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The Automatic Tactical Flotation Support System <u>AUTO-TFSS</u> <u>&</u> (ATFSS) TM

Tactical Flotation Support System And a delayed Auto-Inflate Feature!!









The Automatic Tactical Flotation Support System (ATFSS) TM & AUTO-TFSS, designed by PECI Flotation, L.L.C, is a low profile aid to flotation device

specifically designed to automatically inflate when submerged in water. It automatically inflates in approximately six (6) seconds when totally submerged in water utilizing an alpha inflator system.

Unlike hydrostatic actuator systems relying on atmospheric pressure to initiate the auto-inflate process, the AUTO-TFSS actuator utilizes a <u>Halkey / Roberts® ALPHA SERIES INFLATOR</u> <u>V90000</u> that exceeds all UL, CEN and ISO Standards. Hydrostatic actuators have been known to actuate in as little as 4 inches of water and have greater accidental deployments; particularly in aircraft, if not properly monitored.

The <u>APLHA SERIES INFLATOR</u> utilizes a pharmaceutical grade material developed by DuPont Engineering Polymers for the Halkey/Roberts <u>V80040 "Super Bobbin"</u> that has no susceptibility to atmospheric pressure and only allows the actuator to initiate the inflator device after being subjected to total immersion in water for approximately six (6) seconds. Should the bobbin fail or a certain protocol requiring manual deployment, a lanyard system is included in the actuator design for personnel pull-deployment.

To manually actuate an AUTO-TFSS unit, the user pulls upward on the firing handle that is attached to a lanyard. This motion initiates two sequential actions. First the manual inflator lever is actuated, causing the firing pin to puncture the seal on the CO2 cartridges to release the gas and completely fill the bladder. This action then separates the nylon zipper and deploys the filled bladders.

Should this CO2 inflation system fail to operate either (manually or automatically), the bladder can also be filled through an oral inflation tube. This is accomplished by depressing the Halkey / Roberts "OraLock Valve" then breathing into the tube. Gas is released from the AUTO-TFSS bladder by pressing downward on the "OraLock Valve" as well and forcing the air out the oral inflation tube. Once all of the gas is evacuated from the bladder, the CO2 cartridges are replaced, maintenance is performed, and the units are re-armed and re-packed for future use.

The AUTO-TFSS was designed to provide the same buoyancy as the popular TFSS-5326 which is 45lbs positive buoyancy in seawater at a depth of 33 ft., 57lbs of positive flotation at a depth of 15 ft., and 80lbs of flotation on the surface, allowing today's war fighter a maximum load-out of equipment.

The TFSS-5326 has been approved for usage with the Navy, Marine Corp and Army SOF with a particular notation for static and free-fall diving. USAFSOC utilize the PECI Flotation devices as well. Additionally, domestic Law Enforcement agencies such as the FBI, HRT, and SWAT along with DHS agencies such as Customs & Border Patrol and ICE are utilizing the TFSS-5326 and AUTO-TFSS. US Coast Guard has been utilizing the TFSS-5326 and recently in some areas, has been utilizing the ATFSS as an alternative.

The base device design of the TFSS-5326 and the ATFSS were developed in conjunction with personnel in Naval Special Warfare DEVGRU for diverse applications and as such have been adopted for usage globally.

Each AUTO-TFSS system consists of one each independent left and right hand units, which can be mounted on a belt. Each unit includes a RF welded flotation bladder, an inflation system, a pouch closure system, a pouch, and a firing handle. The bladder is a reusable RF welded fabric enclosure that deploys under the arm and is readily collapsed and stowed for future use. The

inflation system utilizes an auto-actuated CO2 cartridge for primary inflation, a manual pull system as a secondary inflation source and an oral inflation tube as a third inflation source.

The AUTO-TFSS pouch uses a unique nylon zipper closure system designed to separate upon inflation. This method prevents accidental pouch opening and allows for the smallest unit size when fully packed (approx. 6.5" x 2.75" x 2.25"). A durable Cordura flap to further protect against damage and inadvertent actuation covers the entire closure mechanism.

The AUTO-TFSS pouch contains and protects the bladder, inflation system, and closure system. It includes a waist belt loop and clip loops to secure the pouch to the webbing belt. A firing handle attaches to the outside of each pouch and uses color-coded beads to help distinguish left and right hand units. The handle serves to release the closure system and actuate the CO2 inflation system if the auto system fails.

In terms of maintenance and the re-arming of the ATFSS, all is user-capable and found less expensive to support than its peers. The Auto-TFSS service requirements are simple and nominal. Comprehensive "Re-Arm Kits" are available as with user available parts and supplies.

For more information please visit:

www.tacfloat.com

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