

rausch_{USA}

Product Catalog

Rausch Pipe Inspection Systems

QuickLock Point Repair

minCam Push Cameras

www.rauschusa.com

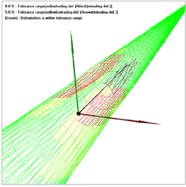


Mainline Camera & Crawler

This crawler is the core of the Rausch modular system. The mainline pan & tilt camera features infinite rotation and high-power LEDs.

(Page 2-3)

Application range: 5.5" to 78" pipe diameter

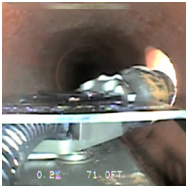


Mainline Laser Pipe Profiling

The 3-in-1 KS 135 Scan camera performs conventional CCTV inspection, laser pipe profiling and crack/joint measurement.

(Page 4)

Application range: 8" to 72" pipe diameter



Lateral Launching

The Rausch lateral launch system launches a pan & tilt lateral camera up to 160 ft. directly from the mainline.

(Page 5-6)

Application range: 6" to 60" pipe diameter



MOBILE pro Portable System

Our portable system features a crawler capable of matching performance to full systems in a compact and mobile unit & up to 1000' of cable.

(Page 8)

Application range: 4" to 78" pipe diameter



Cable Reels & Vehicle Systems

All Rausch systems can be fully customized in the vehicle of your choice with our motorized cable reels.

(Page 9-10)



QuickLock Pipe Point Repair

QuickLock Point Repair is the most reliable point repair system for sewer and water lines. Augments structural integrity of pipe.

(Page 11-14)

Application range: 6" to 32" pipe diameter



Push Systems

Our minCam push systems are portable and versatile, ranging from a 0.5" camera to a 2.2" camera with 400 ft. of push rod.

(Page 15)

Equipment available for 0.6" to 16" pipe diameter

360 Pan/Tilt Push System

The 360 pan/tilt push system features a 2" pan tilt zoom camera with tri-band sonde and 200 or 300 feet of push rod.

(Page 16)

Equipment available for 3" to 16" pipe diameter

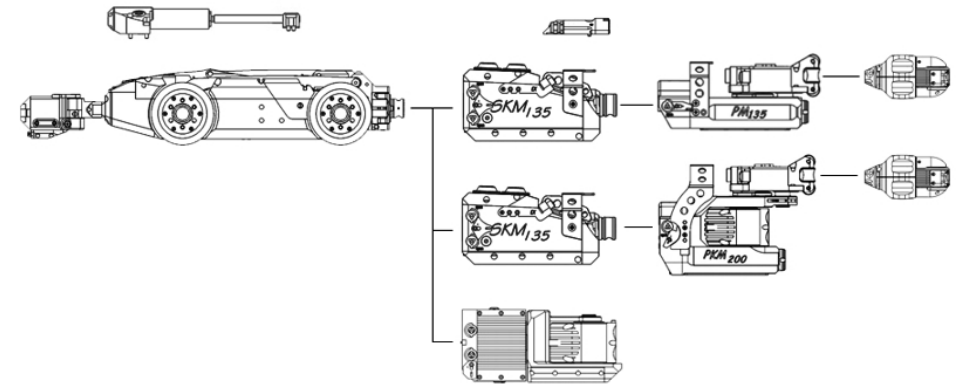


rausch_{USA}

One Crawler Platform for Many Applications

The highly modular Rausch M-Series pipe inspection system was designed around the 4-wheel drive steerable camera/crawler platform L 135. Each camera and module is interchangeable via the Rausch "quick-connect" connector.

Just one crawler is used for many different pipe inspection applications. All customers maintain the cost-saving option to upgrade their inspection system based on their changing business demands.



