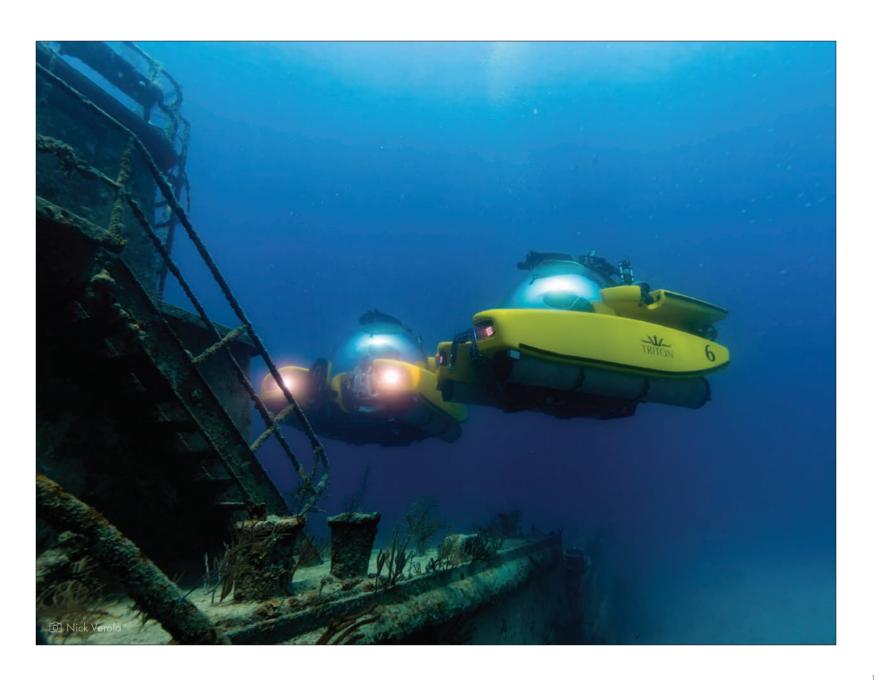


#### EXPLORE THE OCEAN

**EXTRAORDINARY SUBMERSIBLES** 





#### THE DEEP OCEAN IS NO PLACE FOR COMPROMISE

Triton submersibles are designed, tested and certified to the most rigorous safety standards.

They are built from the finest materials and our clients enjoy after-sales service and technical support from the world's most experienced operations team.

Triton is committed to producing the best deep-diving submersibles on the planet.

Triton has such confidence that their clients would recommend them, that they will gladly provide prospective clients with the contact details for the Owner's Representative of every submersible to earn the Triton badge.



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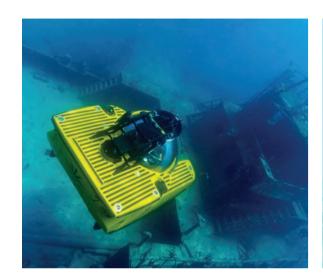
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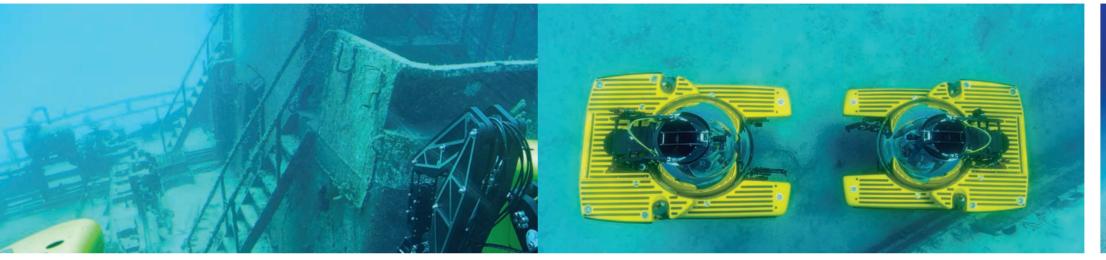
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# TRITON SUBMARINES

With more than 400 years of collective experience, the team at Triton are the most knowledgeable civil submersible experts on the planet.







97% OF THE OCEAN FLOOR REMAINS UNEXPLORED. VISIT OUR WORLD. JOIN THE EXCLUSIVE TRITON CLUB.

#### INTRODUCTION

Imagine experiencing the fabulous majesty of the undersea world, interacting, up close and personally, with the myriad inhabitants of the deep. Dive beneath the surface in a Triton submersible and enter a world that very few have seen before.

This is the finest type of adventure - exhilarating, breathtaking, serene, and an experience to be shared in great comfort and luxury.

#### **EXPERIENCE COUNTS**

Triton submersibles have explored more locations than those of any other submersible manufacturer, made numerous record breaking dives, participated in groundbreaking scientific expeditions, discovered countless new species and filmed some of the most elusive creatures on the planet.

#### **CHOOSE TRITON**

Yacht owners, scientists, explorers, adventurers, archaeologists and filmmakers are all choosing Triton submersibles.

Let us assist with submersible selection, train your crew and integrate with your vessel.

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#### WHY TRITON

We are dedicated to building the world's finest submersibles and equally determined that the best experience, for passengers and operators alike, continues to come from a submersible wearing the Triton badge.

Triton's **enviable reputation** is directly attributable to more than a **decade of kept promises**. We work hard to ensure our customers are as satisfied today as they were on the day of their first dive.

This **dedication** has helped see Triton owners' achievements etched into history books, recorded in scientific journals, and immortalized in landmark global broadcasts. Records for the deepest, longest and most-repeated dives are all held by owners of Triton submersibles. Some of the most **compelling** documentaries of the past decade were filmed with a Triton submersible.

That those with the highest aspiration, and those who face the most demanding tasks, overwhelmingly **choose Triton** is testament to our commitment to producing reliable, dependable submersibles and to supporting our customers long beyond the day of delivery.

Every Triton ever commissioned has been completed. Every Triton ever completed has passed certification. Every Triton ever certified has been delivered. Every Triton ever delivered has been to specification and budget. And every single one of them benefits from a truly world-class after-sales service that is without peer.





#### DEEPEST DIVE IN HISTORY

10.928 meters April 28, 2019



#### DEEPEST SALVAGE MISSION

Scientific Lander Recovery 10,927 meters

DEEPEST DIVING

AUSTRALIAN

Tim MacDonald

10.925 meters



#### DEEPEST DIVE IN SOUTHERN OCEAN

7.433 meters February 4, 2019



DEEPEST DIVING **AMFRICAN** 

Victor Vescovo 10,928 meters

DEEPEST DIVING

**NEW ZEALANDER** 

Rob McCallum

10.925 meters



#### DEEPEST DIVE IN ATLANTIC OCEAN

8.376 meters Dec. 19, 2018



DEEPEST DIVING CANADIAN

Patrick Lahey 10,927 meters



DEEPEST DIVE IN INDIAN OCEAN

7.192 meters April 5, 2019

DEEPEST DIVING

**ENGLISHMAN** 

John Ramsay

10,927 meters



DEEPEST CERTIFIED SUBMERSIBLE DNV-GL "Unlimited Depth"



DEEPEST DIVING GERMAN

Jonathan Struwe 10,927 meters



MOST DIVES TO FULL OCEAN DEPTH

Twenty dives (and counting)





Alan Jamieson 10.714 meters





DEEPEST DIVING SPANIARD Hector Salvador 10.706



DEEPEST DIVING HEAD OF STATE HRH Prince Albert II 5.109 meters

#### THE UITIMATE VALIDATION

DEEPEST DIVING

FILIPINO

Dr. Deo Onda

10.045 meters

Whether you wish to explore the relative shallows of a coral reef, or dive miles below the sea to explore historic shipwrecks, with a Triton submersible you can rest assured that it was designed, built and engineered by the only submersible team to have conquered Full Ocean Depth dozens of times.

ি Allison Markova

# **DESIGN PHILOSOPHY** Simplicity of operation, ease of maintenance, reliability and safety form the cornerstones of the Triton design philosophy. TRITON 3300/3 WITH A SCHOOL OF MOBULA RAYS, SEA OF CORTEZ. Alucia Productions



#### TRANSPARENT PRESSURE HULL

A truly memorable, visually captivating and immersive underwater experience is only possible in a submersible equipped with a transparent pressure hull.

No submersible offers better viewing or will allow a pilot to get closer to the reef, sea floor or other submerged object with complete confidence and in absolute safety. You'll never miss an extraordinary sight from a Triton submersible.



#### MINIMUM WEIGHT, VOLUME & FOOTPRINT

We understand deck space is always at a premium aboard a yacht. Triton offers a range of submersible models to address the space limitations and arrangements of most motor yachts.

We work with yacht designers and builders to ensure our submersibles stow easily and integrate seamlessly with on-board launch and recovery systems.



#### SIMPLIFIED LAUNCH & RECOVERY

Every Triton is designed with meticulous attention to the launch and recovery requirements.

The single lift point on many of our submersible models allows for storage and deployment from a large number of superyacht tender garages – even those with limited height or restricted access.



#### SURFACE STABILITY & FREEBOARD

A defining feature of every Triton submersible is the ability to open the hatch while on the surface.

The generous freeboard ensures that this can be achieved safely, while the catamaran design of the main ballast tanks provides unsurpassed surface stability.

#### **SAFETY**

Triton submersibles offer their occupants the most immersive experience possible, in total comfort and ultimate luxury. Yet, behind the scenes, there is one factor that takes precedent over all others: safety.

Before the first sketch, safety is top of our agenda where it remains throughout the design, manufacture, commissioning and ongoing operation of each vessel.

It is more than a checklist, and goes beyond our rigorous testing.

It is how we think, and how we work. Safety is Triton.



# HOW SAFE ARE CIVILIAN SUBMERSIBLES?

Over the last 30 years, more than one million passengers per year have dived with the world's civilian submersible fleet. In the three-decade operating history of the industry, ABS and DNV classed submersibles have retained a perfect safety record. Civilian submersibles are, statistically, the safest form of transportation in the world today.

#### RETURN TO SURFACE

To ensure that it is always possible to safely return to the surface, Triton incorporates numerous back-up safety systems, as standard, across all of our submersibles:

- Manual overrides on all critical systems;
- Direct air injection to ballast tanks;
- Jettisonable battery pods, drop-weights, manipulators and tooling.

Furthermore, the vehicle's subsea location is continually tracked and monitored. Each submersible contains life support and emergency battery power for an additional 96 hours.

#### THIRD-PARTY CLASSIFICATION

Don't just take our word for it. All Triton submersibles are constructed to the exacting requirements of the American Bureau of Shipping (ABS) or DNV for the classification and construction of manned submersibles.

This means owners and insurers can be certain that all materials are properly certificated and independently checked for chemical composition and strength, all designs have been scrutinized and approved, all components are manufactured under watchful inspection and all systems are fully tested and witnessed prior to delivery of the submersible.

