Certificate no.:
TAP00002YD

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings

with type designation(s)
LIFEFLEX Conductive

issued to
HydraSpecma AB
Landvetter, Västra Götalands län, Sweden

is found to comply with
DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems

Application:

Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV.

Temperature range:	**-40°C to +120°C**
Max. working press.:	**9 bar**
Sizes:	**5/16"**

Issued at **Høvik** on **2025-07-07**

This Certificate is valid until **2030-07-07**.

for **DNV**

DNV local unit: **Denmark CMC**

Approval Engineer: **Tobias Berntsen**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

One type of flexible non-metallic hose assembly with permanently fitted couplings constructed according to manufacturer's specification (Doc. No. 240062500 Rev. 02) with the following design:

Inner tube	:	Smoothbore PTFE, with integral PTFE impregnated with glass fibre braid
Reinforcement	:	PTFE impregnated with glass fibre braid
Cover	:	High tensile 304 Maypole wound stainless steel braid
End fittings	:	Ferrule SFPLTH-8/15 (703942S) Insert coupling LTP8-05-06

Fittings (ferrule & insert) materials: 1.4404 or AISI 304L

Application/Limitation

Hose assemblies covered by this Certificate are approved for use in Selective Catalytic Reduction (SCR) systems containing Urea (Adblue®).

This certificate is valid for the specific assembly of hose and coupling type as specified, assembled and delivered by the holder (named as manufacturer) of this certificate.

The hose assemblies covered by the Certificate are not allowed for use in LNG/LPG applications.

Materials chosen for the specific system shall be suitable for the intended medium and environmental conditions. Manufacturer shall document suitability of inner tube material for the intended medium.

The hoses are to be mounted in accordance with the manufacturer's instructions.

Flexible hoses are only to be used where it is necessary due to vibrations or flexible mounting of machinery. The hose shall not replace/be used where permanent piping is possible/required. Hoses shall only be fitted in places where they are always accessible.

Hose assemblies covered by this certificate shall not be used in system subject to pressure below atmospheric or vacuum condition

The outer end of the pipe coupling (performing the connection to the fixed piping) is not covered by this certificate and shall follow the below requirements:

- Flanged ends shall be according to a recognized standard;
- Slip-on threaded joints having pipe threads where pressure-tight joints are made on the threads with parallel or tapered threads, shall comply with requirements of a recognized standard. Limitations stated in DNV-RU-SHIP Pt.4 Ch.6 Sec.9 [5.2.6] to be followed.
- If these outer ends are going to be part of a mechanical joint as covered by Table 10 of DNV-RU-SHIP Pt.4 Ch.6 Sec.9, then they shall be separately type approved.

The hose assemblies must only be fitted in places where they are always accessible. The hoses covered by this certificate are not permitted on boiler fronts.

Type Approval documentation

Tests carried out

Dimensional check, change in length, burst, cold flexibility, impulse, leakage & fire resistance tests

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

Periodical assessment

This certificate is only valid if required periodical assessments are carried out with satisfactory results.

For retention of the Type Approval, a DNV 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 DNV-CP-0338.

To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com.

Manufactured by:

Hose manufacturer location:

Kongsberg Automotive
Foxbridge Way, Normanton,
West Yorkshire,
WF6 1TN, United Kingdom

Hose assembly location:

HydraSpecma AB
Gröenvägen 1,
438 91 Landvetter, Sweden

HydraSpecma AB,
Industrigatan 10,
312 75 Våxtorp, Sweden

End fittings manufacturer location:

HydraSpecma AB,
Industrigatan 10,
312 75 Våxtorp, Sweden

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