



MASTAR Universal Equipment Enclosure

Various Naval Deployments on Standard Platform



Captec delivered a defence-standard naval rack under strict build-to-print conditions, achieving full compliance to their requirements. Through precise fabrication, finishing, and quality control, Captec reinforced customer confidence and now supports ongoing naval rack manufacturing as part of the customer's long-term maritime build-to-print programme.

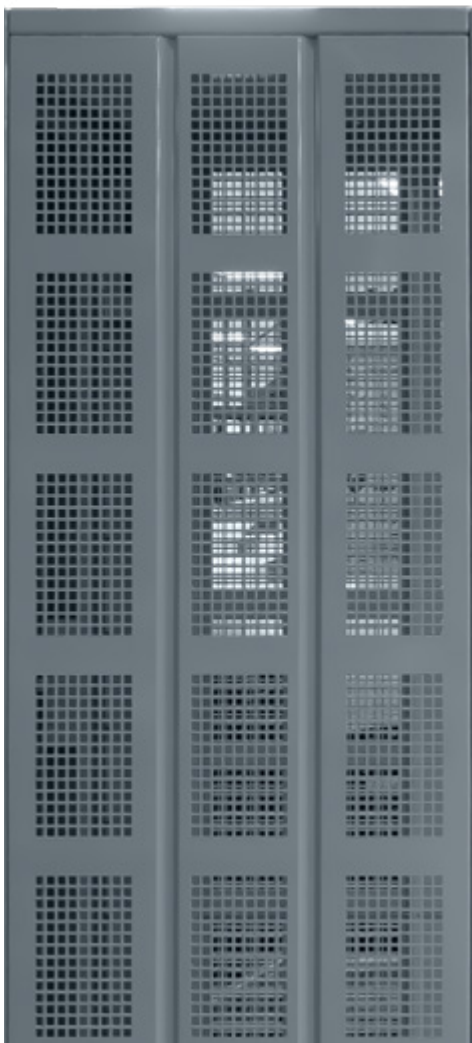
The customer is a leading international engineering and defence company that provides critical support to naval, land, and air forces through complex asset management, maintenance, and technology integration. With a focus on safety, reliability, and long-term programme delivery, it helps defence customers maintain operational readiness across global fleets and infrastructures.



The Challenge

The project focused on the build-to-print manufacture of a naval rack assembly designed to Ministry of Defence standards for a wide range of maritime applications. Supported by a comprehensive drawing pack and configurable picklist, the design allowed specification adjustments for different deployments while maintaining standardisation across the fleet.

The project required a dependable second-source manufacturing partner capable of delivering consistent, high-quality output under strict drawing and process control. The customer needed precise fabrication supported by a fully documented, traceable workflow and Warpaint finishing aligned with the 2025 BR 3939 standards. They also sought a supplier who could provide long-term production assurance and apply the same disciplined, reliable approach they had experienced previously through specialised computing programmes.



The Solution

Captec delivered the full mechanical build of the naval rack from its specialised Subsystems Engineering facility, managing the surface preparation, fine limit metalwork fabrication, specialised finishing, assembly, and delivery under controlled build-to-print conditions. The project began with a detailed review of the customer's drawing pack to ensure every tolerance, material, and finishing requirement was fully interpreted and validated before production commenced.

Precision metalwork fabrication was carried out using advanced CNC manufacturing equipment, with tight dimensional control to meet the defence-standard specification. Specialist finishing was completed in-house in line with the latest Warpaint standards, delivering a military-grade coating that provides high durability and corrosion resistance for naval environments. Captec's welding and paint specialists supported compliance with all specified standards, while dedicated quality engineers oversaw the inspection and validation of each stage.

Once fabricated and finished, the racks were mechanically assembled by skilled technicians and delivered as fully verified enclosures ready for integration. During the process, Captec's team also identified opportunities for drawing refinement, feeding back recommendations to improve documentation consistency and enhance quality repeatability for future build-to-print runs.

The Outcome

The project concluded with a successful First Article Inspection (FAI) that achieved full compliance with the customer's build-to-print specification and validating Captec's manufacturing, finishing, and quality control processes. The outcome demonstrated consistent performance across fabrication, coating, and assembly, meeting the required defence manufacturing standards.

In parallel, Captec's engineering team conducted a structured review of the supplied drawing pack, identifying areas for potential refinement, including tolerance alignment, fastening methods, and documentation consistency. These observations were provided to the customer to support future improvements in design repeatability and manufacturing efficiency.

The successful delivery reinforced confidence in the build process and demonstrated the benefits of controlled, transparent manufacturing under strict configuration management. Captec now continues to support ongoing naval rack programmes through the same approach, providing reliable, repeatable production aligned to defence requirements and contributing to the customer's long-term build-to-print strategy across its naval projects.

**CAPTEC**

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