# GEJOS TV-INSPECTION



Whenever inspection with the naked eye reaches its limits, an optical inspection system such as a sewer camera/pipe camera is the means of choice. GEJOS has been your specialist for inspection systems for more than 15 years: axial cameras, pan and tilt cameras or crawler systems - all "Made in Germany".

Users from a wide range of industries worldwide rely on inspection camera systems from GEJOS, including: Construction companies, pipe cleaners, rehabilitators, sewer builders, sewage treatment plants, ventilation & heating engineers, industrial companies, chimney sweeps, janitors, plumbers, communities, cities and municipalities.

Although the majority of our customers are in the pipe and sewer industry, the applications of our inspection systems are (almost) limitless - the system can be applied to all types of "cavities": Would you like to purchase an inspection camera for drain, pipe or sewer lines, for wastewater tanks, heating and cooling ducts, ventilation shafts, electrical installation shafts, chimneys, wells or perhaps even armored pipes?

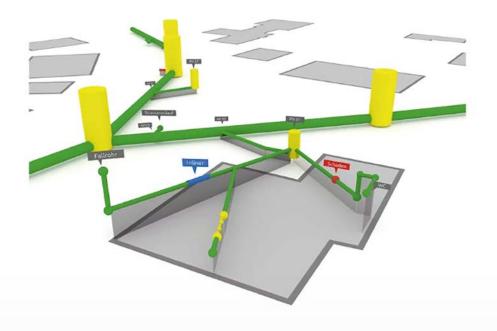
With our inspection systems for diameters DN30

- DN500 we offer you the ideal possibility for a professional inspection and condition recording. GEJOS offers the appropriate hardware as well as software - all in the modular GEJOS system.

Long service life is a top priority for us: All our systems and components are compatible with each other and can be combined / extended as required. Customers regularly upgrade their up to 15 years old GEJOS inspection systems with components of the latest generation.

Whether you are just starting your own business as a small sole trader or manage a large company with many hundreds of employees - together we will find the optimal (inspection) solution for you.

We will be happy to advise you and work with you to find the best inspection camera / sewer camera for your application.



#### **NEWS 2023**

### 3D pipe course

An exact 3D course recording of wastewater technical plants takes more and more relevance in our industry. The exact recording according to geodata makes a valuable contribution to an economic and sustainable rehabilitation planning.

Only with a corresponding 3D pipe course is it possible to obtain further indepth information about the inspected network. The resulting map of branched connection pipes makes it easier to locate individual pipes later for upcoming rehabilitation measures or other construction planning.

For the standard-compliant creation of such complex 3D piping diagrams, GEJOS has teamed up with two of the leading software developers in this field: Bluemetric (software "Inspector") and Haite (software "K2000 / GS2000"). Both software versions have been perfectly adapted to the GEJOS hardware and embedded in a newly developed touch control unit.



#### **NEWS 2023**

# PELI control unit - special version Touch

Switch on site, as required - by toggle switch - between: GEJOScan, INSPECTOR or K2000 / GS2000.

#### As a user of our technical systems, a wide variety of tasks await you:

During your daily work, sometimes you only need a camera for a short time to perform a visual inspection including a few photos for a private customer, but sometimes you might have a complicated camera inspection according to standards for an engineering office or a municipality?

### You need to be flexible during your work - and your equipment must be just as flexible to handle:

In addition to the familiar technology from the PELI control unit, a powerful Windows PC runs inside our new touch control unit, which makes it possible to switch between different software applications. This means that you always have both the GEJOScan basic software and an even more detailed, 3D history-capable special application (either INSPECTOR or K2000 / GS2000) with you.

You do not need a second inspection system or a second control unit. Thus, for each application you can decide (via toggle switch) with which software you want to inspect - from a free-text recording to the standardcompliant 3D recording of a complicated pipe run, everything is possible with the new GEJOS hybrid product!

#### Technical data / functional range:

- Removable control unit in robust hard case
- 12.1" touch monitor with above-average brightness and loudspeaker
- Powerful Intel® Core i7 processor with 16GB memory, 250GB SSD hard drive (expandable) with Windows 10 operating
- system WLAN-capable; direct Internet access via WLAN on the control unit, updates and data transfer via WLAN
- Double battery capacity (compared to standard PELI control unit) 13.2Ah (LiFePO4)
- Waterproof, detachable keyboard (with touchpad!) for convenient data entry
- Adjustable, stable keyboard holder
- Incl. quick charger (200Watt) in sturdy hard case
- Digital battery charge and battery level indicator
- Convenient attachment of the case to the reel frame (via innovative "click system")
- Stepless locking of the lid ("sunshade")
- Pre-equipped for the operation of a 3D pipe routing software (integrated version of an external partner), optional:
  - INSPECTOR (bluemetric / JT-elektronik)
  - K2000 / GS2000 (Haite)

Work like in a professional TV vehicle - without compromises!