www.rauschusa.com



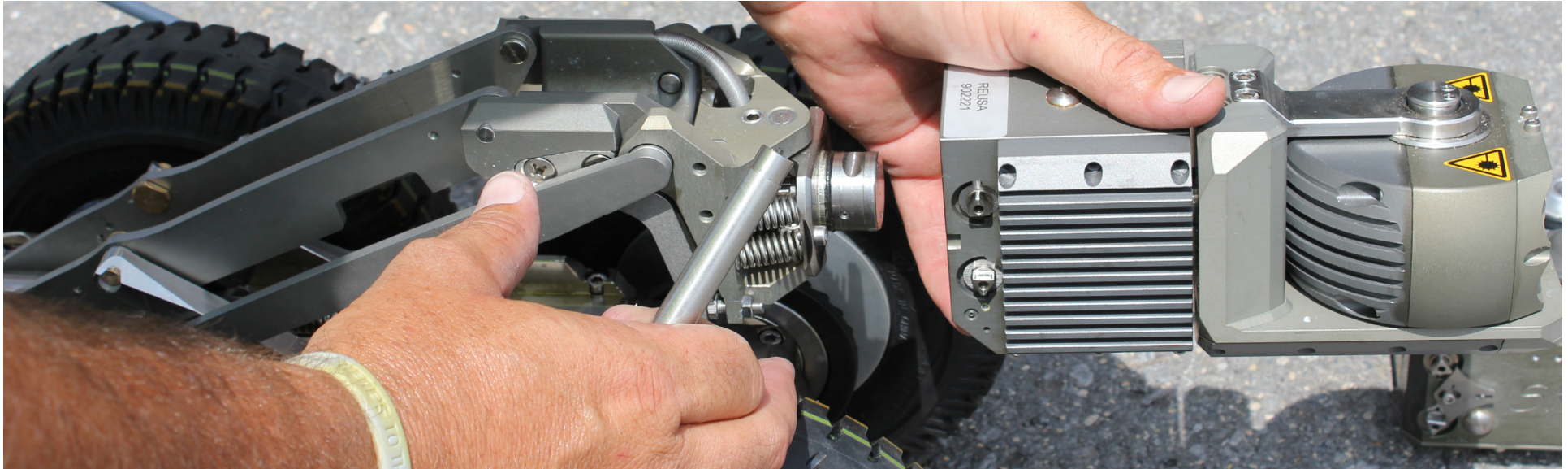
The L 135 Crawler

Application Range: 5.5" to 78" Pipe Diameter

- Studio controlled electric lift
- Two powerful motors for steerable 4-wheel drive
- Anti-rollover feature with on/off control
- Variable speed, joystick controlled
- Inclination sensor
- Weight: 43 lbs.; Length: 20.5"; diameter: 5.4"
- Material: anodized brass, fully CNC-machined from a solid block
- Nitrogen-pressurized for leak protection with sensor-leak detection
- Stackable tires can be placed over currently equipped tires for faster set up
- Optional: integrated sonde (512 Hz or 33 kHz)
- Optional: integrated rear-view camera
- Optional: additional weights (maximum of 70 lbs.)

Lafette required for inspection up to 78"

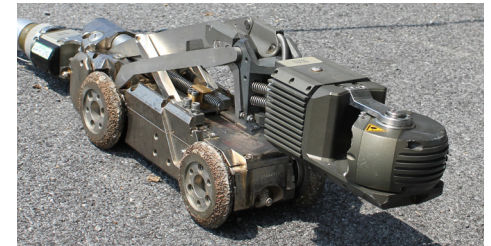




Mainline Camera KS 135

Application Range: 5.5" to 78" Pipe Diameter

- 280° pan, infinite 360° rotation
- Auto & manual focus
- Auto & manual iris
- 10X Optical Zoom and 12X Digital Zoom (120:1)
- Auto-homing
- 4 long range high-power LED lights
- 6 short range high-power LED lights
- "Quick-connect" mechanical connector with protected contacts
- Nitrogen-pressurized for leak protection with sensor leak detection
- No exposed wires, cables, or contacts
- Directly mounted additional lighting on camera head, there are no exposed wires
- Standard integrated lasers for crack and joint measurement (POSM Required)

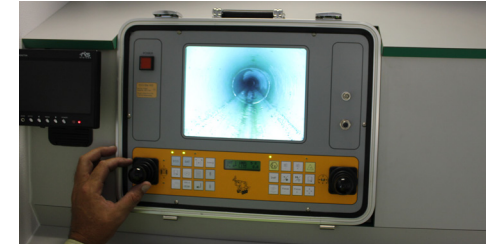
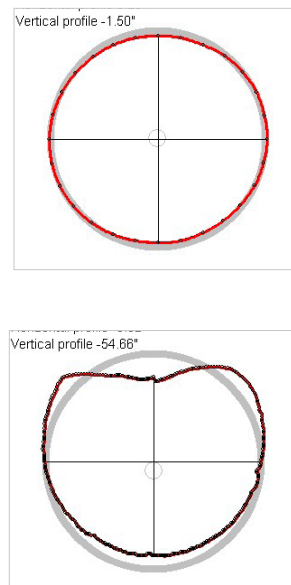
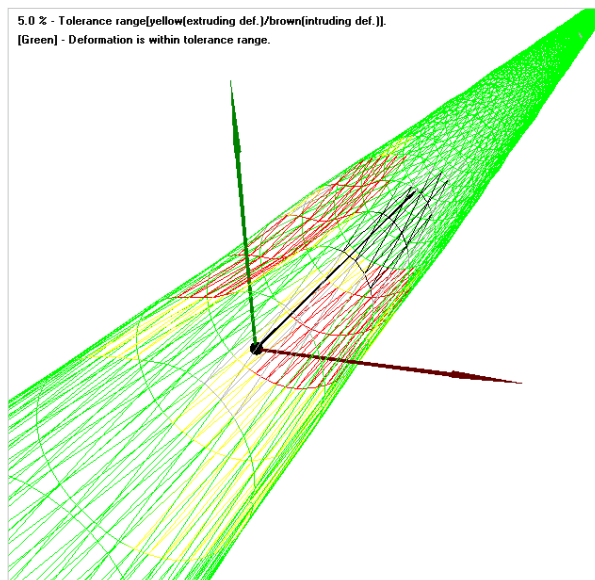


Laser Pipe Profiling

The Rausch Laser Profiler features two laser diodes integrated in the camera head. These laser diodes project laser dots onto the inner pipe wall. Using "spinning laser" technology, the camera head rotates to measure the diameter and all changes via triangulation calculations. Working in conjunction with the POSM Pro software, the comprehensive scan generates easy-to-use reports to profile the pipe.

