

# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>Alfagomma Hydraulic SpA</b>
<b>Address</b>	Via Enrico Mattei 6, Castelnuovo Vomano, 64020, Italy
<b>Type</b>	Flexible Hoses
<b>Description</b>	High pressure, fire resistant flexible hose assemblies with an inner tube and cover of synthetic rubber, reinforced with braided and spiral high tensile steel wire. Type: as per Appendix
<b>Application</b>	Short joining lengths of flexible hose to accommodate relative movement in marine and offshore systems: Fresh and sea water systems; Fuel oil and lube oil systems in visible and accessible locations; Hydraulic and pneumatic power and control systems; Compressed air systems; CO <sub>2</sub> systems, between bottles and master valves
<b>Specified Standard</b>	Lloyd's Register's Rules and Regulations for the Classification of Ships; EN 853; EN 856 SAE J517
<b>Ratings</b>	<b>Alfagomma Flexor 1SN/1ATHF (Dunlop Hiflex 122 Greenline Plus)</b> <b>Alfagomma Flexor 1SN/1ATMinetuff (Dunlop Hiflex 122 Greenline Plus Hi-Tuff):</b> Nominal diameter (mm): 4.8 to 50.8 Max. working pressure (bar): 250 to 40 Temperature range (°C): -40 to 100

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**Alfagomma Flexor 2SN/2ATHF(Dunlop Hiflex 222 Greenline Plus)  
Alfagomma Flexor 2SN/2ATMinetuff (Dunlop Hiflex 222 Greenline Plus Hi-Tuff):**

Nominal diameter (mm):	4.8 to 50.8
Max. working pressure (bar):	420 to 90
Temperature range (°C):	-40 to 100

**Alfagomma Flexor 4SH(Dunlop Hiflex 790L, 790G and Powertrack 790):**

Nominal diameter (mm):	19.0 to 50.8
Max. working pressure (bar):	420 to 250
Temperature range (°C):	-40 to 100

**Alfagomma Flexor 13(Dunlop Hiflex 713L, 713G and Powertrack 713):**

Nominal diameter (mm):	19.0 to 50.8
Max. working pressure (bar):	350 (380Φ1")
Temperature range (°C):	-40 to 121

**Dunlop Hiflex 3SPT&3SPG:**

Nominal diameter (mm):	9.5 to 31.8
Max. working pressure (bar):	500 to 240
Temperature range (°C):	-40 to 100

**Alfagomma Flexopak 2Minetuff (Dunlop Hiflex Super Slimline 241T, 241G Hi-Tuff)**

**Alfagomma Flexopak 2Supertuff (Dunlop Hiflex Super Slimline 241X Tuflex):**

Nominal diameter (mm):	6.3 to 50.8
Max. working pressure (bar):	420 to 100
Temperature range (°C):	-40 to 100

**Alfagomma Flexor 4SP(Dunlop Hiflex 730L, 730G Powertrack 730):**

Nominal diameter (mm):	6 to 25
Max. working pressure (bar):	450 to 320
Temperature range (°C):	-40 to 100

Refer to Alfagomma/Dunlop Hiflex data sheets for actual maximum working

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pressure for specific hose diameters.

**Other Conditions** All other details remain as the previous Certificate No. 07/00065 (E3) to which the extension should be attached

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. 07/00065(E3) - 03 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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## **Appendix**

<b>DESCRIPTION</b>	High pressure, fire resistant flexible hose assemblies with an inner tube and cover of synthetic rubber, reinforced with braided and spiral high tensile steel wire.
<b>TYPE</b>	Alfagomma Flexor 1SN/1AT HF (Dunlop Hiflex 122 Greenline Plus); Alfagomma Flexor 1SN/1AT Minetuff (Dunlop Hiflex 122 Greenline Plus Hi-Tuff); Alfagomma Flexor 2SN/2AT HF (Dunlop Hiflex 222 Greenline Plus); Alfagomma Flexor 2SN/2AT Minetuff (Dunlop Hiflex 222 Greenline Plus Hi-Tuff); Alfagomma Flexor 4SH (Dunlop Hiflex 790L, 790G and Powertrack 790); Alfagomma Flexor 13 (Dunlop Hiflex 713L, 713G and Powertrack 713); Alfagomma Flexor 4SP (Dunlop Hiflex 730L, 730G and powertrack 730) Alfagomma Flexopak 2 Minetuff (Dunlop Hiflex Super Slimline 241T, 241G Hi-Tuff) Alfagomma Flexopak 2 Supertuff (Dunlop Hiflex Super Slimline 241X Tufflex) Dunlop Hiflex 3SPT & 3SPG;