



**RapidView**<sup>®</sup>  
IBAK North America



**1945**  
IBAK  
Founded



**1968**  
First  
Camera  
Tractor

**1989**  
First  
Reporting  
Software



**1993**  
First  
Always  
Upright  
Pan & Tilt

First  
Sewer  
Camera  
**1957**

First  
Pan & Tilt  
Camera  
**1980**

First  
Lateral  
Launch  
Robot  
**1993**

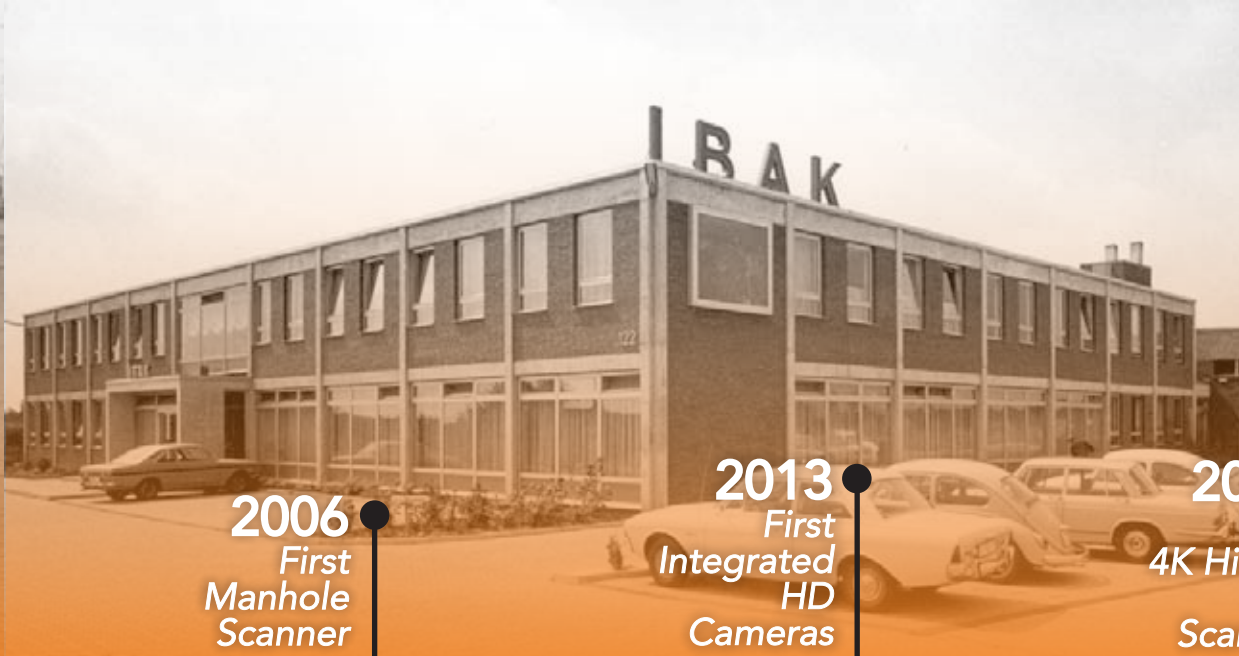
First  
Pan & Tilt  
for 4"  
(100mm)  
**1996**

**YOU CAN TRUST THE COMPANY  
THAT INVENTED THE INDUSTRY.**

**RapidView**  
IBAK North America



**2000**  
First  
Pan & Tilt  
Push  
Camera



**2006**  
First  
Manhole  
Scanner



**2013**  
First  
Integrated  
HD  
Cameras



**2018**  
First  
4K Hi-Res  
3D  
Scanner

First  
3D Optical  
Scanner  
**2002**

First  
Integrated  
Rehab  
Robots  
**2013**

First  
Built-In  
3D Sensor  
**2016**

First  
HD/SD  
Adaptive  
Camera  
**2019**

**"We are what we repeatedly do. Excellence then, is not an act, but a habit." -Aristotle**

We understand that our customers have many choices when it comes to pipeline inspection and rehabilitation equipment. We work hard to ensure that the equipment we provide is designed to do the job it was intended for and that it was manufactured to the highest quality standards.

Providing the best equipment is the first step in making sure our customers are successful. Providing best in class after-sales support, and our commitment to continue that support for years to come, is what truly sets us apart from the competition.

We come from a contracting background. Pumping septic tanks, installing pipe, inspecting pipe.... the company was founded by people who got their hands dirty. Our founders realized that there wasn't a good source for pipeline inspection equipment, or a company living up to the minimum standards of service after the sale. That's why we started RapidView IBAK North America, and it is why we work hard every day to make sure that our customers have what they need to be successful.

