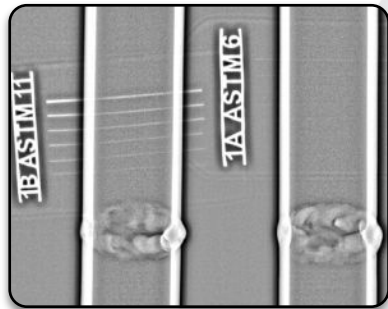


Portable High Energy X-ray DDA for heavy duty inspections

APPLICATIONS

X-ray of high density materials and large thickness :

- ▶ Weldings
- ▶ Profile Radiography
- ▶ CUI (Corrosion Under Insulation)
- ▶ Castings
- ▶ Ammunitions
- ▶ Ballistic plates, ...



KEY FEATURES

Portable

Battery powered and wireless module.

Generate X-ray pictures anywhere : use the **Dereo HE** in a shielded cabinet and take it out at any time in order to work on the field.

High Energy

Electronics are sensitive to X-ray. **Dereo HE** is compatible with all existing sources (X-ray, gamma, betatrons, linear accelerators, ...) and all energies.

Robust

Tough handle, bumpers, military standard connectors, strong carrying case, ... will definitely grant a high level of robustness of your **Dereo HE** on the field. **IP67** certified.

Quick set-up

Very fast set-up and use thanks to smart hard- and software features.

Digital

Immediate image after couple of seconds.

Very user-friendly Maestro software.

Post-processing.

DICONDE Image format for universal file exchange.

Easy archiving & reporting.

Image quality

Automatic and fast averaging.

Pixel size from 200 down to 75 μm !

Highest sensitivity

Excellent signal to noise ratio ($\text{SNR} > 500$) thanks to smart calibration process and contrast resolution better than 1% (EN 462-1).

High penetration capability.

Dereo HE DDA SPECIFICATION

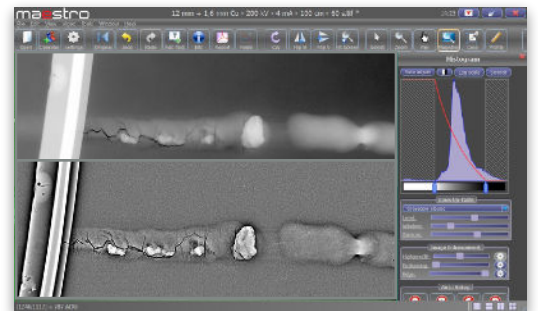


MODEL	ACTIVE AREA (cm)	PIXEL SIZE (µm)	GREY LEVEL (bit)	EXTERNAL DIMENSIONS (mm) without bumpers	WEIGHT (kg) battery included	WIRELESS
Dereo HE 1723	17 x 23	75	16	208 x 256 x 30	2.7	Yes
Dereo HE 2532	25 x 32	124	16	322 x 355 x 19	3.8	Yes
Dereo HE 3643	36 x 43	140	16	400 x 470 x 19	5.9	Yes
Dereo HE 4040	40 x 40	200	14 or 16	605 x 586 x 25	12.3	Yes

Unique : let us know your application and **X-RIS** will select the right scintillator for you.

Maestro SOFTWARE

- ▶ Software interfaces developed **by and with field users**
- ▶ **Maestro Touch** for touchpads and **Maestro** for laptops
- ▶ Very **intuitive** software interfaces. Access to all key tools of **Maestro Touch** with your thumbs and with one click mouse on **Maestro**
- ▶ Zoom in / out, screen adjustment, rotation, horizontal and vertical flip, cropping, ...
- ▶ Access to the LUT (look-up-table)
- ▶ Black and white reversal
- ▶ Annotations
- ▶ **ACUITY** Filter
- ▶ **Real time** magnifier
- ▶ **Real time** filters (Acuity, Defect, Contrast, Edge, Noise reduction, ...)
- ▶ Smart measurement tools
- ▶ NDT Tools for normative inspections
- ▶ Bad pixels map
- ▶ **DICONDE**
- ▶ Compliant with all major NDT standards (ISO 17636, ASTM-E 2698, E2736, E2737, E2597, Safran PR5250, Airbus AITM 6-7007 and Boeing BSS-7044)
- ▶ Wall thickness measurement
- ▶ Control of many X-ray generator brands and models
- ▶ Any language available upon request
- ▶ **X-RIS** is open to discuss the development of new software tools



