



IBAK PANORAMO



3D Optoscanner

Acquisition of the complete pipe data
without any gaps

Analysis in the office or in the vehicle

Digital data acquisition and storage

Inspection speed of up to 35 cm (14 in.) /sec.

Two-dimensional view of the inner pipe walls

Perspective view of the pipe

For operation in 200 mm / 8 in. pipes upwards

IBAK PANORAMO



The **IBAK PANORAMO 3D** optoscanner, unlike conventional sewer TV systems, uses two high-resolution digital photo cameras with 186° wide-angle lenses, integrated into the front and rear section of the housing. During pipe inspections at a speed of up to 35 cm / 14 in. per second, parallel-mounted xenon flashlights are triggered at the same position in the pipe. The hemispherical pictures scanned in this way are put together to form 360° spherical images.

During the PanoramO scanning process, which is possible both in forwards and reverse direction, the data is transmitted digitally to the inspection vehicle and is at the operator's disposal as live pictures for orientation purposes and to locate any obstructions. In addition to this, the data is stored in the form of "PANORAMO films", for instance on removable hard disks or DVD's as storage media.

This image scanning method makes it possible for the state of the sewer to be assessed independently of the actual sewer inspection - and this is uniquely by expert personnel in the office.

Unlike a digital video film from a conventional pan and rotate camera in which only the section of the image actually surveyed during the inspection is stored, the PANORAMO viewer software makes it possible to carry out a complete sewer inspection in the office by means of a virtual camera, as if the inspector is on site with a real pan and rotate camera. He can stop at any position on the way, turn a full circle, zoom, do video captures and complete the analysis data. An unfolded view of the inner pipe surface which is available simultaneously gives you a rapid view of the state of the pipe and permits computer-aided measurement of the positions and sizes of objects.

For further analysis and data processing, we recommend using the IBAK Sewer Analysis Software IKAS 32. In addition to this, the "PANORAMO film files" can be adopted by information systems without the data having been analysed. All data can be handed over to the client independently and without any problems, stored for example on a DVD. If wished, other IBAK TV cameras can also be operated with a PANORAMO System.



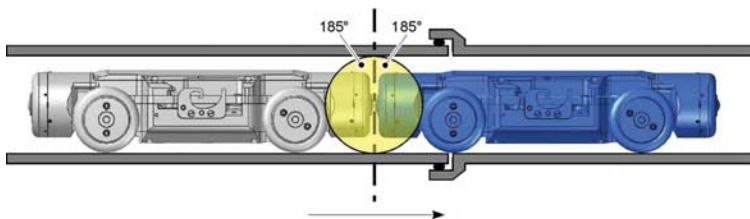
IBAK PANORAMO 3D Optoscanner with pneumatic tyres and lift up



IBAK PANORAMO 3D Optoscanner with additional laser profiler



IBAK PANORAMO 3D Optoscanner lens and xenon flash light



IBAK PANORAMO 3D Optoscanner principle

IBAK PANORAMO is an existing system for European deliveries and inquiries



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