

# Monti & Barabino

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



**MED APPROVED FIRE  
RESISTANT 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.



## **MB CARBUR OIL PLUS FUEL LINE HOSES LR MED APPROVED**



**S.O.L.A.S.** regulations, Safety Of Life At Sea, are generally regarded as the most important of all international treaties concerning the safety at sea. The actual regulations, dated 1974, with its amendments has been adopted also in Europe as a guidelines for the maritime field.

In compliance with the above mentioned regulation, fuel line hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.

**MB CARBUR-OIL PLUS** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The rubber hose is covered with a special fire resistant fiberglass sleeve. A stainless steel AISI 304 external reinforcement protect the hose and give higher mechanical resistance.



To satisfy the above mentioned requirements, **MB CARBUR OIL PLUS** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.

## Technical parameters

DN	Pressure MPa		Bending radius	Weight	Temperature range
	WP	BP	mm	Gr/mt	°C
6	42,5	170,0	75	300	from - 40° up to + 100°
8	40,0	160,0	85	350	
10	35,0	140,0	90	420	
12	31,0	124,0	130	520	
16	28,0	112,0	160	660	
19	28,0	112,0	195	860	
25	21,0	84,0	250	1170	
31	17,2	68,8	335	1800	Air max 70° Water max 85°
38	14,6	58,4	400	2200	
51	11,2	44,8	500	2900	
63	7,0	28,0	760	3000	
76	7,0	28,0	760	3300	

1 MPa = 1 N/mm<sup>2</sup> = 10 Bar

## Characteristics

### Rubber hose

Seamless synthetic rubber lining, oil and fuel resistant, reinforced with two high tensile strength steel wire braids. External lining in black synthetic rubber, abrasion, oils, ozone resistant and weather proof. Constructed in accordance with ISO 11237 and EN 857-2SC specifications.

### External cover

In order to protect the external lining against mechanical damage, the hose is covered with an AISI 304 stainless steel high strength braid.

**MED APPROVED RUBBER JOINT ALSO AVAILABLE**

## **MB LUBE OIL SILVER 301**

### **Hydraulic applications hoses RINA - MED APPROVED**



**S.O.L.A.S.** regulations, Safety Of Life At Sea, are generally regarded as the most important of all international treaties concerning the safety of merchant ships. The actual regulations, dated 1974, with its amendments has been adopted also in Europe as a guidelines for the maritime field.

In compliance with the above mentioned regulation, petroleum base fluids, lubrication oil, fresh and sea water and compressed air hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.



**MB LUBE OIL SILVER 301** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The rubber hose is covered with a Stainless Steel AISI 304 external reinforcement to provide higher mechanical resistance.

To satisfy the above mentioned requirements, **MB LUBE OIL SILVER 301** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.

## Technical parameters

DN	Pressure MPa		Bending radius	Weight	Temperature range
	WP	BP	mm	Gr/mt	°C
6,3	40,0	160,0	100	390	from - 40 up to + 100
8	35,0	140,0	115	420	
10	33,0	132,0	130	550	
12,5	27,5	110,0	180	670	
16	25,0	100,0	200	770	
19	21,5	86,0	240	1000	
25	16,5	66,0	300	1490	
31,5	12,5	50,0	420	1730	
38	9,0	36,0	500	2140	
51	8,0	32,0	630	2960	

1 MPa = 1 N/mm<sup>2</sup> = 10 Bar

## Characteristics

### **Rubber hose**

Seamless synthetic rubber lining, oil and fuel resistant, reinforced with two high tensile strength steel wire braids. External lining in black synthetic rubber, abrasion, oils, ozone resistant and weather proof. In compliance with SAE J517 and EN 853 specifications, suitable to be used on medium pressure lubricant lines.

### **External cover**

In order to protect the external lining against mechanical damage, the hose is covered with an AISI 304 stainless steel high strength braid.

**MED APPROVED RUBBER JOINT ALSO AVAILABLE**

## **MB LUBE OIL GOLD 29**

### **Hydraulic applications hoses RINA - MED APPROVED**



**S.O.L.A.S.** regulations, Safety Of Life At Sea, are generally regarded as the most important of all international treaties concerning the safety of merchant ships. The actual regulations, dated 1974, with its amendments has been adopted also in Europe as a guidelines for the maritime field.