#### **TESTING**

Triton tests every submersible to pressures of at least 1.2 times the vehicle's operating depth. Every component is designed, analyzed and certified to withstand even greater pressures.

Scrutinized by ABS or DNV surveyors, each Triton will undergo a vigorous program of over 1,000 tests and checks.

Structural materials are independently tested in

a laboratory. Communications, tracking, life support, high-pressure systems, maneuvering, towing and vehicle stability are all tested and demonstrated. Finally, a manned dive to maximum operating depth, with a functional demonstration of each and every system, is required before the vehicle is approved.

#### CAYMAN ISLAND SHIPPING REGISTRY

In addition to ABS or DNV classification, Triton submersibles can be built in full compliance with the Cayman Islands Shipping Registry (CISR) guidelines for design, manufacture, operation and maintenance of manned submersibles.

CISR is one of the most popular flag states for superyachts and their guidelines do not allow the operation of non-CISR compliant submersibles from CISR registered vessels.

CISR's guidelines for submersible registration are among the strictest worldwide.

Submersibles that comply with CISR guidelines are likely to comply with the requirements of almost any other flag state.









#### PERFORMANCE

Triton submersibles are engineered to perform within virtually **any dive profile**.

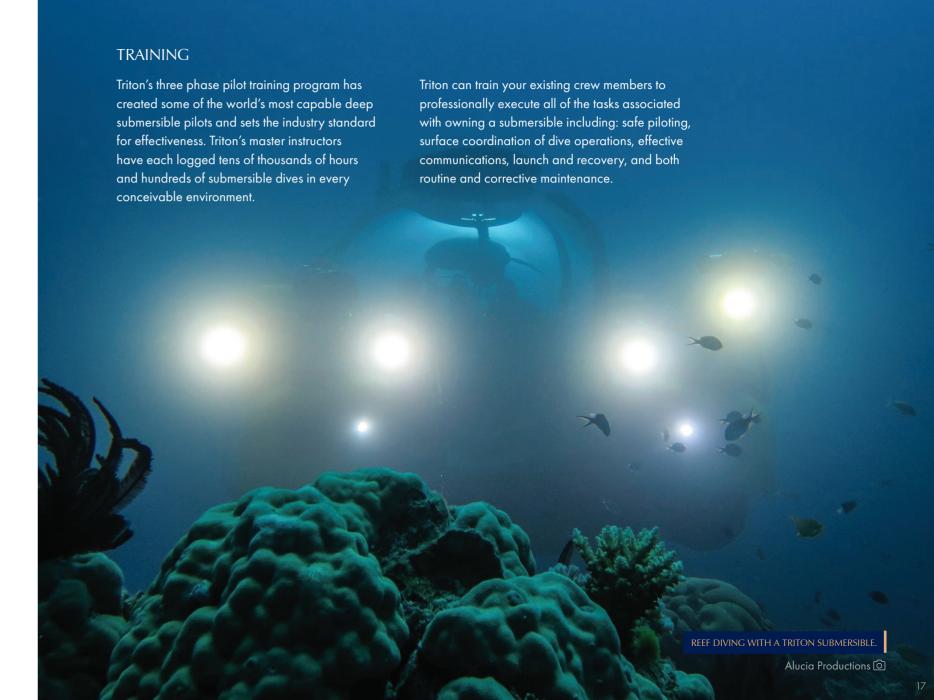
**Dives of 12 hours** are easily achievable, affording plenty of time to carry out experiments, witness elusive creatures or to fully enjoy the wonders of a coral reef.

Multiple thrusters and dynamic vectoring give the pilot complete control to maneuver the submersible. The full range of **precise movements** are made possible by the use of a single three-axis joystick. Piloting a Triton submersible, accurately and safely, for extended periods is **simple**, **intuitive** and **engaging**.

Every new Triton is equipped with an integrated, overhead lift point and several tag points for stabilization during launch and recovery.

Our single lift point system allows yacht owners to launch the majority of our models from their tender bay. The design of our lift points can be tailored to allow **seamless integration** with any appropriate vessel to facilitate simple and safe mission turnarounds.

Triton's proprietary 'WorldView' navigation system maintains **live tracking** and positional data of the submersible, host vessel and other points of interest.





# SUBMERSIBLES

Explore our most popular submersibles, flagship models, special editions and custom builds.

#### THE TRITON RANGE

#### **COMMERCIAL SERIES**

Commercial Series submersibles are high-capacity, high-throughput submersibles best suited for commercial tourist applications. Perfect for exploring house reefs and creating unique experiences.

#### LEISURE SERIES

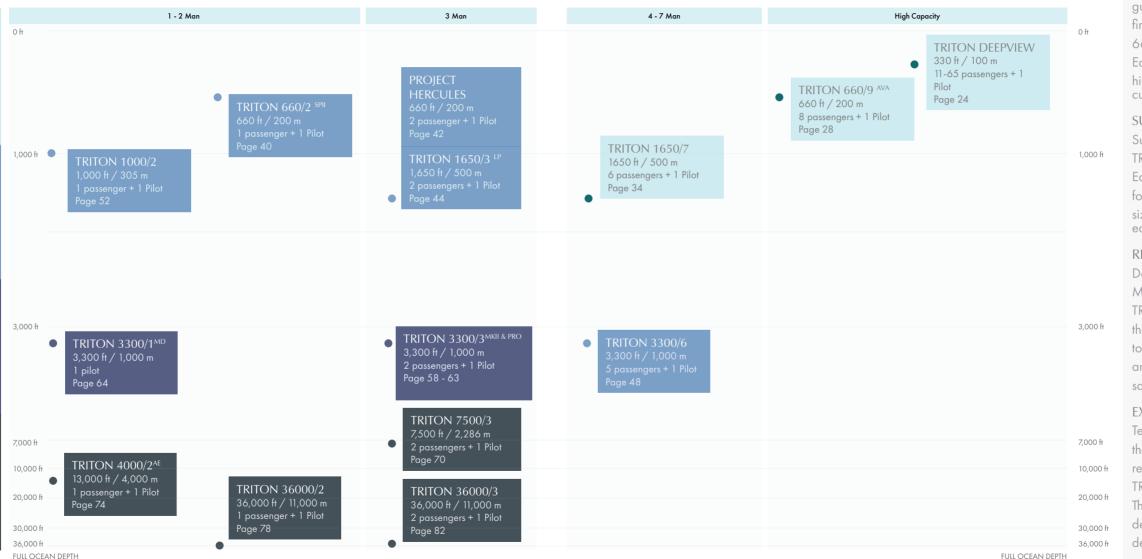
Leisure Series submersibles span depths betweer 660 and 1,650 feet (200 - 500 meters) making them the perfect choice for diving Australia's Great Barrier Reef, the Great Blue Hole in Belize or the wreck of HMHS Britannic.

#### PROFESSIONAL-SERIES

Professional Series submersibles are rated to 3,300 ft (1,000 meters); ideal for exploring the Norwegian Fjords, Hydrothermal Vents in the Atlantic Ocean or seeking Octopus, Whales and Sauid.

#### **ULTRA-DEEP SERIES**

Ultra-deep diving submersibles rated for depths greater than 7,500 feet (2,300 meters).



#### HELP CHOOSING

#### CRUISE & TOURISM INDUSTRY

Commercial enterprises seeking to provide guests with a submersible experience should first consider the TRITON 1650/7<sup>Configurable</sup>, the 660/9<sup>AVA</sup> or the TRITON DeepView models. Each has been designed to provide dependable, high-throughput operation with high levels of customer satisfaction.

#### SUPERYACHT OWNERS

Superyacht owners might like to consider the TRITON 660/2<sup>SPII</sup> or the TRITON 1650/3<sup>LP</sup>. Each of these submersibles has been designed for storage and deployment from standard-sized, jet-ski capable tender garages and lifting equipment.

#### RESEARCHERS & FILMMAKERS

Documentarians, Scientific Researchers and Marine Biologists should first consider the TRITON 3300/3<sup>MKII</sup>, the TRITON 7500/3 or the TRITON 4000/2<sup>AE</sup>. Each has been designed to provide maximum mid-mission flexibility and allow the fitting of camera, lighting, and sampling equipment rigs.

#### EXTREME ADVENTURERS

Teams dedicated to deep-sea adventure or those with a wide-ranging commitment to ocean research would be advised to consider the TRITON 7500/3 or the TRITON 36000/2. These ultra-deep diving work-horses have been designed for reliability and to reach the very deepest parts of our oceans.

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# COMMERCIAL SERIES SUBMERSIBLES

Designed specifically to optimize guest experience and throughput, Triton's commercial model range represents the next-generation of profit generating submersibles, creating opportunity for cruise lines, resort owners and charter operators to capitalize on the current widespread public engagement with the oceans.

From accessible compact charter operation packages, through versatile multi-experience platforms, to our high capacity DeepView series for 12 to 66 passengers, Triton can provide the vehicle that will transport your business to the next level. Well managed commercial submersible operations produce lucrative profit margins.

In addition to generating on-site revenue and providing a valuable market differentiator, submersibles also produce significant marketing and PR benefits for any business, both via viral marketing through guests' personal social media channels to their peer group, or leveraging the media's fascination with submersibles.

#### Further reading:

- Triton Cruise & Commercial Brochure
- Triton Compact Charter Platform Brochure
- Triton Inshore Charter Platform Brochure

#### **RECOMMENDED CRUISE & COMMERCIAL SUBMERSIBLES**



#### TRITON DEEPVIEW

The TRITON DeepView series has been designed with the needs of very high capacity operators in mind. Operators can provide clients with an unforgettable experience in a cost-efficient and easily maintained package.

≫ Page 24



#### TRITON 660/9 AVA

The TRITON 660/9's large and flexible interior lets operators create unique entertainment experiences. The world's first non-spherical acrylic pressure hull affords the submersible a footprint similar to that of previous-generation dual-hulled subs.

≫ Page 28



#### TRITON 1650/7 CONFIGURABLE

Ideally suited to lower-volume, high-end tour operators, the TRITON 1650/7 Configurable can be rapidly adapted, in the field, between five- and seven-seat configurations.

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# TRITON DEEPVIEW

HIGH-THROUGHPUT OPERATIONS

The TRITON DeepView series of submersibles has been designed with the needs of commercial operators in mind. With a TRITON DeepView submarine, cruise lines and tourist operators can provide clients with an unforgettable adventure in a cost-efficient and easily maintained package.

TRITON DeepView submersibles offer customers exceptional viewing through industry-leading, optically-perfect acrylic. The interior environment is quiet and comfortable, contributing to the once-in-a-lifetime experience.

Operators benefit from the assurance of Triton's track record for reliability, uptime and global support. With the ability for the submersible to remain in-water for months, even years, on end, the cost of scheduled, reactive and proactive maintenance has been minimized.

