



||| MARSHALL



Operational
Infrastructure



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Overview

Based in the UK, Canada and Netherlands, Marshall Land Systems specialises in the design and production of industry-leading operational infrastructure and mission systems, providing critical infrastructure that supports humanitarian, defence and security operations across the globe for over 75 years.

We design, develop, manufacture, test and support operational infrastructure to provide rapid deployments of military and civilian capability to operations worldwide. The products we make comply with standards in the most highly regulated markets, and support operations in the most extreme of environments.



Deployable Workshops



Laboratories



Medical Systems



CBRN Systems



Specialist Storage Containers



Camp Infrastructure





Deployable Workshops

Deployable Machine Workshops



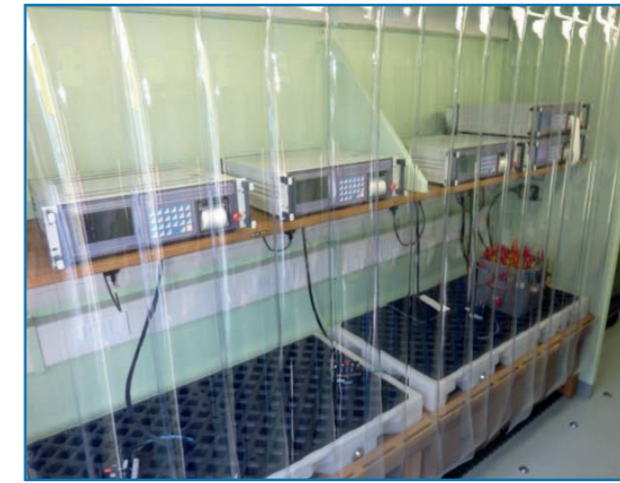
- Deployed to support armed forces engineers
- Installed with lathe, milling machine, pillar drills, grinder, work benches, de-greasing sink, tool storage
- Air conditioning & fume ventilation for a healthy and safe work environment
- Operable when mounted on a support vehicle
- External/internal hoist for handling loads
- EMI screened to prevent interference with vehicle cab radio systems

- Deployable in remote operational locations
- Enables vital maintenance and repair of aircraft components and systems
- Containerised solution with larger tented structures to suit requirements
- Currently in service, supporting fast jet and UAV platforms
- Transportable by road, rail, sea, and air

Avionic Workshops



Deployable Battery Charging Units



- Operational with Air Commands to support their fighter fleet
- 6 systems supported with 6 charging stations in each container
- 24 hour operation capable
- Air conditioning, safety ventilation, and close temperature control
- Emergency shower facility for operators
- Fire detection and suppression system fully integrated



Portable Tyre Repair Facility (PTRF)



- Integrated system consisting of a 20ft ISO container workshop, fitted with compressor, generator and general tools
- Flat racks enable a functional working space with specialist machinery mounted
- Air Shelter protection covering work area
- Transportable with only two vehicles for the workshop and flat racks
- Whole system can be transported by land, air and sea

Power Pack Repair Facility (PPRF)

- 4 Systems Supported
- Currently being uplifted for 17th Edition & DSEAR
- Integrated system made up from 8 standalone modules
- Run Up, Workshop, Washdown, Replenishment, Stores and Office modules included
- Combination of containerised units and tented working areas



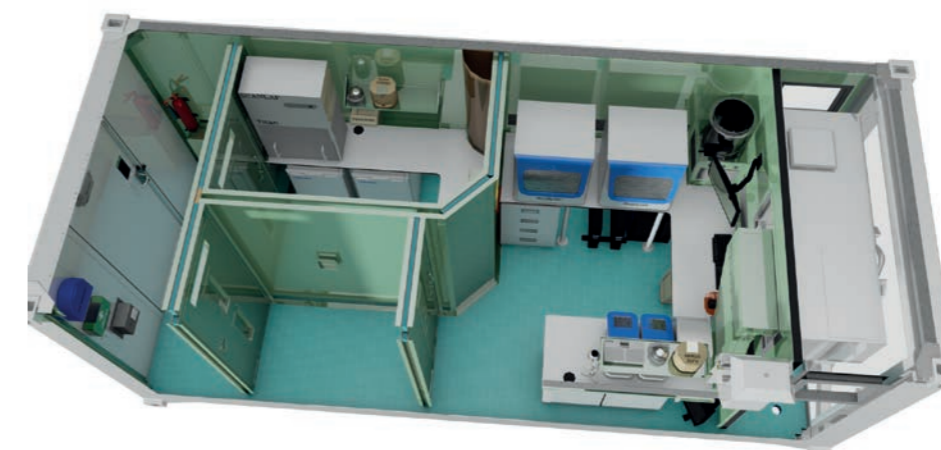


Laboratories

Deployable Forensic Analysis Lab



- Stand-alone System
- Systems can be combined with Clutch and Spine system for combined/connected deployment



