

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:**That the Manufacturer****OLEUM FLEX d.o.o.****Lucko, Croatia**

is approved for the

Assembling of type approved hoses and couplings

The approval is granted on condition that

DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses

are complied with in all respect

Hose Non-metallic high-pressure flexible hose assembly
Type see table page 2

Manufacturer approved by this certificate is accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Hamburg** on **2021-02-26**for **DNV GL**This Certificate is valid until **2024-02-25**.DNV GL local station: **Rijeka**Approval Engineer: **Christian Kaemmer**.....
Olaf Drews
Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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 300,000 USD. This Certificate is subject to terms and conditions overleaf. Any significant change in production facilities and methods may render this Certificate invalid.



Approval basis

The below listed hose assemblies are type approved according to the specifications/technical data mentioned in Type Approval Certificates:

Manufacturer	Flexible hose	Type Approval
Alfagomma Hydraulics S.p.A	Type Flexor 1SN / 1AT-HF Flexor 2SN / 2AT-HF 1SN Minetuff 2SN Minetuff Couplings made of carbon steel or stainless steel: H1200AD1 or H1200AD2	Other Brand name Dunlop Hiflex Greenline plus 122 Dunlop Hiflex Greenline plus 122 Dunlop Hiflex 1SN HI-TUFF Dunlop Hiflex 1SN HI-TUFF TAP000002W

The selection of the hose assemblies for the corresponding application and the right installation are to be in accordance with the specifications of the manufacturer.
Reference is made to the applicable Type Approval Certificates as listed above.

Documents

- Test Plan
- Authorization letter « Alfagomma dated »
- Working instruction « Final Assembly Control » UPK-026
- Technical datasheets : Crimping machine, test-bench, cutting machine, skiving machine
- Crimping table
- List of authorized persons
- Brochure « Hose assembling training course »
- Burst Pressure Test Reports dated 2021-02-17
- Initial Hose Assembling Assessment Report dated 2021-02-17

Marking

For identification and traceability purposes, each hose assembly permanently marked as required by the respective Type Approval Certificate.

Production testing

Each manufactured hose assembly is subject to a pressure testing as required by the relevant regulation and as marked on the hose assembly Type Approval Certificate, but at least in accordance with the respective DNV GL Rules, with 1.5 times the maximum working pressure.

Remark

For determination of the maximum working pressure of the hose assembly both, the maximum operating pressures of the hose end fitting and hose type, as specified in the latest manufacturer product catalogues, are to be considered.

Product certification

In case of orders according to GL Rules, a DNV GL-product certificate of the manufactured and pressure tested hose assemblies issued by DNV GL is mandatory.
Otherwise a 3.1 customer Work Certificate is required and sufficient.

Job Id: **263.11-011086-1**
Certificate No: **AMT00000J0**

Certificate Retention Survey

The approval is valid for three years. To maintain the approved status, the manufacturer must be reinspected every three years. Application for renewal should be made not later than three months before the expiry date of the certificate.

Any alteration to the approved condition during the period of validity, e.g. method of manufacture, maximum dimensions or conditions of supply, is to be reported to the Society.

A re-inspection and/or re-testing may be required when deemed necessary by the Society.