

VT · MT · PT · THREAD INSPECTION · THERMAL IMAGING · VACUUM BOX

SURFACE CRACKS. MADE VISIBLE.

Visual inspection with an Olympus IPLEX borescope, magnetic particle and dye penetrant testing, with visible and fluorescent methods for both MT and PT. Yokes, permanent magnets, coils and a large MPI bench in our Darwin workshop. Thread inspection of drill pipe and drilling tools to DS-1 and API RP 7G-2, thermal imaging with a FLIR E5 Pro, and vacuum box testing of tank floor welds.

VISUAL | BORESCOPE | MT VISIBLE & FLUORESCENT | PT VISIBLE & FLUORESCENT | DS-1 VOL 3 & 4

API RP 7G-2 | FLIR E5 PRO | VACUUM BOX | NATA MT, PT, VT

VISUAL INSPECTION · VT

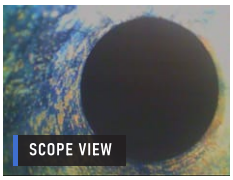
IT STARTS WITH A GOOD LOOK.

Every surface inspection starts with a close visual, by inspectors who know what a weld, a casting or a worn component should look like. Weld profile, undercut, porosity, corrosion and damage are measured and recorded before any other method is chosen.



WELD AND COMPONENT VISUAL

Welds, castings, lifting gear and pressure equipment, with weld gauges, rulers and lighting to measure what's found.



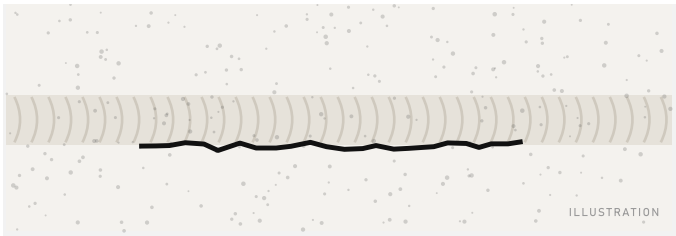
OLYMPUS IPLEX SA BORESCOPE

A steerable videoscope for a look inside pipes, tubes, vessels and closed sections without cutting them open. Images are saved for the report.

NATA ACCREDITED

Visual inspection prior to and during service is on our NATA scope (No. 12303).

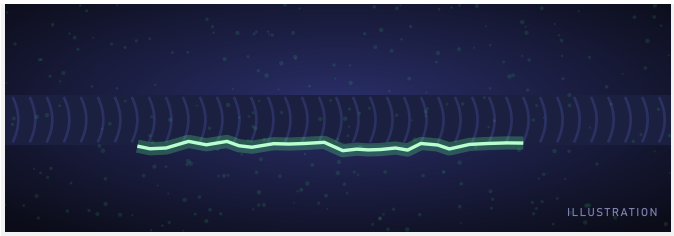
MAGNETIC PARTICLE · MT



VISIBLE

BLACK INK ON WHITE CONTRAST

The everyday site method. Black magnetic ink over a thin white contrast coat shows a crack as a sharp black line in daylight.



FLUORESCENT

UNDER UV-A LIGHT

Fluorescent ink glows under UV-A in low light, picking up the finest cracks. Our choice for threads, shafts and critical components.

HOW WE MAGNETISE

THE RIGHT FIELD FOR THE PART, FROM SITE TO WORKSHOP.

AC YOKES

Portable electromagnets for welds and plate on site, including at height and on ropes.

PERMANENT MAGNETS

No power needed, for confined spaces, hazardous areas and remote work.

COILS

Encircling coils for shafts, pins, bars and threaded connections.

MPI BENCH

A large bench unit in our Darwin workshop for components brought in for testing.

STEEL ONLY

MT works on ferromagnetic steel. For stainless, aluminium and copper alloys, we use penetrant.

THROUGH THIN COATINGS

Shallow coatings can stay on for MT. Where coatings are thick, eddy current tests through them.

RECORDED

Indications photographed, measured and marked on a sketch, with the acceptance standard cited.

NATA accredited (No. 12303) for magnetic particle testing, AC magnetisation.

2 METHODS

Visible and fluorescent, for MT and PT

4 WAYS

To magnetise: yokes, magnets, coils, bench

SITE & WORKSHOP

Offshore, on ropes or in our Darwin workshop

DYE PENETRANT · PT

FOR EVERY METAL, MAGNETIC OR NOT.

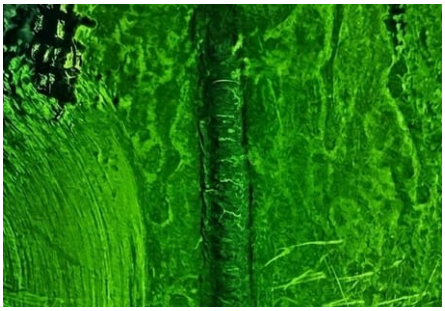
Penetrant draws into surface-breaking cracks and porosity, then bleeds out as a red or fluorescent line. It works on stainless steel, aluminium, copper-nickel and other non-magnetic metals that MT can't test.