3-in-1 System

CCTV Inspection Camera
Laser Pipe Profiling
Joint & Crack Measurement



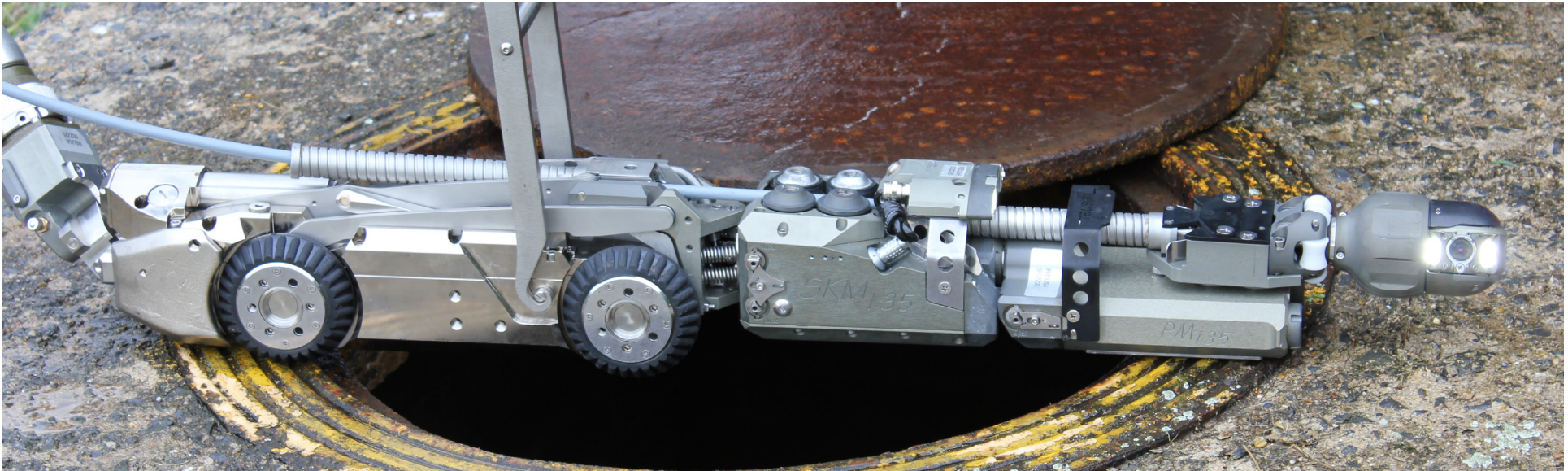
KS 135 Scan

Application Range: 8" to 72" Pipe Diameter

- 2 lasers diodes for pipe profiling and crack measuring
- POSM Pro pipe inspection software
- Direct & highly accurate measurements
- Instant & final reports on site
- No third party analysis
- No field calibration
- Nitrogen pressurized camera module with sensor leak detection
- Compatible with Manhole Inspection upgrade for Elka reel



Watch Video



Lateral Launch System

Application Range: 6" to 60" Pipe Diameter

The M 135 is a scalable lateral launch system. The system consists of the L 135 crawler, a push module (SKM 135), a positioning module (PM 135), an auxiliary camera (ZKM 135) and the lateral pan & tilt camera (KS 60 CL). For the inspection of laterals from large mainlines, simply attach large tires onto the crawler and the extension attachment.

- Up to 150 ft. of lateral push cable
- Up to 550 ft. of mainline camera cable
- Automatically synchronized cable reel
- Electronic distance counter
- "Quick-connect" mechanical connector to the crawler with protected contacts for extremely easy and quick setup.
- Auxiliary camera ZKM 135 for observation of launch
- Lateral launch against the flow, into 90°+ angles

KS 60 CL Pan & Tilt Lateral Camera

Application Range: 4" to 10" Lateral Pipe Diameter

- 300° pan, infinite rotation
- 6 high-powered LEDs
- Self-leveling picture during inspection
- Steering pin enabling it to negotiate branched laterals
- Launch up to 150 ft. into the lateral
- 512 Hz or 33 kHz sonde
- Nitrogen pressurized for leak protection and sensor detection
- Manual focus adjustment.

PM 135 & SKM 135 launch modules

- Launch into 90° T-connection
- Launch with or against the flow
- Launch into any lateral service in 360° vertical plane

SAT 40 Lateral Camera

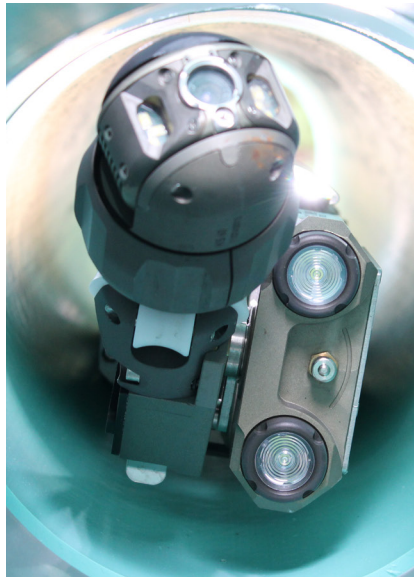
Application Range: 2" to 8" Lateral Pipe Diameter