- \*\*\* NEW: Optionally also with second touch monitor in the lid of the control unit for extra convenient and clear work \*\*\*
- \*\*\* NEW: Optionally also with switch / toggle: Switch between standard GEJOScan and external 3D pipe routing software \*\*\*
- \*\*\* NEW: Optionally with pluggable GEJOS Li battery (48V) (incl. quick-change system) for a battery life of approx. 8 hrs \*\*\*





View test video

### **NEWS 2023**

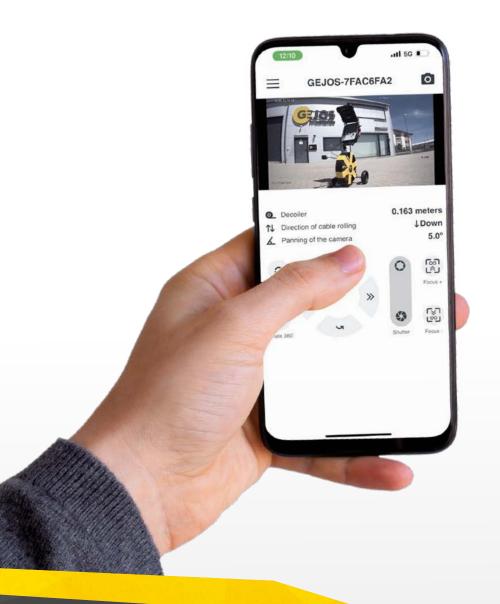
### Five times as many picture elements as with conventional PAL sensor

As one of the few suppliers in the industry, GEJOS now delivers a true full HD image in 1,920 x 1,080 px resolution on diver-sive sliding inspection systems.

Part of the new Full HD generation is the familiar, large GEJOS reel Cage - now equipped with a newly developed, ultra-stable coaxial push rod(Ø11.7mm). The new system is supported by a complex double board, which further processes, conditions, balances and amplifies the video signal.

No compatibility problems: The use of Full HD and PAL camera heads is possible on the same reel Cage!

Camera heads: Full HD quality is provided for the PIC 6.0 pan head (basic and sensor versions), the PIC 6.0 ball head (basic and sensor versions), and the PIC 5.5 - and PIC 3.0 - axial camera head.



### **NEWS 2023**

### Streaming

From now on, video streaming via the newly developed GEJOS app is possible for all GEJOS inspection systems that are operated with a current PELI control unit!

The download takes place via the "App Store" (iOS operating system) or the "Google Play Store" (Android operating system) and is thus compatible with all common mobile devices such as smartphones or tablets.

During streaming, the video image including the included sensor technology (e.g. meter value, position display rotation / panning, inclination of the pipe, etc.) is transferred to a terminal device. In this way, in addition to the inspector, other persons (customers, clients, supervisors) can also monitor / observe the inspection work. The latest version of the streaming app even includes the control of the Ka-mera heads: for example, the GEJOS swivel head can be conveniently rotated and swiveled from the mobile device or the shutter function can be controlled! Photos can be created with a click and shared across all channels.







### PIC 1.9 LC

Our smallest inspection system - for pipes from DN30. Perfect for inspecting kitchen pipes! Sturdy and robust - yet easy to handle and carry. With modern, new control unit in removable hard case.



#### LC control unit:

- Intuitive operation directly on the control unit
- Incl. membrane keypad / high-quality operating buttons and graphic display of functions
- NEW Configurable user text as video annotation (text overlay on display and recording)
- Various overlay elements such as meter display (activity and positioning freely configurable)
- Recording (video /image) to USB stick
- Handy, detachable control unit in a robust hard-shell case with high-resolution 7"-color monitor
- High-performance-LIFEPO-battery
- Handle for transporting and fastening the control unit

#### **Reel Cage**

- Reel Cage with 40m push rod Ø4,5mm
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other exchangeable baskets (PIC 3.0)

#### PIC 1.9 - Axial camera head:

- Stainless steel camera head Ø19mm
- Incl. PIC 1.9 sliding sleeve
- Pressure resistant up to 2 bar
- From DN30 DN200
- Bendable from DN 30/87°.
- Digital module 0.01 Lux



### PIC 1.9 LCI

Our smallest inspection system - for pipes from DN30. Perfect for inspecting kitchen pipes! Sturdy and robust - yet easy to handle and carry. With modern, new control unit - directly integrated into the reel frame.



#### LCI control unit:

- Intuitive operation directly on the control unit
- Incl. membrane keypad / high-quality operating buttons and graphic display of functions
- NEW Configurable user text as video annotation (text overlay on display and recording)
- Various overlay elements such as meter display (activity and positioning free configurable)
- Recording (video /image) to USB stick
- High-resolution 7" color monitor directly integrated in reel frame
- High-performance-LIFEPO-battery
- Handle for transporting the reel frame

#### **Reel Cage**

- Reel Cage with 40m push rod Ø4,5mm
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other exchangeable baskets (PIC 3.0)
- PIC 1.9 Axial camera head:
- PIC 1.9 Axial camera head:
- Incl. PIC 1.9 sliding sleeve
- Pressure resistant up to 2 bar
- From DN30 DN200
- Bendable from DN 30/87
- Digital module 0.01 Lux



### PIC 3.0 LC

Our small inspection system - for pipes from DN40. Perfect for the inspection of WC pipes or for rehabilitation! Sturdy and robust - yet easy to handle and carry. With modern, new control unit in removable hard case.



