



**TACTICAL WATERCRAFT TO SERVE AND PROTECT**



**PRODUCT RANGE**

**THE SENTINEL®**



# ABOUT US

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PFG is a 100% Australian-owned company, renowned for creating durable, high-quality products for harsh environments. We have over forty years' experience in the design, manufacture, and sales of polymer and marine products to the maritime security, aquaculture, mining, and civil construction sectors.

Located in Tasmania's Defence & Maritime Precinct at Prince of Wales Bay near Hobart, PFG's operations are embedded in a highly reliable supply chain, culture, and logistics hub delivering world-leading defence and maritime projects.

With additional manufacturing facilities in Victoria and South Australia, we proudly distribute our Australian-designed and manufactured products to a global market.



# THE SENTINEL: WORLD-LEADING HDPE WATERCRAFT

Designed for the Southern Ocean and built in Tasmania, our vessels are made from High Density Polyethylene (HDPE), a next-generation boat-building material with unparalleled safety and durability properties. All our boats have incredible longevity, will not corrode, are incredibly strong, buoyant, and virtually maintenance-free.



## WHY HDPE?

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

HDPE outperforms alternative watercraft alloy or composite materials:

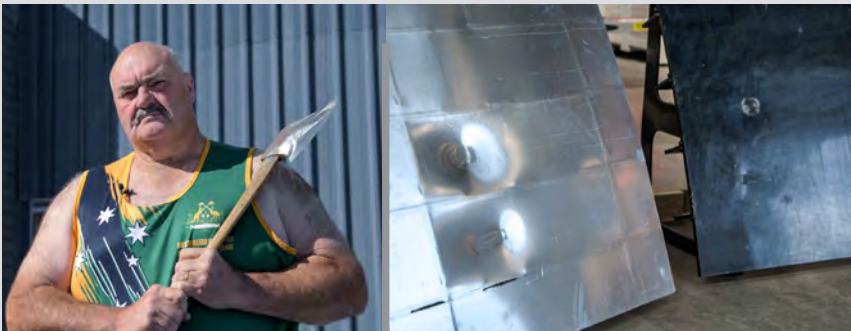
- Personnel safety: superior impact and vibration absorption reducing personnel fatigue
- Incredibly durable and impact-resistant
- Positive buoyancy offering premium stability
- No corrosion, electrolysis, or delamination
- UV stable and fouling resistant
- In-situ repairs with no hot works required
- Lasts up to four times longer than alternative materials with comparable gross weight



# MATERIAL PROPERTIES

Comparison of the properties of high-density polyethylene (HDPE), and alternative tactical watercraft hull types.

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



World Champion axeman, David Foster OAM took a swing at HDPE. Using similar force and the same equipment the aluminium section buckled significantly and came close to tearing. Apart from scuff marks, the HDPE was totally undamaged.



PFG has incorporated the Vigilant Safety System™ (VSS) as a key component of The Sentinel tactical watercraft.

The VSS incorporates critical design and operational components that set the benchmark in safety and performance.

#### Factors incorporated into the VSS include:

- Design - systemic design delivers exceptional stability and seakeeping capability
- Material excellence incorporating next generation HDPE
- Construction - PFG's quality assured craftsmanship, refined over 25 years of continuous improvement
- Invigilation - superior monitoring, observation, and cloud based capabilities

The Sentinel delivers an unrivalled level of immediate and long term protection and safety for crew and personnel.



## THE SENTINEL®

**The Sentinel is PFG's flagship tactical watercraft. The Sentinel range offers a step-change in performance, whole of life cost and operational availability across adaptable mission-specific configurations.**

In partnership with One2three Naval Architects, we have developed this customisable integrated maritime vessel in a range of lengths and configurations, delivering mission-specific capability for defence and security organisations. The low signature profile optimises stealth and the ability to penetrate adversary defences in a contested environment. Our premier tactical watercraft – The Sentinel 1100 & 1250 – offer cutting-edge jet propulsion and dynamic positioning systems, working in tandem to provide precision maneuverability at low speed for propeller-free propulsion and heightened personnel safety. The Sentinel range can be fully networked with defence fleets, C5ISR systems, and is autonomous-capable.

