



Unique **SEAFLEX**

A Unique Maritime Group Company



Seaflex Air Lift Bag (ALB) Overview

Air Lift Bags - The Contractors' Workhorse

Versatile

Seaflex ALBs are immensely versatile, and ideal for safely supporting and lifting loads at or from any depth. The single point attachment is ideal for lightening underwater static structures such as pipes and templates, or for salvaging vessels from the seabed to the surface. They are robust and highly resistant to damage even in the harshest environments. Our larger ALBs can be surface-towed with their under-slung load at up to 1.5 knots in moderate sea states.

Safe and Efficient

Our ALBs have been designed to provide the maximum amount of lift for the least overall height. The design brings with it a wide hem, which aids swifter emptying of the bag on emergency inversion - a notable safety benefit. All our ALBs automatically vent excess air as they ascend dynamically with their load. Their single attachment point helps keep them inherently stable, regardless of load orientation or trim.

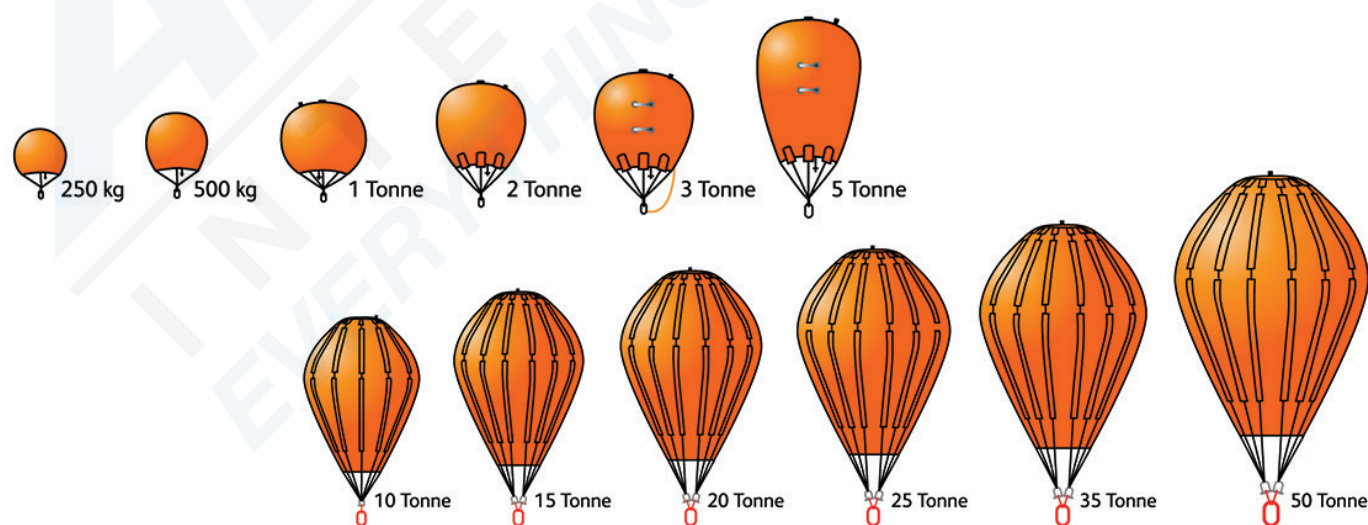
Our bags are also more efficiently rigged than others, saving shipping weights without compromising on materials, strength, capability or safety. We understand that time is money, especially during diving operations. Seaflex ALBs address the reality of subsea work: poor visibility, currents and surge, fatigued operators. We understand the challenges of rigging and operating a lift bag in less than ideal conditions underwater. Our ALB range has been developed not as a theoretical exercise by a desk jockey, but in conjunction with actual living, breathing users to make it as diver-friendly as anything in its class.

