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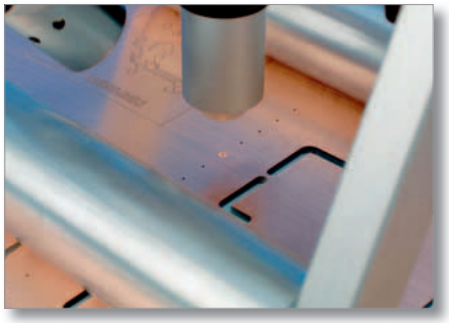
M

Depth measuring microscope Cellcheck CIL-ZX-USB

The mobile USB microscope for depth measurement

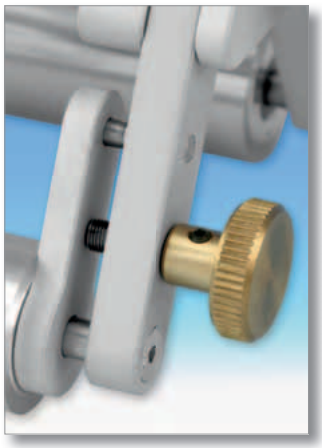


The ideal aid for depth measurement. The digital dial gauge measures the distance between two focal planes for no-contact measurement of hole depths in circuit boards or cell depths on anilox rollers and intaglio cylinders The measurement should be accomplished at very high magnification to limit the depth of field - a possible source of error. For this reason 20x and 30x lenses are included with the measuring system. The 1600 x 1200 pixel USB 2.0 camera provides for 900x or 1,350x final magnification on a 17" screen.

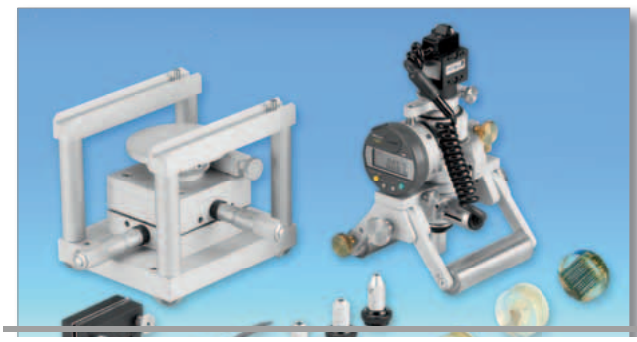


The virtually play-free, coaxial drive allows exact focussing on the focal plane. Important for optimum readings: Always focus the top and bottom focus level from the same side. This is the only way to ensure elimination of inaccuracies in the measurement resulting from a slight backlash. Here the coaxial illumination directly through the lens plays a significant role. This light guidance is the only feature that allows exact recognition of the focal planes. The fine focusing mechanism can be pushed to the side for quick adjustment. An LED ring light is included with the set for materials such as rubber. The nine LED's are arranged at an angle of 30° to the optical centre.

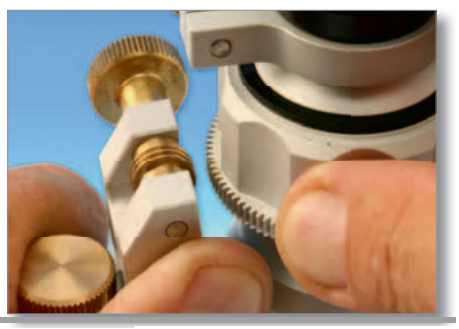




The MST stand provides a secure position on drums or flat material for depth measurement. An additional five millimetre X-adjustment at high magnification allows feed motion between the focal planes, when they can no longer be covered by the field of vision. In addition to visualisation the Metric Standard or Metric Plus measuring software allows 2D measurements, such as distances, angles, radii and areas.

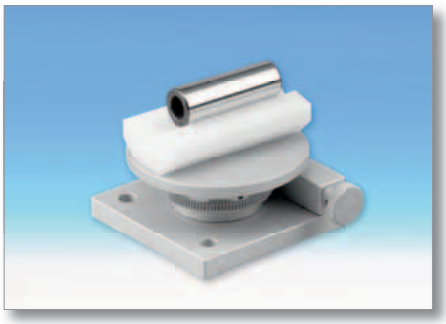


The drivers for the camera and measuring software can be installed on as many PC's and laptops as desired (software enabled via camera), making the system extremely flexible. Updates for the

