

Our service for your rental park hose lines

Grünin **G+L** oske
www.gruelo.de

-  Stockpiling
-  Testing
-  Administration of your hose lines
-  Customised transport racks
-  Wear and corrosion protection for pumps, tanks and containers



Reliable, for sure!

★ friendly

★ flexible

★ fair

★ competent

★ reliable

5-STAR - SERVICE EVERY DAY!



As a certified specialist company for hose and fittings technology, we take care of your hose lines for the rental park: Whether suction and pressure hoses for use on submersible motor or diesel pumps, chemical, tanker or compressed air hoses, multi-layer film hoses or drinking water lines for treatment plants. We assemble your hose lines up to a nominal diameter of 305 mm / 12" with the required coupling systems. All hose assemblies are subjected to a hose inspection in accordance with BetrSichV and DGRL at regular intervals and are, if necessary, repaired or replaced. Cleaning of hose lines goes without saying.

With our GruloCOAT system we offer a perfect solution for all corrosion and wear problems. We coat your pump housings, impellers and pipes from inside and outside with polyurea or rubber.

In addition, we stock hose racks for your rental fleet and process your containers.

In case you need more detailed information about a particular product or would like to get a general idea about our extensive assortment, please visit us on www.gruelo.de.

In case you need help to choose the adequate product for your application area our kind and competent sales team provides assistance under:

Fon: +49 (0) 51 02 - 91 99 - 01

Fax: +49 (0) 51 02 - 91 99 - 90

Mail: info@gruelo.de

Enjoy our new range of products!

Dirk Loske
CEO



www.gruelo.de



REACHABILITY

- We are personally available from Monday to Thursday, 7:30 a.m. to 4:30 p.m., and Friday 7:30 a.m. to 2:00 p.m.
- You are welcome to make an appointment with your local sales representative.
- Detailed information can be found on www.gruelo.de around the clock.

SERVICES

- We deliver your goods on your requested date.
- Packaging is done according to your transport specifications.
- We also pack your orders neutrally and send them directly to your customer.
- We take care of customs formalities for your shipments abroad.
- We help you to plan and realise custom-made products and special fabrications.
- Feel free to arrange call or blanket orders with us.
- We assemble and test your hose lines in conformity with PED (Pressure Equipment Directive) and BetrSichV (German Operational Safety Regulations).

DELIVERY OPTIONS

- Delivery throughout Germany within 24 hrs./48 hrs.
- Orders with express shipment can be delivered the next day.
- It is possible to pick up goods directly from our warehouse.

CUSTOMISED LABELS

- On request we can produce your hose line with a transfer tape in your corporate colour and logo.
- With our in-house laser we mark fittings or hose clamps according to your specifications.

YOUR SALES DOCUMENTS

- We gladly create our sales documents with your corporate design.

OUR LOCATION

- In addition to the office building, our company headquarter in Laatzen consists of two production areas and three warehouses with a total area of approx. 4,000 m². Our storage area is equipped with the latest high-bay warehouse technology, to ensure the fastest possible processing of your order.



Hose service

Consultation and assembly

Assembly is done under strong compliance with regulations applying to the manufacturing of complete hose lines (European Pressure Equipment Directive PED 2014/68/EU).

A safe operation of a hose line is only possible, considering the actual operation conditions. This includes resistance against the conducted media, working pressure, operating temperature, installation situation, bending frequency, duration and frequency of operation, environmental conditions and mechanical load.

All advice and practical support you require for your individual operation purpose will be given by our skilled expert staff. The personnel in hose technology is "Qualified Person pursuant to the Ordinance on Industrial Safety and Health for pressure tanks and piping" and additionally „Certificated Expert Advisers for Hose and Fitting Technology" (Certification through Trade Association).



Pressing of hoses

Our services:

- Assembly of hose lines/swaging of hose lines up to DN 300 mm, with clamps, bolted clamps and all customary hose coupling systems: e.g. Storz, Perrot, Bauer, Anfor, Flange, Kamlok, GEKA
- Swaging of composite hoses up to DN 250 mm
- Assembly of hose packs and heatable hose lines
- Detailed advice by phone or personally on-site
- Management of hose lines
- Hose testing in conformity with European Pressure Equipment Directive PED 2014/68/EU as well as German BetrSichV (Occupational Safety Regulations)
- Labelling or marking of hoses
- Hose repair
- On-site mobile hose testing service
- Lasting security through maintenance contracts
- Hose recycling
- Hose winding and unwinding equipment



We test your hose assemblies!

- according to European Pressure Equipment Directive PED 2014/68/EU

Hose lines are subject to special requirements, as they are partly under severe stress by the predominant operational conditions, transported media, operating pressure, temperature and external influences.

To minimise risks at operating hose lines, a constant inspection of the work capability is essential. A recurrent inspection of hose lines is even regulated by law. Grüning & Loske inspects your hose lines pursuant to the Ordinance on Industrial Safety and Health and Pressure Equipment Directive PED 2014/68/EU.

Following the inspection each hose line gets an identification number which is permanently attached to the line by a marking strip. We hand out a certification report after inspection. Furthermore we keep records of all accomplished inspections. Through the given identification number we can recall your master and test data any time.

Our mobile testing unit enables us to inspect your hose lines on-site without any circumstances.

**Take advantage of this Grüning & Loske service.
It saves you time and effort - and thus lowers your costs!**

Our services:

- Hose line testing according to European Pressure Equipment Directive PED 2014/68/EU:
 - Inspection
 - External and internal testing (visual examination)
 - Electrical conductivity test
 - Pressure test (strength test) up to 2.800 bar
 - Vacuum test
- Individual labeling
- Documentation by itemised report according to EN 10204
- Consultancy on CE-identification marks
- Variant inspections conforming to your works standard specification
- Repair on-site through our mobile testing and installation service
- Supervision of your inspection dates and punctual email reminder



Pressure testing

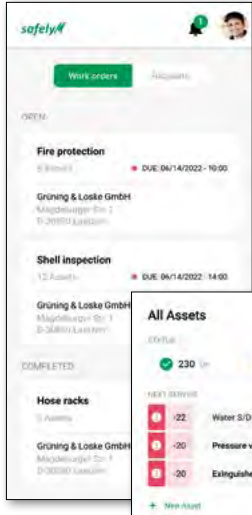


Pressure test with the aid of the Resato-P160-65-1



Hose management system

Initial and periodic inspections only make sense if they are documented over the entire life of the hose line. In the future, we will manage this data in a database. This will help us to avoid unplanned downtime, unnecessary repairs, missed maintenance and forgotten certifications, and provide you with the analysis you need quickly.



Many companies state that they lack visibility of their assets and are looking for a solution to address this. But it's not just about money. A lot of time is spent on documentation and avoidable errors often result in significant downtime. Another important issue is health and safety. With **safelyM**, we have the ideal solution for you. From now on, the service provider will coordinate the maintenance appointments for you. **SafelyM** informs you about all maintenance, repair and service work and the associated downtime. All work is also documented in a complete, secure and legally compliant manner.

You can find all the information about your assets on one central platform. **SafelyM** provides a fully and freely configurable dashboard with all information such as countries, locations, plants, areas, machines and much more, which can be fully customised to your needs.

The benefits at a glance



Security

- Status of all assets
- Secure and compliant (change log)
- DGUV & BetrSichV
- Dramatic increase in security standards



Up to date

- Scheduled maintenance
- No service and maintenance gaps
- Increased uptime
- Complete overview of assets to be checked
- Plan downtime in advance
- Visibility of each inspection step
- Use the inspection module to carry out your own regular inspections in accordance with DGUV and BetrSichV.



