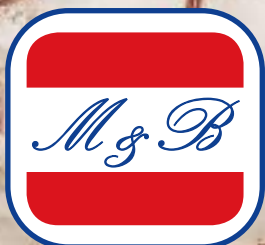


Monti & Barabino

**Technical Supplies
For Industrial and Naval field
Since 1880**



COMPOSITE HOSES





Monti & Barabino, established in 1880, is based in Genoa and operates in the field of Technical Items supplies for the Industrial and Maritime Sectors.

The extremely wide experience matured in more than 135 years of activity and its highly qualified personnel composed by technicians, marine engineers, naval architects etc., enables the Company to offer the most complete and efficient technical and commercial assistance.

Moreover, the products stocked in its large warehouse allows it to promptly satisfy any kind of enquiry, while its workshop is able to manufacture all types of packings and gaskets comprising the moulding of rubber and elastomer of various types, including silicon, Fluoropolymer, Polyurethane, etc.

Since February 2004, Monti & Barabino S.p.A. improved its Quality Management System in accordance with **UNI EN ISO 9001** regulations, obtaining the certification through **R.I.N.A.** This prestigious acknowledgement is a confirmation of our constant effort in offering excellent quality and service to all those Customers who have chosen and will choose our Company as their supplier.



Our workshop, acting as  **Parker** Official distributor, is able to offer:

- FLEXIBLE HOSES FOR LOW, MEDIUM AND VERY HIGH PRESSURE
- MED APPROVED FLEXIBLE HOSES
- TYPE APPROVED SHIP TO SHORE AND INDUSTRIAL COMPOSITE HOSES
- HIGH PRESSURE STEAM HOSES
- HIGH PRESSURE CLEANING HOSES
- RUBBER, STAINLESS STEEL AND TEXTILE EXPANSION JOINTS

Moreover:

- HYDRAULIC TEST FACILITIES
- MANAGEMENT OF TESTING PROCEDURES IN PRESENCE OF CLASSIFICATION BODIES
- PRESSED FITTINGS ON LARGE BORE RUBBER HOSES UP TO 10"



MECHANICAL WORKSHOP and **PIPE WORKSHOP** are available for the execution of customized processes on our semi-finished products. Thanks to the wide availability of **WAREHOUSE** we are able to satisfy your needs in a short time, organizing and managing your shipments in a very short time.

We perform CNC turning and cutting on rubber and metal semi-finished products; we mold details and rubber gaskets.



We produce gaskets in any material, even according to Customer's design, including padded copper and spiral wound gaskets.

We sew and assemble insulating mats and textile joints: wide choice of fabrics for high temperatures.



Laser marking of finished products and components

We are an authorized **Parker** assembling center, hydraulic hoses up to 3" and industrial hoses up to 10".

Ask for our **FLEXIBLE HOSES** and **ACCESSORIES CATALOG**

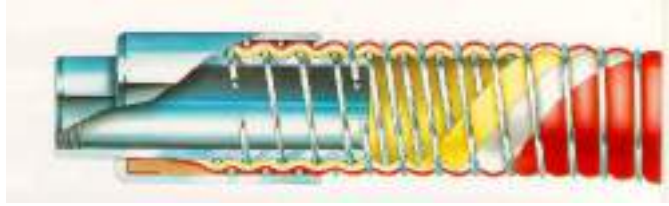


Approved welders able to manufacture special fittings according to Customer's specifications.

We perform internal hydrostatic tests, also in the presence of an external Certifying Body.



EKOFLEX® COMPOSITE HOSES



EKOFLEX® composite hoses are manufactured from many spirally wrapped plies of thermoplastic fabrics and films held together by internal and external wire helices.

The fabrics and outer wire provide most of the longitudinal and radial strength of the hose and the films prevent the contents from escaping. This type of hose is not vulcanised or bonded like rubber hose, the integrity of the hose is maintained by the tension of the interlocking inner and outer wire helices.

This method of construction makes the wall of the hose highly corrugated. This imparts a high degree of flexibility but also allows elongation under pressure to be quite high compared to most rubber hoses.

EKOFLEX® hoses, compared to rubber hoses intended for similar applications, are generally much lighter and more flexible. This is the main advantage of composite hoses, particularly where they have to be handled frequently e.g. road tanker, ship to shore and in Plant service, also for heavy duty load and discharge operations.



