## WÖHLER

#### The Measure of Technology



Video inspection made easy in one compact kit

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 4 to 8" sewer pipes, 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 30m push rod cable with reel, a color camera head with a choice of colour

26mm diameter forward view, or colour 40mm Pan Tilt camera head and a large colour monitor to view the inspection. Then there is the typical Wöhler control panel that ensures easy control of the camera head: the 40mm camera head 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 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 locating 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.















- · 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







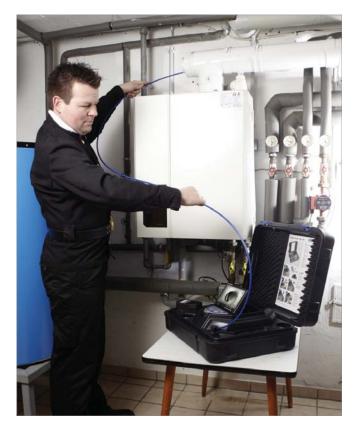
## **Huge Range of Applications**



The 30m push rod and the pan&tilt or 26mm straight view camera head 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 90° bends.



The actual meter count and the position of the head are displayed in the monitor. The Wöhler L200 8.9Khz Locator makes it possible to locate the camera head wirelessly.





# Wöhler L 200 8.9khz Camera Head Locator

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 Insights keeping you in the picture audible via a loudspeaker or headphodocument 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.

customers are able to obtain conside- This is how the Wöhler L 200 makes lorable time and cost savings by utilizing cating simple: The Locator attaches to of the signal indicate the direction and video inspections to visualize leaks and 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

nes. The cross-hairs and the strength 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**



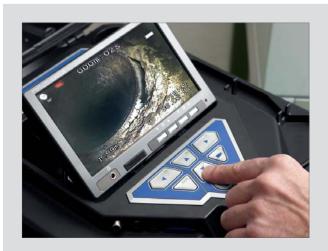
#### Documentation

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 heads, 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 8.9khz 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 or the kit can be supplied without pan & tilt camera head and only the 26mm forward view
- · Store video footage and photos on a 2 GB SD card (Wöhler VIS 350)
- · Both camera heads have the integrated transmitter harmonizes location detection by the Wöhler L 200 Locator
- · Digital position and angle of the camera head displayed on
- · 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)

#### 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

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

Power supply Space for 2 rechargeable batteries, each 12 V or

Max. 2 rechargeable batteries, each 120 mins. = 4 h Battery operating time

-20...50 °C, RH 95 % MAX

Graphic visualization of transmitted position

(battery status in display) Pan&tilt Ø 40 mm color camera head or 26mm forward view

Type Pixels 1/3" COLOR CMOS 768 x 576 (PAL), 656 x 492 (NTSC)

Light sensitivity 0.5 Lux f = 2.3 mm, F = 2.5Lens Viewing angle 115° 12 white LEDs Light source Degree of protection Waterproof to IP 67 Ø 40 mm x 60 mm Dimensions Operating temperature 0...40 °C, RH 95 % MAX

Locator transmitter 8.9 kHz Transmission frequency

Storage temperature

Push rod 30 m Length Diameter 6,5 mm

Plastic case

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

8.2 kg

Distance measurement Wöhler VIS 350 / VIS 300

Electronic meter counter

Locator receiver Display

Weight

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)

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

Mini USB port





### **Sets and Accessories**

Qty	Wöhler VIS 350 26mm Kit	P/N
	Wöhler VIS 350 26mm Forward View Camera Kit 30 m detachable head for visual inspection of sewer/ water pipes, flues and ventilation lines from 60 - 250 mm Ø Comes with:  - Wöhler Pan & Tilt camera head Ø 40 mm V2  - Wöhler TFT monitor 7" with 2 m cable  - 2 GB SD card for recording of pictures and video  - USB cable  - Digital meter counter  - 30 m push rod 6.5 mm  - Anti-Slide-Mat  - 2 NiMH batteries and charger  - Complete system in a plastic case	6355

Qty	Wöhler VIS 350 40mm Pan / Tilt	P/N
2.9	Wöhler VIS 350 40mm Forward View Camera Kit 30 m detachable head for visual inspection of sewer / water pipes, flues and ventilation lines from 60 - 250 mm Ø Comes with: - Wöhler Pan & Tilt camera head Ø 40 mm V2 - Wöhler TFT monitor 7" with 2 m cable - 2 GB SD card for recording of pictures and videos - USB cable - Digital meter counter - 30 m push rod 6.5 mm - 5 replacement plastic domes - Anti-Slide-Mat	6351
	- 2 NiMH batteries and charger - Complete system in a plastic case	

C	Qty	Accessories	P/N
		Wöhler L 200 Locator (Receiver)	7430
		Glass Dome for Wöhler VIS 3xx	3674
		Replacement Plastic Domes (10 pcs.) for Wöhler VIS 3xx	3675
		Protection Sleeve for Wöhler VIS 3xx with cut-out	2641
		Car charger Wöhler VIS 2xx / VIS 3xx18 V	3169
		Camera Roller Guide suitable for camera heads and rods	3681
		Wöhler additional glare protection for VIS 2xx / 3xx monitors	6814