#### LC control unit:

- Intuitive operation directly on the control unit
- Incl. membrane keypad / high-quality operating buttons and graphic display of functions
- NEW: FROM NOW ON ALSO WITH TEXT ENROLLMENT!
- Various overlay elements such as meter display (activity and positioning freely configurable)
- Recording (video /image) to USB stick
- Handy, detachable control unit in a robust hard-shell case with high-resolution 7"-Color monitor
- High-performance-LIFEPO-battery
- Handle for transporting and fastening the control unit

#### **Reel Cage**

- Reel Cage with 40m push rod Ø6.0mm
- Incl. push rod guide plate to prevent rod breakage
- Pre-equipped for the operation of other interchangeable baskets (PIC 1.9)

#### PIC 3.0 - Axial camera head:

- Stainless steel camera head Ø30mm
- Incl. PIC 3.0 sliding sleeve
- Permanent upright image
- Pressure resistant up to 1 bar
- From DN40 DN200
- Bendable from DN 50/87
- Digital module 0.01 Lux



### PIC 3.0 LCI

Our small inspection system - for pipes from DN40. Perfect for the inspection of WC pipes or for rehabilitation! Stable and robust - yet easy to handle and carry. With modern, new control unit - directly integrated into the reel frame.



#### LCI control unit:

- Intuitive operation directly on the control unit
- Incl. membrane keypad / high-quality operating buttons and graphic display of functions NEW: FROM
- NOW ON ALSO WITH TEXT ENROLLMENT!
- Various overlay elements such as meter display (activity and positioning freely configurable)
- Recording (video /image) to USB stick
- High-resolution 7" color monitor directly integrated in reel frame
- High-performance-LIFEPO-battery
- Handle for transport and fastening of the reel frame

#### **Reel Cage**

- Reel Cage with 40m push rod Ø6.0mm
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for the operation of other interchangeable baskets (PIC 1.9)

#### PIC 3.0 - Axial camera head:

- Stainless steel camera head Ø30mm
- Incl. PIC 3.0 sliding sleeve
- Permanent upright image
- Pressure resistant up to 1 bar
- From DN40 DN200
- Bendable from DN 50/87
- Digital module 0.01 Lux



### PIC 5.5 LC

Our medium inspection system - for pipes from DN70. Perfect for the inspection of WC pipes or for rehabilitation! Sturdy and robust - yet easy to handle and carry. With modern, new control unit in removable hard case - on a mobile stainless steel reel frame.



#### LCI control unit:

- Intuitive operation directly on the control unit
- Incl. membrane keypad / high-quality operating buttons and graphic display of functions
- NEW: FROM NOW ON ALSO WITH TEXT ENROLLMENT!
- Various overlay elements such as meter display (activity and positioning freely configurable)
- Recording (video / image) to USB stick
- Handy, detachable control unit in robust hard case with high-resolution 7" color monitor
- Handle for transporting and fastening the control unit
- Adjustable reel wheels for easier transport
- Height-adjustable handle for transporting and fastening the control unit

#### **Reel Cage**

- Reel Cage with 70m push rod Ø7,5mm (optional: 100m)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other GEJOS camera heads (PIC 5.5 long & short version, PIC 3.0)
- Pre-equipped for operation of other exchangeable baskets (PIC 3.0, PIC 1.9)

#### PIC 5.5 - Axial camera head:

- Stainless steel camera head Ø55mm
- Incl. PIC 5.5 sliding sleeve
- Permanent upright image
- Pressure resistant up to 1 bar (optionally up to 5 bar)
- From DN70 DN500
- Bendable from DN 90/87
- Digital module 0.01 Lux
- High-performance-LIFEPO-battery



### PIC 5.5 PELI

#### Our medium inspection system - for pipes from DN70. Perfect for the inspection of WC pipes or for rehabilitation!

Stable and robust - but still easy to handle and portable. With large control unit incl. membrane keypad - in a removable hard case - on a mobile stainless steel reel frame.



#### **PELI control unit:**

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
- WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software (unlockable via phone / eMail)

#### **Reel Cage:**

- Reel Cage with 70m push rod Ø7,5mm (optional: 100m)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other GEJOS camera heads (PIC 5.5 short & long version, PIC 3.0)
- Pre-equipped for operation of other exchangeable baskets (PIC 3.0, PIC 1.9)

#### PIC 5.5 - Axial camera head:

- Stainless steel axial camera head Ø55mm
- Incl. PIC 5.5 sliding sleeve
- Permanently upright image function
- Pressure resistant up to 1 bar (optionally up to 5 bar)
- Bendable from DN 90/87
- Digital module 0.1 Lux



### PIC 6.0 PELI - Special Version Axial

Our medium inspection system - for pipes from DN70 - pre-equipped for swivel head inspections. Perfect for rehabilitation or inspection of house connection pipes!

