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Excellent
Engineering
Solutions



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TECHNICAL FACILITIES AT MANCHESTER LABORATORY

The WM&F Technical department has excellent facilities for analysis, mechanical testing, metallurgical examination and corrosion testing. The laboratory is accredited by UKAS for a wide range of tests. Testing is carried out not only for companies within the Weir Group, but also by external organisations requiring routine testing, positive material identification (PMI), failure analysis or materials advice. The experts within the department are frequently hired by external companies as consultants for problems on specific projects involving a wide range of materials and environments.

Facilities include:

- Mechanical testing: tensile (including hot testing to 1000°C) impact (both BS and ASTM machines), macro / microhardness. Bend testing.
- Metallography, including image capture and image analysis; also facilities for in situ metallography.
- Positive material identification (PMI) by XRF technique or Metascop. Fully portable.
- Scanning electron microscopy, with EDX analysis.
- Chemical analysis (via optical emission spectroscopy and elemental analysers).
- Failure analysis
- Standard corrosion testing – Eg ASTM G48, A262, etc.
- Electrochemical corrosion tests. Facilities to test up to four samples simultaneously at a constant or constantly changing temperature.
- Slow strain rate testing. Environmental chamber rated to 95°C with facilities for electrochemical control.
- Autoclave corrosion testing. Temperatures to 300°C and pressures to 200bar; excludes the use of H₂S, but other gas mixtures are available.
- Quality Assurance services.