BRUGG
Pipes

FLEXWELL® OFFSHORE

The Pipe For Offshore Cold Fluid Transfer

Unbonded flexible pipe for offshore application

SYSTEM DESCRIPTION

The transfer pipe for LNG, LH_2, Ammonia and more consist of a flexible, stainless steel inner pipe and a flexible stainless steel outer pipe.
The fluid is transported through the inner pipe, and the annulus between the outer and the inner pipe is vacuum insulated.

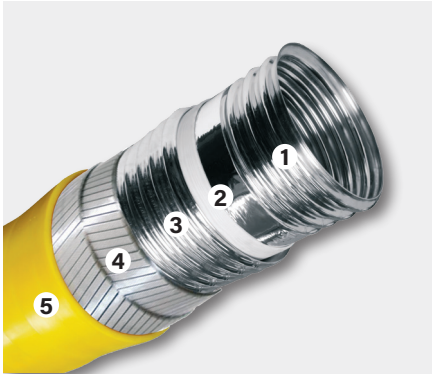
This means that the transfer of envronmental heat to the cryogenic fluid is reduced, similar to a thermos flask.

It is also an important safety consideration that the fluid is contained in two pipes. In the unlikely scenario that leakage occurs in the inner pipe, the outer containment pipe prevents spillage into the environment.

COMBINATION OF WELL PROVEN TECHNOLOGIES:

- Fatigue Lifetime: Established and verified calculation models proven in the field of
  - dynamic offshore cables (umbilical and dynamic power cable)
  - unbonded flexible pipes (flexible riser, jumper, flowlines)

- Thermal Insulation: Proven technology of vacuum insulated flexible pipes
  - Experienced in research and industry since the 1980s
  - 1/10th of heat inleak compared to conventional thermal insulation (foam)
  - Static vacuum without operation of pumps
  - Loss of vacuum engages an alarm signal (dry contact) indicating the loss on one barrier (before any fluid spillage may occur)
  - Double Containment – no loss of LNG is possible in any single fault failure scenario
  - Endless production
  - No intermediate joints
  - EN 1474-2 certified



1 corrugated carrier pipe
2 vacuum superinsulation
3 corrugated secondary casing pipe
4 armoring
5 protective sheath

Technical data

Material:	inner pipe	1.4404 / 316 L
	outer pipe	1.4404 / 316 L
	armoring	DC01
	corrosion protection	PE-LD casing
Operating pressure:		16 bar
Heat inleak 8":		30 W/m @ - 160 °C
Certified according EN 1474-2		

Mechanical Properties

Type	Nominal bore	Inner diameter	Outer diameter floating/ submerged	Volume inner pipe	Weight empty floating/floating/ submerged	Weight filled (LNG) submerged
FLEXWELL	DN 200 / 8"	195 mm	332 mm 358 mm	30.8 l/m	67 kg/m 118 kg/m	80 kg/m 131 kg/m

Subject to change without notice.

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