

 Amadeo X-ray Systems

Digital radiography with the fully motorised **Amadeo Z-DR** complete X-ray system

For small
rooms with
a low ceiling
height



Amadeo DR complete X-ray system for digital X-ray imaging



Amadeo Z-DR

Fully motorised all-round unit for low ceiling heights

Are you looking to invest in a high-performance, fully motorised and universal X-ray system and benefit from the many advantages of digital X-ray imaging? Is it important for you to find a compact system which is also easy to install and operate? The **Amadeo Z-DR** system encompasses all the necessary components and functions for digital X-ray imaging without cassettes: automated U-arm system, generator, flat panel, PC and the **dicomPACS®DX-R** acquisition and diagnostic software.

This **Amadeo** system is a space saving solution for low ceiling heights. The optimised work flow reduces the number of process steps, saving you time as well as personal and financial resources.

The **Amadeo Z-DR** is a fully motorised DR system. The U-arm can be positioned easily and within seconds. The stand is equipped with four electric motors for precise and effortless positioning. The system caters for patients in a sitting, standing or prone position (table is optional). The sophisticated design allows alignment between the collimator and the digital receptor in any position.

The **dicomPACS®DX-R** control console includes all the functions required to operate the X-ray system: from controlling the X-ray generator to capturing the complete high-quality image ready for diagnostic evaluation. All the necessary adjustments can be made from one single control console. In addition, the integrated multimedia X-ray positioning guide provides numerous hints on the correct adjustment technique and the positioning of the patient.

Benefits

Digital X-ray imaging with **Amadeo Z-DR**

Unique

Manual operation of the system is available at any time, even if motorised operation should fail.

Your advantage: There is always an alternative.

Low ceilings

The compact construction of the system allows installation down to a ceiling height of approx. 2.40 m (the stand can be adjusted to the maximum room height available). The maximum space required for rotating the fully extended U-arm is approx. 2.90 m.

Your advantage: Even with a ceiling height as low as 2.40 m the system is fully functional.

Excellent image quality

The standard high-quality direct radiography detector operating on the basis of a caesium-iodite (CsI) scintillator provides excellent quality even in the case of low X-ray dose parameters.

Your advantage: In particular when comparing images directly to the commonly used GadOx (Gd²O²S:Tb) detectors, this enhanced quality is clearly visible.

Fast and fully motorised

The U-arm can be positioned simply and within seconds. The stand is equipped with four electric motors for precise and effortless positioning. The X-ray image is available for viewing and diagnosis within 6 – 8 seconds after the exposure is triggered.

Your advantage: Fast work flow with optimal documentation.



Amadeo Z-DR
with dicomPACS® DX-R Software
X-ray Systems for the Future

User-friendly

The professional **dicomPACS® DX-R** acquisition software appeals through an intuitive and modern graphical user interface. Examinations may be conducted comfortably at the monitor while all the necessary adjustments of the X-ray parameters are automatically communicated to the generator.

Your advantage: you work with only one control console.

Safety

The system is equipped with extensive active and passive safety mechanisms. Close proximity sensors can be added to rule out collisions with users and patients.

Your advantage: Safe operation with optimal patient protection.

Cleverly designed

By making use of a 43cm x 43cm detector, the extra effort of rotating from vertical to horizontal images is no longer necessary. When the grid is removed, it is, of course, also very easy to take images of extremities etc.

Your advantage: No extra effort is required to rotate the detector.



Software

Advantages of the professional **dicomPACS®DX-R** X-ray acquisition software

- Modern graphical user interface (GUI) adaptable to almost **any language**
- Capture of patient data via **DICOM Worklist, BDT/GDT, HL7** or other protocols – data may also be captured manually
- Use of **DICOM Procedure Codes** for the transfer of all relevant examination data directly from the connected patient management system (HIS/RIS)
- Freely configurable** body parts with more than **200 projections** and numerous possible adjustments
- Safe and fast **registration of emergency patients**
- Allows the user to **switch between examinations** of a patient, for instance to avoid having to re-position the patient frequently
- Allows the user to **subsequently add images** to an examination, even after that examination has already been completed
- Integrated **measuring, special image filters and many other tools** for measuring and image optimisation
- Entry of recurring **examination procedures as macros**, e.g. thorax screenings
- Fully integrated radiographic positioning guide** for each examination in human and veterinary medicine incl. comprehensive notes, photos, videos and correct X-ray images
- A single work station with installed **dicomPACS®DX-R** software may be upgraded by the following options (selection):
 - Tools for taking images of an entire leg (full spine) or an entire spine (**image stitching**)
 - Planning and working with **digital prostheses templates/operation planning**
 - Connection of several diagnostic monitors
 - Capturing additional patient and examination data and their freely configurable statistical evaluation

