ELOMATIC

Laser scanning

The laser scanning is a measuring technique in which the scanner makes first an accurate three-dimensional point-cloud of the existing object. By means of this point-cloud it is possible to create a 3D model of this object, produce cross section curves, define volumes, make shape surveys etc.

Material

The models, point-cloud and other measurement materials are delivered to the client in desired format on short schedule. The 3D modelling is made with the point-cloud software or some other software that is suitable for the client's needs in future. The point-cloud material can also be used as a tool as such without any point-cloud modelling.

Rebuild projects

In plant renovations we can 3D model by means of laser scanning all the existing machines, devices and constructions of the plant in question. The accurate three-dimensional information facilitates and quickens the detailed design remarkably, and also the design errors become less. The total costs of the design are reduced, because nasty surprises are avoided, installation gets quick and shutdowns shorten.

Small objects

The laser scanning makes it also easy to study small entities. E.g. scanning makes it possible to study the shapes of objects, and so possible factory defects or damages become visible. Scanning gives 3D models to such products which do not have drawings, e.g. for the needs of strength calculation, space utilisation design or manufacturing.

Other objects

Laser scanning is also utilised in field and mine surveying, architecture, accident investigation, conserving of historically valuable objects, visualisations etc.

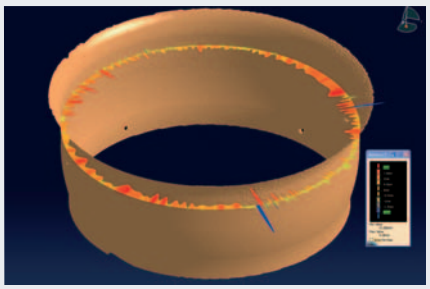
Scanners

We use different scanners for different kinds of needs. Plant scanners are quick and they also photograph the object. The accuracy of these scanners is about 2-5 mm. For individual items and small entities we use portable scanners with about 0,5 mm accuracy. In very demanding measurements of small pieces we use a solid precision scanner station with an accuracy of hundredths of millimetres. Also other special scanners can be used if needed.

If you need professional help e.g. in renovation of existing plants or in shape surveys of pieces, please contact us! We are willing to serve you.

Laser scanning, ranges of use:

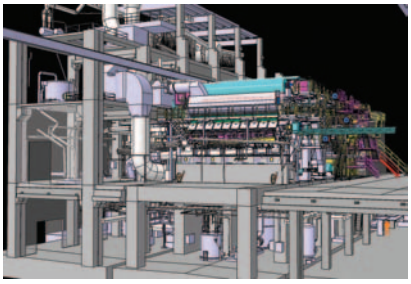
Laser scanning of big plants and factories



