www.aksm.gr LASER SCANNING & BIM

# Laser Scanning

#### **EXPERIENCE**

### Over 40 construction projects

- Personnel & equipment provision
- Method statement provision
- General setting out plan creation
- Network installation & maintenance
- Quantity surveys Cost control
- Determination and control on building's elements
- Geometry verification and as build surveys.
- ISO standards incorporation quality control records
- High accuracy applications in corporation

## **High accuracy & Industrial Applications**

- Control of axes: alignment, parallelism, verticality, flatness
- Position alignment on large engines or assembly of different parts (flanges, anchors, e.t.c.)

## **Laser Scanning and Monitoring Applications**

- Real time AMS deformation monitoring
- Geometry control and verification on prefabricated parts of large constructions in projects like bridges, pipes, wind power generators
- Survey and geometry determination through point cloud collection.
- Deformation analysis

#### LASER SCANNING

- It is based on exceptionally dense mapping of threedimensional coordinates of the points on the surface to be surveyed, taken at speeds ranging from a few thousand up to a million points per second.
- Depending on the object (size, shape, desired accuracy), laser scanning may be airborne or terrestrial, static or mobile, autonomous or in combination with other standard topographic methods.
- With the scanner devices, known as LIDAR (Laser Induced Differential Absorption Radar), recording of millions of points is succeeded by creating a cloud, where every point has xyz coordinates in space.
- Laser Scanning is a rapid and reliable surveying method, which provides more accurate products than every other methodology. The big point density in combination with the ability of color information at each point approaches the term of "virtual reality".







