



CamMobile® Line



Office



Operator



Customer



Recording

CamMobile® Easy...

... is a small, compact inspection system for the industry and private connections. The device is easily navigated via a menu by the operation of a control knob. The camera brightness can be adjusted via a dimmer.

The reel is fixated to the base unit and cannot be removed. Depending on the application area, you can choose between a device with a 30 m or a 50 m push rod.

The cameras K-35 and K-50 are interchangeable with either push rod.

Lightweight, compact and practical

With its ergonomic design and its weight under 10 kg, this is the ideal inspection system for quick operations and inspections in areas difficult to access. Especially suitable for operations in the field of pipe cleaning.

Data Export

By digitally storing still images on the SD memory card, you can export photos to your PC in a quick and easy manner.

The card's high memory capacity allows you to save up to 850 images.

Image documentation

Different types of damage can be captured in digital images and labelled via text overlay according to a damage code list. This saves precious time in the office.



CamMobile® Compact

This base unit is a compact model and, like its big brother CamMobile® Profi 3, it is compatible with all CamMobile® reels and camera heads. The basic unit contains an elaborate software made by Kummert. It is easily operated without a keyboard or mouse and records damage images including the text overlay on a memory card.



Efficient and practical

The small and compact inspection system is especially suited for applications in the field of sewer rehabilitation.

The slim design, as well as the ability to interchange the removable push rods and cameras, guarantees the system's versatility.

Easy handling

The easy to use menu can be navigated with a control knob. The camera brightness can be adjusted via a dimmer. The camera's self-levelling function engages automatically at the push of a button.

A joystick on the operating panel is utilized to control the rotary and pivot cameras, and to measure the nominal diameter of pipes.

Data Export

By digitally storing still images on the SD memory card, you can export photos to your PC in a quick and easy manner.

The card's high memory capacity allows you to save up to 850 images.

