# *Cellcheck CIL-USB Portable Microscope*



How can you get a four square meter workpiece under a metallurgic microscope? The solution to this problem is the Cellcheck CIL mobile USB measuring and inspection microscope. The Cellcheck CIL is always supplied with a stable MST stand. This allows secure positioning on flat material and on drums. The stand feet are coated with silicone-free synthetic material. A knurled bronze screw allows the stand roller positioning distance to be adjusted variably. This ensures the required object distance particularly at small magnification factors. The 1600 x 1200 pixel USB 2.0 camera offers perfect images, comparable to those from high quality metallurgic microscopes.



In combination with the KITEC measuring software or with the MeshCheck image processing software for automatic measurement of metal and polyester textiles.

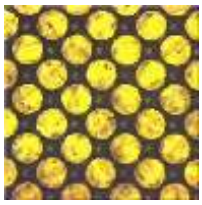




Image examples made with LED ring light and coaxial illumination (polymer printing plate and intaglio printing cylinder).







Lenses with magnification factors of 2x, 4x, 6x and 10x are included. The magnification factor based on a 17 inch PC monitor can be calculated by multiplying the magnification factor of the lens by 45. For example a 10x lens displays the measured point at a magnification of 450x. 15x, 20x and 30x lenses are available as options. A strong white LED provides coaxial illumination. The coaxially directed light eliminates all undesired reflections, which could lead to misinterpretations and erroneous measurements. We also offer IR, green and red LED's. The power is supplied by the USB camera. An additional LED ring light is also included. The nine LED's arranged at an angle of 30° offer perfect illumination for all applications requiring diffuse light.





The KITEC ECO or KITEC PRO software provides for documentation. Regardless of whether images are only to be stored or whether the image and measuring results are to be documented in the form of Excel or PDF files - Cellcheck CIL makes your work quick and easy. The software can be installed on as many computers as desired, and enabled by the USB camera, allowing the system to be used by a number of employees.



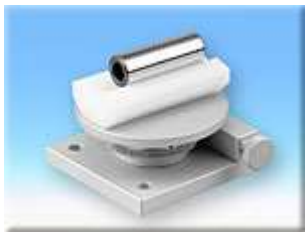
The MST stand can be equipped with rolling stand feet as an option. For example in the field of solar production, e.g. on thin film modules, the measuring points located in a line can be sighted considerably faster and more conveniently. As an alternative the MST stand can be supplied with a 5 mm X adjustment. A combination of both options, however, is not possible.





The unit is delivered in a small, plastic transport case well suited for mobile use in field service.

An additional stand with 25 x 25 mm cross table and optional rotation table is available to allow the Cellcheck CIL to be used as a laboratory system (shown with depth measurement equipment in Fig. at bottom right - see Cellcheck CIL-ZX). 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 system is supplied in a prestigious aluminium case, with recesses for the optional stand.





**Typical uses:** In the electronics industry: measurements of drillhole diameters, line widths, offsets. Quality of the walls of drillholes, centricity of drillhole and solder pad. Printing industry: offset printing plates, prints of every type, rubber print rollers, checking tem-plates for screen printing, holograms, security prints. Timber and plastic industries: quality of veneered or laminated surfaces. Metal -working industry: embossing rollers, small drills or indexable inserts. Glass: print control on glass panes for the automotive industry. They are just a few examples.

**Matrix for Cellcheck CIL-USB**

The field of view is specified in the horizontal 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 |

## Prices

| Order no. | Description | Price excl. VAT. |
|---|---|---|
| Cellcheck CIL-PE | Cellcheck CIL-USB with KITEC ECO software | £3,830.00 |
| Cellcheck CIL-Plus | Cellcheck CIL-USB with KITEC PRO software | £4,500.00 |
| CV-OM-150 | Lense, 15x | £164.00 |
| CV-OM-200 | Lense, 20x | £245.00 |
| CV-OM-300 | Lense, 30x | £332.00 |
| MST-X | Upgrade with 5mm X adjustment | £535.00 |
| MST-R | Upgrade with rolling stand feet | £270.00 |
| ST-CIL | Stand with cross table 25 x 25 mm | £810.00 |
| ST-CIL-RT-85 | Same as above but with additional rotation table | £1,170.00 |
| CV-EP-PPOM | Positioning V-blocks with 4 or 10 mm depth | £25.00 |