Large data volumes

- All logs in one place
- Seamless documentation
- Assigned certification
- Export lists to multiple file formats



Service life

- Longer life cycles
- No unnecessary repairs
- Fewer spare parts



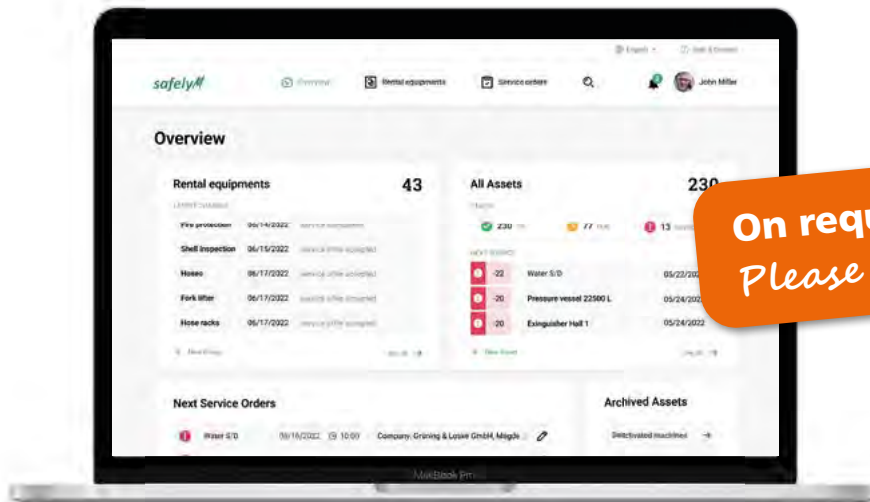
Plug'n'Play

- No third party software required
- Ready to use in minutes
- Works online and offline
- Customisable dashboard
- Different user groups



Asset location

- Locate all assets
- Allocation of all assets
- Operational data at a glance

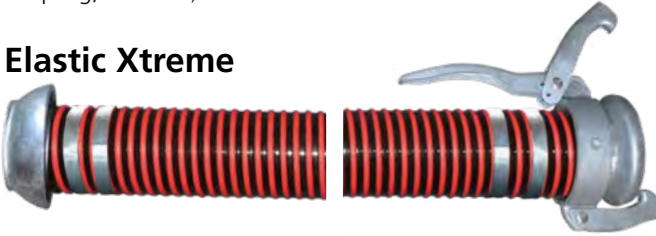


On request!
Please contact us.

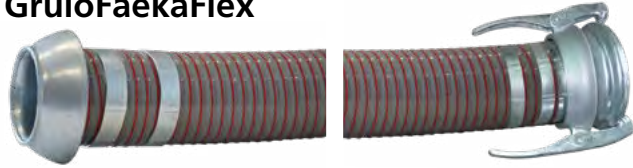
Assembled hose lines

Assembly is done under strong compliance with regulations applying to the manufacturing of complete hose lines according to European Pressure Equipment Directive PED 2014/68/EU. Our qualified specialist staff compresses your hose lines up to DN 12"/305 mm with all common coupling systems (Bauer, Perrot, Flange, clamping ring coupling, Victaulic).

Elastic Xtreme



GrüloFaekaFlex



Water S/D 10



GrüloElastic Oil AS



Arizona Superelastic



GrüloTank SP



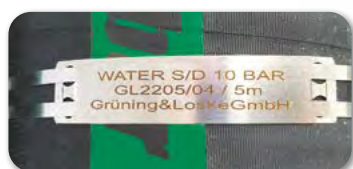
Individual labelling

HOSE MARKINGS

On request we produce your hose line with a transfer tape in your corporate colour and logo.

LASER ENGRAVING

We mark your assembled hose lines with our in-house laser. Thus, manufacturer name and order number are visible at a glance. Of course customer-specific specifications are possible.





Water S/D 10

Rubber suction and delivery hose

Water hose for suction and discharge purposes in industry, agriculture and construction. The tube is suited for water, sewage, liquid manure, drilling mud and low abrasive materials. The cover is abrasion and weather resistant.

Available in lengths of 3 or 5 m and with spiral free cuffs!

Technical characteristics

Temperature range: -25 °C to +70 °C

Standard length: 40 m | further lengths on request

Colour: Black



Also available in 16 and 20 bar WP!

Construction

Cover: SBR, smooth, with fabric impression

Reinforcement: Synthetic textile, steel wire spiral

Lining: SBR, black, smooth

Inner mm	Inner Inch	Wall mm	WP bar	BP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
51	2	5,50	10	30	0,9	306	1,738	10056-051
76	3	6,50	10	30	0,9	458	2,845	10056-076
90	3 1/2	6,50	10	30	0,9	542	3,800	10056-090
102	4	6,50	10	30	0,9	610	3,930	10056-102
152	6	8,50	10	30	0,9	915	7,850	10056-152
203	8	11,00	10	30	0,9	1219	13,500	10056-203
254	10	12,50	10	30	0,9	1524	18,240	10056-254
305	12	12,00	10	30	0,9	1829	21,400	10056-305

Up to DN 503 on request.

Vacupress® Flex

Highly flexible suction and pressure hose

Even at temperatures below 0 °C highly flexible all-purpose hose with good weather resistance and abrasion resistance according to DIN 53516 (mm³<160).

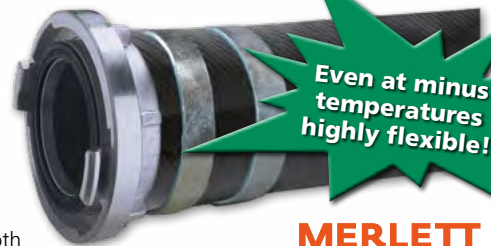
Vacupress® Flex is very suitable as suction and discharge hose.

Technical characteristics

Temperature range: -25 °C to +60 °C

Standard length: 60 m | from DN 38: 30 m, from DN 127: 20 m

Colour: Black



Even at minus temperatures highly flexible!

Construction

Cover: PVC, smooth

Reinforcement: Embedded steel wire spiral, polyester yarn

Lining: PVC, black, smooth

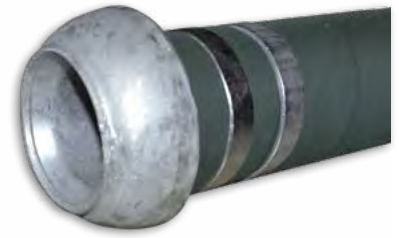
MERLETT

Inner mm	Inner Inch	Outer mm	WP bar	BP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
50	2	64	12	36	0,90	150	1,600	10053-050
76	3	92	12	36	0,90	210	2,970	10053-076
80	-	96	10	30	0,90	220	3,020	10053-080
102	4	119	10	30	0,90	300	4,150	10053-102
127	5	145	7	22	0,90	370	5,950	10053-127
152	6	171	5	15	0,90	480	7,050	10053-152

GrüloCord 10

Rubber industry hose 10 bar

Extra heavy duty water hose for tough applications in industry, agriculture and construction sites. Kink resistant, easy handling and robust. Resistant to weather and abrasion.



Technical characteristics

Temperature range: -35 °C to +80 °C
 Standard length: 40 m
 Colour: Black

Construction

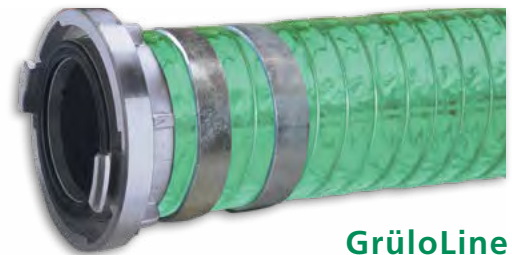
Cover: SBR, smooth, with fabric impression
 Reinforcement: Textile cord, high-strength
 Lining: SBR, black, smooth

Inner mm	Inner Zoll	Wall mm	WP bar	BP bar	BR mm	Weight kg/m	Article no.
50	2	8,00	10	35	250	2,310	10261-050-008
60	-	8,00	10	30	300	2,360	10261-060-008
63	2 1/2	8,00	10	28	315	2,030	10261-063-008
75	-	8,00	10	27	375	3,330	10261-075-008
100	-	8,00	10	33	500	4,100	10261-100
125	-	10,00	10	26	625	6,880	10261-125-010
152	6	6,50	10	30	1500	3,700	10261-152-011

GrüloVin

PVC suction hose, transparent

Robust, flexible and abrasion resistant PVC hose, usable as suction hose for water, foodstuff, beverages up to 28 Vol.-% of alcohol, drinking water, for vacuum pumps and groundwater drawdown. Very good chemical resistance.



Technical characteristics

Temperature range: -5 °C to +60 °C
 Standard length: 30 m
 Colour: Green transparent

Construction

Cover: Soft PVC, smooth
 Reinforcement: Embedded steel wire spiral
 Lining: Soft PVC, smooth

GrüloLine

Inner mm	Inner Inch	Outer mm	WP bar	BP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
25,4	1	33,3	5	15	0,90	60	0,510	10248-025
30	-	38,4	4	13	0,90	70	0,600	10248-030
32	1 1/4	39,8	4	13	0,90	75	0,650	10248-032
51	2	60,3	3	9	0,80	125	1,200	10248-050
75	3	89,7	2	6	0,70	195	2,500	10248-075
102	4	115,5	2	6	0,60	300	3,400	10248-102
125	-	144,0	2	6	0,90	350	5,400	10248-125
152	6	169,8	2	6	0,60	460	6,350	10248-152

We assemble your water hoses with all common coupling systems!