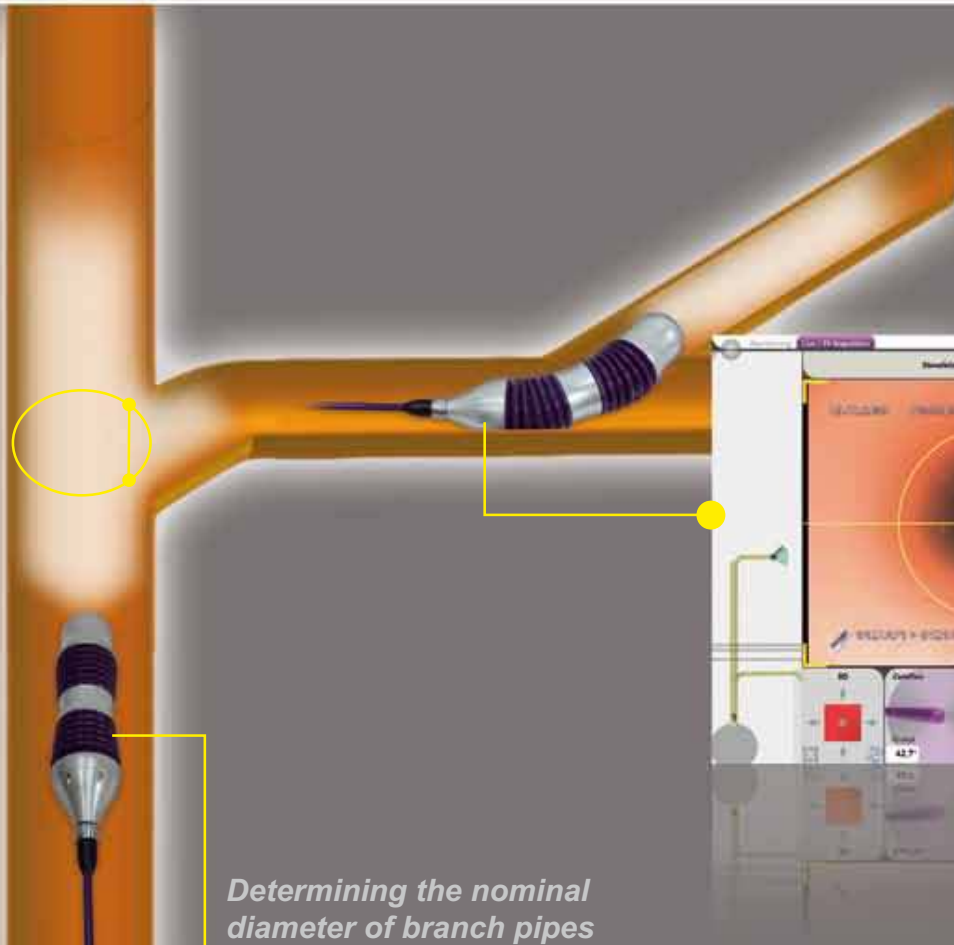
Image documentation

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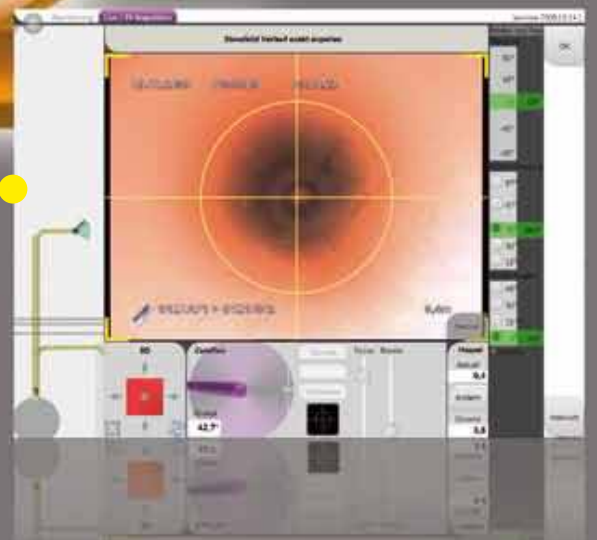
This saves precious time in the office.



Recording



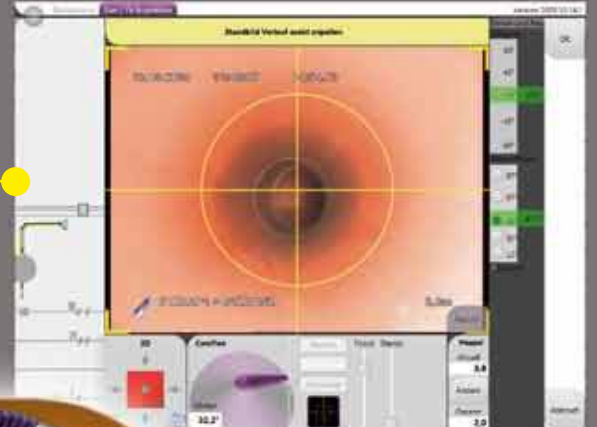
Measuring a branch



Determining the nominal diameter of branch pipes



Measuring a bend



CamFlex

CamMobile® Profi 3 and CamFlex® in action

The camera CamFlex with turning capabilities was developed for the inspection of complex sewer systems. Branches that have been difficult to get to can now be reached without difficulty and subsequent pipe runs can be inspected in a time-saving manner.

All contract-relevant information can be entered directly at the base unit Profi 3 out in the field via a pen tablet and a magnetic pen.

Prior to the inspection, the operator simply measures the manhole depth, as well as the direction of the manhole's inflowing and outgoing pipes, and imports this data onto the base unit.

Negotiated pipes display in a real-time, 3D pipe plan parallel to the live image on the monitor during inspection.