DNA Analysis Laboratory

- Supporting a range of lab requirements; Forensic Investigations, Medical testing, DNA laboratories, and Fluid analysis
- The deployable Laboratory incorporates the following:
 - Internal air-lock to ensure clean entry
 - Gowning area
 - Temperature controlled clean room
 - Air filtration
 - Workstations for DNA analysis
- DNA laboratory can be a stand alone system or connected to other laboratories such as Forensic Labs





Medical
Systems

Deployable Field Hospitals



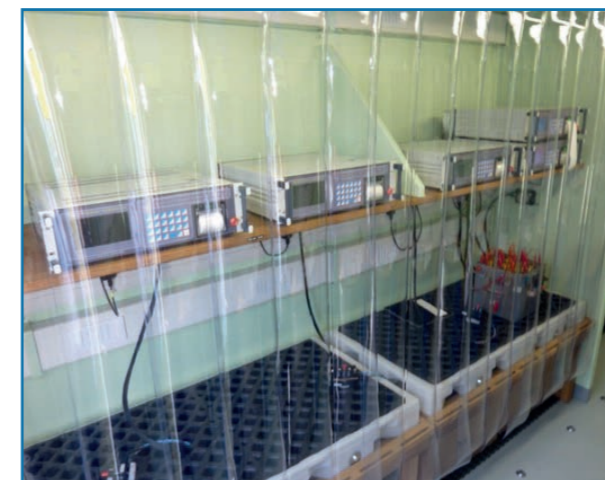
- Complete Role 1 & Role 2 Medical Infrastructure
- Modular design to enable extension of the complete system
- Environmentally sustainable in transport and operation
- Combination of containers and large working area tentage
- Designed for rapid deployment by non-specialist personnel
- Road, rail, sea, and air, transportable

Field Hospital - Components



- Increasing your capability in the field with:
 - Operating theatres
 - Recovery/Intensive Care
 - Radiology (including CT Scanner)
 - Office/Reception
 - Laboratories/Pharmacy/Sterilisation
 - Changing & Shower / Ablutions facilities
 - Morgue Systems

Supporting Infrastructure



- Power
- Water
- Waste
- Medical gases
- IT infrastructure
- Environmental Control (HVAC)
- CBRN Protection
- Accommodation
- Catering





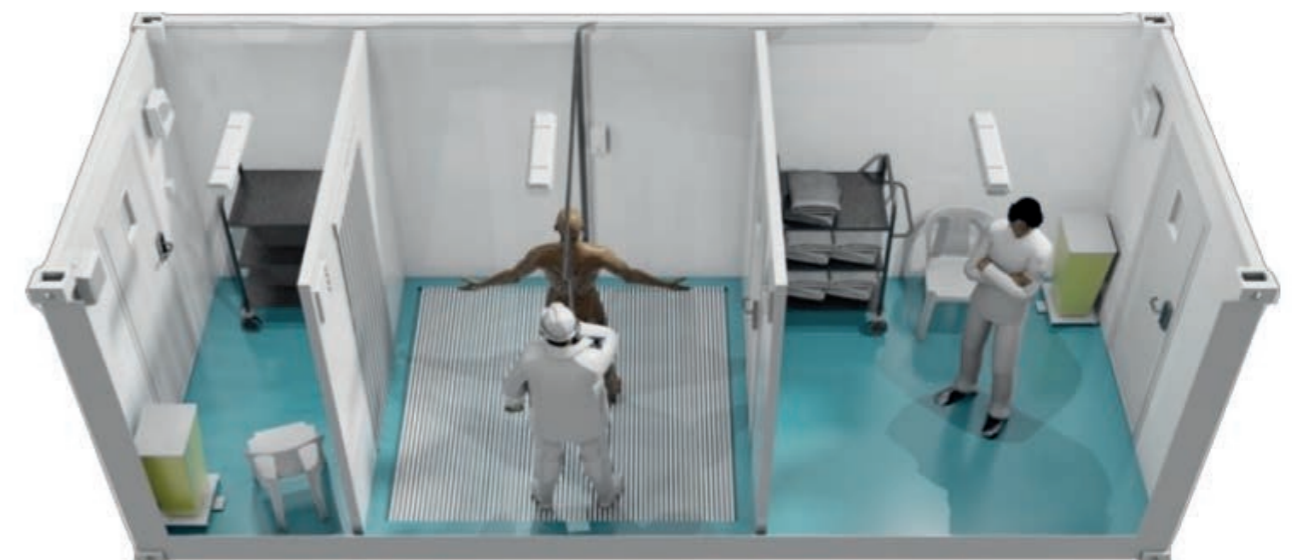
Multi Purpose Decontamination System



- Self-powered and fully portable system
- Provides water and steam heating and delivery facilities for the following purposes:
 - General hot and cold water for pressure-jet and steam cleaning of equipment
 - General washing of personnel, when used with the transportable shower unit
- Flat Rack mounted solution for ease of deployment in any environment
- Used to quickly and effectively decontaminate equipment and vehicles
- Equipment support provided to the user
- Training Project supporting the Transfer of Equipment from UK Joint force to Army