Synthetic building hose Standard

Synthetic flat hose with Storz couplings

Efficient layflat hose with Storz suction couplings for water support.

Also available with other coupling systems.

Technical characteristics

Temperature range: -40 °C to +80 °C | information valid for water

Standard length: 20 m | further lengths on request

Colour: White



Construction

Material: Polyester yarn, circular woven in twill weave

Lining: EPDM rubber

Inner mm	Inner Inch	Wall mm	WP bar	BP bar	Weight kg/m	Article no.
C/52	2	1,70	16	50	8,000	90002-052-020
B/75	3	1,70	16	50	11,500	90002-075-020
A/102	4	2,10	10	30	14,000	90002-102-020
F/152	6	2,10	10	30	27,000	90002-152-020



GrüloFlat M

PVC layflat hose, medium duty

Medium duty layflat hose for conveying liquid media. Flat rollable. For the use in irrigation systems, construction industry, agriculture and mining.

All technical data refer to a temperature of 20 °C.

Technical characteristics

Temperature range: -10 °C to +60 °C | information valid for water

Standard length: 100 m | further lengths on request

Colour: Blue



Construction

Cover: PVC

Reinforcement: Polyester yarn

Lining: PVC, blue

Inner mm	Inner Inch	WP bar	BP bar	Weight kg/m	Article no.
51	2	6	18	0,300	10005-050
76	3	6	18	0,550	10005-076
102	4	6	18	0,900	10005-102
153	6	6	18	1,800	10005-150
203	8	6	18	2,800	10005-203

GrüloDur Multipurpose layflat hose

Flat hose for the delivery of liquid media - as well as hot water and compressed air. Abrasion resistant, robust and long-lasting. Resistance to oil, petrol and chemicals. Lightweight and very flexible compared to mandrel built hoses.

All technical data refer to a temperature of 20 °C.

Technical characteristics

Temperature range: -15 °C to +100 °C

Standard length: 100 m | further lengths on request

Colour: Black



Construction

Cover: NBR/PVC compound, ribbed

Reinforcement: Polyester, circular woven

Lining: NBR/PVC compound, black, smooth

Inner mm	Inner Inch	Wall mm	WP bar	BP bar	Weight kg/m	Article no.
52	2	2,00	20	60	0,460	10009-052
75	3	2,50	17	50	0,790	10009-075
90	3 1/2	2,35	17	45	0,930	10009-090
102	4	2,50	15	52	1,030	10009-102
125	5	2,70	15	45	1,400	10009-125
152	6	2,60	14	42	1,650	10009-152

We assemble your flat hoses with all common coupling systems!



System Storz



System Perrot



System Bauer

PU Trinkwasser

Flat hose with suction coupling

Flat rollable potable water hose with KTW and DVGW approval. The round woven polyester lining is fully embedded in polyurethane. This offers maximum protection against mechanical damage and ensures that there are no opportunities for microbial and bacterial growth. Furthermore, **PU Trinkwasser** is easy to clean and disinfect and is highly resistant to all common disinfectants. Areas of application include municipal waterworks, water associations, exhibitions, fairs and campsites as well as for drinking water supply. Also suitable as a transfer hose for ships. elivery includes suction coupling and wire binding



Technical characteristics

Temperature range: -20 °C to +75 °C | information valid for water

Standard length: 20 m | further lengths on request

Colour: Blue

Construction

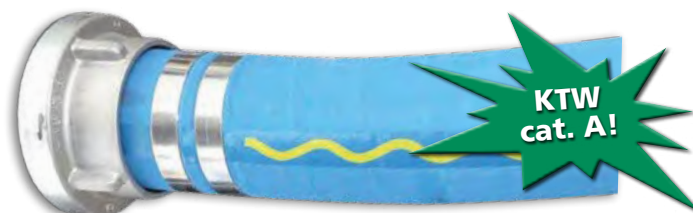
Material: 100% polyester yarn, circular woven, totally embedded in the PU compound

Inner mm	Inner Zoll	Wall mm	WP bar	BP bar	Weight kg/m	Article no.
25	1	1,60	16	50	0,160	10715-025-020
38	1 1/2	1,80	16	50	0,280	10715-038-020
52	2	2,00	16	50	0,500	10715-052-020
76	3	2,50	16	50	0,750	10715-075-020
102	4	2,80	14	42	1,150	10715-102-020
152	6	2,80	10	30	1,650	10715-152-020

Aquapal®

Rubber potable water hose

Aquapal® is ideal for use in all areas of the food and beverage industry. The lining is absolutely odourless and tasteless. The NBR cover can be driven over (except for the version with integrated steel wire spiral), is abrasion-resistant, UV and ozone resistant and resistant to grease, oil and common cleaning agents and disinfectants. **Aquapal®** is compliant with KTW, DVGW and FDA.



Technical characteristics

Approval: KTW A, DVGW-W270, FDA
 Temperature range: -30 °C to +90 °C | dampable up to +130 °C
 Standard Length: 40 m
 Colour: Blue, yellow wavy line, axially running

Construction

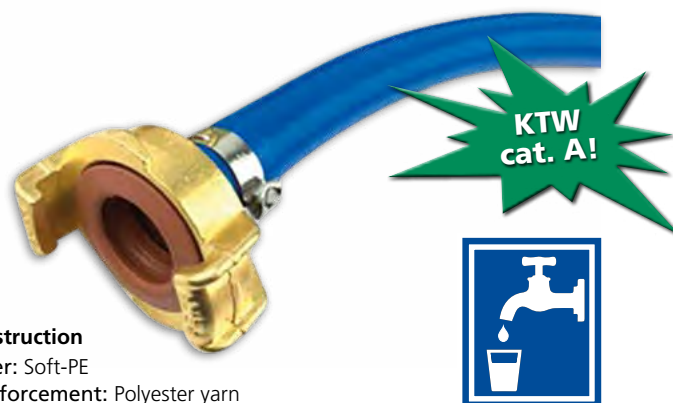
Cover: NBR, fabric impression
 Reinforcement: Synthetic yarns
 Lining: Fluoroplastic, transparent, smooth, plasticizer-free

Inner mm	Inner Zoll	Wall mm	WP bar	BP bar	BR mm	Weight kg/m kg	Article no.
13	1/2	3,60	20	60	75	0,250	10016-013
19	3/4	4,20	20	60	110	0,420	10016-019
25	1	6,00	20	60	145	0,570	10016-025

GrüloLine Aqua

PVC potable water hose according to KTW Kat. A and DVGW-W270

GrüloLine Aqua corresponds in full circumference to the requirements of the potable water order. Applicable in water utility companies, beverage counters, fair arrangements, folk festivals and other open-air events. Resistant to pressure, abrasion and UV. Neutral to taste and odour.



Technical characteristics

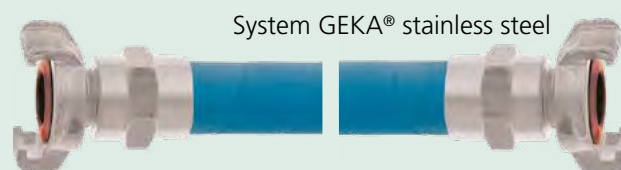
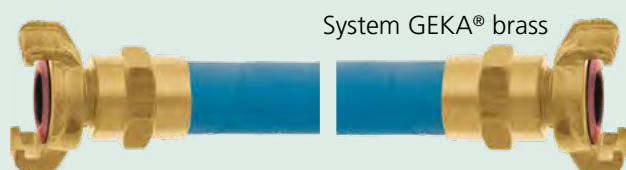
Approval: KTW A, DVGW-W270
 Temperature range: -15 °C to +50 °C
 Standard Length: 50 m
 Colour: Blue

Construction

Cover: Soft-PE
 Reinforcement: Polyester yarn
 Lining: Polyethylene, food quality

Inner mm	Inner Inch	Wall mm	WP bar	BP bar	BR mm	Weight kg/m kg	Article no.
13	1/2	3,50	20	60	140	0,161	10014-013
19	3/4	4,00	20	60	215	0,254	10014-019
25	1	4,75	20	60	295	0,394	10014-025

We assemble potable water hoses with all common coupling systems!



GrüloChem SP EPDM

EPDM Chemical hose

GrüloChem SP EPDM, for the conveyance of a wide range of chemicals, acids and solvents, is highly flexible, resistant to ageing and ozone. Cover and core are electrically conductive ($R \leq 106 \Omega/m$). Suitable for ATEX Zones 0 and 1.