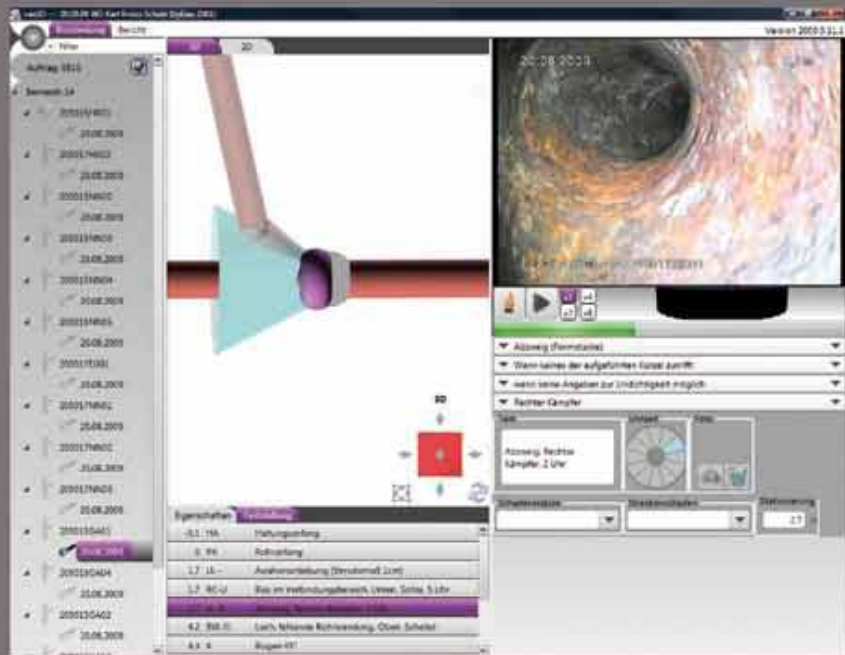
The recorded data is exported to a USB thumb drive after the inspection and can be handed on without requiring further editing.



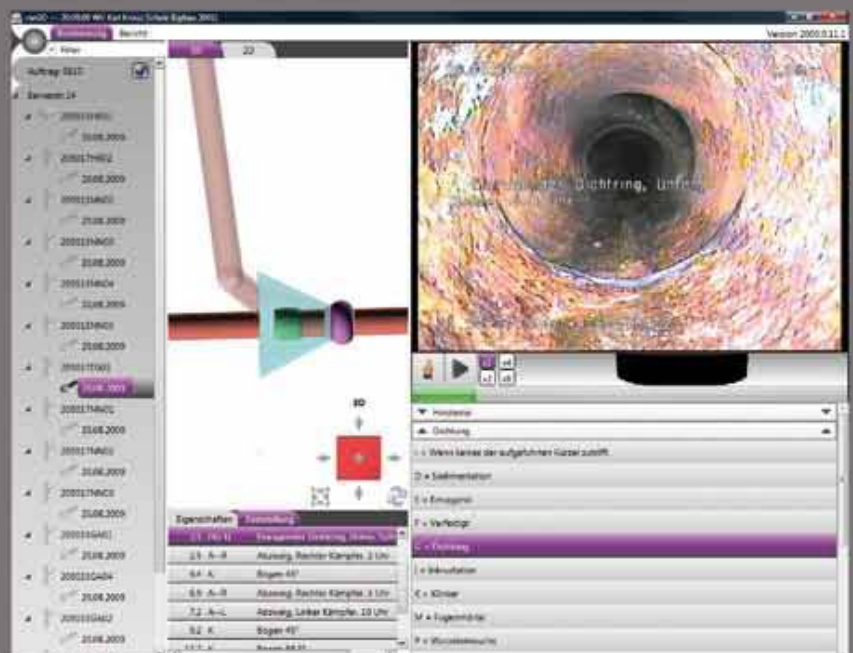


Evaluating/Editing

Navigate through the 3D pipe system and view the inspection video respective to a pipe in real time.



Amend incorrectly entered findings or enter missed pipe damage.



can3D



Burn the can3D View software with the inspection videos to disk for your customers.

can3D® in the office life

The inspection data is downloaded from the USB thumb drive onto the PC, and the 3D plan of the surveyed pipe system can be viewed in can3D requiring only a few mouse-clicks and no additional data entry.

The software features a comfortable navigation through the recorded inspections in a three-dimensional network of pipes. You can either play the video footage and watch the camera move in real time in the plan, thus knowing exactly where the camera is located at that moment, or via mouse click, bring up the camera image of the respective position in the 3D network. Inaccurately entered damage can be corrected as easy as 1-2-3 and missed findings can still be entered.

The integrated re-encoder enables you to subsequently edit the text overlay in the video recordings. Additionally, data can be exported into various interchange formats and printed in a variety of reports. Handling can3D is as easy and time-saving as has been the case with previously known software made by Kummert.

