

Mobile Decontamination Trailer - 24 Ft. Detailed Specifications (Model No. MDT-24)

1. PRODUCT COVERED

- 1.1 Two-lane Decontamination Trailer Systems - 24' with exterior operations.
- 1.2 Conforms (where applicable) to all Motor Vehicle Standards.
- 1.3 Meets or exceeds all building and mechanical codes applicable to mobile decon systems. Workmanship will meet accepted industry standards.
- 1.4 Meets or exceed all applicable DOT statutes and codes where applicable.

2. PERFORMANCE CHARACTERISTICS

- 2.1 Segmented two-lane decontamination system.
 - 2.1.1 Each decontamination lane consists of 3 separate showering positions to provide optimal processing flow.
 - 2.1.2 A movable curtain that can be fastened into place to create gender separate processing lanes will construct each decontamination lane. This also affords first responders to pull the curtain back to maximize the processing area of personnel in Level A suits.
 - 2.1.3 A separate curtain will separate the showering/decon area from the interior redress area. This curtain incorporates tiebacks that allow it to be withheld against the wall when not in use.
- 2.2 All fixtures will be manufactured from impervious material.
- 2.3 All faucets, exposed valves, and drains to be industrial grade.
- 2.4 Seamless walls and ceiling of impervious material used on all internal walls. All corners have minimum 0.25" radii to prevent buildup of contaminates and for ease of cleaning.

3. TRAILER CHASSIS

3.1 Frame is constructed of ASTM A36 steel 6" web-depth (0.20 web thickness/1.920 flange depth) C-channels. Frame channels are set at 70", outside to outside, and of sufficient length to provide for a 12" safety platform at the rear of the trailer. The end of the frame is 9" C-channel welded to the ends of main frame channels. The cross sills, 2" X 4" steel I-beams, are welded on the top of the main frame channels at 24" centers.

3.2 A double axle assembly, sized for 12,000 lb. GVWR loads, is welded to the bottom of the main frame channels at a location that will provide for the proper tongue load and will assure stability of the trailer at highway speeds. Frame is undercoated with corrosion preventative materials.

3.3 2-5/16" adjustable height ball coupler, Class IV hitch chains.

3.4 Four (4) crank down stabilizer jacks, 7,000-lbs. capacity - jacks to be located near trailer corners.

3.5 Four (4) level identifiers, one located at each bottom corner of trailer, near stabilizer jacks.

3.6 Two 6,000 lb. heavy-duty Torflex axles with 12" x 2" electric brakes on 84" hub faces.

3.7 Weather resistant wiring package with breakaway battery. Two (2) 12" electric brakes installed per axle.

3.8 Two- (2) D.O.T. compliant 7/16" diameter, 37" long safety chains with hook and latch. Chain breaking strength of 25,000 lbs.

3.9 Four (4) ST225 R15 load Range D radial tires with spare.

3.10 Trailer Weights: Curb weight (delivered): Approx. 9,000 lbs.; GVWR: 11,600 lbs. - two axles; Hitch weight (% of curb weight): 15%.

3.11 Sub-floor of trailer system consists of 1-1/8" marine grade plywood fully treated with a three-part silica sand epoxy flooring system. There is no exposed wood. Flooring remains flexible from -40 degrees F to 160 degrees F. Flooring provides excellent traction in wet conditions and chemical resistance while being able to withstand stretching without adhesion loss. Tensile strength of the floor at 24 C is 8,8,0 lbs. per sq. inch



4 EXTERIOR DESIGN

4.1 Trailer layout - See provide elevations.

4.2 Trailer dimensions:

- 4.2.1 Trailer width: 102" OD
- 4.2.2 Trailer body height: 91" OD
- 4.2.3 Van body length: 24' OD
- 4.2.4 Trailer hitch: 5'
- 4.2.5 Total length: 31'
- 4.2.6 Total height: 125", clearance 138"
- 4.2.7 Interior height 84"

4.3 Trailer body:

- 4.3.1 Seamless aluminum roof.
- 4.3.2 Exterior hardened color: white.
- 4.3.3 0.040" pre-finished aluminum exterior siding.
- 4.3.4 Anodized aluminum roof cove and bottom trim.

