

## Press release

### A new patent for solar mirrors

- ▶▶ *IK4-TEKNIKER has developed a system that measures the geometry of solar mirrors based on multiple sensors that monitor the condition of the mirrors during a manufacturing process*
- ▶▶ *The device operates with a high degree of accuracy, an absolute must for this industry*

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(Eibar, Basque Country. 17 December, 2015).- The Basque technology centre [IK4-TEKNIKER](#) has patented an advanced system to monitor the condition of solar mirrors on production lines that is fully adapted to production cycle timing and has a very low margin of error when measuring.

It was on October 6th when the Spanish Office of Patents and Trademarks awarded a patent to a device consisting of a set of self collimators supported by calibration procedures. Self collimators are optical sensors used to measure small angles with very low levels of uncertainty.

They are mounted on a stable frame and opposite the mirror to measure reflecting surfaces. Both sensors and control points to be measured are used.

In addition to the measuring device, the development also features a calibration method on the frame to obtain degrees of accuracy in the region of .05 milli radians.

“This solution features several advantages in relation to other developments already available on the market which are equipped with several large and not very stable components that require a big gap when measuring. The system proposed by IK4-TEKNIKER, however, is based on a very compact, stable inspection cell that adapts to the size of the mirror. Moreover, and as measuring times are very short, uncertainty levels are very low, a key parameter for an industry that is demanding greater measuring accuracy”, says Gorka Kortaberria, the IK4-TEKNIKER researcher who developed this device.

It has been possible to develop this tool because the technology centre has ample expertise in a number of areas such as vision, optics, electronics, precision engineering and embedded programming. All of them have been investigated for years to obtain results applicable to the industry.

These areas of science are connected to applications in a number of sectors such as consumer electronics, telecommunications, health and the manufacturing or automotive businesses, among others.

**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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