

Quote for:

MTRRS (Mobile Tactical Retail Refueling System)



P.O.BOX 100
CERES, CA 95307
www.west-mark.com

PHONE: (209) 537-4747
TOLL FREE: (800) 692-5844
FAX: (209) 537-1753

GENERAL

The following equipment shall be a new West-Mark MTRRS (Mobile Tactical Retail Refueling System) Per RPP 18-4.

PRODUCT: Jet Fuel, Grade JP-8

Tank and components shall be compatible with Kerosene Type turbine fuels listed in the following standards.

- MIL-DTL-83133
- STANAG 3747
- ASTM D975
- MIL-DTL-5624
- AST, D1655

CODE VESSEL: DOT 406.

Each MTRRS tank shall be DOT 406 Certified.

OPERATING PRESSURE: Atmosphere.

OPERATING TEMPERATURE: Negative twenty five degrees Fahrenheit (-25° F) minimum.

One hundred thirty degrees Fahrenheit (130° F) maximum.

INTENDED AREA OF OPERATION: Worldwide.

INTENDED USE: The MTRRS shall be capable of the following modes of transport.

- Air Transport (fixed wing as cargo). C-130 or larger
- Helicopter Sling Lift (External HSL)
- Rail Transport (Worldwide Transportable)
- Water Transport (Military and Commercial)
- Highway Wheeled Transport. (Trailer, Truck, Roll off, Flatrack)

SKID:

One (1) each MTRRS skid (xxx" long X xx" wide X xx" tall) with mounting for pump assembly at rear and cabinets at front.

Skid shall have fork lift pockets and lifting and tie down provisions. Skid shall be fabricated from materials from the stainless steel family to reduce the amount of corrosion over the life of the unit.

LIFTING POCKETS:

One (1) pair of lifting pockets shall be installed under the unit to aid in the lifting by a fork lift.

PAINT:

Skid to be painted one (1) color with CARC paint.

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TANK / MANHOLES / VENTING

BARREL:

1000 Gallons oval double conical barrel, made of .219" 5454H32 aluminum.

Tank shall also include an Ullage volume of not less than 60 gallons (minimum) for outage.

HEADS: Two (2) each .250 5454-O aluminum, mill finish, air-dished and flanged.

BAFFLE(S): Two (2) each .219 5454-O aluminum, air-dished and flanged with 20" staggered crawl hole(s). Top air vent holes and bottom drain holes shall be designed to allow free flow of product and provide complete drainage of the tank.

LONGITUDINAL BAFFLES: Tank shall have long baffles located full length of tank.

TANK SUBSTRUCTURE: Shall be made of aluminum consisting of full length rails and support structure as needed.

TANK MOUNTING:

Heavy Duty spring loaded mounting assemblies installed along tank as required with rubber mounting sill installed between tank mount and frame. No hard fixing of tank frame to chassis shall be used.

WELD FINISH:

INTERIOR: Weld finish to be W-1 inside.

EXTERIOR: Weld finish to be W-0 outside.

MANHOLE:

One (1) each DOT 406 BETTS PPVL720BXB 20" zinc plated with 10" fill, pressure actuated emergency venting, surge suppression relief, and Buna-N gasket.

Collar shall be Aluminum.

MARKER STICK:

One (1) each marker stick marked in 1/4" increments with lockable holder shall be supplied.

GAUGE:

One (1) each mechanical volume gauge shall be installed in the barrel.

VAPOR RECOVERY:

One (1) each Betts vent with hood located on shell.

VAPOR PIPING:

3" Aluminum pipe from vapor hood out rear to ground hookup with 4" aluminum male Camlock adapter with screen and dust cap.

SPILLDAM WALKWAY:

Aluminum non-slip platform walkway to extend full length each side of MTRRS frame on top. Walkway to extend front and rear of manhole area and include walkway at each end.

HANDRAIL:

None. (Available as option upon request.)

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LADDER:

One (1) multi-purpose ladder assembly, with heavy duty slip resistant steps located on the side of unit. Ladder shall be designed so that access is obtainable to top of tank when unit is positioned on ground or loaded on a prime mover.

Intervehicular plug shall be a 12 Contact Intervehicular, 28 volt receptacle meeting MS 75021.

LIGHTS AND WIRING

NATO INTERVEHICULAR RECEPTACLE:

An IAW STANAG 4074 Type 1 Receptacle shall be installed on the operators panel.
Receptacle shall be labeled 22 - 30 VDC.

NATO INTERVEHICULAR PLUG AND CABLE:

An IAW STANAG 4074 cable with plugs shall be supplied with the unit. Cable shall be long enough to connect the MTRRS when mounted on a M1095 trailer to a M1083 MTV Cargo Truck in any configuration.

PLUMBING

Plumbing function shall be:

- Gravity Off 1/2 the tank 4" connection adapter
- Load through 4" top loading connection
- Bottom Load through single point
- Discharge through reel out dispensing hose

TANK DRAIN:

One (1) each 1.5" coupler and plug assembly shall be installed in the bottom of tank; one (1) per compartment at low point.