Tested and Proven

The ALB range is, like every Seaflex product, carefully designed, constructed and tested to meet and exceed demanding international standards. As you would expect, Seaflex ALBs fully comply with IMCA D-016 guidelines. But, uniquely within our market, we have drop-tested our ALBs to prove their safety factors and we have tested and demonstrated the performance of our inverter lines. The result? You can rely on Seaflex ALBs to perform safely, effectively and predictably, time after time and year after year. All our ALBs are delivered ready for immediate use with a universally compliant documentation: a unit-specific log book containing certification, service records and operating manual. Another benefit: our ALBs require remarkably little storage space relative to their lift capacity; ALBs capable of 350 tonnes of lift can be stored on a 6 x 6 metre footprint and weigh less than 3.5 tonnes.

Off the Shelf or Made to Measure

There is most probably an existing Seaflex ALB, or ALB combination, suitable for your exact subsea lifting task. But if there isn't, then our team will draw upon their long experience in this field to design and manufacture a bag to suit your exact requirements.



Key Features and Benefits at a Glance

For Your Peace of Mind

- Fully compliant with IMCA D-016, and with ABS PDA.
- 7:1 design WLL factor on the straps.
- Overall assembly tested and proven to a 5:1 minimum WLL safety factor. Independent Type Test Certificates are available.
- Tested and proven inverter line attachment point.
- High performance structural fabric canopy.
- RF welded seams.
- Rental units inspected and tested between every single job.



For Your Ease of Operation

- Seaflex DeeTangler™ to enable simple “sort and check” of the straps subsea to avoid twisting and overloading.
- Unique strop i/d system terminating in a closed ring: no risk of incorrect connection leading to in-service failure.
- Integral handling ladders on units over 1 ton.
- 3/4 inch BSP standard inflation valve with 316 stainless steel Camlock end fitting standard on ALBs of 2 tons and above.
- Base-operated high flow dump valve.
- Industry-leading height to weight ratio: maximising load freeboard where required.
- Design service available, to provide optimised solutions for specific tasks.
- Delivered in an enclosed crate and ready for immediate use with universally compliant documentation: ALB specific log book containing certification, service records and operating manual.

Model No	Inflated (Kgs & Mtrs)				Packed (Kgs & Mtrs)			
	Lift	H	Ø	Wt	L	W	D	No / pallet
250 ALB	250	1.3	0.9	3	0.4	0.2	0.4	40
500 ALB	500	1.7	1.2	5	0.5	0.3	0.5	30
1t ALB	1,000	1.9	1.6	11	0.6	0.4	0.6	20
2t ALB	2,000	2.5	1.8	23	0.8	0.4	0.8	10
3t ALB	3,000	3.2	2.0	32	0.8	0.4	0.8	6
5t ALB	5,000	3.7	2.0	38	0.9	0.5	0.9	5
10t ALB	10,000	4.5	2.4	75	1.2	0.5	1.2	3
15t ALB	15,000	5.4	2.7	110	1.2	0.6	1.2	2
20t ALB	20,000	5.5	3.2	120	1.2	0.7	1.2	2
25t ALB	25,000	5.9	3.8	175	1.2	0.9	1.2	1
35t ALB	35,000	6.5	4.0	230	1.4	1.2	1.4	1
50t ALB	50,000	8.2	4.5	416	2.6	1.22	0.96	1

Providing AND Proving: Seaflex ALB Testing

Whereas some other companies simply provide ALBs, Seaflex has gone further than anyone in the market in proving our designs and our products via rigorous and documented testing of both their structural integrity and their ability to invert during operation. Why? To give our customers complete peace of mind, given that the safety of their personnel is at stake.

