



**OSHKOSH
SPECIALTY
VEHICLES**

SPECIFICATIONS AND FEATURES FOR AN OSHKOSH SPECIALTY VEHICLES MOBILE COMPUTED TOMOGRAPHY SYSTEM

Certified and approved mobile CT units are designed and manufactured by the Oshkosh Specialty Vehicles in accordance with the site plan requirements of the medical equipment manufacturer selected by the customer. The following features apply:

I. CHASSIS

- Chassis: The foundation of every mobile CT unit is a custom designed chassis consisting of two (2) 17" deep welded steel I-beams. All structural members are welded and gusseted together, yielding the strongest and most durable medical trailer chassis on the market.
- Axles: CT trailers include two (2) heavy-duty 20,000 lb. capacity axles.
- Hub-O-Meter: A Hub-O-Meter is installed on the lead axle to allow the driver to maintain a record of the trailer movement.
- Air Ride Suspension System: The axles are installed on an automatic air ride suspension system. The proper ride height is set at the factory.
- Air Ride Kingpin Bolster Plate: A low profile air ride kingpin bolster plate is installed on the front of each chassis to provide air-cushioning support for the sensitive electronics installed in the mobile unit.



I. CHASSIS (Continued)

- **Mounting Plates:** Steel plates for the CT system and the electronics cabinets are welded in place, ensuring that critical components will be secure during transport.
- **Radial Tires:** Eight (8) premium quality radial tires are provided for durability and extended service life.
- **Aluminum Wheels:** The Radial tires are mounted on four (4) aluminum rims: the outer four (4) rims are polished aluminum and the inner four (4) rims are painted steel.
- **Landing/Stabilizing Legs:** Two (2) electro-hydraulic landing legs with security stabilizing pins are installed on the front of the trailer, to both offload the trailer from the tractor and to assure positive fixed height of the unit at the operating site. Landing leg controls are conveniently housed in an underbody compartment, shielding them from weather and road grime for reduced repair cost and extended operational life.
- **Portable Stands** Two (2) portable support stands are included to stabilize the rear of the mobile unit at the site.

II. STRUCTURAL

- **Body Structure and Framing:** Specifically designed and constructed aluminum body for CT use, consisting of 2" x 2" tube, welded into an incredibly strong framework, yielding a 102" overall width, including slide-outs. This conservative approach yields an exceptionally strong, rigid super structure for the installation of slide-out sections, doorframes, Platform Lift and exterior body panels.
- **Body Panels:** The exterior skin of the trailer consists of commercially available aluminum panels that are mechanically fastened in place.



II. Structural (Continued)

- **Insulation:** The walls, floors, ceiling, and underbody compartment are fully insulated with, sprayed in, expanding polyurethane foam. This produces an effective vapor and insulation barrier for heat, cold, and exterior noise.
- **Vapor Barrier:** A vapor barrier, installed along the full length of the trailer floor, prevents moisture and odors from emanating into the trailer.
- **Slide-out Sections:** Depending on the CT equipment manufacturer you choose, you may have no slide-out, one slide-out or two slide-out sections in your unit to increase the overall interior space in the gantry room. The slide-out(s) is suspended from the ceiling and guided in and out with a roller-track system. With the touch of a button, the air cylinders deploy the slide-out and automatically lower the slide-out floor. The slide-out section is built with a slanted roof that incorporates heat strips, thus eliminating the need for a canopy. This allows for an additional 65 cubic feet of space on the interior of the unit.
- **Underbody Compartments:** The underbody storage compartment is manufactured of welded steel. It is insulated, heated and coated with a commercially available spray-on bed liner. This results in a coating that is easy to clean, reduces maintenance, increases sound attenuation, and provides an excellent appearance.

III. EXTERIOR

- **Painted Surface:** The entire trailer body is painted with DuPont™ Imron™ paint process that is certified and carries a limited 5 year warranty. This ensures the aluminum exterior panels, compartment and entry doors, air conditioner, and generator are all the same shade.



