MacroZoom Unit
Sample inspection system for
Crimp Cross Section Analysis

QUALITY ASSURANCE

MacroZoom Unit

Concept

With the MicroGraph System (MGS), crimp cross-sectional images can be created in a fraction of the time compared to conventional methods. The system includes modular components that can be combined according to individual needs. The MacroZoom Unit (MZU) 1.3 allows the user to quickly and accurately analyze a pre-cut cross section sample using precision optics and powerful software. The 1.3 megapixel optic unit includes 9 incremental zoom positions that can be calibrated for repeatable and accurate measure-ments. An optional auxiliary lens can be added to expand the field of vision for larger samples. Sample illumination can be adjusted as necessary with the LED light ring for best picture clarity. The CrimpLab software included with the MZU is specifically designed for crimp cross section analysis. It is a powerful yet simple software for capturing all of the critical measurements. Basic functions for measuring height, width, area and radius values are included as well as others such as strand counter and a crimp area reduction calculator Images can be stored in multiple formats either with or without measurements and measurement masks can be created for comparison between sample sets. Once all measurements are captured, the information can be easily transferred to a PDF report. Although the CrimpLab software was created specifically for crimp cross sectional analysis, it is extremely useful for many other quality analysis applications as well.

Features

- 2.0 USB camera with 1.3 Megapixel resolution for clear picture quality
- 9 incremental zoom positions can be calibrated for measurement repeatability and accuracy
- Optional auxiliary lens for expanded field of vision for larger samples
- CrimpLab software for capturing all key measurements and reporting

Applications

- All crimp analysis applications
- Ultrasonic and Resistance Welding
- Tool analysis and other quality assurance applications

Technical Specifications

Model	MZU 1.3 MacroZoom Unit
Lens Coverage	1,0 x 0,8 mm up to 6,8 x 5,1 mm (0.04 x 0.03" up to 0.26 x 0.2") MZU for SPU 6 2,6 x 2,0 mm up to 17,1 x 12,8 mm (0.10 x 0.08" up to 0.67 x 0.50") MZU for SPU 60
Illumination	LED ring light
Lens and Zoom	MacroZoom lens with 9 incremental zoom steps
Camera	USB 2.0 camera
Resolution	1.3 Megapixel
Operating Temperature	0 – 50° (32 – 120°F)
Safety	IP20
Options	Lens for 2,0 x 1,6 mm up to 13,6 x 10,2 mm (Optics for SPU 6) Lens for 5,2 x 4,0 mm up tp 34,2 x 25,6 mm (Optics for SPU 60) Object micrometer for calibration of optics and camera
Electrical Connection	100 - 240 V, 50/60 Hz, 200 VA
Dimensions (W x D x H)	Object micrometer for calibration of optics and camera

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To Be Precise.

Weight	Ca. 1.7 kg (3.74 lbs.)
CE - Conformity	The MZU 1.3 fully complies with all CE and EMC equipment guidelines relative to mechanical and electrical safety and electro-magnetic compatibility.
Software	CrimpLab®
PC	IPM-compatible PC
Processor	Pentium 3
Memory	Min. 512 MB RAM
Graphics Card	Min. 32 MB
Interface	USB 2.0
Operating System	Microsoft Windows® 2000, SP4; Microsoft Windows® XP, SP2; Microsoft Windows® Vista; Microsoft Windows® 7