Worldwide Distribution Centres

Apeks products are backed by a professional service with a worldwide distribution network. Africa, America, Asia, Australasia, Europe - wherever you dive you should be able to locate suitably qualified technicians to keep your equipment in optimum condition. Our dealers will also be pleased to give you information on our products and service. You can locate details of your nearest Authorised Apeks Dealer by contacting your distributor. Details can be found on our website www.apeks.co.uk

Apeks regulators are supplied with a lifetime guarantee.

Apeks Distributor

Authorised Apeks Dealer

Apeks Marine Equipment Ltd. Neptune Way, Blackburn, Lancashire, England.
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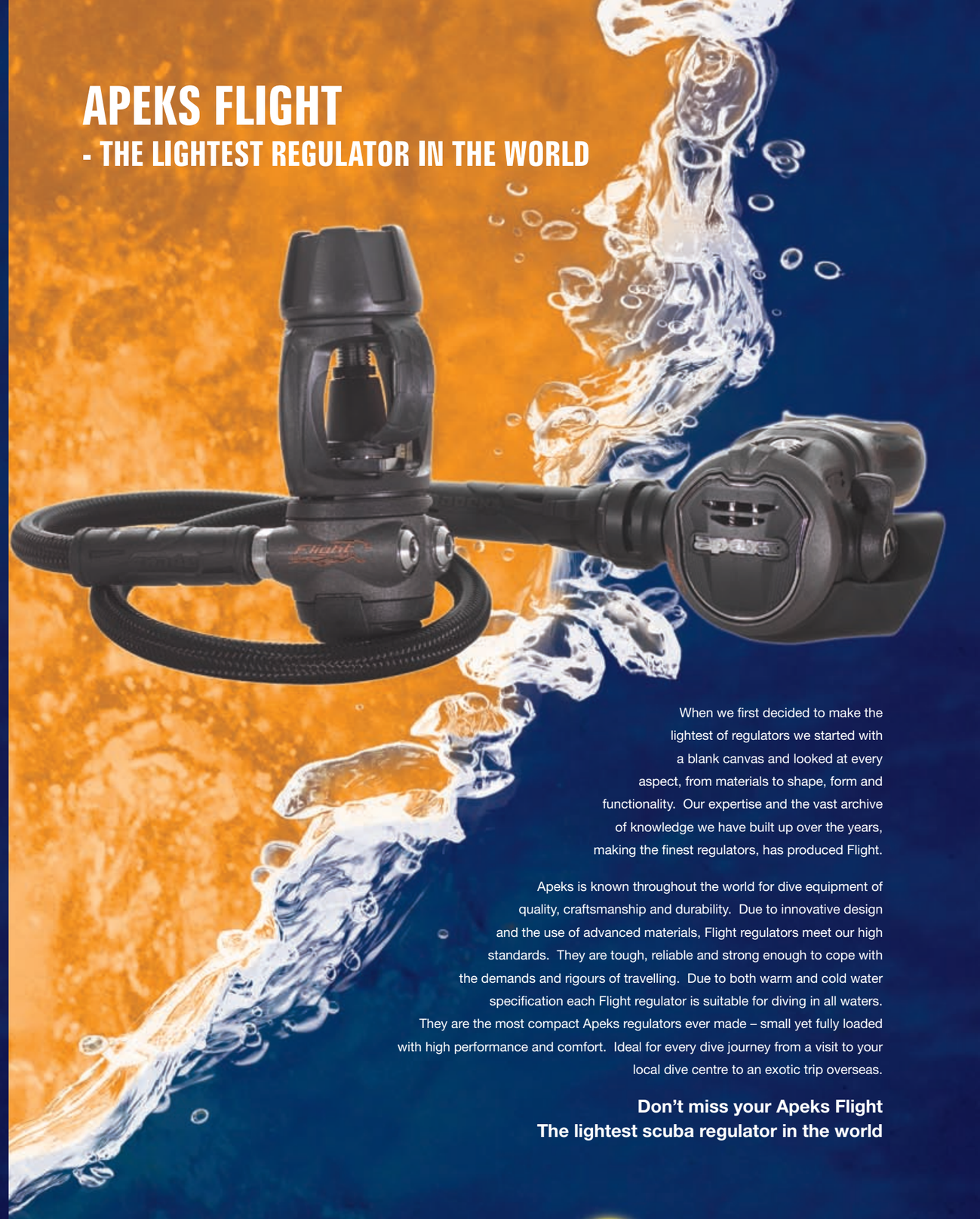
BSI REGISTERED FIRM 003
ISO 9001 - Certificate No. Q/09370