FUELMASTER: lightweight fuel hose designed for load and offload of leaded & unleaded petrol, diesel, fuel oils, hydrocarbons with 100% aromatic content and Aviation spirit.

OILMASTER: suitable for suction and discharge of leaded & unleaded petrol, diesel lubricating oils and fuel oils, Hydrocarbons with 100% aromatic content.

CHEMIFLEX: designed for load and offload of chemicals, acids alkalis and much more.

TYPE APPROVED HOSES AVAILABLE ON REQUEST

INNER WIRE

- Carbon Steel
- Carbon Steel PP coated
- Stainless Steel 316
- Aluminium

INNER LAYER

- PP
- PTFE

INTERNAL LAYER

- PP
- PA
- PTFE

OUTER COVER

- PVC coated PA
- PVC coated Polyester

OUTER WIRE

- Carbon Steel
- Stainless Steel 316
- Aluminium



EKOFLEX® COMPOSITE HOSE BIODIESEL

STRUCTURE

BIODIESEL composite hoses are constituted by polypropylene tissues and film with an outer waterproof and abrasion resistant layer. The different layers are held together by an inner and an outer spiral. This structure provides exceptional strength and flexibility.

FEATURES

BIODIESEL hose has been designed to convey bioethanol based products. It is used in general purpose applications such as tanks loading / unloading operations. Thanks to its structural qualities of strength and durability, they are handy and light. **BIODIESEL** hoses can be supplied with a wide range of fittings, also in stainless steel.



Color

GREEN.

Inner wires

Galvanised Steel.

Safety

- All hoses are tested to 1.5 times the working pressure for more security and reliability. Test certificates can be supplied on request.
- Reduced risks of pollution and costs from spillage of product.
- The indicated burst pressure is considered at room temperature.

Working temperature

From - 20 ° C to + 80 ° C

Inner Diam.		Working Pressure		Burst Pressure		Bending Radius		Weight	Max Length
mm	inches	Bar	P.S.I.	Bar	P.S.I.	mm	inches	Kg / Mt	Mt
25	1	14	200	56	800	100	4	0,8	20
38	1 1/2	14	200	56	800	140	5 1/2	1,2	20
50	2	14	200	56	800	180	7	1,9	20
65	2 1/2	14	200	56	800	205	8	2,5	20
75	3	14	200	56	800	280	11	3	20
100	4	14	200	56	800	395	15 1/2	5,2	20

Illustrations and values here shown are to be considered as indicative and may be changed without notice.

OTHER SIZES AVAILABLE UPON REQUEST

EKOFLEX® COMPOSITE HOSE OILMASTER

STRUCTURE

OILMASTER composite hoses are constituted by polypropylene tissues and film with an outer waterproof and abrasion resistant layer. The different layers are held together by an inner and an outer spiral. This structure provides exceptional strength and flexibility.

FEATURES

OILMASTER hose has been designed to convey petroleum based products. It is used in general purpose applications such as tanks loading / unloading operations. It's structure provides exceptional strength and flexibility for a long lasting service.

OILMASTER hoses can be supplied with a wide range of fittings , also in stainless steel.

Color

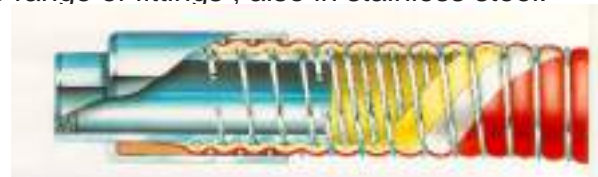
BLACK.

Inner wires

Galvanised Steel.

Safety:

- All hoses are tested to 1.5 times the working pressure for more security and reliability, according to BS 3492:492:1987 BX. Test certificates can be supplied on request.
- Reduced risks of pollution and costs from spillage of product.
- The indicated burst pressure is considered at room temperature



Working temperature:

From - 20 ° C to + 80 ° C

Inner Diam.		Working Pressure		Burst Pressure		Bending Radius		Weight	Max Length
mm	inches	Bar	P.S.I.	Bar	P.S.I.	mm	inches	Kg / Mt	Mt
25	1	14	200	56	800	100	4	0,8	20
38	1 1/2	14	200	56	800	140	5 1/2	1,2	20
50	2	14	200	56	800	180	7	1,9	20
65	2 1/2	14	200	56	800	205	8	2,5	20
75	3	14	200	56	800	280	11	3	20
100	4	14	200	56	800	395	15 1/2	5,2	20

Illustrations and values here shown are to be considered as indicative and may be changed without notice.