INTERNAL VALVE:

One (1) each 2" Morrison emergency valve with Viton seat plumbed to pump with 2" hose to pump.

OPERATOR:

Mechanical internal valve operator with emergency release. Located_____

PLUMBING:

All plumbing to be made of aluminum with low point drains installed. Victaulic couplings and flexible approved fuel hose used when necessary.

BOTTOM LOADING:

One (1) each 2.5" single point bottom loading adapter with aluminum plumbing and butterfly valve; located at rear of unit.

BOTTOM LOADING/GRAVITY DISCHARGE:

One (1) each 4" Aluminum female cam-lock coupling IAW A-A-59326 with a tethered, pressure rated, plug. Bottom load/Gravity discharge shall tee off of single point line and elbow down below to terminate equal to the single point. line shall include a 4" butterfly valve.

TOP LOADING:

Unit shall have top loading capabilities Top loading port using a (4" inch) female cam-lock coupling with a tethered plug shall be attached to a shutoff valve. Drop tube shall extend from valve at top of tank to within 6" inches of tank bottom.

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FUEL PUMPING SYSTEM:

One (1) 24-volt DC explosion proof pump(s). Pump(s) shall be rated at 25 GPM minimum.

FILTER VESSEL:

Filter separator with a 1/4" drain valve and water slug valve shall be installed. New elements shall be installed prior to delivery. Shutoff valves shall be installed at inlet and outlet of filter.

AIR ELIMINATION AND PRESSURE RELIEF

An air eliminator and pressure relief valves shall be mounted on the filter vessel.

REPLACEMENT FILTER/SEPARATOR ELEMENTS:

Two (2) each replacement coalescer elements shipped loose.

One (1) each replacement coalescer elements shipped loose.

DIFFERENTIAL PRESSURE GAUGE:

One (1) each direct reading Gammon 0-30 PSI differential pressure gauge installed on the control panel at the pumping station, giving reading of the pressure drop across the vessel. The differential pressure gauge is to include purge valve to allow testing and shall be plumbed back to the product tank.

HOSE REEL:

One (1) each spring assist rewind reel with roller guides; for fuel service.

Plumbing to reel shall have in-line shut-off valve. Flexible approved hose and Victaulic fittings used as needed.

DELIVERY HOSE:

One (1) each 2" x 25 ft non-collapsible fuel delivery hose with certified and tested ends with 2" Valved Sexless connector with 2" female NPT threads.

NOZZLE(S):

One (1) each 1" minimum fueling nozzle installed at end of hose reel hose with 2" valve Sexless 1" Male NPT .

NOZZLE HOLDER:

One (1) each single nozzle holder(s) shall be installed at pumping station.

METER(S):

One (1) each 1" fuel meter with resettable totalizer to 999.9 gallons.

METER REGISTER LIGHT(S):

One (1) each light shall be located at meter register head (one per meter). Light(s) shall be LED and wired to the MTRRS blackout light circuit with a switch located at the pumping station control panel.

FLOW DIAGRAM:

Plumbing diagram / operation chart mounted at pumping station(s).

MISC. ITEMS

CABINETS:

Two (2) each aluminum single door, 15"W x 21"H x 19"D approx. with stainless steel hardware with lockable latch. Located one on each side of the unit opposite end of the unit from the operators panel.

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CABINET:

One (1) each aluminum lift up door door 32"W x 21"H x 15"D with stainless steel hardware and lockable latch. Located opposite end of the unit from the operators panel.

AIR TRANSPORTABILITY (ATR):

Provisions shall be provided for air transportability in a C-5 or C-17 or C-130 military aircraft. TR documents approved by ATTLA shall be supplied with equipment. These tie downs shall be in accordance with MIL-STD- 209. Each tie down point shall have 1" tall lettering or stenciling with the words "TIE DOWN" and the CAPACITY rating. Unit shall have nonferrous metal transportation plates and they shall be mechanically attached to the unit. Transportation plate(s) shall be contain a diagram showing tie down information as required in MIL-STD-209.

LIFTING PROVISIONS:

Certified lifting provisions shall be supplied on the unit for lifting with a Helicopter or Crane.

PLACARD MOUNTING:

One (1) placard to be mounted at each front, rear, and one (1) placard to be mounted on each side of trailer at easy to reach locations.

PLACARD HOLDERS:

Four (4) each slide-in type with clip ISO placard holders.

Provisions for United Nations (UN) Placards to be mounted in place of the four (4) ISO placard holders.

PLACARDS:

Eight (8) each product specific placards shall be supplied holders in correlation to product

4 each WHITE DIAMOND with Dead Fish – Dead Tree – environmentally hazardous substances: Risk to the Aquatic environment or the sewerage system.

4 each RED Diamond Placard with Flame symbol – Class 3 Hazard Flammable Liquid.