- The RapidView Team



**AXIALCAM® 1.0 / 2.0**  
Standard Definition



**NANO®**  
Standard Definition



**NANO-L®**  
Standard Definition



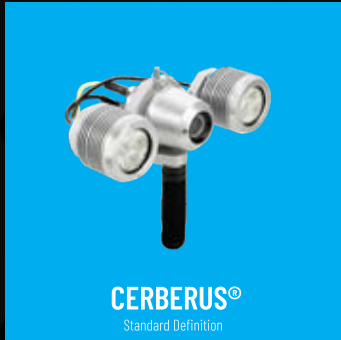
**ORION® 3 HD**  
Available in Standard Definition



**ORION-L® 3 HD**  
Available in Standard Definition



**RETRUS®**  
Available in Standard Definition



**CERBERUS®**  
Standard Definition



**ORPHEUS® 2.0**  
Standard Definition



**ORPHEUS® HD**



**ARGUS® 6 HD**



**T66®**  
Available in Standard Definition



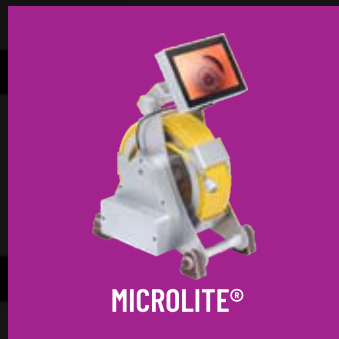
**T76®**  
Available in Standard Definition



**PANORAMO® 2**



**PANORAMO® 150**



**MICROLITE®**



**T86®**  
Available in Standard Definition



**LISY® 3.2**  
Available in Standard Definition



**PANORAMO® SI**



**PANORAMO® SI PORTABLE**



**MINILITE®**



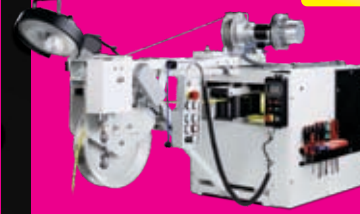
**KT 156<sup>®</sup>**



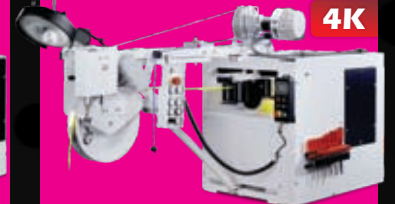
**KW 206<sup>®</sup>**  
Standard Definition



**KW 306<sup>®</sup>**  
Standard Definition



**KW 305<sup>®</sup> / KW 310<sup>®</sup>**  
Standard Definition   / HD Compatible



**KW 505<sup>®</sup>**  
SD / HD / 4K Compatible



**BP 1/2/100<sup>®</sup>**  
Standard Definition



**BS7-R<sup>®</sup>**



**MICROGATOR<sup>®</sup> 2.0**



**MICROGATOR<sup>®</sup> AIR**



**MICROGATOR<sup>®</sup> GT**



**BP 10<sup>®</sup>**  
Standard Definition



**BS 3.5<sup>®</sup> / BS 7.0<sup>®</sup>**  
Standard Definition   / HD / 4K Compatible

**HD**



**IKAS<sup>®</sup> EVOLUTION**



**3D GEOSENSE<sup>®</sup>**



**LASERSCAN**



**MAINLITE BOX**



**UTV / ATV**



**TRAILER**



**CARGO VAN**



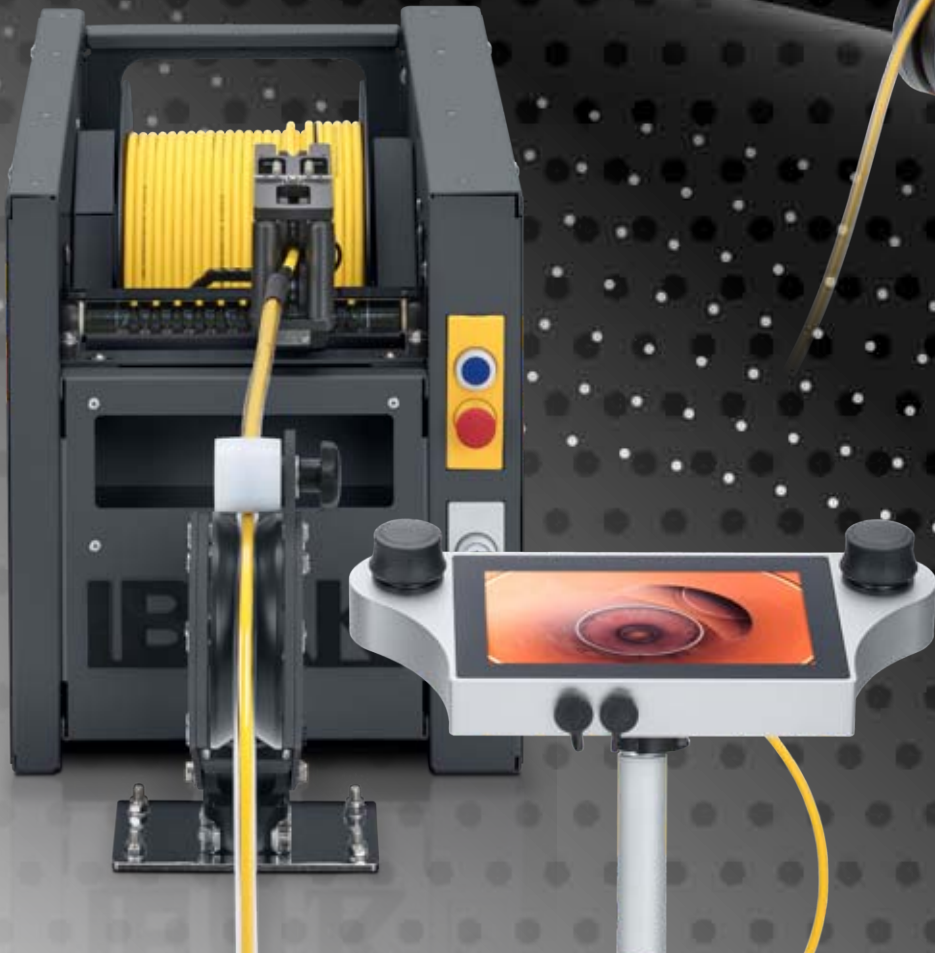
**BOX TRUCK**

## COMPACT & PORTABLE

The MainLite is based around two very compact cable drums (KW206/KW306) and the BP series multi-function computer controllers. The entire unit can be mounted in a truck, trailer, or UTV, or used in portable applications with the portable cart. Whether you are a small town, large municipality, or contractor, the MainLite System is adaptable, capable, and ready to go at the push of a button!