Sturdy and robust - yet easy to handle and carry. With large control unit incl. membrane keypad - in removable hard case - on a mobile stainless steel reel frame.

- + Inspection system PIC 6.0 with PELI control unit, WITHOUT swivel head -with PIC 5.5 axial head
- + All requirements for swivel head operation integrated in special version
- + Connection of a swivel head possible at any time



#### **PELI control unit:**

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
- WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software (unlockable via phone / eMail)

#### **Reel Cage**

- 70m push rod Ø 9,2mm with integrated camera cable (optional 100m)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for the operation of other GEJOS camera heads (PIC 6.0 pan head, PIC 6.0 ball head, PIC 3.0 axial head)
- Pre-equipped for operation of other exchangeable baskets (PIC 5.5, PIC 3.0, PIC 1.9)
- Adjustable reel wheels for easier transport
- Accessories pocket on the reel
- Height-adjustable handle for transporting and fastening the control unit with 360° rotation option

#### PIC 5.5 - Axial camera head:

- Stainless steel axial camera head Ø55mm
- Permanently upright image function
- Pressure resistant up to 5 bar (optional)
- Bendable from DN 90/87
- Pluggable / changeable within seconds
- Digital LED module 0.1 lux



### PIC 6.0 PELI - Basic Version

Our swivel head basic inspection system - for pipes from DN70. Perfect for the inspection of house connection pipes!

Stable and robust - yet easy to handle and carry.

With large control unit incl. membrane keypad - in removable hard case on a mobile stainless steel reel frame. Modern swivel head with unique selling points.

+ PIC 6.0 inspection system with PELI control unit and swivel head



#### PELI control unit:

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
- WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software (unlockable via phone / eMail)

#### Reel Cage:

- 70m push rod Ø 9,2mm with integrated camera cable (optional 100m)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other GEJOS camera heads (PIC 5.5 axial head, PIC 6.0 ball head, PIC 3.0 axial head)
- Pre-equipped for operation of other exchangeable baskets (PIC 5.5, PIC 3.0, PIC 1.9)
- Adjustable reel wheels for easier transport
- Accessories pocket on the reel
- Height-adjustable handle for transporting and fastening the control unit with 360° rotation option

#### PIC 6.0 swivel head:

- Full swivel camera head stainless steel and aluminum Ø 60mm
- Bendable from DN 100/87
- Rotation endless° / Tilt endless°
- Auto-zero-function
- Automatic 360° rotation function
- Digital module 0.1 Lux
- Permanent upright image
- Pressure resistant up to 1 bar
- Digital pressure control / pressure valve
- Pluggable / changeable within seconds
- Pre-equipped for rod set for branching (optional)



### PIC 6.0 PELI Multi L - Sensor version

#### Our swivel head professional inspection system - for pipes from DN70. Perfect for the inspection of house connection pipes!

With large control unit incl. Membrane-keypad - in removable hard case - on a mobile stainless steel reel stand. Modern swivel head with patented laser nominal diameter measurement (in real time).



#### PIC 6.0 PELI basic version with the following additional features:

- Fully automatic laser nominal diameter measurement (real
- time) Position display in degrees of rotation and panning
- Inclination measurement of the pipe in degrees
- Remote control shutter / iris

#### Info PIC 6.0 PELI Basic Version: PELI control unit:

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
  WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software (unlockable via phone / eMail)

#### **Reel Cage**

- 70m push rod Ø 9,2mm with integrated camera cable (optional 100m)
- Incl. push rod guide plate to prevent rod breakage.
  - Pre-equipped for operation of other GEJOS camera heads (PIC 5.5 axial head, PIC 6.0 ball head, PIC 3.0 axial head)
- Pre-equipped for operation of other exchangeable baskets (PIC 5.5, PIC 3.0, PIC 1.9)
- Adjustable reel wheels for easier transport
- Accessories pocket on the reel
- Height-adjustable handle for transporting and fastening the control unit with 360° rotation option

#### PIC 6.0 swivel head:

- Full swivel camera head stainless steel and aluminum Ø 60mm
- Bendable from DN 100/87
- Rotation endless° / Tilt endless°
- Auto-zero-function
- Automatic 360° rotation function
- Digital module 0.1 Lux
- Permanent upright image
- Pressure resistant up to 1 bar
- Digital pressure control / pressure valve
- Pluggable / changeable within seconds
- Pre-equipped for rod set for branching (optional)



# PIC 6.0 PELI - All-in-one complete package

Our swivel head professional inspection system - for pipes from DN70 - in the popular special offer package. Perfect for the inspection of house connection pipes!

With large control unit incl. Membrane-keypad - in removable hard case - on a mobile stainless steel reel stand. Modern swivel head with patented laser nominal diameter measurement (in real time).