The Sentinel range features the world's only defence vessels manufactured from High Density Polyethylene (HDPE) offering superior

durability and reliability in the face of sustained force, optimised for air drops and hard beaching. HDPE's absorption properties dampen noise, vibration and personnel fatigue, while its high stability and enhanced handling characteristics offer a more stable experience for the crew. The Sentinel offers unparalleled performance, safety and survivability for interdiction boarding, pursuit, tactical assault, and first response applications – when failure is not an option.

Ensuring a capability to deliver to Defence requirements, PFG is advised by a Defence Capability Advisory Committee. Members of the Committee, with over 100 years' combined experience in the Defence and public security environment, are integral in the evolution of our proven platforms, to mission-ready, reliable, integrated maritime systems. The Committee is a demonstrable part of PFG's commitment to identifying and reducing risk and providing confidence. The Sentinel range is adapted in collaboration with customers to meet specific operational requirements.

The Sentinel is the next generation in world-class tactical watercraft.









# TACTICAL WATERCRAFT



Through collaboration with customers and One2three Naval Architect, PFG's range of vessels have evolved from sturdy workboats to highperforming Tactical Watercraft. They are finished to the highest standards and suited to interdiction, boarding, and first-response applications.

They are fast, strong, stable, smooth, and safe. PFG's range of Tactical Watercraft includes cabins and consoles, forward, center, aft, and side, and can be further customised to a range of rapidly configurable mission profiles.



The HDPE construction material absorbs vibration, which enhances benefits to the crew and passengers. There is no corrosion or electrolysis and the material is easy to maintain, which improves availability and reliability.









# The Sentinel 750

The Sentinel 750 is designed to accommodate a highly flexible deck layout so that the vessel can be configured for a wide range of applications. The HDPE hull reduces vibration and impact forces, maximises availability and maintainability through its absence of electrolysis and corrosion and is extremely stable. The typical Sentinel design features may also be incorporated into this vessel size including fast boarding through the bow step and handrails, quick and safe movement around the console by maximising deck width using a D-collar arrangement and flush-mounted access hatches, electronics, and surveillance equipment to prevent snagging.

The deck layout can be optioned as a dive vessel for six passengers, with storage for 14 individual dive tanks and diving sets. Characteristic of the Sentinel brand, crew comfort is maximised with a combination of shock-absorbing seats and sufficient room for a dive team to be safely seated for long transits.

The vessel is highly configurable and can be provided with or without a canopy in the forward console, centre console, side console or rear console layouts as per the current layouts in its larger sistership or customised as a dive vessel. Further enhancement options for defence use include gun turrets, gun and ammunition lockers, dive doors and moon pools, dog transportation

