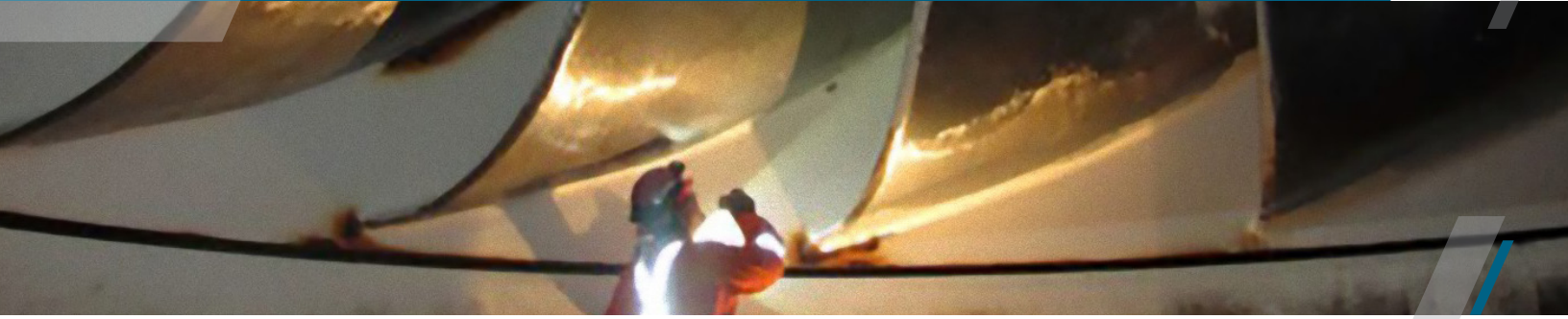


NON-DESTRUCTIVE TESTING



NDT & LIFE ASSESSMENT

Powertech's group of experienced Engineers and CGSB certified Inspection Specialists offers a complete set of traditional field and lab NDE services to our customers. Powertech's Materials Engineering experts perform NDE and life assessments for structures, equipment, and pressurized components. Assessments are performed considering brittle fracture, overload failure, stress rupture, fatigue, corrosion-fatigue,

stress corrosion, and creep mechanisms.

In an operating environment, machinery and equipment may be damaged by fatigue, creep, corrosion, erosion, or cracking. Regular condition assessment can identify any such deterioration, and mitigation measures can then be applied to extend service life. Condition assessment techniques include non-destructive evaluation (NDE), which is used to determine whether equipment

and components are in safe operating condition, and life assessment, which is used to determine whether design life can be extended.

In addition, we specialize in development of innovative inspection techniques and equipment for custom testing applications in a variety of industries including power utilities, manufacturing and transportation.

NDT OFFERINGS:

Visual inspection (VT)

- CWB certified welding inspectors
- Video probe examination

Magnetic particle inspection (MT)

- Field dry, wet, florescent
- In-house stationary equipment

Dye penetrant inspection (PT)

- Field and in-house

Ultrasonic inspection (UT)

- Manual and automated
- Thickness/Corrosion Survey

Eddy current inspection (ET)

Acoustic emission inspection (AE)

In-situ hardness testing

Phase array ultrasonic inspection

LIFE ASSESSMENT SERVICES:

Residual strength determination of components with defects or cracks

Allowable and critical defect size calculation

Crack growth prediction as a function of operating time

Fatigue crack initiation and propagation life estimates

Determination of proper inspection intervals for components

Engineering critical assessments (ECA)

Stress-rupture analysis of composite materials

Expert witness services

SPECIALIZED INSPECTIONS:

Hydro-generating equipment

Electrical transmission and distribution system components

Manlifts, bucket trucks and other aerial lifting devices

Pressure vessels and components

Fall arrest and safety equipment

FOR MORE INFORMATION CONTACT:

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Powertech

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