Visible red penetrant on a fabrication.



Copper-nickel fire main, tested with penetrant.



Fluorescent penetrant under UV-A, with indications along a weld.

VISIBLE RED DYE
Red penetrant on a white developer. Quick and portable for site work.

FLUORESCENT
Glows under UV-A for higher sensitivity on critical parts.

SOLVENT REMOVABLE
Aerosol kits for site, on our NATA scope.

WATER WASHABLE
For batches of parts in the workshop, also on our NATA scope.

DRILL PIPE & DRILLING TOOLS

THREAD INSPECTION TO DS-1 AND API RP 7G-2.

Rotary shouldered connections crack at the thread roots, often at the last engaged thread. We inspect drill pipe, drill collars, subs and drilling tools, including bits, to the standard or your specification, so worn or cracked connections come out of the string before they fail downhole.



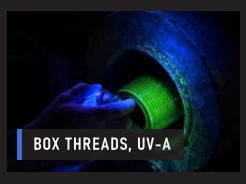
FLUORESCENT MPI, PIN THREADS



TAPER GAUGE



PROFILE GAUGE



BOX THREADS, UV-A

DS-1, 5TH EDITION, VOLUME 3
Drill stem inspection: drill pipe, collars, heavyweight, subs and pup joints.

DS-1, 5TH EDITION, VOLUME 4
Drilling specialty tools: inspection within the tool's maintenance process.

API RP 7G-2
Inspection and classification of used drill stem elements.

OR YOUR SPECIFICATION
Client and manufacturer inspection specs, followed as written.

VISUAL & DIMENSIONAL
Threads, shoulders and seal faces checked with profile and taper gauges, to the dimensions the standard calls for.

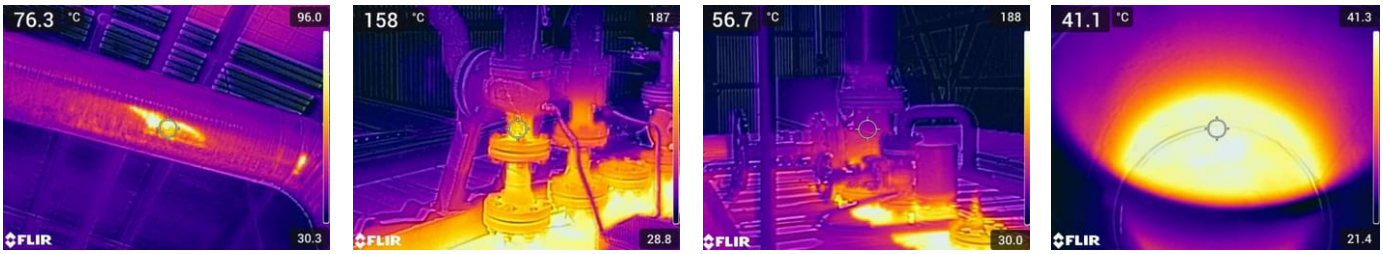
FLUORESCENT MPI
Connections tested wet with fluorescent ink under UV-A, where thread-root cracks show best.

CLASSIFIED & REPORTED
Each item classified and reported to the standard, with rejects clearly identified.

THERMAL IMAGING

SEE THE HEAT BEFORE THE DAMAGE.

Our FLIR E5 Pro thermal camera shows hot spots on boilers, refractory, insulation, steam lines, valves and traps while the plant is running, so failing linings and insulation are found without a shutdown.



Our FLIR E5 Pro images from a plant survey, with the spot temperature and the scale on every shot.

FLIR E5 PRO	THERMAL	ACCURACY	CAMERA
	160 × 120 pixels, with MSX edge detail	±2 °C or ±2% of reading	5 MP visual image with every shot

VACUUM BOX TESTING

The weld is wet with leak detection solution, a box with a clear top is sealed over it and a vacuum of 21 to 35 kPa is drawn. Any leak through the weld shows as bubbles.



TANK FLOOR WELDS

Floor lap welds leak tested with flat vacuum boxes, and the shell-to-floor corner weld with right-angle boxes. To API 650, API 653 and ASME V Article 10.



CUSTOM SUMP BOXES

Sumps and other awkward shapes don't suit a standard box, so we make custom vacuum boxes to fit, each with its own calibrated gauge.



LIFTING GEAR, OFFSHORE AND ON SITE

Crane hooks, shackles, pad eyes and spreader bars checked by MT and visual on site, including offshore and on rope access.

BEFORE RETURN TO SERVICE

Weld repairs, grind-outs and machined components checked before they go back to work.

WHAT YOU GET

REPORTS	INDICATION MAPS	PHOTOS	A CLEAR CALL
NATA-endorsed for MT, PT and VT within our scope	Located, sized and sketched	Every indication, every rejected item	Accept or reject against the cited standard

CRACKS TO FIND OR RULE OUT?

Swift reporting, round the clock.

NATA 12303 | ISO 9001 | AINDT | PCN

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