The modular design allows capacities of 6, 12, 24, 36, 48 or 66 passengers. Details for a specific design can be provided upon request.

Commercial operator Vingroup is currently utilizing their 24-passenger DeepView to provide passenger dives in the beautiful waters off of Hon Tre Island in the South China Sea.

DEEPVIEW

#### **KEY SPECIFICATION - DEEPVIEW 24**

26 Occupants
Capacity

O 14 Hours
Endurance

Lead Acid or LiFePO4 Battery **328 ft / 100 m**Depth

121,250 lb / 55,000 kg
Dry Weight

11.8 ft / 3.6 m Height

Depth	328 ft / 100 m
Passengers	24
Crew	Pilot + 1 Co-Pilot
Speed	3 kn
Endurance	14 hours
Main Ballast	8,820 lb / 4,000 kg
Variable Ballast	3,970 lb / 1,800 kg

Length	50.5 ft / 15.4 m
Width	11.8 ft / 3.6 m
Height	11.8 ft / 3.6 m
Weight	121,250 lb / 55,000 kg
Pressure Hull Inner Ø	74.8 in / 1,900 mm
Acrylic Thickness	5.5 in / 140 mm
Hatch Inner Ø	39 in / 1,000 mm

Dual Supply + Emergency
240 kWh
2 x 20 kW
4 x 12.6 kW
Joystick, Touchscreen + Manual Override
10 x 20,000 lumen LED
Oxygen + CO <sub>2</sub> Scrubber







#### FLEXIBLE ENTERTAINMENT PLATFORM

The TRITON 660/9 employs our revolutionary Advanced Versatile Acrylics to create the world's first submersible with a free-form acrylic pressure hull.

The single shared space of the AVA hull has a

volume that is more than three times that of the

With wrap-around views and none of the shortcomings of those multi-hulled vessels, your guests are assured of an incredible experience, no matter their seat location.

underwater experiences.

This expansive, flexible space allows you to



Triton offers the TRITON 660 AVA series in 7









#### **KEY SPECIFICATION**

9 Occupants

① 12 Hours Endurance

LiFePO4 Battery Technology **●** 656 ft / 200 m

**△** 24,250 lb / 11,000 kg

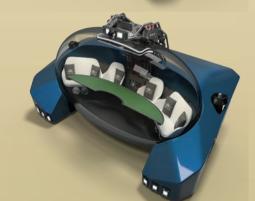
\$ 7.55 ft / 2.3 m

Depth	656 ft / 200 m
Crew	1 Pilot
Passengers	8 Adults or 6 Adults + 4 Children
Speed	3 kn
Endurance	12 hours
Hatch Inner Ø	23.6 in / 600 mm

Length	9.02 ft / 2.75 m
Width	14.8 ft / 4.5 m
Height	7.55 ft / 2.3 m
Weight	24,250 lb / 11,000 kg
Dynamic Passenger Compensation Ballast	550 lb / 250 kg
Variable Ballast	550 lb / 250 kg
Pressure Hull Internal Volume	6,300

24V Supply	Dual Supply + Emergency
Main Battery	57 kWh
Main Thrusters	4 x 5.5 kW
Vertran Thrusters	4 x 5.5 kW
Control	Joystick, Touchscreen + Manual Override
External Lights	8+ x 20,000 lumen LED
Life Support	Oxygen + CO <sub>2</sub> Scrubber

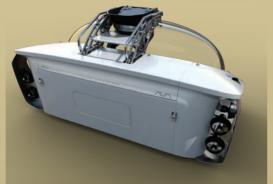














As demand for higher-capacity submersibles grew in the 2010's, manufacturers faced a new challenge: how to increase capacity without exceeding the modest available footprint of a typical host platform.

Triton were first to announce the concept for a dualhulled submersible featuring two linked spheres. The arrangement is replicated within the industry but the inherent limitations of the geometry were immediately obvious in the resulting products.

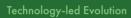
Complaints from frustrated passengers about compromised visibility, uncomfortable access through crawl spaces and underwhelming experiences were acknowledged, and Triton shelved its plans for dual-sphere submersibles.

Instead, we embarked upon a significant Research & Development program with the ambition of redefining the fundamental geometry of modern submersibles.

Built upon a decade's experience pushing the boundaries of acrylic, AVA is the result. Advanced Versatile Acrylics is the next giant leap in acrylic submersible hull design allowing for the freeform acrylic geometry to be sculpted around the passenger experience.

The TRITON 660/9 and TRITON 660/7 AVAs are the first to feature the patented technology with numerous units already in production. The technology will, quite literally, change the shape of high-capacity submersibles forever.



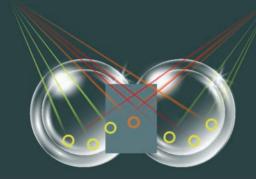




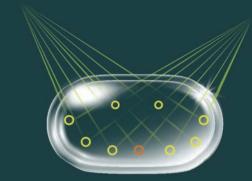
Technology-led Evolution



Technology-led Evolution



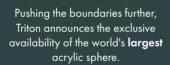
Technology-led Evolution



Innovation-led Evolution







#### Innovations:

Triton and partners successfully

produce the world's first three-

passenger, 3,000 ft rated sphere,

the **deepest** ever produced.

- O Distortion-free
- Oclor-cast free

The TRITON 3300/3 is launched and, today, is the world's most successful series-production submersible.

#### Innovations:

- Optically-perfect
- Significant diameter increase

The TRITON 3300/6 was made possible by this advance in manufacturing capability.



#### Innovations:

Extreme depth rating

The TRITON 4000/2 Abyssal Explorer is made possible by this latest advance.

Triton unveils the first dual-hulled submersible design and the arrangement is rapidly replicated within the industry. Each is inherently constrained by the available technology; difficult compromises are held in precarious balance - to varying degrees of success.

Headroom, legroom, crawl-spaces, pilot space, ease of access and overall footprint are traded and played-off against each other, with gains in one area immediately offset in another.

Clearly it would take a giant leap to free the design from the constraints of a sphere.

The challenge was set: rather than allow hull technology to define our submersible. we would be the first to let the submersible define the hull.

#### The challenge:

- Same or greater usable volume
- Maintain same footprint
- Eliminate link chamber & crawl spaces
- (a) Improve Pilot situational awareness
- Reduce dependence on cameras
- Offer all guests same 360° view ☐ Improve head, leg and shoulder room
- Reduce complexity of operation
- Parity of maintenance with single-hull



The result of years of a significant R&D effort on behalf of Triton and our suppliers, Advanced Versatile Acrylics allows us to produce acrylic hulls that are of new submersibles are yet to be non-uniform in cross-section.

■ unobstructed sight lines

Breaking the constraints of the sphere yields benefits to all. Guests benefit from roomy interiors, walkable access-ways and a huge 360° panoramic viewport. Pilots enjoy eyes-on in all directions and, with a view shared by all, can engage directly and curate a seamless experience for all guests. Operators realize cost efficiencies in line with single hull-submersibles and a much reduced

maintenance burden

AVA truly is the next areat leap in modern submersible design. The TRITON 660/9 is in production and an entire generation announced.

- Same compact footprint
- ∅ No awkward crawl spaces
- Single camera augments rear view
- Most spacious cabin ever produced
- As easy to operate as any Triton
- Oramatically reduced maintenance

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# TRITON 1650/7<sup>CONFIGURABLE</sup>

FIVE TO SEVEN SEAT CONFIGURABILITY

In seven-seat mode, the submersible is ideally suited to high-end experiential travel companies offering submersible tours as either an integral part of, or an additional activity to, itineraries in exclusive or remote locations. The pilot and six guests can enjoy viewing penguins the icy waters of Antarctica or the majesty of a thriving reef.

For an even more luxuriously appointed interior, it may be fitted with just five seats, offering a level of personal space simply unheard of in this class of submersible.

In five-seat mode, companies can offer an exclusive experience to an entire family.

With the additional space, it is the most

luxurious way to spend several hours beneath the waves exploring everything from historic wrecks to newly built man-made diving parks.

It is equally suited to private owners who wish to share their dives with their families or a group of friends.









#### **KEY SPECIFICATION**

7 Occupants Max. Capacity © 10 Hours Endurance LiFePO4
Battery Technology

● 1,640 ft / 500 m

24,250 lb / 11,000 kg Dry Weight 7.9 ft / 2.4 m
Height

Pepth	1,640 ft / 500 m	Length	14.9 ft / 4.55 m
ayload	2,200 lb / 1,000 kg	Width	11.8 ft / 3.6 m
Crew	Pilot + up to 6 Pax	Height	7.9 ft / 2.4 m
peed	3 kn	Weight	24,250 lb / 11,000 kg
indurance	10 hours	Pressure Hull Inner Ø	90.5 in / 2,300 mm
Nain Ballast	6,600 lbs / 3,000 kg	Pressure Hull Volume	6,340
ariable Ballast	880 lb / 400 kg	Hatch Inner Ø	27.5 in / 700 mm

24V Supply	Dual Supply + Emergency	
Main Battery	57 kWh	
Main Thrusters	2 x 12 kW	
Vertran Thrusters	2 x 12 kW	
Control	Joystick, Touchscreen + Manual Override	
External Lights	6+ x 20,000 lumen LED	
Life Support	Oxygen + CO <sub>2</sub> Scrubber	













# LEISURE SERIES SUBMERSIBLES

Triton's most popular submersibles for leisure achieve an intoxicating balance of **power and performance** with ease of integration, operation and maintenance. These submersibles are typically chosen by owners of 60+ foot yachts and integrated into existing tender garages.

In a Triton submersible you'll feel as though you could reach out through our superior-grade acrylic and touch the wondrous world outside.

Our submersibles are roomier, more comfortable, and easier to climb in and out of. The inherent stability in their design ensures they sit flat and level for safe ingress and egress.

A Triton interior is **built to last**. They are beautifully handcrafted using only the finest materials, and available with virtually **limitless levels of customization**. Surfaces are comfortable and hard-wearing, controls are tactile and durable.

Once you experience one, you'll understand why every client procuring their second, or indeed third, submersible has chosen Triton

Further reading:

- tritonsubs.com/leisure
- tritonsubs.com/whytriton

#### RECOMMENDED LEISURE SUBMERSIBLES



#### TRITON 660/2 SPII

Designed to comfortably accommodate two people, the TRITON 660/2 SPII is an excellent choice for anybody wishing to pilot their own submersible with a family member or friend.

≫ Page 40



#### PROJECT HERCULES

The stunning result of a collaboration between Triton, Espen Oeino International and Dark Ocean, Project Hercules promises to redefine the submersible experience as we know it.

≫ Page 42



#### TRITON 1650/3 LP

The TRITON 1650/3 LP is the world's lightest and most compact threepassenger submersible in production. It is easily integrated into standard superyacht tender garages.

