

# The portable **Leonardo DR mini** system for mobile radiography

Wired or wireless for equine and mixed practices







# Wireless radiography with the incredibly light and compact X-ray suitcase system for the mobile vet

Small, lightweight and functional – these are the main characteristics of the sleek and well-designed **Leonardo DR mini**.

This wireless and compact suitcase solution is at 9.5 kg one of the most lightweight X-ray suitcases worldwide. It supports the vet in both mobile and stationary radiography. The **Leonardo DR mini** suitcase can be used in mobile vet practices, equine clinics, university facilities and veterinary hospitals.

The sturdy and easily manageable suitcase with its impact and stain resistant synthetic coating is also easy to carry with the additional shoulder strap. A built in notebook with a high resolution monitor and our acquisition and diagnostic software guarantees an outstanding image display.

The integrated wireless flat panel detector is light and easy to handle at 1.5 kg. Automatic image alignment together with many other features allow for excellent image quality and accurate operation.

### Benefits

#### Digital radiography with Leonardo DR mini

#### Finally X-ray wireless and battery-powered

DR flat panels of every size are now available in wireless designs. The system allows working continuously for more than 4 hours. The optional battery can be recharged while driving with the help of the provided charging cable (12/24 V). If you combine them with a battery operated HF X-ray generator, you can take your X-rays completely free of any cables, enjoying full mobility. Your advantage: No tripping and a lot of room to move even in a stable

#### Currently the smallest and most lightweight suitcase

The Leonardo DR mini system has been meticulously designed to fit into an attractive and small but sturdy suitcase. At currently unsurpassed 9.5 kg, the equipment can be easily carried to the patient by anyone. Only a few simple steps are necessary to set it up for operation.

Your advantage: Easy to transport – fits behind every car seat

#### The most lightweight flat panel worldwide

Our wireless flat panel weighs an incredible 1.58 kg. Fully automated image re-alignment in the case of a misaligned panel during the shot as well as an automatic warning signal when front and back of the panel are interchanged are just two of the many advantages of this little phenomenon.

A wide range of accessories, e.g. a protection case with or without integrated grid, is available. The fully charged battery lasts for about 1,000 shots. Your advantage: Wireless radiography with the currently most lightweight flat panel featuring exceptionally long battery life

#### Protection against data loss

Should the wireless connection be not available, our flat panel can save up to 150 images. The images will be automatically sent to the acquisition station once the connection has been reinstated.

Your advantage: No loss of X-ray images if the wireless connection is interrupted

#### Based on its 4 lp/mm resolution, the flat panel offers top of the

Excellent image quality

range image quality.

Your advantage: Amazing images due to cutting edge technology

#### Easy to use

The professional **dicom**PACS®**DX-R** acquisition software stands out with an intuitive and contemporary graphic user interface. Examinations are comfortably conducted at the monitor. All necessary settings can be automatically transferred to the generator (optional).

Your advantage: No manual inputting of X-ray settings at the generator

#### Fast

Shortly after triggering (6 to 8 sec) the X-ray image is available for viewing and diagnosis.

Your advantage: Fast workflow combined with perfect documentation

#### Sophisticated

An integrated radiographic positioning guide illustrates the correct positioning and settings for each examination, sorted by animal species (cat, dog, and horse).

Your advantage: Makes correct positioning and choice of settings easier

#### Unique

Special measuring functions such as HD measuring, TTA, TPLO and VHS, together with macros for recurring examinations (e.g. pre purchase examinations of horses) can be used without extra charge.

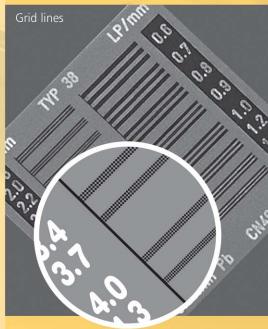
Your advantage: Simplifies the evaluation of images immensely

