

QL-PipeCrawler 4K-1000

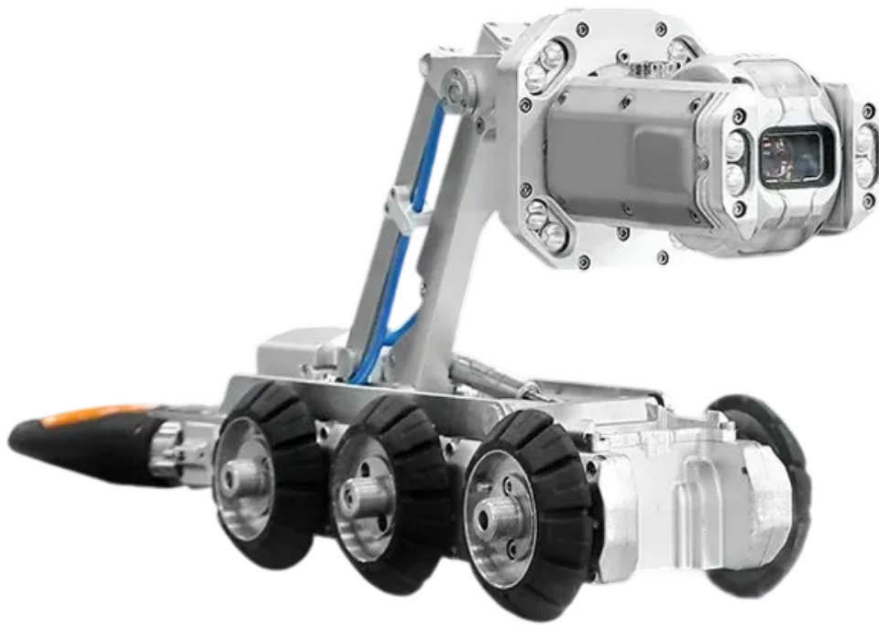
QUAKELOGIC

ROBOTIC PIPE INSPECTION CRAWLER



QL-PipeCrawler 4K-1000

Robotic Pipe Inspection Crawler



4K ROBOTIC PIPE INSPECTION SYSTEM

The QL-PipeCrawler 4K-1000 is a professional-grade, battery-powered robotic pipe inspection camera system for detailed visual inspection and documentation of pipes from 6 to 24 inches in diameter. It combines a fully submersible IP68 crawler, a true 4K Ultra-HD pan-and-tilt camera, a motorized elevation arm, a 1,000 ft powered tether, and a ruggedized touchscreen controller into one field-ready platform for sewer, drainage, utility, industrial, and confined-pipeline work.

- Fully submersible IP68 crawler and camera inspect dark, wet, and flooded pipelines without water-ingress risk or protective enclosures.
- Integrated 1,000 ft powered tether and motorized counter reel deliver long inspection reach with accurate real-time distance measurement.
- Rechargeable battery modules for crawler, controller, and reel enable extended field operation without continuous external power.
- Integrated control and inspection software records, annotates, and reports on-site, producing a complete inspection deliverable in one pass.

STANDARD FEATURES »

- Interchangeable Wheel Kits
- Connection Cables
- Data Cables
- Battery Charger
- Battery Modules
- Protective Carrying Cases
- Lifting & Retrieval Kit
- Integrated 512 Hz Sonde
- Touchscreen Controller
- Powered Counter Reel
- Operational Accessories

Key Features

- True 4K Ultra-HD pan-and-tilt camera with horizontal and vertical articulation and digital zoom captures fine defect detail across the pipe wall.
- Remotely controlled robotic elevating arm centers and raises the camera in larger pipes for optimal viewing angles and coverage.
- Fully submersible IP68-rated crawler and camera operate reliably in wet, low-light, and fully flooded inspection conditions.
- Interchangeable wheel kits and enhanced traction let a single crawler cross obstacles and adapt to pipe diameters from 6 to 24 inches.
- Powered 1,000 ft tether carries power, control, video, and data on one line for long-run inspections without signal loss.
- Motorized counter reel provides forward and reverse powered payout and retrieval with an integrated electronic distance counter.
- Ruggedized touchscreen controller centralizes crawler movement, camera, lighting, reel, and recording from a single operator interface.
- Integrated 512 Hz sonde transmitter allows underground crawler location and inspection-path tracking with a compatible locator.
- Adjustable high-intensity LED floodlights illuminate dark and submerged pipes for clear, well-exposed 4K imaging.