Dereo HE ACCESSORIES

X-RIS makes your job easy and supplies :

- ▶ 40m cable reel (designed by **X-RIS** for minimization)
- ▶ Bipods and tripods
- ▶ Carrying case and backpack
- ▶ Touchpads and laptops
- ▶ **GemX** portable battery powered X-ray generators

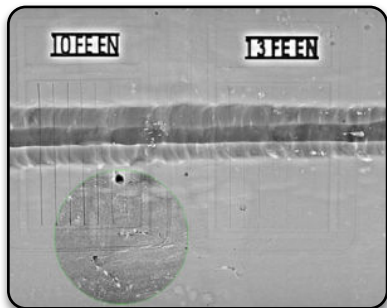


Ultra Portable X-ray DDA with embedded wireless module and battery



APPLICATIONS

- ▶ Portable digital system for indoor and outdoor x-ray jobs
- ▶ Quality control of large structures in aerospace, aeronautic, shipyards, on pipes, power lines, buildings, railway, windmills, ammunitions, ...)
- ▶ Periodic maintenance control
- ▶ Weldings, castings, corrosion under insulation, composite materials, ...
- ▶ Historical assets (in Museums, laboratories, universities, ...)



KEY FEATURES

- Ultra portable** Battery and wireless module (embedded into the panel) !
Generate X-ray pictures anywhere : use the **Dereo UP** in a shielded cabinet or take it out at any time to use the **Dereo UP** as an extremely portable tool on site.
Ultra light DDA : Down to 2.8 kg.
- Robust** Tough handle, bumpers, military standard and magnetic connectors, strong carrying case, ... will definitely grant a high level of robustness of your **Dereo UP** on the field.
- Quick set-up** Very fast set-up and easy use thanks to smart hard- and software features.
- Digital**
Dynamic DDA.
Immediate image after couple of seconds.
Very user-friendly Maestro software.
Post-processing.
DICONDE format for universal file exchange.
Easy archiving & reporting.
- Image quality**
Unique : With **GemX** X-ray generators, change kV and mA during X-ray shot and adjust the image. « You just can't fail your x-ray shot ! »
Automatic averaging.
Dereo UP (100 µm) complies with ISO 17636-2 :
 - Class B for thickness higher than 4 mm.
 - Class A for thickness higher than 1 mm.
- Highest sensitivity** Impressive signal to noise ratio (SNR > 500 !) thanks to smart calibration process and fantastic contrast resolution better than 1% (EN 462-1).
- Ultra thin** Possibility to slide the **Dereo UP** between 2 objects.
Removable bumpers in order to reduce the thickness if necessary.
Thickness of 17mm, only!

Dereo UP DDA SPECIFICATIONS

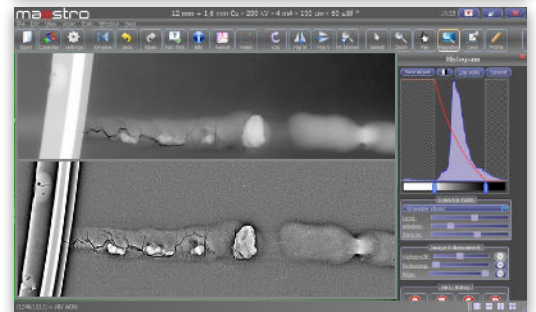


MODEL	TECHNOLOGY	ACTIVE AREA (cm)	PIXEL (µm)	GREY LEVEL (bit)	EXTERNAL DIMENSIONS (mm)	WEIGHT (kg) battery included
Dereo UP 2530	@-Si	25 x 30	100	16	412 x 321 x 17	2.8
Dereo UP 3643	@-Si	36 x 43	100	16	543 x 430 x 17	4.0

Unique : let us know your application and **X-RIS** will select **the right scintillator** for you.