Part of the **AQUA LUNG** group

APEKS FLIGHT
- THE LIGHTEST REGULATOR IN THE WORLD



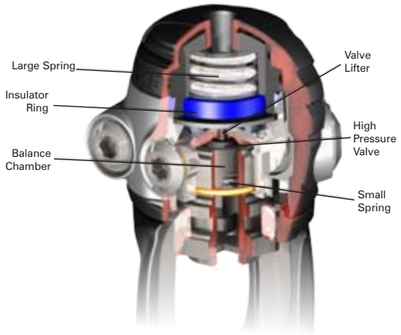
When we first decided to make the lightest of regulators we started with a blank canvas and looked at every aspect, from materials to shape, form and functionality. Our expertise and the vast archive of knowledge we have built up over the years, making the finest regulators, has produced Flight.

Apeks is known throughout the world for dive equipment of quality, craftsmanship and durability. Due to innovative design and the use of advanced materials, Flight regulators meet our high standards. They are tough, reliable and strong enough to cope with the demands and rigours of travelling. Due to both warm and cold water specification each Flight regulator is suitable for diving in all waters. They are the most compact Apeks regulators ever made – small yet fully loaded with high performance and comfort. Ideal for every dive journey from a visit to your local dive centre to an exotic trip overseas.

Don't miss your Apeks Flight
The lightest scuba regulator in the world

apeks
DIVING IN ACTION

FLIGHT REGULATOR FEATURES

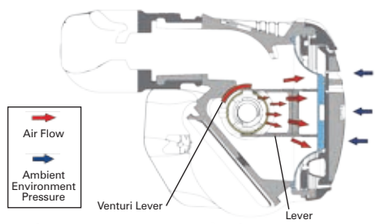


Cold Water Capabilities

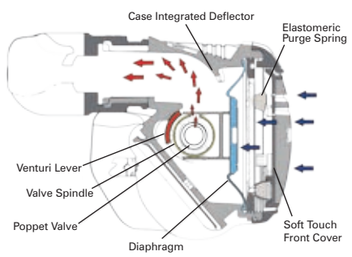
Using insulation techniques and advanced materials the refrigeration effect of the 1st stage has been reduced where it counts. The area where a normal regulator 1st stage freezes is protected and insulated reducing the freezing effect. It is the formation of ice crystals that lead to regulator freeflows and Flight's insulation system helps to prevent this. The insulation system is also evident in Flight's 2nd stage. As the compressed gas expands into the second stage, a refrigeration effect occurs, cooling all internal parts. As the composite materials used in Apeks Flight regulators have good insulation properties, the refrigeration effect is reduced which mitigates a potential freeze. Our design and development engineers have perfected this technique over a number of years through scientific testing and studies. Through monitoring Flight's performance in extreme dive conditions, we have been able to produce an ultra-light regulator with cold water capability.

Integrated Venturi System (IVS)

Ambient pressure is greater than the pressure under the diaphragm, so the diaphragm is pushed down onto the lever to assist with the breathing effort. With the venturi in the minus position the air-flow from the 2nd stage is directed onto the diaphragm, closing the valve and preventing freeflow. Gas flow to the diver can be directed towards the mouthpiece by indexing the venturi lever towards the plus (+) position. This allows the diver an assisted breathe resulting in a more comfortable dive with less breathing effort. Apeks IVS can therefore be used as a pre dive switch. With the lever set in the minus (–) position the 2nd stage will not freeflow during the entry phase or if the regulator is dropped in the water. When the diver begins to use the regulator the lever can be moved to the plus position and the 2nd stage will give increased venturi assistance.



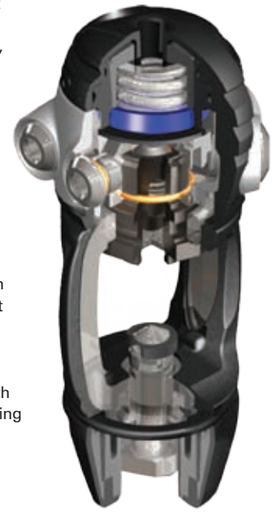
Venturi Lever in Minus (–) Position
With the venturi lever in the minus position, the air-flow from the 2nd Stage is directed onto the diaphragm, closing the valve and preventing freeflow.



Venturi Lever in Plus (+) Position
Ambient pressure is greater than the pressure under the diaphragm, so the diaphragm is pushed down onto the lever to assist with the breathing effort.

Balanced Diaphragm 1st Stage

The Apeks team has overcome complex engineering constraints and produced equipment that offers high performance, and yet remains uncomplicated, guaranteeing greater reliability and lower cost maintenance. The 1st stage – the powerhouse of your regulator – reduces the high pressure air stored in your cylinder to a controllable intermediate pressure of 9-10 bar. The air then flows along the medium pressure hose to the 2nd stage (demand stage). Flight 1st stages are of pressure adjustable balanced diaphragm design and supply air at exactly the right pressure. For example, as the diver descends the demand for air increases. To maintain the supply, the intermediate pressure increases in ratio to water depth and the resulting increased pressure acting on the primary diaphragm.