### Highlighted Features

|                                 |  |
|---------------------------------|--|
| BP 100 Controller               | Touch screen, built-in Windows 10      |
| Recording                       | Built-in capture card + software       |
| Portability                     | Cart with large wheels                 |
| Tractors                        | Compatible with T66 & T76              |
| KW 206                          | 656' (200m), power rewind, level wind  |
| KW 306                          | 1000' (300m), power rewind, level wind |
| Compatible with MicroGator® AIR |  |



Perfect for portable applications, the MainLite **Portable Cart** provides a cushioned seat and ergonomic mount for the BP controller.

You can turn your MainLite System into a complete **cutting system** by simply adding an air compressor, hose, and the MicroGator® Air!



## MICROLITE® PUSH SYSTEM

The MicroLite is a small, lightweight push system that is very compact and easy to use. It is equipped with 100' (30m) of pushrod cable and two rechargeable batteries, making it ideal to carry directly into work sites. The system is designed to be used with the hard-mounted AxialCam 1.0 or the removable AxialCam 2.0 camera, as well as any of the BP Portable Controllers (BP1/2/100).

BUILT-IN  
WINDOWS PC

10" HIGH-DEF  
TOUCH SCREEN

RECHARGEABLE  
BATTERIES

## MINILITE® 2.0 PUSH SYSTEM

The MiniLite 2.0 Push System is a compact and versatile platform for inspection of small diameter sewer lines. With a bright 10" touch screen (BP 2 Controller) and a built in Windows PC, this controller is ready right out of the box. The multi-function joystick allows precise control of pan & tilt cameras, and with continuous rotation built-in, you won't have to worry about over-rotating your camera. This system is compatible with POLARIS, NANO, NANO-L, ORION (3x Digital Zoom), ORION-L (3x Digital Zoom), and AXIAL cameras.

The **AxialCam 1.0** is permanently mounted to 100' (30m) of pushrod cable. Capable of inspecting 2" (50mm) pipelines, it is the smallest of the IBAK cameras and designed to be used with the MicroLite Push System. Bright LED lighting and auto-uprighting features mean you don't have to sacrifice image quality or performance in this small package.

The **AxialCam 2.0** includes LED lighting, electronic upright picture control, auto focus, and the ability to inspect 3" pipelines and up. This camera is designed specifically for our pushrod systems.



# CAMERAS

## NANO®

The NANO is compatible with a pushrod, tractor, or lateral launch and shares many features as the Orion Zoom, making it a very diverse, small diameter inspection camera.



## NANO-L®

The NANO-L works great in small diameter lateral launch scenarios and can also be utilized as a pushrod camera with the flexibility of the "Kiel stick."



## AXIALCAM 2.0®

The Axialcam 2.0 is designed specifically for our pushrod systems. Squeeze in and around small pipes with this pushrod camera's size and flexibility.



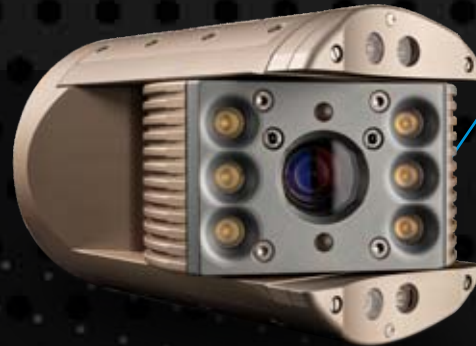
## ORION® SD / ORION-L® SD

While the ORION® SD may be small in size, this camera is not limited in applications. It is small enough to connect to our push rod, yet flexible enough to make it through tight laterals. It can also be attached to any of our IBAK crawlers and deployed into larger diameters. Features include pan & tilt, integrated location transmitter, auto up-righting, auto-iris, and adjustable focus.



## ORPHEUS 2.0®

The ORPHEUS 2.0 inspection camera is one of the most feature-rich standard definition inspection cameras on the market today. This mainline camera is designed for larger diameter pipes and is equipped with powerful lighting that can effectively illuminate pipelines up to 120" diameter. In addition, the ORPHEUS 2.0 has an integrated measuring system that can accurately determine the profile of the pipe. With many other incredible features on-board, the ORPHEUS 2.0 is the core to any standard definition mainline system.



