

GAMMA, X-RAY & COMPUTED RADIOGRAPHY

SEE INSIDE THE WELD, IN THE BAY OR ON SITE.

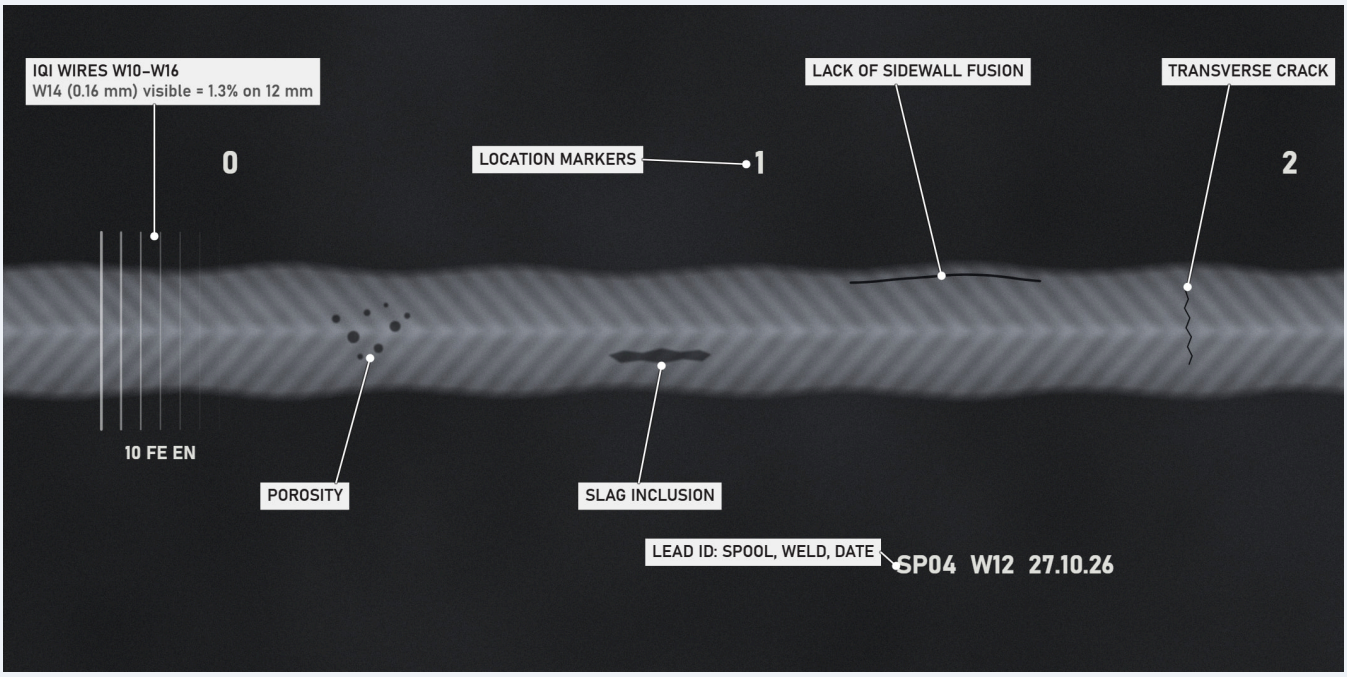
Weld and pipe radiography from Darwin: licensed two-person crews, a shielded radiation bay at our premises, and transportable darkrooms for processing film on remote sites. On film or digital, read by AINDT Level 2 technicians and assessed to your code.

GAMMA | X-RAY | COMPUTED RADIOGRAPHY | PRESSURE EQUIPMENT | WELDER QUALS | WALL THICKNESS

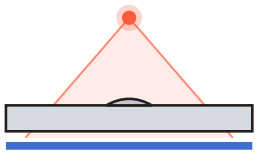
WELD RADIOGRAPHY

A PERMANENT PICTURE OF EVERY WELD.

