



G3systems

Mobile Field Laundry

- 20ft purpose built ISO expanding shelter
- CSC approved
- Operation at -31°C to +55°C
- 40kVA Power Generator
- 42kW diesel water heaters
- 5 kW of Air Conditioning
- Internal noise levels below 75dB(A)
- Fail safe power design to BS7671
- Compatible with FEPDS
- Wash, dry and treat 50kgs per hour
- Storage for 900kg of laundry
- Full CES pack



G3 Mobile Field Laundry
in partnership with





Specification

LAUNDRY MODULE

The containerised laundry system is based upon a 20' (6m) long thermally insulated ISO Container with a long service life and minimal maintenance. The module is capable of fast installation and shipment by air, sea and land on standard civil or military trucks, DROPS vehicles and trailers designed for the transport of ISO Containers.

The Laundry Module system is capable of providing fully laundered articles that are clean and free from bacteria and infestation to support deployed operations worldwide. A suite of Laundry Programmes have been implemented to address the range of fabric types, applications and levels of soiling experienced in the field environment, including: Medical (Contaminated theatre greens); Engineering clothing; Catering clothing; Blankets, sheets & sleeping bags and Treatment of clothing with anti-mosquito agents.

ISO CONTAINER

- ISO Container Structure – to provide the physical structure to support the functionality required, a steel based, CSC approved, 6m DROPS style, ISO container has been selected. The specific requirements for the Laundry Module system have been achieved by the incorporation of a number of design features including:
 - Separate compartments provided for the Laundry Area and the Diesel Generator Area.
 - One opening side to provide increased space for the operation of the laundry. The opening side can be readily deployed and provides a fully enclosed, controlled climate working area.
 - Diesel Generator – a 40kVA sound proofed diesel generator, comprising an IVECO heavy duty diesel engine directly coupled to a synchronous brushless alternator.
 - Washer Extractor – two Miele WS5240 (24kg) washer extractors selected for their proven field laundry capability, ruggedness, quality of build standard, high reliability and long service life. These machines have been chosen as simply the best available. In addition the WS5240 machine provides improved water efficiency, greater water extraction rates and a larger diameter drum than the equivalent capacity machines on the market. A readily accessible and proven simple method of locking the drum for transportation is also provided. The proven field service of this unit has enabled G3 Systems to provide a 24 month warranty for these machines.
 - Dryer – one Miele T6751 (30kg) dryer selected for the same proven capabilities as the WS5240 and one Miele T6251(10kg) dryer. Increasing the capacity of the dryers, beyond the theoretical size required, addresses the problems associated with drying bagged laundry. In addition the T6751 provides a large diameter drum and optimised air conduction and warm air re-cycling features (with approximately 60% of the discharged air reused) thereby reducing the overall power requirements and fuel consumption. The proven field service of this unit again enables G3 Systems to provide a 24 month warranty for this machine.

DIESEL WATER HEATING EFFICIENCY

Diesel Burner Heating Circuits – three Karcher diesel burner heating circuits, one per machine, have been selected for their proven field laundry capability and the fuel efficiency they provide over other forms of heating. Approximately 30 systems are currently in service with the Belgian, Dutch, Turkish and Nigerian Armed Forces, some for several years.

WATER CONDITIONING

Water Conditioner – the design of the system makes it very resistant to calcification problems especially in hard water areas. Additional protection can be provided using an anti-calcification-dosing unit, which introduces small quantities of a Calcium Inhibitor into the water stream entering the container. The benefits of this system have been demonstrated on other military field equipment including the MPDS Water Heating and Pumping Unit.

CLIMATE CONTROL

Climate Control – comprising ventilation and a thermostatically controlled space heater and Air Conditioning Unit (ACU). Spot cooling techniques are used to increase operator comfort in high ambient temperature conditions.

These components are integrated within the following key sub-systems:

Electrical Sub-System – providing power distribution, lighting, safety and protection devices. The electrical sub-system has been designed in accordance with BS7671 with all internal electrical fittings protected to IP55. Installation and test against this standard will also be performed.

Water Supply and Waste Water Sub-System – providing the supporting tanks, pumps, valves and interconnecting pipework. The water supply system has been designed in accordance with BS 6700, UK Water by-laws and CIBSE (Chartered Institution of Building Services Engineers) Guides. Installation and test against these guidelines will also be performed. Additional supporting equipment can be provided including external water extraction & storage tanks and a water re-cycling facility.

Fuel Supply and Exhaust Gas Sub-System – providing the fuel supply to the diesel generator and diesel burners from the fuel tank in the generator compartment. The exhaust gases from the diesel generator and diesel burners will be ducted to external exhaust points.

Flexibility - The Laundry Module system has the capacity to wash, dry and treat 50kg of laundry per hour, although the system can be tailored to accommodate increased or decreased throughput capacities.

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