

ASK THE EXPERT

TVM A REVIEW OF THE TOP 5 CUSTOMER QUESTIONS

In our latest 'Ask the Expert' I sat down with **Guven Turemen, Group Metrology Manager**, and chatted about the particulars of our TVM video measurement system, based on common questions from customers.

Q: We have a number of precision pressed parts with multiple small features, each of which need to be within specified tolerances. Our current measurement process is time consuming, how will TVM make this more efficient?

A: TVM will totally transform your quality process. The large field of view (FOV) and excellent depth of field created by the flat field telecentric optics and lighting allow accurate measurement of all component features in seconds.

For components that are larger than the FOV, we offer the option of a motorised measuring stage.

Q: We have several operators within our machine shop and each of them need to measure a variety of turned and machined components. How much time would it take to teach each of them how to operate TVM?

A: Because the TVM Series was devised around a simple 'place and measure' principle, a novice can start measuring after only a few hours' training.

And of course the compact design and robust build of TVM makes it the perfect choice for the shop floor!

Q: I would like to replace my old shadowgraph system. Before committing to the financial outlay, I'd like a better understanding of why a video measurement system would be a good replacement. Can you help?

A: That's a great question and I could go on and on about this! But to be brief, TVM can be used as a profile projector or as a complete video measurement system.

You can simply create or import a digital overlay and use TVM as a profile projector to



compare the video image to the digital overlay, as a simple “Go, No Go” system.

The telecentric lens and substage light provide a large field of view and eliminate shadows on turned parts (wall effect), so you can measure both flat and turned parts with TVM very rapidly and accurately.

The TVM will also allow you to conduct batch measurements so you can increase throughput significantly.

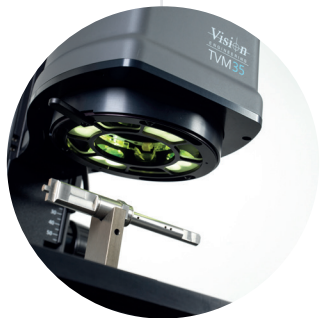
Finally, in terms of the financial outlay we think you will be pleasantly surprised at the excellent value for money offered by TVM.

Q: We not only need to measure features on our precision parts but also want to inspect for any surface damage prior to forwarding to the packing department. Would we be able to use TVM for this?

A: Definitely! TVM provides a high resolution image on a large HD monitor. The image is completely flat, without any curvature or distortion. So your quality team can be confident that they will spot potential issues on the surface of the component.

Q: Can you tell me more about the reporting capabilities of TVM?

A: Operators can enter nominal dimensions and tolerances of features during programming, and measurements that are out of tolerance will be highlighted at the end of the measurement routine in clear tables. All measurement results are automatically saved and can be shared over a network, exported into Excel or printed off as a quality control report in the exact format required.



About Guven Turemen

With a BSc in Mechanical Engineering and over 20 years' experience in working with leading manufacturers, Guven has an in-depth understanding of industrial metrology across a wide range of sectors including electronics, automotive, mechanical engineering, plastics and medical devices.

Since joining Vision Engineering Guven has led the transformation of our metrology product range and capabilities to offer a broad range of automated solutions aimed at helping improve customer's quality and efficiency.