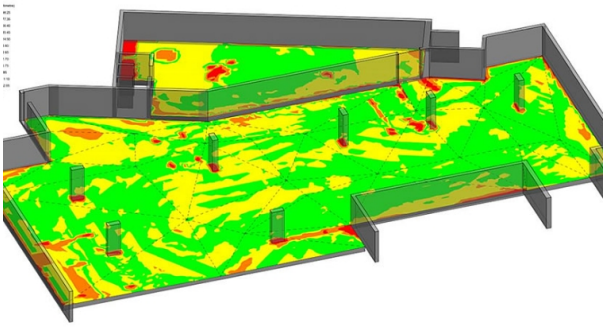
# Large Volume Scanning



## What is Large Volume Scanning?

**Large Volume Scanning** is a 3D metrology service designed to capture and analyse large surfaces or volumes, from infrastructure to accumulations of material in sectors such as mining and civil engineering. Using advanced technology such as Leica or Faro large volume scanners, we are able to generate detailed 3D models with millimetre accuracy, enabling volumetric and structural certificates to be obtained with rapid turnaround of results.

## What Types of Large Volume Scanning Do We Carry Out?

We carry out the following large volume scanning:

### BIM - Structural Calculation

Scanning in BIM (Building Information Modelling) environments is essential for structural calculations in civil engineering and building projects. Our team performs accurate scans that allow us to obtain detailed analysis of structures, providing structural certificates and deformation and wear analysis.

#### Key Services

- Structural certification
- Deformation analysis
- Colour mapping
- Metrological analysis
- Structural or volume modelling and calculation

## Volume Calculation

The volumetric calculation of large accumulations of material is a complicated process, but thanks to 3D metrology technology, we can obtain more accurate and faster results than with traditional methods. Applus+ Laboratories scans materials such as asphalt, aggregates, coal, among others, with an accuracy of ±1 mm.

### Key Services

- Volumetric certification
- Calculation of sections and elevations
- Detailed report of volume changes

## Planimetry

With our planimetry service, we carry out scans that allow us to generate highly accurate terrain and volume analysis, from the initial phase to the completion of a project. It is ideal for detecting high and low points and for deformation analysis.

### Key Services

- Soil analysis
- Colour mapping
- Structural and fabrication analysis

## Heritage and Art

In the art and heritage sector, we offer non-contact scanning to ensure the safety and conservation of artworks. Using structured light and photogrammetry, we perform precise digitisations for analysis and conservation of historic structures and art pieces.

### Key Services

- Non-contact scanning
- Detailed conservation report
- On-site or in-lab service

# Benefits of Large Volume Scanning

The Large Volume Scanning service offers a number of key benefits for industries such as construction, mining, art and civil engineering. Our scanning reduces inspection time and costs while providing highly accurate results.

- **High Accuracy:** Capture data to an accuracy of ±1 mm for volumetric and structural calculations.

- **Time and Cost Savings:** Reduces on-site labour times and avoids disruptions to operations.
- **Detailed Analysis:** We offer volumetric and structural certifications, as well as deformation and wear analysis.
- **Versatility:** Applicable in sectors such as construction, mining, heritage, and large infrastructures.
- **Remote Access:** Possibility of planning from remote locations without the need for continuous site visits.

## Why Choose Applus+ Laboratories for Large Volume Scanning

Applus+ Laboratories stands out for its expertise and advanced technology in the field of high volume scanning. Our team of experts and our ability to operate both on-site and in the laboratory enables us to offer high-level solutions to clients around the world.

- **Leading technology:** We use advanced equipment such as Leica and Faro, capable of capturing 2 million points per second.
- **Dedicated team:** We have engineers and technicians trained to handle complex projects and deliver fast, accurate results.
- **Tailor-made solutions:** We offer customised services, from volumetric calculations to structural analysis, adapting to the needs of each client.

**Global coverage: We have the capacity to carry out scans anywhere in the world, guaranteeing tight delivery times.**