ABERLINK

Innovative Metrology

PROJECT X

The standard for 2D inspection

Measurement technology has moved on

2-Dimensional Vision System

Project X …… the standard for 2D inspection

Project X is different. It utilises a totally new, patented technology XY scale, that records not only X and Y position, but also any rotational movement of the camera system. In addition, this is an absolute scale system, which means that as soon as you switch on the machine it knows exactly where it is - no need for referencing. The camera is free to glide around the measurement area, mounted on a simple air bearing system, without any worry about constraining the mechanics to avoid losing accuracy.

Components can be placed on the glass table and remain stationary, whilst the camera is moved around taking measurements above, using two very simple hand-wheels. There is no danger of the part moving if you pan the camera quickly, like there would be on a moving stage machine and indeed there is no need to secure the component on the table at all.

Combine this simple mechanical structure, made possible by the revolutionary scale technology, with the Aberlink measurement software and you will soon understand why Project X is the standard for 2-dimensional measurement.

Project X is available either as a manual machine or with full CNC control.

Project X finally replaces the old technology of a profile projector. It is easier to use than a profile projector. It is quicker to use than a profile projector and will deliver reliable, consistent inspections time after time. And Project X is the same price as a profile projector. Finally the projector is dead . . . . long live Project X.

Aberlink vision measurement software …… as simple as it can be

Everything about the user software has been structured to make it simple to use. A clear, crisp image from the high resolution camera is displayed on the monitor and the operator simply clicks on the image to activate the automatic edge detection tools. These tools are able to intelligently detect the difference between lines, arcs and circles, which means that the user doesn't have to keep selecting a new icon each time they want to measure a different shape. There is also a thread measuring tool, a tool to trace around a continuous edge, and best of all, there is even a tool to grab every edge within the field of view with just one click of the mouse button.
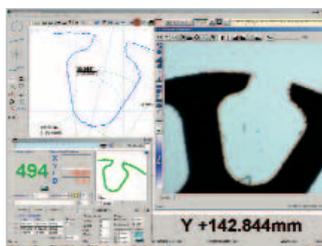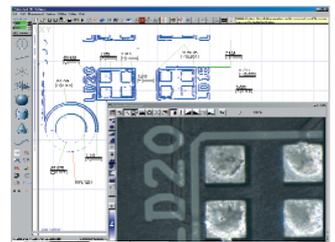
All the parameters used for the edge detection tools can be adjusted during any measurement, meaning that the user can change the criteria for a measurement and see live on the screen how it affects the measurement points before accepting them. No need for trial and error - measurements will be correct first time.

Having grabbed the edges from the image being displayed, a graphical representation of the part is recreated in the software. Dimensions between the measured features are then 'picked off' as required, exactly as they appear on the component drawing.

Alternatively, DXF files for the part can be imported, a best fit performed and then compared directly to the measured data. Reports can be printed in either a graphical or tabulated format, or exported to Microsoft Excel.

All this is inclusive within the standard Aberlink vision software. Designed for the first time user, easy to use and achieving greater productivity and profitability.
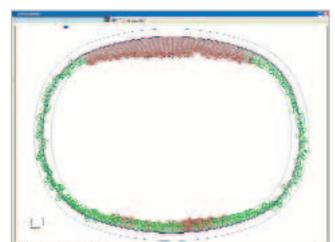
Project X ... measurement technology has moved on

PROJECT X

Project X …… the advantages are clear

Measurement Volume

X axis 400mm manual or full CNC control
Y axis 300mm manual or full CNC control
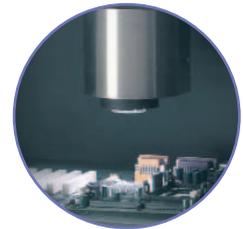Z axis 125mm manual or full CNC control

Compact Design

The controller and air supply for the air bearing system are housed within the Project X for protection and minimum footprint.

Rugged Housing

3 Megapixel Camera

Built-in Controller

Fine Adjust Wheels

Accuracy

Very high measurement accuracy is achieved through the use of the patented XY scale technology giving absolute X, Y and rotational positioning.

Glass Table

The glass table allows backlighting of components. Parts can simply be placed on the table as there is no moving stage and no need to secure them.

Your money saving turn-key package

PROJECT X

For a successful company a PROJECT X is a necessity not a luxury

- Why have expensive CNC machines waiting to be set? Speed up feedback with a Project X.

- Why tie up skilled personnel carrying out slow traditional inspection?

- Why lose customers because you supplied out of tolerance parts?

- Attract more profitable work with a leading edge inspection centre.

- Some features can only be accurately inspected with a vision system.

- Intuitive software for the first time user means you are seeing the benefits fast.

Inspection wastes thousands

Are you still using traditional methods of inspection, while expensive CNC machines are idle, or worse, your inspections are inaccurate or missed out completely?

Now at last with a Project X, you can dramatically reduce inspection times and improve setting times throughout your business.

Example:

Number of CNC machines	5
Time saved in inspection and setting (per machine, per shift)	0.5 hrs
Number of shifts per day	1
Daily time saving for inspection and setting	2.5 hrs
Hourly rate	£40
Total annual inspection saving	**£25,000**

Compare this with the price of a Project X and pay back will be in a matter of months! This means a massive improvement in your bottom line figure thereafter - and no expensive rejects, reworks or lost customers.

Specification	Project X	
Type	Manual 2D Non-contact Measuring	CNC 2D Non-contact Measuring
Measuring Range	400mm x 300mm	400mm x 300mm
Z Focus Range	125mm	125mm
Z Axis	Stepper motor drive	Stepper motor drive
X & Y Axes	High inertia hand wheels	Stepper motor drive & high inertia hand wheels
Accuracy	0.0075mm	0.0075mm
Measuring System	Patented Aberlink Dot Scale	Patented Aberlink Dot Scale
Camera	Colour, 2048 x 1536 pixels, low noise, USB	Colour, 2048 x 1536 pixels, low noise, USB
Field of View	10mm at 0.0048mm/pixel	10mm at 0.0048mm/pixel
Software	Full graphical interface running on Windows	Full graphical interface running on Windows

760mm

640mm

670mm

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