



**THE**  **SENTINEL**®

**PRODUCT RANGE**



 **SENTINEL BOATS**

# OUR MISSION

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## **At Sentinel Boats, creating durable vessels for harsh environments is in our DNA.**

Our origins in the harsh Southern Ocean make us different. In tough, high-energy environments, failure is simply not an option: products must withstand the elements to return crews home safely every time.

Sentinel Boats produces incredibly durable, stable rapid response vessels and safe work boats for the defence, emergency services, security and aquaculture industries, using high-density polyethylene (HDPE). This true next generation boat building material requires very little maintenance and possesses industry leading handling and shock absorption qualities.

Our long history in the commercial marine sector established our reputation as a trusted builder of virtually indestructible workboats. Our first boat is still in operation today, 30 years after hitting the water. We have since evolved into the military and rapid response sector in partnership with One2three naval architects. Our flagship Sentinel range is the pinnacle of our expertise in high-performance, high-safety, tactical vessels, with an unrivalled commitment to safety, stealth, performance, and longevity for situations that command nothing less.

Sentinel Boats' operations are located in Tasmania's defence and maritime precinct at Prince of Wales Bay, near Hobart – a highly reliable supply chain and logistics hub delivering world-leading defence and maritime projects.

**Proudly Tasmanian-owned, Sentinel Boats is equipped with the leading industry knowledge and capability to ensure our boats return crews home safely, every time.**



# OUR SUPPORT SYSTEM



In 2022 Sentinel Boats assembled a team of industry experts to advise the delivery of the world's most capable, tactical sea boat fleet. The pooling of talent, resources and expertise has ensured Sentinel Boats delivers vessels that surpass all expectations. **Team Sentinel** includes a network of Australia's most respected naval professionals and suppliers – naval architects One2Three, integration specialists Bellingier Systems and defence acquisition experts Systematic.



Sentinel Boats has a **Defence Capability Advisory Committee** to provide critical support and assurance in the design of The Sentinel range. With over 100 years' of combined experience in maritime defence, public security and international diplomacy, the Committee members have been integral in the development of our proven mission-ready, reliable and integrated maritime systems.



Sentinel Boats is proudly **100% Australian owned**, with all vessels handmade and finished to the highest quality in Tasmania.



All Sentinel Boats are made from **High Density Polyethylene (HDPE)**, a thermoplastic polymer that is highly versatile for many uses. The best part is that it is completely recyclable which ensures all products and waste material from our workshop can be completely re-used one day.



Sentinel Boats is an avid supporter of **Veterans' Employment**, recognising the value and unique experience of our veterans. We actively encourage employment opportunities for those who have served our country.



Sentinel Boats donates to **Legacy Australia** to support the families of service men and women who have made significant sacrifices in the service of our country.



Sentinel Boats is certified to ISO standard 9001.

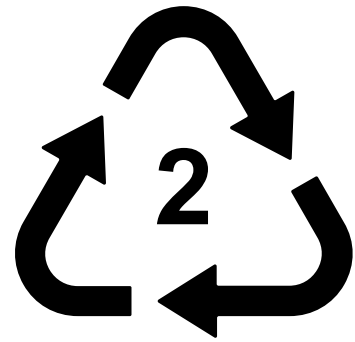
# MATERIAL PROPERTIES

High Density Polyethylene (HDPE) is the next generation boat-building material, with unparalleled safety and durability properties.

We have chosen HDPE for our boat hulls over alternative watercraft alloy or composite material, not only for its durability and performance, but also its low carbon footprint and extended lifespan.

HDPE uses 20% of the carbon required for aluminum production and is 100% recyclable. These hulls do not require any antifoul treatment, resulting in fewer lift-outs, minimal maintenance and more operational hours.

**HDPE is the modern, sustainable and robust choice for applications that demand the very highest standard of performance, durability, safety and operational availability.**



**HDPE**

	Aluminium	Fiberglass	Carbon Fibre	<b>HDPE</b>
Toughness	● ●	●	●	● ● ●
Corrosion / Electrolysis	●	● ●	●	● ● ●
Maintenance Intervals	●	● ●	● ●	● ● ●
Processing / Machining	● ●	●	●	● ● ●
Repairability	●	●	●	● ● ●
Whole of life costs	●	● ●	●	● ● ●
Recycling	● ● ●	●	●	● ● ●
Strength	● ●	● ●	● ● ●	● ●
Weight - Hull	● ●	● ●	● ● ●	● ●



Sentinel Boats has incorporated the Vigilant Safety System™ (VSS) as a benchmark in the safety and performance of our vessels.