Technical characteristics

Approval: EN 12115:2011 Ω/T

Temperature range: -20°C to $+100^\circ\text{C}$

Standard Length: 40 m

Construction

Cover: EPDM, black, fabric impressions

Reinforcement: Textile cord with two steel spirals

Lining: EPDM, black



Inner mm	Inner Inch	Wall mm	WP bar	Vacuum bar	BP bar	BR mm	Weight kg/m	Article no.
50	2	8,00	16	0,90	64	250	1,650	10164-051
75	3	7,50	16	0,90	64	375	2,750	10164-076
100	4	8,00	16	0,90	64	500	3,850	10164-102
152	6	10,00	16	0,90	64	680	8,940	10164-152

GrüloChem SP UPE

UPE Chemical hose

GrüloChem SP UPE is a highly flexible chemical protection hose with a conductive UPE liner. Suitable for the transport of acids, alkalis, salts, organic compounds incl. aromatic substances, chlorinated hydrocarbons and oxidising acids. Cover and lining are electrically conductive ($R \leq 106 \Omega/m$).

Technical characteristics

Approval: EN 12115:2011

Temperature range: -20°C to $+65^\circ\text{C}$ | depending on medium

Standard Length: 40 m, 60 m

Construction

Cover: EPDM, fabric impressions, electrically conductive

Reinforcement: Galvanized high tensile steel spiral

Seele: UPE, schwarz, glatt, elektrisch leitfähig



Inner mm	Inner Inch	Wall mm	WP bar	Vacuum bar	BP bar	BR mm	Weight kg/m	Article no.
50	2	7,00	16	0,90	64	350	2,150	10163-050
75	-	7,50	16	0,90	64	525	3,350	10163-075
100	-	8,00	16	0,90	64	700	4,450	10163-100

Hi-Per®

Premium FEP Chemical Hose

Highly flexible **Hi-Per®** has an extra strong FEP-liner, which is particularly suitable for use with crimped couplings. It can be used for the transport of almost all chemicals as well as acids, solvents, hydrocarbons, paints, lacquers, alcohols, food products (FDA compliant). Suitable for steam cleaning up to $+150^\circ\text{C}$ in open systems.

Technical characteristics

Temperature range: -40°C to $+149^\circ\text{C}$

Standard Length: 15,2 m, 30,5 m

Colour: Blue

Construction

Cover: EPDM

Reinforcement: FEP, white



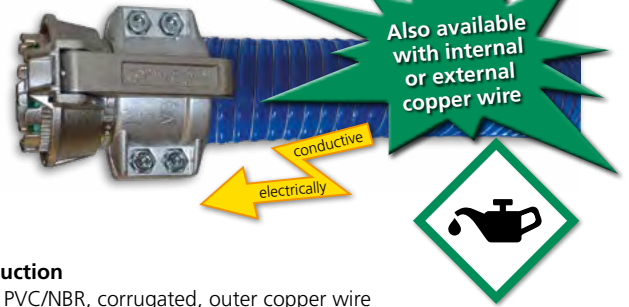
Inner mm	Inner Inch	Wall mm	WP bar	BP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
19,1	3/4	4,55	14	56	0,90	152	0,830	12163-019
25,4	1	6,60	14	56	0,90	200	1,060	12163-025
31,8	1 1/4	6,05	14	56	0,90	256	1,250	12163-032
38,1	1 1/2	8,00	14	56	0,90	304	1,850	12163-038
50,8	2	8,75	14	56	0,90	400	2,540	12163-051

GrüloElastic Oil AS

Tank truck hose

Highly flexible, antistatic and cold resistant tank truck hose, with shock and pressure resistant PVC-spiral. **GrüloElastic Oil AS** is especially suitable as suction and discharge hose for tank trucks.

All technical data refer to a temperature of 20 °C.



Technical characteristics

Approval: ISO 1307

Temperature range: -25 °C to +60 °C

Standard Length: 50 m | from DN 80: 30 m

Construction

Cover: PVC/NBR, corrugated, outer copper wire

Reinforcement: Shock and pressure resistant PVC spiral

Lining: PVC/NBR, smooth

Inner mm	Inner Inch	WP bar	BP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
51	2	6	20	0,90	200	1,150	10571-051
76	3	5	17	0,90	250	1,910	10571-076
80	-	5	15	0,90	280	2,100	10571-080
102	4	4	13	0,90	350	3,250	10571-102

Ölflex

Antistatic tank truck hose

Tank truck hose suitable for hydrocarbons with max. 50% aromatic contents. Lining and cover are electrically conductive ($R \leq 106 \Omega/m$).

Technical characteristics

Temperature range: -20 °C to +80 °C

Standard length: 40 m | further lengths on request

Construction

Cover: SBR, corrugated, electrically conductive

Reinforcement: Highly tear resistant textile fibres, steel wire helix, copper litz wire

Lining: NBR, black, electrically conductive



Inner mm	Inner Inch	Wall mm	WP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
32	1 1/4	4,00	9	0,90	60	0,650	10419-032
38	1 1/2	4,00	9	0,90	80	0,850	10419-038
52	2	5,00	9	0,90	100	1,375	10419-052
76	3	7,50	9	0,90	150	1,900	10419-076
102	4	6,00	9	0,90	200	2,300	10419-102



GrüloTank SP EN 12115

Tank truck hose with helix

Tank truck hose with spiral according EN 12115. Suitable for hydrocarbons up to max. 55% aromatic contents. Oil, weather and ozone resistant cover.

Electrically conductive ($R \leq 10^6 \Omega/m$).

Technical characteristics

Temperature range: -30 °C to +80 °C

Standard Length: 40 m



Construction

Cover: CR

Reinforcement: Synthetic fibres with steel wire helix and two copper litz wires

Lining: NBR, black, smooth

Inner mm	Inner Inch	Wall mm	WP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
51	2	8,00	16	0,90	310	1,690	10191-051
76	3	8,00	16	0,90	460	2,830	10191-076
102	4	8,00	16	0,90	620	3,950	10191-102

GrüloTank TMSL

Tank truck hose with helix

Light weight tank truck hose according to EN 12115 for heavy applications. The cover of **GrüloTank L** is resistant to weather, oil and abrasion.

For filling and discharging petrol tank trucks and rail tank wagons.

Lining and cover are electrically conductive ($R \leq 10^6 \Omega/m$).

Technical characteristics

Temperature range: -30 °C to +90 °C

Standard Length: 40 m | further lengths on request



Construction

Cover: CR, corrugated, fabric impressions

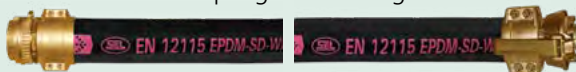
Reinforcement: Textile wrapped, copper wire, zinc plated double steel wire helix

Lining: NBR, black, smooth

Inner mm	Inner Inch	Wall mm	WP bar	Vacuum bar	BR mm	Weight kg/m	Article no.
32	1 1/4	6,00	10	0,90	55	0,800	10108-032
38	1 1/2	6,50	10	0,90	70	1,200	10108-038
50	2	7,50	10	0,90	80	1,850	10108-050
75	3	7,50	10	0,90	100	3,000	10108-075
100	-	8,00	10	0,90	150	3,500	10108-100

We assemble your oil and chemical hoses with all common coupling systems!

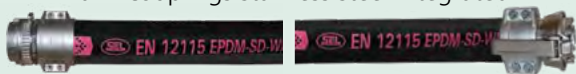
Tank couplings brass integrated



Tank couplings steel pressed



Tank couplings stainless steel integrated



Tank couplings stainless steel pressed



Kamlok integrated



GEPRÜFT



GrüloPress DIN 20018

Rubber compressed air hose

High-quality compressed air hose, flexibility and kink resistance. The cover is resistant against weather- and ageing, the tube against oily compressed air.

Technical characteristics

Approval: DIN 20018
 Temperature range: -25 °C to +70 °C
 Standard length: 40 m
 Colour: Black

Construction

Cover: SBR
 Reinforcement: Synthetische Textileinlage
 Lining: SBR, black



Inner mm	Inner Inch	Wall mm	WP bar	BP bar	BR mm	Weight kg/m	Article no.
6	1/4	3,00	20	60	60	0,163	10083-006
10	3/8	4,00	20	60	100	0,280	10083-010
13	1/2	5,00	20	60	130	0,375	10083-013
19	3/4	6,00	20	60	190	0,690	10083-019
25	1	7,00	20	60	250	0,760	10083-025

GrüloAir 20 yellow

Rubber compressed air hose

High pressure compressed air hose in coiled execution with abrasion- and weather resistance cover. For heavy purposes, especially for tunnel construction and mining.

