

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Bulk Loading Hoses with Permanently Fitted Couplings**with type designation(s)
AQUAFLEX HD - Tess Part number. 11516

Issued to

**TESS as
Lierstranda, Norway**is found to comply with
DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses**Application :****Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV GL.****Temperature range:** 0°C to 90°C**Max. working press.:** 15 bar**Sizes:** 2" - 3" - 4"Issued at **Høvik** on **2019-02-08**This Certificate is valid until **2024-02-07**.DNV GL local station: **Oslo Maritime and CAP**for **DNV GL**Approval Engineer: **Adel Samiei**

**Marianne Spæren Marveng
Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Design:

Rubber hose reinforced with plies of textile yarn

Manufacturer of hoses: IVG Colbanchini SpA, Padova, Italy.

Hose type: Aquaflex HD

Materials: Inner tube: Food quality IIR Rubber (White)

Cover: EPDM (Orange)

Couplings: Insert: 330021, 330041, 33004, 330021, 32968, 33111, 33002 in Carbon Steel (A106)
33062, 33061, 33070, 33604, 33064, 32967 in Stainless Steel (AISI316/316L)

Ferrule: 30134 in Carbon Steel (A105)

301462 in Stainless Steel (AISI316/316L)

Coupling manufacturer: Shand UK

IVG Colbanchini SpA, Padova, Italy for 4"

Material of Couplings: Carbon steel with zinc protection or AISI 316/316L

Application/Limitation

This certificate is valid for the specific assembly of hose and coupling type as specified, assembled and delivered by the holder of this certificate and below approved locations:

- TESS Vest (Norway): Stavanger, Kokstad, Sotra, Mongstad
- TESS Logistikk AS, Lierstranda, Norway
- TESS, Esbjerg, Denmark
- TESS, Aberdeen, Scotland

Hose assemblies covered by this certificate are approved for installation on DNV GL classed ships and mobile offshore units as a "Bulk loading hose" ("Rig supply hose") and may be used for transfer of potable water.

Each hose assembly is to be hydraulic pressure tested to 1.5 times the maximum working pressure before delivery and shall be delivered with a pressure test report with reference to this certificate. No product certificate will be required.

Hoses covered by this certificate are not to be used in:

- DNV GL classed drilling units (applications covered by DNVGL-OS-E101)
- Wherever they might be subject to axial load during operation
- Wherever they might be subject to twisting during operation

Type Approval documentation

Tests carried out

Dimensional check, Proof, Burst pressure, Temporary and Permanent elongation, Bending test, Break load test, Tension test

Marking of product

For traceability to this Type Approval, the products are at least to be marked with:

- Hose manufacturer's name or trademark;
- Date of manufacture (month/year);
- Designation type reference;
- Nominal diameter;
- Pressure rating;
- Temperature rating.

Where a flexible hose assembly is made up of items from different manufacturers, the components are to be clearly identified and traceable to evidence of prototype testing.

Periodical assessment



Job Id: **262.1-009105-8**
Certificate No: **TAP00001MX**

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.