#### PIC 6.0 PELI basic system with the following additional features and accessories:

- Fully automatic laser nominal diameter measurement (real time)
- Position display in degrees of rotation and panning
- Inclination measurement of the pipe in degrees
- Remote control shutter / iris
- PIC 3.0 Interchangeable reel Cage with 30mm axial camera head (upright image) and 40m push rod.
- Info PIC 6.0 PELI Basic Version:

#### PELI control unit:

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
- WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software (unlockable via phone / eMail)

- Branching rods (set of three different sizes) clickable / can be mounted without tools
- Sliding sleeve for axial head and swivel head
- Locating probe in double frequency 33Khz / 512Hz (at PIC 6.0 reel Cage) )
- GEJOScan capture software (latest version, integrated on PELI control unit) )
- GEJOScan office software (latest version)

#### Reel Cage:

- 70m push rod Ø 9,2mm with integrated camera cable (optional 100m)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other GEJOS camera heads (PIC 5.5 axial head, PIC 6.0 ball head, PIC 3.0 axial head short version)
- Pre-equipped for operation of other exchangeable baskets (PIC 5.5, PIC 3.0, PIC 1.9)
- Adjustable reel wheels for easier transport
- Accessories pocket on the reel
- Height-adjustable handle for transporting and fastening the control unit with 360° rotation option

#### PIC 6.0 swivel head:

- Full swivel camera head stainless steel and aluminum Ø 60mm
- Bendable from DN 100/87
- Rotation endless° / Tilt endless°
- Auto-zero-function
- Automatic 360° rotation function
- Digital module 0.1 Lux
- Permanent upright image
- Pressure resistant up to 1 bar
- Digital pressure control / pressure valve
- Pluggable / changeable within seconds
- Pre-equipped for rod set for branching (optional)



## PIC 6.0 PELI - spherical mini head basic inspection system(Basic version)

Our ball head basic inspection system - bendable in pipes from DN70. Perfect for the inspection of WCs and house connection pipes!

With large control unit incl. Membrane-keypad - in removable hard case - on a mobile stainless steel reel stand. on a mobile stainless steel reel stand. Modern camera head with digital swivel function and other unique selling points.

#### **PELI** control unit:

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
- WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software (unlockable via phone / eMail)

#### **Reel Cage:**

- 70m push rod Ø 9,2mm with integrated camera cable (optional 100m)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other GEJOS camera heads (PIC 5.5 axial head, PIC 6.0 ball head, PIC 3.0 axial head)
- Pre-equipped for operation of other exchangeable baskets (PIC 5.5, PIC 3.0, PIC 1.9)
- Adjustable reel wheels for easier transport
- Accessories pocket on the reel
- Height-adjustable handle for transporting and fastening the control unit with 360° rotation option

#### PIC 6.0 spherical mini head:

- Rotating wide-angle camera head made of stainless steel and aluminium
- Diameter 60 mm
- With virtual pan function
- Infinite rotation
- Navigates pipe bends from DN70/87°
- Suitable for inspecting Geberit toilet drain pipes
- Pressure-resistant up to 5 bar
- Digital pressure control / pressure valve
- Permanent upright image
- Auto-zero-functionktion
- Automatic 360° rotation function
- Pluggable / changeable within seconds
- Digital LED module 0.5 lux



### PIC 6.0 PELI Special spherical mini head version (sensor version)

Our spherical mini head basic inspection system – which easily navigates pipe bends from DN70.

Ideal for inspecting toilets and utility pipes!

With large control unit incl. Membrane-keypad - in removable hard case - on a mobile stainless steel reel stand. Modern camera head with digital panning function and and patented laser nominal distance measurement (in real time).

PIC 6.0 PELI - special version spherical mini head basic version with the following, additional features:

- Fully automatic laser nominal diameter measurement (real time)
- Position display in degrees of rotation and panning Inclination
- measurement of the pipe in degrees
- Remote control shutter / iris

#### Info PIC 6.0 PELI Basic Version:

#### **PELI control unit:**

- Control unit with 10" (Sunreflect) monitor
- Removable control unit in robust PELI case
- Data enrollment possible
- Display meter value
- 128 GB internal hard disk space (optionally expandable)
- WLAN-capable (data transmission, updates)
- Membrane-keypad
- Video-output
- Stepless light control
- 220 V/50 Hz Mains connection
- High-performance-LIFEPO-battery (optional installation of a second battery possible)
- Video recording and image storage
- 2x USB port
- Pre-installed GEJOScan capture software unlockable via phone / eMail)

#### Reel frame / reel Cage:

- 70m push rod Ø 9,2mm with integrated camera cable (optionally extendable to 100m length)
- Incl. push rod guide plate to prevent rod breakage.
- Pre-equipped for operation of other GEJOS camera heads (PIC 6.0 pan head, PIC 5.5 axial head, PIC 3.0 axial head)
- Pre-equipped for operation of other exchangeable baskets (PIC 5.5, PIC 3.0, PIC 1.9)
- Adjustable reel wheels for easier transport
- Accessories pocket on the reel
- Height-adjustable handle for transporting and fastening the control unit with 360° rotation option

#### PIC 6.0 spherical mini head:

- Rotating wide-angle camera head made of stainless steel and aluminium
- Diameter Ø60mm
- With digital swivel function
- Infinite rotation
- Navigates pipe bends from DN70/87°
- Suitable for inspecting Geberit toilet drain pipes
- Pressure resistant up to 5 bar
- Digital pressure control / pressure valve
- Permanent upright image
- Auto-zero-function
- Automatic 360° rotation function
- Pluggable / changeable within seconds
- Digital LED module 0.5Lux



### Crawler (DN100 - DN500) with adjustable lifting arm and optimized articulated joint

GEJOS crawler - the "little one" for the big tasks! With patented robot lifting arm and a lot of sensory data. For the use of DN100-DN500. With optimized articulated joint - for even better sheet travel!

