

MFS

Modular Fuel System



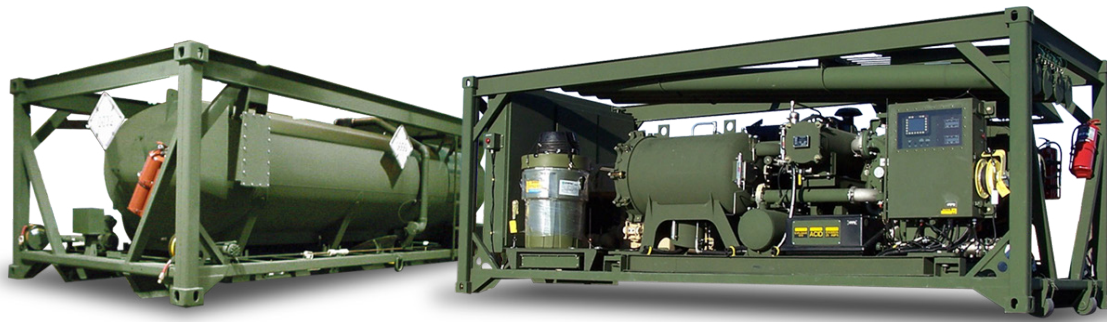
FLEXIBLE, HIGHLY DEPLOYABLE FIELD FUEL STORAGE AND DISTRIBUTION SOLUTION

The Leonardo DRS Modular Fuel System (MFS) provides the ability to rapidly establish a fuel distribution and storage capability without a bag farm or engineer support. The system can be used at any location without the availability of construction and material handling equipment. Consisting of fourteen 9,464 liter / 2,500 gallon tankracks and two pump filtration modules, the MFS increases mobility, capacity and speed in fuel distribution, while decreasing deployment and recovery time. The MFS is mobile, whether it is full, partially full or empty. It is compatible with the Heavy Expanded Mobility Tactical Truck, Load Handling System (LHS), the Palletized Load System (PLS) truck and trailer, and the United States Marine Corps Logistics Vehicle System Replacement. The MFS tankracks can also be used for line-haul of bulk petroleum throughout the theater. By using two tankracks – one on the truck and one on the trailer – the PLS and LHS can transport up to 18,927 liters / 5,000 gallons of bulk petroleum per trip. The MFS is a logistics support system for Modular Brigades and provides liquid logistics support for the Army's Future Combat Systems.

HIGHLIGHTS

- Fourteen 9,464-liter / 2,500-gallon-capacity tankrack modules
- Two 2,270 liter per minute/ 600 gallon per minute pump, 3-stage pump filtration modules
- 1,006 m / 3,300 feet of hose
- 116 nozzles, fittings and adapters
- Two 8-point refuel-on-the-move kits
- Petroleum test kit, spill control kit and a slot for additive injector

MODULAR FUEL SYSTEM (MFS)



PERFORMANCE FEATURES

GENERAL SPECIFICATIONS

Operational concept	Provide the Army with a rapidly emplaced fuel distribution system that can receive, store and distribute fuel at a fraction of the time required for a collapsible tank system; support vehicle, ground equipment and aircraft fuel requirements; tankracks compatible with line haul operations
Transportability	Heavy Expanded Mobility Tactical Truck, Load Handling System, Palletized Load System and trailer, United States Marine Corps Logistics Vehicle System Replacement, C-130 and CH-47. Tankrack will be low velocity air droppable, ISO/Convention for Safe Containers certified for 192,000 kg / 423,000 lbs., 10K material handling equipment compatible

PERFORMANCE SPECIFICATIONS

Filtration module flow rate	2,270 lpm / 600 gpm
Fuel handling	Receives, stores and issues JP-8, JET-A1 and DF2 kerosene-based fuels
Hoses	Distribution: 2-inch to 3-inch unisex dry-break couplings Suction: 4-inch cam and groove connectors
Bottom loading	D1/D2/D3 refueling nozzle, 4-inch cam and groove connectors
Top loading	Unisex dry-break coupling
Nozzles, fittings, adapters system	D1, closed-circuit refueling, 1.5-inch and 1-inch retail, and NATO adapters; 16 refueling points per
Technology	Multiple units can be operated via the pump filtration module Real-time status Integrated diagnostics
Environmental capabilities	Storage: -45°C to 71°C / -50°F to 160°F Operation: -32°C to 49°C / -25°F to 120°F Operates in rain, snow, hail, ice, fog, dust, sand, high humidity, solar radiation, extreme temperatures, ozone exposure and electromagnetic interference / electromagnetic pulse exposure
System weight	Pump filtration module: 8,831 kg / 19,470 lbs. Tankracks: 3,447 kg / 7,600 lbs. (empty), 11,612 kg / 25,600 lbs. (full)

Land Systems

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