≫ Page 44

#### YOU MIGHT ALSO CONSIDER



#### TRITON 3300/6

Sporting the world's largest spherical pressure hull, the TRITON 3300/6 can take six people to 3,300ft / 1,000 m. Page 48



#### TRITON 1000/2

The legendary model that propelled the personal submersible industry into the mainstream is as capable today as it was a decade ago. Page 52



#### TRITON 1650/7 CONFIGURABLE

Perfect for larger families or groups, the TRITON 1650/7 can be configured for five or seven seat dives. Page 34



#### TRITON 660/9 AVA

Triton offers a special variant of the TRITON 660/9 that is especially suited to superyacht operations and which offers a complete 360° field of view. Page 28



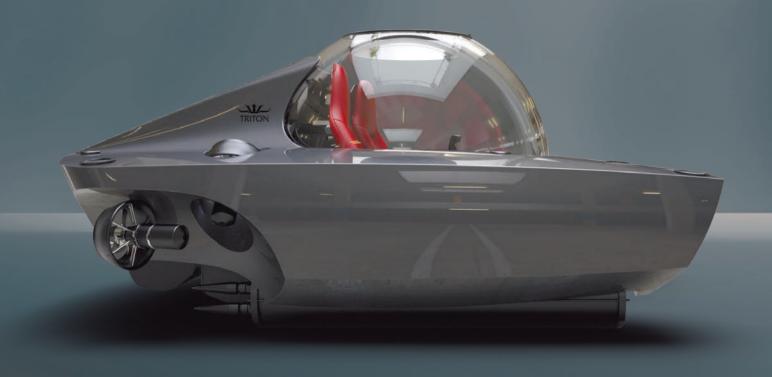
SPECIAL EDITION

Based on Triton's original and much loved 1000/2, the SPII has been completely re-imagined. Its beautiful, uncomplicated form provides twice the power and improved dynamics compared to its predecessor.

Weighing in at less than 3,000 kg, and with a top speed of four knots, the TRITON SPII is a smaller, lighter and faster sibling of the TRITON 1000/2; the Triton that revolutionized the industry, setting entirely new standards for ease of operation and integration.

The model lineage has an unrivaled heritage, with over a decade's proven track record of continued use and enviable achievements.

Designed to comfortably accommodate two people, this compact and agile submersible is an excellent choice for anybody wishing to pilot their own submersible and explore the wonders of the ocean together with a family member or friend.



#### KEY SPECIFICATION

2 Occupants

() 6 Hours

□ LiFePO4

**⊕** 656 ft / 200 m

**4** 5,510 lb / 2,500 kg

\$\psi 4.8 ft \setminus 1.47 m

#### TECHNICAL SPECIFICATION

Depth	656 ft / 200 m	Length	10.3 ft / 3.15 m	24V Supply
Payload	660 lb / 300 kg	Width	8.0 ft / 2.45 m	Main Battery
Crew	Pilot + 1 Pax	Height	4.8 ft / 1.47 m	Main Thrusters
Speed	4 kn	Weight	5,510 lb / 2,500 kg	Vertran Thrusters
Endurance	6 hours	Pressure Hull Inner Ø	56.7 in / 1,440 mm	Control
Main Ballast	3,080 lb / 1,400 kg	Hatch Inner Ø	22.4 in / 570 mm	External Lights
Variable Ballast	132 lb / 60 kg	Pressure Hull Volume	1,563	Life Support

Dual Supply + Emergency 20 kWh

2 x 5.5 kW

2 x 5.5 kW

Joystick, Touchscreen + Manual Override

4+ x 20,000 lumen LED

Oxygen + CO<sub>2</sub> Scrubber

#### **KEY SPECIFICATION**



Depth	656 ft / 200 m	Length - Stowed Mode	20.67 ft / 6,300 m	24V Supply	Dual Supply + Emergency
Payload	1,323 lb / 600 kg	Length - Operation Mode	24.77 ft / 7,550 mm	Main Battery	60 kWh
Crew	Pilot + 6 Pax	Width	9.0 ft / 2,750 mm	Main Thrusters	4 x 12.5 kW
Speed	ТВС	Height	7.7 ft / 2,350 mm	Maneuvering Thrusters	4 x 6 kW
Endurance	10 hours	Weight	26,456 lb / 12,000 kg	Control	Joystick, Touchscreen + Manual Override
Hatch Inner Ø	31.5 in / 800 mm	Pressure Hull Volume	6,300	External Lights	8+ x 20,000 lumen LED
Variable Ballast	2501			Life Support	Oxygen + CO <sub>2</sub> Scrubber













Designed primarily for superyacht use, The TRITON 1650/3 Low Profile is the world's lightest and most compact three-passenger submersible in production today.

At only 5.9 ft in height (1.8 m), with a modest crane weight of only 8,800 lb (4,000 kg), this model is ideal for superyacht tender garages. The single lift point allows it to be launched using existing tender cranes, further facilitating integration aboard a superyacht.

The revolutionary arrangement of the interior provides staggering, uninterrupted views for the passengers from inside the submersible, including straight down and straight up.

The model also benefits from many of the features of our Professional-series, making it a popular choice for filming in the world's great reefs and the study of biodiversity at depth.

#### KEY SPECIFICATION

ജ 3 Occupants Capacity

(1) 12 Hours Endurance

■ LiFePO4 Battery Technology **●** 1,640 ft / 500 m Depth

4,000 kg 8,800 lb / 4,000 kg Dry Weight

\$ 5.9 ft / 1.8 m Height

Depth	1,640 ft / 500 m	Length	10.5 ft / 3.2 m
Payload	1,210 lb / 550 kg	Width	8.7 ft / 2.6 m
Crew	Pilot + 2 Pax	Height	5.9 ft / 1.8 m
Speed	3 kn	Weight	8,800 lb / 4,000 kg
Endurance	12 hours	Pressure Hull Inner Ø	60 in / 1,525 mm
Main Ballast	4,840 lb / 2,200 kg	Pressure Hull Volume	2,177
Variable Ballast	220 lb / 100 kg	Hatch Inner Ø	23.6 in / 600 mm

24V Supply	Dual Supply + Emergency	
Main Battery	30 kWh	
Main Thrusters	2 x 5.5 kW	
Vertran Thrusters	2 x 5.5 kW	
Control	Joystick, Touchscreen + Manual Override	
External Lights	6 x 20,000 lumen LED	
Life Support	Oxygen + CO <sub>2</sub> Scrubber	













# TRITON 3300/6

SALON UNDER THE SEA

The TRITON 3300/6 builds on the venerable TRITON 3300/3 design.
Accordingly, it offers passengers a spacious and luxurious environment in which to spend up to ten hours exploring the ocean; a salon under the sea.

The TRITON 3300/6 has been designed for launch and recovery using standard tender davits found in yacht garages.

The generous internal volume provides ample leg, head and elbow room for all six passengers, equipment, refreshments and more.

The exceptional, optically perfect acrylic hull and staggered seating arrangements affords everyone an uninterrupted upward, forward and downward view of the fabulous majesty of the ocean.

For the ultimate luxury, the TRITON 3300/6 cabin can be configured to seat four.







#### **KEY SPECIFICATION**

6 Occupants
Capacity

© 10+ Hours Endurance LiFePO4
Battery Technology

**④** 3,280 ft / 1,000 m

Depth

4 24,250 lb / 11,000 kg Dry Weight \$ 7.9 ft / 2.4 m Height

Depth	3,280 ft / 1,000 m
Payload	1,760 lb / 800 kg
Crew	Pilot + 5 Pax
Speed	3 kn
Endurance	10+ hours
Main Ballast	8,800 lb / 4,000 kg
Variable Ballast	550 lb / 250 kg

Length	14.9 ft / 4.55 m
Width	11.8 ft / 3.6 m
Height	7.9 ft / 2.4 m
Weight	24,250 lb / 11,000 kg
Pressure Hull Volume	5,140
Hatch Inner Ø	27.5 in / 700 mm

24V Supply	Dual Supply + Emergency
Main Battery	45 kWh
Main Thrusters	2 x 5.5 kW
Maneuvering Thrusters	2 + 2 (optional) x 5.5 kW
Control	Joystick, Touchscreen + Manual Override
External Lights	6 x 20,000 lumen LED
Life Support	Oxygen + CO <sub>2</sub> Scrubber

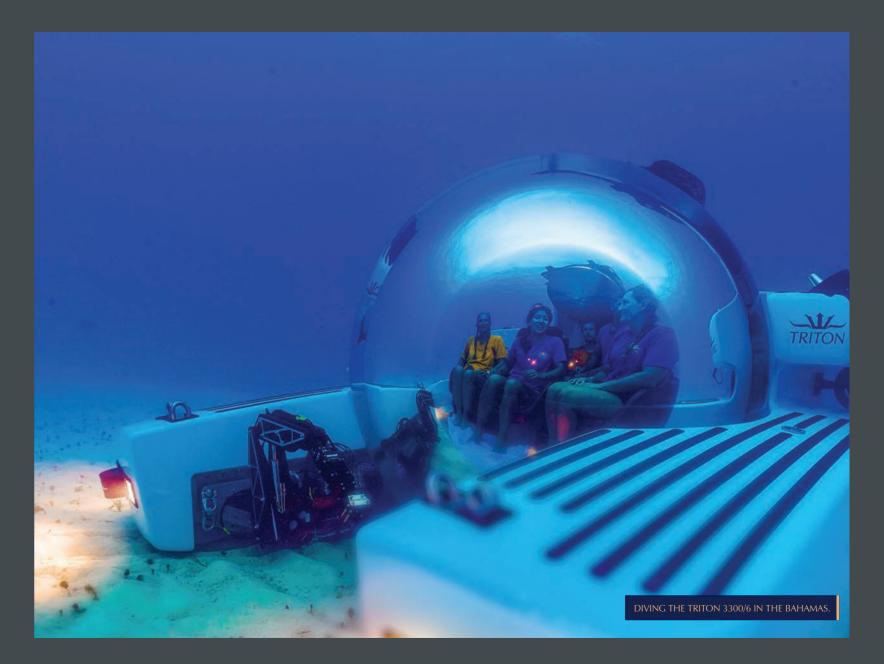
























The TRITON 1000/2 revolutionized the submersible industry when introduced by Triton over a decade ago. Its efficient and intuitive design set a new benchmark for reliability and usability, proven over and over through the hundreds of dives around the world that it has logged to date.

It can transport two people to depths of 1,000 ft (305 meters), and at only 10.5 ft in length, the TRITON 1000/2 has a deck footprint which allows it to be easily stowed onboard a yacht.

A single existing crew member can be cross-trained to pilot and maintain the submersible. The TRITON 1000/2 is an excellent choice if the owner wishes to be the pilot as they dive with a family member or friend, sharing the diving experience.