#### Professional reporting

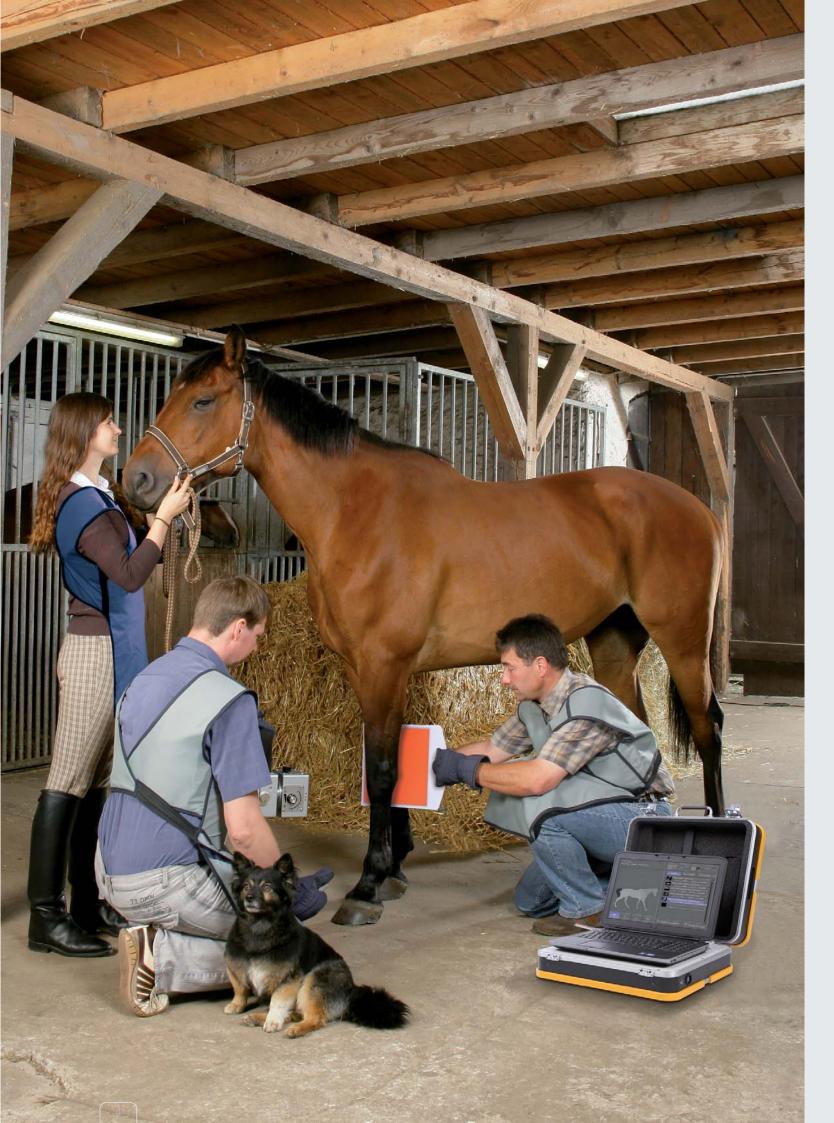
The optional reporting module for X-ray images in connection with pre purchase examinations of horses enables the user to make a professional evaluation including documentation in no time at all.

Your advantage: Comprehensive and professional documentation for your clients











### Software

Advantages of the professional acquisition software and additional modules

- Modern graphic user interface (GUI) adaptable to almost any language
- 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
- Special tools, such as hip dysplasia measurements, special image filters, TPLO, TTA, Buchanan's Vertebral Heart Score, distraction index, multi generator operation for alternating between mobile and stationary systems and much more...
- **Fully integrated radiographic positioning guide** for each examination incl. comprehensive notes, photos and correct X-ray images
- A single work station with installed dicomPACS®DX-R software may be upgraded with the following options, such as Image stitching (tools for stitching an overall image from separate ones) and planning and working with digital prostheses templates/ operation planning
- Automatic image processing for optimal quality:
  - Perfect images at all times generally no adjustment required
  - Professional, adaptable image processing for each individual examination to obtain best possible image settings for the needs of each customer
  - 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)
  - Cropping of images (Crop function)
- dicomPACS®MobileView is a web-based viewer (optional), that contains all the basic functions for viewing images. The viewing can take place virtually independently from the browser on mobile devices, such as an iPad. dicomPACS®MobileView offers doctors and nursing staff a previously unknown, mobile freedom in the workplace inside and outside of hospitals or practices, with the radiological image material available at all times.
- Entry of recurring examination procedures as macros



## Software

# Report module for X-ray services relating to equine prepurchase examinations (optional)

[currently only available for Germany]

Presale and prepurchase examinations for horses are always particularly challenging for veterinarians. Such specialised examinations must be

- carried out swiftly yet very meticulously
- documented very well, in great details and extremely consistently.

After all, the owner of the animal justifiably expects optimal service when it comes to undertaking the examination and presenting the results in a professional and comprehensible fashion. Since administrative work is bothersome yet vital for veterinarians too, we have developed a report module specifically for X-ray services relating to prepurchase examinations in cooperation with renowned specialists.

This module enables the quick compilation of reports by automatically assembling X-ray images. It follows the "X-ray guideline" by the German organisations "Gesellschaft für Pferdemedizin e.V." (non-profit organisation for equine medicine) and "Bundestierärztekammer e.V." (Federal association of veterinarians).

#### Benefits of equine prepurchase examinations:

#### Time-saving:

The *dicomPACS*\*vet prepurchase examination report module allows very fast and professional preparation of reports on the prepurchase examination, including perfect layout and documentation in *dicomPACS*\*vet.