- Applicable from DN 100 to DN 500
- Bendable from DN150 (2x 45°)
- High own weight (approx. 9kg)
- Patented robot arm (height 190mm) with degree display and fully automatic, central alignment in the pipe / duct
- Integrated rear view camera
- Automatic level compensation (anti-tilt)
- Stepless forward / reverse automatic (cruise control)
- Permanent laser nominal diameter measurement in real time
- (output in mm)

Compatible with the following GEJOS camera heads: PIC 6.0

- Pan Head, PIC 6.0 Ball Head, PIC 5.5 Axial Head, PIC 3.0
- Axial Head Internal pressure monitoring with display in the
- control unit
- Bendable cable quick release
- Locating switchable (33 kHz / 512 Hz)
- Additional LED lighting ring (pluggable)

Additional wheels in various sizes (pluggable)



jhts (mountable)





### Crawler (DN100 - DN250) basic version

### The small crawler for the DN100-DN250 application range - when the length of a push camera is no longer sufficient!

In conjunction with the GEJOS swivel head, fully automatic laser nominal diameter measurement (in real time) is also possible!

- Steerable crawler with six interchangeable wheels
- Application range DN100 DN250
- Switchable localization (dual frequency 33kHz / 512 Hz)
- Automatic level compensation (anti-tilt)
- Compatible with the following GEJOS camera heads: PIC 6.0 Pan Head, PIC 6.0 spherical mini Head, PIC 5.5 Axial Head, PIC 3.0 Axial Head
- Compatible with fully automatic GEJOS cable drum
- High own weight (approx. 7kg)
- Stepless forward / reverse automatic (cruise control)
- Permanent laser nominal diameter measurement in real time (output in mm)
- Additional wheels in various sizes (pluggable)



Rugged stainless steel/aluminum construction! Mobile unit for inspection in places that no vehicle can reach. Compatible with both GEJOS crawlers.

- Fully automatic carriage for crawler operation incl. 200m coaxial cable (optional: 250/300m)
- with integrated cable guide
- incl. base frame with adjustable wheels for easier transport
- Rugged aluminum / stainless steel construction
- Crawler control unit in robust PELI hard-shell case mountable on rack
- Speed and force manually adjustable
- Integrated electronic meter counter
- optional: plug-in lithium-ion battery (48V) -Battery life at least 8 hours

### **Custom solutions**

We see ourselves as a "camera manufactory", which can also respond to "individual customer requests" due to its more than 15 years of experience:

We realize individual wishes, special solutions, special versions, one-off superstructures and prototype construction.

Be it a mini axial camera with 150m push rod, which is driven by a push rod, a particularly pressure-tight well camera, an individual vehicle installation of our carriage, an exact calibration of our laser nominal diameter measurement for determining the "layer thickness" in pipes, an individual special construction from old components or an observation camera (with exchangeable wear cable) for milling robots ...

Just talk to us about your wishes!



See example.

### Laser nominal diameter measurement

The patented measuring solution offers a significant advantage in the inspection of cavities and especially in the rehabilitation of pipes and sewers! Human errors are excluded by the laser-based system (e.g. in case of non-visible transitions in vitrified clay pipes). FULLY AUTOMATED AND IN REAL TIME: Any change in the tube size is immediately displayed when the camera is inserted / retracted into the tube

- LASER-ASSISTED DIAMETER MEASUREMENT: Permanent display on the monitor (without "waiting time")
- HIGH ACCURACY:
  Output of measured values in millimeters
- SUITABLE FOR ALL TYPES OF INSPECTION: Applicable to push inspection systems and crawler systems
- FOR THE MOST IMPORTANT PIPE DIMENSIONS: Measurable nominal diameters: DN70 -DN500
- COMPATIBLE CAMERA HEADS: Available for PIC 6.0 - swivel head and PIC 6.0 - spheric mini head

