INSPECTIONS

In order to guarantee a uniform good quality chemical analysis, non-destructive testings, metallographic examinations and mechanical testings are performed according to international standards and specifications.

- **Non-destructive Testing**
  - Ultrasonic testing (manually and/or by means of automatic shaft/disc testing facilities)
  - Magnetic crack testing
  - Dye penetrant inspection
  - Visual testing
  - Heat stability testing
  - Material mix-up test

- **Destructive Testing**
  - Tensile testing (up to 900° Celsius)
  - Impact testing (–196° Celsius to 200° Celsius)
  - Hardness testing (HB, HV, HRC)
  - Bending and folding inspection
  - Jominy testing
  - Testing for intercrystalline corrosion/pitting corrosion
  - Residual stress inspection
  - Laboratory heat treatment

- **Metallographic Inspection**
  - Micro-section assessment
  - Sulphur print
  - Macro-etchings
  - Blue brittleness inspection
  - Mobile metallography
  - Measuring of ferrite content and permeability

- **Chemical Analysis**
  - Spectrographical analysis
  - Hydrogen determination
  - C-S-O-N determination
  - Slag analysis

- **Supplementary testings**
The following supplementary testings, for example, are provided for by means of contracts with qualified external cooperation partners:
  - Long-term trials
  - Fracture mechanics
  - Fatigue strength
  - Electrical and magnetic parameters
  - Time-temperature diagrams
  - Electron microscopy
  - Microanalysis
  - Computer simulations