#### KEY SPECIFICATION

**ം** 2 Occupants Capacity

10 Hours Endurance

Lead Acid or LiFePO4 Battery ● 1,000 ft / 305 m Depth

4 6,800 lb / 3,100 kg Dry Weight

\$ 6.1 ft / 1.85 m

#### TECHNICAL SPECIFICATION

Depth	1,000 ft / 305 m	Length	10.5 ft / 3.2 m
Payload	440 lb / 200 kg	Width	8.2 ft / 2.5 m
Crew	Pilot + 1 Pax	Height	6.1 ft / 1.85 m
Speed	3 kn	Weight	6,800 lb / 3,100 kg
Endurance	10 hours	Pressure Hull Inner Ø	56.7 in / 1,440 mm
Main Ballast	3,080 lb / 1,400 kg	Pressure Hull Outer Ø	63.4 in / 1,600 mm
Variable Ballast	132 lb / 60 kg	Hatch Inner Ø	19.7 in / 500 mm

Dual Supply + 24V Supply Emergency

12.6 kWh Main Battery

Main Thrusters  $2 \times 2 \text{ kW}$ 

Vertran Thrusters 2 x 2 kW

Joystick, Touchscreen Control + Manual Override

4 x 20,000 lumen LED External Lights

Oxygen + CO<sub>2</sub> Life Support Scrubber









### "UTILIZING TRITON SUBMERSIBLES, NEKTON DEPLOYS THE LATEST IN SUBSEA TECHNOLOGY, EXPLORING THE DEEP OCEAN TO ACCELERATE ITS SUSTAINABLE GOVERNANCE."

Oliver Steeds, Founder, Nekton Mission





 $^{4}$ 

# PROFESSIONAL SERIES SUBMERSIBLES

The reasons why subsea professionals – filmmakers, researchers, scientists and surveyors – overwhelmingly prefer Triton submersibles are numerous. Perhaps the single most important reason though, is dependability.

Our subs are designed to take advantage of the latest and most advanced technologies available to us, not the cheapest parts on the shelf. Our subs are carefully engineered for reliability and durability.

When it comes time for planned maintenance or running repairs, these can typically be carried out at sea using standard tooling and marine engineering know-how. It should be no surprise that Triton submersibles record industry-leading levels of uptime, meaning you get to spend more time subsea, on task.

The world's first footage of the Giant Squid and the world's first Six-Gill Shark tagging by submersible could only have been achieved with a Triton.

Further reading:

- ## tritonsubs.com/pro
- ## tritonsubs.com/made-with-triton
- ## tritonsubs.com/diveexplorer



#### RECOMMENDED PROFESSIONAL SUBMERSIBLES



The TRITON 3300/3<sup>MKII</sup> is Triton's flagship professional submersible, revered by scientists and filmmakers alike for its capability, dependability and endurance. David Attenborough's Great Barrier Reef, Galapagos, and Blue Planet II were all made possible by this model.

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#### YOU MIGHT ALSO CONSIDER



#### TRITON 1650/3LP

The TRITON 1650/3<sup>LP</sup> features many of the characteristics of our Professional-series: an extensible electronics system, optically perfect acrylic and interchangeable scientific skids. **Page 44** 



#### TRITON 4000/2<sup>ABYSSAL EXPLORER</sup>

This ultra-deep diving model boasts features specifically designed for filmmakers: Direct Dive for rapid deployment, Silent Glide for smooth arcing shots, and much more.

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maneuverability and generous payload.

# TRITON 3300/3<sup>MKII</sup> THE NEW BENCHMARK

The TRITON 3300/3 is our most popular submersible, best known for its role in producing landmark documentaries.

Programs such as Blue Planet II, David Attenborough's Great Barrier Reef and BBC's Galapagos were all made possible by Triton. Evolutionary on the outside and revolutionary on the inside, the MKII introduces completely non-volatile Lithium battery technology, a completely new control system and user interface, high output LED lighting, expandable electronics modules, free-floating hatch technology and a host of other benefits.

Capable of taking a pilot and two passengers to depths of 3,280 ft (1,000 m), the cavernous interior, generous payload and modular expandability of the TRITON 3300/3 have made it the submersible of choice for researchers, filmmakers and adventurers.









#### KEY SPECIFICATION

3 Occupants
Capacity

O 12 Hours Endurance LiFePO4
Battery Technology

● 3,280 ft / 1,000 m

17,640 lb / 8,000 kg Dry Weight \$ 8.5 ft / 2.6 m Height

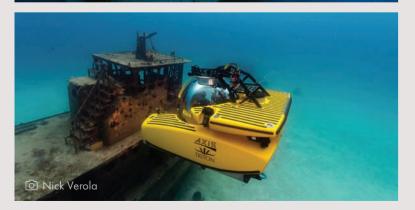
Depth	3,280 ft / 1,000 m
Payload	1,760 lb / 800 kg
Crew	Pilot + 2 Pax
Speed	3 kn
Endurance	12 hours
Main Ballast	8,030 lb / 3,650 kg
Variable Ballast	396 lb / 180 kg

Length	13.1 ft / 4 m
Width	9.8 ft / 3 m
Height	8.5 ft / 2.6 m
Weight	17,640 lb / 8,000 k
Pressure Hull Inner Ø	69.5 in / 1,766 mm
Pressure Hull Volume	2,883
Hatch Inner Ø	21.7 in / 550 mm

24V Supply	Dual Supply + Emergency
Main Battery	57 kWh
Main Thrusters	2 x 5.5 kW
Maneuvering Thrusters	2 + 2 (optional) x 5.5 kW
Control	Joystick, Touchscreen + Manual Override
External Lights	6+ x 20,000 lumen LED
Life Support	Oxygen + CO <sub>2</sub> Scrubber













"THE TRITON IS SO MANEUVERABLE. FOR BLUE PLANET II WE FILMED CRABS THE SIZE OF YOUR THUMBNAIL, IN MACRO! IT'S AMAZING."

Buck Taylor, Submersible Pilot, OceanX

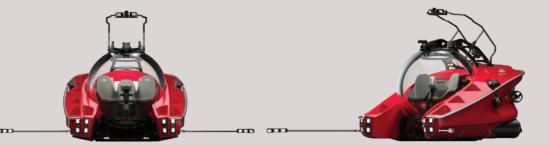
# TRITON 3300/3PRO

Based on the TRITON 3300/3 Submersible, the TRITON 3300/3<sup>PRO</sup>, Pro Edition, comprises a list of over 30 improvements that are incorporated following consultation with our most experienced research and documentary partners, as well as over a decade's worth of development of the original TRITON 3300/3 design.

# KEY IMPROVEMENTS

- Improved visibility from within the submersible without compromising any other performance characteristics of the submersible.
- Providing an arrangement of easily accessible mounting points, enabling media /science / other subsea equipment to be mounted and connected to the submersible.
- Enabling the submersible to be rapidly configured /reconfigured to suit different mission requirements without modification to critical components.
- Improving access to forward tag points during launch and recovery.
- Incorporating bumper structure.







#### KEY SPECIFICATION

200	3	Occupants
	(	Capacity

© 12 Hours
Endurance

■ LiFePO4
Battery Technology

◆ 3,280 ft / 1,000 m

Depth

Dep

17,640 lb / 8,000 kg
Dry Weight

\$ 8.5 ft / 2.6 m
Height

#### TECHNICAL SPECIFICATION

Depth	3,280 ft / 1,000 m	Length	TBC
Payload	1,760 lb / 800 kg	Width	TBC
Crew	Pilot + 2 Pax	Height	8.5 ft / 2.6 m
Speed	3 kn	Weight	17,640 lb / 8,000 kg
Endurance	12 hours	Pressure Hull Inner Ø	69.5 in / 1,766 mm
Main Ballast	8,030 lb / 3,650 kg	Pressure Hull Volume	2,883
Variable Ballast	396 lb / 180 kg	Hatch Inner Ø	21.7 in / 550 mm

24V Supply Dual Supply + Emergency

Main Battery 57 kWh

Main Thrusters 2 x 5.5 kW

Maneuvering
Thrusters

4 x 5.5 kW

Control

Joystick, Touchscreen
+ Manual Override

External Lights 10+ x 20,000 lumen LED

Life Support  $Oxygen + CO_2$  Scrubber

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TRITON 3300/1<sup>MD</sup>

The Triton 3300/1<sup>MD</sup> is compact, lightweight and perfect for one-man television, filming and observation expeditions. It is also suitable for salvage, rescue and other support tasks to depths of up to 1,000 meters.

The Triton 3300/1<sup>MD</sup> is a highly versatile submersible. It is ideally suited to support operations where its power, maneuverability and generous payload enable it to perform tasks that would typically require a tethered ROV.

The modular construction of the TRITON 3300/1<sup>MD</sup> offers great mission flexibility and allows for rapid reconfiguration between dives and tasks. Interchangeable tooling frames make the installation of specialized equipment skids simple, fast and straightforward.

#### **KEY SPECIFICATION**

음 1 Occupant

() 6 Hours

□ LiFePO4

**③** 3,280 ft / 1,000 m

4,620 lbs / 2,100 kg

\$ 6.1 ft / 1.85 m

Depth	3,280 ft / 1,000 m
Payload	440 lb / 200 kg
Crew	1 Pilot
Speed	3 kn
Endurance	6 hours
Main Ballast	440 lb / 200 kg
Variable Ballast	88 lb / 40 kg

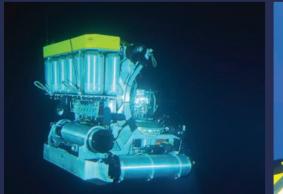
Length	6.6 ft / 2.0 m
Width	5.2 ft / 1.6 m
Height	6.1 ft / 1.85 m
Weight	4,620 lb / 2,100 kg
Pressure Hull Inner Ø	41 in / 1,042 mm
Pressure Hull Thickness	4.1 in / 104 mm
Hatch Inner Ø	27.6 in / 700 mm

24V Supply	Dual Supply + Emergency
Main Battery	11 kWh
Main Thrusters	2 x 2.2 kW
Vertran Thrusters	2 x 2.2 kW
Control	Joystick, Touchscreen + Manual Override
External Lights	High Output LED
Life Support	Oxygen + CO <sub>2</sub> Scrubber















# Ultra Deep Se

# ULTRA DEEP SUBMERSIBLES

The Abyss and Hadal zones of our oceans are the two least explored, least understood areas on our planet.

Only Triton has the technical capability to create the tools scientists, researchers, adventurers and Governments need to further their understanding of this inherently hostile, uncharted world.

The submersibles in this section are capable of depths between 2,000 and 11,000 meters – full ocean depth. They exist to break down the **final barrier of human exploration** on Earth, and to further mankind's understanding of the ocean.