#### Easy to follow:

dicomPACS®vet guarantees complete implementation of the wording and the structure of diagnostic reports in accordance with the "Guideline for prepurchase X-ray examinations" by the German "Gesellschaft für Pferdemedizin e.V." and "Bundestierärztekammer e.V.". The texts can be easily edited and included in the report to be compiled.

#### Reports with images:

The required X-ray images, including all modifications such as zoom, measurements and annotations, and are automatically added to the respective diagnosis (e.g. fetlock joint) for documentation in the prepurchase report. The layout is

automatically compiled (page breaks, image positioning etc.).

#### Safe:

The complete report (WYSIWYG principle) is automatically stored with the X-ray images. Of course, these reports are also available for patient CDs. This guarantees that images and reports are always kept together.

#### Presentation:

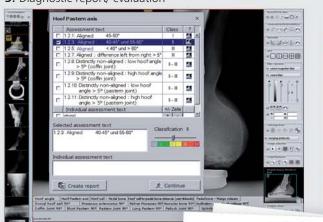
**dicom**PACS®**vet** is a professional marketing tool for referring doctors.

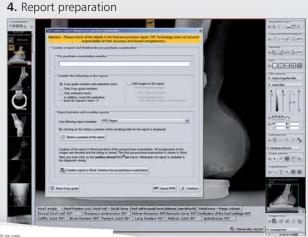
# Workflow for a prepurchase horse examination 1. Start report module 2. Allocate the projection





3. Diagnostic report/ evaluation





**5.** Finished X-ray protocol



## Software

**ORCA** - the Cloud-based archive solution for images and diagnostic reports (optional)

Even for state-of-the-art veterinary clinics and other veterinary facilities, the rapidly rising data flood of digital images, diagnostic reports and other documents is becoming increasingly challenging. Current legislation demands safe and long-term storage of patient data which generally requires investing in expensive hardware infrastructure as well as maintenance and corresponding staff costs.

To this end, we developed the **ORCA** Cloud archiving solution, thus paving the way for cost-effective and safe Cloud-based data archiving in big veterinary practices and clinics. **ORCA** offers two application options:

- → Safe, long-term archiving of patient data with intelligent usage of internal databases
- → Communication platform (exchange of images and diagnostic reports) with colleagues and specialist or as an easy way to forward image data to patients (an alternative to creating patient CDs)



#### Benefits of Cloud archiving through ORCA

Minimal expenditure: ORCA does not require investing in expensive infrastructure such as server and data cables.

**Scalability:** The amount of memory required when using **ORCA** is determined by the demand.

**Long-term security:** *ORCA* archives data on many individual European servers in professional and air-conditioned data centres. Server technology is continuously updated.

**Accessibility:** *ORCA* stands out by being highly accessible. Since data is saved with multiple redundancy, *ORCA* guarantees more continuity than a mere server solution.

Environmentally friendly: ORCA is sustainable – through the optimised use of resources and their distribution.

**Location-independent:** *ORCA* guarantees access to archived patient data - worldwide.

**Simplicity:** *ORCA* allows easy access to data from any computer – from your place of work, from the comfort of your home or from any other computer or tablet PC.

**Stress-free:** *ORCA* deals with everything – no need to struggle with loose network cables, removed hard drives or software problems.



# Flexibility

The **Leonardo DR mini** proves itself very successful in equine clinics and mixed practices

#### Different sizes of detectors available:

To answer your diverse needs and requirements, a whole range of detectors of various sizes is available which can be integrated in the suitcase solution as required. For mixed practices we recommend the purchase of two different flat panels, the bigger one remaining in the practice and the smaller one to be used for mobile examinations outdoors.



#### Space saving transport of big DR detectors:

The **Leonardo DR mini** system can be delivered with a bigger flat panel (35 x 43 cm) (wired or wireless). In this case, the detector is not transported in the suitcase, but separately in a stylish bag. This provides huge advantages:

- Space saving when transported in a car
- Lighter suitcase  $\rightarrow$  a significant advantage during transport
- Better weight distribution when carrying the system

#### Alternative solutions:

Please note that to carry the big flat panel (35 x 43 cm) in the suitcase, you can turn to other **Leonardo** suitcase systems. The suitcase solution **Leonardo 1417** is easy to transport thanks to its pull-out trolley handle and its integrated wheels.

All necessary pieces of equipment such as the notebook and flat panel as well as cables and hand-switch are placed in a sturdy and compact suitcase.



