

ABYSS 42

Rugged dependability

- The latest evolution of the Mares hero second stage
- The most compact high performance first stage
- The best of both worlds

Abbyss has long been a staple name in high performance, coupled now with elite small first stage MR42T: the best for a unique high calibre set up. The evolved design of Abyss second stage adds more metal on front cover and hose protector to achieve even further dependability in the most difficult diving conditions.

REGULATORS TECHNICAL ICONS



TRI-MATERIAL VALVE: Patented technology, conceived and created to optimize performance, safety, and reliability. This brass valve is covered with a hard PU then the head is layered molecularly with a soft PU. Tri-material (brass, soft polyurethane, and "heavy duty" polyurethane) reaches a new level of durability.



ALL METAL TECHNOLOGY: Metal second stages have superior performance than plastic second stages, especially in cold water, thanks to the high thermal conductivity that limits the freezing effect. Additional benefits are the improved durability, the longer working life and the less dry mouth breathing.



DFC - DYNAMIC FLOW CONTROL: DFC system minimizes the intermediate pressure drop during inhalation, making it possible to use a simpler and more reliable second stage. Any type of manual adjustment is not necessary, thanks to the consistency derived from first stages that guarantees a stable flow of air, even under extreme conditions.



VAD - VORTEX ASSISTED DESIGN: All Mares second stages offer the unique patented VAD system. The air bypass tube conveys air to the mouthpiece creating a swirling vortex with a low pressure area in center that keeps the diaphragm down during inhalation, for very sensitive and easy breathing at all depths.



MESH-GRID: The patented mesh design of the second stage cover reduces the pressure of water flowing onto the second stage diaphragm and minimizes free-flow. Even in strong currents it eliminates the need for a knob to 'de-tune' your air delivery system to stop free flowing: Advanced technology through basic physics.

PROFILE ICONS



FOR DEMANDING DIVERS: Those who dive frequently and in difficult conditions need products featuring superior quality and consistent performance, time and time again. Mares has always focused on new technologies and innovative products that lead to concrete benefits: superior reliability and performance will be appreciated by the most experienced demanding divers.



COLD WATER: Designing and engineering products for cold water diving requires maximum attention to performance, safety and technical details. Mares creates equipment specific for cold water and ice diving. Rigorous tests ensure top notch performance keeping you comfortable, warm and secure. Even the US Navy has conceded Mares to be the best equipment for extreme conditions.



IDEAL FOR TRAVEL This gear line is designed specifically for women in style, cut, and ergonomics making your dives much more comfortable than in years past. Careful consideration to detail in functionality and aesthetic specifically for women make the She Dives collection the ideal choice for your Scuba and snorkeling needs.

ABYSS 42



No other existing regulator has ever achieved such a cult status: that's reason enough to encourage Mares to equip the Abyss with new and innovative characteristics, at the same time combining it with the smallest and lightest first stage, the MR42^T.

The name "Abyss" is synonymous with top-tier technological perfection. But this product isn't just the leading product for fans of extreme diving; its unbeatable comfort level makes it a much loved product among recreational and "vacation" divers. The new model really makes a splash because it shows that development continues on a regulator that was already perfect to begin with: beginning in 2008, this "super" product will be available in its new guise. The Abyss 42 makes an impression at first glance, thanks it to the fully overhauled second stage. This technological jewel stands out today thanks to its design, which handles currents in a much more effortless way. The hose cover and shatterproof metal front cover constitute a single unit, ensuring a perfect hydrodynamic deviation of flow. To improve performance in cold water, the new hose cover has a greater number of holes to increase the thermal exchange at the level of the valve. The front cover of the second stage combines the patented Mesh Grid and lateral openings, improving breathing effort during the inhale. Mesh Grid also "breaks" the incoming water during intense flows, minimizing the venting by the regulator. The patented VAD system ensures an adequate supply of air at any depth, making the injectors that other regulators require completely superfluous, even at extreme depths. And what's more: today, inspecting the second stage is even faster thanks to the side adjustment opening.

