



THE SENTINEL[®]

TACTICAL WATERCRAFT TO SERVE & PROTECT



TACTICAL WATERCRAFT TO SERVE AND PROTECT

PFG is a 100% Australian-owned company with 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 operation is 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.

Contents

04	Products & Services
06	The Sentinel Discriminators
08	Material Properties
10	Tactical Watercraft
22	Search & Rescue
34	Landing Craft
38	Support Craft

PFG is renowned for creating durable products for harsh environments and we take pride in the quality of our workmanship. PFG's flagship product, The Sentinel, is the next generation in world-class 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, PFG have developed and delivered integrated maritime systems which enhance the mission capability for Defence and security organisations offering unmatched durability, safety and stability.

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.

PRODUCTS & SERVICES



Tactical Watercraft

Seaboat configurations for tactical assault groups, crew transfer, general patrols or special forces.



Search & Rescue

A range of vessels from 2.8m to 15m, in hard collar or plate designs, with cabins or consoles. Vessel stability is ideally suited to volunteer uses or requirements where repeatability of hull performance is necessary.



Landing Craft

Configured for personnel or vehicle movement with an optional drop-down front deck for drive on/drive off situations. Configurational options for oil skimming or other environmental surface collection requirements.



Support Craft

A range of vessels for general marine operation functions with significant lifting capacity, including elevated work platforms.

THE SENTINEL® DISCRIMINATORS

PFG manufactures The Sentinel vessels in one of three of its dedicated Australian manufacturing facilities.

Designed by Australian naval architects One2three, The Sentinel vessels are a mature and proven platform with over 100 vessels in current operations and are available up to 15 metres in length in various configurations including inboard or outboard propulsion, hard and soft collars, plate vessels, cabins or consoles, with significant payload capacity up to 6,000kg.

The Sentinel vessels are manufactured from High-Density Polyethylene (HDPE), a cost-effective, environmentally friendly semi-crystalline engineered polymer that demonstrates several properties which rate it as a superior boat building material. The Sentinels are highly stable, provide superior reliability and availability and transfer low impact to the crew as the HDPE hull absorbs vibration.

It is these virtues that The Sentinel brings to a new generation of evolved fast military vessels, search and rescue vessels, and support craft.

Engine

Outboard / Inboard / Jet or stern drive configurable with optional enhanced control technology such as dynamic positioning.

Durability

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 with the ability to enhance ballistic perfection.

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, lifting ability, sensors, and deployment, launch, and retrieval options.

Longevity

Last 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 Sentinel vessels are highly stable platforms and the combination of their design, and the HDPE material reduces the occurrence of rollover and capsize. The vessels also provide for reduced levels of personnel fatigue as the HDPE material absorbs vibration, dampening noise.

Stealth

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

Maintainability

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



MATERIAL PROPERTIES

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

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

- PFG vessels last up to four times longer than their alloy competitors by their robust, durable HDPE construction, considered design, and structural integrity.
 - No biofouling or painting is required, resists fouling, and is UV stable.
- PFG vessels reduce costs by an increased life, reduced maintenance requirements, and reduced wear in the highly corrosive sea environment.
 - Lighter than water!



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.



THE VIGILANT SAFETY SYSTEM™

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.



TACTICAL WATERCRAFT

Through collaboration with customers and One2three Naval Architect, PFG's range of vessels have evolved from sturdy workboats to high-performing 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 eight 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.

