



Apollo Bio Fin & Bio Fin XT Military Applications

Apollo Bio Fins Overall Capabilities

The fins are made from 100 % natural rubber materials that enhance the durability and strength for Military Operations. The Bio Fin has proved a superior design for any short or long distances water operations including reconnaissance or deployment.

Operators prefer to use the Bio-Fin Pro series because the natural rubber is negatively buoyant. This increases the thrust and reduces the risk of surface splashing. If the operator is required to discard the fin it will sink to the bottom so as not to alert the target of the operator's presence.

The design of the fin makes it ideal for helicopter airdrops. If secured to the body during freefall and / or static line drops the fin will bend to the curve of the leg or torso to minimize entanglements etc. Because the flexible split blade design offers only minimal resistance upon water entry operators may choose to wear the Bio Fin during low level helicopter insertion water drops.

Both surface and subsurface operations are aided by the innovative propulsion design that reduces air consumption and fatigue by up to 40% over conventional blade fins.

Apollo Bio Fin XT Overall Capabilities

The Bio Fin XT version being a 30% stiffer fin has all the same capabilities as the above Bio Fin Pro however it's design produces extra torque that is better when an operator is carrying heavier loads or for a very fast shorter distance swim. Lower air consumption and fatigue reduction still apply.

The outstanding feature of the XT Fin is the power. You can use the XT to traverse strong currents or deploy boarding ladders etc. You are able to achieve this due to the 30% stiffer blade, which delivers the extra torque you require. This enables you to do tasks that other fins cannot cope with.

Apollo Bio Fin Strap Systems

We have the choice of two strap systems.

1). The rubber strap.

The rubber strap systems is available with both Bio-Fin Pro and the Bio-Fin XT version and is recommended for short, medium or long duration swims where user is not required to remove the fin often, or to fit or remove the fin with speed. This is the preferred choice for clearance divers who require equipment with a **low magnetic signature**.

2). The spring strap.

The Stainless Steel Spring Strap system offers total security from strap breakage during an operation and can be used with both Bio-Fin Pro and the Bio-Fin XT.

It's superb for long duration swims, however it is the short to medium swims when a user may be required to remove the fin at speed that the Spring Strap system beats all others. The Spring Strap offers an easy one-handed operation that allows the operator to simple remove the strap by stretching it back. This greatly increases the speed and ease to which an operator can refit or remove their fins quickly.

The Spring Strap system totally eliminates the chance of strap, lug or buckle breakage during any operation.

Bio Fin Independent Testing

The American publication **Rodale's Scuba Diving Magazine** conducts equipment tests in their **SCUBA LAB** on an annual basis.

- **Scuba Diving Magazine** have the resources and expertise to conduct totally independent tests that are carried out at dive sites and under genuine diving conditions, **NOT** just simulated tests in swimming pools.
- **Scuba Diving Magazine** have testers with no vested interests in the outcome and cannot be influenced by the manufacturer's, or dive stores as neither are present, nor are they conducting the tests!
- **Scuba Diving Magazine** testers follow strict procedures to eliminate as many variables as possible, which could invalidate the testing process
- **Scuba Diving Magazine** have access to the best equipment that is used for testing purposes.