OTHER SIZES AVAILABLE UPON REQUEST

EKOFLEX® COMPOSITE HOSE FUELMASTER STANDARD LD10

STRUCTURE

EKOFLEX® LD 10 composite hoses are constituted by polypropylene tissues and film with an outer waterproof and abrasion resistant layer. The different layers are held together by an inner and an outer spiral. This structure provides exceptional strength and flexibility. In case of standard duty applications a version with inner or outer aluminium wire is available.

FEATURES

EKOFLEX® LD 10 hose has been designed to convey a wide range of different products. It is used for low pressure general purpose applications such as tanks loading / unloading operations.

It's structure provides exceptional resistance against chemicals along with strength and flexibility for a long lasting service. **EKOFLEX® LD 10** is antistatic and suitable to be used with aromatic hydrocarbons, for both suction and discharge. **EKOFLEX® LD 10** hoses can be supplied with a wide range of fittings, also in stainless steel.

Color

- LD 10 CHEM GREEN: chemicals
- LD 10 OIL BLU: hydrocarbons
- LD 10 VAP GIALLO: steam recovery

Spirali

- **P**: Mild steel Polypropylene covered
- **Z**: Galvanised Steel
- **A**: Aluminium



Safety

- All hoses are tested to 1.5 times the working pressure for more security and reliability, according to BS 5842:1980 clause 6.4. Test certificates can be supplied on request.
- Reduced risks of pollution and costs from spillage of product.
- The indicated burst pressure is considered at room temperature, according to BS 5173 sezione 102.10: 1990.
- Electrical continuity, guaranteed by two spirals joined together to end fittings, helps to dissipate accumulated charges and to avoid electrostatic charging. The electrical resistance of the hose is less than 10 ohms, as specified by the norm BS 5842:1980 clause 6.2.

Working temperature

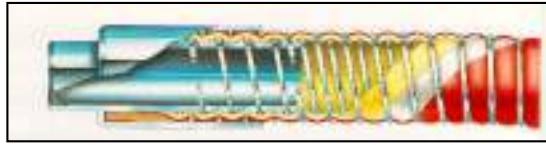
From - 40 ° C to + 80 ° C

Inner Diam.		Working Pressure		Burst Pressure		Bending Radius		Weight (Kg/mt)			Max Length
mm	Inches	Bar	P.S.I.	Bar	P.S.I.	mm	Inches	ZZ	AZ	AA	Mt
40	1 1/2"	10	150	50	750	85	3 1/2"	1,3	1	0,6	25
50	2	10	150	50	750	125	5	2,9	1,5	1	25
63	2 1/2"	10	150	50	750	150	6	2,6	2	1,3	25
76	3	10	150	50	750	185	7	3,4	2,6	1,6	25
80	3	10	150	50	750	185	7	3,5	2,7	1,7	25
100	4	10	150	50	750	275	10	4,6	3,5	2,3	25

Illustrations and values here shown are to be considered as indicative and may be changed without notice.

OTHER SIZES AVAILABLE UPON REQUEST

EKOFLEX® COMPOSITE HOSE CHEMIFLEX STANDARD



STRUCTURE

CHEMIFLEX STANDARD composite hoses are constituted by polypropylene tissues and film with an outer waterproof and abrasion resistant layer. The different layers are held together by an inner and an outer spiral. This structure provides exceptional strength and flexibility. When a lightweight hose is required, outer and inner aluminium springs are available.

FEATURES

CHEMIFLEX STANDARD hose has been designed to convey chemicals in general purpose applications, such as tanks loading / unloading operations in the presence of acids, alkalis, solvents e petroleum based products. It's structure provides exceptional strength and flexibility for a long lasting service.

CHEMIFLEX STANDARD is suitable to be used for tank trucks or rail tanks and can be supplied with a wide range of fittings, also in stainless steel.

Inner wires

P: mild steel with polypropylene cover

G: galvanised steel

S: stainless Steel Aisi 316.

Color

PG version: GREY



Safety

- All hoses are tested to 1.5 times the working pressure for more security and reliability, according to BS 5842:1980. Test certificates can be supplied on request.
- Reduced risks of pollution and costs from spillage of product.
- The indicated burst pressure is considered at room temperature.

