

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Miscellaneous Fittings for Pressurised Equipment**with type designation(s)
Firesafe 5K Hose

Issued to

Alfagomma Hydraulics S.p.A.
64020 Castellalto TE,, Italy

is found to comply with

Application :**Non-metallic flexible tube type FIRESAFE 5000 with couplings permanently fixed, according to API16D:2018 - Size 10, 13, 19, 25, 32, 38 and 51mm****REMARK: Fitness for use to be verified before installation.**
Valid for products not subjected to DNV GL classification requirements.Issued at **Esbjerg** on **2019-11-25**for **DNV GL**This Certificate is valid until **2023-11-25**.DNV GL local station: **Milan Verification**Approval Engineer: **Gaetano Ricci**

Pedersen, Lars Henning
Head of Section for Pipelines &
Equipment (O-ED-PIEQ)

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

- Tube: oil resistant synthetic rubber.
- Reinforcement: four/six high tensile steel spirals.
- Cover: oil and fire resistant red synthetic rubber

Application/Limitation

- Application: high pressure hydraulic lines in blow out preventer system, where continuous operation in case of fire is required.
- Constant operation: -40 °C +121 °C (-40 °F +250 °F)
- Safety factor: 1:4
- Size: 10, 13, 19, 25, 32, 38 and 51mm
- Max Working Pressure: 350 bar
- Please consider that this certificate is not valid for products (materials, component or equipment) subjected to DNVGL classification.

Type Examination documentation

- Technical Data Sheet – FIRESAFE 5000 (350 bar / 5000 psi) – API 16D
- Test plan for hose
- Fire Test Report LAPI 699.0AE0200/08 - hose type DN10
- Fire Test Report LAPI 1262.0AE0200/07 - hose type DN12
- Fire Test Report LAPI 700.0AE0200/08 - hose type DN19
- Fire Test Report LAPI 1263.0AE0200/07 - hose type DN25
- Fire Test Report LAPI 701.0AE0200/08 - hose type DN32
- Fire Test Report LAPI 1264.0AE0200/07 - hose type DN38
- Fire Test Report LAPI 702.0AE0200/08 - hose type DN51
- Fire Test Report LAPI 733/18 - hose type DN10
- Fire Test Report LAPI 271/18 - hose type DN12
- Fire Test Report LAPI 272/18 - hose type DN19
- Fire Test Report LAPI 273/18 - hose type DN25
- Fire Test Report LAPI 274/18 - hose type DN32
- Fire Test Report LAPI 734/18 - hose type DN38
- Fire Test Report LAPI 275/18 - hose type DN51
- Alfagomma Test Report No. 194/2018 for hose DN12 (change in length, proof and burst test) – Witnessed by DNVGL
- Alfagomma Test Report No. 195/2018 for hose DN25 (change in length, proof and burst test) – Witnessed by DNVGL
- Alfagomma Test Report No. 196/2018 for hose DN51 (change in length, proof and burst test) – Witnessed by DNVGL
- DNVGL Assesment report/Checklist - Alfagomma Hydraulics - Firesafe 5K acc API 16D – MPQA Manufacturer Product Quality Assesment Report – dtd. 2019-10-25

Tests carried out

According with API 16D:

- Dimensional Check
- Change in length
- Proof pressure test (at 2 x NP)
- Burst pressure test (min 4 x NP)

Marking of product

Marking of products shall be as a minimum:

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

Job Id: **262.1-030018-1**
Certificate No: **TAP201903556**

Certificate Retention Survey

For retention of the Type Approval/Examination, DNV GL Surveyor shall perform a survey every second year, to verify that the conditions for the type examination are complied with unless the hoses are regularly certified by DNV GL