# STANDARD DEFINITION

| Features              | AxialCam 2.0 | NANO      | NANO-L    | ORION SD    | ORION-L SD  | ORPHEUS 2                |
|-----------------------|--------------|-----------|-----------|-------------|-------------|--------------------------|
| Range (Diameter)      | 3" and up    | 3" and up | 3" and up | 4" and up   | 4" and up   | 6" and up                |
| Sonde Transmitter     | In Pushrod   | In Camera | In Camera | In Camera   | In Camera   | N/A                      |
| Pan & Tilt            |              | ●         | ●         | ●           | ●           | ●                        |
| Zoom                  |              |           |           | x16 Digital | x16 Digital | x10 Optical; x12 Digital |
| Auto-Iris             |              | ●         | ●         | ●           | ●           | ●                        |
| Always Upright Image  |              | ●         | ●         | ●           | ●           | ●                        |
| Auto-Focus            |              |           |           |             |             | ●                        |
| Laser Measurement     |              | ●         | ●         | ●           |             | ●                        |
| Pushrod Capability    | ●            | ●         | ●         | ●           | ●           |                          |
| Lateral Navigation    |              |           | ●         |             | ●           |                          |
| E-Flip                |              |           |           |             |             | ●                        |
| High Definition Video |              |           |           |             |             |                          |





### ORION-L® 3 HD/SD

The ORION-L® 3 adds our unique lateral navigating stick, allowing you to choose direction and "steer" into and around pipe fittings. It's perfect for industrial applications or lateral launching with full HD capability.

### ORION® 3 HD/SD

The ORION® 3 is an HD/SD adaptive zoom camera that can provide a full HD image (1920x1080), an HD image (1280x720) or an SD image (720x576). Once connected to your system, it will automatically detect your system capabilities and output the best quality image that your system will allow.



### ORPHEUS® 2 HD

The ORPHEUS® 2.0 HD camera offers many exciting features and incredible HD picture clarity, all while delivering enough clean, bright LED light to illuminate huge areas. Don't settle for low-resolution inspections when you can leverage the quality of your service like never before with the ORPHEUS® 2.0 HD.

### ARGUS® 6 HD

The ARGUS® 6 HD combines many of IBAK's proven features into one single camera. Full HD resolution, ROTAX® pan mechanism, automatic lighting control system, and one-push auto-focus ensure that you will always have the best possible view and is equipped for a wide variety of uses.

## H I G H D E F I N I T I O N

### WHY HD?

The purpose of all CCTV systems is to capture images that allow system owners to make important rehabilitation decisions, so why settle for low-resolution inspections? Give system owners the information they need in full HD Resolution and avoid blurry out of focus pictures. If you're wishing to leverage the quality of your video data and services, our line of HD cameras is for you!

| Features              | ORION-L 3               | ORION 3                 | ORPHEUS 2 HD             | ARGUS 6     |
|-----------------------|-------------------------|-------------------------|--------------------------|-------------|
| Range (Diameter)      | 4" and up               | 4" and up               | 6" and up                | 8" and up   |
| Sonde Transmitter     | In Camera               | In Camera               | N/A                      | N/A         |
| Pan & Tilt            | ●                       | ●                       | ●                        | ●           |
| Zoom                  | x2 Optical; x16 Digital | x2 Optical; x16 Digital | x10 Optical; x12 Digital | x16 Optical |
| Auto-Iris             | ●                       | ●                       | ●                        | ●           |
| Always Upright Image  | ●                       | ●                       | ●                        | ●           |
| Auto-Focus            |                         |                         | ●                        | ●           |
| Laser Measurement     |                         | ●                       | ●                        | ●           |
| Pushrod Capability    | ●                       | ●                       |                          |             |
| Lateral Navigation    | ●                       |                         |                          |             |
| E-Flip                |                         |                         | ●                        | ROTAX       |
| High Definition Video | ●                       | ●                       | ●                        | ●           |

## FUNCTIONALITY & FLEXIBILITY

IBAK tractors are designed and engineered to be compact and heavy allowing you to work in a variety of pipeline environments. While each tractor has its own unique strengths, you can easily make your decision based upon the expected inspection length required and the diameter of pipelines you will be inspecting. Compact, powerful, durable and agile, the T66, T76, and T86 tractors will provide you with years of dependable operation!

**T76 HD Tractor + ARGUS 6 HD Camera**  
Equipped with Large Pneumatic Wheels



*Wheelsets can be changed quickly, making it easy to adapt to any pipeline conditions!*

### T66

Small and agile, yet more powerful than other brands twice its size – the T66 tractor is the core of an effective inspection system for pipelines ranging from 4" (100mm) to over 24" (600mm) in diameter.