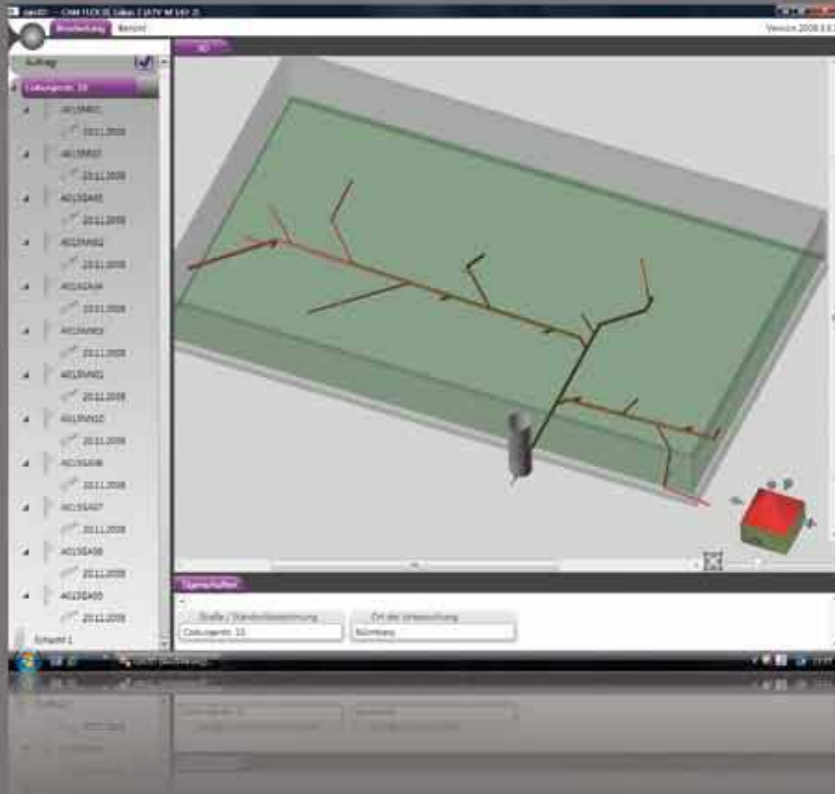


Generate clearly-arranged reports for your customers.

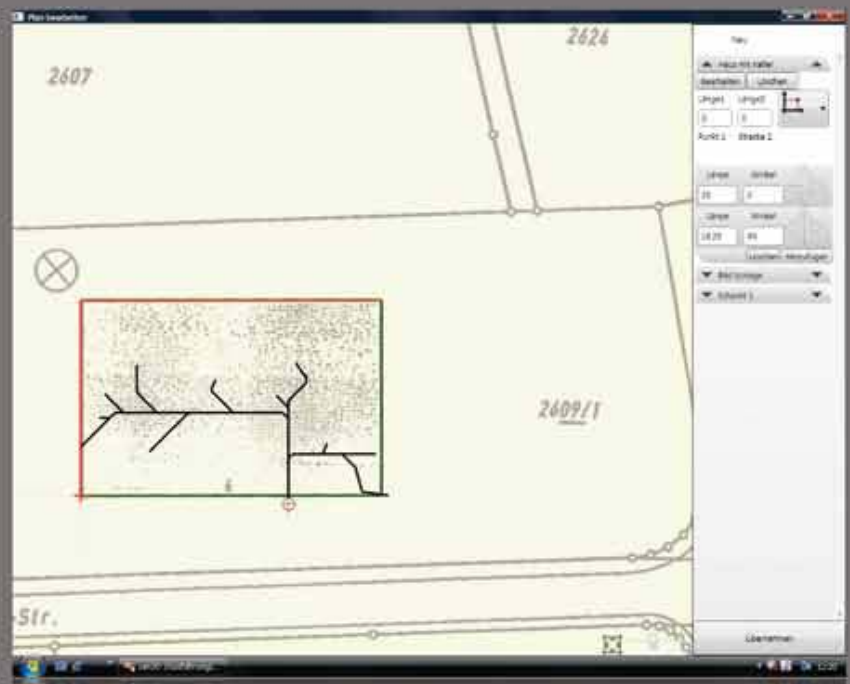


Drawing the site plan

Utilize the three-dimensional pipe plan to orient yourself on a site. Details like the direction of a manhole's inflowing and outgoing pipes become immediately visible.



