

**ADVANCED CONTAINMENT SYSTEMS, INC**

**GENERAL SPECIFICATIONS**

**16' x 6' 6" Mass Casualty Decontamination Trailer**

**# MCDTD168**

**1. DIMENSIONS:**

- 1.1 Width of body: 78"
- 1.2 Front Utility Compartment: 50" x 78"
- 1.3 Length of body hull: 16'
- 1.4 Overall length: 21'
- 1.5 Overall height: 9' – 4"
- 1.6 Ceiling height: 6' – 6"

**2. CHASSIS:**

- 2.1 Heavy duty 4" x 2" x 1/4" structural steel rectangular tubing main beams and tongue.
- 2.2 Members are continuous 1-piece construction each side.
  - 2.2.1 All crossmembers are 4"x 2"x 1/4" structural steel rectangular tubing.
- 2.3 2" x 2" x 16 ga galvanized, structural steel tubing floor joists 16" o.c.;
- 2.4 2-5/16" heavy duty adjustable height coupler with safety chains.
- 2.5 7,000 lb. tongue jack, swivel type.
  - 2.5.1 Conspicuity tape shall be installed on each side of the tongue.
- 2.6 High speed 5,200 lb. tandem axles with electric brakes and emergency break away kit.
- 2.7 Four (4) LT235-85-R16 E load range tires with 16" wheels.

- 2.8 Exterior military type fenders constructed of heavy duty aluminum diamond plate.
- 2.9 FMVSS compliant running light package.

### 3. **BODY STRUCTURE:**

- 3.1 Smooth steel floor plate with non-slip, “SEALSKIN” seamless, water and chemical resistant rubber floor.
  - 3.1.1 Coved 1 ½” up the walls for containment purposes.
  - 3.1.2 Color Gray
- 3.2 All steel frame construction. 2x2x16ga galvanized structural steel tubing wall Studs (16”oc).
  - 3.2.1 2x2x16ga galvanized structural steel tubing roof rafters (16”oc). Ceiling height 78”.
- 3.3 Exterior siding – aluminum, smooth .040 **white baked enamel finish**.
  - 3.3.1 Aluminum sheets to be 49” wide for a 1” overlap.
  - 3.3.2 All seams are silicone sealed for waterproof interior.
  - 3.3.3 Conspicuity tape shall be installed on both lower sides.
- 3.4 Seamless fiberglass reinforced plastic (FRP) laminated to 3/8” plywood on interior walls and ceiling, all seams are silicone sealed for a water proof interior.
- 3.5 R-11 foiled back, rigid foam insulation – floors, walls and ceiling;
- 3.6 At the front of the trailer there shall be utility compartment.
  - 3.6.1 Two (2) doors, one each side, shall be 42”wide x 72” high.
    - 3.6.1.1 Fabricated galvanized steel inner cores,
    - 3.6.1.2 Aluminum exterior skins, FRP interior skins, Continuous hinges, Full perimeter neoprene bulb seal, Stainless steel door handles with dead bolts, keyed alike with interior thumb latches.
    - 3.6.1.3 20” x 20” louvers, in each door, lower.
    - 3.6.1.4 Custom built low profile aluminum drip rails installed over each door.

- 3.6.1.5 One (1) door located on the curb side forward for access to the generator.
- 3.6.1.6 One (1) door located on the street side for access to the water management.
- 3.6.2 Walls and ceiling shall be finished with 29 gauge galvanized sheets.
- 3.7 A 60"x 74" all aluminum roll-up door is located at rear of trailer.
- 3.8 .040 thick, "seamless" aluminum roof fastened to the perimeter aluminum top rail.
  - 3.8.1 All fasteners are located outside the trailer body;
- 3.9 An aluminum fuel storage compartment, shall be mounted on the tongue to store additional fuel cans.
  - 3.9.1 Four (4) 5 gallon "Jerri" cans shall be included in the compartment and one on the water heater.