Maestro SOFTWARE

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- ▶ Black and white reversal
- ▶ Annotations
- ▶ **Real time** magnifier
- ▶ **Real time** filters (ACUITY, Defect, Contrast, Edge, Noise reduction, ...)
- ▶ Smart measurement tools
- ▶ NDT Tools for normative inspections
- ▶ **ACUITY** Filter
- ▶ Bad pixels map
- ▶ **DICONDE**
- ▶ Compliant with all major NDT standards (ISO 17636, ASTM-E 2698, E2736, E2737, E2597, Safran PR5250, Airbus AITM 6-7007 and Boeing BSS-7044)
- ▶ Wall thickness measurement
- ▶ Control of many X-ray generator brands and models
- ▶ Any language available upon request
- ▶ **X-RIS** is open to discuss the development of new software tools



Dereo UP ACCESSORIES

X-RIS makes your job easy and supplies :

- ▶ 40m cable reel (designed by **X-RIS** for minimization)
- ▶ Bipods and tripods
- ▶ Carrying case and backpack
- ▶ Touchpads and laptops
- ▶ **GemX** portable battery powered X-ray generators



X-RIS
X-RAY IMAGING SOLUTIONS

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Portable battery-powered DDA for **H**igh **R**esolution NDT inspections

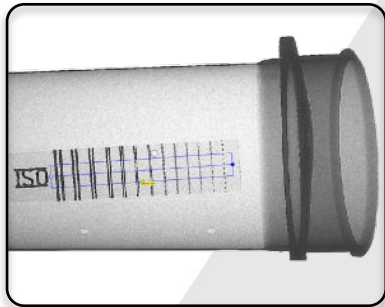
APPLICATIONS

Makes possible DR inspection in hard-to-reach areas :

- ▶ Small bore pipe and spool welds
- ▶ Small diameter Ti and Al pipe welds
- ▶ E-beam welds
- ▶ Civil and military aircraft NDE
- ▶ Restauration & conservations
- ▶ Welding training centers, universities, ...



KEY FEATURES



Easy and quick set-up

Generates X-ray pictures anywhere : use the **Dereo HR** in a shielded cabinet or take it out at any time to use the **Dereo HR** as the most portable tool on site

Ultra light DDA (**Dereo HR** : 1 kg, only !)
Its compactness will definitely grant a high level of robustness of your **Dereo UP** on the field
Battery powered



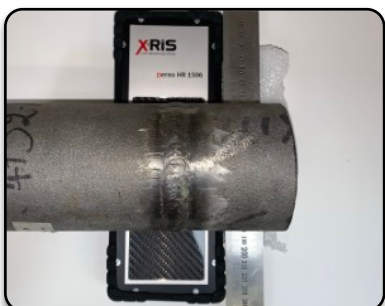
Image quality

Dynamic DDA
Immediate image after couple of seconds
Very user-friendly Maestro software
Post-processing
DICONDE format for universal file exchange
Easy archiving & reporting



Unique

Optimized distance from the 3 sides, in order to reduce the dead area, to cover even more applications.
With **GemX** X-ray generators, change kV and mA during X-ray shot and adjust the image. « You just can't fail your x-ray shot ! » Automatic averaging
Dereo HR (49 μm) complies with ISO 17636-2
- Class B for thickness higher than 1.5 mm
- Class A for thickness higher than 0.1 mm



Power

Battery powered thanks to **X-RIS'** GUC

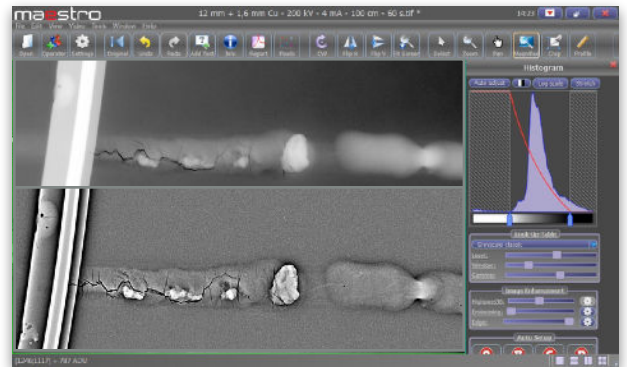
Dereo HR DDA SPECIFICATIONS



MODEL	TECHNOLOGY	ACTIVE AREA (cm)	PIXEL SIZE (µm)	GREY LEVEL (bit)	EXTERNAL DIMENSIONS (mm) without bumpers	WEIGHT (kg) battery included	FRAME RATE (fps)
Dereo HR 1506	CMOS	15 x 06	49	14	80 x 230 x 26.5	1	9

