

## Press release

### Laser technology replaces standard physical reference patterns

- ▶▶ *IK4-TEKNIKER is undergoing an ENAC certification process to calibrate heavy-duty coordinate measuring machines*
- ▶▶ *The system developed by the technology centre is to be presented at the next edition of the Machine Tool Biennial*

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(Eibar, Basque Country 13 April, 2016).- The revision carried out in 2010 by ISO (the International Organization for Standardization) of the ISO 10360 technical standard introduced the possibility of using laser interferometry as a valid standard reference pattern for the calibration of coordinate measuring machines (CMM) used to measure linear dimensions.

It is within this context that IK4-TEKNIKER is currently involved in a process aimed at obtaining a certificate awarded by the National Accreditation Body (ENAC) for the calibration of medium-large CMMs (with axial lengths ranging between 1,500 and 13,500 mm) using tracer lasers to meet current market requirements with regard to finding more accurate mechanisms in the entire calibration process with shorter machine downtime.

#### **A significant demand**

In Spain there is a significant number of CMM's larger than 1,500 mm that are currently calibrated with standard physical reference patterns. The main problem is related to the complexity of using very long standard physical reference patterns quickly and reliably when a machine is to be calibrated.

IK4-TEKNIKER uses an ETALON AG laser interferometry system called tracer laser that follows a reflector located near the machine's feeler and also measures linear displacements. This is connected to two major advantages in terms of the processes used nowadays:

On the one hand, precision is maintained at an interferometric level throughout the entire calibration process. On the other, machine downtime is significantly reduced, regardless of the size of the CMM. This measuring process is to be presented at the next edition of the Machine Biennial.

#### **The ETALON AG - IK4-TEKNIKER partnership**

ETALON AG is a crucial partner in this new service developed by IK4-TEKNIKER as this company is a benchmark in the metrology sector that supplies innovative technology for geometric verification and the monitoring and upgrading of precision of machine tools, coordinate measuring machines and robots.

IK4-TEKNIKER is currently collaborating with ETALON AG as its official distributor in the Spanish market meaning. This means, on the one hand, that cutting-edge and precise know-how related to geometric verification is readily available and, on the other, that a solid collaboration is underway thanks to the agency agreement signed with this leading industrial metrology firm.

#### **Concerning IK4-TEKNIKER**

With more than 30 years of experience in applied technology research that has been transferred to companies, IK4-TEKNIKER has achieved a high degree of specialisation in four major areas (Advanced Manufacturing, Surface Engineering, Product Engineering and ICTs). This means that its cutting edge know-how has been made available to customers to meet their requirements.

#### Further information

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