



VISUAL INSPECTION SERVICES

INDUSTRIAL PLANT AND EQUIPMENT MONITORING

- *Internal Visual Inspection*
- *Remote Visual Inspection*
- *Debris Retrieval*



Visual inspection of inaccessible areas of plant and equipment – seeing is believing.



AV Technology (AVT) is a test and measurement consultancy established in 1976 and specialising in the fields of Visual inspection, structural, process, noise, vibration and condition monitoring.

We operate an ISO 9001:2000 approved QA system and apply a strict health and safety policy. AVT is part of the Ionix Group of companies

AVT Ltd has over 30 years industrial experience in the UK and overseas, using highly specialised in-house inspection and debris retrieval tooling and modern video editing facilities to produce high quality visual inspection reports of inaccessible areas of plant and equipment.

Key services include:

- Internal Visual Inspection
- Remote Visual Inspection
- Debris Retrieval



AVT remains committed to the ongoing development of equipment and techniques to further promote the use of Internal and Remote Visual Inspection as a prime inspection tool in the planning of Outage and Maintenance Schedules in many areas of Industry. By inspecting inaccessible areas via inspection ports or existing apertures AVT's customers can realise significant cost savings compared with more intrusive inspection methods.

COST EFFECTIVE SOLUTIONS

- Reduced down time of plant - no need to strip plant completely to carry out inspection
- Minimised costs of cutting, welding and heat treatment by using minimum number of existing entry points
- Inspections of areas where man access is impractical or not possible due to safety issues
- Development of innovative, cost effective solutions to remote or internal visual inspection problems
- Rapid response - a team can often be mobilised to site within hours of a call-out

INTERNAL VISUAL INSPECTION

AVT's teams of trained inspectors regularly perform internal visual inspections of inaccessible internal locations using, videoprobes, fibrescopes and specialised camera systems to produce vital visual evidence of the condition of items of plant and machinery.

AVT have an extensive range of instrumentation and recording systems with the capability of recording inspections onto VHS videotape or for storing digital data for transfer to DVD or CD, with on-screen titles, audio commentary facilities. A modern video-editing suite with computerised facilities is used for image manipulation and high quality colour report preparation.





Typical applications include:

- Pipework systems, valves, internal welds
- Boiler headers, furnace tubes, boiler tubes
- Ligament cracking
- Pressure vessels, Distillation columns
- Steam turbines
- Gas turbines (Aero & Power Plant)
- Steam chests
- Electric motors
- Heat exchangers
- Alternator windings
- Chimney flues
- High magnification inspection of rotor bearings

REMOTE VISUAL INSPECTION

AVT use powerful zoom lens cameras to perform Remote Visual Inspections of inaccessible parts of plant from distant locations. In many cases, the cameras can be manoeuvred into elevated positions using long reach cranes whilst the camera image is controlled remotely by a trained AVT inspector monitoring the survey on a video monitor.

Such remote visual inspections enable many live plants to be surveyed whilst still on-line, even permitting surveys of hostile or inaccessible areas, and in a fraction of the time required for conventional inspection methods using specialist access contractors.

Typical applications include:

- Flare tips & support structures - on- line
- Inaccessible structures & overhead pipework
- Ventilation systems inside gas turbine enclosures
- Expansion joints on motorway bridges
- Floor support brackets In office buildings
- Single point mooring & quayside support structure (underwater)
- Gas storage tanks - whilst full of gas

DEBRIS REMOVAL

Inspections for debris or foreign objects are frequently carried out towards the end of a shutdown, when there is a possibility of tools, swarf, nuts & bolts etc. having fallen into open-ended pipework.

AVT has developed a large range of specialised retrieval equipment, which has proved to be highly successful in this type of application.

Typical applications include:

- Pipework systems
- Vessels
- Turbines
- Steam chests
- Heat exchangers

To find out how AVT can create a competitive advantage for your organisation please contact us on:

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A member of the Ionix Group

