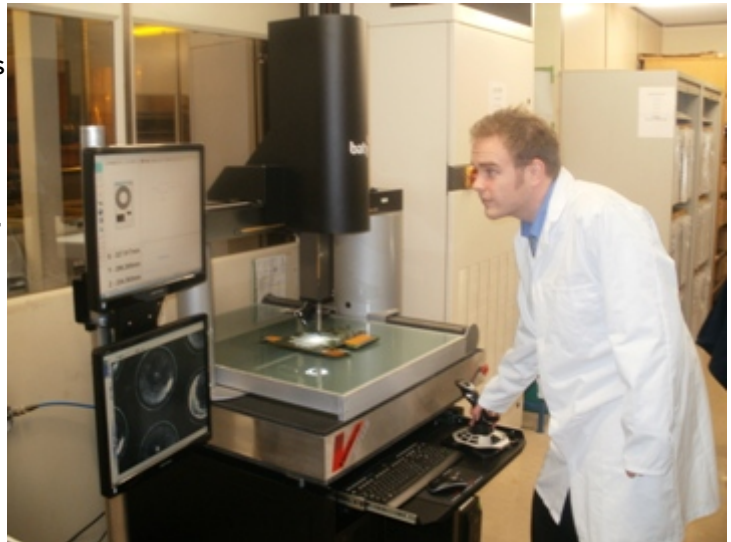




[Home \(https://www.bowersgroup.co.uk/\)](https://www.bowersgroup.co.uk/) > Dec 2010: Teknoflex Venture Forth With Baty

Teknoflex Venture Forth With Baty

With more than 50 years experience in Printed Circuit Board (PCB) manufacturing, Teknoflex Ltd has established a formidable reputation as the UK's largest supplier of flexible and flex-rigid multilayer circuits and assemblies. The company's breadth of technological capabilities, including in-house design, assembly and testing facilities are at the forefront of Flexi Circuit manufacture. Flex and flex-rigid circuits have long been used in numerous industry sectors including defense, aerospace, medical, automotive/motorsport, industrial, plus the domestic consumer field.



A typical single-sided flexible circuit is produced by taking a copper clad dielectric film, such as polyimide or polyester, then drilling, imaging, etching, bonding a coverlay and finally profiling in order to create the finished circuit. The coverlay, which is usually of the same dielectric material as the base stock, will have been drilled or pierced as necessary in order to facilitate component attachment, before being bonded to the etched circuit. The exposed copper features of flexible circuits are usually protected by one of the conventional surface finishes, e.g., Tin, Nickel Gold, etc. They usually have printed notation and frequently have local stiffeners or rigidisers. Flexible circuits are used as an innovative interconnect solution offering point to point connection. Flexible and flex-rigid circuits have long been used in numerous industry sectors, applications are wide ranging; from domestic dishwashers to complex aircraft instrumentation.

Teknoflex has its origins in the early 1950s as one of the first manufacturers of rigid printed circuit boards in the UK. The company was acquired by the Dowty Group in the late 1970s and was the subject of a management buy-out in 1991, at which time it became a private company. Teknoflex ceased manufacturing rigid printed circuit boards in 1983, consequently all company resources were focused on flexible circuit design, manufacturing and associated assembly. The company's progressive policy of continually extending its range of flexible circuit technologies has ensured that it remains at the forefront of technological development and innovation within its field of expertise. The result of the company's progressive strategy is that Teknoflex now boasts what is believed to be the broadest range of flexible circuit technologies and associated assembly capability in Europe. Company products supplied to a global market include the following - Flexible Printed Circuits, Sculptured Circuits, Sculptured Jumpers, Multilayer Flex and Flex-rigid Multilayer.

In addition to state of the art production plant, Teknoflex invests heavily in the best available inspection equipment. Keith Netting, Teknoflex Technical Director explains; "The quality of our output is of paramount importance to all at Teknoflex. As the failure in the field of any of our products could have very serious consequences, we ensure that our quality ethos permeates all of our endeavours. To ensure the excellence of each of our manufactured parts, we undertake meticulous in-process and final assembly inspection routines. By constantly training our staff and investing in the most up-to-date inspection technology, we are able to maintain the global reputation we enjoy for the quality of our flexible and flex-rigid multilayer circuits and assemblies."

Typical of the high-tech capital investments made by Teknoflex, within the field of quality control, is the recently installed Venture Plus, CNC Multi-Sensor, Coordinate Measuring Machine from Baty International.

Keith Netting continues "With increased levels of production, our inspection requirements needed to become more streamlined. To ensure that our inspection function could continue to keep pace with production, we investigated the available technology. Having examined the offerings from several metrology companies, we considered that the Venture Plus CMM best met our list of demanding criteria."

"Now in regular use, the new Baty machine has relieved the pressure on our Quality Department and is making a significant contribution to ensuring the quality of our output. Our Venture CNC machine has helped to automate a multitude of company inspection processes; previously time consuming precise measuring routines can now be completed in a fraction of the time previously taken. By following a straightforward 'teach and repeat' process, our operators are able to programme new parts and measure subsequent batches in an automatic mode. By simply measuring a part once, the Baty machine creates a full CNC program automatically. The unit's zoom lens can also be controlled so that magnification changes can be written and recorded into each program. Although a choice of models was available we chose the Venture option with a measuring range of 640mm x 600mm x 250mm. This size of machine proved to be the optimum capacity for our needs as we are now able to load either one-off parts or multiple components for fully automatic measuring routines."

Baty's Venture Plus range of advanced multi-sensor CNC Coordinate Measuring Machines provides the user a multitude of advantages. In addition to superior optical measurement, the range also boasts a Renishaw TP20 touch probe measuring facility. Measurements from data points taken using the touch probe can be combined with those taken using video edge detection for optimum convenience, accuracy and reduced inspection times.

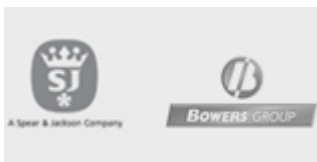
A probe changer rack can be installed so that probe modules fitted with a variety of pre-calibrated styli can also be used in the same inspection routine. When a change of stylus is required, the system automatically puts the current probe module back in the rack and picks up the next to continue the inspection process.

The unit's bridge type construction is all aluminium, resulting in low inertia and low thermal mass. Air bearings are used on all axes, whilst a granite Y beam is used for increased accuracy. The machine expands and contracts uniformly with temperature changes ensuring minimal distortion and potential for errors. Ambient temperature can also be compensated for within the Fusion software, making Venture Plus ideal for use on the shop floor.

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 camera based (vision) measuring systems since the early 1980s. Now, as an ISO 9001:2008 accredited company, Baty's comprehensive portfolio of Metrology Instruments ranges from Hand Tools to Vision Systems - solutions for almost every measurement application in modern manufacturing.

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)

[\(https://www.bowersgroup.co.uk/about/uk/\)](https://www.bowersgroup.co.uk/about/uk/)



[Contact Us \(https://www.bowersgroup.co.uk/contact/uk/\)](https://www.bowersgroup.co.uk/contact/uk/)

| [Privacy Policy \(https://www.bowersgroup.co.uk/privacy-policy/\)](https://www.bowersgroup.co.uk/privacy-policy/) | [Media Library \(http://bowers.damhq.com/\)](http://bowers.damhq.com/)

Copyright © 2019 Bowers Group