Merlin
Benchtop AOI System

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Developed in the USA and distributed worldwide, the Prey range of equipment created ASC International is a continually developing and improving Windows 10 based software interface combined with a quality hardware platform.

Based upon ASC's many years of experience in the electronics manufacturing sector, the Prey range is designed to offer customers what they want and need while keeping costs down and implementation simple.

The Prey AOI range offers a price competitive solution that makes full inspection capabilities accessible at almost every budget without sacrificing functionality and ease of use. Our systems have been optimised for remote support to enable us to get our customers answers fast meaning their manufacturing process can have maximum up time.
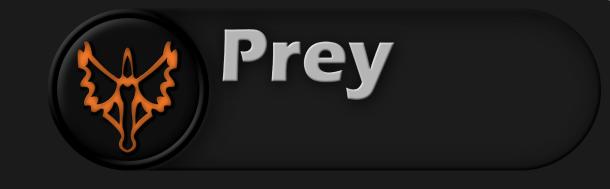
Our benchtop inspection system, the Prey Merlin, offers all the capabilities of machines more than twice the cost. Using a 5MP camera, the system gives the ability to inspect almost any component. A robust yet flexible universal carrier system give the user the flexibility to quickly insert a PCB up to 600mm x 360mm for the XL and 450mm x 360mm for Standard, clamp it and inspect with the press of a single button, once complete the PCB is returned to the load point ready for the next PCB to be loaded.

The Merlin includes full 1D and 2D barcode reading as standard to offer a fully traceable solution that can be combined with the user friendly Prey rework suite. The Merlin combines excellent mechanical stability with the latest in 64bit software to give one of the most truly unique inspection solutions found anywhere in today's global market.

Prey combines all its systems with our tried and tested rework and trace-ability solutions to give any user a complete picture of their manufacturing process.

The Merlin is an all new dramatically improved system for 2021 and is a constantly evolving system being tailored to our customers needs.

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Prey

ASC International

Technical Data: MERLIN	
Camera	Top 5M Pixels Camera
Camera Resolution	Standard : 15um, Optional 10um
Lighting	4 Colour Lighting Ring (RGBW)
X / Y Movement	AC Servo Motor Ball Screw and Linear Rail
PC Configuration	P4 Intel Dual Core 2.5GHz CPU, 8G DDR3 Memory, 1TB HDD and CD-Rom
Power Supply	1P, 220V, 50/60Hz, 10A
Machine Dimensions	Length: 1,100mm x Depth: 1,300mm x Height: 940mm
Machine Weight	410Kg
Operating System	Windows 10
Programming	CAD File Loading, Manual Teaching
Statistic Data Function	SPC Software
Minimum PCB Size	50mm x 50mm
Maximum PCB Size	450mm x 360mm Standard / 600mm x 360mm XL
Maximum PCB Thickness	<6.0mm
Clearance	Top / Bottom: 40/50mm
Clamping Edge	>3.0mm
Component Inspection Tests	Missing, Reversed, Shift, Damaged, Skew, Tombstone
Solder Inspection Tests	No Solder, Insufficient/Extra Solder, Bridge, No Solder
Smallest Component Inspection	Chip: 0201 (15um Lens), Chip: 01005 (10um Lens)
Barcode Reader	1D or 2D Barcode Reading Via Camera

New for 2021.

1. New RGBW lighting unit provides uniform lighting over an increased field of view and improves detection of shallower joints.

2. Optional 12 Megapixel camera to allow either increased optical resolution or a larger field of view at the current resolution to increase inspection speed (available Spring 2021, will be fully retrofitable).

3. Inline Falcon system available offering complete program compatibility with Merlin benchtop.

4. Software interface remains the same so no retraining of operators or programmers required from previous versions.

5. All systems have 3 fiducial correction allowing for stretch, shrunk and skewed PCBs.

6. Unique Analysis button that allows the software to work with you and train component fluctuations.

7. The Merlin is a fully CE Certified system offering unmatched value and reliability on a Windows 10 coded software interface giving the user many years of use backed by a full engineering and software development team.