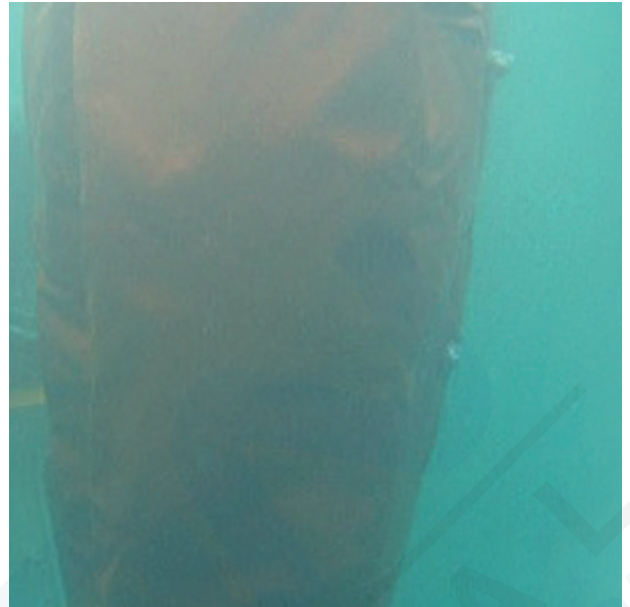
Designed for Ease of Handling

Seaflex engineers every ALB from 25 kg to 50,000 kg to a 7:1 WLL ratio, well exceeding the IMCA D-016 design requirement of 5:1. And then we go another step further than even IMCA stipulates: we have chosen to Type Test every model of ALB from 25 kg to 35,000 kg to a minimum of the IMCA figure of 5:1.

Seaflex conducts these Type Tests at the TÜV National Engineering Laboratory in Glasgow. The Type Tests are performed by dropping and then catching the water-filled ALB to produce a shock overload, testing the fabric integrity, stopping arrangement and hardware of each type of ALB. A Certificate of Conformity to the Type Test is then supplied as part of the documentation pack for with each and every Seaflex ALB.

User-controlled Buoyancy Variation

IMCA D-016 stipulates that a clearly designed strong point is built into all parachute-type bags for attachment of a suitable inverter line. However, there is no IMCA requirement to test if this will work in a scenario where a bag is suddenly released as a result of attachment failure, rapidly accelerating to produce a shock load on the previously slack inverter line and its attachment point. So in this further respect, Seaflex have again gone over and above the minimum industry requirements to demonstrate that our ALBs will perform exactly as they need to: we conducted full-scale subsea testing, suddenly releasing fully filled ALBs against their inverter lines. And as you would expect, our ALBs came through these tests with flying colours, and with measured overload strength to spare. So our clients can be completely assured that Seaflex ALBs will invert to design, rather than surfacing at high speed and getting caught up in the thrusters of their support vessel.



Our Credentials

Seaflex manufactured our very first range of lift bags for rental and sale to service the diving industry in 1987, in sizes up to 500kg.

Over 25 years later, our biggest Air Lift Bag is 100 times larger than that at an industry-leading 50,000 kg and we employ around 30 skilled staff at our custom-built 30,000 square foot manufacturing facility in Cowes on the Isle of Wight.

In 2011 Seaflex was acquired by the Unique Maritime Group, a global provider of integrated support services for the offshore sector. Unique Maritime Group's expanding network of companies are specialists in ROV, diving, survey, NDT and engineering services. With the benefit of UMG's global footprint and support structure, Seaflex is these days even better placed than ever to meet the needs of its customers - no matter where in the world they are working, nor how challenging or urgent their requirement may be.

As you would expect of a company working in an industry where the concepts of quality and safety are paramount, all our work is carried out within a system which complies with the ISO 9001-2008 Quality Management Standard for full traceability - and we now have also gained ISO 14001 Environmental accreditation and ISO 18001 Health and Safety accreditation for our manufacturing operation. We have also had independent verification of the compliance of our WaterLoad™ bags with LEEA 051 guidelines and of our Buoyancy bags with the requirements of IMCA D-016. ABS have also issued us with full Product Design Assessment (PDA) certification for our main products.

But any company can talk about the vast amounts of testing, certification and accreditation which have been carried on their products - fewer companies can substantiate such claims. Seaflex is one of those which can back up their claims - however, our credibility does not come from bits of paper: it comes from our customers, from the work we have been doing with them for over 25 years, and from the fact that they keep coming back to us time and time again.



Our Philosophy - Whenever, Wherever

We have a simple philosophy here at Seaflex: we will do everything within our power to deliver what our customers need from us, whenever they need it and wherever they need it.