Technical characteristics

Temperature range: -30 °C to +80 °C
 Standard length: 40 m
 Farbe: Yellow

Construction

Cover: SBR/EPDM
 Lining: SBR, black



Inner mm	Inner Inch	Wall mm	WP bar	BP bar	BR mm	Weight kg/m	Article no.
13	1/2	5,00	20	60	100	0,480	10084-013
19	3/4	6,00	20	60	150	0,550	10084-019
25	1	6,00	20	60	200	0,700	10084-025
32	1 1/4	6,00	20	60	260	1,050	10084-032
38	1 1/2	7,00	20	60	300	1,400	10084-038
42	-	8,00	20	60	340	1,810	10084-042
51	2	8,00	20	60	410	1,740	10084-051

GrüloFlat Air

Rubber covered multipurpose hose

Rubber covered multipurpose flathose, Lightweight, flexible and flat rollable. Special additives in the compound guarantee superior UV and ageing resistance. Inside very smooth for minimum friction loss, outside ribbed for good abrasion resistance and protection against contact heat.

Technical characteristics

Temperature range: -20 °C to +80 °C | information valid for water
 Standard length: 100 m
 Colour: Yellow

Construction

Cover: NBR/PVC compound, ripped
 Reinforcement: Polyester/polyamide fabric
 Lining: NBR/PVC compound, very smooth



Inner mm	Inner Inch	Wall mm	WP bar	BP bar	Weight kg/m	Article no.
20	3/4	2,30	30	90	0,190	10080-020
26	1	2,50	30	90	0,230	10080-026
38	1 1/2	3,30	30	90	0,400	10080-038
53	2	3,30	30	90	0,600	10080-052



Multilayer foil hoses

COMPOSITE HOSES

Grüning & Loske offers you a comprehensive range of multi-layer foil hoses or composite hoses for flexible transport of oil and chemical products in accordance with EN 13765:2010. Apart from an assortment of standards individual solutions on demand are available. Production and assembly are made according to ISO 9001 and PED. Convince yourself once more of our know-how and 5-star service.



CompoOIL 10 GGE

Oil resistant composite hose

CompoOil 10 GGE is suitable for use and delivery and/or suction of fuels, oils and lubricants in tank trucks, wagons or deposits. Also available with 14 bar working pressure.

Technical characteristics

Approval: EN 13765:2010
 Temperature range: -30 °C to +100 °C
 Standard length: max. 30 m
 Safety factor: 5:1

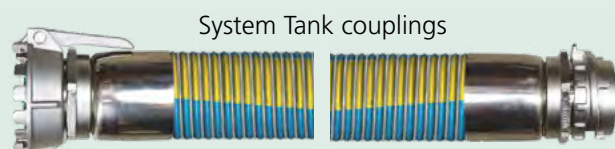


Construction

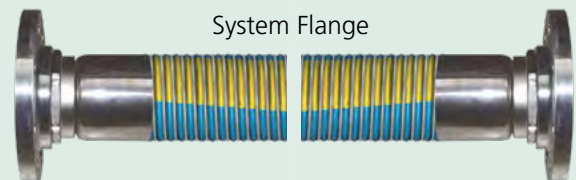
Cover: PVC, PP on request
 Inner wire spiral: Galvanized steel
 Outer wire spiral: Galvanized steel
 Lining: Polypropylene

Inner mm	Inner Inch	WP bar	BP bar	BR mm	Weight kg/m	Article no.
51	2	10	50	190	2,060	10324-051
76	3	10	50	290	3,500	10324-076
102	4	10	50	320	5,440	10324-102

We assemble your multi-layer foil hoses with all common coupling systems!



System Tank couplings



System Flange

Chemical-resistant multi-layer foil hoses

These chemical-resistant composite hoses are suitable for loading and unloading tank trucks in industry plants and marine applications. Suitable for chemical products such as acids, fatty acids, alkalis and solvents, even in corrosive environments.

Also available in other versions and with a working pressure of 14 bar.

CompoCHEM 10 EGE



Technical characteristics

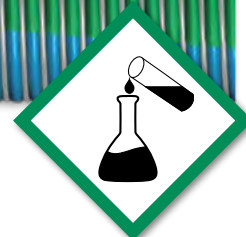
Approval: EN 13765:2010
 Temperature range: -30 °C to +100 °C
 Standard length: max. 30 m
 Safety factor: 5:1

Construction

Cover: PVC coated polyester fabric
 Inner wire spiral: PP coated steel
 Outer wire spiral: Galvanized Steel
 Lining: Polypropylene

Inner mm	Inner Inch	WP bar	BP bar	BR mm	Weight kg/m	Article no.
51	2	10	50	190	2,060	10326-051
76	3	10	50	290	3,500	10326-076
102	4	10	50	320	5,440	10326-102

CompoCHEM 10 SSE



Technical characteristics

Approval: EN 13765:2010
 Temperature range: -30 °C to +100 °C
 Standard length: max. 30 m
 Safety factor: 5:1

Construction

Cover: PVC coated polyester fabric
 Inner wire spiral: Stainless steel
 Outer wire spiral: Stainless steel
 Lining: Polypropylene

Inner mm	Inner Inch	WP bar	BP bar	BR mm	Weight kg/m	Article no.
51	2	10	50	190	2,160	10325-051
76	3	10	50	290	3,670	10325-076
102	4	10	50	320	5,710	10325-102

CompoCHEM 10 ESE



Technical characteristics

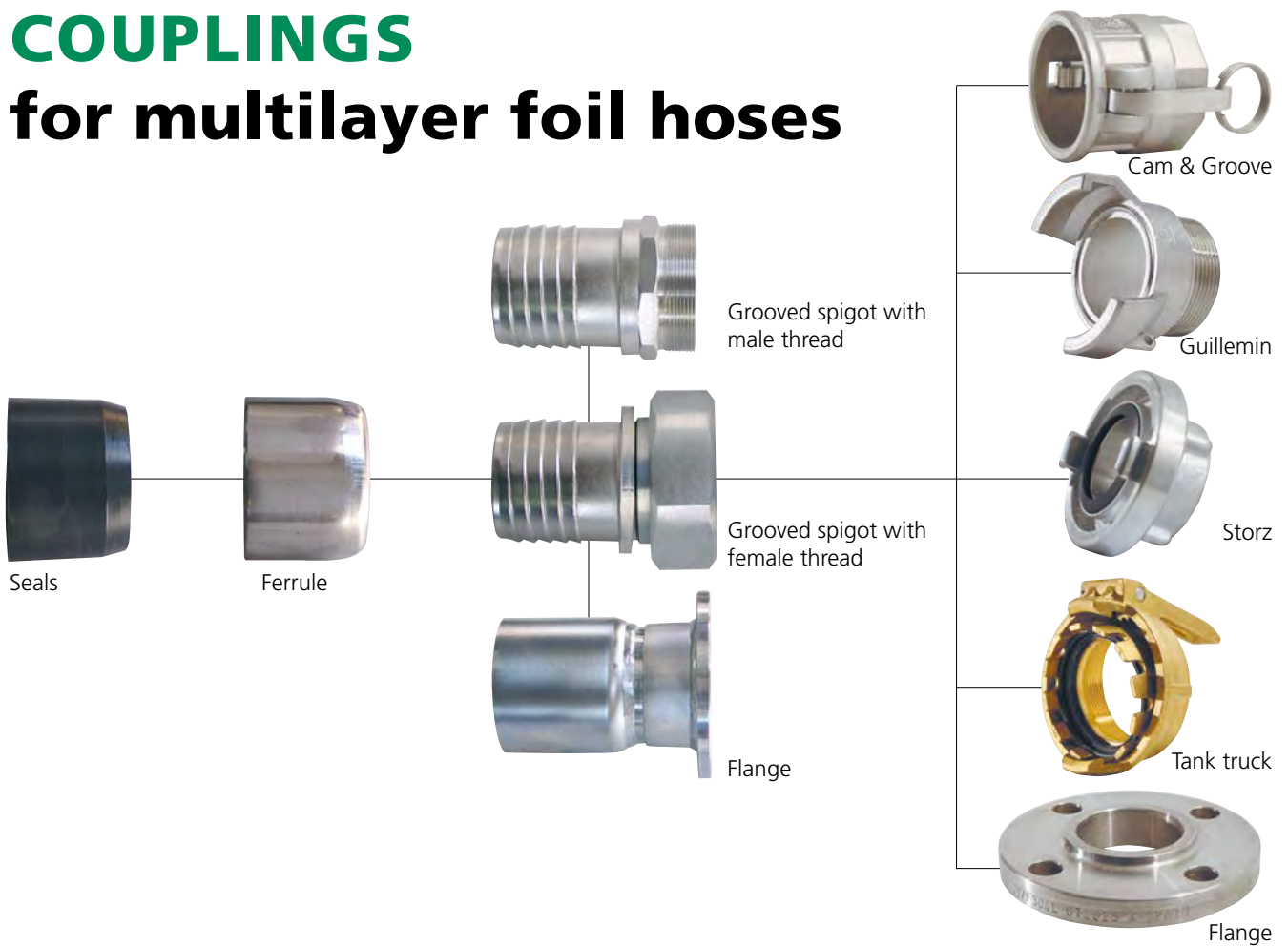
Approval: EN 13765:2010
 Temperature range: -30 °C to +100 °C
 Standard length: max. 30 m
 Safety factor: 5:1

