DR SYSTEMS

XPRESS-SCAN®

Digital radiography system for automatic inspection of pipeline welds

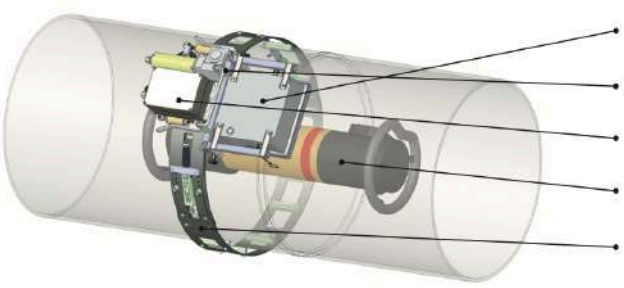
XPRESS-SCAN®
The peak of digital radiography evolution

XPRESS-SCAN® is an advanced mobile digital radiography system used for single- or double-wall inspection of annular pipe welds from 159 mm (6 inches) and more in pipeline construction, maintenance or repair.

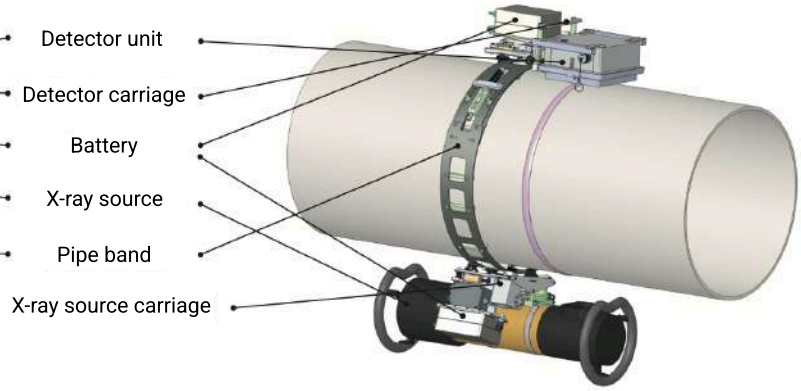
The system is designed to significantly boost the speed of non-destructive testing, increase the convenience of operations and minimize the influence of the human factor. The testing can be done right after welding, and instant results will allow immediate adjusting of the welding equipment settings in case any defects are found to ensure they won't be repeated on the following joints – all to avoid any delays in project execution.

The option of a double-wall control scheme will provide the best solution for cases when the use of a crawler is not possible. The system comes with the pre-installed software DR-SOFT®, which contains an extensive toolkit for performing any task within the framework of industrial radiographic inspection.

LAYOUT XPRESS-SCAN®



LAYOUT XPRESS-SCAN® DW



System specifications

	XPRESS-SCAN®	XPRESS-SCAN® DW
Detector	SCANRAY®1230 Pixel pitch: 124 µm Image size: 127 × 317 mm X-ray voltage: up to 450 kVp Operating environment: -20°C to +50°C	
Productivity	6 min/weld	16 min/weld
	Pipe D = 1420 mm (56”), 21 mm thickness	
Image storage capacity	200 data files	
Data transfer	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	
Power supply	110-220V AC detector power supply: 2 Li-Ion batteries (UN 38.3 certified). Battery life: 5 hours × 2 batteries = 10 hours	An additional set of 3 Li-Ion batteries
System’s dimensions and weight	1 transportation case of 860 × 560 × 360 mm, 30 kg	2 transportation cases of 860 × 560 × 360 mm, a total of 55 kg
	Titanium pipe band of 1420 mm (56”): 1000 × 130 mm, 7 kg	
Dust and water resistance	IP67	

XPRESS-SCAN® benefits

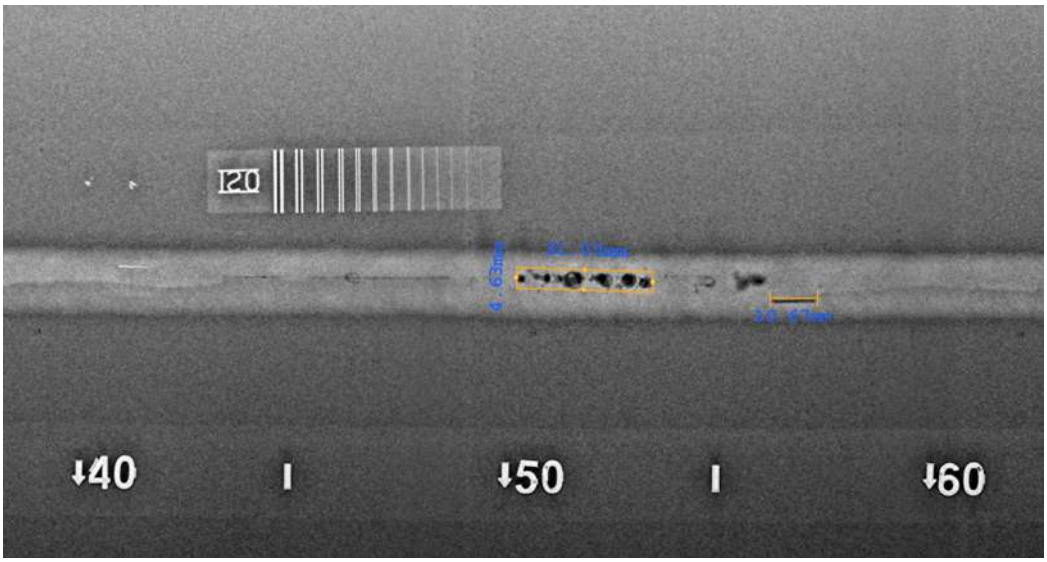
- Automatic control of the whole weld joint in one go without operator involvement;
- A short time of control: a single digital image of the whole annular pipe weld will be ready in just a few minutes;
- Installation time on the pipe weld: 1-2 minutes;
- Battery operated;
- Instant wireless data transfer;
- Compatible with any X-ray or Gamma source and any crawler;
- The internal storage of control results to make sure nothing is lost in case of wireless connection problems;
- Use of protected image format under DICONDE protocol;
- Complete set of accessories for easy start of operations.

