

BRUGG

Pipes

Pipe systems for petrol stations

flexible – economic – safe



PIONEERS IN INFRASTRUCTURE



SECON®-X – double walled flexible fill pipe for automotive fuels in petrol station constructions: DN 25–DN 100, PN 10

System advantages

- flexible, double walled
- impermeable and corrosion-resistant
- fast and simple to install
- environmentally safe
- the most cost effective metallic pipe

General Description

SECON®-X has been specially developed as a coaxial pipe for under-ground service in petrol stations. Fast and easy installation without welding, early completion and minimal downtime on retrofits are only some of the major advantages of SECON®-X.

Application

- Suction pipes
- Pressure pipes
- Fill pipes



Construction

The flexible composite piping has a corrugated inner pipe made of stainless steel (EN 1.4404/AISI TP 316L). It is encased by a PE mantle separated by struts which are offset with the corrugations of the inner pipe, creating a secondary containment which is also able to be monitored.

- 1 corrugated stainless steel primary pipe
- 2 PE-LD jacket with longitudinal channels



Connection method

Installation of the connection fittings at the ends of the SECON®-X piping is carried out on site. It is non-welded, so there is no open flame. Using simple tools, the appropriate connecting piece is pressed onto the end of the corrugated pipe. Thanks to the technology of the end fittings, SECON®-X guarantees for short overall length and a quick installation without the requirement for special tools.

Technical data SECON®-X

Type designation:	SEC 25	SEC 40	SEC 50	SEC 100
Material:	primary pipe stainless steel EN 1.4404 (AISI TP 316L) secondary pipe polyethylene PE-LD			
Max. operating pressure:	+ 10.0 bar	+ 10.0 bar	+ 10.0 bar	+ 10.0 bar
Nominal diameter:	DN 25/1"	DN 40/1 ½"	DN 50/2"	DN 100/4"
Inner pipe diameter:	30 mm	48 mm	60 mm	98 mm
Outer pipe diameter:	44 mm	63 mm	75 mm	124 mm
Min. bending radius:	300 mm	360 mm	400 mm	800 mm
Weight:	0.87 kg/m	1.7 kg/m	2.1 kg/m	4.5 kg/m
GRAPA-S with female thread	•			
GRAPA-S with male thread	•	•	•	•
GRAPA-S with flange		•	•	•



PETREX®-CNT - Flexible, single-walled pipe system with stainless steel inner pipe as delivery pipe for fuels in petrol station constructions:
DN 25-DN 80, PN 10

System advantages

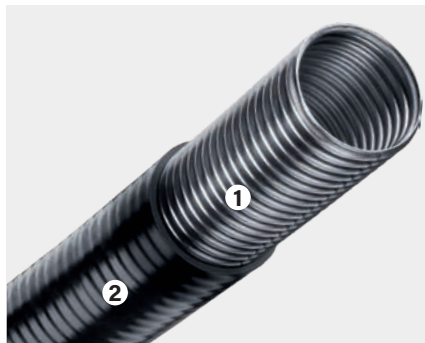
- fast and simple laying
- environmentally friendly
- economical
- diffusion-tight

General description

PETREX®-CNT was specially designed for the underground transport of flammable, water-hazardous fluids on petrol stations. Fast and simple installation with no welded connections, fast completion of work and avoidance of downtime when backfitting are some of the main advantages offered by PETREX®-CNT.

Application

- Suction pipes
- Vapour recovery stage I and stage II
- Vent pipe



Construction

PETREX®-CNT is a flexible, single-walled pipe system consisting of a corrugated stainless steel inner medium pipe and an outer casing made of plastic. The corrosion-proof stainless steel inner pipe is absolutely permeation-tight and able to fulfil all future requirements for the transport of modern fuels.

- 1 corrugated stainless steel inner pipe
- 2 PE-LD casing

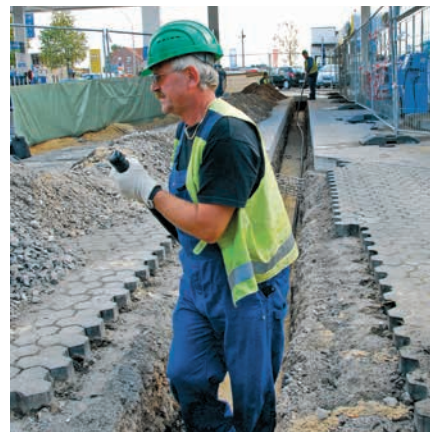
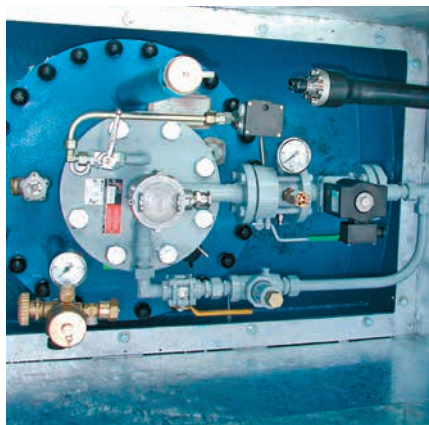


Connection method

PETREX®-CNT connecting fittings can be delivered either as split circular flange or as threaded connector for connection to screwed fittings. Installation is normally carried out without any open flame, i.e. without welding or hard-soldering, using compression fittings.