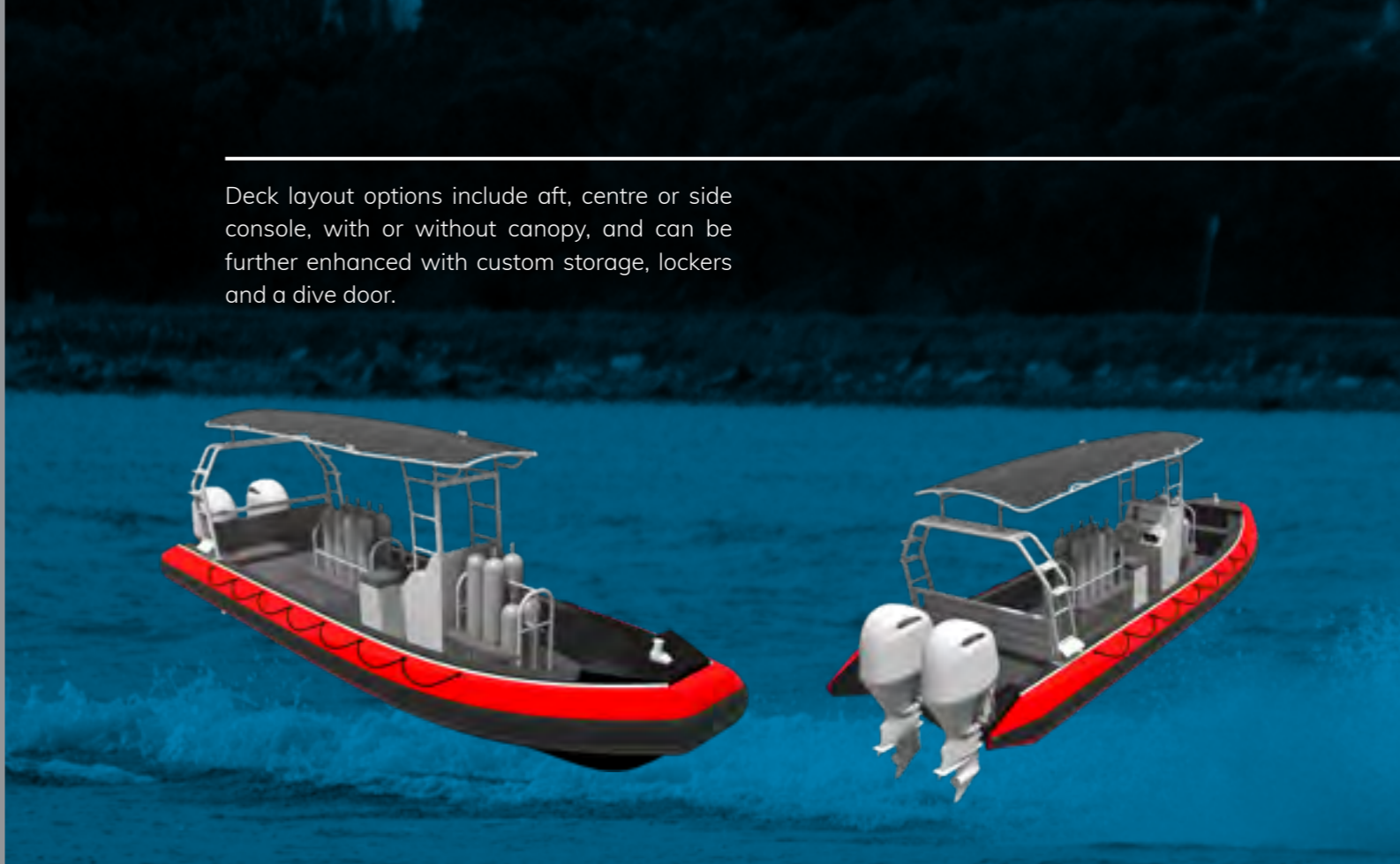
The vessel is highly configurable and can be provided with or without a canopy in the forward console, centre console, side console or rear console layouts as per the current layouts in its larger sistership or customised as a dive vessel. Further enhancement options for defence use include gun turrets,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