Create in-depth plans of job sites. To do so, you can import hand-drawn site outlines, land-registry plans or existing aerial images.



can3D Module

can3D® add-on module “site plan”

The can3D add-on module “site plan” lets you easily assign location-relevant characteristics to any pipe plan in order to significantly simplify the subsequent localization of the pipe run on the site.

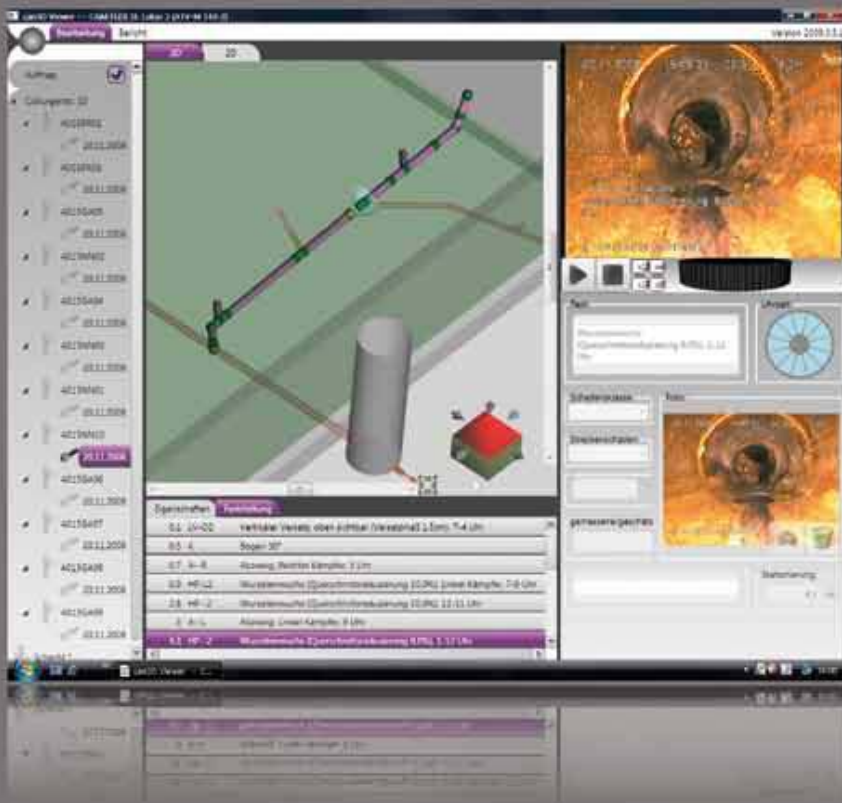
Hand-drawn sketches of sites can be imported, or the exact property lines can be drawn true to detail. Even details of buildings like e.g. foundations can be properly presented by means of the software. An export function to a dxf-file format is a standard component of the add-on module. Thus, handing over the data is facilitated even more.