The VSS includes critical design and operation components that enable Sentinel Boats to deliver unrivalled protection and safety for crew and personnel.

## THE VIGILANT SAFETY SYSTEM CRITERIA

### DESIGN

Utilising the expertise of naval architects One2Three, Sentinel vessels deliver exceptional stability and seakeeping capability.

### MATERIAL EXCELLENCE

HDPE provides unrivalled performance, safety and endurance qualities over alternative boat hull types.

### CONSTRUCTION

The experience of Sentinel Boats is world class and a product of nearly 30 years of refinement, education and expertise.

### OPERATOR CENTRIC

Sentinel Boats partner with leading technology providers to ensure all boats are equipped with superior monitoring, to inform ride quality and fatigue reduction.

Proven capability in the toughest Southern Ocean conditions



## **THE** **SENTINEL**®

### **The Sentinel is designed and built to protect crews in hostile environments and get them home safely.**

The Sentinel is our flagship tactical watercraft, proven in the harshest environments on the planet, and backed by the unmatched expertise of Australian naval architects, One2three.

Our long history building boats for the Southern Ocean has refined our design and manufacturing process, ensuring we only use the most robust materials, leading expertise from industry professionals and informed on-water trials experience.

The Sentinel range leads the world in purpose designed and built High Density Polyethylene (HDPE) vessels for the defence and security sector. HDPE provides superior durability and reliability in the face of sustained force and is ideally suited for demanding sea missions and high impact activities such as air drops, hard beaching, and operations to rocky shorelines.

HDPE's absorption properties dampen noise, vibration, and reduce personnel fatigue, while its high stability and enhanced handling

characteristics offer a more stable experience for the crew. Corrosion and electrolysis are eliminated, making Sentinel boat hulls easy to maintain with improved operational availability and reliability.

The Sentinel range is customisable in a range of lengths and configurations, delivering mission-specific capability for defence and security organisations. All vessels can be seamlessly integrated into existing defence fleets and C5ISR systems, and have autonomous capability, adding to their operational flexibility for pursuit, assault or first response missions. The low centre of gravity coupled with cutting-edge jet propulsion and dynamic positioning systems give our boats unrivaled stability and maneuverability at both high, and low speeds.

The Sentinel range was developed using the specialist knowledge of our expert Defence Capability Advisory Committee, which holds over 100 years combined experience in the defence and public security industry.

When failure is not an option, there is no substitute for firsthand experience, honed by the toughest environments on the planet.

## OUR CLIENTS

- New Zealand Defence Force
- Australian Maritime Safety Authority
- Queensland, Northern Territory and Tasmania Police
- New South Wales Marine Rescue
- WA Department of Fire and Emergency Services
- Victoria Parks



## THE FLEET

- The Sentinel 1100/1250
- The Sentinel 830
- The Sentinel 750
- The Sentinel 550 Bullshark
- The Sentinel 540/650



## The Sentinel 1100 / 1250

The Sentinel 1100/1250 is our flagship tactical sea boat for expeditionary reconnaissance and covert operations.

With all the industry leading ride and performance characteristics of our smaller vessels, The Sentinel 1100/1250 are autonomous capable and designed to achieve a broad range of tactical mission sets via configurable mission profiles. Both vessels can be designed with forward, centre, side or rear consoles with an elective canopy, or as a cabin vessel.

For defence-specific uses, The Sentinel 1100/1250 can accommodate a variety of weapon systems and sensors, dive doors and moon pools as well as a stokes litter for personnel

recovery. The rigorous requirements of defence applications have been considered in the design of The Sentinel 1100/1250, with the addition of a bow step to allow for safe movement around the console, maximising deck width using a D-collar arrangement and flush-mounted access hatches, electronics and surveillance equipment to prevent snagging.

