



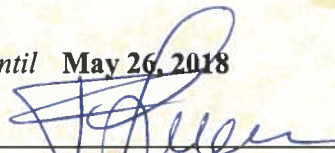
TYPE APPROVAL CERTIFICATE

No. MAC030813CS/001

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Non metallic flexible hoses
<i>Type</i>	FLEXOR 1A / 1AT / 1SN / 1ST; GREENLINE 122T / 122G
<i>Applicant</i>	ALFAGOMMA HYDRAULIC SPA VIA ENRICO MATTEI 6 64020 CASTELNUOVO VOMANO (TE) ITALY
<i>Manufacturer</i>	ALFAGOMMA HYDRAULIC SPA
<i>Place of manufacture</i>	VIA ENRICO MATTEI 6 64020 CASTELNUOVO VOMANO (TE) ITALY
<i>Reference standards</i>	Part C, Chapter 1, Section 10 of RINA Rules

Issued in **Genova** on **May 27, 2013**. This Certificate is valid until **May 26, 2018**



RINA

Francesco Sciacca

This certificate consists of this page and 1 enclosure



TYPE APPROVAL CERTIFICATENo. **MAC030813CS/001**

Enclosure - Page 1 of 3

FLEXOR 1A / 1AT / 1SN / 1ST**GREENLINE 122T / 122G****Reference documents**

Alfagomma catalogue 2011-2012

Alfagomma data sheet edition 8 dated 13/12/1999 and edition 10 dated 21/02/2000

Hose Fitting Combination dated 26/07/2000 and 24/05/2013

Hose fitting combination:

DN			Ferrule			Insert	
mm	inch	dash	Carbon steel		Stainless steel	Carb. steel	Stainl. steel
			AG branding	DH branding	AG branding	AG branding	AG branding
6	1/4	4	H1100204-04	D330000-04/0	H3 100204-04	H12-04	H32-04
8	5/16	5	H1100204-05	D330000-05/0	H3 100204-05	H12-05	H32-05
10	3/8	6	H1100204-06	D330000-06/0	H3 100204-06	H12-06	H32-06
12	1/2	8	H1100204-08	D330000-08/0	H3 100204-08	H12-08	H32-08
16	5/8	10	H1100204-10	D330000-10/0	H3 100204-10	H12-10	H32-10
19	3/4	12	H1100204-12	D330000-12/0	H3 100204-12	H12-12	H32-12
25	1	16	H1100204-16	D330000-16/0	H3 100204-16	H12-16	H32-16
31	1 1/4	20	H1100104-20	-	H3 100104-20	H12-20	H32-20
38	1 1/2	24	H1100104-24	-	H3 100104-24	H12-24	H32-24
51	2	32	H1100104-32	-	H3 100104-32	H12-32	H32-32

Applicable specifications*Alfagomma type designation:*

Flexor 1ST acc. EN 853 and 100R1A acc. SAE J517 (skive)

Flexor 1SN acc. EN 853 and 100R1AT acc. SAE J517 (non-skive)

Dunlop Hiflex type designation:

Greenline 122T, 122G acc. EN 853 1SN

Materials/Components

- Inner tube: oil resistant synthetic nitrile rubber
- Reinforcement: one braid of high tensile steel wire
- Cover: chloroprene rubber, weather, oil and abrasion resistant
- Couplings: Carbon steel (9SMnPb28 UNI 4838) or
Stainless steel (XCrNi1810 UNI 6901)



TYPE APPROVAL CERTIFICATE

No. **MAC030813CS/001**

Enclosure - Page 2 of 3

FLEXOR 1A / 1AT / 1SN / 1ST

GREENLINE 122T / 122G

Technical characteristics

Temperatures range: -40 °C / +100 °C

Maximum working pressure according to the following table:

DN			Max. Working Pressure
mm	inch	dash	bar
6	1/4	4	225
8	5/16	5	215
10	3/8	6	180
12	1/2	8	160
16	5/8	10	130
19	3/4	12	105
25	1	16	88
31	1 1/4	20	63
38	1 1/2	24	50
51	2	32	40

Places of manufacture:

Hoses:

ALFAGOMMA HYDRAULIC SPA - Via E. Mattei, 6 - 64020 Castelnuovo Vomano (TE)

Manufacturing plants:

64020 Castelnuovo Vomano (TE) - Via E. Mattei, 6

87050 Figline V. (CS) - Area Industriale Piano Lago

Couplings:

ALFATECHNOLOGY SRL - Via Torri Bianche, 1 - 20059 Vimercate (MI)

Manufacturing plants:

20040 Bellusco (MI) - Via dell'Industria, 12

87050 Mangone (CS) - Area Industriale Piano Lago

Fields of application

Hydraulic systems with hydraulic fluid having a flash point higher than 150 °C (closed cup test)

Pneumatic systems

Compressed air systems

Fresh water systems

Sanitary systems



TYPE APPROVAL CERTIFICATE

No. MAC030813CS/001

Enclosure - Page 3 of 3

FLEXOR 1A / 1AT / 1SN / 1ST

GREENLINE 122T / 122G

Remarks

The installation on board is to be carried out by qualified personnel in accordance with the manufacturer's instructions.

The flexible hoses are to be installed in order to satisfy the requirements of para. 5.9.3 of Part C, Chapter 1, Section 10 of RINA Rules.

Hoses assemblies with Carbon steel couplings are not to be used at temperatures below -10°C, unless the material is normalized.

The acceptance of the a.m. products on board ship classed with RINA is subject to the satisfactory outcome of testing as per RINA Rules.

The product (hose and fittings) is to be marked, for traceability, with the following data: nominal diameter, design conditions, Manufacturer's name or trademark, designation type reference.

This certificate cancels and replaces the previous one No. MAC014207CS/001 dated 30 November 2007.

Genova May 27, 2013



RINA
Via Corsica, 12 - 16128 Genova
Tel +39 010 53851
Fax +39 010 5351000

