

## The Measure of Technology

WOND

# NEW CLEAR VIEW, WHEN SPACE IS TIGHT. Wöhler VIS 250

Video inspection, position indicator and locator





# Wöhler VIS 250

## Intelligent camera head guides and tracks

Wöhler's innovative VIS 250 service camera enables you to easily analyze damage in pipes of  $\emptyset$  40 mm and larger – and no power outlet required. Compact by design and powered by a rechargeable battery, this complete camera set is supplied in a plastic case. The camera head features a powerful, integrated light to allow you to precisely analyze damage in waste water pipes (at least  $\emptyset$  40 mm) and inspect downpipes as well as flue gas lines. Absolutely essential to analyze damage quickly!

In addition to competently analyzing hidden¬ defects in all types of buildings, the Wöhler VIS 250 provides you with transparent on-the-spot damage diagnostics.

Thanks to its user-friendly handling and instant start-up characteristics, you not only ensure your customers are satisfied but you can also feel relaxed about meeting the challenges ahead. The integrated video memory allows you to fully document your inspection work.

#### See, save, send

The camera saves a video of the voyage of the camera head through the pipe. It passes even several 87° bows without problem. With a simple touch of a button a photo of a damaged spot can be made and stored.

We have brought the localization of the damage to perfection so that it is easy to estimate the cost for the repair. The distance to the camera head is indicated in the display as well as the position. This helps very much in wide nets of ducts. The display always shows where the top and the bottom of the duct are. The user also sees the exact angular momentum in which the camera head is pushed upwards or downwards. With the new Wöhler L 200 Locator it is even possible and economic to locate the camera head via radio.



- · Ideal for analyzing household waste water pipes of Ø 40 mm and larger
- Flexible the camera easily takes even several bends in its stride
- Position of waterproof camera head indicated in the display
- Integrated locator transmitter precisely locates damage
- Up to 4 hours flexibility storage space for 2 NiMH rechargeable batteries
- · 20 m FRP push rod
- · Compact and safely stored for transport and mobility in a plastic case



## **Robust plastic case**

The light-weight plastic case not only protects the camera, monitor and accessories, it is also easy to carry

## **Position indicator**

Ensures the user knows where top and bottom are in the pipe at all times

## **Battery status**

Indicates battery charge level

## **Digital meter counter**

The length of unwound cable is sensed electronically and displayed for pinpoint positioning

## **Color Monitor**

High-definition, 7" TFT wide-screen color monitor can be tilted and withdrawn up to 2 m from the case

### **Control panel**

Practical design features user-friendly menu guidance and intuitive camera movement control

## Color camera head Ø 26 mm

Integrated locator transmitter locates damage precisely

## **Push rod**

The FRP rod can be extended up to 20 m

## **Card slot**

Save your videos directly to the 2 GB SD card

## **USB** port

Connects the camera with your PC

## Video-output

View your videos on an external monitor

#### 2 powerful rechargeable batteries

Space to store 2 rechargeable NiMH batteries (12 V) - each with a rechargeable, operating battery life of up to 2 hours – the main battery is charged in the case



## **Huge Range of Applications**



The robust color camera head is waterproof to 3 bar. With a diameter of just 26 mm it easily negotiates  $87^{\circ}$  bends in pipes of Ø 40 mm and larger.



The actual meter count and the position of the head are displayed in the monitor. The Wöhler L 200 Locator makes it possible to locate the camera.



The service camera is an essential partner in a wide range of applications including the analysis of flue gas installations.



Wöhler's new camera system is both compact and safely stored in a plastic case for transport and mobility.

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# Wöhler L 200 Locator

## Penetrating views through concrete and asphalt

Inspecting pipes under the ground, in ceilings and walls is daily routine for specialist tradesmen and women. And after the inspection, the next task is to locate the position of damage accurately to be able to offer and carry out the necessary repair or cleaning work with precision. With the Wöhler L 200 Locator that is now all just child's play. It precisely detects radio signals transmitted by the flexibly positionable camera head.

Skilled tradesmen and women and their customers are able to obtain considerable time and cost savings by utilizing video inspections to visualize leaks and document damaged or soiled sections of pipework. The Wöhler L 200 Locator also locates the radio signals transmitted by the camera head of the Wöhler VIS 250 / 200 systems. Damage is displayed precisely in a clear-cut graphic on the display of the Locator to ensure it is discovered rapidly and marked.

#### Insights keeping you in the picture

This is how the Wöhler L 200 makes locating simple: The Locator attaches to a telescopic pole. Guided close to the ground, along walls or below the ceiling, it locates the very long radio waves transmitted by the camera head. Particularly ideal: The user is guided by the bright color display throughout the locating process – cross-hairs are displayed on a horizontal grid system. In addition, an acoustic signal is emitted and made audible via a loudspeaker or headphones. The cross-hairs and the strength of the signal indicate the direction and distance to the located point. Once the section of pipe to be repaired or cleaned has been found, it can be marked straight away. For this purpose, a holder is provided to affix a piece of chalk to the end of the Locator.

- · Locates radio signals transmitted by the camera head rapidly pinpoints damage
- · Easy to handle user guided via display throughout the locating process
- Bright, easy-to-read color display
- · Telescopic pole easily track down damage anywhere
- · Chalk holder for chalk to mark the position where damage is found



## **Extensive Range of Functions**



## **Documentation / Position Indicator**

The "Save function" (Wöhler VIS 250) makes it possible to save and view what you see at the push of a button.

