



TRELLEBORG
ENGINEERED SYSTEMS

Food processing industry

Fluid transfer solutions





Trelleborg group, leader of technical rubber

For over 100 years, Trelleborg is a global industrial company developing world-leading solution in advanced polymer technology.

Our research and development centers around the world are constantly searching for new and better solutions for sealing, damping and protecting.

Thanks to extensive knowledge of our customers and their industries, Trelleborg is able to provide unrivalled expertise and comprehensive application knowledge.

Trelleborg is a swedish group organized around 4 Business Areas:

Present in 40 countries, 25000 employees. Certified ISO 9001 and ISO 14001, Trelleborg is running over 100 factories.



Trelleborg Engineered Systems



Trelleborg Automotive



Trelleborg Wheel Systems



Trelleborg Sealing Systems

Trelleborg Industrial Hose is part of Trelleborg Engineered Systems

Trelleborg Industrial Hose

With over 750 employees and head office located in Clermont-Ferrand (France), Trelleborg is the european leader of low and medium pressure industrial hose based on polymer technology.

Trelleborg Industrial Hose offers a very large range of products which meets requirements for all types of application for your different businesses.

➡ Trelleborg industrial Hose is organized around 4 application areas :

- Industrial Maintenance
- Agriculture & Food
- Chemical & Petrochemical
- Construction & Environment

This enables greater reactivity to adapt our offer to fast moving application and follow closely legal requirement or standard evolutions.

Our production sites are certified
ISO 9001 (quality management)
and ISO 14001 (environmental management)



➡ Our logistic platform : availability/reactivity

Over 4000 different items are stored in our 26000 m² logistic platform in Clermont-Ferrand to meet your need for immediate delivery. Our shipping capacity can reach 150 tons a day.

➡ Research and development: continuous innovation

Our research and development centre provides innovating solutions based on our knowledge, our experience and competency.

- ➡ Development of raw materials in laboratory
- ➡ Development of finished products
- ➡ Development of production processes



Transfers in process, packaging

In addition to our range for unloading operations

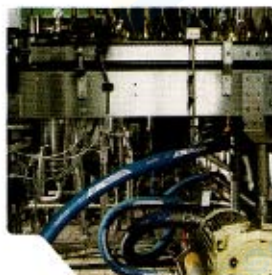
Any food products

Wine, beer, cider, alcohol, milk, cheese, butter, dairy products, icecream, stewed fruits, fruit juice, soups

| | | WP (bar) | Vacuum (bar) | Temp. (°C) | Inner tube | ID (mm) |
|---|--|----------|--------------|------------|------------|----------|
| → | ALCODIAL → Specific range for wines and alcohols → Accept alcohol stagnation | 6 | 0.9 | + 80 °C | UPE | 25 to 76 |
| → | BIOVAST → Very robust → Oil/fats resistant → Water up to 20 bar/100 °C → Steam up to 6 bar/165 °C | 20 | - | + 100 °C | NBR | 13 to 25 |
| → | TRELLVIN → Specific range for wines and alcohols → Accept accidental squeeze | 10 | 0.7 | + 100 °C | EPDM | 38 to 76 |
| → | VINITRELL → Specific range for wines and alcohols → Slicking cover | 10 | 0.9 | + 80 °C | NR | 50 to 75 |

Also for unloading operations of liquid foodstuffs

Reliable and safe, withstanding temperature changes



Unloading operations of solid foodstuffs

Bulk materials : sugar, flour, milk powder

Sugar, flour, milk powder

| | | WP (bar) | Vacuum (bar) | Temp. (°C) | Inner tube | ID (mm) |
|---|--|----------|--------------|------------|------------|-----------|
| → | SUPERVRAC AL/DISCHARGE → Resistant to abrasion, light and flexible, can be rolled flat | 7 | - | + 80 °C | NR | 75 to 110 |
| → | TRELLVAC AL EC/SUCTION → Resistant to abrasion, easy to handle | 5 | 0.9 | + 80 °C | NBR | 76 to 152 |

Easy to handle with outstanding abrasion resistance of tube and cover



Unloading operations



Food/industry cleaning

Hot water



KLENET
→ Standard water cleaning



10

-

+ 95 °C

NBR

13 to 25



BIOCLEAN
→ For higher pressures (up to 60 bar/100 °C)



60

-

+ 100 °C

NBR

8 to 16

Hot water and steam



BERGALAV
→ Very good hose for reels!
→ Can be used with steam up to 160 °C
→ Available with red cover in 19 mm



10

-

+ 160 °C

EPDM

10 to 25



BIOVAST
→ Very robust
→ Oil/fats resistant
→ Water up to 20 bar/100 °C
→ Steam up to 6 bar/165 °C



20

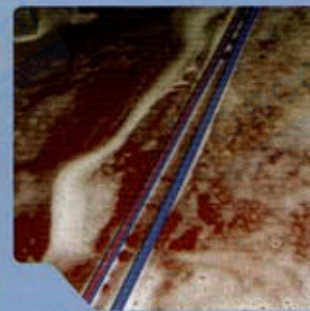
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+ 100 °C