Each is a technical tour-de-force with a legacy that can be felt across the entire Triton range. Whether you choose a 600 meter leisure sub, or an Abyssal Explorer, you can be assured that each has been designed, built and engineered by the only team on Earth to have certified a submersible to Unlimited Depth.

The TRITON 36,000/2 Full Ocean Depth submersible was described as "possibly the most impressive tool for human exploration and scientific endeavor since Apollo 11".

In 2019, the owner of Triton's, and the world's, first fully-certified Full Ocean Depth capable submersible, became the first man to reach the deepest point in all five of the world's oceans. His journey captivated the world and his discovery of plastic in the Mariana Trench highlighted to millions the effect of human activity on the health of even the most remote location on our planet.

#### Further reading:

- $\bigoplus$  tritonsubs.com/ultradeep
- $\bigoplus$  tritonsubs.com/worldrecords
- Hadal Exploration System Brochure

#### RECOMMENDED ULTRADEEP SUBMERSIBLES



#### TRITON 7500/3

The TRITON 7500/3 is the world's deepest diving, three-person acrylic hulled submersible to date. It is capable of diving over 1.4 miles to the great depths of the ocean's Bathypelagic zone.

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#### TRITON 4000/2 ABYSSAL EXPLORER

To celebrate Triton's historic dives to Titanic in 2019, we are pleased to announce the Abyssal Explorer. It features the world's deepest diving acrylic hull and numerous benefits for scientists and filmmakers.

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#### TRITON 36000/2 FULL OCEAN DEPTH

The TRITON 36000/2 is the world's first and only manned submersible that is certified to full ocean depth. It opens up to repeatable exploration areas of ocean hitherto beyond the reach of mankind.

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#### YOU MIGHT ALSO CONSIDER



#### TRITON 36000/3 GPH

The world's only transparent hulled, full-ocean-depth submersible. Page 82







## TRITON 7500/3

THE DEEP DIVER

Capable of diving over 1.4 miles to the great depths of the ocean's 'bathypelagic zone', the TRITON 7500/3 represents a new breed of submersible.

Observation is fundamental to scientific inquiry and the fully transparent, acrylic pressure hull creates the potential for more excitement, new adventures and even greater versatility.

This unit's remarkable payload, allowing for the integration of a wide range of scientific, salvage and documentary equipment, ensured it was the submersible of choice for REV Ocean, one of the world's best funded marine research foundations.

The versatile lift points on the TRITON 7500/3 have been configured for launch and recovery using either tender-style davits found in yacht garages, or deck-mounted cranes and A-Frames.

#### KEY SPECIFICATION

3 Occupants
Capacity

© 10+ Hours Endurance ■ LiFePO4
Battery Technology

24,960 lb / 11,200 kg Dry Weight \$ 8.5 ft / 2.6 m Height

#### TECHNICAL SPECIFICATION

Depth	7,500 ft / 2,286 m	Length	15.3 ft / 4.65 m
Payload	1,100 lb / 500 kg	Width	11.5 ft / 3.5 m
Crew	Pilot + 2 Pax	Height	8.5 ft / 2.6 m
Speed	3 kn	Weight	24,960 lb / 11,200 kg
Endurance	10+ hours	Pressure Hull Inner Ø	69.5 in / 1,766 mm
Main Ballast	8,800 lb / 4,000 kg	Pressure Hull Volume	2,883
Variable Ballast	397 lb / 180 kg	Hatch Inner Ø	21.7 in / 550 mm

	24V Supply	Dual Supply + Emergency
	Main Battery	40 kWh
	Main Thrusters	2 x 12.5 kW
	Vertran Thrusters	2 x 12.5 kW
	Control	Joystick, Touchscreen + Manual Override
	External Lights	6+ x 20,000 lumen LED
	Life Support	Oxygen + CO <sub>2</sub> Scrubber











### TRITON 4000/2

ABYSSAL EXPLORER

The TRITON 4000/2 Abyssal Explorer is a high-performance, flexible platform designed specifically for professional applications.

Its 4,000 meter (13,123 ft) depth-rating makes it the world's deepest diving acrylic hulled submersible, perfect for repeated trips to the deep ocean.

The Gullwing design offers capabilities specifically tailored for scientists, conservationists and filmmakers.

With the wings retracted, the submersible is streamlined for ascent and descent, and capable of maneuvering in and around incredibly tight spaces. The low placement of the lighting and cameras is ideal for macro work and scientific observation.

With the wings partially deployed, the Abyssal Explorer's Silent Glide feature enables the submersible to track objects, maintain a heading and glide towards points of interest without engaging its eight directdrive thrusters.

Fully deployed, the Gull Wings raise the vehicle's propulsion up and away from the seabed, ensuring that delicate species or free-floating objects remain undisturbed.

Cameras, placed at the wing tips, provide a perfect external vantage point from which to film the submersible and its occupants; ideal for presenter-led productions.

When extended, the wings and integrated lighting broaden the area of illumination for that perfect shot.

#### TECHNICAL SPECIFICATION

Depth	13,123 ft / 4,000 m
Payload	1,102 lb / 500 kg
Crew	Pilot + 1 Pax
Speed	3 kn
Endurance	12+ hours
Variable Ballast	250 l
Hatch Inner Ø	10.7 in / 500 mm

Length	14.6 ft / 4.45 m
Width	9 ft / 2.75 m
Width (Wings Deployed)	19.7 ft / 6 m
Height	9.8 ft / 3 m
Weight	26,455 lb / 12,000 kg
Pressure Hull Inner Ø	59.1 in / 1,500 mm
Pressure Hull Volume	1, <i>77</i> 0 l

24V Supply	Dual Supply + Emergency
Main Battery	40 kWh
Main Thrusters	4 x 5.5 kW Direct Drive
Auxiliary Thrusters	4 x 5.5 kW Direct Drive
Control	Joystick, Touchscreen + Manual Override
External Lights	6+ x 20,000 lumen LED
Life Support	Oxygen + CO <sub>2</sub> Scrubber















### TRITON 36000/2

FULL OCEAN DEPTH

Designed to glide vertically through the water column, the TRITON 36000/2 can reach the deepest point in the ocean in approximately four hours.

Weighing just 11.7 tons, the submersible is far lighter than previous deep diving vehicles, an important consideration during launch and recovery. An array of 10 powerful electric thrusters provide for motion in all directions. Energy is provided from a pioneering set of full ocean depth certified Lithium batteries supplying 65 kWh of power.

Situational awareness cameras ensure that the pilot has an excellent appreciation of the surroundings as well as a commanding view of the subsea environment through the three generously sized acrylic viewports. Direct drive thrusters enable perfectly silent operation and improve communication and tracking even at full ocean depth.

As the only submersible ever to be certified to unlimited depth, the TRITON 36000/2 has opened the doors for humanity to dive to any part of the world's oceans. For the first time in human history, it allows us to experience, with our own eyes, the wonders and mysteries of the ultra-deep.

#### KEY SPECIFICATION

2 Occupants
Capacity

© 16+ Hours Endurance LiFePO4
Battery Technology

Unlimited
Depth

25,800 lb / 11,700 kg
Dry Weight

12.2 ft / 3.7 m Height

#### TECHNICAL SPECIFICATION

Depth	Full Ocean Depth 36,000 ft / 11,000 m
Payload	485 lb / 220+ kg
Crew	Pilot + 1 Pax
Speed	3 kn
Endurance	16+ hours
Surface Ballast	75.93 cu.ft / 2,150 l
Variable Ballast	220 lb / 100 kg

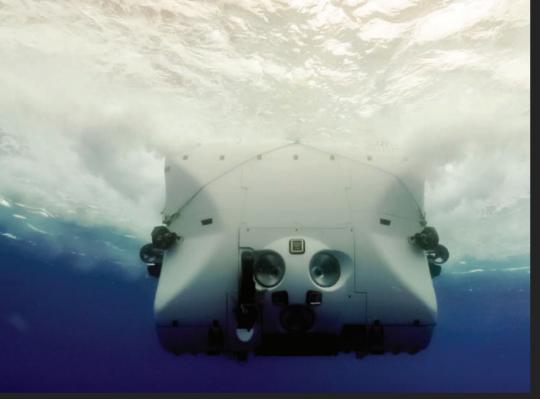
Length	15 ft / 4.6 m
Width	6.2 ft / 1.9 m
Height	12.2 ft / 3.7 m
Weight	25,800 lb / 11,700 kg
Pressure Hull Inner Ø	59 in / 1,500 mm
Pressure Hull Thickness	3.54 in / 90 mm
Hatch Inner Ø	17.7 in / 450 mm

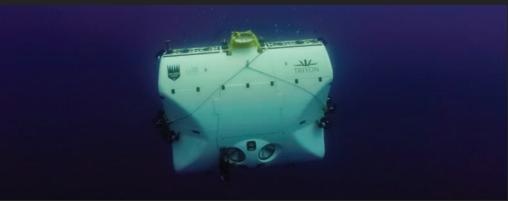
24V Supply	Dual Supply + Emergency
Main Battery	65 kWh
Main Thrusters	4 x 5.5 kW
Vertical Thrusters	4 x 5.5 kW
Maneuvering Thrusters	2 x 5.5 kW
Control	Joystick, Touchscreen + Manual Override
External Lights	10 x 20,000 lumen LED
Life Support	Oxygen + CO <sub>2</sub> Scrubber













# TRITON 36000/3 FULL OCEAN DEPTH, TRANSPARENT HULL Triton is uniquely placed to deliver the world's first transparent-hulled, full ocean depth capable submersible and to produce full ocean depth rated submersibles for more than two passengers. For further information about our plans for a threeperson variant of the TRITON 36000/2, please contact us.

#### **COLLABORATIONS**

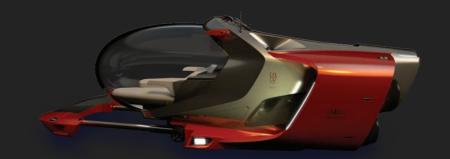
Triton Submarines is immensely proud of the groundbreaking projects we have been part of since the delivery of our very first submersibles in 2007, and the exceptional partnerships and collaborations this has generated over the years.

Our work has captured the imagination of some of the world's leading designers, studio and brands, encouraging them to reach out to create collaborative concepts together. From 'blank canvas' projects like the world's first ocean-crossing diesel-electric submersible currently on the drawing boards, to variations on our popular models like the Aston Martin Project Neptune that captured imaginations around the world.

Our relationship with the prestigious Espen Oeino International studio commenced with the stylistic redesign of our popular TRITON 1650/3<sup>LP</sup> and 660/9<sup>AVA</sup> models, but has progressed through to the revolutionary Project Hercules - a submersible that truly redefines the term luxury subsea exploration.

At Triton we believe collaborations like these are crucial for re-imagining our own products, vital in that they allow world-renowned designers to progress their own spectacular interpretations of our remarkable vehicles and, importantly, permit Owners to work with their favorite studio to create a truly unique Triton submersible that reflects how they wish to explore the ocean.