As a dive-purpose vessel, The Sentinel 1100/1250 can be reconfigured to accommodate dive equipment while still providing a comfortable ride for crew, with a combination of shock-absorbing seats and sufficient room for a dive team to be safely seated for long transits.

Model	The Sentinel 1100	The Sentinel 1250
Class	AMSA2C	ISO Survey Cat B
Passengers	3+ 10 CREW	3+ 10 crew
Length (OA)	11 m	12.5 m
Beam	3.5 m	3.73 m
Draught	0.83 m	0.77 m
Engine	2x Cummins QSB6.7	2x Cummins QSB6.7
Fuel	900 L (Capacity to increase)	900 L (Capacity to increase)
Speed	45+ knots	43+ knots
Options	Open deck or cabin, console, fwd/aft layouts, weapon mounts, bow boarding step. Custom configuration as per customers' needs.	







## The Sentinel 830

The Sentinel 830 has been designed specifically with defence, law enforcement and rescue response applications in mind. The needs of these industries have been incorporated in the design of The Sentinel 830 with the addition of a bow step to allow for safe movement around the console, maximising deck width using a C-collar arrangement, flush-mounted electronics and surveillance equipment to prevent snagging and with the option to add handrails and a canopy.

The combination of the vessel design and the HDPE hull makes The Sentinel 830 an extremely stable platform that reduces vibration and impact forces to the crew, ensuring they are ready to undertake demanding tasks even after long transits or encountering heavy seas.

Model	<b>The Sentinel 830</b>
Class	NSCV 2C, ISO 6185-3, AMSA approved
Passengers	2+ 8 crew
Length (OA)	8.3 m
Beam	2.99 m
Draught	0.55 m
Engine	2x200 HP Suzuki outboards
Fuel	400 L ULP
Speed	40+ knots
Options	Open deck, canopy, console, fwd/aft layouts, weapon mounts, ammunition, bow boarding step. Custom configurations available.





# The Sentinel 750

The Sentinel 750 is designed to accommodate various deck layouts for a wide range of applications. The vessel is highly configurable and can be designed in a forward, centre, side or rear console layout, with the addition of a canopy if required. The deck can also be reconfigured as a dive-purpose vessel.

For defence-specific uses, The Sentinel 750 can accommodate weapon systems and sensors, dive doors and moon pools, as well as a stokes litter for personnel recovery. For ease of use in demanding environments, The Sentinel 750 can be modified to include bow step and handrails, a D-collar arrangement to maximise movement around the console and flush-mounted access hatches, electronics, and surveillance equipment to prevent snagging.

Crew comfort is maximised through a combination of shock-absorbing seats, the impact reduction properties of HPDE and ample room on deck for all personnel to be safely seated for long transits.

The Sentinel 750 is surveyed as a dive vessel for six, with storage for 14 individual dive tanks and diving sets.

<b>Model</b>	<b>The Sentinel 750</b>
<b>Class</b>	NSCV 2D, ISO 6185-3, AMSA approved
<b>Passengers</b>	2 + 6 Crew
<b>Length (OA)</b>	7.5 m
<b>Beam</b>	2.5 m
<b>Draught</b>	0.45 m
<b>Engine</b>	2x 150 HP Outboard
<b>Fuel</b>	250 L (capacity up to 400L)
<b>Speed</b>	40 knots
<b>Options</b>	Open deck, canopy, console, fwd/aft layouts, weapon mounts, ammunition, bow boarding step, stokes litter, dive vessel. Custom configurations available.



## The Sentinel 550 Bullshark

The Sentinel 550 Bullshark is designed specifically for in-shore patrol applications with a highly configurable layout and ability to house additional enhancements to suit operational requirements. The HDPE hull is capable of withstanding hard beaching and the generous deck allows for the addition of storage lockers. A dive door can also be fitted upon request.

This vessel has been put to extensive use by Queensland Police, Northern Territory Police, Fire and Emergency Services, Tasmanian Inland Fisheries Services, Birkenhead Point Marine and Rufus King Fisheries, all boasting little to no maintenance downtime since commissioning.

