



# Multi-LNG White STS Composite Hose

## Applications

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.



*LNG Transfer  
Exmar /  
Excelerate*



*LNG Transfer  
Exmar/  
Excelerate  
and Repsol at  
Bahia Blanca*

## 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.



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



*Hose filled  
with Liquid  
Nitrogen  
during 6  
weeks*

## 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 Det Norske Veritas and Bureau Veritas.



## Lengths and sizes

Multi-LNG White STS hoses are available in sizes from 1" - 8" in lengths up to 30,00 meter, 10" and 12" up to 20,00 meter and 16" up to 15,00 meter.

## End connections

Multi-LNG White STS hoses are equipped with end fittings made by our sister company Van Rooyen 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.



# Multi-LNG White STS Composite Hose

## Technical details Multi-LNG White STS 8"

Bore diameter		Max. WP		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	1825	125	2,9	0,2	6	<1

\* Performed at cryogenic conditions

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

## Technical details Multi-LNG White STS 16"

Bore diameter		Max. WP		Weight		Available lengths	
inches	mm	PSI	bar	lbs/Ft	Kg/m	Ft	m
16	400	300	20	31,6	47	50	15

Min. Bendradius*		Burstpressure*		Pressure losses**		Elongation	Twist
inches	mm	PSI	bar	PSI/m	bar/m	%	%
98,9	2500	1500	105	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"