

## CleverScan - manhole inspection

<https://ehle-hd.com/en/product/cleverscan-manhole-inspection/>



The **CleverScan manhole inspection system** was developed for one-man operation, mobile use and high productivity. Even manholes that are difficult to access can be easily detected with this system. At the push of a button, CleverScan performs a fast, fully automated manhole inspection in less than 1 minute. This means that up to approx. 50 manholes can be inspected per day by a single person.

A high-resolution scan of the manhole is created, capturing image details of every centimeter of the manhole wall. The inspection results are photos and videos, a 3D representation and the unwinding of the shaft wall. Furthermore, a dense point cloud is generated, which is used to measure the manhole and can be easily exported to CAD programs. All inspection reports and inspection data can be transferred in the usual data interfaces with all provided characteristic values, e.g. in ISYBAU XML as well as in DWA M-150 format.

### Features

Often manholes are difficult to access. In this case, inspection with a camera system installed in a large vehicle is not possible. CleverSan is very well suited for mobile use due to its low weight of only approx. 21 kg. Due to the low overall height of approx. 110 cm, it can also be accommodated in small vehicles (e.g. VW Caddy) - it can also be carried by just one person. The camera system is very light and easy to use, because the software has been perfectly integrated.

### Technical data:

- complete inspection and reporting within approx. 2-3 minutes per manhole shaft
- for manhole shaft with a maximum depth of 10 or 30 m and a diameter up to approx. 2 m
- 5 HD cameras (4 side and 1 front camera)
- red and green laser for measuring the geometry
- battery operation: 9 h
- integrated cable drum with up to 30 m special cable
- robust frame, adjustable and light
- image processing integrated in camera electronics
- Linux operating system

- completely automated inspection process
- protection class: (camera head IP67, control unit IP54)
- dimensions (LxWxH): 600 x 600 x 1100 mm
- weight: 21 kg (30 m version)

## System requirements:

- Intel i5 or i7 processor
- at least 16 Gbyte RAM
- Gbit Ethernet interface
- SSD hard disk min. 256 Gb
- HD monitor (min. 1024x768)
- Windows 10 or 11




## WinCan reporting software:

- all available shaft inspection standards (worldwide)
- Compatible with ESRI GIS systems
- 3D representation of the shaft
- HD Front Video
- HD Unfolding of the shaft surface

## Scope of delivery:

- CleverScan manhole inspection system
- Transport cart and transport bag
- battery charger
- Set for darkening
- Software

## Attributes

Image	SKU	Productname	Attributes	LxWxH & Weight
	S7002105	CleverScan - manhole inspection system 30m	<b>type:</b> complete set <b>use:</b> manhole <b>application from:</b> 300 - 2000 mm <b>length:</b> 30 m	600 × 600 × 1100 mm 21.0
	7002108	CleverScan - GPS module	<b>type:</b> accessories	140 × 140 × 114 mm 1.08
	7002141	CleverScan - Tablet holder	<b>type:</b> accessories	250 × 200 × 540 mm 1.65