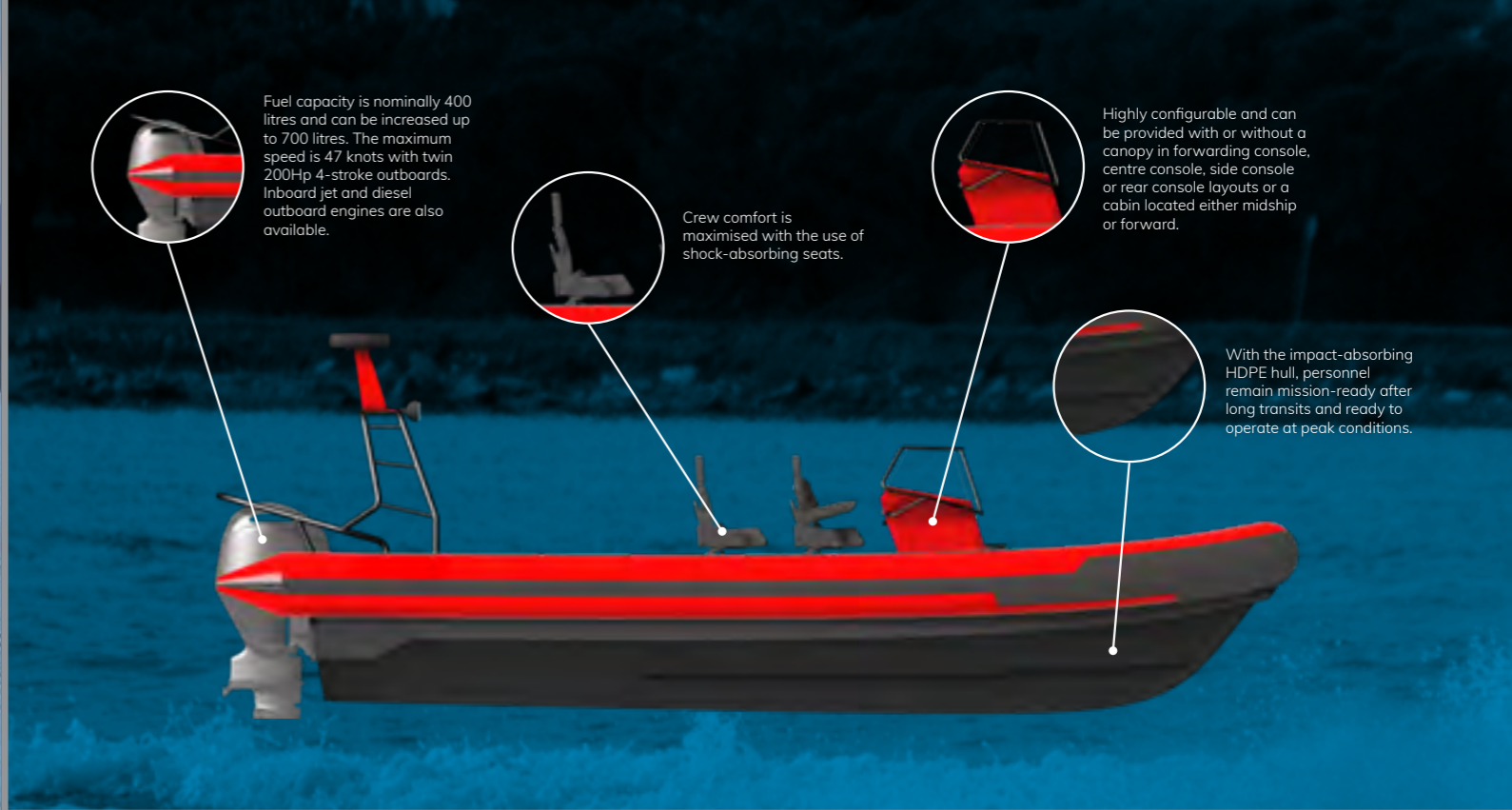
Fuel capacity is nominally 400 litres and can be increased up to 700 litres. The maximum speed is 47 knots with twin 200Hp 4-stroke outboards. Inboard jet engines or diesel outboards are also available.



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

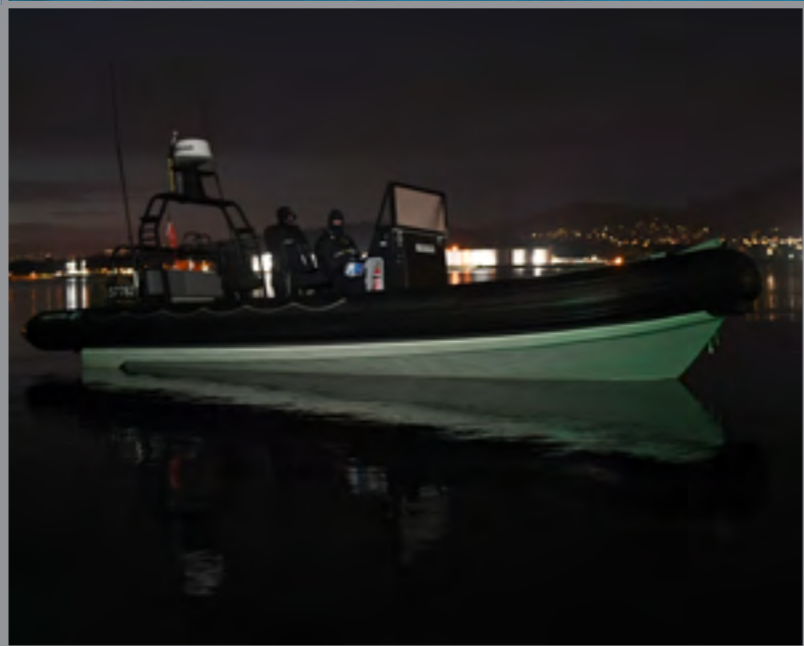
Deck layout options include aft, centre or side console, with or without canopy, and can be further enhanced with custom storage, lockers and a dive door.