### T76

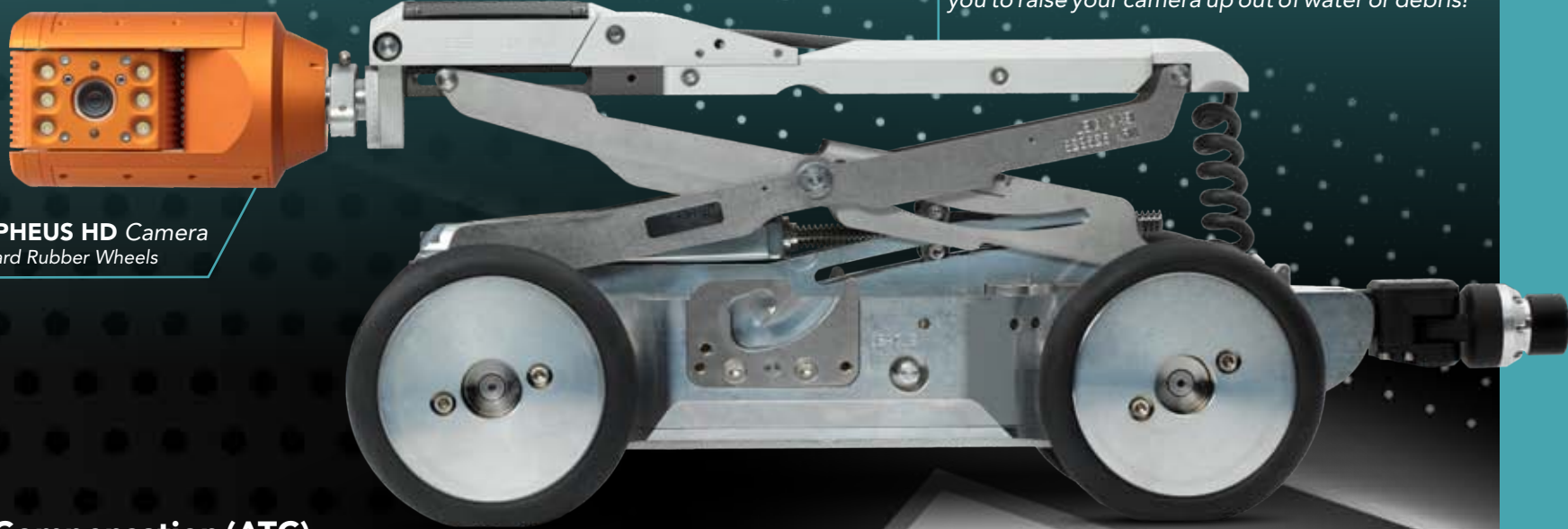
The T76 has the broadest range of any tractor system capable of inspecting pipelines 6" (150mm) and up, and also accepts the LISY Lateral Launch attachment making it a complete mainline and lateral launch solution!

### T86

Operate in the most demanding environments with the T86 tractor. Heaviest of the three IBAK tractors, the T86 is capable of pulling out more cable and traversing larger amounts of debris, making it perfect for storm lines or any larger diameter pipes.

| Features                       | T66                | T76                | T86                |
|--------------------------------|--------------------|--------------------|--------------------|
| Pipe Diameter                  | 4" (100mm)+        | 6" (150mm)+        | 8" (200mm)+        |
| Distance                       | Up to 1000' (300m) | Up to 1640' (500m) | Up to 2000' (600m) |
| Zero Radius Steering           | ●                  | ●                  |                    |
| 2-Axis Pivoting Connector      | ●                  | ●                  | ●                  |
| Auto Tilt Compensation (ATC)   | ●                  | ●                  |                    |
| Location Transmitter           |                    | ●                  | ●                  |
| LISY Attachment (optional)     |                    | ●                  | ●                  |
| Elevator Attachment (optional) | Manual             | Electric           | Electric           |

T76 /T86 elevators are remotely powered allowing you to raise your camera up out of water or debris!



**T86 HD Tractor + ORPHEUS HD Camera**  
Equipped with Standard Rubber Wheels

### Automatic Tilt Compensation (ATC)

One of the most unique technical features that IBAK steerable tractors provide is ATC - Automatic Tilt Compensation. An internal sensor recognizes when the tractor is beginning to climb the pipe wall and will automatically steer the tractor back to the center of the pipeline. This dramatically reduces the chances of time consuming and expensive repairs caused by flipping over during operation.

### Heavy By Design

Why should a tractor be heavy? Traction is only achieved by friction between the contact surface (wheel) and the pipe wall. Our systems pull longer distances and through slippery lines because we build them out of dense materials that provide the maximum traction!

### High-Definition

All IBAK tractors are available in high-definition. There are many possible configurations which allow you great flexibility and superior image quality!

**HD** CCTV  
HIGH DEFINITION SEWER CAMERAS



T66

T76

T86

# CONTROLLERS

## BP1 | BP2 | BP100 PORTABLE CONTROLLERS

The portable BP controllers are designed to be easy to use, economical and versatile all while being compatible with many different IBAK systems, including the MainLite compact cable reels, MicroLite and MiniLite push systems, and the MicroGator AIR. Each BP controller features a large 10" Windows PC touch screen with IKAS Recorder software pre-installed and can be mounted in a vehicle or on a mobile rack for off-road inspections. The BP2 and BP100 feature multi-directional joysticks for control of camera and tractor functions.





## BS 10 MAINLITE CONTROLLER

The BS 10 controller is designed for vehicle mounted installations of the compact KW206/306 cable drums. It features a keyboard surround with ergonomic joysticks, power on/off, microphone and six quick-keys for preset controls. A computer is required in order to run the BS 10 with KW206/KW306 cable drums.

| Controller Features                | Fiber Optic Controllers |       |        |        |        |
|------------------------------------|-------------------------|-------|--------|--------|--------|
|                                    | BP1/2/100               | BS 10 | BS 3.5 | BS 7.0 | BS 5.0 |
| Pushrod Control                    | ●                       | ●     | ●      | ●      | ●      |
| Portable w/ Digital Recording      | ●                       |       |        |        |        |
| Mounting                           | Portable or Fixed       | Fixed | Fixed  | Fixed  | Fixed  |
| Lateral Launch Control             |                         |       | ●      | ●      | ●      |
| Tractor Control                    | ●                       | ●     | ●      | ●      | ●      |
| PANORAMO Control                   |                         |       |        | ●      | ●      |
| Text Entry (On Screen Display)     | ●                       |       | ●      | ●      | ●      |
| Fiber Optic Reel Control           |                         |       |        | ●      | ●      |
| Up to 2000' (600m) Cable Supported |                         |       |        |        | ●      |
| High-Definition Capable            |                         |       |        | ●      | ●      |



## BS 5.0 MAINLINE CONTROLLER

The most powerful fiber optic controller is the BS 5.0. This controller is the only control system capable of performing inspection lengths of up to 2000' (600m), and utilizes a unique remote control panel that can be positioned in your workspace and control any piece of equipment quickly and easily.



