

## Multi-LNG White STS Composite Hose

Multi-LNG White STS is especially designed for Offshore use in rough conditions, such as ship to ship operations where fully refrigerated conveyants like LNG will be offloaded. Multi-LNG White STS hoses can be used in different operations such as side by side and tandem offloading. Multi-LNG White STS hoses are also suitable as Vapor Return line in combination with other transfer systems, like loading arms and flexible pipelines.

### Reliable

Reliable An extended test program has proven that Multi-LNG White STS hoses are reliable and safe to use in rough offshore conditions. Multi-LNG White STS hoses have a high resistance against any damage.

### Certifications

Multi-LNG White STS hoses have been tested and approved according EN 13766, IMO IGC Code and EN 1474-II by several classification societies, such as DNV, ABS, Bureau Veritas and Class NK.

### Lengths and sizes

Multi-LNG White STS hoses are available in sizes from 4" up to 10" in lengths up to 30,00 meter. Multi-LNG White STS in size 12" and 16" only on customer request.

### End connections

Multi-LNG White STS hoses are equipped with end fittings to customer requests. All types of ERC, QCDC and other special requirements can be connected directly to the hose fitting. The fittings have been swaged to Gutteling BV's special mounting procedure and have been fully tested on their resistance against low temperature and high external loads.

### Test / qualification program

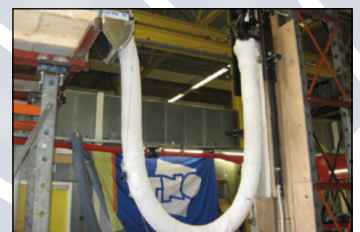
The qualification program essentially covers, strength and stiffness of the Multi-LNG White STS hoses, fatigue due to bending and thermal cycles and flow and damage tolerance. Tests are performed at both ambient and cryogenic conditions.



8" Multi-LNG White STS crushed with external loads up to 160 kN. Internal hose pressure of 6 bar. Done both ambient and cryogenic without any leakage.



Hose filled with LIN during 9 weeks.



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## Multi-LNG White STS 8"

Bore diameter		Max. work. pressure		Weight		Available lengths	
inches	mm	PSI	bar	lbs/Ft	Kg/m	Ft	m
8	200	150	10,5	13,5	20,1	100	30

Min. Bendradius*		Burstpressure*		Pressure losses**		Elongation	Twist
inches	mm	PSI	bar	PSI/m	bar/m	%	%
35,8	910	2580	178	2,9	0,2	6	<1

\* Performed at cryogenic conditions

\*\* Performed at cryogenic conditions and at maximum allowable flow speed of 14 m/s

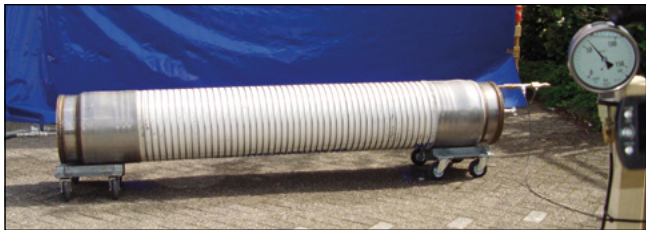
## Multi-LNG White STS 10"

Bore diameter		Max. work. pressure		Weight		Available lengths	
inches	mm	PSI	bar	lbs/Ft	Kg/m	Ft	m
10	250	150	10,5	16	23,9	100	30

Min. Bendradius*		Burstpressure*		Pressure losses**		Elongation	Twist
inches	mm	PSI	bar	PSI/m	bar/m	%	%
59	1500	1810	125	1,4	0,1	5	<1

\* Performed at cryogenic conditions

\*\* Performed at cryogenic conditions and at maximum allowable flow speed of 14 m/s



Ambient burst test on prototype Multi-LNG White 16"



Bending of a Multi-LNG White 16"



**This information is for guidance only, dimensions and weights shown are approximate.**

We reserve the right to alter or amend specifications as deemed necessary.