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	2x 200 4 stroke Suzuki outboards
Fuel	400 L ULP
Speed	45+ knots
Options	Open deck, canopy, console, fwd/aft layouts, gun mounts, gun lockers, bow boarding step





Forward Console



Centre Console



Aft Console

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.



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.

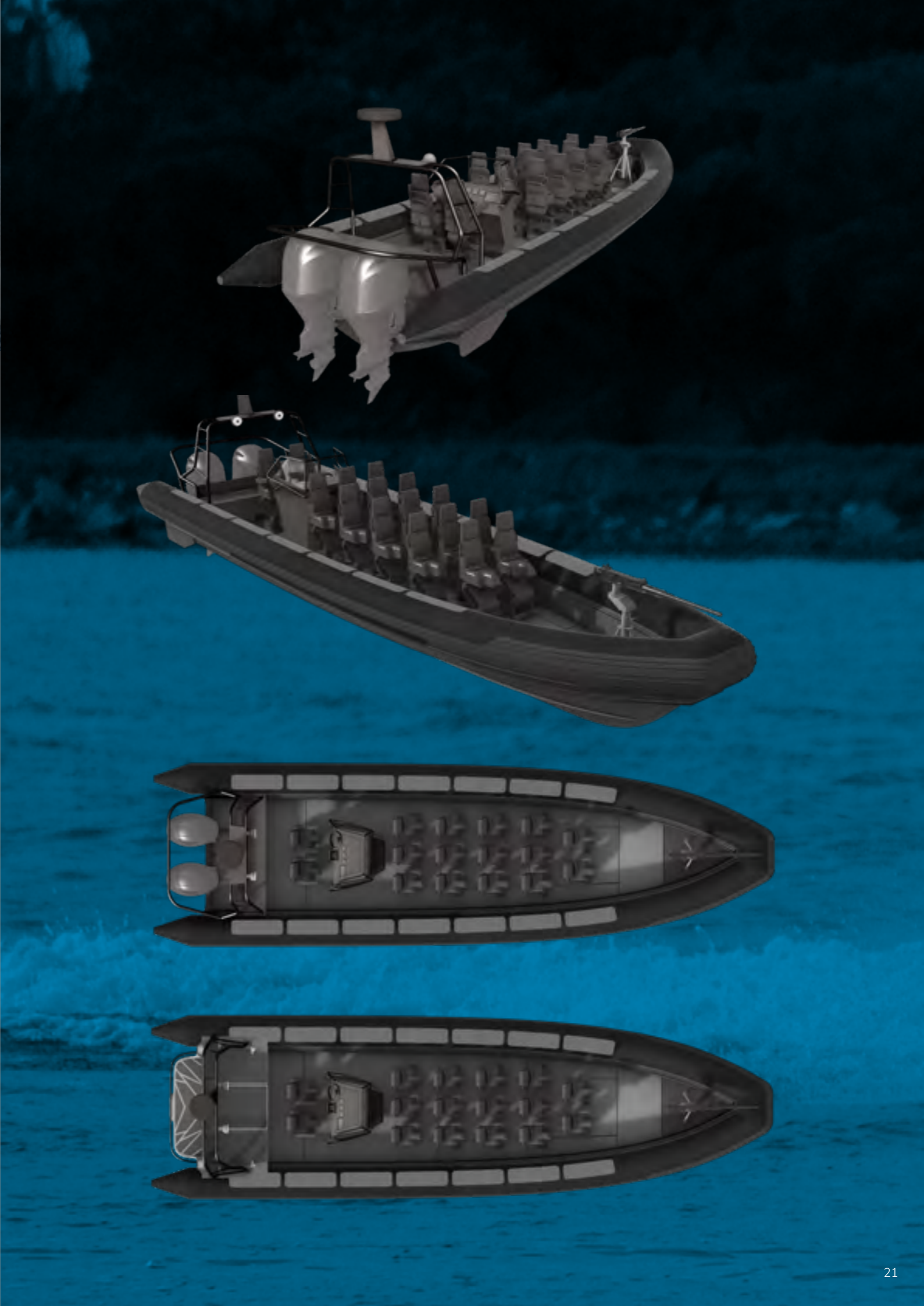
The Sentinel vessels are designed to achieve a broad range of tactical mission sets via configurable mission decks and underpinned by the class-leading survivability, safety, and performance of this next-generation technology. The typical Sentinel design features may also be incorporated into this vessel size, allows for the ability for 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.