III. EXTERIOR (Continued)

- Platform Lift Controls: The Platform Lift can be controlled by either a flexible, handheld, low voltage, waterproof toggle switch assembly or switches located near the roll door. This allows the attendant, while on the platform lift, to effortlessly raise or lower the platform lift as required.
- Platform Lift Canopy: A canvas and aluminum rollout canopy is positioned above the roll door to help protect against bright sunlight, rain, snow, etc.
- Roll Door Canopy: The insulated, roll-up patient door permits easy patient access from the lift into the mobile unit control room. The door can be controlled from pushbutton switches located both in the control room and on the outside of the Unit. For security purposes the door has an on/off switch located inside the unit.
- Platform Lift: A high capacity, vertical movement platform lift with hand rails is installed on the curbside of the mobile unit. patients prefer the OSV lift because of its smooth, straight up and down travel. The lift is stowed on the side of the mobile unit for transport, thus yielding additional underbody compartment space. Two (2) security storage pins are mounted on the lift gate cradle to lock the lift platform in place during transport from one location to the next. The “face” of the lift is fitted with a high-density plastic scratch guard to prevent the paint from being chipped by stones at the site.
- Roll Door Emergency Release: A cable operated, roll door emergency release mechanism is installed above the roll door controls. When pulled the emergency release will disengage the roll door clutch motor allowing the roll door to be opened manually by the staff.
- Drip Rails: Drip rails are installed over the main entry door and along the roofline on all sides of the mobile unit.



III. EXTERIOR (Continued)

- **Main Entry Door:** A high quality insulated main entry door with door closer and window is installed. The door is fitted with an adjustable privacy blind on the window. The exterior handle and deadbolt lock is located 80 in. from the ground, allowing easy access to the lock without the entry stairs being deployed.
- **Aluminum Stair Assembly:** An aluminum stair assembly with handrails for staff entry into the control area is provided. The stairs include two (2) adjustable feet to assist with leveling the stairs at the site.
- **Emergency Exit Door:** A 24" x 24" positive latching, insulated and lead shielded emergency exit door is installed on the driver's side of the trailer in the gantry room.
- **Underbody Compartment Doors:** The underbody compartment doors are:
 - Recessed to prevent moisture from entering
 - Double sealed
 - Corrosion resistant
 - Lockable
 - Hinged at the top
 - Opened with a gas assist cylinder
- **Scene Lighting:** Recessed scene lighting is placed the back and each side of the trailer to assist with sighting the trailer at night. The lights are on a 30-minute timer that is housed in the underbody compartment.
- **Level Gauges:** Four (4) permanently mounted level gauges, two (2) in the rear and two (2) in the front are provided to assist with leveling the unit.
- **Digital Levels:** Three (3) digital levels are mounted in the mobile unit. The gauges are located in the underbody compartment next to the hydraulic controls. These digital levels read front to rear and side to side.



III. EXTERIOR (Continued)

- ❑ **Bubble Style Level Gauges:** Three (3) permanently mounted bubble levels are mounted on the trailer for quick reference.
- ❑ **Reflective Tape:** Red and White striped highly reflective tape is installed around the perimeter of the trailer for safety and increased nighttime visibility.
- ❑ **Lockbox:** A steel combination lockbox is mounted on the front of the trailer to store keys.
- ❑ **Exterior Graphics:** An allowance of \$1,150.00 is included in the price of the mobile unit for the provision and installation of custom vinyl graphics on the exterior of the mobile unit.

IV. INTERIOR

- ❑ **Lead Shielding:** A proprietary and highly effective lead shielding system can be installed in the gantry and patient prep room walls and doors. The lead shielding is designed to meet or exceed the mobile CT requirements for radiation protection as required and defined by each customer.
- ❑ **Lead Windows:** Lead shielded windows are installed in the patient prep and gantry room walls and doors. This allows easy patient monitoring from either a standing position or a sitting position at the operator's console.
- ❑ **Solid Surface Countertops:** An ergonomically designed solid surface Corian™ countertop is installed in the Control and Scan areas. This provides a tough wearing surface that will look great for years and adds a pleasant touch to the working environment.
- ❑ **Ceilings:** The ceiling in the mobile unit is constructed with highly reflective, insulated acoustical tiles for reduced noise. To enhance the work area, a combination of lighting is installed throughout the mobile unit.