	PIC 6.0	PIC 5.5	PIC 3.0	PIC 1.9	Crawler
Reel Cage					
Reel Cage Full HD - 70 m, ø 11,7 mm	+	+			
Reel Cage big - 70 m, ø 9,2 mm	+	+			
Reel Cage big - 70 m, ø 7,5 mm		+			
Reel Cage small - 40 m, ø 6,0 mm	+	+	+	+	
Reel Cage small - 40 m, ø 4,5 mm	+	+	+	+	
Carriage - Crawler, 200 m					+
CAMERA HEADS					
PIC 6.0 swivel head (with/without laser)	+	+ Special version			+
PIC 6.0 spherical mini head (with/without laser)	+	A'xial Special version Axial			+
PIC 5.5 axial head	+	Axial +			+
PIC 3.0 axial head	+ pluggable or via exchangeable	+ via exchangeable Cage	+	+ via exchangeable Cage	+
PIC 1.9 axial head	Cage + via exchangeable Cage	+ via exchangeable Cagev	+		
CONTROL UNITS / MONITORS					
PELI	+	+	+	+	+ PELI crawler version
PELI - Special version Touch	+	+	+	+	
LC		+	+	+	
LCI			+	+	
BNC (BNC output without monitor)			+	+	
FULL HD / STREAMING					
Full HD	+	+	+		+
Streaming (via app)	+ PELI	+ PELI	+ PELI	+ PELI	+ PELI
ACCESSORIES					
Locating	+	+	+	+	+
Branch rods	+				
GEJOScan-Software	+ PELI	+ PELI	+ PELI	+ PELI	+ PELI



## Software

As a full-range supplier for the pipe and sewer industry, GEJOS not only has the hardware but also the appropriate software on board: On our large PELI control units, we offer various software versions for the acquisition and documentation of pipe systems (e.g. the in-house software GEJOScan acquisition software).

The capture software on the PELI control unit can be used as a "standalone solution" or supplemented by a matching office software for postprocessing (e.g. the in-house GEJOScan 7 office software).

In the field of 3D acquisition and pipe routing plans, we cooperate with two well-known manufacturers. On our new PELI touch control unit you can use either the software "Inspector" (bluemetric) or "K2000/GS2000" (Haite).



# GEJOScan

The in-house GEJOScan - software is a simple and mobile capture software for sewer inspection. Operation is possible via the membrane keypad of the mobile control unit - or via streaming app via smartphone and tablet. All data is stored on the integrated hard drive or directly on USB stick. The data can be exported to a PC and then burned to CD/DVD. With the office version of the GEJOScan software, the data can be adjusted / edited afterwards.

### 1. GEJOScan - Capture Software

## incl. standard EN13508-2/DWA M-149-2

- Integrated in GEJOS-PELI control unit
- Simple input of the pipe run with automatic generation of corresponding findings
- Immediate display of the pipe route on the map (georeferenced)
- Intuitive project management: related postures/lines are stored in an examination
- Possibility for individually configurable ""hotkeys"" (entry of entire findings with a single keystroke) incl.
- EN Standard 13508-2 Module / DWA m-149-2
- ATV-M 143/2 / Isybau 2001, Isybau 2006, VSA Norm Switzerland/Katalog VSA-KEK (German, Version 2020, in exchange format Interlis XML

## 2. GEJOScan - Office Software

- Modular program (individual modules can be hidden or moved to a separate screen)
- Modern WPF components (individually scalable, movable, minimizable)
- Manual drawing / correction of plan elements (manholes, basic plan, dimension elements)
- Map view with different map sources
- Interactive posture graphic (synchronized with video and photo view and findings list)
- Printing of posture reports on different paper formats and in best resolution
- Identical viewer version (without editing option) for the end customer
- Keine Installation von Video-Codecs nötig



Data acquisition takes place directly on our new special version of the PELI control unit. The removable hard case contains a large touch display in full HD resolution and an external keyboard. A second monitor (mounted in the lid of the control unit) is optionally available.

## External software partners

In addition to our own software GEJOScan, we can offer you through a cooperation with well-known partners from the industry two further software versions for use directly on the GEJOS inspection systems.

Both software manufacturers have many years of experience in the condition recording of sewer networks and offer field-proven solutions - e.g. for 3D pipe course recording.



#### Software INSPECTOR

Bluemetric software GmbH Nordring 17 64347 Griesheim

www.bluemetric.de

HAITE Büro für technische Informatik

#### Software K2000/GS2000

Haite GbR Belchenstraße 18/2 88097 Eriskirch

www.haite.de

## bluemetric software GmbH / INSPECTOR

#### Condition detection in the sewer network

The TV inspection software of bluemetric software GmbH allows the recording of the condition in the sewer network according to different coding systems (Abwasserhilfe, DWA).

#### Coding system for optical inspection - DIN EN 13508-2

With the introduction of the European standard DIN EN 13508-2 "Coding system for optical inspection", the previous leaflet ATV-M 143-2 has been replaced by the leaflet DWA-M 149-2. In Germany, the binding regulations of DIN EN 13508-2 are recommended for use in conjunction with the contents of this leaflet.

#### Field-proven TV inspection software

The new TV inspection software INSPECTOR was jointly developed in partnership between JT-elektronik GmbH and blueme-tric software GmbH. Extensive expertise, many years of practical experience and a lot of know-how were contributed by both companies.

#### **European Coding System**

The European coding system is increasingly becoming the new standard and the basis for professionally qualified coding of the findings of the optical inspection. It is of great importance that the input process is supported by suitable software.

