

**DEL MEDICAL**

# *MDR*

MOBILE IMAGING SYSTEM



# System Overview

## Impressive Power and Mobility

The MDR mobile imaging system was designed to handle a wide range of clinical applications in nearly any imaging environment including, intensive care units, hospitals, and orthopaedic facilities.

Powered by an on-board 40kW high frequency generator, 300kHu X-ray tube, and the user-friendly DELWORKS image acquisition workstation, the MDR is intended to be an all-inclusive mobile imaging solution.

Featuring a low profile collapsible column, telescoping tube head, extensive vertical travel, and precise rotational capabilities of column and tube head this mobile system provides expert positioning while accessing patients.

## High performance detector options

The pairing of the mobile system and DELWORKS E-Series detectors gives users the highest level of mobile imaging from positioning to image acquisition. DELWORKS E-Series wireless detectors were designed to maximize workflow and minimize patient dose, without compromising image quality. These lightweight, durable detectors allow for fast positioning and readjustments.

With up to 8 hours of battery life and Automatic Exposure Detection (AED) technology, technologists can benefit from lasting power in even the most demanding medical facilities.

## Key Highlights



Compact, Collapsible Column Design



High Frequency 40kW Generator



Integrated DR Workstation



Lightweight, Wireless DR detectors



Motor Assisted Movement



Battery Powered



Dose Management Configurations



# System Features

## Compact and agile

The slender, lightweight build of the MDR offers exceptional maneuverability, especially in tight spaces. Its motor assisted drive adapts to the operator's preferred walking pace, creating smooth and predictable control. A comfortable, fail safe drive handle ensures user confidence by automatically stopping system movements when released. The collapsible column of the MDR makes it easy for operators to navigate through crowded spaces without the visual obstruction of a standard column. A touch sensing anti-collision bumper is included to alert users of accidental contacts.



## Motor assisted inching

Advanced movement controls are conveniently placed on the tube head to allow subtle forward, backward, right and left movement to deliver added precision when setting up bedside examinations. This functionality prevents the need for the operator to return to the drive handle.

## Safe and convenient storage

The MDR provides users with a large storage area to comfortably hold and access all necessary accessories such as grids, additional batteries, and most importantly — DELWORKS E-Series DR detectors.

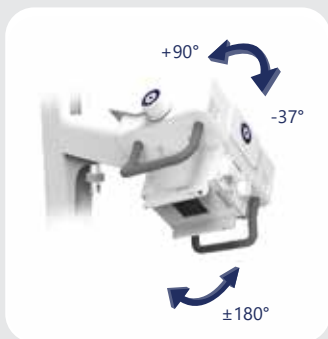
## Full day battery life

The MDR features a lead acid maintenance free battery design that provides an entire 8 hours of movement and imaging, without requiring a charge. A power cord reel gives operators access to nearby outlets without dealing with tangled cords.

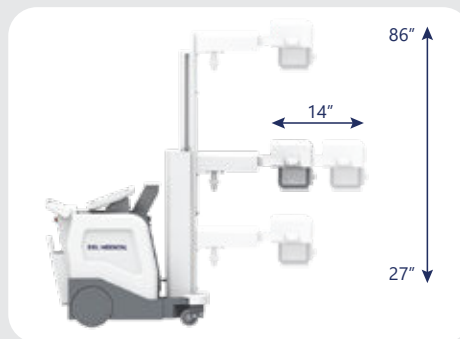




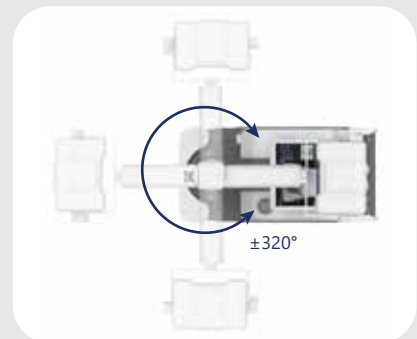
## System Movements



Tube Head Rotation



Vertical and Telescopic Travel



Tube Column Rotation

# DR Features

## Outstanding Image Quality and Reduced Patient Dose

### DELWORKS

DELWORKS is a powerful image acquisition and processing software featuring a user-friendly interface that provides sophisticated and speedy medical imaging. Designed with complex system automation, DELWORKS aims to simplify the examination process by making the difficult decisions for you.

Its advanced anatomical programming and image processing algorithms help optimize technologist productivity. DELWORKS strives to minimize human error and unwanted repeat exams to give technologists the highest quality image and lowest dose, with every exposure.