IV. INTERIOR (Continued)

- I.V. Track: A ceiling mounted I.V. drip holder rail track is installed in the gantry room.
- Storage Cabinets: Decorative laminated storage cabinets, featuring coordinating edge banding to match the Corian™ countertops, include adjustable shelving and positive cam latches. The cabinetry is optimized in the scan and control areas to accommodate customer needs and the storage of phantoms, coils, etc.
- Under Cabinet Lighting: Under cabinet lighting provides working light for the technicians work area.
- Crash Rail: A color coordinating crash rail is provided on the walls of the scan room to help protect the wall from being damaged by a gurney.
- Artwork: Two (2) decorative art prints in high quality frames are placed in the gantry room to enhance the interior ambiance.
- Wall Coverings: The mobile unit incorporates extensive use of high quality hospital grade wall coverings. All materials have been selected for ease of cleaning and durability. Particular attention has been paid to the selection of color schemes to insure proper contrast and compatibility with the medical equipment.
- Floor Covering: An attractive hospital grade, durable vinyl flooring is provided throughout the mobile unit. This single piece flooring is easy to keep clean, eliminating the build-up of dirt in seams.
- A/C Discharge Louvers: Ceiling mounted air-conditioning discharge louvers are configured to minimize downdrafts while providing the proper airflow to maintain specified ambient environmental conditions.



IV. INTERIOR (Continued)

- Stereo System: An AM/FM Stereo receiver with built-in CD player is installed in the control room wall below the storage cabinets. High quality ceiling mounted speakers are installed in the control room ceiling providing a comfortable working atmosphere.
- Backlit Film Illuminator: A backlit, film illuminator is mounted in the control room above the solid surface countertop.

V. ELECTRICAL & ENVIRONMENTAL SYSTEMS

- Main Electrical Disconnect Panel: The main 480V electrical incoming power disconnect panel is located in the driver's side underbody storage compartment.
- Electrical Distribution Panel: An electrical distribution panel is located in the rear of the gantry room. This panel provides the ability to isolate the certain sections of the unit for maintenance and service.
- Power Selection Switch: The mobile unit status panel, located in the control room of the trailer, includes a voltage selector switch that lets you select between shore power, off or generator power.



V. ELECTRICAL & ENVIRONMENTAL SYSTEMS (Continued)

- Warning Lights: The mobile unit status panel, located in the rear of the trailer in the gantry room, provides three warning lights. The first one should be illuminated letting you know that your unit is receiving 480 volt power; the second light will light if your power connection is out of phase; third light will illuminate when your humidifier water supply is low.
 - An Amber light on, located on the left side of the trailer, indicates that the trailer has A/C Power.
 - A red light on, located on the left side of the trailer near the front of the trailer, indicates that Platform Lift is not properly stowed for trailer transport.
 - A red light on, located on the left side of the trailer near the front, indicates the suspension system is not working correctly.
 - One (1) yellow light on, located on the rear and left side of the trailer, indicates the ABS is on.
 - A red light on, located on the left side of the trailer indicates that the medical equipment is not properly stowed for trailer transport.
- Roll door on/off Switch: An on/off security switch for the roll-up door is mounted on the interior wall near the entrance to enhance the security of the mobile unit.
- Emergency Lighting: An automatic emergency lighting system is installed in the mobile unit to provide light when the power supply is disconnected.
- Platform Lift Position Indicator Light: A green indicator light lets you know when the Platform Lift is in the up position. This safeguards against opening the roll door when the lift is in the down position. The light is conveniently located near the control door controls to ensure safety of the patient and operator.



V. ELECTRICAL & ENVIRONMENTAL SYSTEMS (Continued)

- Underbody Compartment Low Voltage Lighting System: A manually operated, low voltage lighting system is located in the underbody compartment, providing light during set-up of the unit.
- Lighting Controls: Separate lighting system controls for the gantry room, control room and patient injection room permit the operator to individually control the lighting in each area.
- Service Outlets: One (1) GFCI 120 VAC duplex service outlet is installed on each side of the underbody compartments.
- Marker Lights: Extra L.E.D. type marker and side turn signal lights are installed on the trailer body to assist the driver with maneuvering the trailer.
- Cable Reel Service Light: A cable reel service light is installed in the equipment room. This retractable light comes in handy for servicing the system cabinets
- Time, Temperature and Humidity Level Indicator: A wall-mounted time, temperature and humidity level indicator is installed in the control room and in the gantry room.
- Main Entry Door Light: An exterior surface mounted, weatherproof light fixture is mounted on the wall adjacent to the staff entry door and Platform Lift.
- DC Power Supplies: One DC power supply is located in the underbody to maintain the 12V DC lighting. The other DC power supply consists of a 1.5 amp trickle charger mounted on the generator to charge the generator batteries.
- Air Filters: Replaceable air filters are mounted in the air conditioning units on the rear of the mobile unit.