The name says it all: the **Abyss 42** is paired with the **MR42^T** balanced diaphragm first stage, which is extremely compact. This "lightweight" is useful not only because it reduces the weight of your baggage when traveling, but it will also surprise you with its top technical characteristics: two high-pressure ports and four intermediate-pressure ports, a high-pressure DIN connector for 200 or 300 bar, a hand-wheel with a special anatomical shape for better grip, a conical filter for decidedly superior filtering performance, and a Tri-Material valve that guarantees the maximum reliability and durability... there are just a few of its extraordinary attributes. Its distinction lies in its weight and incredibly restrained dimensions: at only 452 g, the **MR42^T** first stage is a dwarf that performs like a giant: the breathing effort of 0.90 J/l (at a depth of 50 m) is markedly lower than EN 250 requirements. Today it's no longer possible to imagine a Mares first stage without the patented DFC (Dynamic Flow Control) system, which efficiently minimizes the drop in intermediate pressure during the inhale. This system guarantees the user constant breathing values, even under extreme conditions, such as very deep dives or when there is reduced pressure in the tanks.

Abyss 42: the dream couple for 2008 guarantees top performance at very low weight!

"ABYSS 42" TECHNICAL SPECIFICATIONS



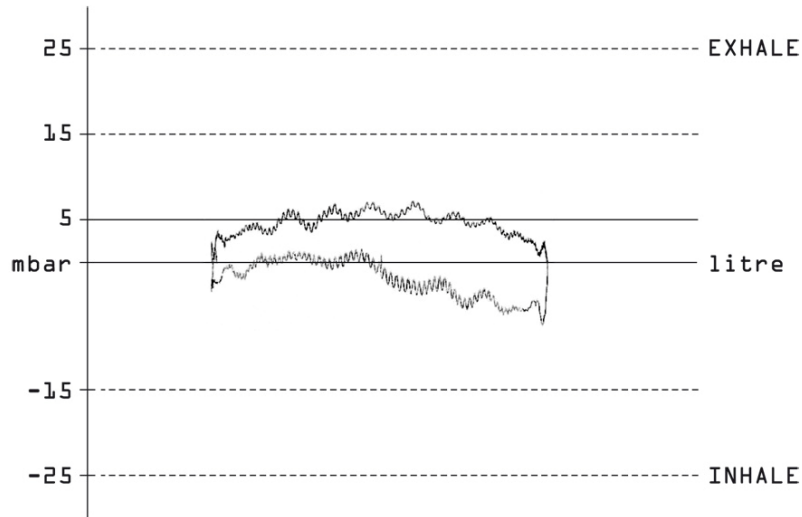
Operating Mode	1. MR42T Stage: balanced diaphragm design, DFC (patented) 2. Abyss stage: VAD system (patented), Mesh Grid.
Material	high-strength cast brass, stainless steel, and high-strength technical polymers.
Surface coverings	chrome-plated
Valve	Tri-Material valve covered in polyurethane
Intermediate pressure	from 9.8 to 10.2 bar (at 200 and with an air supply of 30 bar)
High-pressure connection	DIN 477/50 (300 /200 bar) or CGA 850 INT
First stage connections	high pressure: two UNF 7/16", intermediate pressure: three UNF 3/8", one UNF DFC 3/8" (for principal automatic device)
Type of hose, length	Super Soft, 84 cm
2nd stage front cover	Mesh-Grid, full-size, purge valve
Weight	MR42T DIN 1st stage: 452 g; INT: 646 g 2nd Stage: 263 g
Quantity of air supplied	1st Stage: 4800 l/min; 2nd stage case: 2400 l/min
Values according to EN 250	breathing effort = 0.90 J/l (limit = 3.0 joules per liter)
Suitable for cold water	yes, EN 250 certified
Abyss Octopus (optional)	Suggested retail price: € ***,00
Suggested retail price	€ ***,00

Product photos with resolution up to 300 dpi are available at: <http://media.mares.com/>
Contact us. We'll be happy to send you your personal access information.

Abyss 42

inhale pressure = 7.64 mbar
inhale pos pressure = 1.90 mbar
exhale pressure = 10.56 mbar
ext work of breathing = 0.90 J/l
inhale work = 0.26 J/l
pos inhale work = 0.02 J/l
exhale work = 0.64 J/l

pressure - volume diagram at depth of: 50.5 msw (166 fsw)



All Mares regulators are certified to meet the EC Mark requirements in compliance with Directive 89/686/EEC reference standard UNI-EN25

Mares S.p.A Salita Bonsen, 4 - 16035 Rapallo (Ge) ITALY
Press Referent - Elisa Mantuano
P.O. BOX 142
+39 0185 2011 Fax +39 0185 669984
P.IVA 00204770994 - Cod. Fisc. 03112680107
Cap. Sociale € 14.925.694,00 i.v.
www.mares.com