In compliance with the above mentioned regulation, petroleum base fluids, lubrication oil, fresh and sea water and compressed air hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.

**MB LUBE OIL GOLD 29** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The rubber hose is covered with a special fire resistant Stainless Steel AISI 304 to provide external reinforcement and higher mechanical resistance.



To satisfy the above mentioned requirements, **MB LUBE OIL GOLD 29** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.



## Technical parameters

DN	Pressure MPa		Bending radius	Weight	Temperature range
	WP	BP	mm	Gr/mt	°C
20	42,0	168,0	280	1700	- 40 a + 100
25	38,0	152,0	340	1600	
32	32,5	130,0	460	1400	
38	29,0	116,0	560	1240	
50	25,0	100,0	700	1120	

1 MPa = 1 N/mm<sup>2</sup> = 10 Bar

## Characteristics

### Rubber hose

Seamless synthetic rubber lining, oil and fuel resistant, reinforced with two high tensile strength steel wire braids. External lining in black synthetic rubber, abrasion, oils, ozone resistant and weather proof. In compliance with ISO 3862 4SH and DIN EN 856 specifications, suitable to be used on high pressure lubricant lines.

### External cover

In order to protect the external lining against mechanical damage, the hose is covered with an AISI 304 stainless steel high strength braid.

**MED APPROVED RUBBER JOINT ALSO AVAILABLE**

## **MB LUBE OIL GOLD 31**

### **Hydraulic applications hoses RINA - MED APPROVED**



**S.O.L.A.S.** regulations, Safety Of Life At Sea, are generally regarded as the most important of all international treaties concerning the safety of merchant ships. The actual regulations, dated 1974, with its amendments has been adopted also in Europe as a guidelines for the maritime field.

In compliance with the above mentioned regulation, petroleum base fluids, lubrication oil, fresh and sea water and compressed air hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.

**MB LUBE OIL GOLD 31** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The rubber hose is covered with a special fire resistant Stainless Steel AISI 304 to provide external reinforcement and higher mechanical resistance.



To satisfy the above mentioned requirements, **MB LUBE OIL GOLD 31** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.

## Technical parameters

DN	Pressure Mpa		Bending radius	Weight	Temperature range
	WP	BP	mm	Gr/mt	°C
10	44,5	178,0	130	0,91	da - 40 a + 100
12,5	41,5	166,0	180	1,08	
16	35,0	140,0	225	1,39	
19	35,0	140,0	280	1,73	
25	28,0	112,0	355	2,31	

1 MPa = 1 N/mm<sup>2</sup> = 10 Bar

## Characteristics

### Rubber hose

Seamless synthetic rubber lining, oil and fuel resistant, reinforced with two high tensile strength steel wire braids. External lining in black synthetic rubber, abrasion, oils, ozone resistant and weather proof. Constructed in compliance with EN 856 4SP - ISO 3862 specifications, is designed to be used on high pressure lubricant lines.

### External cover

In order to protect the external lining against mechanical damage, the hose is covered with an AISI 304 stainless steel high strength braid.

**MED APPROVED RUBBER JOINT ALSO AVAILABLE**

## **MB LUBE OIL PLATINUM 42**

### **Hydraulic applications hoses RINA - MED APPROVED**



**S.O.L.A.S.** regulations, Safety Of Life At Sea, are generally regarded as the most important of all international treaties concerning the safety of merchant ships. The actual regulations, dated 1974, with its amendments has been adopted also in Europe as a guidelines for the maritime field.

In compliance with the above mentioned regulation, petroleum base fluids, lubrication oil, fresh and sea water and compressed air hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.



**MB LUBE OIL PLATINUM 42** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The rubber hose is covered with a special fire resistant Stainless Steel AISI 304 to provide external reinforcement and higher mechanical resistance.

To satisfy the above mentioned requirements, **MB LUBE OIL PLATINUM 42** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.