GROUND STUDS/ CABLE:

One (1) each brass grounding stud for external grounding. One (1) each grounding cable(s) inside tank from manhole to lower baffle area or internal valve for internal grounding.

GROUNDING ROD:

One (1) Segmented portable ground rod kit, with Hammer.

STATIC REEL:

Two (2) each spring rewind static discharge reel with 50' of cable with Brownie clamp and plug; located at pumping station.

FIRE EXTINGUISHER WITH VEHICLE BRACKET:

Two (2) each 20 lb. ABC fire extinguisher(s) shall be provided.

No cover shall be installed on fire extinguisher. (Available as option upon request.)

SPILL KIT:

One (1) each quick response spill kit shall be supplied for leaks, spills, and unexpected discharge.

BII, (BASIC ISSUE ITEMS):

The following shall be supplied with the MTRRS as a Basic issue item package.

- One (1) 2 inch valved unisex to 4 inch male cam-lock
- One (1) 4 inch male cam-lock to 4 inch male cam-lock
- One (1) 4 inch female cam-lock to 4 inch female cam-lock

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RETURN FREIGHT AFTER COMPLETION OF TESTING:

Upon completion of testing the unit shall be picked up at the following address and returned to West-Mark:

Michigan Technological University Keweenaw Research Center (MTU/KRC)
23620 Airpark Blvd
Calumet MI, 49913
Phone: 906-487-2750

PAINT (TANK):

Entire tank to be painted one (1) Color with CARC paint.

PAINT (CABINETS AND PLUMBING):

All plumbing and exterior and interior of all cabinets shall be painted one (1) Color

SAFETY DECALS:

- The word "FLAMMABLE" shall be applied to all 4 sides of the unit and to the top of the unit in an area of unobstructed visibility in (4 inch) block letters.
- The words "NO SMOKING WITHIN 50 FEET" shall be applied to all 4 sides of the unit and to the top of the unit in an area of unobstructed visibility in (2 inch) block letters.
- Capacity designation ("CAPACITY: [Actual Value] LITERS, [Actual Value] GALLONS") shall be applied to all 4 sides of the unit and to the top of the unit in an area of unobstructed visibility in (2 inch) block letters.

Emergency switches shall be clearly marked "EMERGENCY FUEL SHUTOFF" in 2" lettering. The method of operation shall be indicated by a clearly visible arrow or by the word "PUSH" or "PULL" as appropriate.

Red on white decals shall be used and shall be clearly visible at all angles to the surface being viewed.

MANUALS:

One (1) each operation and maintenance manual(s) in paper format and one (1) each operation and maintenance manual(s) on CD ROM (in PDF format) shall be supplied and shipped with unit; complete with the following:

- Operator & Maintenance Manual
- Calibration Chart (if Applicable)
- Equipment Parts List
- Misc. Vendor Literature / Manuals

CALIBRATION:

Theoretical, in 1/4" increments, complete with charts.

RFID TAG:

One RFID tracking tag shall be installed on the specified unit. Manufacturer's model number shall be ST-654-041. Tag shall be a ruggedized, battery-powered RFID device. Tag shall be "written to" or "programmed". Application of this tag shall be in accordance with RFID Operations Guide revision 2005 or later unless otherwise stated. (Tag shall be supplied and installed only if required by contract.)

GOVERNMENT MARKINGS:

Install Government markings, if required by contract.

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DATA PLATE:

Government data plate with contract information, if required by contract.

UID:

Unit shall have a UID (Unique Identification) plate installed per MIL-STD-130N, if required by contract.

TESTING AND QC:

An Internal Final Inspection shall be performed prior to, and in preparation of a Customer/Government Inspection.

NOTE:

Any and all Brand Name parts mentioned in specifications above are subject to substitution of an equal part that is of a different Brand. Other substitutions may also be made if said substitution does not affect the intended function of the vehicle's mission and is equivalent or an upgrade as determined by West-Mark. All specified dimensions are nominal and may vary slightly.

WARRANTY:

Unit shall be guaranteed to be free from defects in material and workmanship, while under normal use and service by the original purchaser, for a period of ONE (1) year from the date unit is delivered.

F.O.B.:

Destination.

Ship to:

DODAAC:
Michigan Technological University Keweenaw Research Center (MTU/KRC)
23620 Airpark Blvd
Calumet MI, 49913
Phone: 906-487-2750

Mark For:
MTRRS EMD Testing
Omar Siaje

586-282-4238

C: 586-770-3178

O:

Purchasing to call customer contact, prior to making shipping arrangements, for any special instructions such as receiving days, hours, documents required by delivery service to enter base with equipment, etc.

Driver delivering unit is to call contact at destination approx.. 24 hours prior to delivery for any special delivery instructions (such as which gate to enter when delivering equipment and to alert them of delivery date and approx.. time).

INSPECTION AND ACCEPTANCE:

West-Mark (CAGE: 1HJ27)
581 Industry Way
Atwater, CA 95301