



## Confirmation of Product Type Approval

**Company Name:** TUBIFLEX S.P.A.

**Address:** FABBRICA TUBI METALLICI FLESSIBILISTRADA TORINO, 25 10043 Italy

**Product:** Non-Metallic Flexible Hose

**Model(s):** TUBIFLON: TX.M.8850.50, TX.M.885S.50 (fire resistant version), TX.T.8850.51 (conductive version)

<b>Certificate Type</b>	<b>Certificate Number</b>	<b>Issue Date</b>	<b>Expiry Date</b>
Product Design Assessment (PDA)	20-1963877-PDA	17-APR-2020	16-APR-2025
Manufacturing Assessment (MA)	16-GE3133536	12-MAY-2016	17-JUL-2021
Product Quality Assurance (PQA)	NA	NA	NA

### **Tier**

3

### **Intended Service**

Bilge, ballast, fresh & sea cooling water, compressed air, fuel oil, lube oil

### **Description**

Corrugated multi-layer PTFE hose, covered by an anti-abrasion fiberglass fabric and reinforced with an austenitic stainless steel wire braid (AISI 304).

Fire resistant version TX.M.885S.50 is also provided with a thermo-insulating fiberglass siliconed braiding.

Conductive version TX.T.8850.51 is provided with a thin additional inner layer of black conductive PTFE.

### **Ratings**

ND 3/8" - NP 125 bar; ND 1/2" - NP 105 bar; ND 5/8" - NP 100 bar; ND 3/4" - NP 90 bar; ND 1" - NP 80 bar; ND 1 1/4" - NP 64 bar; ND 1 1/2" - NP 53 bar; ND 2" - NP 35 bar; ND 2 1/2" - NP 25 bar; ND 3" - NP 20 bar.

Temperature range: -55 deg C to 205 deg C

### **Service Restrictions**

1. Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

2. Only fire resistant versions to be used for flammable fluids and for sea water systems where failure may result in flooding, as per 4-6-2/5.7.3(c).

3. Hoses are to be complete with factory assembled end fittings or (for suffix .T. hoses instead of suffix .M. hose assemblies) with factory supplied end fittings installed in accordance with the manufacturer's specifications.

4. End connections are to comply with applicable requirements and limitations of the Rules (4-6-2/5.5, 4-6-4/13.7.1, 4-6-5/7.3.3, 4-6-5/9.7.1).

5. Hose assemblies are to be installed only where flexibility is required and are not to be subject to torsional deflection under normal conditions; hose length is to be limited to that required by flexibility only.

6. To be used at rated pressure for static pressure applications only; if used for pulsating pressures applications, maximum pulsating pressure not to exceed one-half of rated pressure.

7. Flexible hoses are not acceptable in high pressure fuel oil injection systems.

8. Flexible hoses are to be permanently marked by the manufacturer in accordance with ABS Marine vessel Rules 4-6-2/5.7.6, with the following details: Hose manufacturer's name or trademark, Date of manufacture (month/year), Designation type reference, Nominal diameter, Pressure rating, Temperature rating.

9. For a temperature range 50 deg C to 205 deg C working pressure must be reduced by applying Derating factors as per Manufacturer's catalogue

### Comments

The Manufacturer has provided a declaration about the lack of Asbestos in this product.

Only TUBIFLEX's approved ferrules and inserts are to be used for end fittings, as per the manufacturer's catalogue and recommendations.

### Notes, Drawings and Documentation

Drawing No. DN12\_DN25\_DN65\_DNVGL2018, DN12\_DN25\_DN65\_DNVGL2018, Revision: 1, Pages: 1

Drawing No. DN25\_DN40\_LR2018, DN25\_DN40\_LR2018, Revision: 1, Pages: 1

Drawing No. INGLESE D10\_TUBIFLON\_TX, INGLESE D10\_TUBIFLON\_TX, Revision: 1, Pages: 1

Drawing No. INGLESE G120\_RACCORDI\_TX, INGLESE G120\_RACCORDI\_TX, Revision: 1, Pages: 1

Drawing No. TX\_ASSEMBLY\_01 Tubiflon crimping procedure\_Rev, TX\_ASSEMBLY\_01 Tubiflon crimping procedure\_Rev, Revision: 1, Pages: 1

### Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 16/Apr/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.

### ABS Rules

Rules for Condition of Classification (2020): 1-1-4/7.7, 1-1-A3 and A4, which covers the following:

Rules for Building and Classing Marine Vessels (2020): 4-6-2/5.7

Rules for Conditions of Classifications – Offshore Units and Structures (2020): 1.1.4/9.7, 1-1-A2 and A3,

which covers the following:

Rules for Building and Classing Mobile Offshore Units (2020): 4-2-1/11.29

**International Standards**

NA

**EU-MED Standards**

NA

**National Standards**

NA

**Government Standards**

NA

**Other Standards**

NA



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ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

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 prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.