- Clear operation and ideal handling
- Fast condition documentation
- Easy input of damage codes
- Quick selection via favorite condition codes (freely configurable)
- Configurable hot keys
- Workload reduction with project management, address management and data export at the push of a button
- Better documentation and high informative value due to any number of images per detection
- Video digitization MPEG-1, MPEG-2, MPEG-4
- Background map (DXF, raster)



## Haite GbR / K2000 / GS2000

#### K2000 basic software

K2000 is a user-friendly program for collecting, processing and managing data of the entire sewer network. Starting with the inspection

and evaluation of the sewer condition, K2000 also offers all functionalities to analyze and further process the captured data. Basically, master data, geometry data and condition data can be used for the inspection of the sewers. The modular structure enables the user to adapt the software precisely to his needs via a large number of extensions. During inspection, K2000 can be used with a camera system from any hardware manufacturer.

#### Mobile and office

K2000 can be used both for recording the condition of sewer networks in inspection vehicles or sliding systems (K2000 Mobile) and as a sewer information system for administration in the office (K2000 Office). K2000 is ideal for cities, municipalities, engineering offices and companies from the environmental technology sector.

#### Clear working with site plans

Background plans such as survey data and aerial photographs enable optimal orientation in the sewer network with the help of the LP2000 site plan module. The background plans and the entire sewer network are displayed graphically on the screen. The cumbersome handling of partial plans becomes superfluous and thus speeds up the work for the user enormously. For better navigation, it is also possible to work with GPS.

- Standardized TV inspection
- Management of the entire sewer network
- Simple operation
- Hardware independent
- Versatile measurement methods
- Background plan classification and evaluation
- Support of all common data interfaces
- Reference and history management
- Two-way traffic management





## SERVICE

email).

Long repair times and defective devices mean idle time and loss of earnings for our customers. It is therefore very important to us that your device is functional and operational again as soon as possible. In case of a defect, you are welcome to use our **pick-up service via UPS or express service provider (pick-up possible directly on the same day)** for the sake of speed - just contact us by phone or e-mail.

#### Help us to help you!

#### By the way:

If possible, please only send us complete systems instead of individual components - this ensures that the system is completely free of defects and functions perfectly in its overall context. Please also outline your defect description / wishes in writing and enclose the note with the package; for this purpose, use e.g. the repair order form below (PDF for direct completion on the PC). For quick information, you can use the CHAT integrated on the home page; here you can get in touch directly with our service staff. A video chat is also possible for quick immediate help or to isolate the cause of the error. Depending on the availability of time, we also offer on-site repair appointments or product training at our premises in Pollenfeld. Please contact us as early as possible (by phone or

We have a wide range of rental equipment.

From a small inspection system for the kitchen to a single axial or swivel head to a trolley with laser nominal diameter measurement and fully automatic cable drum, everything is available from us!

We will gladly discuss a rental - short-term, medium-term or even long-term - with you individually and submit a customized offer!

Contact details:

#### **GEJOS Service GmbH**

Am Dörrenhof 11a 85131 Pollenfeld Tel.: +49 8421 98 300 51 eMail: service@gejos.de

## SERVICE:

You urgently need a spare part because the

front glass of your axial camera is broken?

You need due to full order books

an additional rental camera quickly and at short notice?

You want to ask how long a repair will take or you want to order a pickup for your repair?

You would like an on-site appointment with us in Pollenfeld for repair or training?

You would like to change the delivery address for

of the current repair?

Our service team will be happy to help you with these typical - and all other - questions.

#### **GEJOS Service GmbH**

Am Dörrenhof 11a · 85131 Pollenfeld Tel.: +49 8421 98 300 51 eMail: service@gejos.de

#### Contact person:

Jean-Pierre Wagner GEJOS Service-Team Manager Mechanics & Manufacturing Robert Briechle GEJOS Service-Team Manager electronics

## SALES:

You need an offer as soon as possible for one of our inspection systems? You would like technical advice on our products? You are looking for a solution, but do not know what exactly it should look like? You need a briefing or product training? You would like to arrange a demonstration appointment at your site?

Our sales team will be happy to help you with these typical - and any other - questions.

#### **GEJOS Kanal TV GmbH**

Am Dörrenhof 11a · 85131 Pollenfeld Tel.: +49 8421 98 300 52 eMail: info@gejos.de

#### Contact person:

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#### **Dieter Finke**

GEJOS Sales-Team Tel.: +49 8421 98 300 68 Mobil: +49 172 3894879 dieter.finke@gejos.de

## SOFTWARE:

You need a briefing / product training?

You would like to ask which USB sticks you can

can be used as a storage medium?

You would like to have it explained again how the new hybrid system works on the touch control unit?

You have carried out a camera tour and now individual photos / videos have disappeared or are defective and you would like to have this data restored / repaired?

You need help with the installation of a new update,

most simply by remote maintenance?

For these typical - and also for all other - questions questions, our software team will be happy to help you.

#### **GEJOS Service GmbH**

Am Dörrenhof 11a · 85131 Pollenfeld Tel.: +49 8421 98 300 53 eMail: support@gejos.de

#### Contact person:

Florian Wöhrl GEJOS Software-Team Head of Software Development

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## www.gejos.de