Working temperature

From - 20 ° C up to + 80 ° C

Inner Diam.		Working Pressure		Burst Pressure		Bending Radius		Weight (Kg/mt)	Max Lenght
mm	inches	Bar	P.S.I.	Bar	P.S.I.	mm	inches		Mt
25	1	14	200	56	800	100	4	0,8	20
38	1 1/2	14	200	56	800	140	5 1/2	1,2	20
50	2	14	200	56	800	180	7	1,9	20
65	2 1/2	14	200	56	800	205	8	2,5	20
75	3	14	200	56	800	280	11	3	20
100	4	14	200	56	800	395	15 1/2	4,8	20

Illustrations and values here shown are to be considered as indicative and may be changed without notice.

OTHER SIZES AVAILABLE UPON REQUEST

EKOFLEX® COMPOSITE HOSE CHEMIFLEX PTFE

STRUCTURE

CHEMIFLEX PTFE composite hoses are constituted by PTFE tissues and film with an outer waterproof and abrasion resistant layer. The different layers are held together by an inner and an outer spiral. This structure provides exceptional strength and flexibility.

FEATURES

CHEMIFLEX PTFE has been designed to convey a wide range of aggressive chemicals at high temperatures. It is used in low pressure applications such as tanks loading / unloading operations. A very high resistance to aggressive chemicals is granted and, together with the structural qualities of strength and durability, they are handy and light. **CHEMIFLEX PTFE** hoses can be supplied with a wide range of fittings, also in stainless steel.

Inner wires

S: Stainless Steel Aisi 316.

G: Galvanised Steel

The HT version (High Temperature) combines the excellent resistance of PTFE to chemicals with a higher temperature resistance. Generally, this version is used for applications such as loading / unloading of bitumen or molten sulfur.



Safety

- All hoses are tested to 1.5 times the working pressure for more security and reliability, complies with BS 5842:1980. Test certificates can be supplied on request.
- Reduced risks of pollution and costs from spillage of product.
- The indicated burst pressure is considered at room temperature

Working temperature

From - 30 ° C up to + 115 ° C

Inner Diam.		Working Pressure		Burst Pressure		Bending Radius		Weight (Kg/mt)	Max Lenght
mm	inches	Bar	P.S.I.	Bar	P.S.I.	mm	inches		Mt
25	1	14	200	56	800	100	4	0,8	20
38	1 1/2	14	200	56	800	140	5 1/2	1,2	20
50	2	14	200	56	800	180	7	1,9	20
65	2 1/2	14	200	56	800	205	8	2,5	20
75	3	14	200	56	800	280	11	3	20
100	4	14	200	56	800	395	15 1/2	5,2	20

Illustrations and values here shown are to be considered as indicative and may be changed without notice.

OTHER SIZES AVAILABLE UPON REQUEST

EKOFLEX® COMPOSITE HOSE CHEMIFLEX PTFE HT

STRUCTURE

CHEMIFLEX PTFE HT composite hoses are constituted by PTFE tissues and film with an outer waterproof and abrasion resistant layer. The different layers are held together by an inner and an outer spiral. This structure provides exceptional strength and flexibility.



FEATURES

CHEMIFLEX PTFE HT has been designed to convey a wide range of aggressive chemicals at high temperatures. It is used in low pressure applications such as tanks loading / unloading operations in the presence of bitumen, and molten sulfur or other similar product when the standard version is not suitable. A very high resistance to aggressive chemicals is granted and, together with the structural qualities of strength and durability, they are handy and light. **CHEMIFLEX PTFE HT** hoses can be supplied with a wide range of fittings, also in stainless steel.

Color

SGA: RED

GGA: BLUE / YELLOW STRIPE

Inner wires

S: Stainless Steel Aisi 316

G: Galvanised Steel



← - EKOFLEX® COMPOSITE HOSE CHEMIFLEX PTFE HT -

Safety

- All hoses are tested to 1.5 times the working pressure for more security and reliability, complies with BS 5842:1980. Test certificates can be supplied on request.
- Reduced risks of pollution and costs from spillage of product.
- The indicated burst pressure is considered at room temperature

Working temperature

From - 30° C up to + 160 ° C



Inner Diam.		Working Pressure		Burst Pressure		Bending Radius		Weight (Kg/mt)	Max Length Mt
mm	inches	Bar	P.S.I.	Bar	P.S.I.	mm	inches		
25	1	14	200	56	800	100	4	0,8	20
38	1 1/2	14	200	56	800	140	5 1/2	1,2	20
50	2	14	200	56	800	180	7	1,9	20
65	2 1/2	14	200	56	800	205	8	2,5	20
75	3	14	200	56	800	280	11	3	20
100	4	14	200	56	800	395	15 1/2	5,2	20

