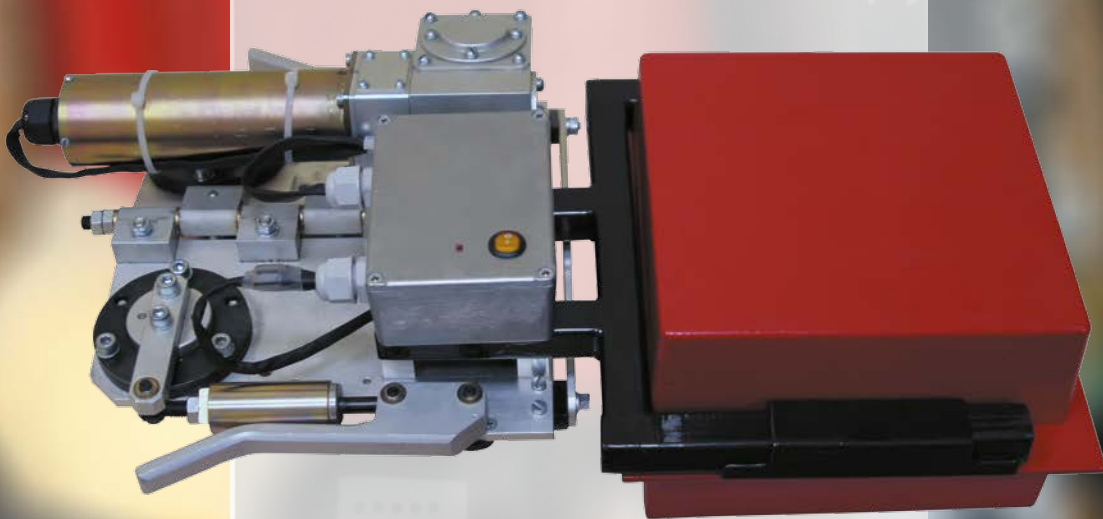


INNOVATIVE TECHNOLOGIES
IN X-RAY NON-DESTRUCTIVE
TESTING



DIGITAL RADIOGRAPHY SYSTEM

Test&Ray



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

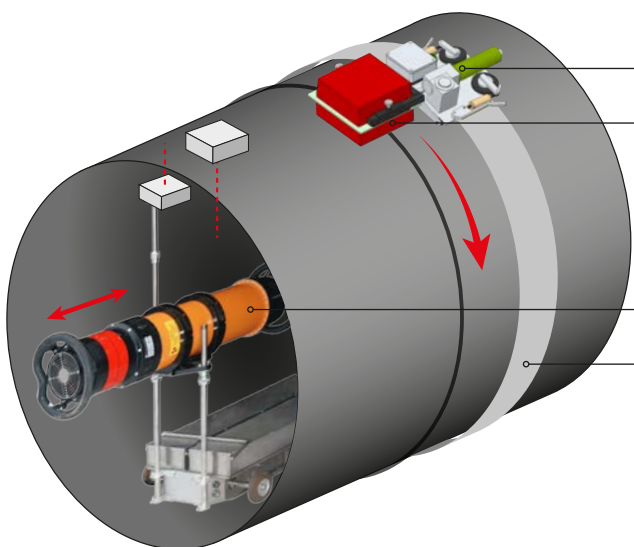
Test&Ray DIGITAL RADIOGRAPHY SYSTEM PROVIDES:

- lower inspection costs by eliminating consumables (X-ray film and film processing chemicals), film processing equipment, film storage facilities;
- inspection results obtained online make it possible to correct welding settings immediately to avoid more defects;
- perfect conditions for image examination (zoom, optimal contrast, image enhancement procedures) and inspection protocol preparation;
- easy use of database.

PORTABLE LIGHTWEIGHT DIGITAL RADIOGRAPHY SYSTEM
Test&Ray

TestXray system is intended for X-ray field inspection of Ø500–1420 mm pipe welds during pipeline construction and repair.

LAYOUT OF THE *Test&Ray* DIGITAL RADIOGRAPHY SYSTEM:



- Electric motor
- Monoblock unit comprising:
 - Detector
 - Batteries
 - Control computer
 - WiFi module
- Crawler with x-ray unit
- Guiding pipe band

Laptop with DiSoft software for real-time radiographic image acquisition and processing



QUALITY COMPARISON OF ACQUIRED IMAGES

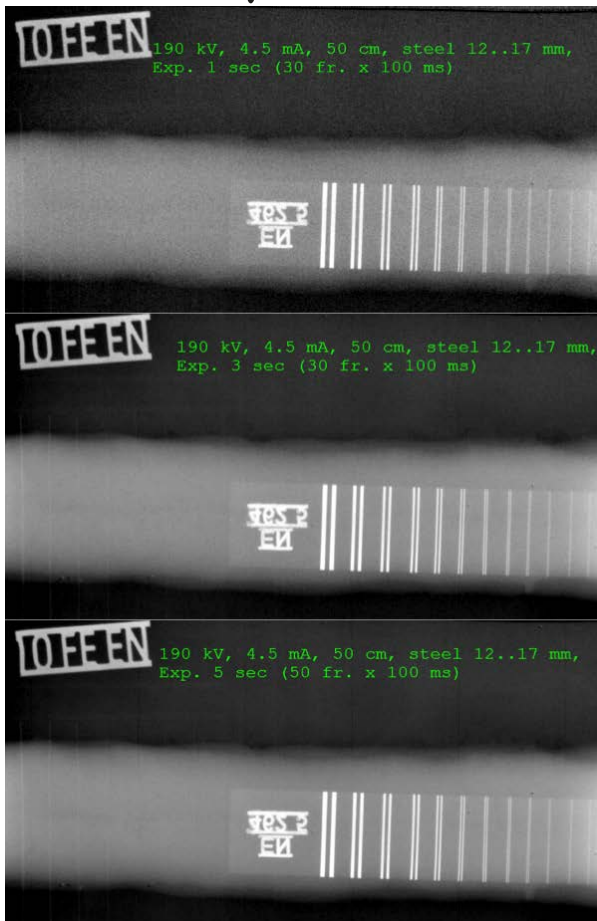
Sample:

Pipe Ø1020 mm
 Wall thickness 12 mm to 17 mm
 U = 190 kV
 I = 4.5 mA
 SOD 50 cm

Image from AGFA D7 film:



Image from *Test&Ray* system:



DISOFT SOFTWARE

is DICONDE compliant (X-ray images are stored to DICONDE 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.

SYSTEM SPECIFICATIONS

Detector	<ul style="list-style-type: none"> · 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	<ul style="list-style-type: none"> · Real-time X-ray image acquisition · Exposure control and image processing and archival using DiSoft software · The digital image is stored as a file of a fully documented DICONDE format compliant to ASTM E2339–11 standard, which ensures the readability of all information, including metadata, using software by different vendors
Data Transfer and Power Supply	<ul style="list-style-type: none"> · Data transfer to the operator's laptop with Wi-Fi, up to 300 m · Data storage: internal memory of the detector; in case of Wi-Fi connection failure, the exposure continues, and the data is secured · Detector power supply: Li-Ion battery (battery life 2 hours, min. charge time 15 min)
Dimensions and Weight	<ul style="list-style-type: none"> · Detector with battery and data transfer system: 19 × 19 × 12 cm, 4 kg
Accessories	<ul style="list-style-type: none"> · Battery pack charger, 12/24/220 V input voltage. · Wire or step/hole IQIs

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