

Robotic inspection pipeline

General information about Sewer robotic in-line inspection pipeline inspection crawler AD-R2043S

- ✓ AD-R2043S Pipe Crawler is a portable all-in-one device for inspecting pipelines with diameters from 150 to 600 mm (6"-24").
- ✓ It features dependable, sturdy, highly adjustable design offering users ultimate inspection experience and true portability.
- ✓ It is one of the most sophisticated and efficient, yet easy-to-use and affordable devices in the market.
- ✓ The pipe inspection robot includes several modules that are easy to transport and assemble: pan-tilt-zoom camera, insertion cable, controller, cable reel and crawler.
- ✓ Optional accessories are available on request.
- ✓ The pan-tilt-zoom camera with continuous rotation is equipped with a 0.01 lux sensitive, high-definition CCD anti-fogging camera and laser scale, provides high-quality well-rounded image of pipeline interior.
- ✓ The camera is with pan 360degree rotation, tilt 180 degree rotation, 120 times zoom, auto focus, embedded LED light, pressure sensor and laser scale for crack width measurement.



Other feature:

- 1-The crawler is with 2*20 DC motor and adjustable speed, and can climb about 50 degree according to different pipe status.
- 2-The crawler also with the inclination that can measure scope ± 45 degree, pressure indication for pressure prompt and rear camera inspecting crawler backwards.
- 3-The controller is with 8inch color LCD screen and Win7 system, the screen can see the defects inside the pipes clearly under sunlight.
- 4-It is built-in 128G SSD hard disk and record image in JPG, video in AVI format.
- 5-The controller controls the crawlers speed, direction, light intensity, camera focus, rotation, camera movement, clutch control, auxiliary light controls.
- 6-The controller is with keyboard for text writing.
- 7-The system also be able to communicate with mobile, you can control the wholt system by mobile.
- 8-The pipe video software inside the system can help you review the info you want, suzh as data, video, inclination, pressure and camera status.
- 9-The automatic cable drum is with 200m standard cable, and 300m optional.
- 10-Manual cable drum optional.



Technical Specifications of the device:

PTZ camera:

- This camera is equipped with a lamp ring which is powered independently of the camera.
- Anti-fogging camera lens
- The pan, tilt, zoom camera can be tilted in both directions. Vertical: $\pm 90^\circ$, horizontal: $\pm 360^\circ$
- High resolution CCD camera, light sensitivity 0.01LUX(star), 0LUX (sensed infrared)
- 120 times zooming: 10:1 optical zoom, 12:1 digital zoom
- Auto focusing, manual adjustable is available
- Resolution: NTSC: 530 (TV Lines)
- 360 degree rotation, one key center function laser measurement gauge

Crawler:

- Suitable pipe diameter: 100mm~600mm
- Drive: two* 20 DC motor
- Inclination: measurement scope ± 45 degree, precision 0.1 degree
- Speed: adjustable speed, max. 32m/min
- Direction: forward, backward, left, right
- Pressure indication: green light(1.2-1.5 bar, normal pressure), red light abnormal light.
- Climbing: max. climb degree about 50° according to different pipe status
- Rear sight camera: integrate camera and light, inspect crawler backwards
- and cable retrieving
- Water proof: to IP68
- Working temperature: $-10^\circ\text{C} \sim 50^\circ\text{C}$



Controller:

- Controls the crawlers speed, direction, light intensity,
- camera focus, rotation, camera movement, clutch control,
- auxiliary light controls.
- Displays: Date, time, inclination, data, with text editing facility.
- 8inch color LCD screen and Win7 system
- built-in 128G SSD hard disk and record image in JPG, video in AVI format
- keyboard for text writing
- AC 110V, 60Hz, NTSC/PAL modes
- Remote control app. Available.
- The pipe video software inside the system can help you review the info you want, such as data, video, inclination, pressure and camera status.
- Weight: 18kg,
- Dimension: 510mm*485mm*295mm

Auto cable reel:

- Automatic cable drum, three modes to allow for the drum to wind up when the
- Crawler is not moving and vice versa, mode 3: cable retrieving only
- Standard cable length 200m, 300m is available.
- 6mm, multi-core cable, with Polyurethane sleeve and Kevlar reinforced.
- Adjustable handle for ease of transportation
- Weight: Approx. 50kg

4" wheel set (4pcs):

- ID : 135mm
- For 150-600mm pipe

3" wheel set (6pcs):

- ID : 86mm
- For 150-300mm pipe

Toos and Accessories(set):

- Including wheels, manhole hook, special rope, guide pulley, etc.