Shape surveys of pieces

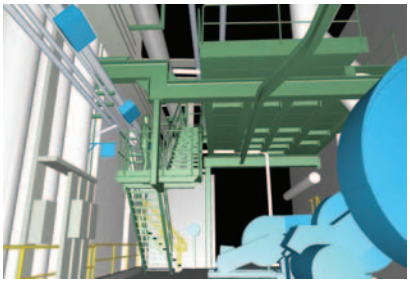
Field and tunnel surveying

References

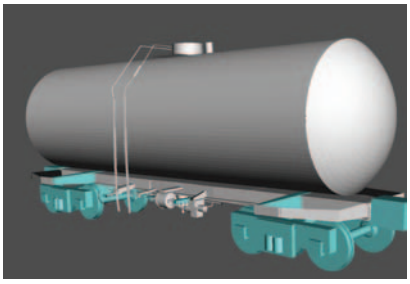


Metso Paper Oy, several paper machines

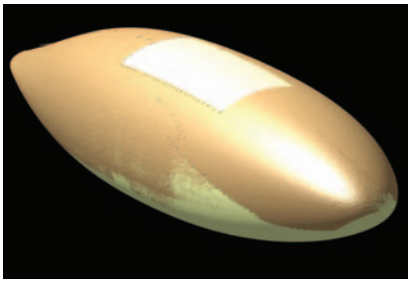
UPM-Kymmene, paper mills



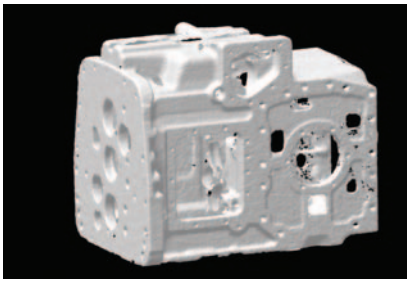
Fortek Oy, paper mills



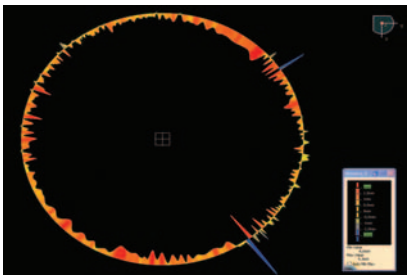
Neste Oil Oyj, loading spaces and equipment, tunnels



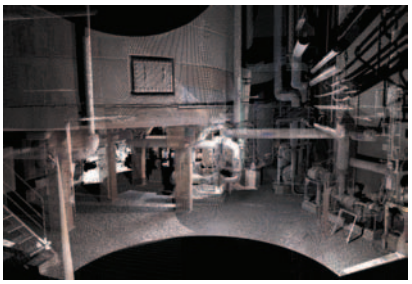
Oy Nautor Ab, shape surveys of boats



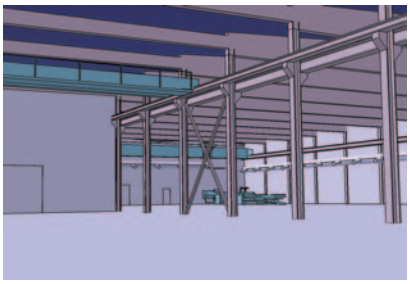
Valtra Oy, casting pieces



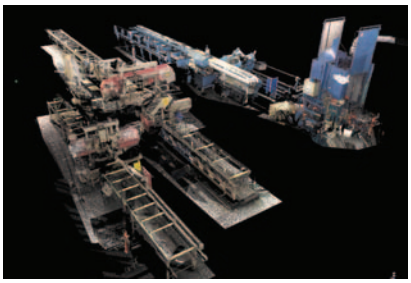
GE-Energy, water-power stations



SCA Obbola, black liquor tanks

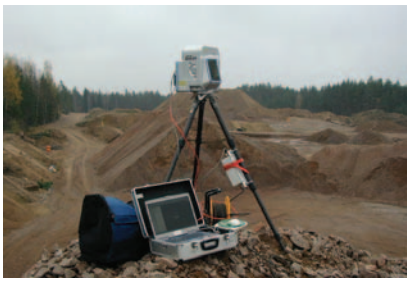


Aker Yards Piikkio Oy, factory hall

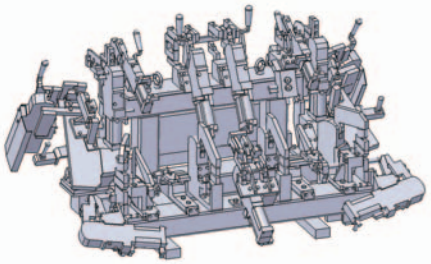


Stalatube Oy, lines

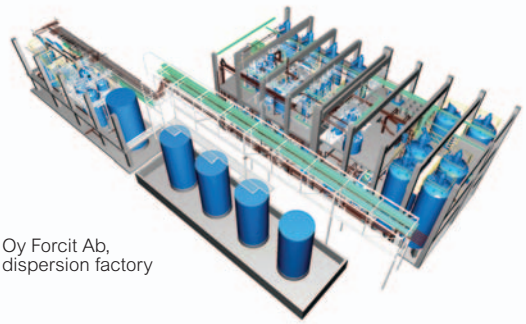
Small customers



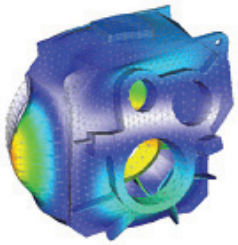
NCC, soil heaps



Valmet Automotive, welding jigs



Oy Forcit Ab,
dispersion factory



Moventas Oy, casting pieces, halls

ELOMATIC

CONSULTING & ENGINEERING

Itäinen Rantakatu 72
20810 Turku, Finland
tel. +358 2 412 411

Kangasvuorentie 10
40320 Jyväskylä, Finland
tel. +358 14 446 7111

www.elomatic.com