- Auto-upright self leveling camera
- 136° fixed-focus field of view
- Launch up to 150 ft. into the lateral.
- 10 LED light ring
- 512 Hz sonde standard, 33 kHz optional

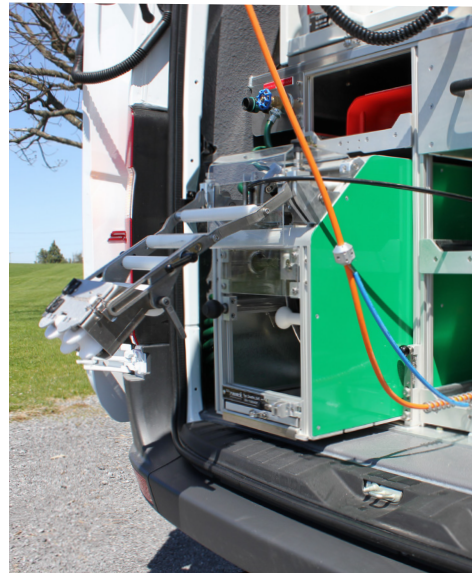
Quadtro SAT Motorized Cable Reel

Lateral cable reel used in conjunction with mainline reel.

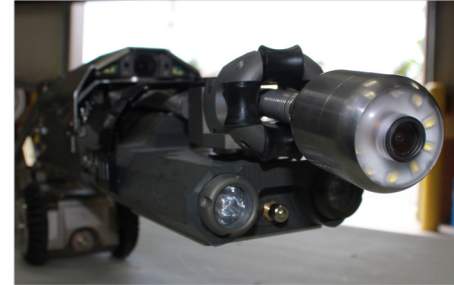
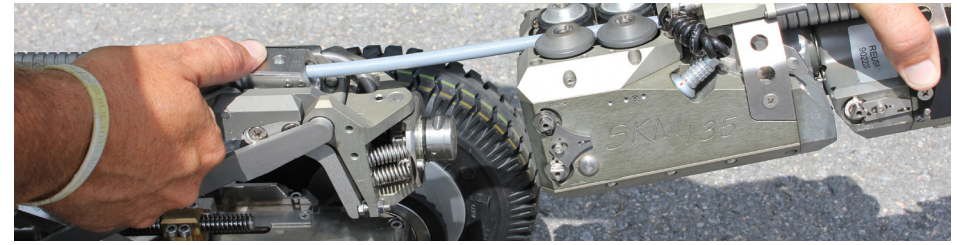
- Up to 550 ft. of main cable connects up to 150 ft. push cable.
- Synchronized to main reel and crawler
- Powerful electric motor
- Cross-lead spindle for neat cable winding
- Cable cleaning system
- Integrated electric and mechanical brake



KS 60 CL Pan & Tilt



QuadtroSAT motorized cable reel



SAT 40



Lateral Launch Jetting System

The Rausch Lateral Launch Jetting System (LLJ) uses water pressure to propel the pan & tilt KS 60 CL lateral camera through the lines. By utilizing a steering pin, the LLJ launches into laterals from the mainline and can negotiate branched laterals.

Range: 6" to 60" Pipe Diameter



ECO STAR 400 System Control Unit

- Portable or built in
- Two joysticks for controlling crawler & camera
- Compact hard case design
- Powers up to 1,300 ft. of main cable
- Powers up to 550 ft. of lateral cable
- Integrated 10 inch monitor
- Controls mainline, lateral launching, laser profiling, and joint pressure testing equipment
- Built-in command functions



RCA Proline System Control Unit

Advanced and powerful system with capability to power up to 1,700 ft. of main cable.

- Built-in only
- Powers up to 1,700 ft. of main cable
- Powers up to 550 ft. of lateral cable
- Two joysticks for controlling crawler & camera
- 19 inch modular rack
- Individual circuit board slots
- Integrated breaker circuits
- Temperature controlled environment
- Built-in command functions
- Extensive service and diagnostics menu

Controls mainline, lateral launching, laser profiling, and joint pressure testing equipment.



MOBILE pro Portable System

Application Range: 4" to 78" Pipe Diameter

The MOBILE pro control unit has a built-in 12" LCD monitor and digital video recorder. The crawler & camera are controlled via 2 multifunction joysticks.