Personnel Decontamination System

- The Personnel Decontamination System for chemical and biological decontamination. It is a solution based on a compartmentalised 20ft ISO container
- The decontamination system consists of three sections as follows:
 - Undressing area as you enter the container
 - Showering area
 - Dressing and exit area
- Has the capability to be clutched to tented or containerised systems.





Dangerous Goods Storage



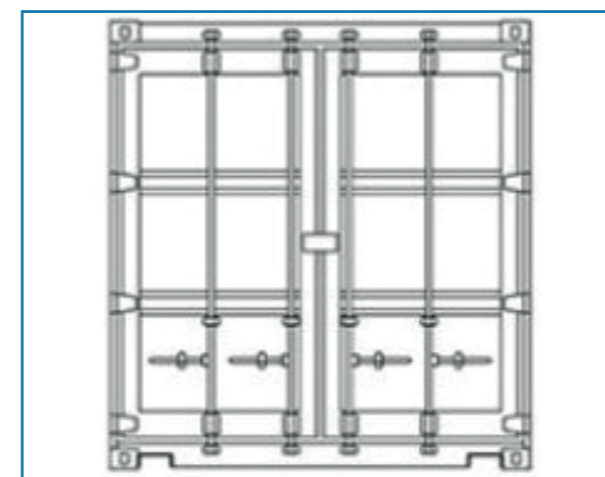
- Containers are subject to hazardous material and general regulations
- The design & construction of our Containers comply with:
 - European Directive, 2006/42 / EC and 2004/108 / EC
 - Working Conditions: Labor law 1998 and Arbo decision 1997
 - ADR, Agreement for the Transport of Dangerous Goods (Ammo containers)
 - IMDG (International Maritime Dangerous Goods)
 - VLG (Transport of Dangerous Substances by Road)
 - ADN (Transport of hazardous substances over inland waters)
 - BVOSK, Decision on Transport Explosives Armed Forces (Ammo and OSCO)
 - EX / III requirements (ADR H9.3 and H9.4) (Ammo containers)
 - CSC certification
- Both Conditioned and unconditioned versions available including spark safe technical area

Navy Ammunition Storage



- Designed to store 21 Seafox rounds
- Deployable on board ship or ground
- Sensitive to Ammunition temperature with thermostatic controls
- Fully integrated HVAC system, two Air conditioning systems and heaters to maintain the required temperature
- This system is fitted with a fire alarm and sprinkler system

Oil Lubricant Chemical & Other Liquids (OSCO)



- Containers are subject to hazardous material and general regulations
- The design and construction of the Containers comply with:
 - European Directive, 2006/42 / EC (Machinery Directive);
 - European Directive, 2004/108 / EC (EMC Directive);
 - Labor law 1998 (Working conditions law);
 - Arbo decision 1997 (Working conditions decision);
 - ADR, Agreement for the Transport of Dangerous Goods (OSCO);
 - IMDG (International Maritime Dangerous Goods)
 - VLG (Transport of Dangerous Substances by Road)
 - ADN (Transport of hazardous substances over inland waters)
 - BVOSK, Decision on Transport Explosives Armed Forces
 - CSC certification
 - Floors are resistant against aggressive liquids

Specialist
Storage Containers



Fuel / Water Containers



- Fuel and Water delivery systems is fully engineered to satisfy demands if dynamic fluid loads and incorporates a sophisticated baffle system, which permits use on PLS systems.
- Fuel system can carry 12,000 litres.
- Incorporates a self-contained pumping system.
- Can load and dispense fuel from the fuel module on or off the vehicle using an in-built diesel engine and pumping system.

Catering

- Designed and certified to national hygiene regulations
- Modular ISO 6 metre, container construction to allow expansion to match camp personnel catering needs
- Kitchen & Bakery modules
- Transportable by road, rail, sea, and air
- Support infrastructure and provision:
 - Power
 - Water
 - Waste
 - IT infrastructure
 - Environmental Control (HVAC)
 - CBRN Protection



Camp Infrastructure