



**DR**

**INNOVATIVE TECHNOLOGIES  
IN X-RAY NON-DESTRUCTIVE  
TESTING**



## PORTABLE CONSTANT POTENTIAL X-RAY UNIT COMAR



Very small (Ø 120×508 mm) and ultralight – 5.4 kg  
Small but powerful – 300 W  
Focal spot of a unique small size – 0.8×0.8 mm  
Much longer duty cycle  
Can be used under high humidity conditions

### MAIN SPECIFICATIONS

Power output, W, max. . . . .	300
kV . . . . .	50-160
Tube current, mA. . . . .	0,1-3
Target angle. . . . .	80° × 100°
Focal spot size (EN 12543), mm . . . . .	0,8 × 0,8
Unit main parts weight, kg:	
Monoblock . . . . .	5,4
PCB	
COMAR 150 /COMAR 160 with case . . . . .	0,5
COMAR 160 CP . . . . .	3,9
Accumulator battery case. . . . .	10,5
Monoblock stand with handle . . . . .	1,1
Autonomous cooling device. . . . .	1,3

## CONSTANT POTENTIAL PANORAMIC X-RAY UNIT CROT



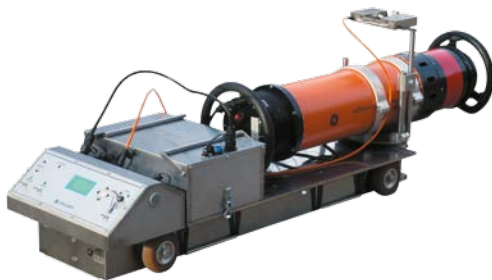
The unit CROT can be powered by AC mains and by a 48 V rechargeable battery. This model has an improved very effective cooling system.

### MAIN SPECIFICATIONS

Battery voltage, V: . . . . .	48
X-ray tube anode power, W (2 steps): . . . . .	280, 400
kV (11 steps): . . . . .	120–180 step 10 and 185–200 step 5
Radiation pattern—panoramic: . . . . .	40°×360°
X-ray unit weight, kg: . . . . .	15.1

Small size – Ø 120 × 885mm  
Two power supply sources – 220 AC and 48 V  
Two applications – with a crawler and autonomously  
Improved cooling system  
Automatic training function

## X-RAY CRAWLER ARGO



ARGO is a series of crawlers meant for pipe welds radiographic testing in the field. The latest electronic innovations implemented in the ARGO make it possible to eliminate deficiencies and inconveniences of competing crawlers.

### MAIN SPECIFICATIONS

Pipe diameter, mm. . . . .	530 to 1420
Main chassis weight (with a battery pack unit for motors), kg . . . . .	59

Weight is 30% lighter  
Distance of movement without recharge is distinctly longer  
Minimal turning radius is lesser  
Stability is much improved  
Jam and non-return protection is highly advanced  
Corrosion protection is reliable



# DIGITAL RADIOGRAPHY SYSTEM *Test&Ray*

for X-ray field inspection of 500–1420 mm pipe welds during pipeline construction and repair



No consumables, film processing, or phosphor plates scanning  
DNV image quality class B  
Battery operated  
On-line wireless  
1 minute installation

## MAIN SPECIFICATIONS

- Detector**
  - a-Si detector
  - Resolution: 4 lp/mm (127 µm pixel size)
  - Image size: 145 × 145 mm
  - X-ray energy: up to 300 keV
  - Operating temperature: -40° to +30°C
- Software**
  - Real-time X-ray image acquisition
  - Exposure control and image processing and archival using **DiSoft** software
- Dimensions and Weight**
  - Detector with battery and data transfer system: 19 × 19 × 12 cm, 4 kg
- Accessories**
  - Battery pack charger, 12/24/220 V input voltage.
  - Wire or step/hole IQIs

# DIGITAL RADIOGRAPHY SYSTEM ITSM\*

For X-Ray inspection of longitudinal and circumferential welds in motion



Fits DNV Class B SWSI at speed up 4 m/min  
Compatibility with different DDA of major producers  
Effective real time math processing (filtering)  
Object motion control  
Increased signal to noise ratio  
High performance

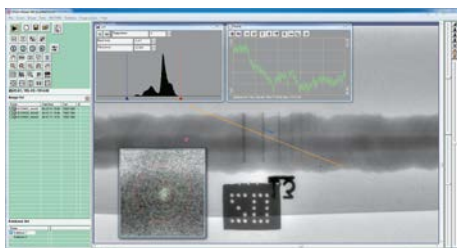
## FEATURES

We work on Digital Radiography projects for more than 20 years. The experience we have gained during these years enabled us to design a conceptually new digital radiography system. The system is based on the advanced technology which has never been used before.

\* ITSM — Improving of Testing Sensitivity in Motion technology developed in our research laboratories. The Technology based on dynamic integration combined with real time deconvolution that allows sufficient noise reduction preserving impressive spatial resolution.



software is based on many years of experience of software development for industrial radiography



DiSOFT is DICOM compliant (X-ray images are stored to DICOM data format (ASTM E2339–11). Data protection from tempering, compatibility with conventional image formats (tiff16, bmp, jpg), image enhancement. Inspection date, time and GPS coordinates stored in datafile.

## X-RAY PROTECTION CABINETS



We have developed the manufacturing technology for dismountable modular cabinets of radiation protection. They are equipped with lighting, ventilation and an electric board with an option of blocking.

The cabinets may also be equipped with an automated door driver. Our cabinets are unique because they are dismountable. Technical solutions on panels mounting and hardware locks applied at manufacturing guarantee a 100% protection against direct and reflected flows of ionizing radiation. (foto: Assembling of cabinets)



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