When you can’t afford metal mistakes: On-the-spot sorting, identification, verification, and analysis of metal alloys

When it comes to metals specifications, the news is full of mismeasurements, mistakes, and scandals in a host of industries. It’s increasingly clear that quality-conscious organizations can’t afford to give off their responsibility for metals verification. Inspecting the metals makeup of incoming and outgoing components has become a critical quality control (QC) task for companies worldwide.

Fortunately, inspection can be easily, accurately, and affordably accomplished. Use advanced solutions from SPECTRO Analytical Instruments: either the flagship SPECTROTEST mobile metal analyzer, or the more portable SPECTROPORT metal analyzer.

Alloys must be accurately sorted, identified, and verified to meet the chemical composition specified by a customer or an industry. For organizations performing metal producing, processing, recycling, or service contracting, an alloy mixup at the shipping dock or on the factory floor risks an expensive, inconvenient batch rework — or a catastrophic lost contract.

Continuous QC can help establish the identity of each metal or alloy, from initial melt to finished product or final application. The process is simple:

To perform rapid pass/fail sorting or grade identification with either SPECTRO analyzer, choose arc mode, hold the probe to a sample, and push the start button. Results appear within 2 seconds.

For more demanding grade verification or analysis — including detection of additional elements such as carbon, phosphorus, sulfur, and more — select spark mode, so the probe head is purged with argon gas. Again, hold the probe to a sample and push start. Results typically displayed within 10 seconds.
Both instruments routinely perform analyses for ferrous, aluminum, copper, nickel, cobalt and titanium alloys. SPECTROTEST’s no-compromise, high-resolution optical system can handle all elements necessary for a complete metal analysis on the spot. So it also delivers excellent results when measuring nitrogen in ferrous-based alloys such as duplex steels; detecting small amounts of lithium and sodium in aluminum-based materials; or it is used also for tin, zinc, lead and magnesium based alloys.

Both analyzers allow operators to change modes quickly and easily, without tools. Adapters are available for the analysis of tubes, wires, and small parts, as well as for special pass/fail forms. SPECTROPORT and SPECTROTEST can operate independently from AC line power. An optional rechargeable battery pack handles up to 800 measurements.

You can’t afford a metal mistake. Make sure it’s right, every time, with a SPECTRO metal analyzer.