Radiography records the full volume of a weld on film or a digital plate. Porosity, slag, lack of fusion and cracks show up as an image you can hold, review and keep. Every exposure carries an image quality indicator and lead identification, so each result traces back to the weld it came from.

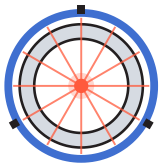


Example radiograph, drawn for illustration. Our procedure calls for a film density of 2.0–4.0 across the area of interest and an IQI on every exposure.



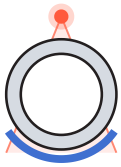
SINGLE WALL

Plate, vessels and large-bore pipe, shot through one wall from either side.



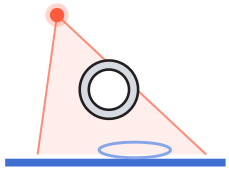
PANORAMIC

Gamma source centred in the pipe: the whole circumference in one exposure, with three IQIs at 120°.



DOUBLE WALL, SINGLE IMAGE

Pipe with no inside access. The source sits outside, and the far wall is imaged.



DOUBLE WALL, DOUBLE IMAGE

Small-bore pipe: both walls in one elliptical image on the film.

01
TRACEABLE
An IQI, lead ID and location markers on every film.

02
TO THE CODE
AS 2177, ASTM E94 and ASME V Article 2, assessed to your specification.

03
QUALIFIED
Licensed two-person crews. Films read by AINDT Level 2, borderline calls to our Level 3.

04
NATA ACCREDITED
Film radiography of welds, NATA No. 12303. Digital on the DÜRR HD-CR 35.

WELDER QUALIFICATIONS
Test coupons radiographed in our own bay, so welders aren't left waiting on results.

REPAIRS TRACKED
Repairs are marked R1, R2 and re-welds N1, N2 on the film, so each weld's history stays with it.

BAY AND FIELD RADIOGRAPHY

IN OUR BAY OR ON YOUR SITE.



RADIATION BAY

A shielded bay at our Darwin premises for spools, coupons and fabricated parts, with our darkroom, densitometers and film viewers. No exclusion zone on your site.

ON SITE

Gamma and X-ray crews for plants, pipelines and remote sites, with the controlled area set up and monitored on calibrated survey meters.



FILM PROCESSING

Automatic on our GE Structurix M ECO, or manual development with a separate film dryer. Transportable site-office darkrooms process film on remote jobs.

GAMMA

No power and no cooling, in a compact projector. The source goes where a tube can't: inside pipe for panoramic shots, tight access and remote sites.

- 880 Delta ×2 · 880 Elite

X-RAY

Sharper, higher-contrast images on thinner sections. Nothing to secure once the set is switched off, in the bay or on site.

- CERAM 235 · Rigaku 200 kV · Rigaku 300 kV

COMPUTED RADIOGRAPHY

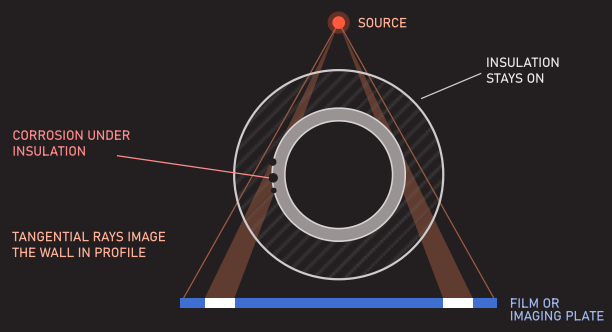
Reusable imaging plates in place of film, read to digital images you can zoom, measure, archive and email. No darkroom chemicals.