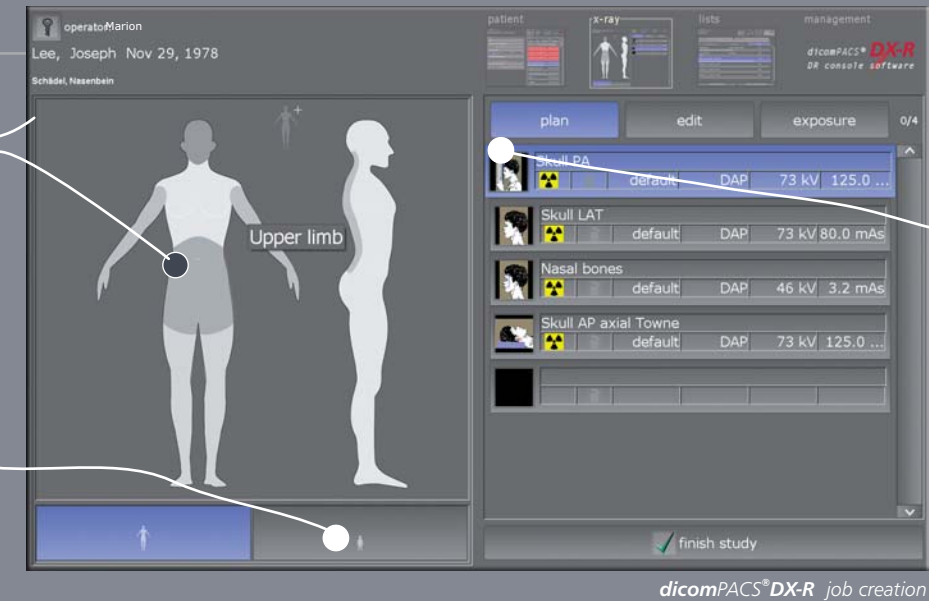
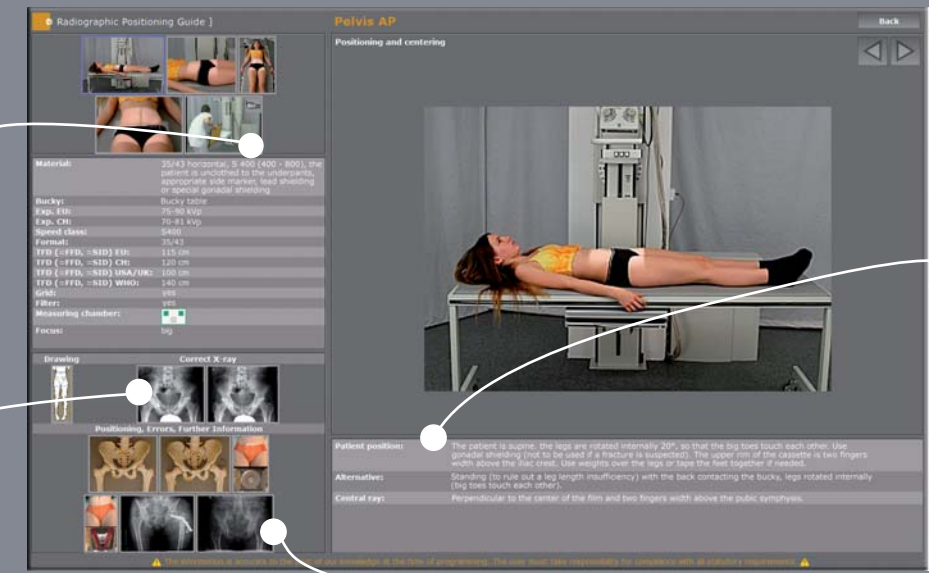


Chart for the planning of an individual X-ray job

Switch to the planning of X-ray jobs for children

The correct settings for adults and children at a mouse click

dicomPACS®DX-R job creation



Videos with sound for the step by step positioning of the patient

Shows an example of a correct X-ray image

Presentation of helpful hints for the positioning of the patient, central beam, tips and tricks, frequent errors etc.