Construction

Cover: PVC coated polyester fabric
 Inner wire spiral: PP coated steel
 Outer wire spiral: Stainless steel
 Lining: Polypropylene

Inner mm	Inner Inch	WP bar	BP bar	BR mm	Weight kg/m	Article no.
51	2	10	50	190	2,010	10327-051
76	3	10	50	290	3,400	10327-076
102	4	10	50	320	5,420	10327-102

COUPLINGS for multilayer foil hoses



Coupling	Ø Inch	Material	Standard	Picture
Presshülse	1 - 10	Galvanised steel, stainless steel, aluminium	-	
Seal	1 - 10	NBR, Viton (conductive)	-	
Grooved spigot with male thread	1 - 6	Galvanised steel, stainless steel, aluminium	BSP, NPT	
Grooved spigot with female thread	1 - 4	Stainless steel	BSP	
For fixed flange	1 - 10	Galvanised steel, stainless steel	DIN, ANSI, TTMA	
For swivel flange	1 - 10	Galvanised steel, stainless steel	-	
Cam & groove C Male part-/Female part	3 - 4	Aluminium	-	
Guillemin	1 1/2 - 4	Stainless steel, aluminium, brass	-	
Milk pipe fitting with / without union	2 - 3	Stainless steel	DIN	

Quick coupling pipes System Perrot

with male part/female part

Material: Steel, galvanised
 Working pressure: 10 bar
 Standard length: 1 m - 6 m | further lengths on request
 Diameter: 50 mm, 70 mm, 89 mm, 108 mm, 133 mm,
 159 mm, 216 mm



Quick coupling pipes System Bauer

with cup/ball

Material: Steel, galvanised
 Working pressure: 20 bar
 Wall thickness: 0,70 mm, 1,50 mm
 Standard length: 1 m, 2 m, 3 m, 6 m | further lengths on request
 Diameter: 50 mm, 76 mm, 89 mm, 108 mm, 133 mm, 159 mm



Quick coupling pipes System Anfor

with male part/female part

Material: Steel, galvanised
 Standard length: 1 m, 2 m, 4 m | further lengths on request
 Diameter: 200 mm, 250 mm, 300 mm



Quick coupling pipes System Flange

Material: Steel, galvanised
 Standard length: 2 m, 3 m, 5 m, 10 m, 20 m, 30 m, 60 m
 DN 300, 400, 500: 18 m, 36 m
 further lengths on request
 Diameter: 100 mm, 150 mm, 200 mm, 250 mm, 300 mm,
 400 mm, 500 mm, 600 mm, 800 mm, 1000 mm



We provide the complete Perrot-, Bauer- Storz and Anfor system. *Just contact us!*



HDPE-Pipe System Perrot

with male part/female part

Standard length: 5 m, 6 m | further lengths on request
 Diameter: 108 mm, 159 mm



HDPE-Pipe System Bauer

with cup/ball

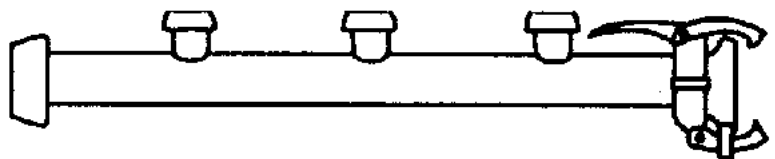
Standard length: 5 m, 6 m | further lengths on request
 Diameter: 108 mm, 159 mm



Collecting pipes with outlet

one outlet per metre

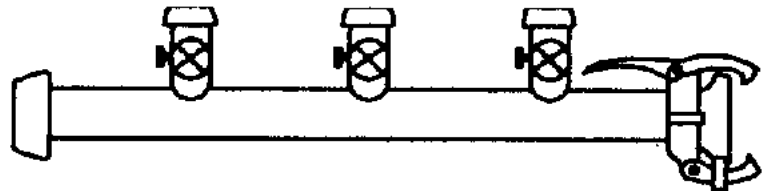
Standard length: 2 m, 3 m, 4 m, 5 m
 Diameter: 108 mm, 159 mm



Collecting pipes with shut-off valve

one shut-off valve (1 1/2") per metre

Standard length: 2 m, 3 m, 4 m, 5 m
 Diameter: 108 mm





TRANSPORT RACKS AND LOAD SECURING

The safe and space-saving solution for your hoses and pipes

Correct storage prevents the premature ageing of hose assemblies and maintain their quality.

Hoses and hose assemblies must always be stored horizontal and free of tension and kinks.

When stored in rings, the bending radius must not be less than the smallest specified by the manufacturer (DIN 7716 / T002 (BGI 572) / BGR 23).

The hoses should be stored in a cool, dry and dust-free place and protected from direct sunlight or UV radiation.

To ensure this, we design hose racks that can be adapted to your needs. The height and width of the racks can be changed individually. On request, we paint these in your company colour.

Of course, we also develop suitable frames for your accessories.

Stackable transport racks for hoses and pipes

for DN 150 - DN 500

Base welded with perforated plate.

Technical characteristics

Norm: Welded according to DIN ISO 3834

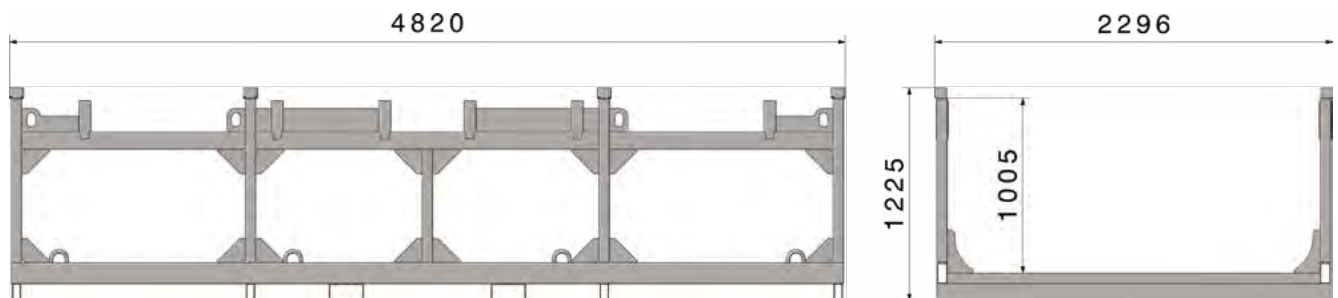
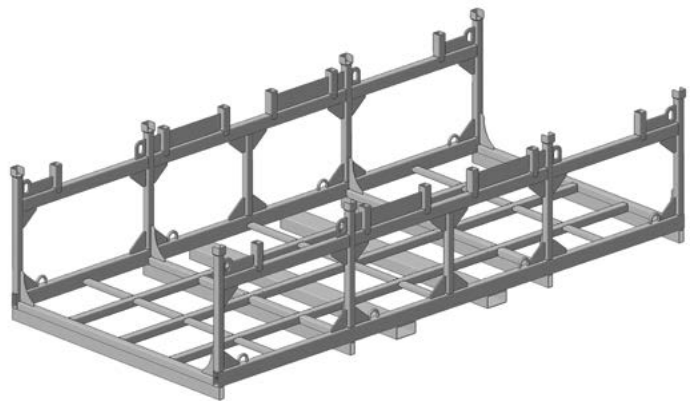
Material: Steel ST37, galvanised

Weight: 760 kg

Payload: 4500 kg

Type plate: Payload, Year of construction

Article no.: 84000-41-0032



Please enquire!