4.4 Exterior Entry and Exit doors:

4.4.1 Entry doors:

- 4.4.1.1 Two (2) 32" x 72" aluminum doors (one (1) per lane).
- 4.4.1.2 Doors to swing outward. Door locks FMVSS Approved.

4.4.2 Exit doors:

- 4.4.2.1 Two (2) 32" x 72" aluminum door, one street side, one roadside.
- 4.4.2.2 Door to swing outward. Door locks FMVSS Approved.

4.4.3 Exterior wall panels:

- 4.4.3.1 Aircraft quality buck riveted on 2" centers to 1 3/8" aluminum steel Z posts 16" O.C.
- 4.4.3.2 Insulated walls and ceilings consisting of 1-3/8" CFC R-14 insulation.
- 4.4.3.3 Walls and ceilings covered with .090 Kemlite embossed glassliner material
- 4.4.3.4 Anodized aluminum front and rear posts.
- 4.4.3.5 All lights and reflectors comply with FMVSS 108 specifications.

4.4.4 Steps:

- 4.4.4.1 Slide and flip down steps.

4.5 Exterior paint and markings:

- 4.5.1 Paint color: White.
- 4.5.2 Trailer will have conspicuity stripping applied per D.O.T. specifications.

4.6 Emergency flashing light package: NFPA compliant Federal Signal light package consisting of the following:

- Two (2) Federal Flashers
- 14 Federal MOD2X-RR Lights
- 12 v Converter package

4.7 Trailer lights and brakes:

- 4.7.1 One (1) 12-volt end connector (7-way plug).
- 4.7.2 Running lights and reflectors per D.O.T. and FMVSS specifications.
- 4.7.3 Two (2) 12" electric brakes on each axle.
- 4.7.4 Breakaway brake kit per D.O.T. specifications.

4.8 Two clear lens scene lights mounted curb-side and two streetside. (Ref: Federal Signal GHSCENE). One (1) Federal adjustable clear halogen scene lights mounted on the exterior of the trailer rear in the exterior processing area.

5. INTERIOR DESIGN

5.1 Undress and Shower areas consist of an area in the front of the unit provided for disrobing.

5.2 Plumbing products: 8 shower ports for a 24' unit rated at 2.5 gpm minimum.

5.1.2.1 Each interior port will have the ability to utilize a regular showerhead.

5.1.2.1.1 Standard high volume showerheads - dispensing 2.5 GPM.

5.1.2.1.2 Standard industry grade floor drains throughout.

5.1.3 Furniture – Four Chrome plated adjustable shelving units.

5.1.4. Dividers consist of movable, Staph-check heavy-duty hospital grade curtains.

5.1.5 Electric: Two (2) wet location type, 2 bulb, 48" and ten (10) 24" lights, 80-watt fluorescent light.

5.2.1 Exit room layout:

5.2.1.1 Both decontamination lanes lead-into one- (1) common exit room that can also be gender separated.

5.2.1.2 Room spans full width of trailer. Exit doors to be on curbside and street side of trailer.

5.3 Chutes. One (1) stainless steel chutes will be installed to the rear of the unit. Chute to have latches and means to allow it to be locked in the open or closed position.

5.4 Two chrome plated wire shelves (adjustable): 3' wide by 16" deep; 3 total shelves.

6. FRESH WATER SUPPLY

6.1 The Trailer is equipped to accept a 1-1/2" NPT connection for use with a fire hydrant or pumper truck. (Other NST industrial fitting or garden hose connections are not adequate enough to supply the output requirements of the unit).

