Baty Vision Systems - Venture Touch

The highly successful Venture range includes both manual and full CNC systems that cover two standard measuring ranges.

Venture Touch 3D

This advanced Vision system combines a manually operated X-Y measuring stage with a motorised Z axis. The advantage of this is that the servo motor driven Z axis can provide the all-important autofocus function for Z axis measurement without operator influence.

Suitable for the shop floor, the rugged design features a steel / granite stand with fully integrated PC controller running Baty's 3 axis touch screen software - Fusion Touch. The full HD touch screen is mounted on an adjustable arm and the software is arranged in a portrait layout for ease of use.

Fusion Touch software features full geometric functionality so circles, lines arcs and points can be measured using dedicated tools. Data points are automatically taken along the edge of the feature using video edge detection, then all measurements are automatically saved, should the inspection need to be replayed for a batch of parts.

All measured features appear in the part view where they can be selected for dimensioning resulting in a dimensioned part view that can be printed or exported to CAD. Tolerances are set for each dimension so that the final inspection reports can classify each dimension as a pass or fail.

Inspection playback

During this process the operator is guided through the inspection routine via the graphical part view. Once the stage has been positioned so that the feature appears in the camera's view, the Video Edge Detection tools take over and measure the feature automatically. If features are on different planes, the Z axis drives under CNC control to the correct position as defined by the original inspection. All lighting and magnification conditions are also recorded and re-created as each feature is visited. The end result is a highly repeatable process with no operator influence.

Lighting

The programmable LED lighting is also controlled using the touch screen. Segmented surface illumination, through the lens and profile lighting conditions can be adjusted to ensure that the feature edge is perfectly illuminated.

Features

- High resolution 0.5µm scales for increased accuracy
- 6.5:1 zoom optics (with optional CNC control)
- Optional 12x zoom optics
- Programmable segmented LED lighting system
- Z axis dovetail slide mount for increased Z axis capacity
- High precision cross-roller stage
- Ultra-smooth plain rod drives
- Auto video edge detection tools
- Auto programming
- Motorised autofocus

VENTURE TOUCH

Code No	Description
Venture-Touch-2510	Venture Manual with motorised Z and autofocus, Fusion Touch software, 250 x 125 x 155 X, Y, Z measuring range
Venture-Touch-3030	Venture Manual with motorised Z and autofocus, Fusion Touch software, 300 x 300 x 200 X, Y, Z measuring range
CAL-MAG-2	Glass calibration artefact
VI-Vision-Stand	All steel machine stand with granite top

For more information contact optical@bowersgroup.co.uk