

OKO_{ndt} GROUP
NON DESTRUCTIVE TESTING



USR-01 KIT TESTING OF RAIL WELDED JOINTS



Complies with:
EN14730-1:2006+A1:2010

www.oko-ndt.com



USR-01 Set is intended for ultrasonic inspection of aluminothermic welded rail joints in accordance with EN14730-1 requirements. The USR-01 Set can be used for inspection of joints welded by the electrocontact method, for secondary rail track inspection based on the results of mechanized and quick systems of ultrasonic testing, as well as for pre-weld inspection of end sections of new and used rails before welding them at rail welding enterprises or in tracks.



2

Sonocon B offers all the functions necessary to inspect welded rail joints and an easy-to-operate interface.

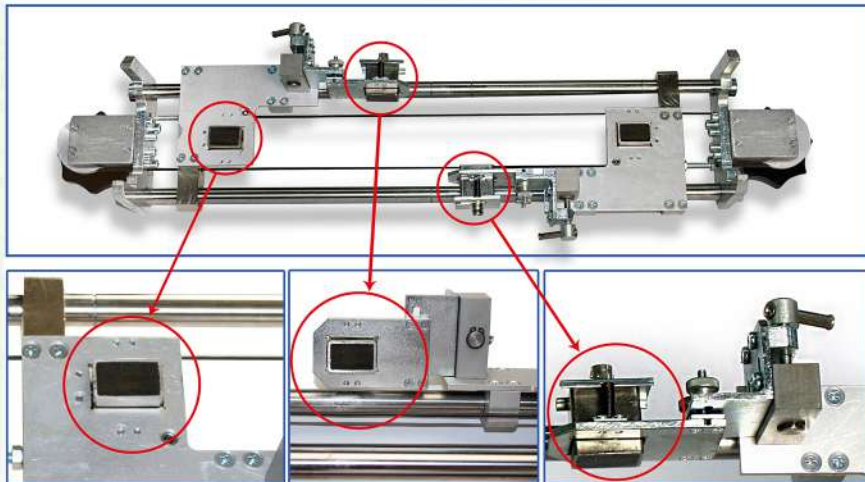
The flaw detector complies with all quality requirements and provides a wide range of standard and additional inspection functions. Grip-oriented and light, the device is easy to operate in the field.





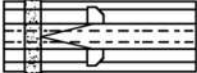
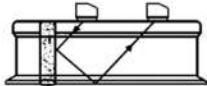
USR-01 Scanner

USR-01 scanning device is utilized for positioning and movement of probes for inspection of rail aluminothermic welded joints.



Scanning schemes

3

2	Test of head for planar defects		Two 70° single crystal probes (TX & RX)
3	Test of web for planar defects		Two 45° single crystal probes in tandem with a positioning rig



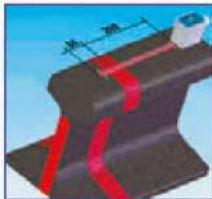
Manual probes and scanning schemes

Probes inspect welded joints of rails from various rail surfaces applying the pulse-echo technique.



4

Scanning schemes



Inspection of the rail web from the running surface of the rail head with 45° probes.



Inspection of the rail web from the lateral surface of the rail web with 0° and 70° probes (a complementary scheme)



Inspection of the rail head from the running surface (70° probe).



Inspection of the rail head from the lateral face of the rail head with 0° and 70° probes.



USR-01 Delivery Specification

1.



Sonocon B

2.



USR-01
Scanner

3.



Angle Beam Single
Crystal Probe:
P121-2-70-R-01
(TAB2-70-14x14-R)
(70 degree, 2MHz) - 2pcs

4.



Angle Beam Single Crystal
Probe: P121-2-45-R-01
(TAB2-45-14x14-R)
(45 degree, 2MHz) - 2pcs

5.



Additional manual probe
Angle Beam Single Crystal
Probe: TAB2-45-14x14 (45
degree, 2MHz)



USR-01 Delivery Specification

- | | | |
|-----|---|--|
| 6. |  | Additional manual probe Angle Beam Single Crystal Probe: TAB2-70-14x14 (70 degree, 2MHz) |
| 7. |  | Additional manual probe Angle Beam Single Crystal Probe: TAB-D-2-70 (70 degree 2MHz) |
| 8. |  | Additional manual probe Straight Beam Single Crystal Probe: TSD4-20 |
| 9. |  | Calibration block K1 (optional) |
| 10. |  | Calibration block K2 (optional) |



USR-01 Delivery Specification

11.



Connection cable probe /
Electronic unit (2Lemo00×2BNC)

12.



Connection cable probe /
Electronic unit (BNC×BNC)

13.



Connection cable probe /
Electronic unit (BNC×Lemo00)

14.



Mascot Type 2542 Charger

15.

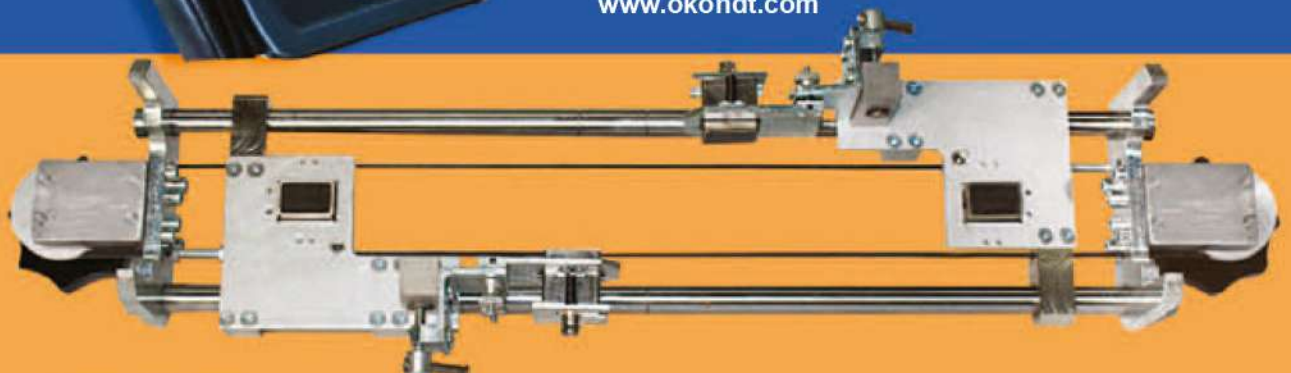


Bag



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