

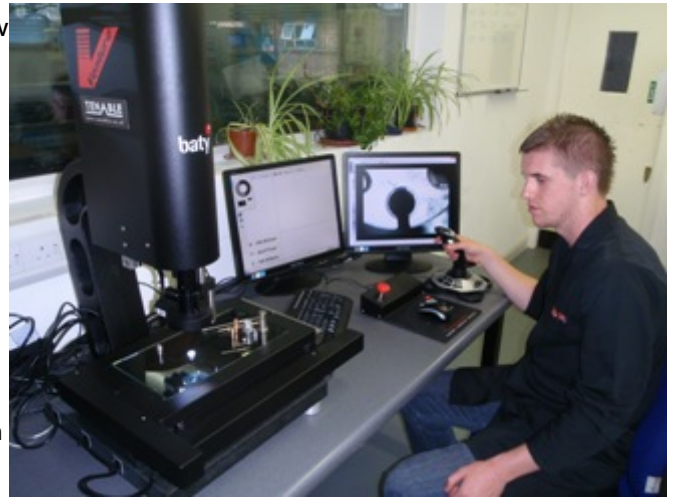


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Baty Provides Tenable Screw with a Vision for the Future

Established in 1940 by a Swiss watchmaker, Tenable Screw Company has grown from its early days, when it was involved in the machining of screws and fasteners by the thousands, to today's impressive company producing both basic and complex precision turned parts by the millions. Through a policy of generic growth, business acquisitions and continuous investment in the latest applicable technologies, the company now stands at the forefront of the British turned parts industry.

Tenable Screw Company supplies precision machined components in metal and plastic, from 0.3mm to 42mm in diameter, to many diverse global industries. Boasting an ability to undertake contracts from one-off prototypes to mass production quantities, the company has established a world-wide reputation for the quality of its output.



Tenable Screw Company boasts an inventory of more than 250 high-quality machine tools, including 30 Single Spindle, Sliding Head Cam Autos; 22 Multi-spindles and 54 CNC Sliding Head machines.

The company practises a continuous improvement program and pursues ever higher standards of Quality Assured Engineering Excellence. This philosophy is supported by regular investment in the best available quality control equipment.

Having enjoyed a close relationship with Baty International for more than 20 years, Tenable Screw Company currently boasts an impressive collection of 11 Baty optical projectors. Impressed by the high precision performance of their projectors and the service provided by Baty, the company now regard their Baty projectors as integral elements of their quality regime.

In accordance with Tenable's continuous improvement program, a decision was recently made to research the available high accuracy, 3-axis Vision Measuring Systems with touch-probe capability.

Dan Leigh, Tenable Quality Manager takes up the story: "Having recently made considerable capital investments in purchasing further advanced machine tools, in line with our quest for constant improvements, we turned our attention to our quality function. Although we utilise an impressive array of quality related equipment, it was decided that a high-accuracy, 3-axis Vision Measuring Systems with touch-probe capability would both improve our precision capability and speed-up our measurement routines.

"Although we have enjoyed an excellent relationship with Baty International for many years and had outstanding service from our collection of Baty projectors, given the range of offerings available from other manufacturers, we considered a number of alternative machines. Although, having had several demonstrations of vision systems with touch probe capability and compared them to Baty's Venture system, we felt that for us, the Venture offered the best mix of accuracy, ease-of-use and reporting capabilities.

“To ensure Baty’s Venture matched our needs, we had in-depth demonstrations at both Baty’s Burgess Hill Headquarters and at our own London facility. Both demonstrations were very successful, in that the machine proved that it was able to measure component-features that otherwise could not be measured without resorting to specialist form-gauges or even cutting components to reveal awkward to access features.

“Another key reason for our selection of the Venture machine was the in-depth reports that the Baty software is able to generate. In order to maximise the use of this feature we are currently developing a comprehensive reporting system that we plan to use both internally and for presenting all relevant information, in a user friendly format, to our Customers.”

Now making a significant contribution to the work of Tenable Screw Company’s Quality Department, the flexible nature of the Venture allows it to be used across a broad spectrum of component measurements. James King, Tenable’s primary Venture machine operator explained, “amongst other uses, we use the new Baty machine to accurately measure internal features such as bores, the angles between bores and geometric features such as PCDs. In addition, we are able to gauge elements such as internal undercuts. As the Venture is proving to be a great tool for visual inspection as well as for measuring features, we are also using the Venture, to make highly magnified, high definition observations of component features. ”

Based in Burgess Hill, Baty International is one of the world’s leading manufacturers of Optical Profile Projectors, Co-ordinate Measuring Systems and Gauging Products. Building on decades of experience in non contact dimensional measurement, Baty International has offered advanced, camera based vision measuring systems since the early 1980s.

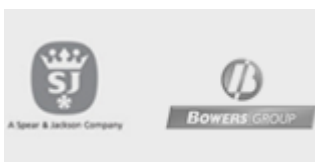
Baty’s highly successful, 3 axis Venture range includes both manual and full CNC systems that cover two standard measuring ranges. Baty’s powerful Fusion software boasts full 3D functionality; measured parts can now be dimensioned in all three projections showing true 3D results. Venture CNC models take the power of fusion software one stage further by completely automating the inspection process. Now advanced features such as scanning and ‘best-fit’ can be achieved both accurately and quickly. Venture uses a straightforward teach and repeat process for CNC programming, by simply measuring a part a full CNC program is created automatically. The machine’s zoom lens can also be controlled so that magnification changes are all recorded into the program.

Increasing the Venture’s flexibility, measurements from data points taken using a touch probe can be combined with those taken using video edge detection, resulting in reduced inspection times. Venture can be supplied with changer rack installed so that probe modules fitted with a variety of pre-calibrated styli can also be used in the same inspection. When a change of stylus is required, the system automatically puts the current probe module back in the rack and picks up the next to continue the inspection process.

In addition to a graphical representation of the measured part, detailed reports can be instantly created showing the feature name, nominal dimension, actual, error, upper and lower limits and a green pass or red fail label for each measured dimension in tabulated format. Geometric tolerance details can also be displayed along with a thumbnail view of the part and batch/customer information. The entire report can be duplicated as an Excel workbook for email.

For more information on Baty’s range of Vision Systems [click here. \(https://www.bowersgroup.co.uk/product-range/optical-measuring/vision-systems.html\)](https://www.bowersgroup.co.uk/product-range/optical-measuring/vision-systems.html)

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