Technical data PETREX®-CNT

Type designation:	CNT 30/39	CNT 48/60	CNT 60/71	CNT 98/120
Material:	primary pipe stainless steel EN 1.4404 (AISI TP 316L) outer casing corrosion-proofing polyethylene PE-LD			
Max. operating pressure:	+ 10.0 bar	+ 10.0 bar	+ 10.0 bar	+ 10.0 bar
Nominal diameter:	DN 25/1"	DN 40/1 1/2"	DN 50/2"	DN 80/3"
Inner pipe diameter:	30 mm	48 mm	60 mm	98 mm
Outer pipe diameter:	39 mm	60 mm	71 mm	120 mm
Min. bending radius:	200 mm	300 mm	400 mm	800 mm
Weight:	0.56 kg/m	1.37 kg/m	1.75 kg/m	4.5 kg/m
Modular system, threaded end fitting	•	•	•	•
Modular system, circular split flange	•	•	•	•



FLEXWELL®-LPG – flexible pipe system for automotive LPG in service station constructions: DN 25–DN 50, PN 25

System advantages

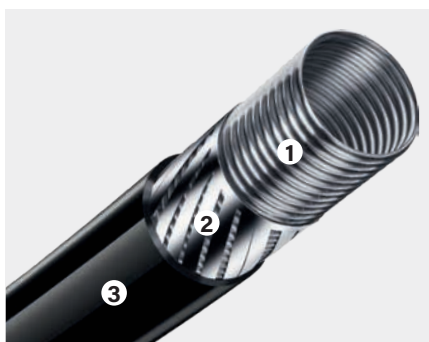
- Fast and simple to install
- Without welding and x-raying of welds on site
- No downtime
- Only minimal interruptions to petrol sales on retrofits
- The most cost effective pipe system

General Description

FLEXWELL®-LPG is a single walled flexible pipe system suitable for automotive LPG (Autogas) installations of service stations in both vapour and liquid phase. FLEXWELL®-LPG Piping is designed for operating temperatures from –50 °C up to +60 °C and operating pressures of PN 25 (360 PSI).

Application

- LPG liquid phase
- LPG vapour phase
- Vapour return



Construction

The flexible composite pipe has a helically corrugated primary pipe, which is manufactured of stainless steel (EN 1.4404/AISI TP 316 L) and has excellent corrosion resistance characteristics. Around this carrier pipe, high-strength reinforcing bands are fitted, which effectively limit longitudinal expansion even at high operating pressures. Corrosion protection for buried installation in the ground is afforded by an external PE-LD jacket.

- 1 corrugated stainless steel inner pipe
- 2 reinforcing bands
- 3 PE-LD jacket



Connection method

FLEXWELL®-LPG connecting fittings can be delivered either as split flange, as threaded connector for connection to screwed fittings or as welding end fitting. Installation is carried out without any open flame, i.e. without welding or hard-soldering, using compression fittings.

Technical data FLEXWELL®-LPG

Type designation:	LPG 22/33	LPG 30/40	LPG 39/50	LPG 48/61	LPG 60/74
Material:	primary pipe stainless steel EN 1.4404 (AISI TP 316L) outer casing corrosion-proofing polyethylene PE-LD				
Max. operating pressure:	+ 25.0 bar	+ 25.0 bar	+ 25.0 bar	+ 25.0 bar	+ 25.0 bar
Nominal diameter:	DN 20/¾"	DN 25/1"	DN 32/1 ¼"	DN 40/1 ½"	DN 50/2"
Inner pipe diameter:	22 mm	30 mm	39 mm	48 mm	60 mm
Outer pipe diameter:	33 mm	42 mm	52 mm	63 mm	74 mm
Min. bending radius:	200 mm	200 mm	300 mm	400 mm	600 mm
Weight:	0.7 kg/m	0.9 kg/m	1.5 kg/m	1.9 kg/m	2.7 kg/m
Male thread end NPT/red.	•	• / •	• / •	•	•
Split flanges DIN/ANSI	• / •	• / •	• / •	•	•
Welding end	•	•	•	•	•



Reference list - Petrol stations

We are one of the leading suppliers in the world-wide market for the safe transport of flammable and hazardous fluids. Our pipework has been used by leading oil companies and industry to convey oils, gases (LPG/LNG) and fuels for more than 40 years.

Our pipework guarantees the reliability of more than 25000 petrol stations every day.

BRUGG are constantly developing pipe systems that comply with both national and international standards,

to transport hazardous fluids safely in order to protect life and the environment.



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