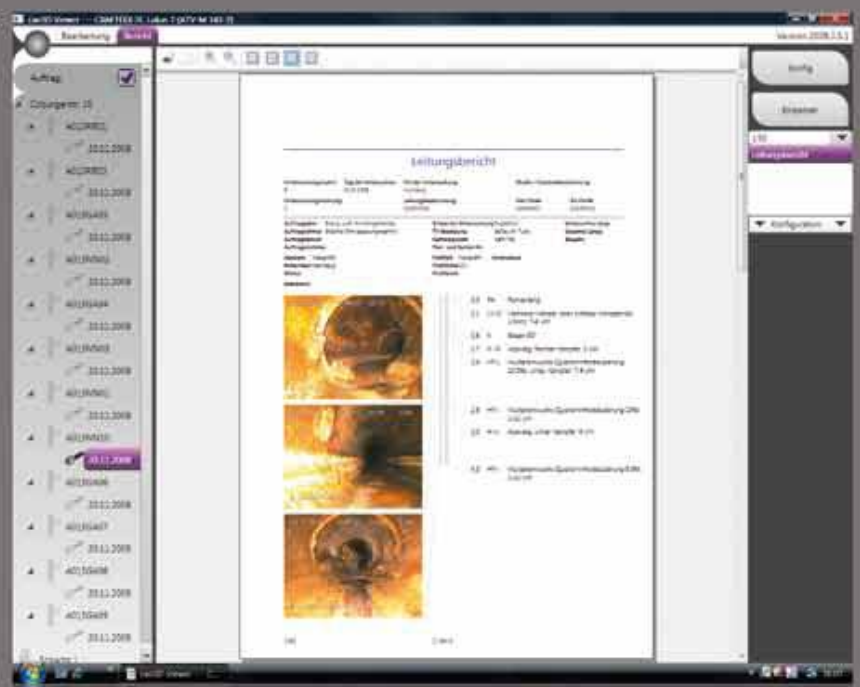


Reviewing

Well-arranged handling and navigation through the pipe system for the customer.



View and print various reports. Project Overview, Survey Report, Pipe Network Plan.



can3D View

The complimentary can3D® Viewer

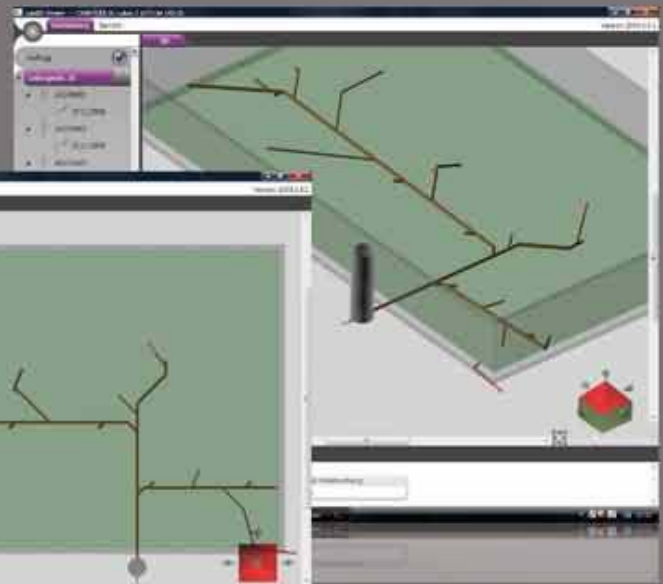
The reviewing software can3D View plays an essential role when handing over the data to the customer. The software features the same straightforward orientation for the client as for the executing company.

Navigating through the pipe system, accessing videos for particular pipes or moving to respective, faulty-marked positions in the video: All this is a breeze with can3D.

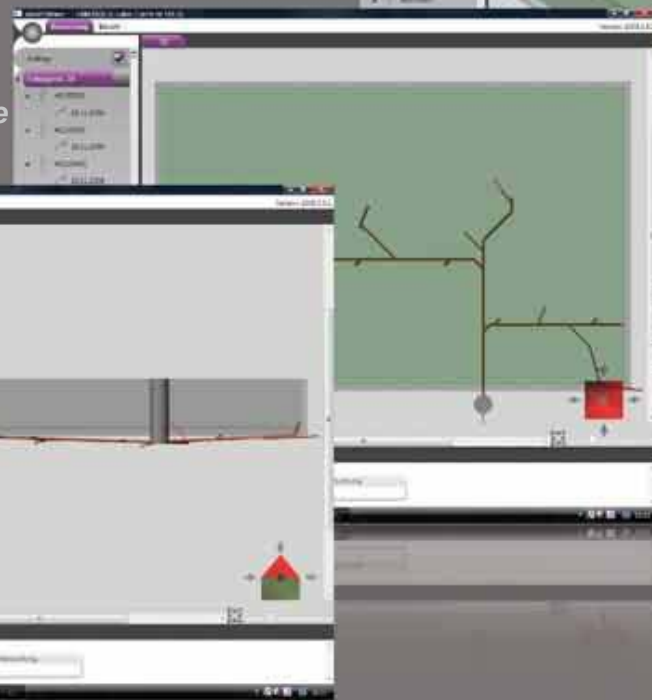
Furthermore, detailed reports on the site and the individual pipes can be viewed and printed.