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
Class	NSCV 2D, ISO 6185-3, AMSA 2C
Passengers	3+10 Crew
Length (OA)	11.0 m
Beam	3.5 m
Draught	0.83 m
Engine	2x Cummins QSB6.7
Propulsion	Hamilton water jet HJX29
Fuel	900 L diesel
Speed	45+ knots
Options	Open deck or cabin, console, fwd/aft layouts, gun mounts, bow boarding step. Custom configuration as per customers' needs

Model	The Sentinel 1250
Class	ISO Survey CAT B
Passengers	3+10 Crew
Length (OA)	12.5m
Beam	3.73m
Draught	0.77 m
Engine	2x Cummins QSB6.7
Propulsion	Hamilton water jet HJX29
Fuel	900 L diesel
Speed	50+ knots
Options	Open deck or cabin, console, fwd/aft layouts, gun mounts, bow boarding step. Custom configuration as per customers' needs





SEARCH & RESCUE

From patrol boats to rescue vessels, PFG's range of watercraft can be found right across the Search and Rescue sector.

PFG's vessels are currently in operation around Australia, by the Queensland Police Service, Western Australian Department of Fire and Emergency Services, Tasmanian Police Service, and Parks Victoria - Marine Science and Research.

Each PFG constructed vessel, from dive boats, flood rescue, and patrol boats to oil spill response vessels all remain in commercial survey today with some as old as 25 years.

PFG's range of Search and Rescue vessels is extensive and includes open boats, consoles and cabins.

The HDPE construction material is positively buoyant, which makes the vessels extremely stable, capable of carrying large loads without jeopardising freeboard.

PFG's smallest vessel, the Bullet, at just 2.8m length has enough buoyancy to withstand 10 men.





Aquatruck 2.8

The Aquatruck 2.8 is an ideal flood rescue vessel for use in rapidly rising floodwaters and under emergency situations.

The stability of this vessel is unreal. When fully loaded and has been tested with 10-men while it maintained flotation. The vessel is rated to 15HP and is surveyed for 2 passengers. Unloaded, it is fast and responsive. With a draught of only 0.25m, the Bullet 2.8 has been designed for emergency flood water situations where stranded communities need rescuing in family groups. Weighing only 85kg under commercial survey and with 22 vessels capable of fitting into a standard 20-foot container, the Bullet 2.8 makes an ideal solution for bulk storage in communities prone to flash flooding and mudslides.



Model	Aquatruck 2.8
Class	ANS Commercial Tender
Passengers	1 + 2 Crew
Length (OA)	2.8 m
Beam	1.55 m
Draught	0.25 m
Engine	15 HP Outboard
Fuel	25 L
Speed	20 knots
Options	Lifting lugs, removable seats, oars





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
Class	NSCV 2D
Passengers	2 + 4 Crew
Length (OA)	4.6 m
Beam	2.3 m
Draught	0.45 m
Engine	2x 50 HP Outboard
Fuel	150 L
Speed	25 knots
Options	Open deck, retractable canopy, console side or centre, side hatch, stokes litter, jason's cradle

Model	The Sentinel 650
Class	NSCV 2D
Passengers	2 + 6 Crew
Length (OA)	6.5 m
Beam	2.4 m
Draught	0.45 m
Engine	2x 90 HP Outboard
Fuel	250 L
Speed	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.



Aquatruck 5.5

The Aquatruck 5.5 is a proven performer as an in-shore patrol vessel and has been put to extensive use by Queensland Police, Tasmanian Inland Fisheries Service, Birkenhead Point Marine, and Rufus King Fisheries. The reliability of vessel performance is exceptional, and the use of HDPE material increases operational availability as there is little to no maintenance or repair required. Ten vessels were ordered by Queensland Police and delivered in 2018 and are used at remote locations along the Queensland border, as far north as Thursday Island.