Bubble Diversion

The new exhaust T offers two big advantages.

Firstly it has been engineered to reduce bubble interference in the upright dive position. This has great benefits for observing marine life, for underwater photography/video and general diver comfort. The exhaust is manufactured in melt processable rubber and as such, there are no sharp edges and it fits snuggly and securely to the body of the 2nd stage. Aesthetically the exhaust fits beautifully with the rest of the regulator and yet performs wonderfully well.

Secondly the exhaust T has been shaped to actually assist the smooth breathe performance. When Apeks re-designs a regulator component, every aspect is considered to offer divers the best of all options. No detail is overlooked.

Upright Dive Position

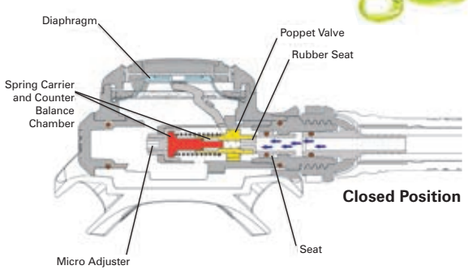
Exhaust Viewed from Below

Balanced 2nd Stage

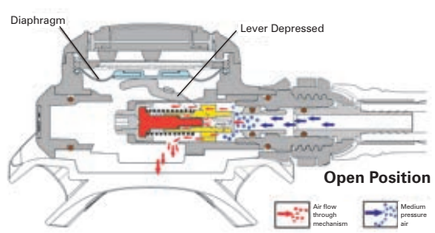
The diaphragm is drawn down as the diver inhales (see open position diagram) depressing the lever. The lever tilts and lifts the balanced valve and rubber seating off the seat (orifice) allowing air to flow through the valve mechanism to the diver's mouth. When the diver exhales, the diaphragm recovers and the spring pushes the poppet valve and rubber seating back onto the seat, preventing further air flow.

Technician Adjustable 2nd Stage

Although not diver adjustable, the Flight 2nd stage is designed to allow an Apeks Trained Technician to finely adjust the cracking resistance. This allows the 2nd stage to be set to a minimum breathing effort with a wide range of 1st stage medium pressures.



Closed Position



Open Position

The Lightest Regulator in the World

Apeks Flight is lighter than any other comparable regulator made by any other manufacturer in the world. Our Design and Engineering Team have produced this revolutionary regulator using advanced composite materials selected for their optimum strength to weight ratio.

Components in both the 1st and 2nd stages are made from reinforced material specifically developed for the manufacture of technical components. It is strong, not affected by water or extreme ranges of temperature, has good dimensional stability, an excellent resistance to chemicals and does not deform. The perfect material for regulator parts. This Hi-Tech material is also used in "under-bonnet" components at the cutting edge of the motor industry due to its proven strength and resilience actually replacing many steel and brass parts.

The 1st stage has an ingenious design which comprises a strong forged solid brass skeletal body surrounded with the perfect jacket material. Due to exceptional engineering it is built to withstand the high pressures of compressed gas and to cope with the tough rigours of diving. Flight offers impact protection and good abrasion resistance meaning there is a reduced chance of accidental damage.

Ease of Use

Apeks has spent many years creating equipment divers will enjoy and also find easy to use. Flight uses much of this experience in its operation such as the balanced mechanisms of the 1st and 2nd stages, the venturi operation, the facility for technician fine tuning, and more. In addition Flight's large purge is very easy to locate and made from a soft-touch but durable material.
The purge is exceptionally stable as it is unaffected by temperature variation due to its innovative and unique design. As with other Apeks regulators Flight is very cost effective to maintain due to the efficiency of assembly and disassembly and the easily accessible components.
This reduces the complication and time it actually takes to service and lessens the number of parts necessary for servicing which reduces maintenance costs. As a key bonus this efficiency of design is also very good for the environment.

Unique 1st Stage Yoke Operation

Flight offers another first. The unique feature of the yoke clamp handwheel.
The operation and design of the handwheel actually prevents accidental snagging during a dive. A key safety feature.

Breathe Performance

Apeks Flight offers a silky smooth easy breathe, enhancing the pleasure of your dive. It was never intended that Flight replaces our world beating XTX regulators favoured by many professional and serious sport divers all over the world. Flight is a mid-range regulator ideal for transportation and travel to meet most divers' needs. For the compact size of this regulator the breathe performance is exceptional in all positions and all dive conditions including cold water.

