

WHAT HYPERION PROVIDES

DEPLOYABLE POLYMER AND METAL PRODUCTION CAPABILITY FOR DEFENCE SUSTAINMENT

Hyperion supports sustainment, repair, and capability extension across Defence, marine, and aerospace platforms through deployable polymer and metal production for critical parts, tooling, fixtures, housings, replacement components, and mission-support infrastructure.

OPERATIONAL PURPOSE

Support short-notice part and tooling production where long supply chains create operational risk. Manufacture large, custom, low-volume, or obsolete components faster than tooling-heavy workflows. Enable production closer to operational need across Land, Sea, Air, Cyber, and Space contexts. Provide deployable production capability for austere, operational, or high-cost operating environments.

CORE SYSTEMS

- TitanCell deployable containerised production units
- Large-format polymer additive manufacturing
- WAAM metal additive manufacturing
- Robotic machining and post-processing
- In-house materials development, testing, and validation

TITANCELL DEPLOYMENT UNDER 24HR



PROOF, CUSTOMERS & PARTNERS

AWARDS & RECOGNITION

- Indo-Pacific 2025 Young Innovator of the Year – TitanCell

SELECTED CUSTOMERS & DELIVERY PARTNERS

- **Downer Group** – integrating large format polymer manufacturing technology within their Australian operations.
- **Maritime Safety Queensland** – large multimillion dollar tender projects to build floating infrastructure.
- **Inspire Robotics** – leased container system for local manufacturing in Timor Leste.
- **AUKUS DIVQ AM Program** – production of metal WAAM parts for the US Navy in partnership with the Australian Submarine Agency (ASA) and Australia's Submarine Company (ASC).



WHY HYPERION IS DIFFERENT

CAPABILITIES

Production capability

- Large-format polymer manufacturing for functional, ruggedised parts
- Build volumes up to 9m x 3m x 2m
- High-output extrusion (~30 kg/hr)
- WAAM for large-scale structural metal components

Deployment

- Containerised TitanCell systems (20ft / 40ft)
- Build volume for 20ft: 4m x 2m x 2m
- TitanCell deployment time: under 24 hours

Finishing & validation

- Multi-axis robotic machining and post-processing
- Datum-critical finishing and interfaces
- In-house testing, validation, and inspection

Applications

- Tooling, fixtures, housings, mission-support parts
- UAV / USV / UUV structural components
- Rapid prototyping and replacement production

DIFFERENTIATORS

- **End-to-end manufacturing control** – Hyperion operates, builds, services, and maintains production systems, supporting tighter control from feedstock to finished part
- **Polymer + metal capability** – LFAM, WAAM, robotic machining, post-processing, materials development, and testing in one manufacturing model
- **Large-format production** – suitable for tooling, fixtures, housings, moulds, replacement parts, and low-volume functional components
- **Material versatility** – PP, PE, PETG, PC, Nylon, glass and carbon fibre-filled grades, plus WAAM metals – steel, Aluminium, CuNi, etc.
- **Supply resilience** – in-house compounding and materials lab supports local feedstock development and reduced reliance on overseas supply chains
- **Defence sustainment** – supports replacement production when original supplier pathways create long lead times or no longer support legacy parts

STANDARDS & TESTING

- ISO-aligned mechanical and environmental testing
- Tensile, flexural, UV, flame retardance, and impact testing capability
- Inspection reporting and post-processing QA workflows
- In-house compounding and material validation