- 7" touch display for system status and settings and built-in keyboard
- SD-Card slot for video and photo recording
- USB Port for macro and overlay control via external PC
- Swivel mount to cable drum Cubix 300
- Video output for external devices
- Locating sonde control for camera/crawler systems
- Dimensions: 16.5" x 12.6" x 6.25"

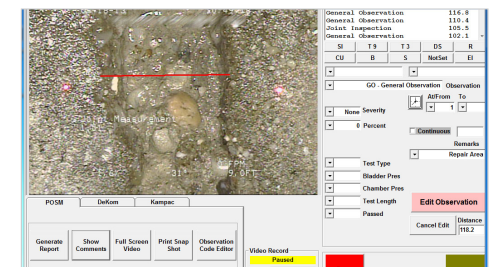
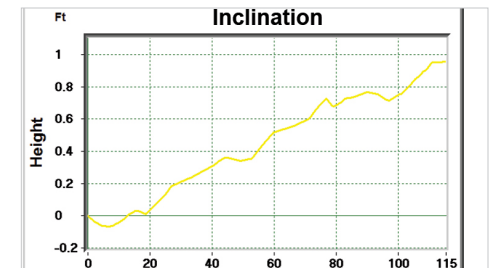
Two camera - crawler units are available:
C 135 + KS 135 C (6-78") and C 100 + KS 60 DB (4-24")

POSM Pro Inspection Report Software

- Gather real-time, NEMA, GPS X, Y and Z points for manholes and observation points
- Real time, interactive plot with picture and clip support.
- Full integration with Rausch ScanCam pipe profiling and lateral launching
- Available in PCI (encodes MPEG 1,2 and 4) and USB (encodes MPEG 4)
- Supports text to speech, eliminating the need for microphones
- Available in English or Spanish
- Works on rack-mount or laptop hardware



Project Name: Demo		
Date: 6/18/2013 10:30:00 AM		
Location:		
Length Surveyed: 120.4		
Run Number:		
Pipe Size: 15		
Asset ID: Upstream MH Number: 2		
Downstream MH Number: 1		
Direction Of Survey: Upstream		
Pipe Material: Concrete Pipe (non-reinforced)		
Distance	Fault Observation	Picture
5.0	Start Inspection	
7.0	Scan Cam Single Point Horz. Dimen: 0.09" Vert. Dimen: 0.22" 5th Dimension: 17.71 Dia.: 17.62	
7.0	Picture Number: 2 Scan Cam Single Point	





Elka 600 Motorized Cable Reel

- Up to 1,700 ft. of main cable
- Fully synchronized
- Powerful electric motor
- Cross-lead spindle for neat cable winding
- Cable slack detection
- Auto cable payout
- Integrated electric & mechanical brake
- Integrated telescopic crane
- Electric chain hoist
- LED overhead spot light
- Cable guiding system
- Cable cleaning system
- Emergency stop button
- Rack mounted with drawer and slide

Mainline Motorized Reels

Alpha 150

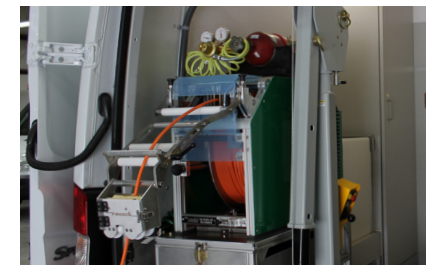
- Entry level reel
- Up to 550 ft. of main cable
- Compact design

Quadtro 300

- Standard reel
- Up to 1,000 ft. of main cable
- Ergonomic design

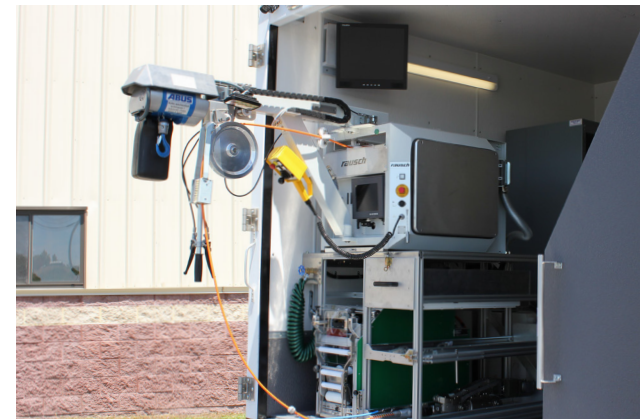
Elka 600

- Advanced reel
- Up to 1,700 ft. of main cable
- Telescopic swivel arm & chain lift to raise and lower equipment into the manhole
- Available module upgrade to perform Manhole Inspections





Sprinter Walkthrough



Box Truck



Trailer

Vehicle Systems

All systems feature fully customizable components and layout options in vehicle installations.

Vehicle Options:

- High-cube box truck
- Mercedes Sprinter, Ford Transit, or Nissan Van
- Trailer
- Mobile Units
- Retro Install

Features:

- Generator, battery, or inverter powered
- Air conditioned control room
- Integrated POSM computer system
- Rack-mounted cable reel system