V. ELECTRICAL & ENVIRONMENTAL SYSTEMS (Continued)

- **Air Conditioning Systems:** Two (2), custom designed, high performance air conditioning systems are mounted on the rear of the mobile unit. These systems provide close tolerance temperature levels to assure proper CT system function as well as staff and patient comfort.
- **Thermostats:** Fixed temperature controllers, PENN Controls, ensure the proper operating temperature ranges for the medical equipment and staff. This eliminates the operators from adjusting temperatures that could result in damage to the system electronics and reduced performance.
- **HVAC Distribution:** Separate air supplies for the gantry, control and patient injection room ensure an adequate air supply to the temperature sensitive medical equipment.
- **A/C Ductwork:** The air conditioning ductwork is lined with a sound absorbent material for reduced noise and operator and patient comfort.
- **Environmental Testing:** OSV mobile Units are environmentally tested and certified for operation at temperatures ranging from -20° F to $+110^{\circ}$ F.
- **Fuel Tank:** A 70-gallon fuel tank with level indicator is installed in a separate underbody compartment.
- **Generator:** A sound attenuated 100 KW diesel generator, with engine block heater, is installed on the front of the mobile unit in a corrosion resistant cabinet to keep the generator out of the elements. The generator maintains the environmental control system and emergency backup power for the medical equipment while the mobile unit is in use or in transit.



V. ELECTRICAL & ENVIRONMENTAL SYSTEMS (Continued)

- **Humidifier:** A packaged steam humidifier system with 30-gallon water storage tank, installed in the rear of the gantry room, interfaces with the air conditioning ductwork to provide consistent humidity levels throughout the mobile unit. Maintaining humidity levels for the medical equipment is critical for proper operation and reduced downtime.
- **Main Power Cable and Connector:** A flexible, five (5) core, fifty (50') long electrical power cable with a weather resistant Russellstoll DS2504MP000/DF2032 connector with protective rubber collar is provided and stored in the underbody storage compartment. The cable can be deployed from either side of the underbody compartment.
- **Telephone and Data Connections:** Three (3) telephone and two (2) data connection is installed in the control room of the mobile unit. Three (3) fifty (50') weatherproof Hubbell-cords are provided with the unit. They are stored in the underbody compartment.
- **Certification:** The OSV trailer and installation of the medical equipment is "certified" by the CT system equipment manufacturer.
- **Medical Equipment Installation:** The CT gantry, system components and cabling are all installed by experienced OSV installers.



VI. ADDITIONAL FEATURES and SERVICES

- **Site Planning:** OSV mobile unit site planning guides are available upon request. This comprehensive guide provides essential dimensions and specifications to prepare your site pad, electrical connections and communications connections.
- **Manuals:** Every new mobile CT unit comes with a set of operator maintenance and service manuals.
- **Training Program:** OSV offers a product orientation and training program for key personnel with the delivery of each mobile CT unit. This four (4) hour training session is available at the manufacturing facility at the time of delivery. If you prefer to have the training at your facility, one of our Field Service Technicians can perform this for an additional charge.

VII. SAFETY FEATURES

- **Common Floor Height:** The patient entry, personnel entry and operating interior floor are all at the same height for safety.
- **Entry Lighting:** An exterior light fixture is installed near the entry door and patient for safety.
- **Automatic Transfer Switch:** An automatic transfer switch is installed to provide an automatic switch from shore power to back-up generator power in the event of a power failure.
- **Emergency Off:** A medical system “Emergency Off” button is conveniently located near the operator’s console.
- **Platform Lift Pins:** Two safety, locking, pins are located near the Platform Lift cradle. These two pins, when properly installed, prevent the Platform Lift from coming loose and deploying during transit.