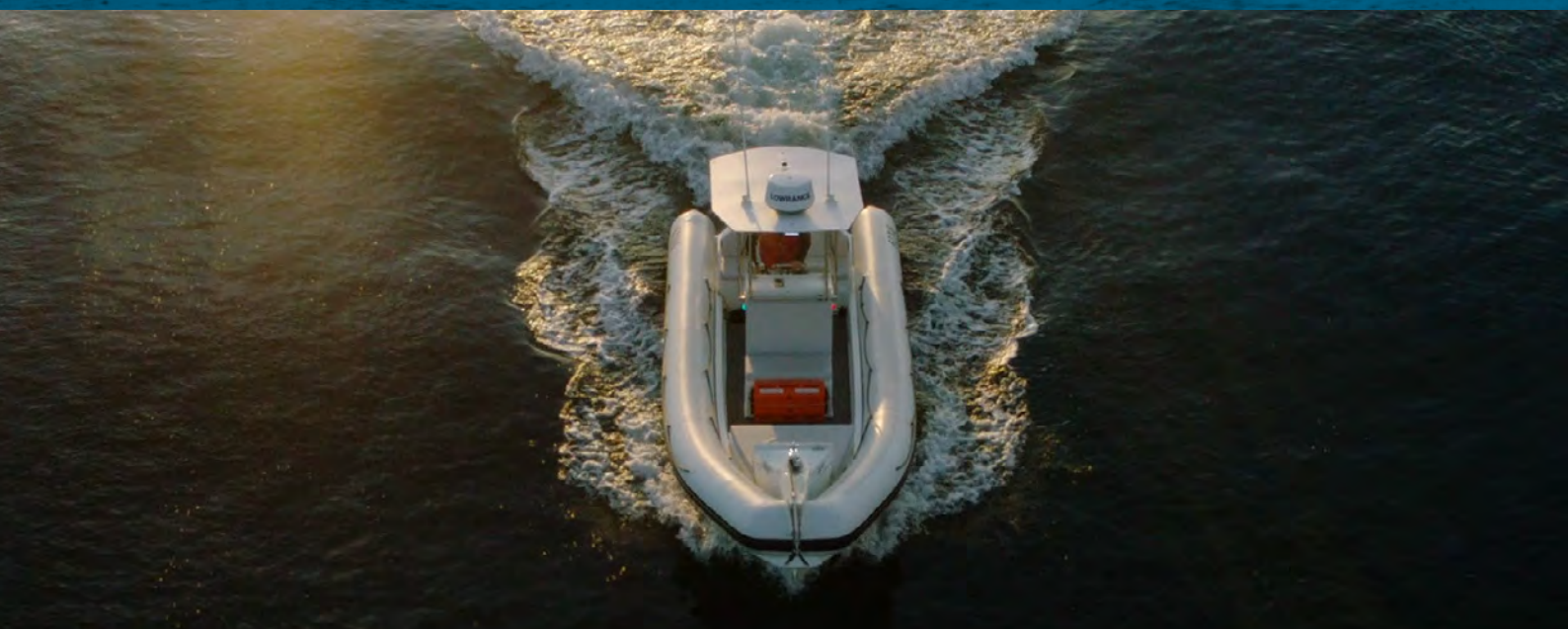
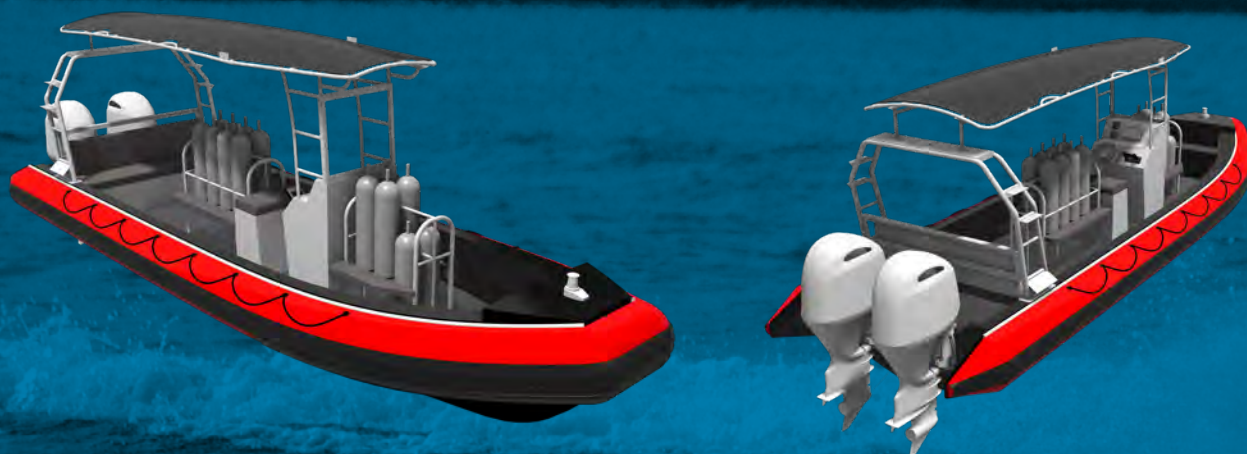
Model	The Sentinel 750
Class	NSCV 2D, ISO 6185-3, AMSA approved
Passengers	2 + 6 Crew
Length (OA)	7.5 m
Beam	2.5 m
Draught	0.45 m
Engine	2x 150 HP Outboard
Fuel	250 L
Speed	40 knots
Options	Open deck, canopy, console, fwd/aft layouts, gun mounts, gun lockers, bow boarding step, stokes litter, drive vessel

and stokes litter for personnel recovery. The deck can also be reconfigured as a dive-purpose vessel as per the current layout in its smaller sistership.

Fuel capacity is nominally 400 litres and can be increased up to 700 litres. The maximum speed is 47 knots with twin 200Hp 4-stroke outboards. Inboard jet engines or diesel outboards are also available.



Deck layout options include aft, centre or side console, with or without canopy, and can be further enhanced with custom storage, lockers and a dive door.