If you have a dream and a designer, reach out, together we can build it.







#### "TRITON MAKE THE MOST INCREDIBLE MACHINES ON THE PLANET"

Marek Reichman, Executive Vice President and Chief Creative Officer, Aston Martin Lagonda

#### **CUSTOMIZATION**

Almost every submersible we build is tailored, in some way, to the requirements of its owner. At Triton we offer two levels of customization; Triton Custom and Triton Special Projects.



#### TRITON CUSTOM

From custom, color-matched or patterned exterior finishes, to the sourcing of luxury leathers from exclusive tanneries with which to trim the interior. Triton's Custom program affords customers total creative freedom to reflect their individual taste across the interior and exterior of their new submersible.



#### TRITON SPECIAL PROJECTS

Triton Special Projects offers clients with a unique vision the opportunity to create something new. Whether it is to set a record, discover a new species, or a desire to build a submersible like no other, Triton's world-class design and engineering team can make these submersible dreams a reality.



#### DISCRETION

Triton offers all of its customers the reassurance of complete discretion. The majority of Triton owners prefer to remain anonymous, a decision we understand and respect.

### **EXPERIENCE**

Whether for leisure, scientific, archaeological or filming purposes, every Triton submersible offers an experience like no other.

Find out how professionals and private owners alike are using Triton submersibles.







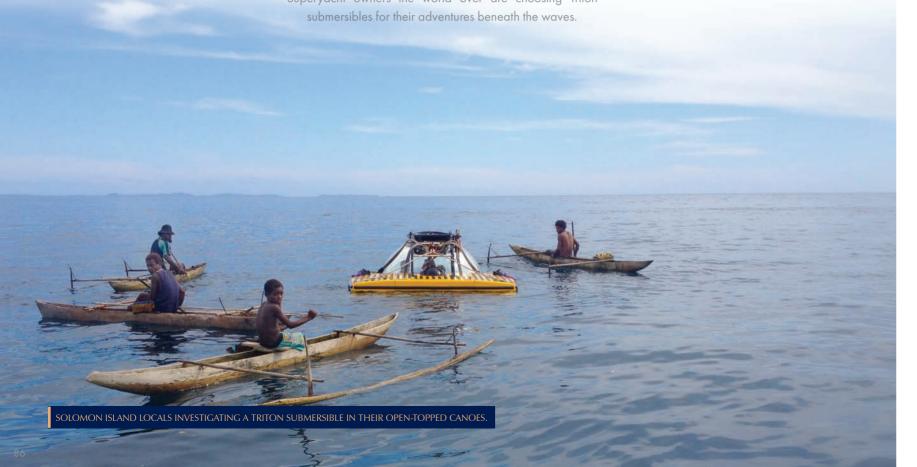




TV & Film



Superyacht owners the world over are choosing Triton submersibles for their adventures beneath the waves.



#### LEISURE

A new era of exploration is upon us.

A Triton submersible allows the intrepid yacht owner to provide family and friends with the ultimate adventure; one that is safe, comfortable, fascinating and rare. Owners are in the enviable position of being able to witness incredible sights, make new discoveries and aid scientific communities. All this on a schedule and in a fashion of their own choosing.

Diving way beyond the capabilities of SCUBA divers, Triton owners enjoy unique opportunities to see huge barrel sponges, photoluminescent creatures of all types, rare invertebrates, unique deep water fish and massive deep sea sharks.

This, and more, can be enjoyed by anyone, of any age, and without the need for dive gear. A guest aboard a Triton can stay comfortably submerged for up to 12 hours, in an air conditioned and temperature controlled environment. Hand stitched leather seats and an integrated sound system makes your Triton a comfortable place to relax, especially during extended dives.

Regardless of depth, the interior of the passenger cabin remains at surface pressure, one atmosphere. As a result, a Triton can dive and surface rapidly with passengers fully protected from the pressureinduced physiological effects experienced by divers.











#### RFFF DIVING

Coral reefs provide some of the most magnificent dive spots on the planet. In these crystal clear waters, the majority of reefs display a stunning diversity of marine life.

With a Triton you'll have the opportunity to view an incredible spectrum of color, photo-luminescent creatures of all types, rare invertebrates, the humorous activities of deep water fish and the daily lives of large pelagic animals.



#### ATTRACTING UNUSUAL SPECIES

The diversity of species inhabiting our oceans is simply astonishing. Many, like the elusive Giant Squid, have to be seen to be believed.

The design of every Triton submersible, featuring transparent pressure hulls and configurations which place occupants as close to the action as possible, will ensure you never miss the opportunity to witness, and document, a rare or unusual creature.



#### SHARK DIVING

Shark diving is a popular expedition for owners of Triton submersibles. Without fail. the passenger rating of a shark dive is always a 10+.

With a Triton you can encounter rare deep water sharks, like the massive Sixgill, Goblin and Megamouth sharks. In 2012, off the coast of Japan, a TRITON 3300/3 was used to film just such creatures for NHK and the Discovery Channel.



#### WRECK DIVING

final resting place of vessels that lie beyond the reach of divers.

Go a step further and use a Triton as the platform for salvage operations. In 2013 a Triton was used to salvage treasure from the ocean floor around Alaska.



#### MOUNTS AND SEA VENTS

Dive on known wrecks or be the first to see the Witness underwater geysers that constantly spew hot, mineral rich water into the ocean creating an amazing underwater eruption. Vents are typically very deep, spectacular to observe, and are often teaming with a fascinating array of life.

> Seamounts are underwater mountains rising thousands of feet from the sea floor. Scientists estimate that there are over 100.000 unexplored seamounts in the ocean. The few studied have revealed stunning bio-diversity with up to 50 percent of the species found being unique to each location.



#### **SCIENCE**

Triton submersibles offer marine scientists of all types the ultimate platform from which to carry out their research, sampling, measurements and analysis.

Page 100 - "Scientific Expedition Skids" - details some of the specialist equipment that can be mounted to a Triton submersible to facilitate underwater research projects.

All scientific instrumentation and skid functions are controlled from a separate graphical user interface on a standalone touchscreen laptop.

Data for instruments such as phototransects and CTD (Conductivity, Temperature and Density) is streamed in real-time and stored for later transfer. Actuation of other instrumentation, such as the water samplers or suction pump, is controlled directly from within the submersible.

All laptop controls for the scientific instrumentation are simple and intuitive, and can be operated with minimal training. Manipulator control, used for devices such as suction pumps and push corers, can be performed by any occupant of the sphere, but is usually best carried out by the pilot in conjunction with the movement of the submersible.





#### ARCHAEOLOGICAL RESEARCH

Archaeologists use Triton submersibles to conduct extremely accurate georeferenced underwater surveys, and to locate and identify features of interest on the seafloor - even under extremely limited visibility conditions.

They are used to identify wreck artifacts and even entire shipwrecks hidden under sand or other substrates. Researchers pick up and return delicate objects to the surface, and enter and film otherwise impenetrable spaces within a shipwreck.

Triton provides the installation and integration of the equipment archaeologist need to effectively execute their projects. For more information about the equipment Triton provides, see page 101.

Triton also provides comprehensive training programs for their effective use.



For the interior penetration of shipwrecks, Triton offers the installation of a micro ROV carrying low-light camera, lights and an 80m cable, housed on the side of the submersible. See page 101.



### SURVEY PLATFORM

The ability of a properly equipped Triton to quickly 'ground-truth' identified features makes them superior in capability to ROVs, side-scan-sonars and other traditional survey platforms.

Standard survey capabilities can be optimized by adding either, or both, of the following sonar upgrades:



#### **MULTIBEAM SONAR**

When forward facing on an intelligent pan and tilt device, these units provide highresolution, two-dimensional sonar output for low altitude navigation in low visibility environments, such as low-light or turbid conditions.



# **GROUND PENETRATING SONAR**

This unit provides detection capabilities for objects buried beneath the surface of the seafloor. Detection depths of six to eight meters through sand – and greater than 30 meters in mud and other soft substrates – are typical.



#### NOTABLE PRODUCTIONS





In 2016, David Attenborough returned to our screens in a landmark series about the Great Barrier Reef. In the first episode, Attenborough descends beneath the waves at night in a Triton submersible, the first of its kind to visit the reef.

A TRITON 3300/3 equipped with an array of specialist lighting and camera equipment was used to capture the extraordinary footage for the BBC.



ATTRACTING GIANT SQUID

BBC NHK Discovery

In 2013 the first ever footage of the giant squid in its natural habitat was captured by scientists using a TRITON 3300/3 submersible. The Triton was able to film the incredible encounter for 18 minutes as the squid descended from 2,000 to 2,700 feet.

Within hours of surfacing, the footage was packaged, delivered and broadcast by news channels the world over



BIOLUMINESCENCE SOLOMON ISLANDS

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In 2013 researchers from the American Museum of Natural History set off for the Solomon Islands to discover more about bioluminescence with a Triton submersible.

The groundbreaking expedition was the first under Explore 21, a Museum initiative that will foster a series of innovative scientific expeditions that meet the challenges and opportunities of the 21st century.

#### RECENT EXPEDITIONS





In March 2019, the world tuned in to the first ever live broadcasts from 300 meters below the surface of the sea.

Sky News and Nekton took a TRITON 1000/2 diving in the waters off the Seychelles, in the Indian Ocean, as part of Nekton's mission to raise awareness of the plight of our oceans.



DEEPEST DIVES IN ANTARCTICA

Discovery

The TRITON 36000/2 Full Ocean Depth submersible became the first manned submersible to reach the deepest point of the Southern Ocean, 7,433.6 meters down in the South Sandwich Trench, in February 2019.

Adventurer and Mission Founder, Victor Vescovo, dived there as part of the Five Deeps Expedition; a year-long mission to dive to the deepest point in each of the world's five oceans. A Discovery Channel documentary aired in 2021.



DOCUMENTING RMS TITANIC

In August 2019, for the first time in 14 years, the wreck of the Titanic on the bottom of the Atlantic Ocean was visited by a human occupied vehicle, the TRITON 36000/2.

Over an eight day period, the Triton submersible dived five times to the Titanic, which rests at a depth of 3,810 meters off the coast of Newfoundland, Canada. During their mission, they collected valuable footage documenting the deterioration of the historic wreck. A National Geographic documentary aired in 2021.



# THE FIVE DEEPS EXPEDITION Olscovery

Setting off in December 2018, and for the following ten months, the Five Deeps Expedition, founded by adventurer Victor Vescovo, successfully dived the specially designed and built TRITON 36000/2 Full Ocean Depth submersible to the deepest point in each of the five oceans.

Circumnavigating the globe aboard the dedicated research vessel Pressure Drop in the process, the expedition team dived the submersible in areas never before visited by mankind, such as the South Sandwich Trench

in the Southern Ocean and the Molloy Deep in the Arctic Ocean, and broke the world record for the deepest submersible dive ever made, 10,928 meters in the Challenger Deep, Mariana Trench.