## Technical parameters

DN	Pressure MPa		Bending radius	Weight	Temperature range
	WP	BP	mm	Gr/mt	°C
16	42,0	168,0	225	1390	da - 40 a + 125
20	42,0	168,0	280	1700	
25	42,0	168,0	300	2300	
32	42,0	168,0	400	3800	
40	42,0	168,0	500	4800	
50	42,0	168,0	700	7000	

1 MPa = 1 N/mm<sup>2</sup> = 10 Bar

## Characteristics

### Rubber hose

Seamless synthetic rubber lining, oil and fuel resistant, reinforced with two high tensile strength steel wire braids. External lining in black synthetic rubber, abrasion, oils, ozone resistant and weather proof. In compliance with ISO 3862 R15 specifications, is designed to be used on very high pressure lubricant lines.

### External cover

In order to protect the external lining against mechanical damage, the hose is covered with an AISI 304 stainless steel high strength braid.

**MED APPROVED RUBBER JOINT ALSO AVAILABLE**

## **MB HFO FUEL OIL PLUS**

**Heavy fuel line hoses up to 150°C LR MED APPROVED**



**S.O.L.A.S.** regulations, Safety Of Life At Sea, are generally regarded as the most important of all international treaties concerning the safety at sea. The actual regulations, dated 1974, with its amendments has been adopted also in Europe as a guidelines for the maritime field.

In compliance with the above mentioned regulation, fuel line hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.

**MB HFO FUEL OIL PLUS** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The rubber hose is covered with a special fire resistant fiberglass sleeve. A stainless steel AISI 304 external reinforcement protect the hose and give higher mechanical resistance.



To satisfy the above mentioned requirements, **MB HFO FUEL OIL PLUS** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.

***RUBBER HOSE MADE WITH SPECIAL ELASTOMER  
SUITABLE FOR VERY HIGH STRENGTH, HEAT  
RESISTANCE AND VIBRATIONS DAMPING***

## Technical parameters

DN	Pressure MPa		Bending radius	Weight	Temperature range
	WP	BP	mm	Gr/mt	°C
6	192	770	100	240	Da - 46 a + 150°C
10	157	630	125	340	
12	140	560	180	430	
16	105	420	200	490	
19	87	350	240	650	
25	70	280	300	980	
31	43	172	420	1400	
38	35	140	500	1460	
51	26	104	630	2180	

1 MPa = 1 N/mm<sup>2</sup> = 10 Bar

## Characteristics

### **Rubber hose**

Seamless synthetic rubber lining, oil and fuel resistant, reinforced with one high tensile strength steel wire braids. External lining in black synthetic rubber, abrasion, oils, ozone resistant and weather proof.

### **Fire protection**

Made of flame-proof silica yarn braid, with excellent resistance against very high temperature ( up to 1000°C ) and thermal shock. When in contact with flame doesn't spread dangerous fumes and, thanks to the particular structure, is non-toxic.

### **External cover**

In order to protect the external lining against mechanical damage, the hose is covered with an AISI 304 stainless steel high strength braid.

**MED APPROVED RUBBER JOINT ALSO AVAILABLE**

### MB HFO FUEL OIL DW PLUS DOUBLE WALL HEAVY FUEL LINE HOSES UP TO 150°C LR MED APPROVED



In compliance with the S.O.L.A.S regulation, fuel line hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.

**MB HFO FUEL OIL DW PLUS** is the new generation of Heavy Fuel MED approved hoses which completely satisfy the technical requirements recommended in the **96/98/CE - 2014/90 EU** directives and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed.

The standard version of MB HFO FUEL OIL DW MED Approved rubber hose has been redesigned and is now covered with MB S1 Stainflex , Type Approved stainless steel hose. It creates a second safety chamber which is able to keep up to 12 Bar ( 174 PSI ) in the event of breakage of the inner tube. An external reinforcement made with fire resistant silicone coated fiberglass cover protect the hose and give higher temperature and mechanical resistance.

A drain coupling allows the installation of a gauge indicator in order to be promptly advised in case of failure.