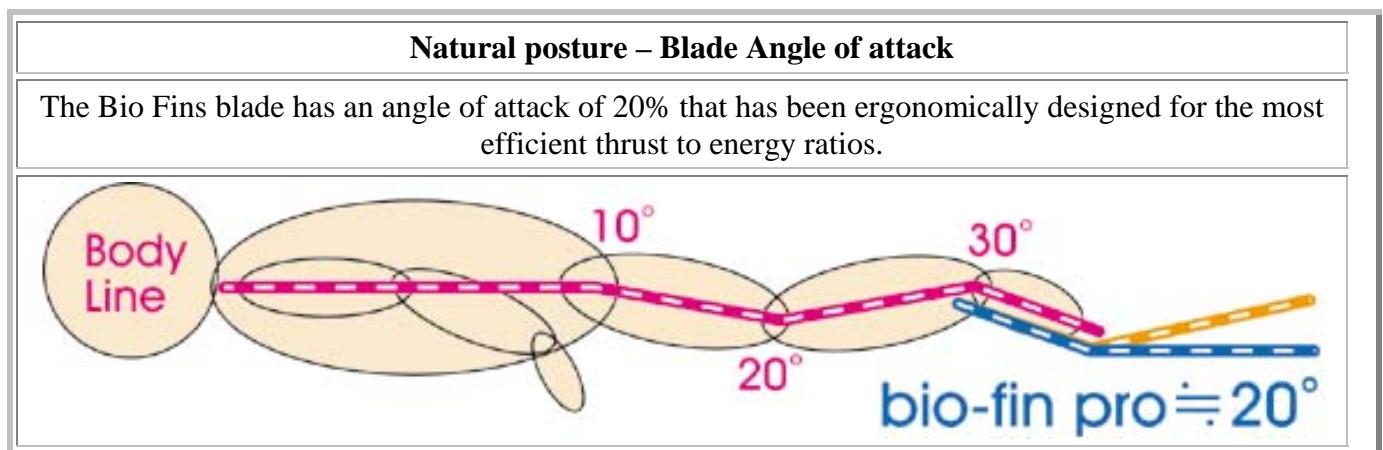
Rodale's Scuba Diving Magazine said:

*“For the seventh year in succession, **Apollo’s Bio Fins** have taken the honours as the best overall performing fin on the market.”*

The Apollo Bio Fin has consistently been the highest scoring fin and “Testers Choice” and “Best Overall Fin Tested every year from 1999, 2000, 2001, 2002, 2003, 2004 and 2005”. 2006 is not in yet.

Bio Fin & XT Blade System

The design of the Bio-Fin and XT gives the diver the maximum thrust efficiency possible for the minimum energy used. The engineering and research coupled with practical field trials has delivered the worlds leading fin.



Specifications

Bio Fin Pro and XT

- Made from natural rubber – for consistent flex and extreme durability
- Negatively Buoyant – For efficient covert approaches that minimise the risk of the fin breaking the surface and causing splashing that may attract unwanted attention.
- Open toe design for comfort on long swims and ease of draining any sand or silt.
- Up 40% saving on air consumption
- Up to 40% saving on energy usage – Eliminates muscle cramping.
- Rubber Straps – ideal for Mine Clearance Divers
- Spring Straps – Ease of use and total security against breakage. (5 sizes).
- Fantastic power and speed
- Different flex characteristics to suit the application.
- Up to 5 sizes available XS, SML, MED, LGE, XLGE

This all combines to give you an operational advantage that no one else can offer!

Technical Specification Summary

Key USP's (Unique Selling Propositions)

Material composition is extremely important as bio fins achieve superior flex, and are negatively buoyant to minimise surface splashing.

The Material

- 100% Natural Rubber
- Negatively buoyant
- UV stable
- Extremely abrasion resistant

Physical Properties

- Hardness of Bio Fin XT is 75 degree durometer (hardness factor)
- Hardness of Bio Fin Pro is 65 degree durometer (hardness factor)
- Tensile Strength 14.6 MPa
- Pandiculation (stretch) 790%
- Specific Gravity 1.105

Stainless Steel Spring Strap Buckle System

Apollo is the only fin worldwide where the spring strap is bolted through the sidewall of the fin therefore eliminating all of the following potential breakage points.

- No plastic buckles to break.
- No silicon or rubber strap to break
- No breakage can occur because the spring strap is securely bolted through the sidewall of the fin where the straps attach. All other fins have a breakage point at the lug that the strap is attached too.

Foot Pocket Design

The foot pocket has been designed with an open toe area that is very comfortable for operators and drains quickly and easily.