Materials analysis

In addition to classic non-destructive techniques (visual inspections, endoscopy, penetrant testing, magnetic particle testing, radiography, ultrasound, etc.), there are also other non-destructive techniques that permit the analysis of certain properties of metals and welding on site. When there are doubts about the integrity of a system, its operation, the choice of materials used for its construction, or in case damage is established, it is desirable to inspect the installation without shutting it down.

Your tailor-made solution

Portable PMI (Positive Material Identification) devices make it possible to conduct analyses using X-ray fluorescence on-site. The atoms of the workpiece are excited with the help of a built-in X-ray tube (40kV). The electrons in an excited atom on the surface of the workpiece are rearranged. This rearrangement is accompanied by the emission of energy in the form of photons. These are characteristic of the excited atom. The detector can distinguish these photons and quantify the atoms present. However, this method cannot be used to dose all elements, particularly carbon.

Your result

Vinçotte has experts who perform the necessary material analysis with the appropriate expertise, and who also provide you with a number of benefits:

- portable analysis device
- verification of materials certificates
- in-service inspection
- the analysis is carried out quickly
- the results are immediately available

A reliable yet quickly executed chemical analysis, that can replace destructive wet chemical analysis of a sample in many cases.

Please note

Norms and Standards

- ASME standards
- European standards
- Other national standards
- The tests can be conducted according to the standards and / or specifications mentioned in the specifications of the customer and / or of his representative.

In which situation?

This service is available to all companies that have metal material that requires analysis.
Some applications:

- Verification of the filler metal in welded constructions
- Verification of materials in case of damage claims
- Analysis of stock items and spare parts
- Receiving inspection