## Technical features

DN	Pressure MPa		Bending radius	Weight	Temperature range	Outer diam.
	WP	BP	mm	Gr/mt	°C	mm
25	70	280	300	1330	- 46 / + 150°C	76
31	43	172	420	2654		96
38	35	140	500	2910		108
51	26	104	630	3884		135

10 Bar= 10 N/mm<sup>2</sup> = 1 Mpa

## Features

Due to the special manufacturing required for assembling **MB HFO FUEL OIL DW PLUS** it is available with flanges only.

***MB HFO DW PLUS must be replaced in the event of damages or breakings of the inner rubber hose.***



<b>INNER HOSE</b>	<b>EXTERNAL COVER</b>	<b>FIRE PROTECTION</b>
MB HFO FUEL OIL PLUS	MB S1 STAINFLEX	SILICONE COATED FIBERGLASS

## **MB MED FIREPROOF RUBJOINT**

### **Fuel line rubber joint - MED APPROVAL**



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In compliance with the above mentioned regulation, fuel line hoses shall be constructed in accordance with **MED 2002/75/EC** directive concerning fire resistance requirements of the fuel pipelines.

**MB MED FIREPROOF RUBJOINT** completely satisfy the technical requirements recommended in the **96/98/CE** directive and further amendments **ISO 15540:1999** and **ISO 15541:1999** where technical parameters are fixed. The expansion joint is covered with a special fire resistant fiberglass sleeve, easy to be installed thanks to stainless steel springs and hooks.



To satisfy the above mentioned requirements, **MB MED FIREPROOF RUBJOINT** has been tested by applying a flame for 30 minutes at the required temperature of 800 +/- 50°C with a working pressure of 5 bar. The specimen is than tested at a pressure twice the working parameter for 15 minutes, in order to confirm that the flexible hose is in conformity with the specifications.

## Dimensions e Technical data

Working Pressure 1,6 MPa (Safety factor 1:4)

1 MPa = 1 N/mm<sup>2</sup>= 10 Bar

DN	Lenght	E	F	Compensation				Vacuum		Weight
								NO SPRING	SPRING	
mm	mm	mm	mm	C	A	L	AN			Kg
25/32	130	77	72	30	20	20	35°	0,8	1,0	2,8
40	130	85	80	30	20	20	35°	0,8	1,0	3,3
50	130	95	90	30	20	20	35°	0,7	1,0	3,7
65	130	110	105	30	20	20	30°	0,6	1,0	4,8
80	130	125	120	30	20	20	30°	0,5	1,0	5,3
100	130	145	140	30	20	20	25°	0,5	1,0	6,2
125	130	170	165	30	20	20	25°	0,4	1,0	8,2
150	130	195	190	30	20	20	15°	0,3	1,0	11,2
200	130	245	240	30	20	20	15°	0,3	1,0	16,8
250	130	295	290	30	20	20	10°	0,2	1,0	21,6
300	130	345	340	30	20	20	10°	0,2	1,0	30,1

C= compression

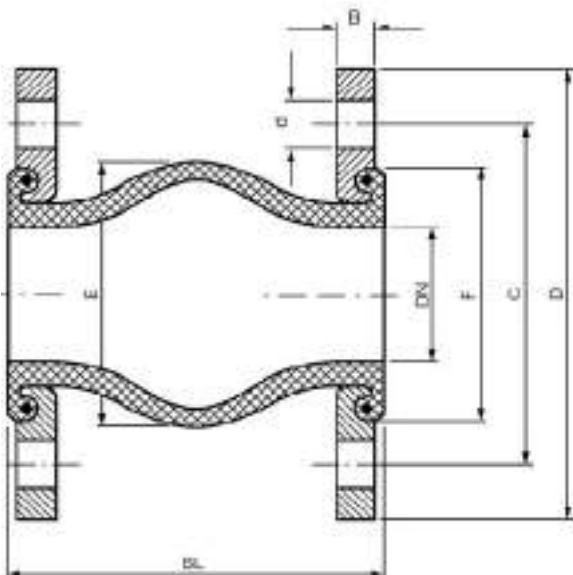
A= elongation

L= lateral

AN= angular

For flanges dimensions see standard regulations

## MED APPROVED FUEL LINES ALSO AVAILABLE





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