

LASER TRACKER - HIGHLY ACCURATE THREE-DIMENSIONAL MEASUREMENTS

Laser Tracker measures in three dimensions and, due to its technical characteristics, meets the high requirements for dimensioning mechanical objects, i.e. a few hundredths of millimetres.



These measurements are used for monitoring hydroelectric generating units, aligning machines or tracking the movements of civil engineering structures. Laser Tracker is generally used in many sectors such as aerospace, machinery, shipbuilding and other industries. In addition to Laser Tracker, other coordinate measuring machine (CMM) tools are available in HYDRO Exploitation SA's toolbox, including a handheld laser scanner and several measuring arms. All these instruments can be used in the same measurement campaign.

Methodology

- Definition of the scope of the assignment and objectives
- Selection of the measurement procedure (accuracy requirements, stability of the measurement environment, reference points, etc.)
- CAD data import into the measurement software (allows, for example, a comparison between the target value and the actual value)
- on-site measurement
- processing the measurements made
- calculation of geometric values between measured objects
- as per the customer's requirements, distribution of data as specified in one or more coordinate reference systems
- measurement report
- data export in CAD formats (IGES, STEP, STL, AIMS, SAT, VDA, Autocad DXF, Polyworks and Imageware, etc.)
- possibility of automating a repetitive measurement sequence

ADDITIONAL SERVICES

Consultancy - Serviceability

Serviceability is a quantitative technical analysis based on international norms. It enables owners of hydroelectric developments to estimate the residual life of their installations, any renewal works and maintenance to be undertaken and at what frequency.

CONTACT

HYDRO EXPLOITATION SA

📍 Rue de l'Industrie 10, 1951 Sion
☎ +41 (0)27 328 44 11

Specific skills

HYDRO Exploitation SA is able to deal with a large number of requests for highly accurate three-dimensional measurements for components or assemblies ranging from a few centimetres to several hundred metres.

- The measurements are carried out by measurement specialists (surveying engineer).
- Our mechanical and/or civil engineers may participate in the results analysis process, for example by making recommendations with respect to correcting and interpreting the migration or movement of components.

Client benefits

- an innovative service delivered by Switzerland's very few experienced specialists
- a single contact person for an entire job
- high operational responsiveness in a wide geographical sector
- significantly less on-site time compared with « conventional » methods

Watch our film and discover our cutting-edge capabilities: use of the laser tracker, vibration control on a shaft line and performance measurement.