# The Sentinel 830

The Sentinel 830 has been designed specifically for Defence and security applications. The combination of the vessel design and the high-density polyethylene (HDPE) material makes it an extremely stable platform that lowers the risk of rollover and capsize, reduces the vibration and impact forces to its crew, and is easily maintainable, therefore improving vessel operational availability and reliability. Design features also include consideration to fast boarding through the bow step allowing safe movement around the console by maximising deck width using a C-collar arrangement with flush-mounted electronics and surveillance equipment to prevent snagging with optional handrails and canopy.

Model	The Sentinel 830
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, gun mounts, gun lockers, bow boarding step.





Fuel capacity is nominally 400 litres and can be increased up to 700 litres. The maximum speed is 47 knots with twin 200Hp 4-stroke outboards. Inboard jet and diesel outboard engines are also available.



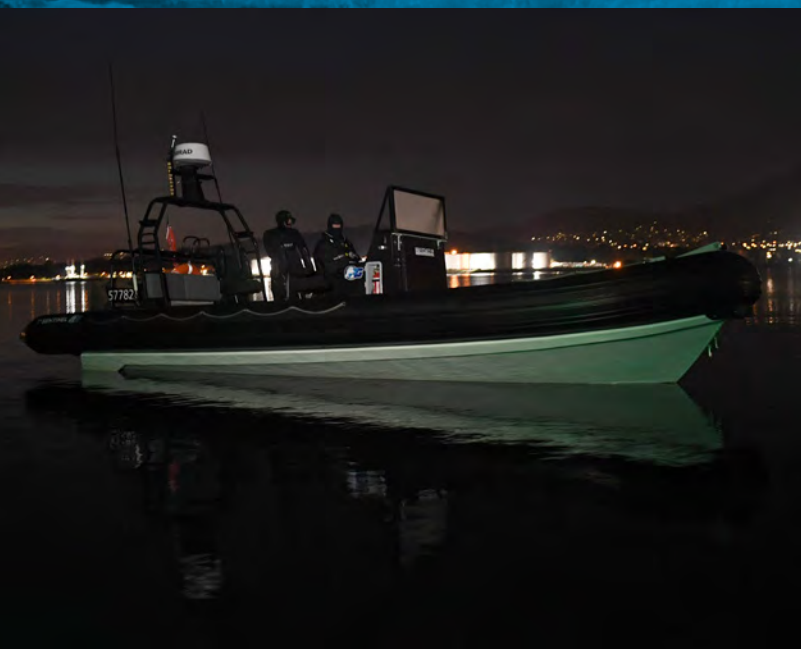
Crew comfort is maximised with the use of shock-absorbing seats.



Highly configurable and can be provided with or without a canopy in forwarding console, centre console, side console or rear console layouts or a cabin located either midship or forward.



With the impact-absorbing HDPE hull, personnel remain mission-ready after long transits and ready to operate at peak conditions.





# THE SENTINEL DISCRIMINATORS



## Durability & Survivability

The Sentinel vessels are manufactured to ISO, NSCV, or class society standards. Made from high-density polyethylene (HDPE), a material that has industrial strength, has positive buoyancy, and will not corrode, therefore offering superior durability over longer life spans.

## Flexibility

Rapidly configurable mission deck designed to meet the capability requirements of a wide range of mission profiles. Layouts include protective cabin options, weapons effectors, ammunition lockers, dive doors, and the ability to integrate optionally manned technology, a variety of payloads, sensors, and deployment, launch, and retrieval options.

## Maintainability

HDPE doesn't suffer from electrolysis or corrosion, resists fouling, has a 50-year UV protection, and has no preventative maintenance requirements. HDPE hull is impact resistant and capable of hard breaching on rocks offering enhanced mission capability. In-situ repairs with no hot works allow for reliability and availability on long deployments where failure isn't an option.



### Longevity

Lasts up to more than four times longer than their alloy or composite competitors due to its robust, durable construction, excellent design, and structural integrity afforded by thicker hull plates, and full double continuous welding throughout, all within a comparable gross weight.

### Duty of care

The combination of design and the HDPE material enhances handling characteristics offering a more stable experience for the crew and passengers. The vessels also provide for reduced levels of personnel fatigue as the HDPE material absorbs vibration, dampening noise.