PRODUCT FEATURES

Crawler

Fully submersible, IP68-rated robotic crawler · Remote forward, reverse, steering, stop, and speed control · Enhanced traction and obstacle-crossing capability · Interchangeable wheel kits for 6–24 in pipes

Camera

True 4K Ultra-HD pan-and-tilt inspection camera · Remote horizontal and vertical articulation · Digital zoom; robotic elevating arm positioning

Illumination

Adjustable high-intensity LED floodlights · Suited to dark, wet, low-light, and submerged conditions

Tether & Reel

1,000 ft powered inspection tether · Power, control, video, and data on one line · Motorized counter reel, forward/reverse operation · Integrated electronic distance counter

Control

Ruggedized touchscreen operator controller · Real-time video transmission to controller · Attitude, direction, distance, and battery display

Locating

Integrated 512 Hz sonde transmitter · Underground crawler location and path tracking

Power

Integrated rechargeable battery system · Separate battery modules for crawler, controller, reel · Field operation without continuous external power

For more information about the features, specifications, and available configurations of the QL-PipeCrawler 4K-1000, please contact QuakeLogic.

INTERCHANGEABLE WHEEL KITS

Additional wheel sets adapt the crawler to different pipe diameters and surface conditions across the 6-24 in range.

LIFTING & RETRIEVAL KIT

Deployment equipment for safely lowering, positioning, and recovering the crawler in access points and manholes.

RUGGEDIZED CARRYING CASES

Protective transport and storage cases for the crawler, controller, reel, and accessories in field and mobile use.

BATTERY CHARGER PACKAGE

Battery charger and applicable power accessories for recharging the crawler, controller, and reel modules between deployments.



TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Model	QL-PipeCrawler 4K-1000
System Type	Battery-powered robotic pipe inspection camera system
Application	Sewer, drainage, utility, industrial, confined pipelines
Pipe Diameter Range	6 to 24 in (152 to 610 mm)
Maximum System Weight	Not exceeding 50 lb (22.7 kg)
Crawler/Camera Protection	Fully submersible, IP68-rated
Crawler Movement	Remote forward, reverse, steering, stop, speed
Traction	Enhanced traction and obstacle-crossing capability
Wheel Configuration	Interchangeable wheel kits by pipe diameter
Camera Type	True 4K Ultra-HD pan-and-tilt inspection camera
Camera Orientation	Remote horizontal and vertical articulation
Camera Positioning	Integrated remote robotic elevating arm
Zoom	Digital zoom
Imaging Functions	Live view, still capture, freeze, preview, playback, video
Inspection Documentation	Defect marking, annotation, distance recording
Illumination	Adjustable high-intensity LED floodlights
Video Transmission	Real-time transmission to operator controller

SPECIFICATION	DESCRIPTION
Tether Length	1,000 ft (305 m)
Tether Type	Powered inspection tether
Tether Functions	Power, control, video, and data transmission
Reel Type	Powered counter reel
Reel Operation	Motorized cable payout and retrieval
Reel Controls	Forward and reverse powered operation
Distance Measurement	Integrated electronic tether-distance counter
Distance Display	Real-time inspection-distance display
Controller	Ruggedized touchscreen controller
System Monitoring	Attitude, direction, distance, battery, status
Inspection Software	Integrated control, recording, annotation, reporting
Reporting	Inspection report generation and export
Data Functions	Record, store, retrieve, manage, and export
Sonde	Integrated 512 Hz sonde transmitter
Power Supply	Integrated rechargeable battery system
Equipment Condition	Factory-new and unused
Warranty	One-year manufacturer's warranty

INTEGRATED INSPECTION & CONTROL SOFTWARE

The system's integrated software unifies crawler control, camera operation, illumination, and tether management with full inspection recording, defect annotation, distance logging, data management, and report generation — delivering a complete field-to-report workflow from the ruggedized touchscreen controller without dependence on separate third-party packages.

LIVE CONTROL & VIEWING

Drives crawler movement, steering, speed, camera pan-tilt articulation, elevating arm, and LED lighting while streaming real-time 4K video to the controller, with on-screen crawler attitude, direction, travel distance, and battery status.

CAPTURE & ANNOTATION

Records video and still images with freeze, preview, and playback, then marks defects, adds inspection annotations, and logs measured tether distance to document pipe condition accurately during each inspection run.

DATA & REPORTING

Records, stores, retrieves, manages, and exports inspection data, then generates and exports formatted inspection reports so field results become deliverable documentation without transferring footage to a separate reporting system.

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About QuakeLogic:

QuakeLogic Inc. is a California-based engineering and technology company providing innovative, reliable, high-quality solutions to customers worldwide.

Our Commitment

We are committed to quality, innovation, and customer satisfaction – building lasting partnerships through reliable solutions and dependable support.

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