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.

Model	Aquatruck 5.5
Class	NSCV 2C
Passengers	2 + 2 Crew
Length (OA)	5.7 m
Beam	2.47 m
Draught	0.42 m
Engine	2x 115 HP Outboard
Fuel	150 L
Speed	38 knots
Options	Aft / centre / side console, canopy, gun mounts, gun lockers, bow boarding step, stokes litter



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 The Sentinel 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



Aquatruck 7.0

The Persephone was originally designed and supplied as a hydrographic survey vessel with a comprehensive cockpit, galley, and generous cabin layout. The vessel is also ideal as an offshore patrol vessel. The vibration-absorbing HDPE hull not only ensures that personnel remain fit over long journeys but also that sensitive equipment is not subject to unnecessary loads and forces.

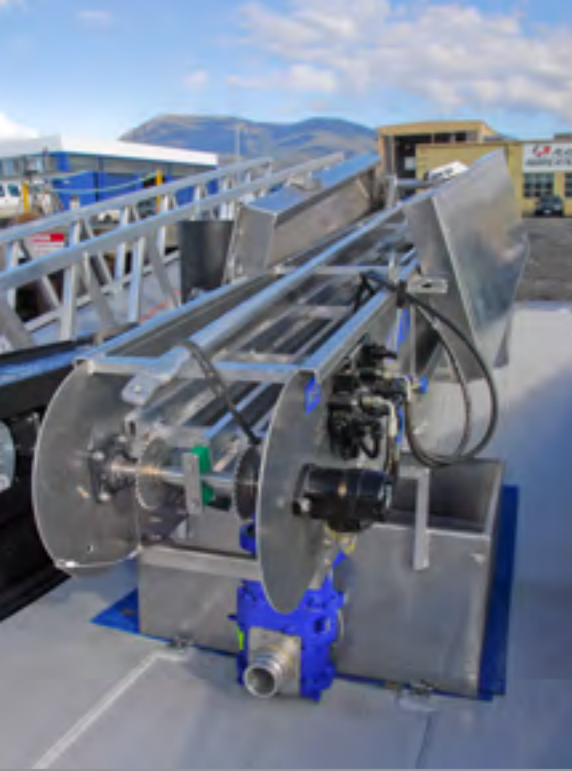
The cabin layout is customisable, and features include the provision of hard-mounted survey equipment, computer workstations, map/planning table or bench, lounges or additional seating, freshwater, and sullage tanks. Craneage may be installed on the aft deck and other options include gun turrets, dive doors, moon pools, dog transportation, stokes litter, or Jason's Cradle for personnel recovery.

As with all Aquatruck vessels, the HDPE hull offers no corrosion or electrolysis, is extremely stable and smooth in the water, and has a 50-year of UV protection.



Model	Aquatruck 7.0
Class	NSCV 2C, Workboat
Passengers	2 + 4 Crew
Length (OA)	6.95 m
Beam	2.43 m
Draught	0.51 m
Engine	2x 150 HP Outboard
Fuel	400 L
Speed	35 knots
Options	Fixed survey equipment, work stations, map desk, gun mounts, gun and ammunition lockers, dive doors, moon pools, dog transportation, stokes litter or Jason's cradle, water tanks, sullage tanks