VII. SAFETY FEATURES (Continued)

- **Emergency Lighting:** Exit signs and emergency lighting are placed in key areas of the mobile unit to help in an evacuation upon a power failure.
- **ABS Braking System:** An approved anti-lock braking system is installed for increased safety.
- **Fire Extinguisher:** Two (2) hand-held ABC all-purpose, dry chemical non-ferrous fire extinguishers are provided. One is installed in control room, the other in the patient injection room.
- **Fire Detection System:** An automatic fire detection system is installed in the gantry, control and equipment rooms. Contacts for connection to a remote fire alarm enunciator panel are provided in the underbody compartment.
- **Integrated Transport Warning System:** An integrated warning light assembly is located on the driver side of the trailer, providing easy visibility for the driver from his position in the tractor. The comprehensive warning lights provide warnings for the following conditions:
 - 480V AC power is on.
 - The Platform Lift is not properly stowed.
 - The Anti-Lock Braking System is not working correctly.
 - The medical equipment is not properly stowed for trailer transport.
- **Platform Lift Position Indicator Light:** A green indicator light lets you know when the Platform Lift is in the up position. This safeguards against opening the patient roll door when the lift is in the down position. The light is conveniently located near the control door controls to ensure safety of the patient and operator.



VIII. CUSTOMER SERVICE and WARRANTY

- **Customer Service Center:** OSV operates a toll free Customer Service Hotline, 1-800-839-0630, for all of your service, parts and warranty issues. The hotline is answered by a “human being,” 24 hours a day, 7 days a week, 365 days a year.
- **Warranty:** A one (1) year warranty is standard on all of our mobile units. However, OSV does offer extended service contracts if you’re interested.
- **Parts:** We carry a large inventory of replacement parts for your OSV mobile unit.
- **Field Service:** Customer Service Support is provided by a combination of OSV Field Service Technicians, Original Equipment Manufacturers and authorized third-party service centers.

IX. OPTIONS

- **Patient Gurney:** A non-ferrous metal, padded patient gurney can be added to your order.
- **Fire Detection System** An automatic fire detection system is installed in the gantry, control and equipment rooms. Contacts for connection to a remote fire alarm enunciator panel are provided in the underbody compartment.
- **Fire Suppression System:** The entire mobile unit can be protected with a Fire Suppression system. The system tank is installed in the equipment room to minimize its effect on operating space in the control room.
- **Bottled Gas connections** Oxygen and suction connections can be located in the gantry room, allowing the use of facility gases and suction eliminating the need to carry bottles on the unit.



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IX. OPTIONS (Continued)

- ❑ **Intrusion Alarm:** An intrusion alarm system can be installed to monitor activity in the underbody compartments and in the operator's area.
- ❑ **Custom Exteriors:** OSV offers custom painted exteriors or bus wrapped exteriors to help you with your branding campaign or to simply get your marketing message out to the public. If you wish to make your mobile unit a rolling billboard we can help you develop the paint or graphics scheme to get your message across.
- ❑ **Roll Door Curtain:** A thermal barrier curtain is available to help shield the interior of the trailer from sudden changes in temperature when the patient roll door is open.
- ❑ **Wall Murals:** A 48"H x 146" wall mural of mounted flat on the wall of the scan room. This high quality photographic print is mounted 1/8" Centra with a luster laminate to protect the image from everyday wear and tear. OSV offers you several images to choose from.



X. SITE PLAN HIGHLIGHTS

<input type="checkbox"/> Tractor Specifications:	<ul style="list-style-type: none">• Tractor weight of 17,000 pounds or less• Air ride suspension• 81" swing clearance between kingpin and cab• 34,000 lb. rear bogie rating• 12,000 lb. front axle rating
<input type="checkbox"/> Site Pad Requirements:	<ul style="list-style-type: none">• Recommended size 12' x 52'• Pad thickness based on local soil conditions• Pad levelness should be not less than ¼" per 10 feet.
<input type="checkbox"/> Mobile Unit Specifications:	<ul style="list-style-type: none">• Overall length: 52'-2"• Overall width: 8'-6"• Overall height: 13'-6"• Power requirements: 480 V, 3Ø fused at 150 amps• Personnel door width: 44" O.D. 40¾" I.D.• Platform Lift Entry Width: 78¾" O.D. 76¼" I.D.
<input type="checkbox"/> Water and Plumbing:	A 30-gallon water tank for the humidifier is located in the equipment room. The tank is fitted with a standard garden hose connection for convenience.
<input type="checkbox"/> Telephone and Data:	There are three phone and one data cable connections located in the underbody, near the main power cable. These are standard marine type, Hubbell connections. There are three 50ft. Hubbell cords supplied with the trailer.