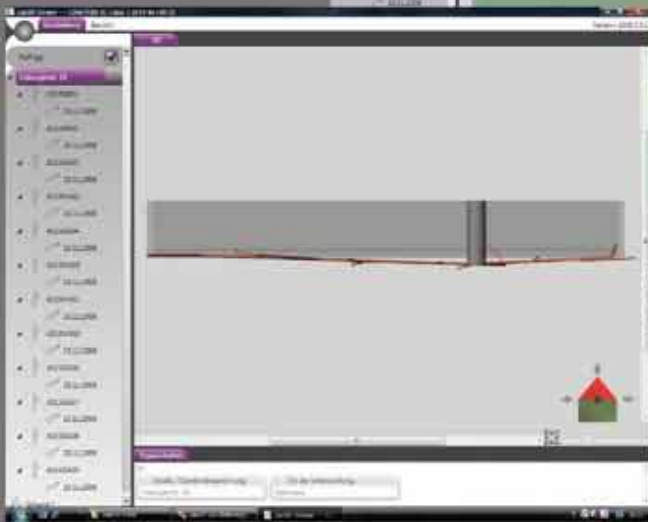
*Free selection of the 3D view's perspective
– oblique view*



*Free selection of the
3D view's perspective
– top view*



*Free selection of the
3D view's perspective
– side view*





Hard- & Software

Unbeatable technology



CamMobile® Profi 3

The CamMobile Profi 3 is the ideal system for the inspection of pipes and complex sewer systems.

- This base unit provides for innovative TV inspections on the highest level.
- Its modular structure facilitates a variety of tasks: Several reels and camera heads can be combined with each other, depending on the job specifications.
- Project-related data can already be entered before the inspection or in the field by the operator. Rework in the office becomes unnecessary.
- Data entry and text overlay are included in the price.



Push rod H-XL75 Push rod H-XXL100

The reels H-XL75 and H-XXL100 have been developed especially for the use of the camera with turning capabilities, CamFlex, and can reach even far distanced branch pipes in an effortless way.

The GFRP push rods are extremely flexible and bends do not pose a problem, yet the rods are stiff enough to ensure the needed propulsion. Even through multiple branches, a distance of 75 m, or 100 m respectively, can easily be passed.

- The reels H-XL75 and H-XXL-100 feature an integrated electronic meter counter, which can be altered at any time.
- Length: 75 m / 100 m
- Diameter: 9 mm



CamFlex®

Branches that have been difficult to reach are now easily accessible with the camera CamFlex with turning capabilities. The integrated sensors collect all necessary data needed for issuing a three-dimensional pipe plan.

- The CamFlex reaches branch pipes with a diameter from 100 mm to 200 mm.
- The always upright image facilitates a smooth inspection of pipe and sewer systems.
- The entire pipe system is surveyed in one work process – against the direction of flow.
- Time-consuming searches for drain rodding points or tedious unscrewing of toilets and sinks become unnecessary.

Overview



can 3D®

The innovative software can3D® helps to inspect and evaluate insufficiently known pipe runs of complex sewer systems. Navigate through pipe networks and view the respective, real-time video footage.

- Easiest navigation in the pipe system
- Presentation of inspection videos and damage images
- Optimization of pipe plans
- Reporting of pipes and site plan in 2D and 3D views
- Free 3D viewer software



CamMobile® Easy

This is a small, compact inspection system for the industry and private connections. The device is easily navigated via a menu by the operation of a control knob. The camera brightness can be adjusted via a dimmer.

- Dimensions: L 250 W 435 H 630 mm
- 6.5" TFT colour monitor ensuring a high picture quality even during daylight viewing
- Image format: BMP
- Voltage supply: 110 – 240 V
Optional rechargeable battery

Available:
CamMobile® Easy
with 50 m / 7 mm rod and camera
K-50

or

CamMobile® Easy
with 30 m / 6 mm rod and camera
K-35



CamMobile® Compact

This base unit is a compact model and, like its big brother CamMobile® Profi 3, it is compatible with all CamMobile® reels and camera heads. The basic unit contains an elaborate software made by Kummert.

It is easily operated without a keyboard or mouse and records damage images including the text overlay on a memory card.