dicomPACS®DX-R radiographic positioning guide



Preview of the current X-ray image

Opens examples of inaccurate X-ray images with comments

Preview of the X-ray image and worklist in dicomPACS®DX-R

Image processing

Automatic image processing for optimal quality

- Perfect images at all times - generally **no adjustment** required
- Integrated software for **automatic image optimisation**
- Professional, **adaptable image processing** for each individual examination to obtain best possible image settings for the needs of each customer
- Due to specially developed processes, the image processing allows the user to **vary the X-ray settings on a large scale** while the image quality remains virtually the same (**possibility of reducing the dosage**)
- **Bones and soft tissue** in one image - this enables the user to significantly improve his diagnosis
- **Details of bones and microstructures are very easy to recognise**
- Noise suppression
- **Black mask** (automatic shutters)
- Automatic **removal of grid lines** when using fixed grids

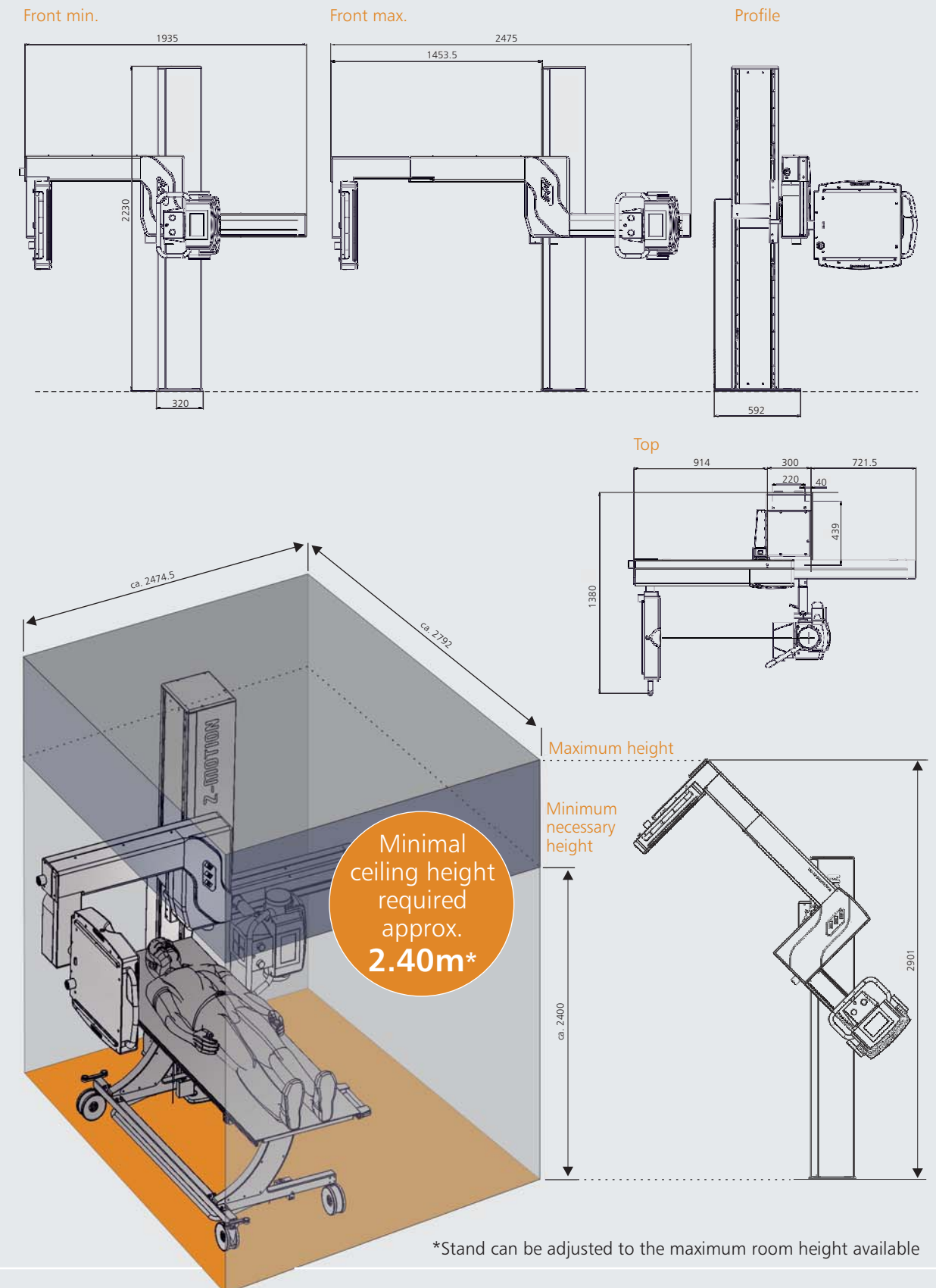


Exposure with **standard** image processing



Exposure with **dicomPACS® DX-R** image processing

Measurements universal radiographic system



Delivery includes

The **Amadeo-Z** systems includes the following components:

