Yazıcı Iron and Steel views quality not merely as a production target but as a fundamental element of its corporate responsibility. This philosophy is meticulously reflected in all production processes, from raw materials to the final product.
Equipped with advanced analytical instruments, our Quality Control Laboratory continuously monitors process reliability, ensuring consistent adherence to high-quality standards at every stage.

Laboratory equipment and their functions:

- **ARL 4460 and 8860 Optical Emission Spectrometers:**
  These devices quickly and accurately determine the chemical composition of steel samples, ensuring quality control from raw materials to finished products according to standards.

- **XRF (X-Ray Fluorescence) Analyzer:**
  By measuring characteristic emissions caused by X-rays, this device non-destructively analyzes elemental content. It determines critical element ratios in ferroalloys, slag, oxides, lime, fluorite, aluminum, and other by-products, strengthening process balance, energy efficiency, and quality control.

- **Computer-Controlled 1500 kN INSTRON & DARTEC Tensile Testing Machines:**
  Mechanical properties such as tensile strength, yield strength, and elongation at break are measured to obtain essential data related to the field performance of the final product.

- **Geometric Measurement Device:**
  Ensures dimensional accuracy and tolerances of products, maintaining consistently high quality throughout production.

- **Bending Test Machine:**
  Determines the flexibility and formability of the material, especially validating field performance of construction steels.

- **Metallographic Testing Equipment:**
  Analyzes the microstructure of samples; potential manufacturing defects are detected early, enhancing process reliability.

- **2 Oven Drying Units (Oven):**
  Used to determine the moisture content of samples. By drying at a constant temperature (typically 100–105 °C), moisture content is calculated from weight loss, a critical step for process consistency.

- **2 Sample Furnaces (Ignition Furnaces):**
  Used to measure the "loss on ignition" (LOI) value of samples. Weight changes after burning volatile and non-volatile components at specified temperatures are evaluated.
- **Pellet Press (Sample Preparation Device):**
  Powdered samples are compressed into homogeneous pellets for XRF analysis. This process is critical for analysis accuracy and reproducibility.
- **Disk & Stone Grinding and Polishing Equipment:**
  Surfaces of samples are mechanically prepared for metallographic analysis by cutting, grinding, and polishing to ensure clear microstructural examination.
- **Coarse Crusher & Grinder (Ring/Puck or Disk Mill):**
  Samples are first broken into pieces by the coarse crusher, then ground down to 20–100 μm particle size by drum or disk mills to ensure homogeneity for XRF and other analyses.
- **Balance:**
  Sample weights are measured with micron-level precision, providing reliable data for moisture/loss analyses, composition testing, and dosing processes.
- **pH Meter:**
  Measures acidity or alkalinity of solutions, important for sample stability and control of chemical reactions.
- **Conductivity Meter:**
  Determines ionic concentration in solutions, monitoring purity or contamination levels. This device plays a critical role especially during sample preparation stages for water quality control.
- **Methylene Blue Test Kit:**
  Used in slag aggregate plants, this kit helps determine the amount of clay and fine materials in aggregates. It measures clay content and surface-active material capacity, assessing aggregate quality and usability. This test is especially critical to guarantee the performance of aggregates used in concrete and road materials.

Applicable Standards for Production:

- YAZICI products are manufactured according to the following National and International Standards as well as special customer requirements:
  TS 708, DIN 488, ASTM A 615, JIS G 3112, BS 4449, CS2, AFNOR NFA 35-080, SI 4466 Part 3, SS2, LNEC E 449, LNEC E 450, UNE 36-068, ELOT 971, and special customer specifications.

Our Quality Assurance System

YAZICI regards quality not merely as a production step but as a cornerstone of its corporate culture. Accordingly:

- We hold the ISO 9001 Quality Management System Certificate and successfully integrate our quality approach into every phase of production. All in-house factory applications are covered by this system, with active contributions from all employees.
- YAZICI also possesses the ISO 14001 Environmental Management System and ISO 45001 Occupational Health and Safety Management System certificates. These certifications, approved by TSE and CARES (UK), encompass all factory processes and are continuously improved with employee involvement.
- YAZICI products are reliably preferred in both national and international markets. Our products have been certified by:
  - TSE (Turkey)
  - UNE (Spain)
  - CARES (UK)
  - LNEC (Portugal)
  - BST 500 S (Germany)
  - IS 4466 (Israel)
  - ISO 6935-2 (Poland)
  - and Italy among others.

At Yazıcı, quality is viewed not as a goal but as an ongoing responsibility, and we commit to adhering to standards at every stage.