Service Temp.	Excellent 150°C	Excellent 145°C	Excellent 150°C	Excellent 250°C	Excellent 250°C	Excellent 260°C
Compression Set: Steam Sterilisation	Good	Excellent 121°C / 140°C	Good	Cold	Excellent	Cold

GASKETS DATA SHEET



All Temperatures Are In CELCIUS
Gasket Operating Temperatures Are Based On 500 hours Of Normal Use

The compounds used in the products will meet your particular engineering requirements – to the exact physical properties needed – as well as complying FDA, USPH, USDA and 3-A Sanitary Standards.

The temperature range quoted is for general guidance, or more accurate values the particular data sheet for the grade of compound needs to be referenced. For more comprehensive details of the chemical compatibility of materials reference should be made to other published documents.

GUIDELINES FOR CLEANING AND SANITIZING FOOD HOSES

The cleaning and sanitizing suggestions set forth below are guidelines only.

It is necessary that all applicable government regulations pertaining to the cleaning and sanitizing of the food hoses and food hoses assemblies be followed and adhered to and which governmental regulations supersede the guideline contained herein.

The life of the hose is affected by the cleaning and sanitizing process due to the mechanical and chemical stresses which occur during the cleaning and sanitizing procedure. The service period of rubber hoses is dependent on their formulation and the environment of use which in turn is influenced by the product, process temperature, cleaning and bactericidal compounds and time of exposure. Users should frequently monitor the physical condition of the rubber hose material product contact surfaces. Such observations are necessary to determinate the actual sanitary service period of rubber hoses. It is further recommended that the rubber hose be replaced before surface imperfections or sloughing occurs. Routine replacement schedules should be established and followed.

Food hose users should be guided by their own, if applicable, or specific industry cleaning and sanitizing procedures and standards. For example, the wine industry may have different standards than the dairy industry and any standards applicable to a specific industry supersede the guideline contained herein.

The cleaning and sanitizing of food hoses and hose assemblies is intended to remove any food particles or residues including detergents or disinfectant that may be the source of harmful bacteria microorganism or other sources of contamination. The effectiveness of the guidelines contained herein are dependent upon the practices and care taken by the users.

CLEANING AND SANITIZING STEPS

1. FREQUENCY The frequency of the cleaning and sanitizing cycle needs to be done according to the type of food or beverage being conveyed and the contamination risk level. In principle, the cleaning and sanitizing process should be conducted on a frequent basis.

2. WASHING Thoroughly washing the hose with hot potable water is the first step in the cleaning process. Washing with hot potable water will facilitate the cleaning of the hose but does not eliminate the need to clean the hose with the appropriate detergent followed by the disinfection of the hose. The temperature of the hot water and duration of the washing/rinsing cycle will depend upon the characteristic of the material/products being conveyed.

The initial washing/rinsing with hot potable water should be completed as soon as possible after the conveyance process is completed. All residual water and residue from the initial washing/rinsing cycle must be drained away completely.

3. CLEANING/DISINFECTING The selection of a specific detergent and of a specific disinfectant will depend on the material/products being conveyed. The recommendation of the manufacturer of the detergent and of the disinfectant should be strictly followed especially regarding concentration levels.

After the cleaning of the hose with detergent followed by the rinse of it with potable water, the hose must be sterilized either with steam or with chemical solution.

Steam is classified as "Physical" disinfectants: its effectiveness in eliminating bacteria and other contaminants varies according to the material/products being conveyed and the procedure employed by the users.

Chemical disinfectant such as caustic soda, nitric acid, per-acetic acid, - phosphoric acid, chloroacetic acid or other acids suitable for disinfecting food hoses must be carefully selected to ensure optimal effectiveness while also assuring maximum safety and health.

When selecting a particular disinfectant, it is necessary to pay strict attention to concentration levels, temperature, cycle time, etc.

The type of product/material being conveyed be taken into consideration when selecting a specific disinfectant.

As soon as the disinfecting treatment with chemical solutions is made, the hose must be carefully and for a sufficiently long time rinsed with potable water to eliminate any chemical residues from the disinfecting treatment.

4. PROCESS CONTROLS The result of the cleaning and sanitizing process must be regularly checked to ensure that all contamination and residuals have been eliminated. Any non-conforming events need to be addressed in a corrective action procedure.

GUIDELINES CHART FOR CLEANING AND SANITIZING FOOD HOSES

	Medium	Hose Tubes	Concentration	Temperature
RINSING	Hot water	NR / NBR / SILICONE / EPDM / BIIR / UPE / PTFE	-	Max 90°C
PHYSICAL DISINFECTANT	Steam	NR / NBR	-	Max 110°C Max 10 min
		EPDM / BIIR / UPE / PTFE	-	Max 130°C Max 30 min
		SILICONE	-	Max 135°C Max 18 min
CHEMICAL DISINFECTANT	Acid (i.e. Nitric acid)	NR / NBR / SILICONE	0,1%	Max 65°C
			2%	Max 25°C
		EPDM / BIIR / UPE / PTFE	0,1%	Max 85°C
			3%	Max 25°C
	Alkaline solution (i.e. Caustic soda)	NR / NBR / SILICONE	2%	Max 65°C
			4%	Max 25°C
		EPDM / BIIR / UPE / PTFE	2%	Max 85°C
			5%	Max 25°C
	Disinfectant (i.e. Peracetic acid)	NR / NBR / SILICONE	1%	Max 25°C
		EPDM / BIIR / UPE / PTFE		Max 40°C

The life of the hose is affected by the cleaning and sanitizing process due to the mechanical and chemical stresses which occur during the cleaning and sanitizing procedure. The service life of rubber hoses is directly dependent on frequency and time of exposure to PHYSICAL and CHEMICAL disinfectants. Users should frequently monitor the physical condition of the rubber hose material product contact surfaces. Such observations are necessary to determinate the actual sanitary service period of rubber hoses.

The present tabulation is based on tests and on generally available sources, and believed to be reliable.

However must be used as a guidance only since it does not take in consideration all variable that may be encountered in actual use such as and not limited to duration of exposure and stability of the fluid and possible contamination.



Rubber Fab

a Garlock Hygienic Technologies company

TRELLEBORG



ESPIROFLEX
FABRICA DE TUBERIA FLEXIBLE

MERLETT



venAir

MORE THAN HOSES

TUDERTECHNICA

excellence in design and manufacture of specialty hoses

ALFAGOMMA



Rodesta

Stainless steel & Hoses



KIESELMANN

FLUID PROCESS GROUP



guth ventile

FLUID PROCESS GROUP

KH TEC

**herberts
industrieglas**



Rohrbogen AG



RIEGER

NGI



VALVE TECHNOLOGY