Components	Amadeo Z-DR DR system with integrated fixed flat panel	Amadeo Z-AX System for film/ CR cassettes without generator control	Amadeo Z-DRw System with CR cassettes/ wireless flat panel with generator control
50 KW HF generator	✓	✓	✓
Measuring chamber (AEC field)	✓	✓	✓
Motorised U-arm system <ul style="list-style-type: none"> compact construction to a ceiling height of approx. 2.40 fully motorised and manual operation accurate positioning in a few seconds adjustable SID: 100 to 200 cm (39,5 bis 79") motorised movements: 4 movements with electric brakes and clutches vertical motion range: 125 cm (47,25") arm rotation: -30 to +120 degrees FP detector tilt: -30 to +30 degrees X-ray tube rotation: 0 to 90 degrees (non-motorized) manual movement: counterbalanced vertical and rotational movement in most positions total assembled weight: approx. 400 kg (880 lbs) depending on accessories tube side control: 7" wide screen LCD with automatic image rotation manual controls: fully configurable brake release switches at detector and tube side 	✓	✓	✓
Automatic patient positioning (integrated in the U-arm system) The motorized automatic patient positioning is operated with a user friendly touch screen. The number of programmes and their positions may be defined during installation.	✓	✓	✓
X-ray tube 150 kVp <i>standard: 0.6/ 1.2 mm focus, 18/50 kW, 300 kHU 12 degree target angle</i>	✓	✓	✓
Manual Collimator	✓	✓	✓
Motorised bucky with removable grid	✓	✓	✓
Grid for SID 86 to 112 cm	✓	✓	✓

Components	Amadeo Z-DR	Amadeo Z-AX	Amadeo Z-DRw
Grid for SID 100 to 180 cm	✓	✓	✓
Flat panel detector 17" x 17" CsI Detector with excellent image quality and immediate image availability	✓	-	-
Flat panel detector 14" x 17" wireless Wireless X-ray imaging! Fits into an existing X-ray system without requiring modification (in conformity with the X-ray film cassette), fast-charging, long-life batteries	-	-	✓
Operation by <i>dicomPACS® DX-R</i> acquisition station Mini PC with 19" touch screen monitor, <i>dicomPACS® DX-R</i> console software with modern graphical user interface including basic software package	✓	-	✓
Operation by generator console	-	✓	-
Optional components to upgrade the Amadeo Z system:			
DAP meter (Dose Area Product meter)	•	•	•
Upgrade from 50 KW to 65 KW	•	•	•
Upgrade from 50 KW to 80 KW	•	•	•
Remote Control (Bluetooth) for U-arm system	•	•	•
Stitching (Stand)	•	•	•
Motorised collimator without filter exchange	•	•	•
Motorised collimator with filter exchange	•	•	•
LWS/ BWS filter - to replace manual	•	•	•
Patient positioning table I Mobile patient table with power-driven height-adjustment, Dimensions L/W/H: 2300/ 753/ 580-890 mm Weight: 123 kg Max. patient weight: 225 kg X-ray transparent area: 2296 x 588 mm Attenuation equivalent 100 kv: <0,75 mm AL	•	•	•
Patient positioning table II Light and flexible patient table, Dimensions L/W/H: 2000/700/760 mm Max. patient weight: 150 kg Rollers are equipped with block brakes	•	•	•



Portfolio

Overview - products of OR Technology

Medici DR Systems

DR retrofits - digital upgrade set for existing X-ray systems incl. **dicomPACS®DX-R** acquisition software, also available for stationary and mobile X-ray machines



Leonardo DR Systems

DR suitcases - compact suitcase solutions for mobile and portable X-ray incl. **dicomPACS®DX-R** acquisition software



Amadeo X-ray Systems

Complete digital X-ray systems (incl. stand, bucky, generator, flat panel incl. **dicomPACS®DX-R** acquisition software etc.) as well as mobile and portable X-ray solutions



Divario CR Systems

CR solutions - CR systems for digital X-ray with cassettes incl. **dicomPACS®DX-R** acquisition software



X-ray Accessories

Accessories for X-ray (e.g. radiation protection walls, gloves etc.)



dicomPACS®

Image management (PACS) - comprises acquisition, processing, diagnosis, transfer and archiving of image material



ORCA


Cloud-based archive solution - safe, long-term archiving of patient data with intelligent usage of internal databases, communication platform with colleagues and specialists and transfer of image data to patients



dicomPACS®DX-R X-ray Acquisition Software

X-ray acquisition software [only for OEMs] - acquisition and diagnostic software for X-ray images from flat panels or CR systems



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| Imaging Solutions

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