The MDR is compatible with E-Series wireless detectors, available in standard 14 x 17" and 24 x 30cm sizes

## Software Features

- ▶ Pre-exposure display of patient and procedure information, X-ray generator exposure factors, status and control functions integrated in a single display screen
- ▶ Exam-specific image processing algorithms automatically optimize images based on selected patient anatomy
- ▶ Enhanced image processing parameters. APR specific default values and manual adjustment, if desired
- ▶ Image rotation in 90° steps, horizontal mirroring, automatic and manual image cropping to collimated area
- ▶ Easy verification and correction of image laterality and patient orientation
- ▶ Intuitively add orientation markers and text comments directly to acquired images (pre-defined or free text)
- ▶ Detailed histograms of pixel density
- ▶ User selection of modified LUT (Look-Up Table) based on various exam types
- ▶ Manual adjustment of the LUT, window and level
- ▶ Effectively manage rejected images



## Single-user interface

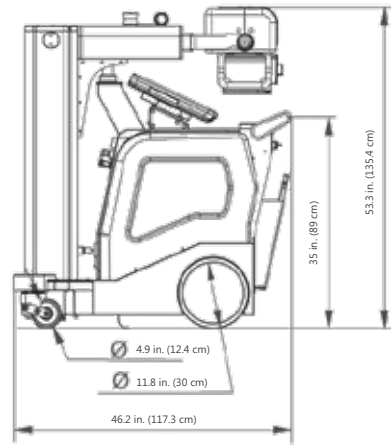
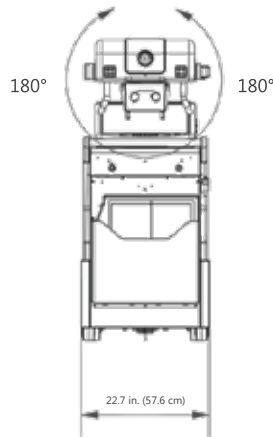
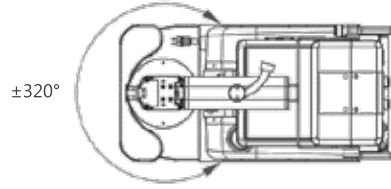
The DELWORKS driven MDR workstation acts as a control hub by seamlessly integrating all system components. This allows technologists to easily view and continuously monitor all vital generator and detector information, directly from the large 19" touchscreen monitor. Its high contrast ratio and wide viewing angles provide technologists with superior viewing capability.



# Technical Specifications

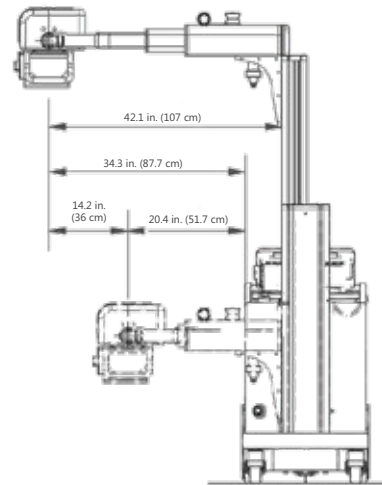
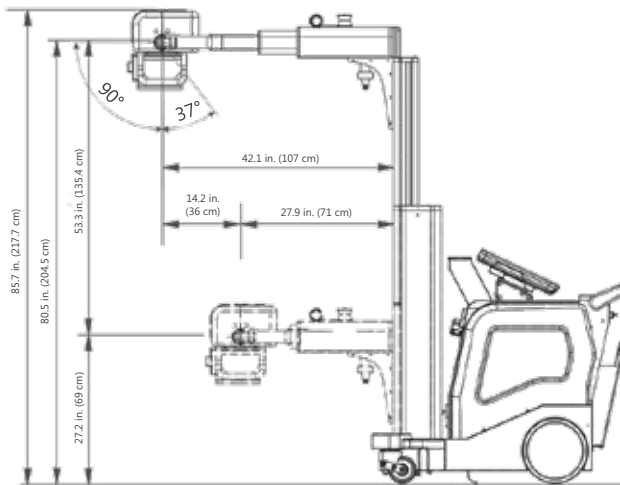
## Mobile System

**Width (in transport mode):** 22.7 in. (57.6 cm)  
**Length (in transport position):** 46.2 in. (117.3 cm)  
**Height (in transport position):** 53.3 in. (135.4 cm)  
**Transport handle height:** 35 in. (89 cm)  
**Focus-ground distance:** 27.2 in. (69 cm) to 80.5 in. (204.5 cm)  
**Max height:** 86 in. (217.6 cm)  
**Arm extension (telescopic):** 14.2 in. (36 cm)  
**Front range-** 28 in. (71 cm) to 42 in. (107 cm)  
**Lateral range-** 20 in. (51.7 cm) to 34.5 in. (87.7 cm)  
**Rotation of x-ray tube head:**  
**A swivel-**  $\pm 180^{\circ}$   
**B swivel-**  $\pm 320^{\circ}$  (from transport position)  
**C swivel-**  $127^{\circ}$  ( $90^{\circ}$  forward,  $37^{\circ}$  backward)  
**Speed forward (transport position):** 0-3 mph  
**Speed forward in working position:** 0-1.6 mph  
**Speed backwards:** 0-1.6 mph  
**Weight (batteries included):** 959lbs (435 kg)



## DR Workstation

**Operating System:** Windows 7 Pro 64-bit  
**Processor:** 3.0GHz, Intel Core i5  
**Storage/Memory:** 16GB RAM, 1TB HD



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