#### **4. PLUMBING:**

- 4.1 Exterior decon stations are installed on both sides of the trailer.
  - 4.1.1 Each station includes two (2) aluminum shower booms with four (4) nozzles @ .6 GPM each.
  - 4.1.2 The booms are positioned to distribute the solution or rinse water over the full length of the persons body.
  - 4.1.3 The rear booms are plumbed to distribute decon solution or fresh water and the forward booms are plumbed to distribute fresh rinse water.
- 4.2 Multi-port manifold outlet for water disbursement to side showers and to the rear for the shelter
- 4.3 A continuous flow, diesel fired water heater rated at 550,000 BTU's, with electronic, programmable controls shall be installed in the front utility compartment.
  - 4.3.1 Heater shall be removable from the trailer and also have a portable fuel source.
  - 4.3.2 An electronic temperature controller with digital temperature readout is included to control the temperature of the water.
    - 4.3.2.1 The water heater output is 14 GPM at a 50 degree temperature rise.

- 4.4 A solution injection system is included and plumbed into the water system.
- 4.5 The water inlet connection shall be a 1 ½” ball valve for a 1-1/2” fire hose fitting and is located curb side at front of trailer.
  - 4.5.1 A Schroeder air inlet and drain shall be installed for the system to be completely drained.
- 4.6 All exterior plumbing is heat traced and insulated.
  - 4.6.1 A service outlet on the front shall power the heat trace when parked.
  - 4.6.2 “APEX” Plumbing supply lines will consist of a high density crossed linked polyethylene tubing with brass swaged lock fittings.
- 4.7 Two (2) drains shall be installed.
  - 4.7.1 One (1) in the utility room.
  - 4.7.2 One (1) in the storage area of the trailer.
- 4.8 One (1) On-board pump shall be installed in the utility compartment.
  - 4.8.1 To introduce propylene glycol for winterizing the entire trailer.
  - 4.8.2 Pump shall be powered by the on-board batteries.
  - 4.8.3 It shall have a 6’ suction hose and a 6’ discharge hose with fire hose adapter to hook up to the main supply connection.

**5. ELECTRICAL:**

- 5.1 One (1) 4’ fluorescent light fixture, rated for wet location, shall be installed in the trailer in the storage area ceiling.
  - 5.1.1 One (1) 2’ in the utility room.
  - 5.1.2 Lights operated from the circuit breaker panel.
- 5.2 Heavy duty load center with breakers 100 amp 240v/120v single phase 60 Hz.
  - 5.2.1 Panel mounted in the utility room.
- 5.3 Six (6) portable 300 Watt halogen lights are included, wired to the circuit breaker panel.

- 5.3.1 Two (2) lights mounted on each side, under the awnings.
- 5.3.2 Two (2) at the rear of trailer, one ea side.
  
- 5.4.3 Lights are removable and are stored inside the trailer during transport.
  
- 5.4.4 Lights operated from the circuit breaker panel.
  
- 5.4 A portable 6.5 KW diesel powered generator with electric start provides electric power to the unit.
  
- 5.5.1 The 6.5 KW generator shall be continuous.
  
- 5.5.2 Generator shall be operated from the utility room.

**6. MISC:**

- 6.1 Two (2), 11' x 8' fabric awnings with heavy duty extruded aluminum hardware mounted one each side of the unit.
  - 6.1.1 The complete decon area is covered on top with the awning and is also fully enclosed on three sides with heavy duty 16 oz vinyl privacy curtains.
  - 6.1.2 The privacy curtains are custom built to easily attach to the awnings and includes doors with Velcro flaps.
  - 6.1.3 An air inflatable containment berm, 5'x 10' is included for each side of the trailer to capture the contaminated water run off in the decon areas.
  
- 6.2 One (1) elevation platform per side, sized for the berm.
  
- 6.3 One (1) submersible pump per side.
  
- 6.4 Labeling of all control switches, faucets, valves, function indicators etc. to be labeled with engraved vinyl self adhesive signage.
  - 6.3.1 All load breaker functions to be labeled for easy identifications.
  
- 6.5 A complete owners manual shall be included with the unit.