- Dimensions: L 295 W 465 H 909 mm
- 6.5" TFT colour monitor ensuring a high picture quality even during daylight viewing
- Image format: BMP
- Voltage supply: 110 – 240 V
- Security: emergency switch



Hardware

Additional cameras and accessories



K-35 **Axial camera**

The color camera K-35 with a diameter of 35 mm is an indispensable item in your basic toolkit. The sleek ergonomic design guarantees a trouble-free inspection even through multiple DN50 87° bends.

12 high brightness LEDs provide outstanding illumination in the pipe. The ball and the flexible fabric tubing ensure a smooth navigation through pipe bends.

When used with a centering sleeve or trolley from our accessories range, the camera is also suited for inspecting pipes up to 150 mm in diameter.



K-50 **Axial camera**

The color camera K-50 features a diameter of 50 mm. Its sleek head made of stainless steel, as well as the fabric tubing and the ball ensure that the camera glides perfectly through DN70 87° bends.

The self-leveling mechanism constantly provides an upright image, and 20 high brightness LEDs guarantee an optimal illumination.

When used with a centering sleeve from our accessories range, the camera is also suited for inspecting pipes up to 200 mm in diameter.



K-70 **Pan and tilt camera**

The pan and tilt camera K-70 features a diameter of 70 mm for the inspection of 100 mm pipes and up. Its aerodynamic shape, the fabric tubing and the ball ensure that the camera glides smoothly and does not become hooked when pulled back.

Furthermore, its nose protects the camera against impact.

The K-70 features a tilt range of +/- 125°, an endless pan range, a motorized focus, a self-leveling mechanism and an internal pressure control.

10 white, manually dimmable, high-power LEDs offer an optimal illumination.

When used with a centering trolley from our accessories range, the camera is also suited for inspecting pipes up to 300 mm in diameter.



K-70 L **Laser pan and tilt camera**

The pan and tilt camera K-70L is identical in construction to the K-70 pan and tilt camera. However, it differs in the capability to measure the nominal diameter.

Two lasers measure the exact diameter by setting 72 laser points.

When used with a centering trolley from our accessories range, the camera is also suited for inspecting pipes up to 300 mm in diameter.

Overview

All push rods made by Kummert feature an integrated impulse transmitter. In connection with a microcontroller, it allows for a precise length measurement, which is displayed on the monitor and facilitates the exact localization of damage to the object inspected. An adjustable freewheel brake prevents unwanted coasting of the push rod. Depending on the camera and the pipes to be inspected, rods of different length and thickness can be selected.



Push rod H-S30

Reel type H-S30,
Size S
30 m push rod
Thickness 6 mm



Push rod H-M50

Reel type H-M50,
Size M
50 m push rod
Thickness 7 mm



Push rod H-L60

Reel type H-L60,
Size L
60 m push rod
Thickness 8 mm



Push rod H-XL75

Reel type H-XL75,
Size XL
75 m push rod
Thickness 9 mm



**K-35
Centering sleeve**

The centering sleeve for the camera K-35 is suited for pipe diameters of 70 mm and up. It improves the camera's viewing angle and enhances the pipe's optimal illumination through the centered positioning in the pipe. Furthermore, it provides added protection for the camera.



**K-50
Centering sleeve**

The centering sleeve for the camera K-50 is suited for pipe diameters of 100 mm and up. It improves the camera's viewing angle and enhances the pipe's optimal illumination through the centered positioning in the pipe. Furthermore, it provides added protection for the camera.



**K-35
Centering trolley**

The centering trolley for the camera K-35 is suited for pipe diameters of 100 mm and up. 12 wheels guarantee a smooth motion in any position. The centering trolley improves the camera's viewing angle and enhances the pipe's optimal illumination through the centered positioning in the pipe. Furthermore, it provides added protection for the camera.



**K-70/K-70L
Centering trolley**

The centering trolley for the camera K-70 is suited for pipe diameters of 150 mm and up. 12 wheels guarantee a smooth motion in any position. The centering trolley improves the camera's viewing angle and enhances the pipe's optimal illumination through the centered positioning in the pipe. Furthermore, it provides added protection for the camera.



Questions?

**We will be glad
to assist you...**

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Travelling on A70 Bamberg/Schweinfurt take the exit Schweinfurt/Gerolzhofen onto B286, in the Gerolzhofen direction

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