



## Confirmation of Product Type Approval

**Company Name:** ALFAGOMMA INDUSTRIAL S.P.A.

**Address:** NUCLEO INDUSTRIALE S. ATTO, TERAMO, Italy, 64020

**Product:** Flexible Hose

**Model(s):** 230 AH

**Endorsements:**

<b>Certificate Type</b>	<b>Certificate Number</b>	<b>Issue Date</b>	<b>Expiry Date</b>
Product Design Assessment (PDA)	19-GE1816213-PDA	31-JAN-2019	30-JAN-2024
Manufacturing Assessment (MA)	16-NP3236607	02-DEC-2016	01-DEC-2021
Product Quality Assurance (PQA)	NA	NA	NA

### **Tier**

3 - Type Approved, unit certification not required

### **Intended Service**

Fire main system, water delivery system, fuel and oil systems.

### **Description**

Black rubber tube with high tensile steel cords covered by fiberglass fabric, abrasion, ozone and hydrocarbon resistant.

Treaded or flanged stainless steel or carbon steel fittings.

### **Ratings**

Internal Diameters. 32 mm, 38 mm, 51 mm, 76 mm, 102 mm, 127 mm, 152 mm, 203 mm

Maximum Working Pressure: 20 bar

Fluid Working Temperature: from -30°C to +100 °C

### **Service Restrictions**

- 1) Unit Certification is not required for this product. If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- 2) Hoses are to be complete with factory assembled end fittings or factory supplied end fittings installed in accordance with manufacturer's specifications.
- 3) End connections are to comply with applicable requirements and limitation of ABS Steel Vessels and Marine Vessels Rules (4-6-2/5.5.4, 4-6-2/5.5.5, 4-6-7/3.5.1, and 4-6-7/5.3.2).

- 4) Hose assemblies are to be installed only where flexibility is required, in clearly visible and readily accessible locations, and are not to be subject to torsional deflection under normal conditions; hose length is to be limited to that required by flexibility only.
- 5) Not to be used in high pressure fuel oil injection systems, steam systems or oil supply lines to boilers.
- 6) Not to be used for installations where repeated and/or frequent flexing is expected.
- 7) Marking for Flexible hoses are to be permanently marked by the manufacturer with the following details as per 4-6-2/5.7.6 of the ABS Steel Vessel Rules:
  - a) Hose manufacturer's name or trademark.
  - b) Date of manufacture (month/year).
  - c) Designation type reference
  - d) Nominal diameter
  - e) Pressure rating
  - f) Temperature rating.
- 8) The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006

#### **Comments**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Flexible hoses are to be completed with factory assembled end fittings or factory supplied end fittings installed in accordance with Manufacturer's specifications.

#### **Notes, Drawings and Documentation**

Drawing No. AG Fittings\_ABS TypeAppr\_230AH\_WaterSysFireR\_Nov2018, AG Fittings\_ABS TypeAppr\_230AH\_WaterSysFireR\_Nov2018, Revision: 0, Pages: 1

Drawing No. AG\_ASA150FlangedFitt\_SubcompCodes\_230AH\_nov2018., AG\_ASA150FlangedFitt\_SubcompCodes\_230AH\_nov2018., Revision: 0, Pages: 1

Drawing No. Data sheet 230AH rev 1 27-11-2018, Data sheet 230AH rev 1 27-11-2018, Revision: 1, Pages: 1

Drawing No. Fittings carbon steel, Fittings carbon steel, Revision: 0, Pages: 1

Drawing No. Program test prop, Program test prop, Revision: 0, Pages: 1

Drawing No. REQUESTED STANDARDS, REQUESTED STANDARDS, Revision: 0, Pages: 1

Drawing No. TEC 5-U-TA-01 - Material Equivalence specification\_97128821\_98157114\_revisionato, TEC 5-U-TA-01 - Material Equivalence specification\_97128821\_98157114\_revisionato, Revision: 0, Pages: 1

Drawing No. fittings\_stainless steel, fittings\_stainless steel, Revision: 0, Pages: 1

Drawing No. flanged fittings\_subcomponents carbon steel, flanged fittings\_subcomponents carbon steel, Revision: 0, Pages: 1

Drawing No. flanged fittings\_subcomponents\_stainless steel, flanged fittings\_subcomponents\_stainless steel, Revision: 0, Pages: 1

Test report No. 1042-18 at LAPI Laboratory dated 31 May 2018

Test report No. 1043-18 at LAPI Laboratory dated 31 May 2018

Test report No. 1044-18 at LAPI Laboratory dated 31 May 2018

Test report No. 1045-18 at LAPI Laboratory dated 31 May 2018

Test report No. COMP14122018 at ALFAGOMMA Plant dated 14 Dec 2018

Test report No. 230A-H032-03256 at ALFAGOMMA Plant dated 10 Jan 2019

Test report No. 230AH102-10232 at ALFAGOMMA Plant dated 10 Jan 2019

Test report No. 230AH203-20343 at ALFAGOMMA Plant dated 10 Jan 2019

Data Sheet 230 AH, Revision: 0

**Term of Validity**

This Product Design Assessment (PDA) Certificate 19-GE1816213-PDA, dated 31/Jan/2019 remains valid until 30/Jan/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**ABS Rules**

2019 Rules for Condition of Classification 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2019 Rules for Building and Classing Steel Vessel 4-6-2/5.7, 4-6-7/3.5.2

2019 Rules for Condition of Classification - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2019 Rules for Building and Classing Facilities on Offshore Installations 3-8/5.1.1(b)vi) and 4-8/5.1.1(b)vi)

2019 Mobile Offshore Drilling Units 4-2-1/11.29

2019 Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/5.7, 4-6-2/3.5.2

2019 Marine Offshore Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-1/11.29

**International Standards**

ISO 15540:2016

**EU-MED Standards**

NA

**National Standards**

NA

**Government Standards**

NA

**Other Standards**

NA



A handwritten signature in black ink, appearing to read "James W. White".

Corporate ABS Programs  
American Bureau of Shipping  
Print Date and Time: 19-Feb-2021 3:40

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.