## BS 3.5 / BS 7.0 MAINLINE CONTROLLER

The BS 3.5 controller and BS 7.0 controller both function and operate the same. The BS 3.5 is the standard control unit for mainline inspections, while the BS 7.0 is the standard fiber optic control unit. The BS 7.0 includes a larger power supply and supports high-definition cables and camera systems like PANORAMO. Both controllers feature a color LCD touchscreen where system information is displayed, and dual multi-axis joysticks that control camera and tractor movements, focus, iris, cruise control and lateral launch commands. The remote control board on these controllers acts as your diagnostic and control interface, making all system functions easily accessible.

## CABLE REELS - MAKING YOUR JOB EASIER

The cable reel is one of the most important pieces of the inspection system. IBAK's line of cable reels are designed specifically to work with IBAK equipment and to withstand the harsh environments you may encounter. All mainline cable is Kevlar reinforced and coated for protection. Our standard mainline cables have an incredibly strong pull strength, while our fiber-optic reels use special cable that is stronger and lighter than traditional coax cable. IBAK cable reels make your job easier with features like synchronized operation, automatic level winds, and remote controls.

### What is the difference between "powered" and "synchronized" cable retrieval?

All IBAK cable drums are capable of retrieving down-hole equipment quickly and efficiently. Cable drums with "synchronized" cable retrieval have a smart sensor on the boom which tells the drum to speed up or slow down according to cable slack. Drums with this feature require less monitoring and can increase the safety of personnel as well as your equipment. "Powered" drums lack this special sensor and are completely controlled by the operator.

Fiber Optic Cable Reels

| Features                | KW 206       | KW 306       | KW 305       | KW 310       | KW 505                       |
|-------------------------|--------------|--------------|--------------|--------------|------------------------------|
| Range (Distance)        | 656' (180m)  | 1000' (300m) | 1000' (300m) | 1000' (300m) | 1656' (505m)                 |
| Mainline Inspection     | ●            | ●            | ●            | ●            | ●                            |
| Cable Retraction        | Power Assist | Power Assist | Full Synchro | Full Synchro | Full Synchro                 |
| Built-In Lowering Winch |              |              | ●            | ●            | ●                            |
| Fiber Optic Capability  |              |              |              | ●            | ●                            |
| HD Operation            |              |              |              | ●            | ●                            |
| 4K Available            |              |              |              | ●            | ● <sup>1650'</sup><br>(500m) |

### KW 206 & KW 306

The KW 206 and KW 306 are designed to be compact, powerful, and easy to maintain. Both of these cable reels include an automatic level wind, powerful retrieval motor, rear tractor/winch controls, and an emergency stop switch. The only difference between the two is the cable length - the KW 206 offers 656' (200m) of cable while the KW 306 allows you to inspect up to 1000' (300m). An economical solution for most mainline inspections whether used as a portable system or mounted in a vehicle, trailer, or UTV. Also compatible with the MicroGator® AIR cutting system.



## KW 305

The KW 305 smart drum is the most popular IBAK reel for mainline and lateral launch inspections. Features include adjustable boom and optional work light, integrated power winch for lowering and retrieving equipment, automatic level wind, fully synchronized cable management, and a remote control pendant for tractor and lateral launch functions. Capacity is up to 1000' (600m) of high-strength cable.

## KW 310

The KW 310 maintains the same footprint and features of the KW 305, but can use up to 1000' (300m) of high-strength, low weight fiber-optic cable for use with HD cameras and PANORAMO.

## KW 505

Whether you're operating in standard definition or you want to perform HD or 4K inspections, look no further than the KW 505. This synchronized cable reel has all the same great features as the KW 310 and accepts up to 2000' (600m) of high-strength standard or fiber-optic cable. The KW 505 allows longer distance inspections and has the capability of transmitting data from HD cameras and PANORAMO.