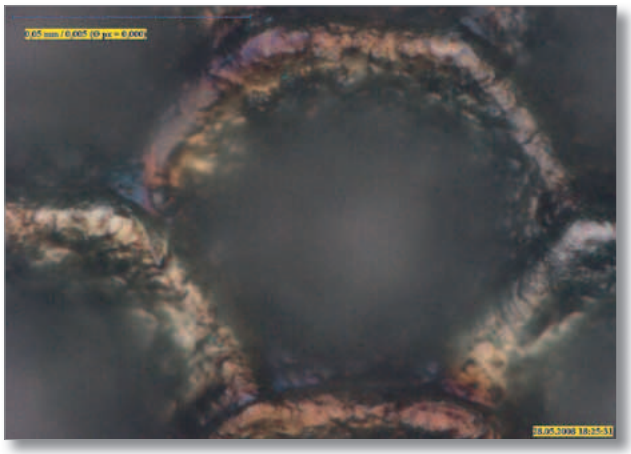


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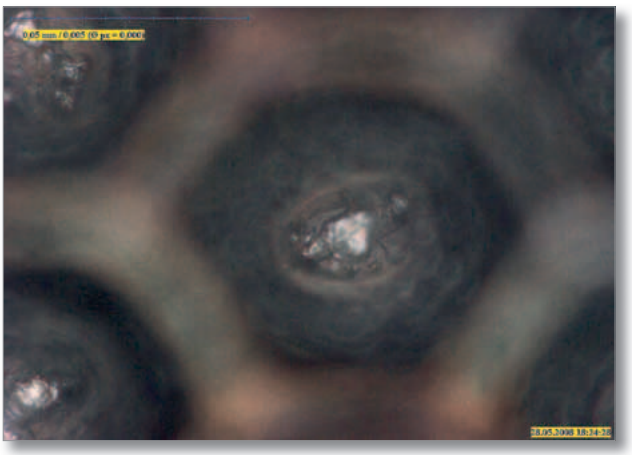
5 mm cross table and optional rotating table is available to allow use laboratory system. This stand is very useful when performing depth measurements on small parts. In such applications the parts can be positioned precisely with the cross table. Further optional accessories include the two V-blocks, which can be inserted into the rotating table using a fitted pin in the bottom. This allows applications such as quickly and reliably measuring the depth of scratches on round parts without investing a great deal of time. The Cellcheck system is also suitable as a mobile laboratory for measuring polished micrograph sections. In this configuration the Cellcheck CIL-ZX system is supplied in a prestigious aluminium case, with recesses for the optional stand.

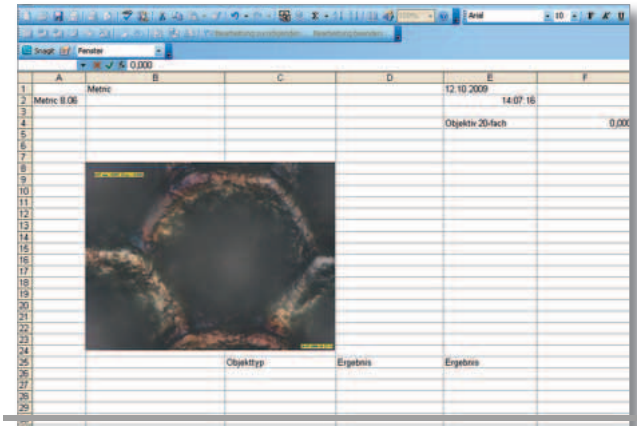






The images shown here of an anilox roller from the field of flexographic printing indicates the type of images obtainable with a 20x lens (approx. 900x magnification on a 17" monitor) First it is necessary to adjust the system above the first focal point. Then focus at the bottom, excluding the remaining backlash. As soon as the upper focal plane is in focus, the dial gauge can be set to zero and the system refocussed on the second focal plane (bottom of cell). Then read off the value on the dial gauge or transfer it to the Excel log via an optional data transfer cable and interface. The advantage of this method is that the value on the depth measuring dial gauge is also displayed in the Metric window.





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ontal direction. The magnification factor is based on a 24" screen (measured diagonally). All length dimensions are in mm. The USB 2.0 camera has a resolution of 1600 x 1200 Pixels (1/2" Chip). Divide the visible area in microns by 1600 to determine the pixel size.

Tube length	Objective lens	2x	4x	6x	10x	15x	20x	30x
120 mm	Working distance in mm	33	18	11	6	9	6	4
	Field of view in mm	2.4	1.2	0.82	0.5	0.33	0.23	0.17
	Magnification	90	170	260	430	640	840	1230