

GUTTELING B.V.
PELSERTSTRAAT 9
ROTTERDAM
Netherlands 3044 CH
Telephone: +31 10 208 25 50
Fax:
Email: info@gutteling.com
Web: www.gutteling.com

Tier: 5 - Unit Certification Required

Product: Hose Assemblies
Model: Multi-LNG White STS
Intended Service:
Ship to ship transfer of LNG.

Description:

Multi-LNG White STS- Hose with lining/carcass of polyamide fabrics and polyester films, inner wire and outer wire of stainless steel 316, ; Fittings: Flanges fixed or floating ASA / DIN / JIS or male / female thread; Material: Stainless steel 316.

Rating:

Maximum Working Pressure 10.5 bar, Temperature range -196 deg C to +50 deg C.
Sizes : 4", 6", 8", 10" Nominal Diameter.

Service Restriction:

- 1) For transfer system requiring compliance with EN1474, then system should also comply with EN 1474-3 Installation and equipment for liquefied natural gas - Design and testing of marine transfer systems - Part 3: Offshore transfer systems
- 2) Unit Certification is required for hoses used for transfer of gas in liquid and vapour form. Each hose assembly (with hose coupling) is to be hydrostatically tested at ambient temperature to 1.5 times the specified maximum working pressure, but not more than two fifths of its bursting pressure as per 5C-8-5/11.7 of the ABS Steel Vessel Rules and 5.11.7.3 of the IMO IGC Code
- 3) If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1. Hoses used for the transfer of gas in liquid and vapour form are to be marked with the date of testing, its specified maximum working pressure, and its maximum and minimum service temperature. The specified maximum working pressure shall not be less than 1 MPa gauge
2. The hoses are to be selected and installed in accordance with the manufacturer's recommendations and ABS approved drawings. For each geographical area of use, the hose is to be verified for suitability regarding environmental conditions, including but not limited to wave characteristics and ambient thermal conditions affecting heat transfer across the flanges.
3. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. Correspondence, Asbestos Free Declaration, Revision: -, Pages: 1
Drawing No. Correspondence, Plan Approval Request Form - Revalidation 15-LD1368439-PDA, Revision: -, Pages: 1
Drawing No. Correspondence, EMAIL From Sander Verweij - PDA Revalidation 15-LD1368439-PDA, Revision: -, Pages: 1
Drawing No. Drawing, DRAWING M.LNG.WHITE 21BAR 6inch, Revision: 1, Pages: 1
Drawing No. Drawing 2, DRAWING M.LNG.WHITE 21BAR 10inch, Revision: 1, Pages: 1
Drawing No. Qualification , Qualification tests comparison, Revision: 1, Pages: 1
Drawing No. Report , Heat ingress report, March 2019, Revision: 1, Pages: 1
Drawing No. Report 2, LNG flowtest Nikkiso r2009-03252, Oct 2009 , Revision: 1, Pages: 1
Drawing No. Report 3, Multi-LNG White 8inch and 4inch 21 bar DNVGL, 2018, Revision: 1, Pages: 1
Drawing No. Report 4, Submerge-test-10inch_final , April 2019, Revision: 1, Pages: 1
Drawing No. Report 5, Thermal Insulation and thermal gradient report TNO test, Sep 2009, Revision: 1, Pages: 1
Drawing No. Report 6, TNO 2016 LNG 21BAR TEST REPORT, May 2016, Revision: 1, Pages: 1
Drawing No. Report 7, TNO 2019 R11944 Final - 10 inch LNG hose, Dec 2019, Revision: 1, Pages: 1
Drawing No. Report 8, TNO report Crytransfer flow tests, June 2017, Revision: 1, Pages: 1
Drawing No. Report 9, Waterflow test TNO 4 inch 12 inch, Dec 2009, Revision: 1, Pages: 1

GUTTELING B.V.

PELSERTSTRAAT 9

ROTTERDAM

Netherlands 3044 CH

Telephone: +31 10 208 25 50

Fax:

Email: info@gutteling.com

Web: www.gutteling.com

Tier: 5 - Unit Certification Required

Drawing No. Request for extension, Revision: 1, Pages: 1

Drawing Nos. GUT/HOSE/05-102 rev -, GUT/HOSE/05-103 rev -, GUT/HOSE/05-104/rev 01, GUT/HOSE/06-105/rev01

Drawing No. TNO-034-DTM-2009-00733, dated December 2009, TNO Prototype Test Report as per BS EN 1474-2, Revision: 1, Pages: 1

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 04/Jun/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

The Rules for Conditions of Classification, 2020 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4;
Rules for Building and Classing Steel Vessel Rules 2020: 5C-8-5/11.7;

National:

NA

International:

IGC Code (International Code for The Construction And Equipment Of Ships Carrying Liquefied Gases In Bulk) 2016 Edition; Chapter 5.11.7

EN 1474-2:2008 Installation and equipment for liquefied natural gas - Design and testing of marine transfer systems Part 2: Design and testing of transfer hoses

Government:

NA

EUMED:

NA

OTHERS:

NA