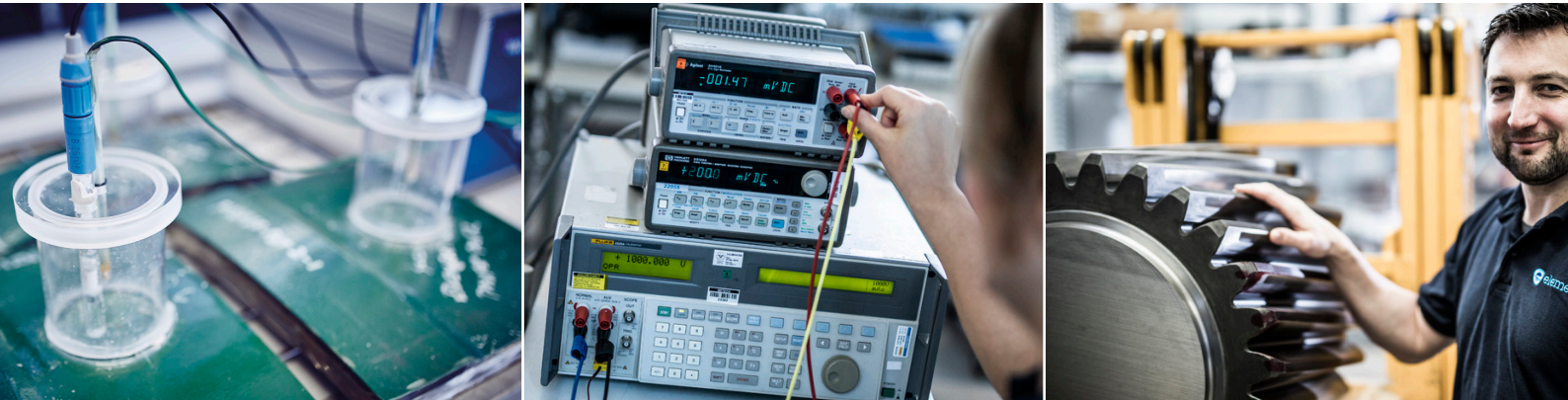


# PROVIDING EXPERT TESTING SOLUTIONS



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WIND ENERGY



## MINIMIZE RISK, IMPROVE OPERATION EFFICIENCIES AND AVOID IN-SERVICE FAILURES

**With the growing demand for greener energy worldwide, wind power generation is developing at a high pace, both onshore and offshore, with new constraints due to the growing size of rotors, prolong equipment lifetime, and operations in harsh environments. Element's network of laboratories provides testing, calibration, and inspection services to help you ensure a healthy service life, and minimize turbine downtime.**

### WIND TURBINE MANUFACTURERS

Element's extensive range of expertise and testing capabilities help wind turbine manufacturers ensure the integrity and life time durability of materials, components and systems. Our services include:

- Mechanical Testing of Composites and Metals
- Structural Testing
- Non-Destructive Testing and Inspection
- Oil & Lubricant Condition Monitoring
- Failure Analysis
- Corrosion Testing
- Welding Qualification Services
- Simulations (structures, wind, fluids, and temperatures)
- Calibration Services
- Coating Testing and Inspection
- Engineering Services (ECA, FEA, FFS)
- Environmental Testing (Rain, Lightning, UV-Weathering)
- Fire Protection Consultancy
- Systems Testing

### COMPONENT MANUFACTURERS

Element help manufacturers design, optimize, and produce, fit for purpose components for use in wind turbines and on wind farms. Our services include:

- Products and Components Qualification Testing
- Composites and Metallic Material Testing
- Non-Destructive Testing and Inspection
- Corrosion Testing
- Welding Qualification Services
- Failure Analysis
- Environmental Testing (Rain, Lightning, UV)
- Systems Testing
- Calibration Services
- Coating Testing and Inspection
- Simulations (structures, wind, fluids, and temperatures)

### WIND FARMS

Our wind farm services focus on the condition of in-service power generation installations, to deliver an independent view of its relative condition against expectations. Our services include:

- Non-Destructive Testing and Inspection
- Oil & Lubricant Condition Monitoring
- Corrosion Analysis
- Weld Inspection
- Failure Analysis
- Engineering Services (ECA, FEA, FFS)
- Calibration Services
- Concrete and Aggregate Testing
- Fire Safety Consultancy
- Noise Assessment

### THE ELEMENT ADVANTAGE

Element has decades of experience testing high technology materials and products for the Aerospace and Energy sectors, including lightweight materials, composite structures, and offshore installations. Our capabilities include:

- Calibration and testing experience since the construction of commercial wind farms in the 1980s.
- International network with 180 locations worldwide
- Unique range of testing services
- Digital Engineering capabilities
- Capacity to invest and develop dedicated solutions based on our expertise and your needs

Send your inquiries to: [contact.us@element.com](mailto:contact.us@element.com) or call us:

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