We design your perfect solution.



Stackable mesh box for accessories

Base welded with perforated plate.

Technical characteristics

Norm: Welded according to DIN ISO 3834

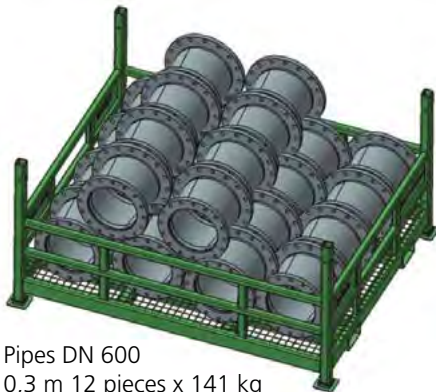
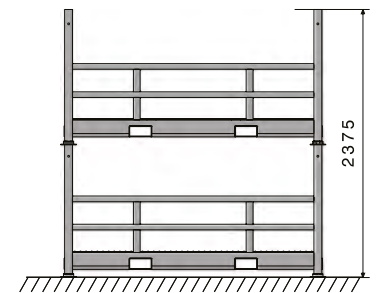
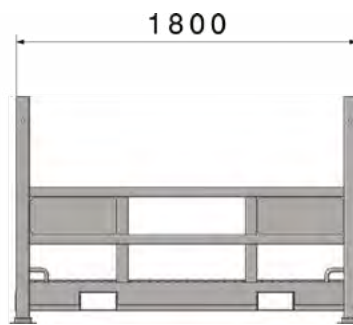
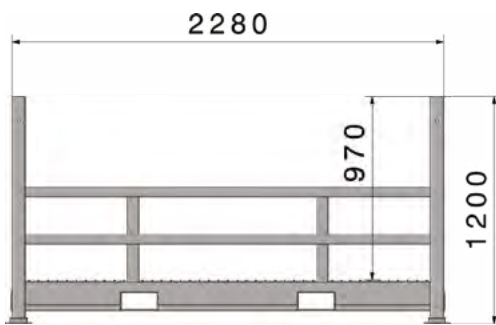
Material: Steel ST37, galvanised

Weight: 502 kg

Payload: 4500 kg

Type plate: Payload, Year of construction

Article no.: 84000-41-0033

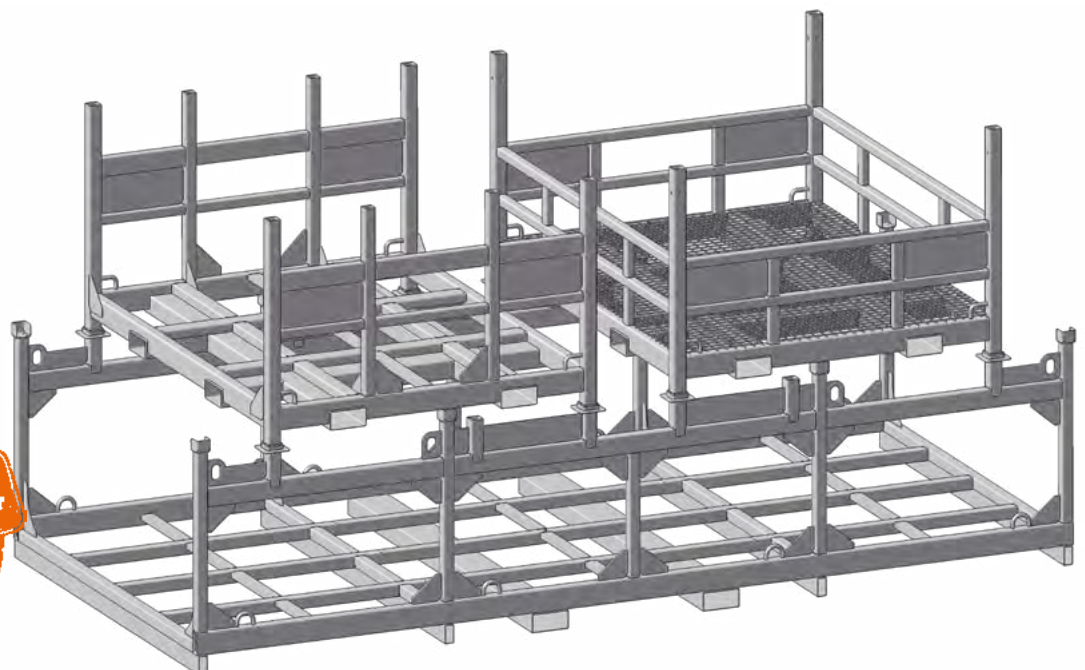


Pipes DN 600
0,3 m 12 pieces x 141 kg

Also available with lid



Combinable
with the
long frames!



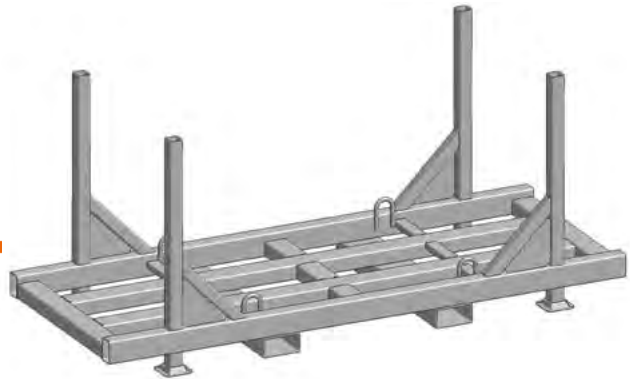
Stackable transport frame narrow The favourable version!

Technical characteristics

Norm: Welded according to DIN ISO 3834
Material: Steel ST37, galvanised

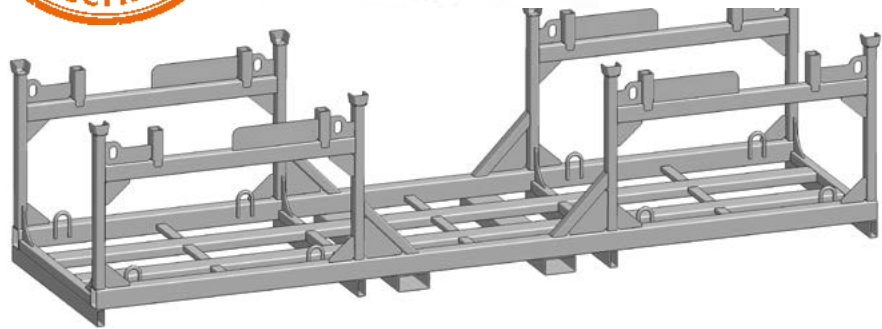
2800 mm wide

Article no.: 84000-41-0053
Weight: 325 kg
Payload: 1500 kg
Type plate: Payload, Year of construction



5000 mm wide

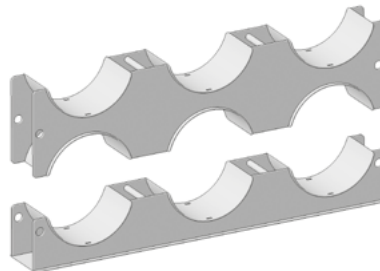
Article no.: 84000-41-0054
Weight: 635 kg
Payload: 2200 kg
Type plate: Payload, Year of construction



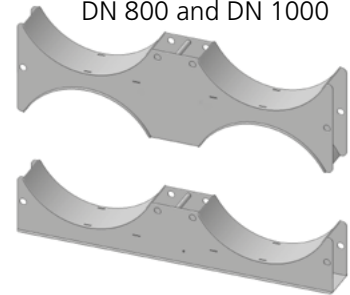
Pipe supports

Material: S235 JR
Construction: Step-welded, hot-dip galvanised, rubberised with anti-slip mat

