INTERNATIONAL TRUCK CHASSIS

Mobile Digital Radiography Vehicle | Heavy-Duty Medical Conversion

TECHNICAL SPECIFICATION

BASE VEHICLE & CHASSIS

Chassis Configuration

- Base Vehicle: Iveco Eurocargo or Equivalent Heavy-Duty Commercial Chassis
- Vehicle Application: Mobile Medical / X-Ray Unit
- Gross Vehicle Weight: 12–18 Tons
- Steering Position: Left-Hand Drive
- Specified Drive Configuration: 4x6
- Wheelbase: Suitable for Medical Body Installation
- Cabin Capacity: Driver + 1 or 2 Passengers

Engine & Transmission

- Engine: 4- or 6-Cylinder Turbo Diesel
- Power Output: Approximately 180–250 HP, Depending on Chassis Variant
- Transmission: Manual or Automated Manual Transmission
- Fuel Tank Capacity: Approximately 150–200 Liters

Chassis Safety

- Anti-Lock Braking System (ABS)
- Anti-Slip Regulation / Traction Control (ASR)
- Air-Conditioned Driver Cabin
- Airbags: Optional / Depending on Chassis Specification

MEDICAL BODY CONSTRUCTION

Body Structure

- Medical-Grade Insulated Box Body
- Steel / Aluminium Structural Frame
- Composite Insulated Body Panels
- Medical White Polyurethane Exterior Finish
- Reinforced Roof Structure
- Interior Height: Approximately 2.2–2.4 m
- Thermal Insulation: Approximately 50–75 mm PU Insulation

Medical Interior Finish

- Anti-Bacterial Interior Wall Panels
- Washable Medical-Grade Surfaces
- Seamless Wall Finish
- Non-Slip Medical-Grade Vinyl Flooring
- Easy-Clean Interior Construction

Access

- Rear Double Doors
- Stainless-Steel Door Hinges
- Multi-Point Rear Door Locking
- Dedicated Side Personnel Door

LEAD-SHIELDED X-RAY ROOM

Radiation Protection

- Lead-Lined X-Ray Examination Room
- Wall Lead Equivalence: Approximately 2–3 mm
- Lead-Lined Doors
- Lead-Shielded Windows
- Lead-Glass Observation Window
- Shielded Operator Control Area

Electrical Protection

- Copper Earthing System
- Isolated Electrical Circuits for Medical Equipment
- Dedicated Medical Equipment Power Supply
- Safety-Protected Distribution System

DIGITAL X-RAY SYSTEM COMPATIBILITY

Compatible Equipment

- Digital Radiography (DR) System
- 50–65 kW X-Ray Generator
- Digital Imaging Console
- Motorised X-Ray Stand
- Ceiling-Suspended X-Ray Tube – Optional
- PACS Workstation – Optional
- Wireless DR Detector – Optional

OPERATOR WORKSTATION

Workstation Equipment

- Shielded Operator Desk
- Digital Imaging Workstation
- X-Ray System Controls
- Lead-Glass Observation Window
- Equipment Storage
- PACS Integration – Optional
- Tele-Radiology Capability – Optional

CLIMATE CONTROL & VENTILATION

Air Conditioning

- Medical-Grade Rooftop Air Conditioning
- Cooling Capacity: Approximately 1–2 Tons
- Additional External A/C Condenser
- Target Interior Temperature: 18–24°C

Ventilation

- Dedicated Medical Compartment Ventilation
- HEPA-Filtered Airflow – Optional

ELECTRICAL & POWER SYSTEM

Power Sources

- External Shore Power: 220V / 380V
- Onboard Diesel Generator: Approximately 15–20 kVA
- UPS Backup for X-Ray Equipment

Electrical Installation

- Dedicated Electrical Distribution Board
- Safety Circuit Breakers
- Medical-Grade Electrical Outlets
- LED Medical Interior Lighting
- Dedicated Equipment Circuits
- Emergency Interior Lighting

MEDICAL INTERIOR LAYOUT

Main Compartments

- Lead-Shielded X-Ray Cabin
- Operator Workstation
- Medical Consumables Storage
- Electrical Cabinet
- Generator Compartment, Where Internally Mounted

Medical Furniture & Equipment

- Medical Storage Cabinets
- Medical Shelving
- Patient Positioning Table
- Operator Work Desk
- Bio-Safe Waste Disposal Bin System
- Lead Apron Hangers – Optional

HYDRAULIC TAIL LIFT

- Hydraulic Tail Lift
- Lifting Capacity: Approximately 1,000–1,500 kg
- Heavy-Duty Commercial Construction
- Rear Safety Barriers

EXTERIOR EQUIPMENT

- Lockable Exterior Equipment Compartments
- Lockable Tool Storage
- High-Visibility Reflective Markings
- Rear Safety Rails / Barriers
- Exterior LED Flood Lights for Night Operations
- Rear-View CCTV Camera – Optional
- Side Monitoring Cameras – Optional

SAFETY & COMPLIANCE

Radiation & Medical Safety

- Radiation-Shielded Medical Compartment
- Lead-Lined Walls, Doors & Observation Areas
- Dedicated Electrical Earthing
- Isolated Medical Equipment Circuits

Fire & Emergency Safety

- Fire Extinguishers
- Smoke Detectors
- Emergency Exit Provision
- Emergency Interior Lighting

Compliance

The supplied specification states radiation protection compliance with **WHO mobile clinic standards**.
Any final certification or regulatory-compliance claim should nevertheless be confirmed against the completed vehicle, installed X-ray system, destination-country radiation regulations and applicable medical-device requirements.

OPTIONAL MEDICAL TECHNOLOGIES

The Mobile X-Ray Unit can be configured with additional diagnostic and connectivity technologies, including:

- Wireless Digital Radiography Detector
- AI-Enabled Image Diagnostic Support
- PACS Workstation
- Tele-Radiology System
- Solar Power Assistance Panels
- Lead Apron Storage / Hangers
- Patient Waiting Area with Seating
- HEPA Air Filtration
- Ceiling-Suspended X-Ray Tube

MOBILE X-RAY UNIT HIGHLIGHTS

Purpose-Built Mobile Diagnostic X-Ray Facility
12–18 Ton Heavy-Duty Commercial Chassis
Dedicated Lead-Shielded X-Ray Room
2–3 mm Lead-Equivalent Radiation Protection
Compatible with 50–65 kW Digital Radiography Systems
Independent 15–20 kVA Generator Capability
External 220V / 380V Shore Power
UPS Backup for Medical Equipment
Medical-Grade Climate-Controlled Interior
Dedicated Shielded Operator Workstation
1,000–1,500 kg Hydraulic Tail Lift
Anti-Bacterial & Washable Interior Surfaces
Optional PACS & Tele-Radiology Integration
Designed for Mobile Healthcare and Remote Diagnostic Operations

The Mobile X-Ray Unit provides a self-contained diagnostic imaging environment within a heavy-duty commercial vehicle platform, combining mobility, radiation protection, independent power capability and professional digital radiography infrastructure for healthcare operations in remote, temporary or high-demand locations.