Model	The Sentinel 550 Bullshark
Class	NSCV 2C / NSCV 2D
Passengers	4 / 6
Length (OA)	5.7 m
Beam	2.47 m
Draught	0.42 m
Engine	2x 90 HP Outboard
Fuel	150 L
Speed	37 knots
Weight	NSCV 2C: 750 kg NSCV 2D: 900 kg





## The Sentinel 540 / 650

The Sentinel 540 and The Sentinel 650 are designed specifically as flood rescue and marine rescue vessels with a draught of just 0.45m, making them ideal for shallow depth operations. In addition, the durability and strength of the HDPE hull and collars make this design almost indestructible, ensuring rescue personnel can operate with confidence in extremely hazardous environments where underwater obstacles would render other boats inoperable.

Each boat can be configured for a range of applications, including providing first-aid in emergency situations. The side console is

positioned to accommodate a stretcher or stokes litter, while the seating configuration enables space to treat a patient under speed. The side hatch is located on the port side, allowing for patients to be easily extracted from the water with attachment points for a Jason's Cradle located on the inside of the hard collars. The Sentinel 540 is surveyed for six passengers and The Sentinel 650 for eight, both holding under-seat storage for a 200kg payload allowance.

The Sentinel 540/650 uses a 450mm HDPE hard collars, providing superb stability at rest and rideability at full speed for the crew onboard.

Model	The Sentinel 540	The Sentinel 650
Class	NSCV 2D	NSCV 2D
Passengers	2 + 4 Crew	2+ 6 crew
Length (OA)	5.4 m	6.5 m
Beam	2.3 m	2.4 m
Draught	0.45 m	0.45 m
Engine	2x 50 HP Outboard	2x 90 HP Outboard
Fuel	150 L	250 L
Speed	25 knots	25+ knots
Options	Open deck, retractable canopy, console side or centre, side hatch, stokes litter, Jason's Cradle	



# THE SENTINEL DISCRIMINATORS



QMS Certification Services

## Durability & Survivability

The Sentinel vessels are manufactured to ISO, NSCV or class society standards. Made from HDPE, Sentinel Boat hulls have industrial strength, positive buoyancy, do not corrode and have superior durability over a longer life span.



## Flexibility

The Sentinel vessels are highly configurable and can be manufactured with a wide range of mission profiles. Custom fit outs can include protective cabins, weapon effectors, ammunition lockers, dive doors, stokes litter for personnel recovery as well as autonomous capability on selected vessels.



### Longevity

HDPE lasts more than four times longer than alternative boat hulls due to its robust and durable construction. Structurally, Sentinel vessels have thicker hull plates and double continuous welding throughout while still meeting a comparable gross weight to alternative hulls.

### Variety of Mission Profiles

The Sentinel range has low observability and reduced magnetic, acoustic and wake signatures, making it suitable for numerous complex military and/or security operations. A wide range of sensors, weapons and communication suites can be fitted and quickly reconfigured to support the mission/task. Sentinel vessels can also be equipped with autonomous capabilities, further increasing their operational flexibility.

### Maintainability

HDPE does not suffer from electrolysis or corrosion; resists fouling and has a 50-year UV protection. The impact resistant nature of HDPE hulls sees reduced rates of preventative maintenance downtime, with in-situ repairs not requiring hot works to ensure maximum serviceability.

### Duty of care

The combination of hull design and vibration absorption qualities of HDPE offers a more stable ride for crew. In addition, the use of industry leading seating and fixtures further reduces levels of personnel fatigue inflicted on passengers compared to alternative hulls

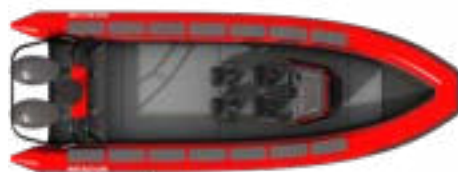


# MODIFICATIONS

The Sentinel fleet is highly modifiable to suit the needs of different industries.

Enhancement options for defence use include weapon systems and sensors, gun and ammunition lockers, dive doors, moon pools and stokes litter for personnel recovery.

The deck can also be reconfigured as a dive purpose vessel.



Cargo configuration



Cabin



Forward Console



Centre Console



Aft Console





# SENTINEL BOATS

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