6.2 Minimum water pressure of 70 psi recommended for optimal performance of trailer plumbing.

6.2.2 A water pressure regulator will be installed to control the fresh water intake supply. Rated up to 300 psi.

7. MISCELLANEOUS TRAILER PLUMBING

7.1 Internal plumbing supply lines consists of copper lines (where required), PVC and rubber hose.

7.1.1 Plumbing supply lines are independently run from decon solution system.

7.2.1 Concentrated decontamination solution supplied from reservoir located in power room. Dosmatic "SuperDos 20" to be provided that is rated to 20 gpm (77.5 liters/min). Injection rate (fluid into the motive flow) is adjustable up to 10%.



Each tempered decon line will have decon wands at each shower port inside as well as one exterior decon shower port. The exterior decon shower port has an off/on valve. Each shower wand has its also trigger that is normally off.

7.3 Trailer hot water supply:

7.3.1 Water temperature is controlled by Diesel fired, in-line, instantaneous hot water heaters - 2 each. Each heater is rated at 500,000 BTU output each



7.3.2 Outlet water temperature can be adjusted individually at each source via thermostatic valves. Electronically controlled Intellifaucet valves to be installed.

The Intellifaucets (which automatically control output temperature) can be adjusted and provide first responders with a digital readout of the output temperature.

7.3.3 There are no exposed exterior plumbing lines other than the direct input line that does not required freeze protection.

7.3.4 All plumbing is provided with drains for freeze protection during long-term storage.

8. TRAILER ELECTRICAL

- 8.1 Circuit Breaker Panel:
 - 8.1.1 Panel to be located in the front of the unit.
 - 8.1.2 All electric services can be turned on and off using transfer/disconnect panel.
- 8.2 Two (2) 110-15 Amp waterproof double outlet located at the exterior front and rear of the unit and one (1) 110-15 Amp hospital grade double outlet in the exit room.
- 8.3 Electric Supply:
 - 8.3.1 Trailer is powered by either an accessible shoreline power source or the onboard 6 KW diesel powered generator. The generator comes with one (1) 11-gallon diesel fuel tank - both components will be installed on the tongue.
 - 8.3.2 One (1) 50' long shoreline power cord will be provided, which will be attached to the transfer switch for external power supply hookup.
 - 8.3.3 One (1) 100 amp manual transfer switch, NEMA 3R, to transfer power from shoreline power or the onboard generator to AC load and to turn on/off electrical service.
 - 8.3.4 All AC electrical functions are controlled by one (1) 100-amp load center with properly sized circuit breakers.

9. TRAILER HVAC SYSTEM

- 9.1 One (1) positive pressure Heating and Air Conditioning unit will be installed roof mounted. The unit will be rated at 13,500 BTU cooling with a 5,600 watt heating element.

10. EXTERIOR ROLLER SYSTEM

- 10.1 The unit will be equipped with two - 6' roller system permanently affixed to the exterior of the unit mounted at the curb side of the unit.
- 10.2 The roller system will be constructed of stainless steel with heavy-duty plastic rollers.
- 10.3 Roller unit will include stantions for supporting the rollers in the deployed position.
- 10.4 Roller system can be easily deployed and replaced to the stowed position for transport.

11. EXTERIOR GRAY WATER TANK:

- 11.1 One 165 gallon grey water tank mounted beneath the decon area.
- 11.2 End user will be responsible for furnishing necessary hoses to pump the gray water from the pump to bladders.

12. EXTERNAL MASS DECON PORTS:

- 12.1 Four - (4) exterior stainless steel ports to be located on curb side of trailer under awning.
- 12.2 All ports configured for dispensing fresh water rinse.
- 12.3 All ports will be designed for quick-disconnect connections for hose connections.
- 12.4 All ports will utilize the onboard tempered water source.
- 12.5 Boom ports can be configured with showerheads.
- 12.6 Number of ports per size of unit: 24' - 4.

13. EXTERNAL MASS DECON AWNING & PRIVACY CURTAIN:

- 13.1 One (1) (color red) rollout awning will be installed to the curb side of the trailer.
- 13.2 Awning will include a 3-sided, full length, privacy curtain.

14. OTHER SUPPLIES (Priced separately)

- 14.1 One 24' x 8' berm (non-air cell walls).
- 14.2 One 500 gallon bladder.

Specifications subject to change without notice.

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