Fully customizable by customer choice



Sprinter Proline

QUICK LOCK

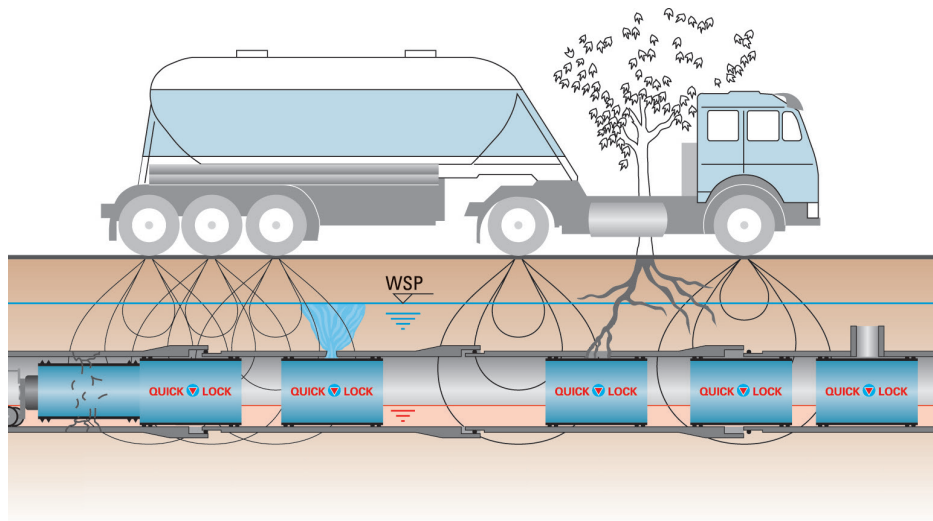
QuickLock Pipe Point Repair

How it works

QuickLock is a trenchless no-dig point repair system for pipes. This revolutionary system consists of only (2) components: a 316L stainless steel sleeve structural body, covered by a seamless rubber compression seal.

Important: No chemicals or resins are used - no cure time!

Through the manhole, the sleeve is inserted into the pipe and delivered to the damaged section. The sleeve is mechanically compressed against the inner pipe wall. Using an inflatable packer, the sleeve is then expanded and permanently locked into position.



Advantages over other systems

- Trenchless no-dig spot repair
- Permanent, reliable and instant fix
- Passes air & water pressure testing
- Reinstates structural strength & integrity of pipe
- Can be installed with flow present
- Quick and easy installation - no cure time
- Inner pressures up to 214 psi (1.5 MPa)
- External pressures up to 21.4 psi
- Can be lined over.

**Meets ASTM
F3110-14 Standard**



**Certified to
NSF/ANSI 61**

Application For

- Municipal sewage lines
- Well and potable water piping systems
- Leaking joints
- Root intrusion
- Cracks and holes
- Seals laterals
- Augment structural integrity of pipe prior to lining

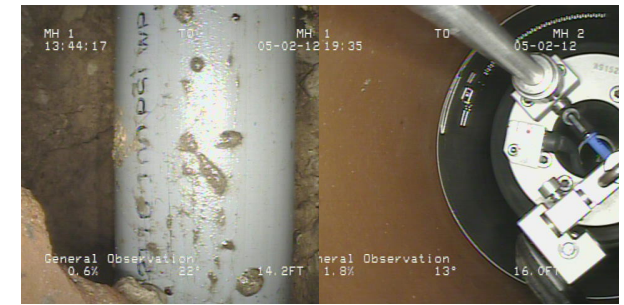
Equipment Involved

- Air compressor
- Air hose reel
- QuickLock sleeve
- QuickLock packer
- Camera - Crawler
- Mounting accessory (for camera - crawler)

Product Data Sheet

Nominal Diameter	Sealing Length	Packer Size	Part Number
6"	11.5"	6-8" Packer	HG6470
8"	11"	8-12" Packer	HG6471
10"	11"	10-12" Packer	HG6472
12"	10.5"	10-12" Packer	HG6473
15"	10.5"	14-18" Packer	HG6482
16"	10.5"	14-18" Packer	HG6474
18"	13"	14-18" Packer	110486
20"	13"	20-24" Packer	HG6475
24"	13"	24-28" Packer	HG6481
28"	11"	24-28" Packer	110386

Intermediate sleeve sizes are available upon request. Please consult the official QuickLock Data Sheet for exact minimum and maximum pipe diameter requirements for each sleeve size.





Installation Process

1. Determine if correct application for QuickLock
2. Determine damage length
3. Prepare the QuickLock sleeve
4. Load the sleeve on the QuickLock Packer
5. Deliver the QuickLock sleeve to the installation
6. Inflate the Packer to install the sleeve

Locking Gear Mechanism

One gear unit is positioned at each end of the steel sleeve and runs through a saw tooth channel. Using the packer to expand the sleeve, the gear works like a one way ratchet. Upon reaching maximum compression, both gears lock into place and stay locked permanently.

QuickLock Sleeve Materials

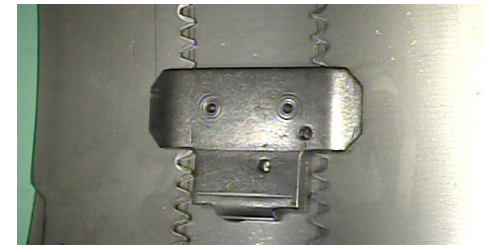
The QuickLock sleeve body is made of 316L stainless steel. The sleeve maintains high corrosion resistance, which means it functions in sewage as well as potable water. This sleeve is the new interior of the pipe, and will reinstate the structural integrity.

