

# WÖHLER

*The Measure of Technology*



**NEW**

## UNIQUELY CLEAN VIEW

### Wöhler VIS 350

Video inspection, position indicator, home function and locator

**360°  
180°**

PAN AND TILTABLE  
COLOR CAMERA  
HEAD

HEVD  
СОГЛАСОВАНО



Made in  
Germany

# Wöhler VIS 350

## Intelligent camera head guides and tracks

**Video inspection in a case:** With the new Wöhler VIS 350 camera system, you not only have everything you need to inspect waste water pipes, flue gas and ventilation lines as well as industrial systems – you can also precisely locate the damage and accurately document the results of the inspection.

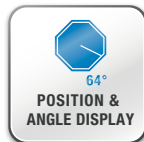
Wöhler's new camera system is both compact and safely housed in a plastic case for transport and mobility. The system consists of a 20 m push rod cable with reel, a color camera head with a diameter of 40 mm and a large color monitor. Then there is the typical Wöhler control panel that ensures easy control of the camera head: The camera pans 360°, tilts 180° and offers best-possible lighting to carry out an all-round inspection of the inside of the pipe. Particularly practical: After panning and

tilting, the home function automatically aligns the camera angle to straight ahead with a simple push of a button.

### **View, save and transmit**

The camera can record video of what it sees as it travels along the line run. Even several tight 87° bends along the line are no hurdle. When damage is discovered, one quick press of a button is all that is required to „shoot“ and save a photo. To be able to assess and specifically target repair work, we at Wöhler have perfected the technique of precisely lo-

cating damage. The actual meter count and the position of the head are displayed in the monitor. That, for example, is a huge help when dealing with extensive networks of pipelines. The top and bottom of the pipe are displayed on the monitor at all times and at how many degrees the camera is being guided up or down. Even low-cost, simple wireless location detection is available in the form of the new Wöhler L 200 Locator.



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- **Video inspection system proven over many years – now developed even further**
  - **Position of camera head indicated in the display**
  - **Keep your sense of orientation with home function – camera aligns itself automatically**
  - **4 hours flexibility – 2 rechargeable batteries for lasting mobility**
  - **Built-in location transmitter facilitates wireless location detection**
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### Robust plastic case

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

### Position and angle display

Ensures the user knows where top and bottom are in the pipe at all times and at how many degrees the camera is being guided up or down

### 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

### Operating panel

Practical design with simple menu guidance and intuitive camera movement control

### Pan & Tilt Ø 40 mm color camera head

Tilts 180° from left to right and pans through 360°

### 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 20 m push rod and the pan&tilt color camera head make sure nothing in the house supply line remains hidden from your view.



The Wöhler VIS 350 precisely locates radio waves transmitted by the camera head through concrete and asphalt to save a lot of time and further building damage.



The 360° pan and 180° tiltable color camera head easily negotiates 87° bends.



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 head wirelessly.

# 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 detects precisely radio signals transmitted by the Wöhler pan&tiltable 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 350. 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

The „Save function“ (Wöhler VIS 350) makes it possible to save and view a video or still image of what you see at the push of a button. Transfer to PC: Per USB or SD card.



## 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.



## Position and angle display

The Home button (Wöhler VIS 350) realigns the camera head to its initial position. The position and angle display indicate top and bottom of the pipe on the monitor at all times and at how many degrees the camera is being guided up or down.



## Integrated locator transmitter

The camera head of the Wöhler VIS 350 / 300 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 lines of Ø 70 mm and larger
- House connections up to Ø 200 mm
- Flue gas systems of Ø 60 mm and larger
- Ventilation lines of ventilation systems
- False ceilings, hollow spaces, shafts

## Functionality

- Optics pan 360° and tilt 180° – facilitate maximum movement radius and ensure even the smallest damage does not remain hidden from your view
- Store video footage and photos on a 2 GB SD card (Wöhler VIS 350)
- Camera head with integrated transmitter harmonizes location detection by the Wöhler L 200 Locator
- Digital position and angle of the camera head displayed on the monitor
- Home function aligns the camera head to a straight position – display parallel to the ground above
- Brightly illuminating color camera head, 60 mm in length and 40 mm in diameter, easily negotiates tight bends
- Electronic meter counter with a resolution of 0.04 m displayed on the monitor
- Bright TFT color monitor (tiltable and removable) supplies razor sharp images
- Battery operating time: 2 x 120 min. with 2 rechargeable batteries (optional)
- Fully equipped mobile solution in a robust plastic case

## 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
- Long-lasting LI-ION rechargeable battery

## Documentation

Simply record and store photos and videos on a 2 GB SD card (Wöhler VIS 350) for documentation and archiving purposes for you and your customers.