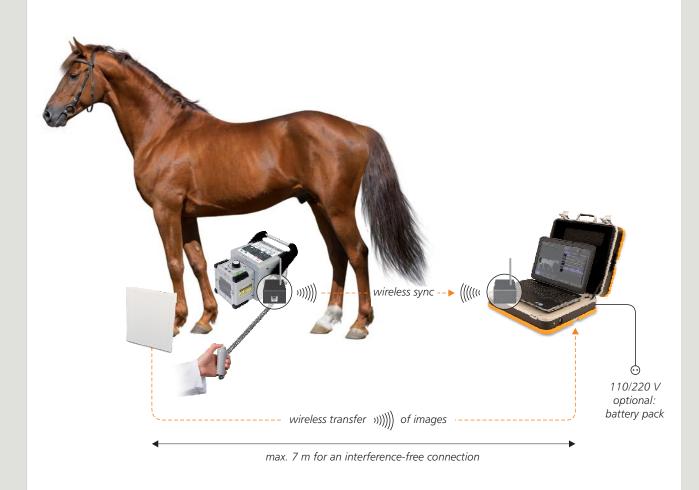


# Freedom without cables

### Take your X-rays with the wireless **Leonardo DR mini** system from now on

Tripping and limited freedom of movement are now things of the past.

The X-ray generator and the flat panel communicate wirelessly with the acquisition station in the suitcase. Once the images are taken, you can immediately make a diagnosis on the notebook.



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#### We have meticulously designed the suitcase for you:



The small, light suitcase can be comfortably carried as a shoulder bag.





The extra battery guarantees your independence from a power source when the system is used in stables etc...



The power supply cable for occasionally charging the battery is kept in a special compartment in the suitcase.



The small suitcase fits behind any car seat, saving space.





The wireless system naturally includes a wireless mouse.



The on switch is countersunk in order to avoid turning off the system accidentally.



The fastener is conceived in such a way that the suitcase can be opened with just one hand.



The transport strap is fast and easy to fasten and to release.

# Scope of delivery The standard Leonardo DR mini system contains

the following components:

Components		Leonardo DRw mini 1210 mobile suitcase system with wireless detector	Leonardo DRw mini 1417 mobile suitcase system with wireless detector	Leonardo DR mini 1417 mobile suitcase system with wired detector
Compact and light suitcase  Total weight: 9.5 kg (including the complete suitcase, notebook, power supply and electronics)  Size: 45 x 38 x 16 cm		✓	<b>✓</b>	<b>✓</b>
Suitcase transport strap		<b>~</b>	<b>~</b>	<b>~</b>
Notebook  With Intel® processor, 8 GB RAM 39.5 cm (15.5") Full HD display (1920x1080), 500 GB hard drive	for example]	<b>✓</b>	<b>~</b>	<b>V</b>
Flat panel detector 24 x 30 cm (10" x 12") 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	Ifor example)	<b>~</b>	_	_
Flat panel detector 35 x 43 cm (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	for example]	_	~	_
Flat panel detector Csl 35 x 43 cm (14" x 17")*  Detector with excellent image quality and immediate image availability	for example]	_	_	<b>~</b>
Leonardo DR mini software package  with dicomPACS®DX-R, professional console software with modern graphical user interface including basic software package and integrated radiographic positioning guide for each examination, inclusive:  dicomPACS®DX-R DICOM Send SCU  dicomPACS®DX-R DICOM Patient CD  dicomPACS®DX-R Cognition Optimised Processing	The second secon	✓	<b>~</b>	<b>✓</b>

<sup>\*</sup>Various types of flat panel on request

Components	DRw mini 1210	DRw mini 1417	DR mini 1417
Battery operation	•	•	•
Wireless synchronisation with any X-ray generator	•	•	•
Protection Case 1210 Delivery with or without grid		_	_
Protection Case 1417 Delivery with or without grid		•	•
Transport bag for 35 x 43 cm flat panel Size: 55.5 x 49 x 6 cm	_	•	•
TR90/20 battery – wireless high performance  • Battery operated HF X-ray generator with pulse-frequency modulation  • Total weight: 6,800 g (incl. battery)  • User friendly due to centrally positioned centre of gravity  • Innovative impact resistant design		•	•
TR90/30 – small format high performance  • High performing high frequency X-ray generator with full bridge inverter system  • Only 6,500 g in the smallest size  • Innovative impact resistant design		•	•
RHF 200ML — the universal resonance high frequency X-ray system  • Shorter exposure times  • Reduced radiation  • Monobloc unit with resonance high-frequency inverter system  • Total weight: 11,200 g		•	•
More accessories  Practical X-ray accessories for all types of flat panel detectors - please ask us.		•	•
Mobile stands and cassette holders  A wide range of X-ray tables and carrying systems of the latest generation enables easy and convenient working.  Please ask us.	·	•	•

### Vet portfolio Overview - products of OR Technology



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





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



Amadeo X-ray Systems *vet* 

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



Divario CR Systems vet

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



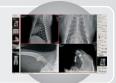
X-ray Accessories

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





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





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





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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# Convenient charging while driving

#### Our plus for you:

The battery can be charged while traveling with 12 or 24 Volt. Charging time for an empty battery is approx. 4 to 6 hours.