The vulcanized EPDM rubber sealing gasket distinguishes itself with these excellent physical properties:

- Resistance against aging
- Resistance against sewage, thinned acids, and lye
- Conditionally resistant against aromatic and chlorinated hydrocarbons (oils, grease, fuels)

Different gasket materials are available for individual environmental conditions.

NSF/ANSI 61 certified silicon rubber seal for potable water.





QuickLock Liner End Sleeve

The QuickLock Liner End Sleeve is an innovative method to seal and protect pipe liners where they connect to the manhole.

This system instantly and permanently eliminates 2 major problems after a pipe liner is installed:

- It fully seals the liner to the host pipe, preventing inflow along the liner running into the manhole
- It protects the liner end section from potential physical damage caused by a root cutter or jetting nozzle

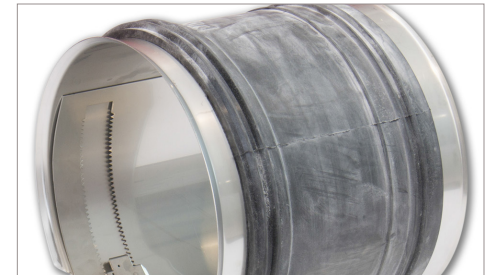
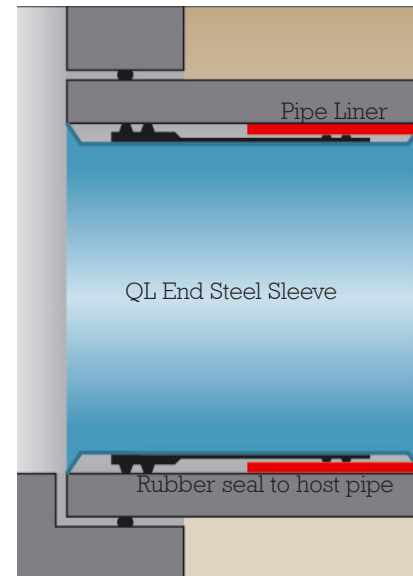
Any liner installation without liner-end pieces in place are almost always subject to failure.

Range: 6" to 24" Pipe Diameter

QuickLock BIG

The QuickLock BIG sleeve is a product to permanently seal leaking joints and radial or longitudinal cracks in accessible ducts and shafts from 32" to 64". Unlike the QuickLock installations where an inflatable packer is involved, however, this installation is a manual process - the installer must get inside the pipe to install QuickLock BIG. Special QuickLock BIG tools are required for installation.

Range: 32" to 64" Pipe Diameter





Push Camera Systems

Rausch USA has partnered with minCam to offer their industrial grade push camera systems.

- minCord - compact hand-held system with 1/2" diameter camera
- mc Series - fundamental single-reel camera systems with four different cable/camera combos for a wide variety of applications
- mc Duo Series - two systems combined into a single unit, features dual reels & cameras to cover a range of applications
- minCam360 - 360° pan & tilt push camera with 4-step digital zoom and tri-band sonde



Specifications

System	Cable	Camera	Range
minCord	50 ft. Push/Pull cable	KK13	0.6" - 3"
mc15	100 ft. 5.6mm cable	KK18	1.2" - 5"
mc30	100 ft. 6.7mm cable	KK29SL self-leveling	2" - 8"
mc50	200 ft. 9.2mm cable	KK55SL self-leveling	3" - 16"
mc80	425 ft. 11.2mm cable	KK55SL self-leveling	4" - 16"
mc30 Duo	Inner: 50 ft. Push-Pull Outer: 100 ft. 6.7mm	Inner: KK13 Outer: KK29SL	0.6" - 8"
mc50 Duo	Inner: 65 ft. 6.7mm Outer: 200 ft. 9.2mm	Inner: KK29SL Outer: KK55SL	2" - 16"

Please request a minCam Product Catalog for more information.

minCam360 Pan & Tilt Push System

The minCam360 push system is equipped with an innovative pan & tilt push camera. The extremely small and short 360° pan & tilt camera head allows the viewer to see in all directions, and even steer into branches with the RID steering skid.

System Specifications

- 200 ft. (60m) of 9.2mm fiberglass push cable (up to 300 ft.)
- Integrated dual-band 512Hz/33kHz sonde
- Electronic on-screen distance counter
- 2 removable Lithium Ion batteries for 4+ hours operation
- Power Supply: 100 - 240V AC; 12V DC Car adapter
- Lightweight stainless steel and carbon reel cage
- Mechanical reel brake
- Control unit: On/off switch, light regulation, sonde frequency control, preset camera macros, BNC video out
- Wireless remote control with joystick for pan & tilt, 4X zoom control, light regulation, preset camera macros
- Weight: 49 lbs.; Dimensions: 23" x 26" x 12" (L x H x W)

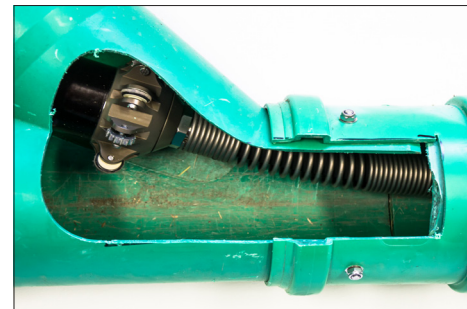


Monitor & Recording

- 8.4" TFT LCD sunlight readable, records video, voice and photo
- Pelican® Storm Case heavy-duty housing
- SD card reader, max 32 GB for approx. 20 hours of video
- MPEG-4 Video (.avi, 800x600); Pictures (.bmp 640x480)
- Integrated Qwerty keyboard text generator