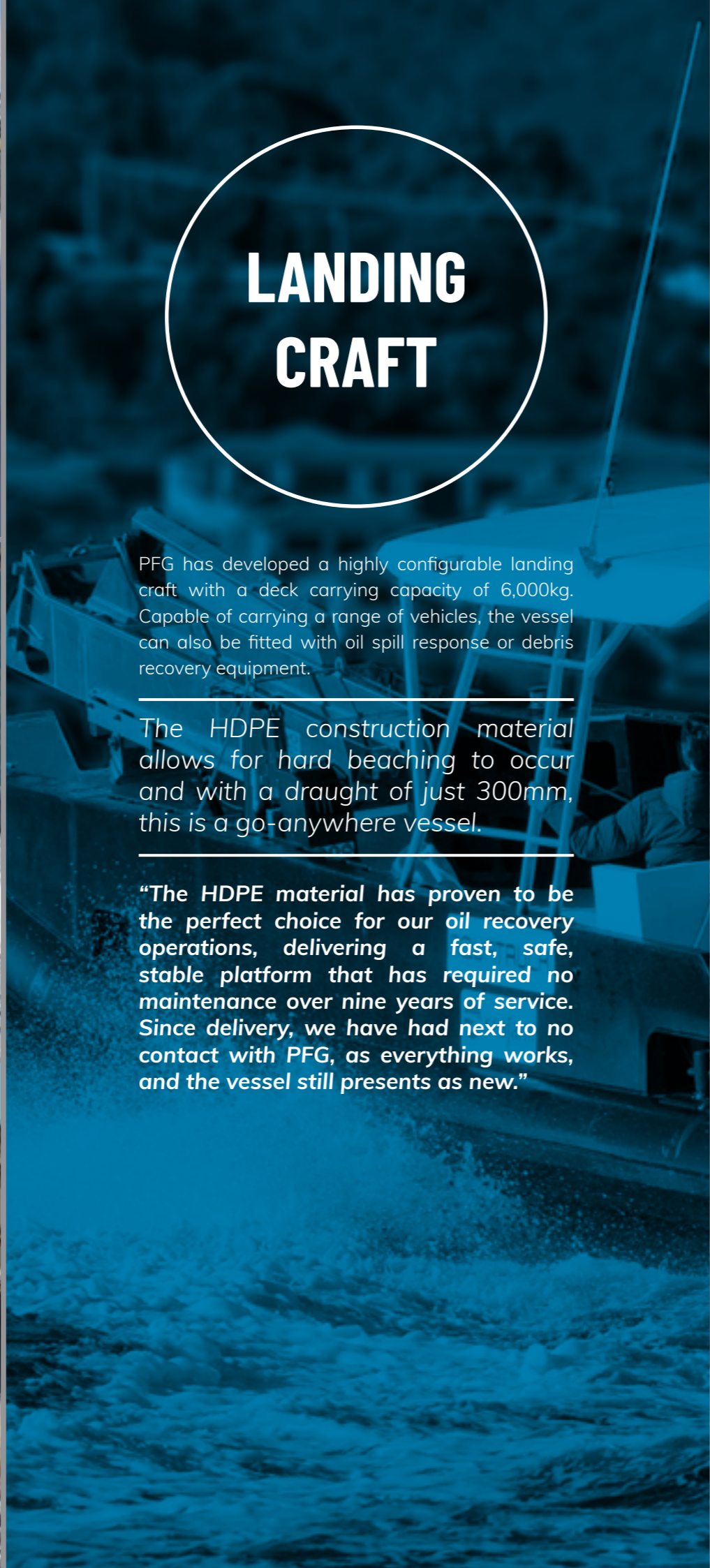


LANDING CRAFT

PFG has developed a highly configurable landing craft with a deck carrying capacity of 6,000kg. Capable of carrying a range of vehicles, the vessel can also be fitted with oil spill response or debris recovery equipment.

The HDPE construction material allows for hard beaching to occur and with a draught of just 300mm, this is a go-anywhere vessel.

“The HDPE material has proven to be the perfect choice for our oil recovery operations, delivering a fast, safe, stable platform that has required no maintenance over nine years of service. Since delivery, we have had next to no contact with PFG, as everything works, and the vessel still presents as new.”





Aquatruck 9.0

Designed as a strong, robust environmental light landing craft, coupled with oil spill response recovery, the Aquatruck 9.0 is a testament to the flexibility and adaptability of the Aquatruck range. The vessel has a 2,500kg deck loading capacity, capable of carrying a Landcruiser or smaller vehicles, quad bikes, and trailers.