### Smart Drum Synchronization

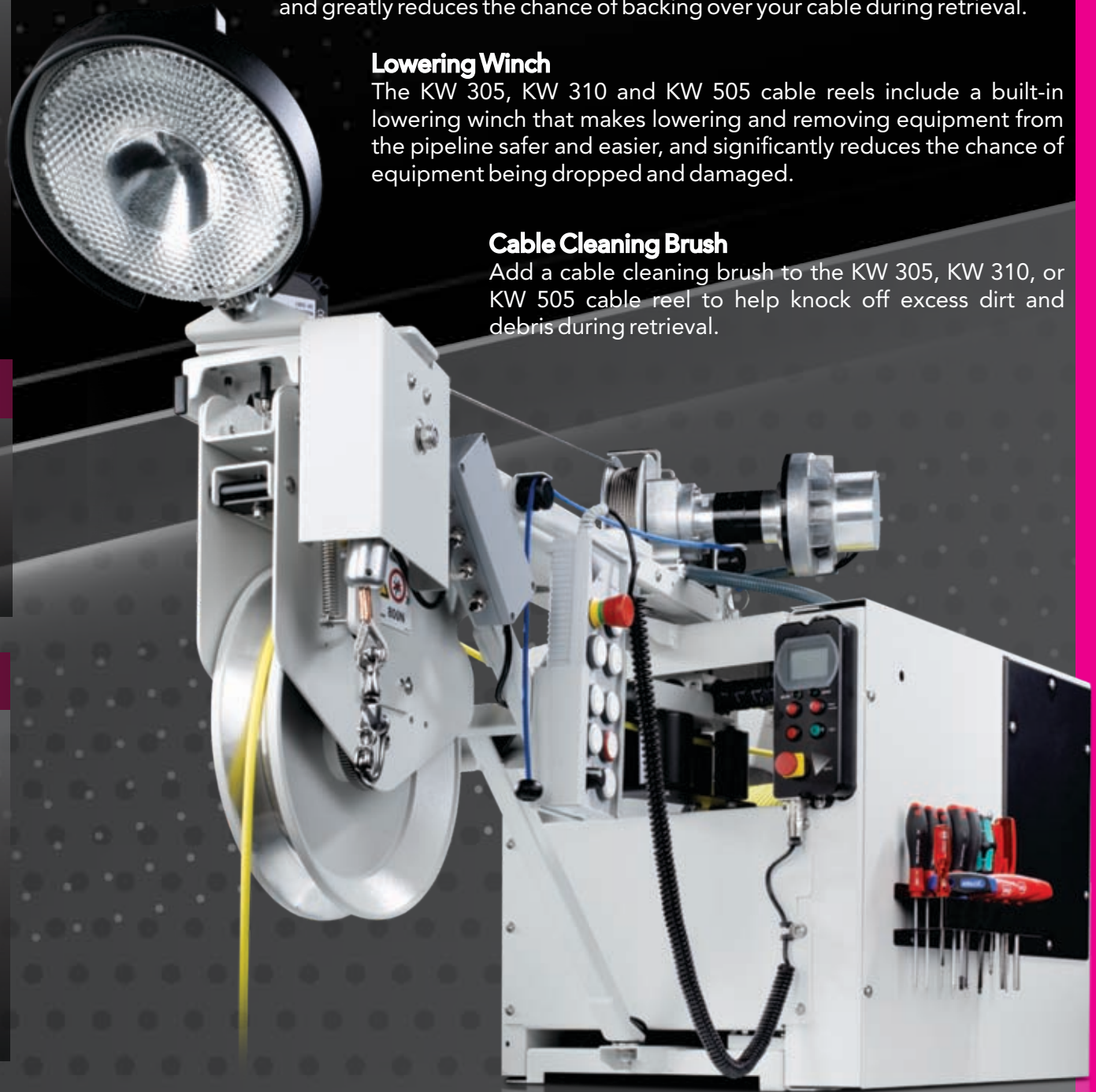
The KW 305, KW 310 and KW 505 cable reels feature *synchronized* cable retraction and payout. This reduces wear on the cable, increases production, and greatly reduces the chance of backing over your cable during retrieval.

### Lowering Winch

The KW 305, KW 310 and KW 505 cable reels include a built-in lowering winch that makes lowering and removing equipment from the pipeline safer and easier, and significantly reduces the chance of equipment being dropped and damaged.

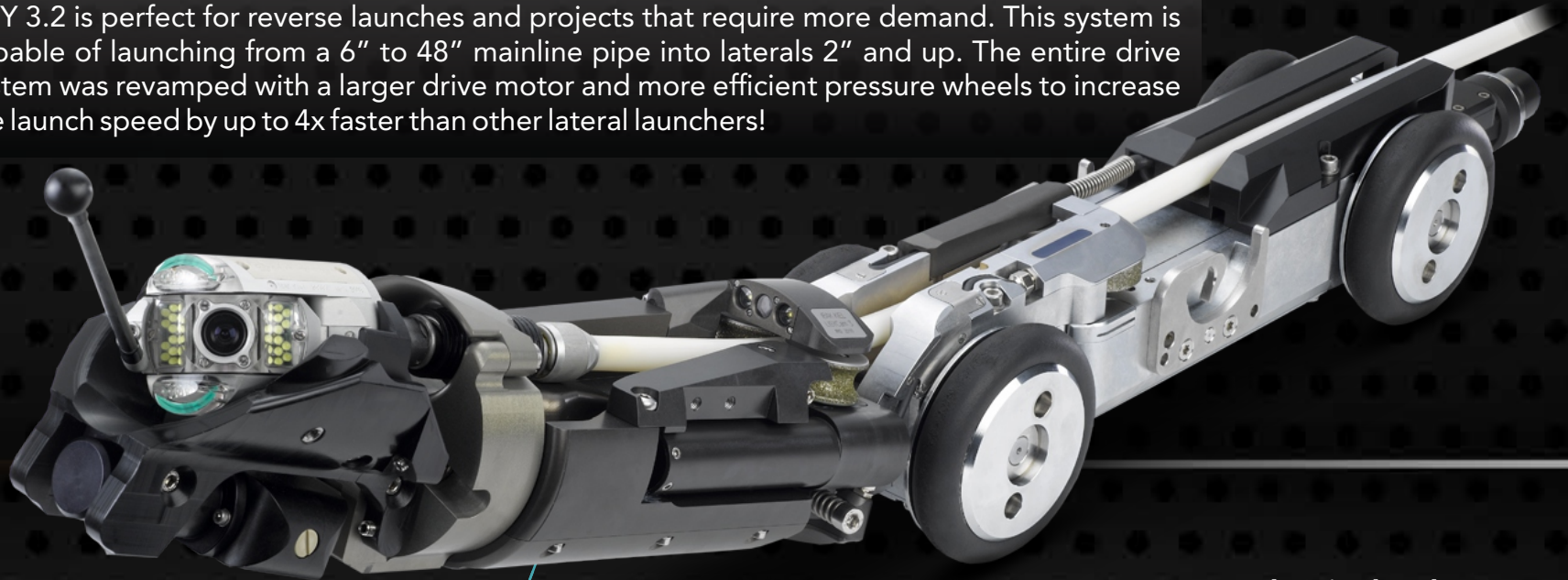
### Cable Cleaning Brush

Add a cable cleaning brush to the KW 305, KW 310, or KW 505 cable reel to help knock off excess dirt and debris during retrieval.