### Stealth

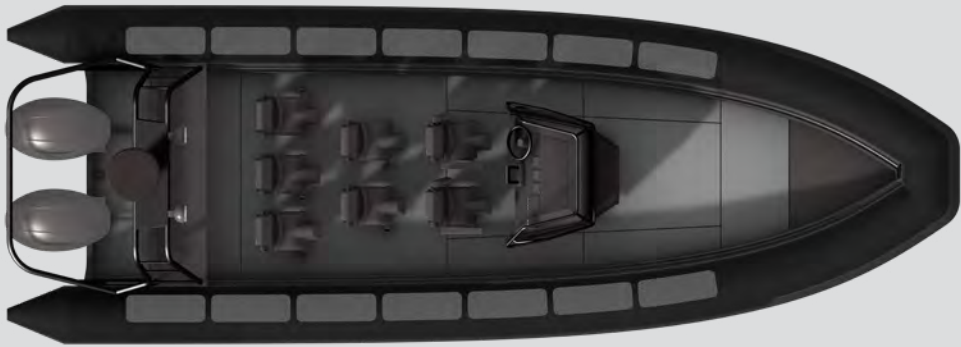
Are available in a camouflaging colour range suited to each environment, along with design, limited wake, and low radar and magnetic signature attributes.



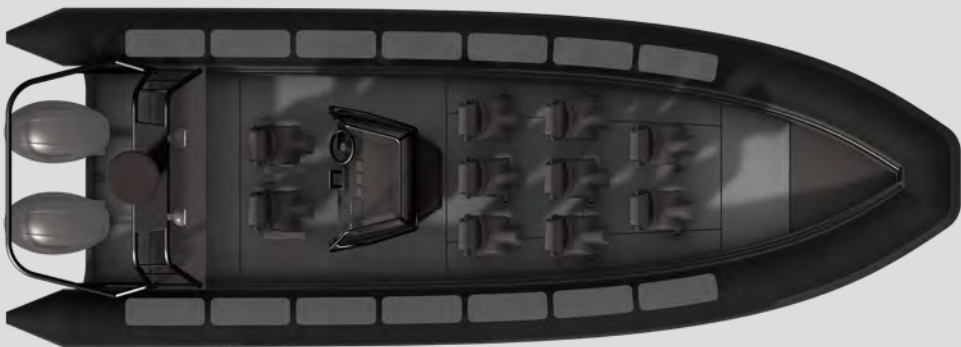




Forward Console



Centre Console

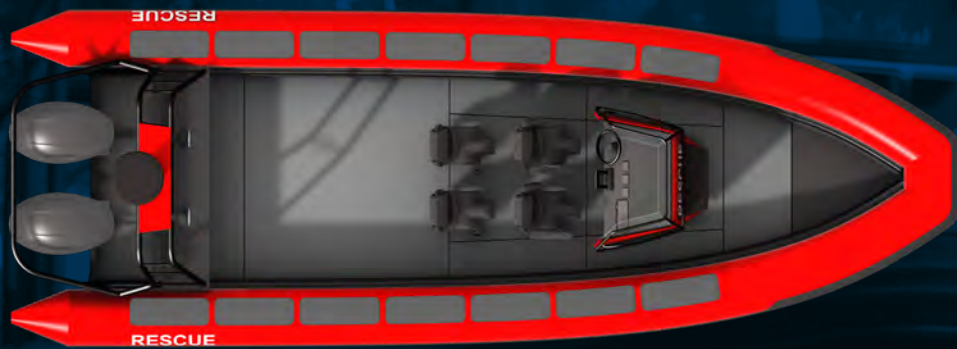


Aft Console



Enhancement options for defence use include gun turrets, gun and ammunition lockers, dive doors, moon pools, dog transportation and stokes litter for personnel recovery.

The deck can also be reconfigured as a dive purpose vessel as per the current layout in its smaller sistership.



Forward Console



Cabin











## The Sentinel 1100 / 1250

The Sentinel 1100 and 1250 are the premier tactical watercraft for expeditionary reconnaissance and covert operation. With all the characteristics of the smaller vessels, both vessels incorporate the Vigilant Safety System (VSS) which sets the benchmark in safety and performance.