Maestro SOFTWARE

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- ▶ **Maestro Touch** for touchpads and **Maestro** for laptops
- ▶ Very **intuitive** software interfaces. Access to all key tools of **Maestro Touch** with your thumbs and with one click mouse on **Maestro**
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- ▶ Annotations
- ▶ **Real time** magnifier
- ▶ **Real time** filters (ACUITY, Defect, Contrast, Edge, Noise reduction, ...)
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- ▶ Wall thickness measurement
- ▶ Control of many X-ray generator brands and models
- ▶ Any language available upon request
- ▶ **X-RIS** is open to discuss the development of new software tools



Dereo HR ACCESSORIES

X-RIS makes your job easy and supplies :

- ▶ Carrying case and backpack
- ▶ Touchpads and laptops
- ▶ **GemX** portable battery powered X-ray generators



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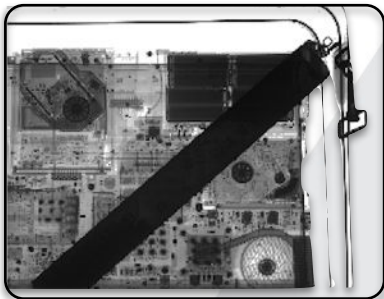
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Ultra Portable X-ray DDA with embedded wireless module and battery

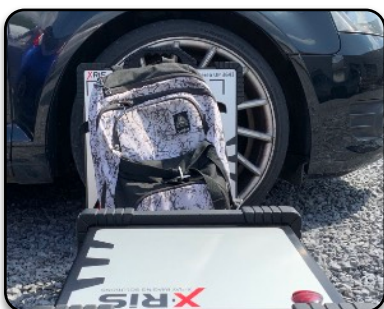
APPLICATIONS

- ▶ Special Forces
 - ▶ EOD & IED
 - ▶ VIP security
 - ▶ Customs & border control
 - ▶ Counter-Surveillance
 - ▶ Forensic
- ▶ Inspections of parcels, cars (door, trunk, tires, ...), pieces of luggage, walls, ...
 - ▶ X-ray anything at anytime in extreme environments and situations ...



KEY FEATURES

- Ultra Portable** Battery and wireless module integrated inside the panel !
No additional modules and cables.
Touchpad (IP65) + **Dereo UP 2530** + XRS-3 **TOTAL WEIGHT < 6 kg.**
- Ultra thin** Thickness of **1.7 cm.** Possibility to slide the **Dereo UP** between wall and suspicious objects, ...
- Quick set-up** Very fast set-up and use thanks to smart hard- and software features.
- Robust** Tough handle, bumpers, military standard and magnetic connectors, strong carrying case will definitely grant a high level of robustness of your **Dereo UP** on the situation.
- Size range** 25 x 30 cm or 36 x 43 cm.
- Digital** **Dynamic DDA:** multiple images averaging for image quality optimization.
Immediate image.
User-friendly, quick and very intuitive diagnosis thanks to **Maestro Touch** software optimized for tablets.
Post-processing.
TIFF & JPG format.
Easy archiving & reporting.
- Flexibility** Works with all Golden Engineering X-ray generators and other X-ray generator brands.
Wired or wireless (up to 300 meters LOS).
Laptop or tablet (or both).



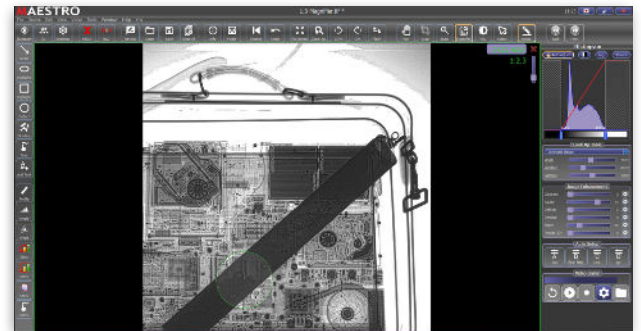
Dereo UP SPECIFICATIONS



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Dereo UP ACCESSORIES

X-RIS makes your job easy and supplies :

- ▶ Bipods and tripods
- ▶ 40m cable reel (designed by **X-RIS** for minimization)
- ▶ Carrying case and backpack
- ▶ Touchpad (IP65, MIL-STD810G, 10,1" - 16 : 10 sunlight readable full HD screen)
- ▶ Laptops (regular and rugged)
- ▶ **Golden Engineering** portable battery powered X-ray generators X-RS3 : 270 kV, battery powered



www.xris.eu

X-RIS
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