

REGULATOR

ABYSS 12S - ABYSS 22 - ABYSS 42 - ABYSS 52 - OCTOPUS ABYSS



WARNING

This pamphlet is an integral part of the Mares regulator user's manual and should be stored with it.

CE CERTIFICATION

The Mares regulators described in this manual have been tested and certified by Registered Test Centre No. 0426 - Italcert - Viale Sarca 336, Milan - I, in compliance with EC directive 89/686/EEC of 21 December 1989. The test procedures were conducted according to the EN 250: 2000 standard, in conformity with the aforesaid directive, which sets out the conditions for marketing and essential safety requirements for Category III Personal Protective Equipment (PPE).

The certification testing results are as follows:

Model	Warm water	Cold waters	Marking	Position
	(Temp. = > 10°C [50°F])	(Temp. < 10°C [50°F])		
Abbyss 12S	approved	approved	CE 0426	on the first stage
Abbyss 22	approved	approved	CE 0426	on the first stage
Abbyss 42	approved	approved	CE 0426	on the first stage
Abbyss 52	approved	approved	CE 0426	on the first stage
Octopus Abyss	approved	approved	CE 0426	on the second stage

The CE markings indicate that the product is compliant with the essential health and safety requirements (Att. DE 89/686/EEC Annex II). The suffix 0426 after the letters "CE" indicates the Italcert Registered Test Center in charge of monitoring the production under Art. 11B DE 89/686/EEC.

MR12ST FIRST STAGE

The Prestige 12S is equipped with the new MR12ST first stage.

New first stage, with a nickel- and chrome-plated brass body, stands out from previous versions because of its size and its lower weight. This was made possible thanks to innovative technical solutions that still maintain the same internal components. Diaphragm technology with the DFC system and replaceable high-pressure seat connector. The high-pressure valve, manufactured in "tri-materials" allows for improved durability and security. These advances have made it possible to include conical filters with better filtering power in both the INT and the DIN versions. It features a preferential intermediate-pressure DFC port for the main second stage hose, as well as three other LP service ports and two ports for high pressure. All ports have been rearranged in order to offer better positions for the hoses and the transmitting unit for integrated dive computers.

MR22T FIRST STAGE

New first stage with nickel- and chrome-plated forged brass that stands out from previous versions because of its lower weight. This was made possible thanks to innovative technical solutions that still maintain the same internal components. Diaphragm technology with the DFC system and replaceable high-pressure seat connector. The high-pressure valve is made of "Tri-material" allowing for superior safety and duration. It is fitted with a preferential intermediate-pressure DFC port with a 1/2" UNF connection to the primary second stage hose, 3 other 3/8" UNF threading LP service ports, and 2 high-pressure (HP) ports with 7/16" UNF threading. The latter are inclined at a 45° angle to allow for a more intuitive layout of hoses or of the transmitting unit of the integrated dive computers.

MR42T FIRST STAGE

New first stage with forged brass, nickel- and chrome-plated body that sets itself apart immediately thanks to its size and extremely low weight. This was made possible by simple but innovative technical solutions, which is why today the MR42T can be called the smallest and best-performing diaphragm first stage on the market. The general technical characteristics are those of the best Mares first stages with diaphragm operation and the DFC system.

The high pressure valve, manufactured in "Tri-material", allows for superior duration and safety. The low and high pressure ports are positioned to offer the most sensible arrangement of the hoses, ensuring maximum comfort for the user.

MR52T FIRST STAGE

Unique performance from this compact, balanced diaphragm first stage.

Made of nickel- and chrome-plated brass with protections and shockproof caps, the MR52 features all the general characteristics of the best latest-generation Mares diaphragm first stages, introducing innovative technical solutions.

The two DFC ports deliver a constant flow of air when breathing from the main second stage or from the octopus.

The NCC system, combined with the special water recirculation system built corresponding to the diaphragm, makes it possible to achieve the very best performance in cold water.

The "Tri-Material" high pressure valve is made of three different materials, helping it last longer and offer maximum reliability.

The four pre-oriented low pressure ports make it possible to arrange the hoses perfectly, in any configuration. The two high pressure ports are for connecting the pressure gauge or console and the transmitter of an integrated computer, when used.