That simple philosophy is born of several different levels of understanding:

- An expert understanding of how to design, manufacture, prove, deliver and support best-in-class bags for ballast or buoyancy.
- An in-depth understanding of the regulatory environments in which we and our clients operate - both onshore and offshore.
- The desire to understand our clients' businesses, and to work with them to achieve the best possible technical and financial outcome for them.

We are not complacent: we are only where we are due to our ability to keep our band of loyal customers happy, whilst adding to them by demonstrating to others the value which we can bring to their businesses. If we let that slip then we are nowhere. And that is why we keep investing in our business: to better serve your business.

Hence the brand new factory capable of producing 3,500 tons of lift and water load testing capacity each and every month. And hence us holding and managing the largest global rental fleet of buoyancy and ballast bags.

As you continue to invest in us, we'll continue to invest in you. We are always happy to hear from customers new and old alike as to how we may better serve you. We will travel the world to meet with you at your convenience, and the doors of our factory are always open and the kettle is always on for visits from those who would like to see what we do, and how we do it, for themselves.

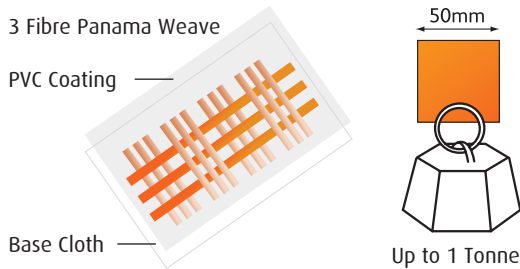


Seaflex - Technology, Service and Support

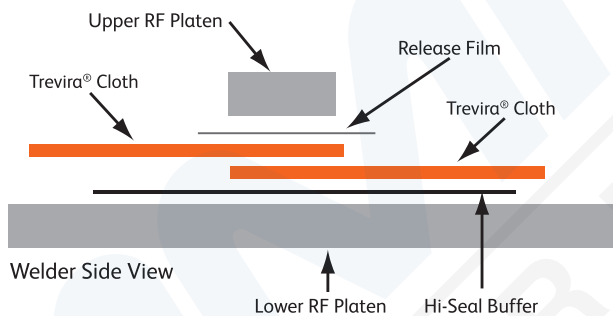
Manufacturing Technology

All Seaflex products are designed and manufactured in the UK.

Our bag canopies are constructed from High Tensile Trevira® Polyester base cloth (either 2 /2 or 3 /3 fibre panama pattern weave) coated with heavy duty UV stabilised PVC coating or, for special applications, polyurethane. Trevira is incredibly strong; a 50 mm wide 3/3 strip has a break load of approximately 1 tonne.



The panels for our bags are precision cut on our 15 metre long, 3 metre wide advanced automated table for perfect repeatability. Once inspected and approved panels are assembled by skilled personnel to using Radio Frequency welding to strict quality control standards.



Certification

All our work is carried out within a system which complies with the ISO 9001-2009 Quality Management Standard as audited by Lloyds Register Quality Assurance for full traceability - and we have now gained ISO 14001 and ISO 18001 accreditation.



Service

Whether for hire or sale, all Seaflex products are sent out fully tested and inspected against their build criteria. And we do also offer on-site support to our clients in the use of our products - this most often happens within the more complex buoyancy applications for our products.

In the event that your Seaflex product should suffer minor damage in service, we can supply an approved, boxed field service kit comprising of patches, a professional quality heat gun and instruction manual to make good minor leaks prior to product refurbishment.

We can also advise on the viability of carrying out more extensive repairs, which would typically be undertaken either at our factory or at one of our approved service centres.

Support

Our support philosophy is "Wherever, Whenever". This underlines the Seaflex commitment to not just sending out tested, proven products in proper shipping crates and with the most comprehensive documentation package in the business - but to assisting our customers in every way possible throughout their time using our products, whether the job is a hire project or an equipment sale.

We offer worldwide support to our customers via either email or phone from head office in the UK and via our ever-growing network of offices and partners around the world.

Put your trust in Seaflex. We won't let you down.



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