

BRUGG

Pipes

FLEXWELL® LNG All-in-One

Flexible pipe systems for
LNG fuel stations

FLEXWELL® All-in-One is a unique and cost efficient LNG pipe which applies at LNG fuel stations as endless transportation, re-circulation and BOG recovery line: All-in-One!

SYSTEM DESCRIPTION

Because of a continuous manufacturing technology of the corrugated pipes, FLEXWELL® LNG All-in-One comes in an infinite length, which enables the installation without any need of welded joints.

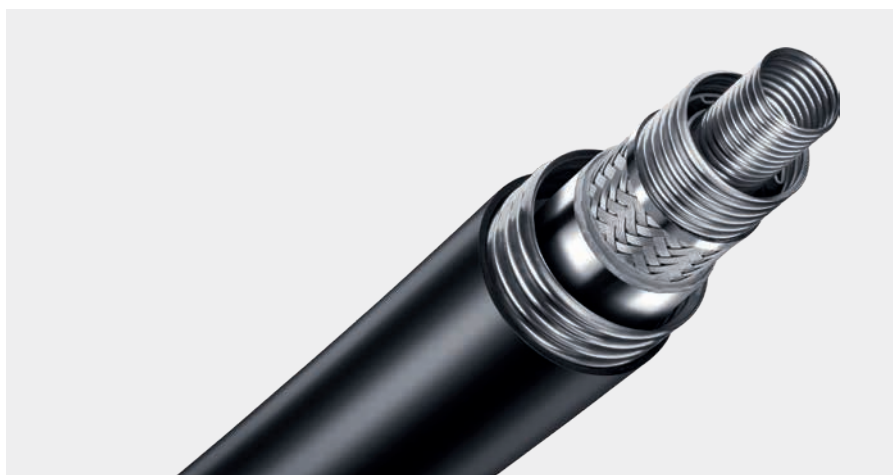
The multi-layer-construction of the FLEXWELL® LNG All-in-One is able to combine

- LNG flow
- LNG return
- BOG return
- vacuum superinsulation in one pipe.

CONSTRUCTION

The FLEXWELL® LNG All-in-One is a flexible, multi layer, vacuum-insulated pipe system for the transport of cryogenic liquefied gases.

The pipe consists of three hellically-corrugated stainless steel pipes and cryogenic insulation in between second and third layer. The insulation consists of highly reflective polymer foil and spacers in a vacuum chamber to minimize the total heat inleak into the pipe system. Stainless steel reinforcing armoring



is additionally applied to the pipe in order to provide pressure stability of the pipe system and to increase the tensile strength of the pipe for the installation. The final layer is a PE protective coating.

AREAS OF APPLICATION

Developed as LNG transportation line at LNG fuelling stations, FLEXWELL® LNG All-in-One can be used for the transport of cryogenic liquefied gases such as

- liquefied natural gas LNG
- liquid nitrogen

COST EFFICIENCY

The corrugated pipe technology enables the FLEXWELL® LNG All-in-One to be endless and flexible. And flexibility leads to self-compensation.

Due to the huge temperature differences regular rigid pipe needs expansion bends (either U or Z shaped) after a certain pipe run. With FLEXWELL® LNG All-in-One no special expansion bends are required with a pipe run which is still straight.

SAFETY FIRST!

With FLEXWELL® LNG All-in-One safety is never a problem! Thanks to its integrated vacuum leakage detection system, unlikely leakages will be detected immediately and the whole system can be shut down within seconds.



- 1 corrugated pipe, stainless steel (Fluid 1)
- 2 corrugated pipe, stainless steel (Fluid 2)
- 3 armoring, stainless steel
- 4 vacuum superinsulation incl. spacer
- 5 corrugated pipe, stainless steel
- 6 protective jacket, PE-LD

Technical data FLEXWELL® LNG All-in-One

Material:	corrugated pipes	AISI 316 L
	armoring	AISI 304
	corrosion protection	protective jacket, PE-LD
Operating pressure:	max. 30 bar	
Operating temperature:	-200 °C up to +50 °C	

Dimensions

Type	Fluid 1 corrugated carrier pipe	Fluid 2 annular interstitial	Outer diameter	Bending radius
			inch/mm	inch/mm
39/64	1 ¼" DN 32	1 ¼" DN 32	4.7/120	39/1000
48/83	1 ½" DN 40	2" DN 50	6.0/152	47/1200

Subject to technical changes.

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