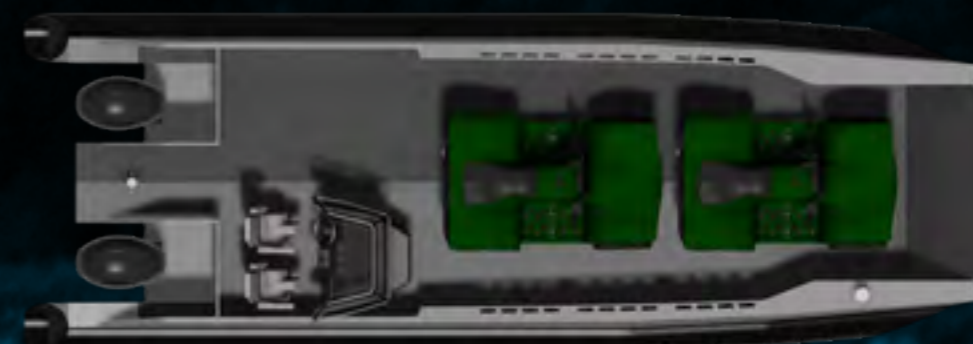
The landing ramp is opened and closed using hydraulic control and the draught of the vessel is only 0.3m. The HDPE material used in the Aquatruck construction is capable of hard beaching and can withstand placement on rocks, allowing for go-anywhere operations to access remote locations or recover from difficult terrain.

The vessel can also be fitted with an oil spill or debris recovery apparatus. The first vessel was completed with a removable oil skimming device complete with a 2,500L collection tank and used as an oil response vessel. The Aquatruck 9.0 can also be fitted with a crane for recovering heavier items from the water.

Standard military options also include gun turrets, gun and ammunition lockers, dive doors, dog transportation, stokes litter, or Jason's Cradle.



Model	Aquatruck 9.0
Class	NSCV 2C
Passengers	2 + 4 Crew
Length (OA)	9.0 m
Beam	3.44 m
Draught	0.30 m
Engine	2x 150 HP Outboard
Fuel	500 L
Speed	32 knots
Options	Aft/side console, canopy, oil spill or debris recovery, crane, gun mounts, gun lockers, gun and ammunition lockers, dive doors, moon pools, dog transportation, stokes litter or jason's cradle



SUPPORT CRAFT

PFG's range of vessels includes Support Craft for civilised harbour and marina roles within the defence and security sector.

These vessels are nominally fitted with lifting capacity and towing features, and serve as general workboats.

Stability of vessel is paramount in lifting operations and HDPE construction material is ideal for providing the safest platforms. Support Craft, with 3m elevated work platforms fully extended, do not need outriggers to stabilise the vessel.





Aquatruck 7.5

The Aquatruck 7.5 showcases unprecedented stability – using a 3m elevated work platform on the foredeck that, when fully extended, does not require outriggers on the vessel. The Aquatruck 7.5 was designed and delivered as a customised vessel to port authorities, for on-water inspection of vessels, harbours, and port infrastructure.

These vessels can be supplied with or without the elevated work platform and can incorporate other useful equipment for port operations, such as oil and debris booms, and customised seating for transfer of personnel.

Model	Aquatruck 7.5
Class	NSCV2C Restricted
Passengers	2 + 4 Crew
Length (OA)	7.78 m
Beam	3.49 m
Draught	0.53 m
Engine	2x 40 HP Outboard
Fuel	400 L
Speed	10 knots
Options	Elevated work platform, oil and debris booms, stokes litters, custom seating plans





Aquatruck 8.8

Born of a need to provide crew transfer vessels with lifting capacity for the Southern Ocean, the Aquatruck 8.8 is a powerful blue water vessel. It has a simple and rugged layout, making it ideal for transferring a small crew with lots of equipment. The cabin layout is large enough for all crew to be out of the weather, however small enough and aft positioned to maximise foredeck space.

The 500mm vibration-absorbing HDPE hard collars create a smooth ride, provide stability at rest, and do not puncture like typical soft collared vessels.

The Aquatruck 8.8 is optioned with either outboards or jets, towing post, deck winch, and crane.

Model	Aquatruck 8.8
Class	NSCV 3D
Passengers	2 + 4 Crew
Length (OA)	8.8 m
Beam	3.0 m
Draught	0.57 m
Engine	2x 150 HP Outboard
Fuel	150-400 L
Speed	35 knots
Options	Outboards / inboard jets, towing post, winch, crane





CREATORS OF DURABLE PRODUCTS FOR HARSH ENVIRONMENTS



Tasmania

8 Negara Crescent
Goodwood TAS 7010
+61 (3) 6274 0222

Victoria

87-93 Tramway Road
Morwell VIC 3840
+61 (3) 5135 3900

South Australia

31 Belair Drive
Port Lincoln SA 5606
+61 (8) 8683 5130

Contact

admin@pfg-group.com.au
www.pfg-group.com.au