### Technical data

#### Monitor

Dimensions housing	176 x 114 x 32 mm
TFT-Display	7" / 16:9 format
Video-Out	FBAS signal
Weight	400 g

#### Power supply

Space for 2 rechargeable batteries, each 12 V or via power pack

#### Battery operating time

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

#### Pan&tilt Ø 40 mm color camera head

Type	1/3" COLOR CMOS
Pixels	768 x 576 (PAL), 656 x 492 (NTSC)
Light sensitivity	0.5 Lux
Lens	f = 2.3 mm, F = 2.5
Viewing angle	115°
Light source	12 white LEDs
Degree of protection	Waterproof to IP 67
Dimensions	Ø 40 mm x 60 mm
Operating temperature	0...40 °C, RH 95 % MAX
Storage temperature	-20...50 °C, RH 95 % MAX

#### Locator transmitter

Transmission frequency	8,9 kHz
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#### Push rod

Length	20 m
Diameter	6,5 mm

#### Plastic case

Dimensions	51 x 43 x 17 cm (L x W x H)
Weight	8.2 kg

#### Distance measurement

Wöhler VIS 350 / VIS 300	Electronic meter counter
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#### Locator receiver

Display	Graphic visualization of transmitted position
Output impedance	
Headphones	32 Ohm
Power supply	3,7 V Li-Ion rechargeable battery
Operating temperature	0...40 °C
Storage temperature	-10 °C...40 °C
Weight	605 g
Dimensions	32 x 14 x 7 cm (L x W x H)

#### Memory (Wöhler VIS 350)

Recording	2 GB SD card (2.5 h recording capacity)
Interface	Mini USB port

# Sets and Accessories

Qty	Sets Wöhler VIS 300	P/N
	<b>Wöhler VIS 300 Service Camera</b> for visual inspection of water pipes, flues, chimneys and ventilation lines from 60 - 200 mm Ø Comes with: Wöhler TFT monitor 7" with 2 m cable, digital meter counter, Wöhler pan&tilt camera head Ø 40 mm V2, 20 m push rod 6.5 mm, 5 replacement plastic domes, anti-slide-mat, 1 NiMH battery and charger, complete system in a plastic case	<b>7300 J</b>

Qty	Sets Wöhler VIS 350	P/N
	<b>Wöhler VIS 350 Service Camera</b> for visual inspection of water pipes, flues and ventilation lines from 60 - 200 mm Ø Comes with: Wöhler TFT monitor 7" with 2 m cable, 2 GB SD card for recording of pictures and videos, USB cable, digital meter counter, Wöhler pan&tilt camera head Ø 40 mm V2, 20 m push rod 6.5 mm, 5 replacement plastic domes, anti-slide-mat, 2 NiMH batteries and charger, complete system in a plastic case	<b>7350 J</b>
	<b>Wöhler VIS 350 Service Camera with Wöhler L 200 Locator</b> for visual inspection of water pipes, flues and ventilation lines from 60 - 200 mm Ø Comes with: Wöhler TFT monitor 7" with 2 m cable, 2 GB SD card for recording of pictures and videos, USB cable, digital meter counter, Wöhler pan&tilt camera head Ø 40 mm V2, 20 m push rod 6.5 mm, 5 replacement plastic domes, anti-slide-mat, 2 NiMH batteries and charger, Wöhler L 200 Locator (Receiver), complete system in a plastic case	<b>7360 J</b>

Qty	Guiding Sets	P/N
	<b>Camera Roller Guide</b> suitable for camera heads and rods	<b>3681 J</b>
	<b>Wöhler VIS Centering Brush</b> for Wöhler VIS 2000 <sup>PRO</sup> /400/2xx/3xx/ 20 cm Ø with 6 brushes, with thread, centers the GRP camera rod, to guide the camerad head	<b>3854 J</b>
	<b>Wöhler guidance weight</b> 740 g, stainless steel for VIS 2xx / VIS 3xx to let down the camera head (e.g. in a chimney), necessary to use supplementary light (art. 9377)	<b>3857 J</b>

Qty	Accessories	P/N
	<b>Wöhler L 200 Locator (Receiver)</b>	<b>7430 J</b>
	<b>Protection Sleeve</b> for Wöhler VIS 3xx with cut-out	<b>2641 J</b>
	<b>Glass Dome</b> for Wöhler VIS 3xx	<b>3674 J</b>
	<b>Replacement Plastic Domes (10 pcs.)</b> for Wöhler VIS 3xx	<b>3675 J</b>
	<b>Wöhler additional glare protection</b> for VIS 2xx / 3xx monitors	<b>6814 J</b>
	<b>Car charger Wöhler VIS 2xx / VIS 3xx</b> 18 V	<b>3169 J</b>

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