DN 500 and DN 600

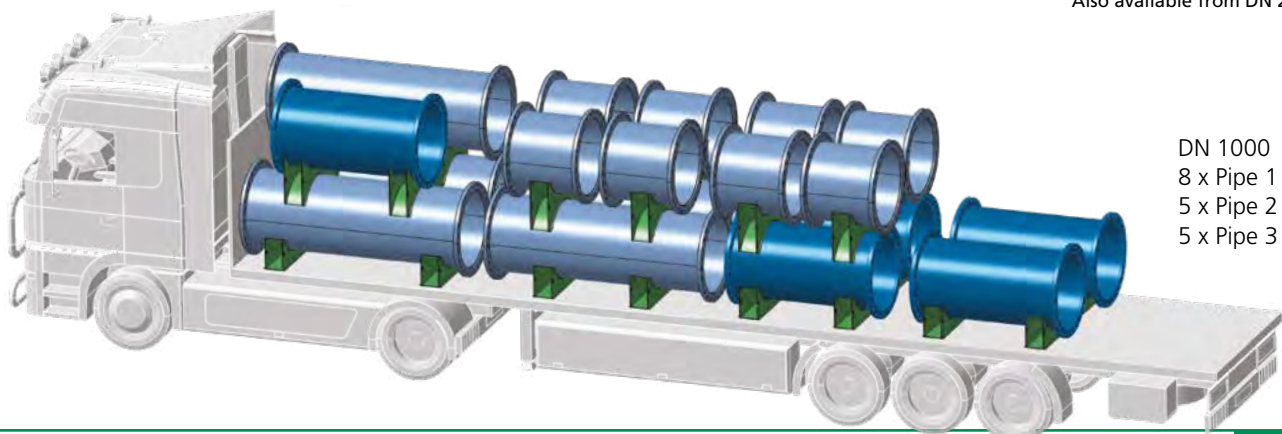


DN 800 and DN 1000



DN mm	Description	Weight/piece kg	Article no.
500	Pipe support DN 500	120	84000-GL-41-0055-DN500
	Pipe support / Centre console DN 500	158	84000-GL-41-0056-DN500
600	Pipe support DN 600	138	84000-GL-41-0057-DN600
	Pipe support / Centre console DN 600	163	84000-GL-41-0058-DN600
800	Pipe support DN 800	142	84000-GL-41-0044-DN800
	Pipe support / Centre console DN 800	189	84000-GL-41-0045-DN800
1000	Pipe support DN 1000	156	84000-GL-41-0046-DN1000
	Pipe support / Centre console DN 1000	189	84000-GL-41-0047-DN1000

Also available from DN 250.



DN 1000
8 x Pipe 1 m
5 x Pipe 2 m
5 x Pipe 3 m

STEEL WIRE SAFETY ROPES

in various designs and sizes

Steel wire safety ropes are used as arrester ropes to prevent couplings from being ejected from the hose under pressure, which can cause serious or fatal injuries. They also prevent hose whipping - a violent whipping of the hose line caused by the rapid release of air. The use of safety ropes is particularly important when hose assemblies are under high pressure and/or carry aggressive or other hazardous media. Several factors must be taken into consideration when selecting them, including the maximum tensile strength of the rope, the correct length and diameter of the rope, and the environment in which it will be used. Depending on the application, special coatings or corrosion protection may be required to ensure the durability of the rope. Contact us and we will be happy to advise.



Work safely with the restraining strap

Ideal for intercepting material conveying hoses, with spring, loop on one side, karabiner on the other side.

Total breaking load 1,800 kg

Hose inner Ø mm	Article no.
0 - 50	14002-000-050
50 - 120	14002-000-120
120 - 260	14002-000-260



The hose **lifter**[®]

Handles for hoses and pipes from 2" bis 6"

The **HoseLifter** enables to work with hoses and pipes safer and more efficient. The simple mechanism allows the hose to be clamped in one fluid movement and without effort. The HoseLifter is made of highly durable and wear-resistant nylon and has good thermal insulating properties.



Advantages:

- Increases safety and efficiency
- Reduces contact with hazardous substances
- Easy to maintain and use
- Solid, safe handle
- Clips easily to hoses and pipes without damage
- Can be used in all climates and locations
- Works in mud, cold, rain or wet snow



ABRASION AND CORROSION

The problem! - Abrasion

In numerous industries, such as the raw and building materials industry, transportation and waste water disposal, various influences lead to wear and corrosion. Heavy abrasion, hard shocks or aggressive liquids and chemicals cause huge damages and thus high repair costs, considerable downtimes and enormous economic damage.



The Solution! - GrüloCOAT Systeme

GrüloCoat Systeme is a newly developed technology for coating, sealing, grouting and repair of almost all surfaces.

Use our lead in knowledge and experience to protect your surfaces long-term against numerous negative influences as mechanical abrasion, chemical destruction and corrosion.

Successful coatings result from an interaction of many factors. Experienced staff out of our application technology as well as research and development ensure constant alignment of critical parameters. So the best solution for your wear problem can be achieved.

As a specialist company in high-quality wear protection for various loads we offer you high resistant and high-quality coating systems in **rubber**, **ceramics** and **liquid plastic**.



Application areas:

- Inner pipes
- Bends and suction pipes
- Cyclones
- Impellers
- Pump casing from inside and outside

Characteristics

- | | | |
|-------------------------------|---------------------|-------------------------------------|
| Food safe | Crack bridging | Corrosion free |
| Fire retardant | Sea water resistant | Chemical resistant |
| Abrasion resistant | Cut resistant | Approvals for Different areas |
| UV resistant | Impact resistant | Seamless and joint-free Applicable |
| Flexible | Antistatic | Stretchable 400 % |
| Slip resistant | Noise absorbing | Fast reaction times |
| Temperature resistant | Microbe stable | Applicable in different thicknesses |
| Waterproof and root resistant | Wear resistant | Available in all RAL colours |



Silos and containers

Silos and containers - We save your old silo!

Whether silos or containers made of concrete, steel or plastic - whether for cement, granulates, food or animal feed, water or oil - our **GrüloCOAT coating** has the right solution for every application. Containers, like pipes, are the most important storage and transport systems in industry. They must be manufactured in such a way that the substances stored in them do not chemically or mechanically attack these systems. Corrosion can have fatal consequences for the end product and the environment. Containers must therefore be protected against damage in such a way that no chemical substances are released into the environment. Our **GrüloCOAT coating** is seamless and extremely resistant to chemical and physical attack. It is waterproof, food safe, protects against abrasion and corrosion and is temperature and ageing resistant.



Pipes

Internal pipe coatings for long service life

The internal coating of pipes is often required to protect the pipe material from harmful influences such as corrosion. In particular, pipes carrying aggressive media must either be made of a corrosion-resistant material or have a corrosion-protective internal coating. Our pipe coating plant can coat pipes with internal diameters from 150 mm to 800 mm and lengths up to 12 metres. Pipe bends, e.g. 90°, and other dimensions are also no problem for us.



Containers and transport boxes

Containers and Transport boxes

We professionally refurbish your site containers, freight containers, sanitary containers, roll-off containers, skips, roll-off skips, tippers and other transport containers, both inside and out. Our experienced repair and refurbishment teams use the latest technology and quality materials. Depending on the application, containers are painted, polyurea coated or rubber lined. Containers are first sanded down and any repairs are carried out. They are then primed, painted and, if required, your company details and logo are applied.



Pump impellers
and casing

Pump impellers and casings

Machine parts, such as those in mass finishing systems and deburrers, which are subjected to high stresses in production processes, can be kept in service longer with **GrüloCOAT coating**. Here too, you can save on plant downtime and economic losses.



Flue gas
desulphurisation systems

Flue gas desulphurisation systems

Flue gas desulphurisation (FGD) systems have been installed in power plants around the world since the early 1980s to meet increasingly stringent environmental regulations. The technology predominantly used is based on wet scrubbing, which creates a variety of corrosive conditions in the absorbers, tanks and flue gas ducts. **GrüloCoat systems** protect your plant against aggressive, acidic and alkaline media.

The question is not where to use
GrüloCOAT systems, but where not to!
GrüloCOAT coatings are so versatile - there are hardly any
limits. Just ask our team for the suitable system.

What Polyurea can do?
See for yourself:





OUR PRODUCT RANGE AT A GLANCE

Grünin **G+L**oske

Magdeburger Str. 1
D-30880 Laatzen

Fon +49 (0) 51 02 - 91 99 - 01

Fax +49 (0) 51 02 - 91 99 - 90

info@gruelo.de



HOSE TECHNOLOGY

Application advice, customisation, pressure testing



RENTAL PARK SUPPORT

Hose management system



FITTINGS TECHNOLOGY

Coupling systems, valves, fittings



FASTENING TECHNOLOGY

Hose clamps



SEALING TECHNOLOGY

Customised solutions for the industry



PRODUCT DEVELOPMENT

Prototyping, 3D scanning, 3D printing



METAL CONSTRUCTION AND DESIGN

Transport racks, component construction



CORROSION AND WEAR PROTECTION

Sandblasting, painting, rubber coatings
PUA spray coatings



ODOUR NEUTRALISATION

SmellMasterTruck, SmellPad



www.gruelo.de