DUAL DFC

All the characteristics of the DFC system are now available in the port intended for the second stage octopus!

The dual DFC ensures a constant flow of air when breathing through the main second stage as well as the octopus, even when diving deep!

ABYSS SECOND STAGE

Second stage with V.A.D. system, made of nickel- and chrome-plated brass. This material offers a number of benefits: Absolute ruggedness. Thinner walls make for a more compact size without the need to resort to a smaller diaphragm, resulting in less drag in the water. Anti-freeze function, facilitated by the "radiating action" of the metal.

More natural breathing: The metal walls of the second stage "capture" the humidity contained in the air breathed, and return it during the inhalation phase, thus limiting the common "dry mouth" phenomenon that is caused by breathing overly dry air.

The lid features the "Mesh-Grid" system to optimize the incoming and out-going flows of water, which offers additional improvement in performance.

The mouthpiece is made of soft hypoallergenic silicone, limiting jaw fatigue and offering a secure fit even after very long dives.

OCTOPUS ABYSS

The second stage of the Octopus version is equipped with a hose of considerable length (100 cm (39 in)).

It is yellow, making it immediately identifiable in any situation.

Technical Characteristics
FIRST STAGE

	MR125T	MR22T	MR42T	MR52T
Operation	- Balanced diaphragm design - DFC system - "Tri-material" Valve	- Balanced diaphragm design - DFC system - "Tri-material" Valve	- Balanced diaphragm design - DFC system - "Tri-material" Valve	- Balanced diaphragm design - DFC system - "Tri-material" Valve
Materials				
Metal parts	- Chrome- and nickel-plated brass - Stainless steel	- High-resistance, nickel- and chrome-plated moulded brass - Stainless steel	- High-resistance, nickel- and chrome-plated moulded brass - Stainless steel	- High-resistance, nickel- and chrome-plated moulded brass - Stainless steel
Non-metal parts	- High impact technopolymers	- High impact technopolymers	- High impact technopolymers	- High impact technopolymers
Seals and membranes	- Nitril rubbers - Silicone rubbers	- Nitril rubbers - Silicone rubbers	- Nitril rubbers - Silicone rubbers	- Nitril rubbers - Silicone rubbers
Capacity (pressure 180 bar)	- 4800 l/min	- 4800 l/min	- 4800 l/min	- 4800 l/min
Intermediate pressure				
Inlet pressure 200 bar	- From 9.8 to 10.2 bar	- From 9.8 to 10.2 bar	- From 9.8 to 10.2 bar	- From 9.8 to 10.2 bar
Inlet pressure 30 bar	- From 9.8 to 10.2 bar	- From 9.8 to 10.2 bar	- From 9.8 to 10.2 bar	- From 9.8 to 10.2 bar
First stage ports				
High pressure	- 2 7/16" UNF	- 2 7/16" UNF	- 2 7/16" UNF	- 2 7/16" UNF
DFC	- 1 3/8" UNF (primary)	- 1 1/2" UNF (primary)	- 1 3/8" UNF (primary)	- n°2 3/8" UNF (primary and octopus)
Intermediate pressure	- 3 3/8" UNF	- 3 3/8" UNF	- 3 3/8" UNF	- n°2 3/8" UNF
Weight				
INT	- 674 g	- 803 g	- 652 g	- 687 g
DIN	- 574 g	- 616 g	- 452 g	- 513 g

Technical Characteristics
SECOND STAGE

	ABYSS	OCTOPUS ABYSS
Operation	- VAD system - Mesh-Grid cover	- VAD system - Mesh-Grid cover
Materials		
Metal parts	- Nickel-plated, chrome-plated brass - Stainless steel	- Nickel-plated, chrome-plated brass - Stainless steel
Non-metal parts	- High impact technopolymers	- High impact technopolymers
Seals and membranes	- Nitril rubbers - Silicone rubbers	- Nitril rubbers - Silicone rubbers
Capacity (pressure 180 bar)	- 2400 l/min	- 2400 l/min
Hose Type		
Standard	- Super flex 1/2" UNF - 3/8" UNF	- Super flex 3/8" UNF
Hose length		
Standard	- 75 cm	- 100 cm
Weight (without hose)	- 270 g	- 270 g



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