



IBAK PANORAMO[®]SI

3D Optoscanner for Manhole Inspection

All-round manhole scanning

Freely pannable and rotatable direction of view

Unfolded view of the inner manhole walls

Digital data acquisition and storage

Data analysis in the office or in the vehicle

For 300 mm (12") diameter manholes upwards

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With the **IBAK PANORAMO SI**, the user has the distinctive advantages of PANORAMO technology also at his disposal for manhole inspection. The result is the complete and rapid optical establishment of the condition of manholes.

The 3D Optoscanner uses two high resolution digital cameras with specially designed distortion-free wide-angle lenses. These optically scan the entire interior of the manhole in a few seconds in one single vertical run. The digitally transmitted image data is at the operator's disposal immediately as a live picture. The condition of the manhole is then assessed optionally in the office or directly on site.

- ▼ *Manhole inspection alone: Panorama SI as an autonomous compact module*
- ▲ *Manhole inspection and more: Panorama SI as an extension to an inspection system*



Unlike a video film from a conventional pan and rotate camera which only shows the section of view saved at the time of filming, the IBAK PANORAMO SI viewer software provides an all-round inspection of the manhole. The inspector can stop at any position in the manhole, do a 360° pan, zoom and take snapshots.

Simultaneously, an unfolded view of the manhole can be generated. This gives a rapid overview of the condition of the structure and enables the user to measure objects on the manhole walls.

The IBAK Sewer Analysis Software IKAS 32 PANORAMO SI manhole inspection option is available for further evaluation of the data. In this way, PANORAMO SI films can be simply and efficiently analysed.



The results are inspection reports and inspection data to suit all common data interfaces. The licence-free IBAK viewer software puts the customer completely in the picture.

The manhole inspection camera IBAK PANORAMO SI can be operated as an extension to IBAK PANORAMO sewer TV systems with a BS 5 control unit or also as an autonomous compact module.

System Technical Data:

- For manholes from 300 mm (12") diameter upwards
- Speed: max. 35 cm/sec.



IBAK Helmut Hunger GmbH & Co. KG
Wehdenweg 122 · 24148 Kiel · Germany
Tel./ Fax +49 (0) 431 7270-0 / -207

www.ibak.de info@ibak.de

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