- DÜRR NDT HD-CR 35

PIPE WALL THICKNESS

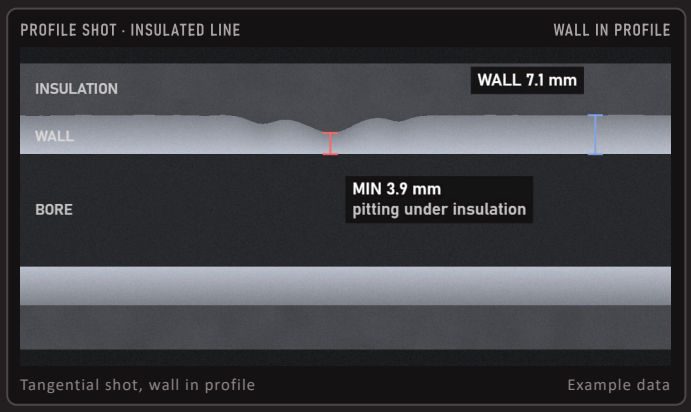
PROFILE RADIOGRAPHY. MEASURE THE WALL, LEAVE THE LAGGING ON.

THE SET-UP



Shot tangentially across the pipe, the wall shows in profile on the film. Wall loss, pitting and corrosion under insulation can be measured without stripping the lagging. Done to our procedure TESP-438, and NATA accredited for wall thickness by film radiography.

WHAT THE IMAGE SHOWS



- Screens insulated lines for corrosion under insulation
- Small-bore and hard-to-reach pipe
- Wall measured off the film or the digital image

THE KIT

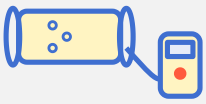
GAMMA, X-RAY, CR AND FILM PROCESSING, IN-HOUSE.



GAMMA
880 DELTA
Gamma projectors. No power needed, for site, panoramic and remote work.



GAMMA
880 ELITE
Gamma projector, cranked out from a safe distance.



X-RAY · 235 KV
BALTEAU CERAM 235
Fired from the HAND-X wireless remote, up to 100 m away.



X-RAY · 200 KV
RIGAKU 200 KV
X-ray set for thinner sections, in the bay or on site.



X-RAY · 300 KV
RIGAKU 300 KV
Higher-energy X-ray for thicker steel.



DIGITAL
DÜRR NDT HD-CR 35
CR scanner: reusable plates read to digital images.



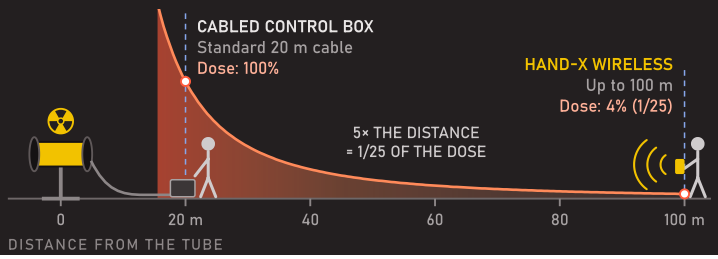
AUTO PROCESSOR
STRUCTURIX M ECO
GE automatic processor with cascade fixing and infrared drying.



ON SITE
SITE DARKROOMS
Transportable site offices fitted out to process film on remote jobs.

OPERATOR SAFETY

HAND-X WIRELESS CONTROL. FIRE THE SHOT FROM UP TO 100 M AWAY.



- Radio range of 20 to 100 m depending on the site. A standard control box is tied to a 20 m cable.
- A built-in Geiger counter warns the operator of any stray radiation.
- If the radio link drops, the X-ray stops.
- Pre-alarm light and buzzer before every exposure.

WHAT YOU GET

FILMS OR IMAGES
Handed over for your records

WELD-BY-WELD REPORT
Density, sensitivity and interpretation for each weld

REPAIR TRACKING
Repairs and re-welds marked and re-shot

LEVEL 3 REVIEW
Borderline indications referred to our Level 3

NEED TO SEE INSIDE A WELD?

Swift reporting, round the clock.

NATA 12303 | ISO 9001 | AINDT | PCN | LICENSED RADIOGRAPHERS

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