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OTHER SIZES AVAILABLE UPON REQUEST

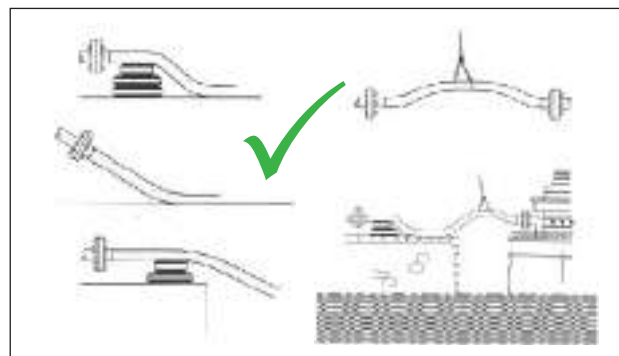
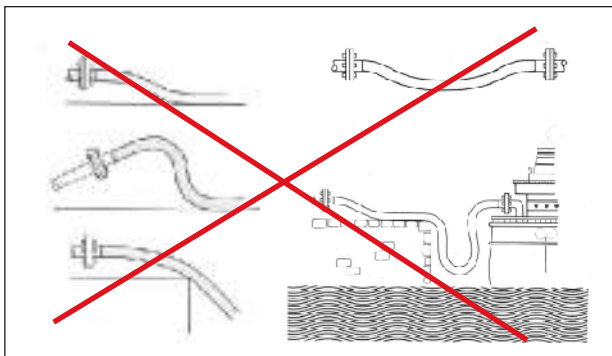
EKOFLEX® COMPOSITE HOSES HANDLING, TESTING & INSPECTION GUIDELINES

INSTALLATION & HANDLING

Incorrect installation of the hoses can stress the assembly leading to a shortened working life.

Hose assemblies must not be twisted either on installation or in use, considering the factory's minimum bending radius specification.

Hose saddles are recommended. Supports of rope, wire or chain should not be used on composite hoses in order to avoid any possible damage of the structure.



CLEANING & STORAGE

Hoses should be cleaned after use and before testing, depending on the hose use and its location. Flushing out can be done by using room temperature detergents or solvents, clean water or sea water (clean water draining is strictly recommended to minimise risk of corrosion).

Loose steam and compressed air can be used on open ended hoses, not exceeding the maximum working temperature & pressure and **avoiding the use of steam lances**. Compressed air may be used on polypropylene lined hoses but is not recommended for PTFE lined hoses.

Mechanical methods of cleaning (e.g. pigging) must not be used under any circumstances.

During any cleaning operations the hose must be electrically earthed to avoid static charge build-up, especially near flammable areas. Hoses should be stored straight, not coiled.



← - HANDLING, TESTING & INSPECTION GUIDELINES**INSPECTION**

The deadlines of the checks are set by the end users independently. Before each operations hoses should be visually examined and at determined period **visual inspection, hydrostatic and electrical continuity test** should be carried out.

Worn or damaged hoses may be dangerous.

**VISUAL INSPECTION**

Hoses should be given a brief visual examination before each operation and a more thorough visual inspection at predefined intervals. The inspection should pay attention to corrosion or abrasion of the hose outer lining and couplings and signs of displacement of the wires from their normal pitch.

**PRESSURE TEST**

At periods not exceeding one year hoses compliant with the visual inspection should be hydraulically tested. Lay the hose straight out, drain and thoroughly clean before pressurize to 1,5 working pressure for 10 minutes. The maximum change in lenght at proof pressure should be less than 10% of the standard lenght at rest.

**ELECTRICAL CONTINUITY**

At periods not exceeding six months hoses compliant with the visual inspection should be electrically tested. Lay the hose straight out, drain and thoroughly clean before, avoid contact on metallic parts to earth and check that the hose is electrically continuous from end to end using a multimeter. Resistance should be less than 10 Ohm.



***HOSE NOT IN COMPLIANCE WITH THE TEST MUST BE WITHDRAWN
FROM SERVICE IMMEDIATELY***

***The provided guidelines are intended for carrying out checks on composite hoses only and are not to be considered as binding provisions.
The end user is authorized to modify the procedures
on the basis of specific requirements.***



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