The integrated position indicator (Wöhler VIS 250) ensures you keep your sense of orientation in the pipe.



## **Bright illumination**

Thanks to the excellent lighting system of the color camera head, the camera supplies razor sharp images of even the darkest corners of the section under inspection.



## Flexible

The tiltable and removable TFT wide-screen color monitor provides brilliant images, which it is possible to document via video memory on the SD card, a laptop or video recorder.



## **Integrated locator transmitter**

The camera head of the Wöhler VIS 250 / 200 is equipped with a transmitter as standard – that means the camera head can easily be located by the new Wöhler L 200 Locator.



## Wide Range of Applications

Analyze damage and inspect:

- · Waste water pipes of Ø 40 mm and larger
- · Ventilation lines of Ø 40 mm and larger
- · Inspect hollow spaces; e.g., in front-wall installations
- · Flue gas lines up to approx. Ø 125 mm

## **Functionality**

- · Waterproof, light-sensitive camera head with a diameter of just 26 mm easily takes bends its stride
- $\cdot$  Store video footage on a 2 GB SD card (Wöhler VIS 250)
- · Digital Indication of the camera head
- · Electronic metering displayed on monitor
- · Fully equipped mobile solution in a robust, plastic case
- · Does not require main power supply
- · Bright TFT color monitor for razor-sharp images
- · Tiltable and removable monitor
- · Integrated video output for documentation purposes
- Battery operating time: 2 x 120 min. with 2 rechargeable batteries (optional)
- · Data exchange via mini USB cable

## Locator (optional)

- Transmitter integrated in camera head makes it possible to precisely locate the camera head
- · Facilitates targeted repairs to damaged pipelines
- Telescopic holder makes it possible to locate damage under floors or in ceilings
- Chalk holder with lithographic chalk ensures it is possible to mark located damage immediately
- · Powerful rechargeable battery

## Documentation

Simply record and store photos and videos on a 2 GB SD card (Wöhler VIS 250) for documentation and archiving purposes for you and your customers

#### **Technical Data**

Monitor Dimensions housing TFT-display Video out Weight Power supply Battery operating time

176 x 114 x 32 mm 7" / 16:9 format FBAS signal 400 g Space for 2 rechargeable batteries, each 12 V or via power pack

Max. 2 rechargeable batteries, each 120 mins. = 4 h (battery status in display)

#### Miniature camera head, color Ø 26 mm

Type Resolution Pixels Light sensitivity Lens Viewing angle Light source Degree of protection Dimensions Weight Operation temperature Storage temperature Storage temperature Transmitter frequency **Push rod** Length 1/3" COLOR CMOS 420 lines 768 x 576 (PAL), 656 x 492 (NTSC) 0,5 Lux f = 2.3 mm, F = 2.5 115° 12 white LEDs Waterproof to IP 68 Ø 26 mm x 38 mm 240 g 0...40 °C, RH 95 % MAX -20...50 °C, RH 95 % MAX 8.9 kHz

6 mm electronic meter counter

7 kg

32 Ohm

51 x 43 x 17 cm (L x W x H)

Distance measurement Plastic case

Dimensions Weight

#### Locator receiver

Diameter

Display Output impedance Headphones Power supply Operating temperature Storage temperature Weight Dimensions

3.7 V Li-lon rechargeable battery 0...40 °C -10 °C...40 °C 605 g 32 x 14 x 7 cm (L x W x H)

#### Memory (Wöhler VIS 250)

Recording Interface 2 GB SD card (2,5 h recording capacity) Mini USB port

Graphic visualization of transmitted position



## **Sets and Accessories**

Qty	Sets Wöhler VIS 200	P/N	Qty	Guidance Systems	P/N
	Wöhler VIS 200 Service Camera for visual inspection of water pipes, flues and ventilation lines from 40 - 150 mm Ø Comes with: Wöhler TFT monitor 7" with 2 m cable, digital meter counter, Wöhler camera head Ø 26 mm, 20 m push rod 6 mm, Anti-Slide-Mat, 1 NiMH battery and charger, complete system in a plastic case	6260 J		Wöhler VIS Guidance Set 70 for miniature camera head. Guidance sleeve with protection cage, centering star for rod fixture	3883 I
				Guidance Sleeve with protection cage for miniature camera head Ø 26 mm improves ability to navigate through pipe bends, protects the camera head and the objective	3847 J
				Wöhler Camera Roller Guide suitable for camera heads and rods	3681 J
Qty	Sets Wöhler VIS 250	P/N 6250 J	Guidance Ball	3634 J	
	Wöhler VIS 250 Service Camera for visual inspection of water pipes, flues and ventilation lines from 40 - 150 mm Ø			for flex part of camera push rod improves ability to navigate through pipe bends	
	Comes with:		044	Association / Other products	P/N
	Wöhler TFT monitor 7" with 2 m cable, 2GB SD card for recording of pictures and videos, USB cable, digital meter counter, Wöhler camera head Ø 26 mm, 20 m push rod 6 mm, Anti-Slide-Mat, 1 NiMH battery and charger, complete system in a plastic case		Qty	Accessories / Other products	
				Wöhler L 200 Locator (Receiver)	7430 J
				Car charger Wöhler VIS 2xx/3xx 18 V	3169 J

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