The Expedition also carried out extensive mapping of the ocean floors using the most advanced sonar available, and the submersible together with three dedicated science landers provided the expedition's science team with samples, footage and data from never before explored depths

from around the globe. A Discovery Channel documentary series of the Five Deeps Expedition aired in 2021.





# AFTER-SALES SERVICES & SUPPORT

World class after-sales support from the most knowledgeable team of submersible experts on the planet.

#### **EQUIPMENT SKIDS**

Triton provides interchangeable equipment racks - or skids - which allow owners and charter firms to outfit their submersibles to carry out Scientific, Archaeological and Film & TV production roles. Each can be customized to exacting requirements and each integrates seamlessly with the submersible.

#### FILM & TV SKIDS

Triton submersibles have been used by filmmakers to capture some of the world's most incredible underwater footage.

Broadcast quality cameras and high-power LED lighting rigs transform Triton submersibles into the ultimate filming platform.

Each skid is built to meet customer and project requirements, but typically include the following equipment:

- EagleRay 4k UHD Cinema Mini-Camera
- Depth rated camera housing
- Bowtech 20,000 lumen lights



#### ARCHAEOLOGY SKIDS

All Triton subs are capable vessels for archaeological research. To fully optimize the vessel for archaeological work, Triton provide upgrades to navigational instrumentation and bathymetric data collection capabilities, an artifact collection skid, upgrades to the manipulator arm and a fly-out ROV for wreck penetration.

Typical components include:

- Basic skid with 2-3 collection drawers
- Flyout ROV
- Dual function 2D Bathymetry
- Bottom penetrating SONAR with Side-scan
- 3D Scanning SONAR with motion compensation
- USBL Upgrade





#### SCIENTIFIC EXPEDITION SKIDS

Triton submersibles offer marine scientists the ultimate platform from which to carry out their research, sampling, measurements and analysis. Controlled from inside the sub, each science skid can be customized to suit client and project requirements, but typically include:

- Basic skid with collection drawer and rotating carousel
- CTD SeaBird SeaCAT
- Downward facing camera
- Dual Laser Scaling
- Equipment Lighting
- Niskin water sampling bottles
- Push Corer

The sampling and collection of fragile sessile and motile organisms, water and sediment sampling with real-time chemistry analysis, and the ability to conduct fixed angle phototransects and photogrammetry analysis are all made possible by Triton's interchangeable equipment skids.

#### MANIPULATOR OPTIONS

For scientific projects that involve the collection of delicate specimens or which require very careful operation of the manipulator arms, Triton recommends upgrading the standard, rate-controlled, 6-function manipulator arm to a position-feedback, 7-function arm. This upgrade provides increased dexterity and fine-grained control.

An optional secondary manipulator arm may also be fitted. Such an arrangement is useful for vessel stabilization during biological collections, or where the research program calls for additional data collections.





#### MAKING MAINTENANCE A PLEASURE

Every Triton is designed to allow rapid access to the core components of the vehicle. Remote diagnostics and 24 hour support enable our technical experts to guide you through the steps required to keep your Triton operational and in the water longer.

#### TIME TO RECHARGE

Quick-connects for oxygen & high-pressure air and our fast-charging Lithium Phosphate batteries can have you back in the water within as little as an hour.

#### GLOBAL SUPPORT

Triton provides owners the reassurance of its global support capability.



#### MAINTENANCE & TECHNICAL

SUPPORT The Triton team has experience

with over 98 different submersibles and provides maintenance and technical support services to a wide variety of customers.

Maintenance, servicing and installations can be carried out at our Florida manufacturing facility, our European support facility in Barcelona, or on-site worldwide.



#### PERSONNEL SERVICES

Triton's staff can train your existing crew members to professionally execute all of the tasks associated with owning a submersible.

Triton can also provide professionally trained crew on either a short or long term basis.



#### **REFITS AND UPGRADES**

Whether your submersible is starting to show its age, or you would like to upgrade its capabilities, Triton offers a range of upgrade and refit services for you.

Contact us for more information about re-fitting, or upgrading, an existing submersible.



#### **EXPEDITION SUPPORT**

Triton's team includes individuals with experience collecting scientific data with submersibles. Drawing on their academic backgrounds, they can provide critical assistance for clients to help achieve their expedition goals.

### SPARES & CONSUMABLES

Triton provides packages of spares and consumables designed to offer the assurance of vessel availability for expeditions of varying lengths and complexities. Each package can be further tailored for specific itineraries upon request.



#### BASIC SPARES PACKAGE

All such parts considered critical have been included in Triton's Basic Spares Package.

Man-rated penetrators, essential equipment such as thrusters and underwater telephone components are included, alongside items such as replacement fuses, circuit breakers and switches for critical systems.



#### OFFSHORE SPARES PACKAGE

In situations where diving operations are frequent and minimal down time is required, Triton recommends upgrading to a package containing a more comprehensive spares supply. The spares offered in the Offshore Package include an extra thruster, as well as parts for non-critical items and systems with modest lead times.



#### **EXPEDITION SPARES PACKAGE**

For the dive operator who is routinely diving in remote areas, a complete set of spare parts is essential. Triton has created the ultimate spares package that includes critical and non-critical replacement parts. Triton has assembled a package that will best ensure any challenging dive project continues to be successful.

# FAQ

# IS A LICENSE REQUIRED TO OPERATE A SUBMERSIBLE?

A private owner does not need a license to operate the submersible for leisure purposes but our in-house training program must be satisfactorily completed by the operator in order to take delivery of the submersible and to obtain insurance. Triton will issue a certificate to all personnel who complete our company training program.

#### WHAT TRAINING IS REQUIRED?

Triton will provide crew training for the owner and their selected crew. Ideally the crew participates in the final two weeks of assembly and trials of the submarine so that they can get intimate, hands-on experience with the installation, operation and maintenance of critical systems. The crew will then have additional pilot and maintenance training during sea trials.

# HOW MANY CREW ARE NEEDED TO OPERATE A TRITON?

One existing crew member can be trained to both pilot and maintain the sub. However, it is prudent to train at least two crew members so that someone is always available in the event of crew turnover or vacation. We often train an owner to pilot the submersible and one or two crew members to pilot and maintain the submersible or to just maintain the submersible. Our entire comprehensive training program, including access to the world's only deep submersible simulator, is offered free of charge to Triton customers.

# DO I NEED A SUPERYACHT TO OWN AND OPERATE A TRITON?

Absolutely not. If your base of operations is relatively close to where you want to dive and the weather and sea conditions are generally good, you could tow your Triton to a dive site at low speed.

# HOW DIFFICULT IS IT TO INTEGRATE WITH A YACHT?

Tritons have relatively small deck footprints as they range in length from 6.6 feet (2m) to 13.5 feet (4.4m). It is generally not difficult to find space aboard. However, the submersibles are heavy for their size as they must weigh as much as the water they displace to be neutrally buoyant when submerged. The lifting gear must be robust enough to launch and recover the submersible.

Support equipment includes battery chargers, an air compressor and oxygen storage bottles, as well as containers of scrubbing compound. However, these items are not large and are easily integrated into mechanical spaces with on-deck connections adjacent to the submarine's storage location.

### INFORMATION

#### **ABOUT TRITON**

Triton ignited the personal submersible revolution in 2008 with the TRITON 1000/2 and, two years later, became the de-facto choice for professionals with the now industry-benchmark TRITON 3300/3.

In 2016 Triton revolutionized yacht-based exploration with the Low Profile TRITON 1650/3 and went on to redefine subsea luxury with Project Neptune, a collaboration with Aston Martin.

In 2019, Triton delivered the world's first commercially certified, Full Ocean Depthcapable submersible and broke multiple records during the Five Deeps Expedition.

Today, with more than 400 years of collective experience, Triton remains committed to producing the world's finest submersibles.

#### **KEY FACTS & FIGURES**

#### SUBMERSIBLES DELIVERED

Every submersible Triton has built and delivered remains in active service and certified to their original diving depths.

#### **DEPTHS ACHIEVED**

Triton has delivered submersibles rated to 1,000 ft / 300 m; submersibles rated to 1,640 ft / 500 m; twelve submersibles to 3,300 ft / 1,000 m; and the only submersible capable of full ocean depth (36,000 ft / 11,000 m) - the world's first submersible certified to "unlimited depth".

#### **CERTIFICATION**

Every Triton submersible has been designed and engineered with Certification frontof-mind. Triton have never, and will never, deliver a submersible without certification.

#### **RECORDS & ACHIEVEMENTS**

Triton submersibles have afforded their clients the following world records:

- Deepest dive in Atlantic Ocean
- Deepest dive in Southern Ocean
- Deepest dive in Indian Ocean
- Deepest dive in Pacific Ocean
- Deepest dive in Arctic Ocean
- Most dives to Full Ocean Depth
- First to dive Sirena Deep
- First to dive Molloy Deep
- First underwater live news broadcast
- Deepest marine recovery operation
- First to document the Giant Squid
- First manned dive to Titanic in 14 years
- First "Unlimited Depth" certified submersible

Triton is immensely proud of their clients and the accomplishments that they have helped them achieve. Their success is Triton's reputation.

#### COLLABORATING WITH

Triton is privileged to work with and support their friends and partners at:

- Allen Exploration
- American Museum of Natural History
- Aston Martin
- Atlantic Productions
- BBC
- Discovery Channel
- Espen Øino International
- Five Deeps Expedition
- National Geographic
- Nekton Foundation
- NHK
- OceanX
- Omega
- REV Ocean
- ShadowCAT
- U-Group
- Winch Design

#### RELATIONSHIPS

Triton endeavors to build their clients the very best submersibles they possibly can, and work hard to ensure their clients remain as satisfied today as they were on the day of their first dive.

For these and many other reasons, Triton enjoys the highest levels of customer loyalty in the industry.

No Triton has ever been replaced by a submersible from another manufacturer. Every client procuring their second, or indeed third, submersible has chosen Triton. No Triton owner has ever sought service or upgrades from a third party.

#### **REFERENCES**

Every Triton ever commissioned has been completed. Every Triton ever completed has passed certification. Every Triton ever certified has been delivered. Every Triton ever delivered has been to specification and budget. And every single one of them benefits from a truly world-class after-sales service that is without peer.

Triton has such confidence that their clients would recommend them, that they will gladly provide prospective clients with the contact details for the Owner's Representative of **every** submersible to earn the Triton badge.

### CONTACT US

#### GLOBAL REACH

Triton's manufacturing facility and headquarters are located in Sebastian, Florida (just off Interstate 95). Triton's support facility in Barcelona offers rapid support across Europe, the Middle East and Asia.

#### **HEADQUARTERS**

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