SK50 Pan & Tilt Camera

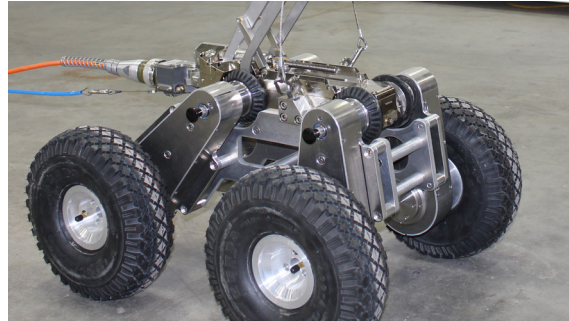
Range	3" - 16" (70-400mm)
Pan & Tilt	Infinite 360° pan / tilt range - 150° viewing angle
Zoom / Focus	4-step digital zoom / automatic mechanical focus
Video Quality	High-resolution 520 TVL
Lighting	10 self-adjusting "smart" LEDs
Lens	3.5mm sapphire glass
Water Tight	Up to 85 psi
Outer diameter	1.96" (50mm)
Cylindrical length	1.25" (32mm) / Full length: 3.2" (80mm)



Accessories



L 135 Tires



L 135 Lafette Carriage



KS 135 Height Extension



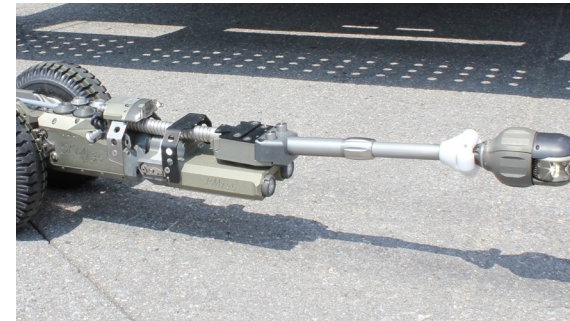
KS 60 CL Roller Cage



Manhole Inspection



L 135 Egg Profile Adapter



Lateral Launch Height Extension



KS 60 CL Steering Pins



L 100 Cross with KS 60 CL camera























Elka 600 Foot Control



Deflection/Pulley 6/8"



KAMPAC Joint Pressure Testing

	 RCA Proline <i>Up to 1,700 ft.</i>	 ECO STAR 400 <i>Up to 1,300 ft.</i>	 Alpha 150 <i>Up to 500 ft.</i>	 Quadtro 300 <i>Up to 1,000 ft.</i>	 Elka 600 <i>Up to 1,700 ft.</i>	 Quadtro SAT <i>Lateral launch</i>	 L 100 Cross	 L 135	 Lafette carriage <i>24" - 72"</i>	 Electric lift	 KS 135	 KS 135 Scan	 M 135	 SAT 40 <i>Lateral camera</i>	 KS 60 CL	 MOBILE pro <i>portable inspection system</i>	 POSM Pro	 Box Truck	 Van	 Trailer
Mainline <i>4"-16"</i>	•	•	•	•	•		•								•	•	•	•	•	•
Mainline <i>6"-72"</i>	•	•	•	•	•			•	•	•	•	•				•	•	•	•	•
Lateral Launch <i>6"-60"</i>	•	•		•	•	•		•		•			•	•	•		•	•	•	•
Lateral Jetting <i>6"-60"</i>	•	•		•	•	•		•		•			•	•	•		•	•	•	•
Pipe Profiling <i>8"-72"</i>	•	•	•	•	•			•		•		•					•	•	•	•
Crack measurement	•	•	•	•	•			•				•				•	•			
Inclination measurement	•	•	•	•	•		•	•								•	•			
Manhole inspection	•	•			•						•	•					•	•	•	•
Joint pressure testing	•	•	•	•	•			•			•	•			•		•	•	•	•
Lateral pressure testing	•	•													•		•	•	•	•
QuickLock no-dig point repair	•	•	•	•	•			•			•	•				•	•	•	•	•



Our Mission: To provide advanced and innovative products for pipe inspection and point repair that match the ever-changing and evolving demands of success-oriented customers.

Where reliable fast service and repair are guaranteed.

Your authorized Rausch dealer:

Rausch Electronics USA, LLC.

16866 Opportunity Ave.
Chambersburg, PA 17201

Email:	reusa@rauschusa.com
Office:	(717) 709-1005
Toll Free:	(877) Rausch1
Fax:	(717) 709-1009
Service:	(717) 263-8093

Rausch, QuickLock, and minCam products are distributed through authorized regional dealers or sold direct.

© 2017 Rausch Electronics USA, LLC
All rights reserved. All provided information
and specifications are subject to change without
notice.
Edition: 01/2018

www.rauschusa.com