

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings**with type designation(s)
2TE; 3TE; 2SN equipped with Fire Sleeve F88SC

Issued to

**VIGOT Industrietechnik GmbH
Bremen, Germany**

is found to comply with

**DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses****Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.****Sizes: DN15 up to DN85**Issued at **Hamburg** on **2020-07-29**This Certificate is valid until **2025-07-28**.DNV GL local station: **Hamburg CMC**Approval Engineer: **Christian Kaemmer**for **DNV GL**

**Olaf Drews
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

2TE / 3TE -Series:

Flexible non-metallic hose of textile-reinforced hydraulic type acc. to EN854.
Equipped with Fire Sleeve F-88SC. Fire resistant acc. to ISO 15540.

2SN-Series:

Flexible non-metallic hose of steel wire braid reinforced hydraulic type acc. to EN853.
Equipped with Fire Sleeve F-88SC. Fire resistant acc. to ISO 15540.

Fire Sleeve:

F 88SC Extruded fire sleeve with silicone coating, high resistance and material density.

Responsibility

Vigot Industrietechnik GmbH, takes the responsibility that only DNVGL-Type Approved hoses and couplings are installed and that assembly with fire sleeve is effected by Manufacturers holding a valid DNVGL-AoM-Certificate (Approval of manufacturers).
The design and production of the hoses, hose end fittings and manufacturing of hose assemblies shall be in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation

Flexible hoses are only to be used in short lengths up to 1.5 m where it is necessary due to vibrations or flexible mounting of the machinery. The hoses shall not replace/be used where permanent piping is possible/required.

Installation

The hose assemblies must only be fitted in places where they are always accessible.
Flexible hoses of these types are not to be used on boiler fronts.
The hoses are to be mounted in accordance with the manufacturer's instructions.
It must be possible to shut off from the system all flexible hoses used in systems for compressed air, fresh water cooling applications, lube oil, fuel oil and petroleum base hydraulic oil.
The hoses are not to be used for suction. The use of hose assemblies is not permitted in permanently pressurized starting air lines of diesel engines.

Type Approval documentation

Tests carried out

Production testing

All hose assemblies shall be subject to a pressure test at 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to the type approval certificate.

Job Id: **262.1-033222-1**
Certificate No: **TAP0000225**

Marking of product

For traceability to this type approval, each hose assembly is to be marked with:

- Manufacturer
- Date of Manufacturing
- Maximum Allowable Working Pressure

Periodical assessment

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 Type Approval are complied with. Refer to the Class Programme DNVGL-CP-0338, Sec.4.

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