Flight has been tested beyond limits

Over one million breathing cycles prove its robustness and reliability. Rigorous and thorough impact tests have proven Flight beyond the limits any divers would ever experience. Further fatigue testing has been carried out to prove Flight's capabilities in temperatures ranging from -30°C to +80°C. Flight easily surpasses the requirements outlined by the European Authorities for cold water use (EN250) and is suitable for diving in all waters.

Male Octopus

Our Most Compact Regulator

The most compact, complete regulator Apeks has ever made – the Flight 2nd stage is approximately 20% smaller than the Apeks XTX range. Weight reduction was our prime objective, but other benefits result from this design journey, not least the comfort of your regulator.
The reduced size offers less drag and we have developed the 2nd stage to be as neutrally buoyant as possible reducing jaw fatigue during your dive. A more relaxed purchase on your regulator mouthpiece is also achieved through the in-line positioning of the primary regulator hose from the 1st stage.
The 1st stage has 4 medium pressure ports located in-line for hose comfort and the 2 HP ports are radially configured for optimum hose routing and ideal instrument positioning.

Nitrox Use

As they leave the factory, standard Apeks regulators are suitable for use with oxygen enriched gasses (i.e. Nitrox etc.) providing the oxygen content does not exceed 40%*. For mixtures containing more than 40% the regulators must be professionally converted to oxygen service by an Authorised Apeks Technician through an Authorised Apeks Dealer.

*For regulators purchased within European Community Countries, Apeks must adhere to the European Standards EN 144-3 and EN 13949 which state that any regulators purchased, which are for use with oxygen content of over 21%, must use the special M26 fitting and the standard regulator fittings must not be used with mixes over 21%.

Flight

The compact size and lightweight properties of Flight are ideal for women. As such, we have made a Flight regulator especially for all female divers. Women's faces and mouths are generally smaller than men's. The Flight second stage has been engineered to feel secure in the mouth and be so comfortable that excessive grip is not necessary. The female version of Flight is made with a suitably designed mouthpiece. In tests, women have found this much more comfortable than standard mouthpieces. Flight co-ordinates well with many items of dive equipment currently available on the market. It is also very attractive in its own right. Why shouldn't regulators look great as well as perform well.

Flight also comes complete with a free matching lightweight sports bag, perfect for the transportation of your regulator. A matching female octopus is also available (can be purchased separately or as part of an Apeks Stage3 set). Altogether a striking lightweight and compact set.

Female Octopus

Lightweight Flexible Hose

The Flight hose is manufactured at the Apeks factory. The hose material itself features an external nylon safety braiding designed to resist snagging and abrasion. The double braiding resists UV rays out of the water, thus extending the life of the hose. The hose is lightweight and extremely flexible but is also strong with a burst pressure more than twice that of most traditional hoses. It is kink-resistant. Even if the hose were tied in a knot the gas flow would remain unobstructed.

The unique, secure attachment of the second stage to the hose offers a "no-tool" fitting and a more environmental solution. No tools mean that it is impossible for a technician to over-tighten and damage the fitting as is possible with other hose-nut connections that require tightening with a spanner. This regulator's unique hose attachment enables Flight to be as lightweight as it can be and utilises the advanced composite materials used in other areas of the regulator. This reduces the need for brass and chrome plating in this area of the regulator, which in turn reduces production waste and the need for the treatment of harmful chemicals which are produced from the chrome plating process.

Apeks has always been keen to manufacture in an environmental way due to the nature of our business. Another world first for Apeks is that we are the only Scuba manufacturing company in the world to have achieved the internationally recognised Environmental Standard ISO 14001. We continually strive to improve whilst looking after our future.

SPECIFICATION

First Stage

- 4 medium pressure ports 3/8" UNF
- 2 high pressure ports 7/16" UNF
- Suitable for both warm and cold water use
- Strong skeletal body
- Impact protection
- Colour selection
- Male and female versions
- Nitrox available
- In-line hose position
- Balanced for superior performance
- Anti-snag Yoke handwheel
- 300 bar DIN handwheel or 232 bar yoke handwheel, both 2 shot moulded
- Weight DIN version – 340g
- Weight Yoke version – 459g

Second Stage

- Integrated Venturi System (IVS)
- Pneumatically balanced valve design
- Suitable for both warm and cold water use
- Large tough purge
- Purge operation unaffected by temperature change
- Technician adjustable cracking resistance
- Excellent bubble diversion
- Neutrally buoyant
- Lightweight hose
- Colour selection
- Male and female versions
- Nitrox available
- Matching male and female octopus
- Weight – 127g

Total regulator weight including hose: DIN – 589g YOKE – 708g

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