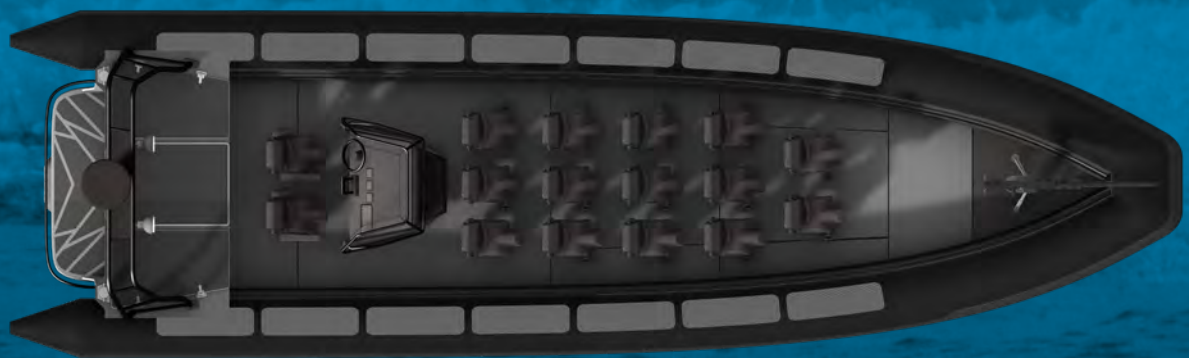
The Sentinel vessels are autonomous ready, and designed to achieve a broad range of tactical mission sets via configurable mission decks and underpinned by the class-leading survivability, safety, and performance of this next-generation technology. The typical Sentinel design features may also be incorporated into this vessel size, including fast boarding through the bow step, with quick and safe movement around the console by maximising deck width using a D-collar arrangement and flush-mounted access hatches, electronics, and surveillance equipment to prevent snagging.

Both The Sentinel 1100 and The Sentinel 1250 can be provided with or without a canopy in the forward console, centre console, side console or rear console layouts or as a cabin vessel. Further enhancement options for defence use include gun mounts, gun and ammunition lockers, dive doors, dog transportation and stokes litter for personnel recovery. The deck can also be reconfigured as a dive-purpose vessel as per the current layout in its smaller sistership.

Fuel capacity is nominally 900 litres and can be increased further. The Sentinel Interdictor can reach maximum speeds of 45+ knots with three 300Hp diesel outboards. Inboard jet engines or 4-stroke outboards are also available.

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 diesel	900 L diesel
Speed	45+ knots	50+ knots
Options	Open deck or cabin, console, fwd/aft layouts, gun mounts, bow boarding step. Custom configuration as per customers' needs	







## The Sentinel 540 / 650

The Sentinel 540 and The Sentinel 650 are designed specifically as flood rescue and marine rescue vessels.

The 450mm HDPE hard collars, provide superb stability at rest and rideability at full speed. The side console is positioned to be able to accommodate a stretcher or stokes litter, and the seating configuration enables space to treat a patient while under speed. The shallow draught of just 0.45m makes this an ideal vessel for shallow depth operations.

A side hatch is located on the port side to allow patients to be easily pulled from the water. Attachment points for a Jason's Cradle are located on the inside of the hard collars. The Sentinel 540 is surveyed for six persons and The Sentinel 650 is surveyed for eight persons. Both boats have a 200kg payload allowance, that is provided for in the under-seat storage.

Model	The Sentinel 540	The Sentinel 650
Class	NSCV 2D	NSCV 2D
Passengers	2 + 4 Crew	2+ 6 crew
Length (OA)	4.6 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 deck layout is also flexible, and the side console can be replaced with a centre console if required. The fuel tank is divided in half with each compartment plumbed individually to each outboard, so that multiple fuel sources may be used.





# The Sentinel 6.0

PFG first supplied the Tasmanian Police Service in 2001 with a range of vessels known as the Sentinel Class. ‘Sentinel’ means to ‘look over or keep watch’ and was the identity afforded by the Police Commissioner at the time. Described as ‘unstoppable’ by their users, these vessels remain in service and have been repowered a number of times since commissioning.

The vessels are used as first response vessels for marine incidents and general patrols. Their hardy design, use of HDPE construction material, and the fact that they remain in service in critical operations after nearly 20 years is evidence of the durability, robustness, and longevity of Aquatruck vessels.’



Model	The Sentinel 6.0
Class	NSCV 2C
Passengers	2+ 2 crew
Length (OA)	6.0 m
Beam	2.4 m
Draught	0.45 m
Engine	2x 115 HP Outboard
Fuel	200 L
Speed	40 knots
Options	Gun and ammunition lockers, dive doors, dog transportation, stokes litter or jason’s cradle











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**PROUDLY DESIGNED AND MADE IN AUSTRALIA**







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