Digital radiography software DR-SOFT®

- Real-time image acquisition;
- Single continuous image of the whole weld length with a built-in algorithm for stitching;
- Exposure control, image viewing and archiving;
- Image processing to improve the convenience of interpretation;
- Pre-installed filters to notice all defects with one click;
- Image storage in DICONDE data format as per ASTM E2339-21;
- Data protection from tampering;
- Compatibility with conventional image formats (BMP, JPEG, TIFF);
- Automatic filling of the inspection date, time, GPS coordinates and other chosen parameters.

Scope of delivery

- Digital detector SCANRAY®1230 with carriage;
- X-ray carriage (for XPRESS-SCAN® DW);
- 2 titanium bands of the requested diameters;
- 2 or 5 batteries with the charger;
- Laptop with pre-installed software DR-SOFT®;
- Additional Wi-Fi module;
- Wire set;
- Accessories kit;
- Transportation case (two in case of XPRESS-SCAN® DW).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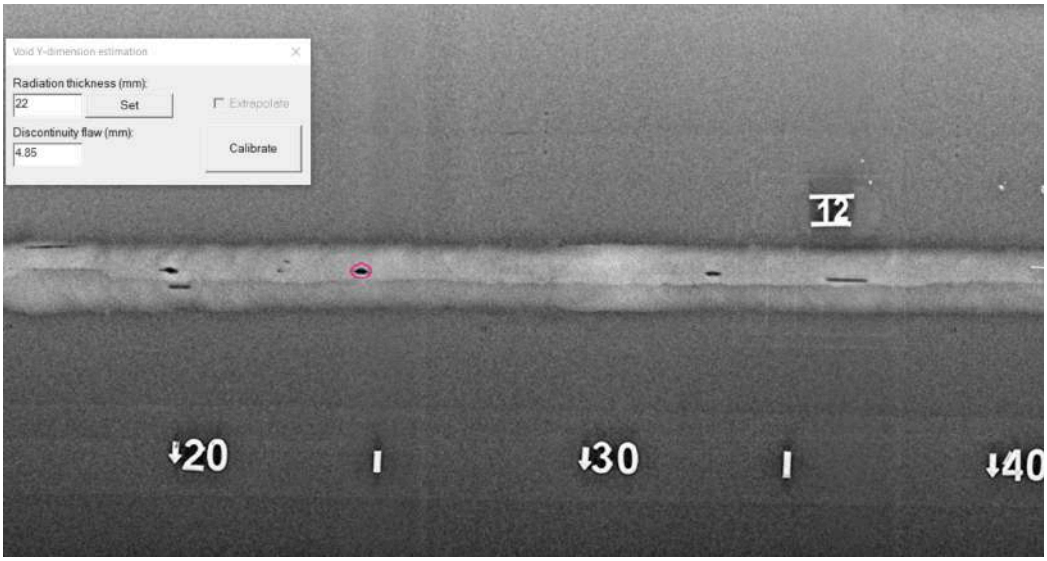
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Discontinuity flaw (mm):
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Calibrate
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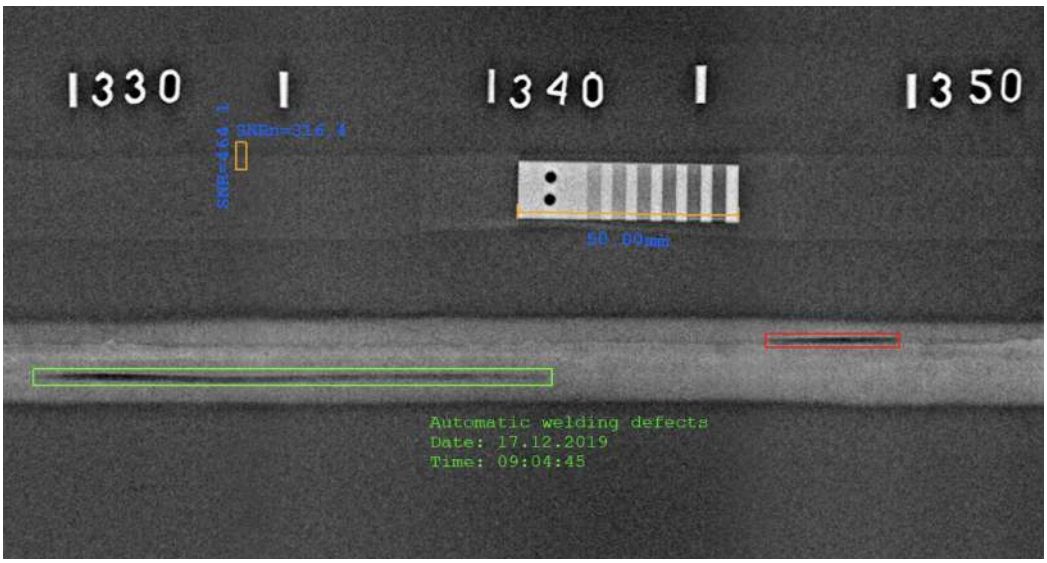
20
30
40


330
340
350
Automatic welding defects
Date: 17.12.2019
Time: 09:04:45

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INNOVATIVE TECHNOLOGIES IN
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