

“Where will our knowledge take you?”

## Materials and Welding Technology

BMT Fleet Technology (BMT) conducts research, development and engineering in support of clients in the resource, oil and gas, marine, mining, aerospace, rail, power generation, manufacturing and fabrication industries.

### Materials and Component Evaluation

- Materials testing (fatigue, fracture, strength)
- Metallurgical/material characterization lab services

### Structural Integrity and Reliability

- Structural design
- Damage tolerance/fitness for purpose analysis
- Maintenance management
- Reliability and risk assessment

### Failure Analysis and Condition Assessment

- Failure/forensic analysis
- Advanced damage detection and monitoring
- In-service monitoring and material characterization

### Welding and Fabrication Effectiveness

- Welding engineering and technology
- Procedure and consumable qualification
- Productivity audits and training

### Welding

BMT's offers a variety of machining, welding, metallurgical and mechanical testing capabilities.

### Equipment and Facilities

BMT has onsite equipment and facilities including:

- Servo-hydraulic testing machines with a 300 000 pound (1 360 kN) capacity for tensile, compression, fatigue and fracture testing
- Horizontal bed servo-hydraulic fatigue machine for large components
- Hardness and Charpy test equipment
- Numerical modelling tools to enable structural, thermal and vibration finite element analysis including fatigue and fracture modelling
- Scanning electron and optical microscope
- Specimen preparation facilities
- Corrosion and chemical analysis labs
- Cutting machines and welding power sources
- Heat-treatment oven



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