NBR

13 to 25

▶▶ Complete range for wash down, high pressure and steam cleaning



Milk collection

Milk



CITERDIAL
→ Highly flexible
→ A class of its own



6

0.9

+ 80 °C

NR

25 to 150



LACTADIAL
NEW!
→ Much lighter weight and as flexible



6

0.7

+ 80 °C

NR

51 to 76

Also for unloading operations of liquid foodstuffs

Also for transfers in process, packaging

▶▶ Light and flexible for comfortable handling





Unloading operations of liquid foodstuffs

Any food products

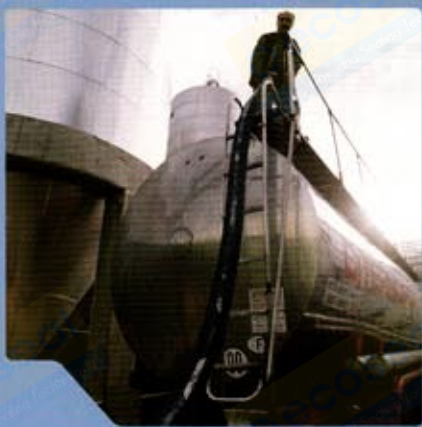
Milk, cheese, butter, dairy products, Icecream, stewed fruits, fruit juice, soups

| | | | WP (bar) | Vacuum (bar) | Temp. (°C) | Inner tube | ID (mm) |
|---|---|---|----------|--------------|------------|------------|-----------|
| → | → | CITERDIAL → Highly flexible → A class of its own | 6 | 0.9 | + 80 °C | NR | 25 to 150 |
| → | → | ALIKLER → Robust → Resistant to oils and fats | 10 | 0.9 | + 100 °C | NBR | 25 to 150 |
| → | → | ALIKLER D → For higher pressure (15 bar) → Will recover its shape after accidental squeeze | 15 | 0.7 | + 100 °C | NBR | 32 to 100 |
| → | → | MILLESIME → Flexible and easy to handle → Cover has outstanding resistance to ageing | 10 | 0.9 | + 100 °C | EPDM | 25 to 150 |

Also for transfers in process, packaging

▶▶ Easy to handle and resistant to harsh conditions

Unloading operations of liquid foodstuffs



▶▶ Reliability and safety

▶▶ Our Food grade **coupling range**



For your comfort and safety, use our rubber coated nut®

Exclusive creation **TRELLEBORG**



Washing gun



- Hot water cleaning, don't use for steam
- 95 °C maximum
- Working pressure = 24 bar

▶▶ Cleaning procedure for our food hoses

Before you start using your TRELLEBORG food hose, you should rinse and clean the hose assembly to ensure full hygiene of your installations.

Advice for cleaning processes:

| Hot water | Steam |
|---|---------------------------------|
| CITERDIAL - LACTADIAL - ALCODIAL - VENDANGE - VINITRELL | |
| 90°C maximum | 110°C during 10 minutes maximum |
| ALIKLER - ALIKLER D - MILLESIME - TRELVIN - TRELVIN L | |
| 90°C maximum | 130°C during 30 minutes maximum |

Nitric acid (HNO₃) or product with additional nitric acid
 Maximum concentration: 0.1 % at 85 °C
 3 % at room temperature

Chlorine (Cl) or product with additional chlorine
 Maximum concentration: 1 % at max. 70 °C

Sodium Hydroxide (NaOH) or product with additional sodium hydroxide
 Maximum concentration: 2 % from 60 °C to 80 °C
 5 % at room temperature

Our distribution partners, all over the country, will make the hose assemblies to your request following the TRELLEBORG procedures.



Trelleborg hoses and hose assemblies, with complete confidence

Hygiene



You can be confident that **Trelleborg's hoses and assemblies are designed and manufactured with hygiene in mind.**

The smooth extruded inertube resists the most common cleaning operations in your industry. **Combined with our specially designed coupling system, no bacterial growth is possible on your hose assembly.**

The rubber material and all the other ingredients used in our food grade compounds have been selected to comply with the **most stringent requirements for foodstuff contact.** Both compounds and finished hose are compliant with applicable legislation (France ; Germany: BfR recommendation XXI. ; USA: FDA - 21 CFR 177.2600 and 21 CFR 177.1520 for ALCODIAL) and **contain no phthalate.**

Our covers (either red or blue) are non marking, keeping your floors clean.

No bacterial growth



Reliability and safety

Rubber material is both flexible and robust.

Our hoses can therefore **absorb hammer-shocks**, swift temperature changes have no effect on their behaviour and they will keep **flexible even at low temperatures** with same pressure resistance.

Our specific swaged-on coupling systems are with most commonly used fittings. Our latest development on **rubber coated nuts** will prevent burns and guarantee **optimal tightening by hand.**

You will always be satisfied with the performances of Trelleborg's hose assemblies.