## LISY 3.2 LATERAL LAUNCH SYSTEM

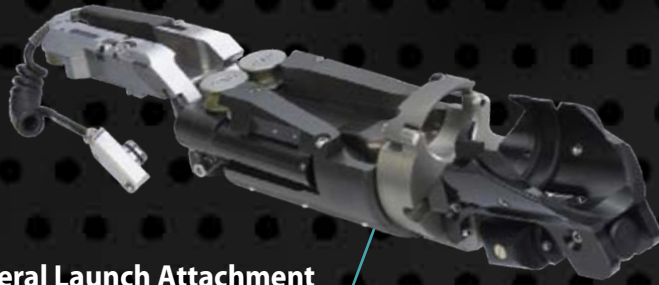
The LISY 3.2 is the latest evolution of IBAK's Lateral Launch system. With faster launch speeds, shorter front connector options, continuous camera rotation, and smaller launch cameras, the LISY 3.2 is perfect for reverse launches and projects that require more demand. This system is capable of launching from a 6" to 48" mainline pipe into laterals 2" and up. The entire drive system was revamped with a larger drive motor and more efficient pressure wheels to increase the launch speed by up to 4x faster than other lateral launchers!



The LISY's articulating arm rotates and tilts with precision to place the camera in the lateral connection. Simply align the placement cone mounted on the front of the articulating arm to line up the camera to ensure quick launching!

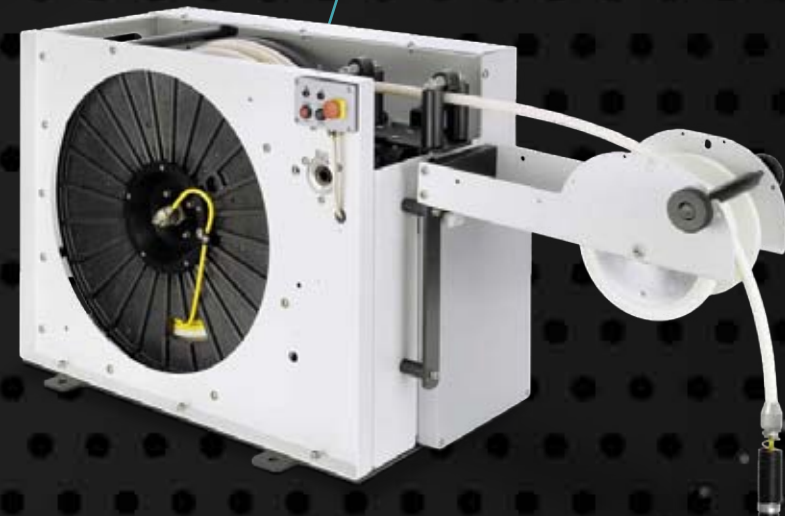
### KW LISY Synchronized Reel

The KW LISY Synchronized system makes launching and retrieval easy by automatically managing the pushrod cable in conjunction with the mainline cable reel.



### LISY 3.2 Lateral Launch Attachment

The ergonomic design and rugged construction of the LISY 3.2 System ensures that you will experience less breakdowns and more time in the field. This modular attachment was designed to be easy to use, simple to maintain, and safe to operate. The LISY 3.2 Attachment connects to your existing T76 or T86 tractor with ease so there is no need for a separate lateral launching system.







## LISY 3.2 Technical Specifications

|                               |  |
|-------------------------------|--|
| Pipe Diameter                 | 6" - 48" (150mm - 1200mm) w/ accessories |
| Pressurized Protection        | Standard                                 |
| Pan Range (Articulation Arm)  | 180°                                     |
| Tilt Range (Articulation Arm) | 45°                                      |
| Push Speed                    | Variable Control                         |
| Overall Cable Length          | 600' (182m)                              |
| Pushrod Length                | 120' (36m)                               |

## LATERAL LAUNCH IN HD

Did you know you can turn your existing HD inspection system into a Lateral Launch System? Utilizing the ORION-L 3 HD/SD Adaptive Camera Head and a T76 or T86 HD Camera Tractor, you can inspect laterals in full HD resolution! Make the most out of your HD System by adding a modular LISY Lateral Launch Attachment.

## PERFORMANCE IS KEY

IBAK designed PANORAMO® from the ground up to address the weaknesses of traditional sewer inspection technology. The PANORAMO® method changes your current process into data collection in the field and data analysis back in the office. This technology enables your employees to work to their potential and avoid costly mistakes. The PANORAMO® 4K technology allows you to inspect more than twice as much pipe per day, reduce your operating costs by more than 30%, and provide system users high definition imagery!



**PANORAMO® 2 4K**  
Inspect pipelines 8" (200mm) and up

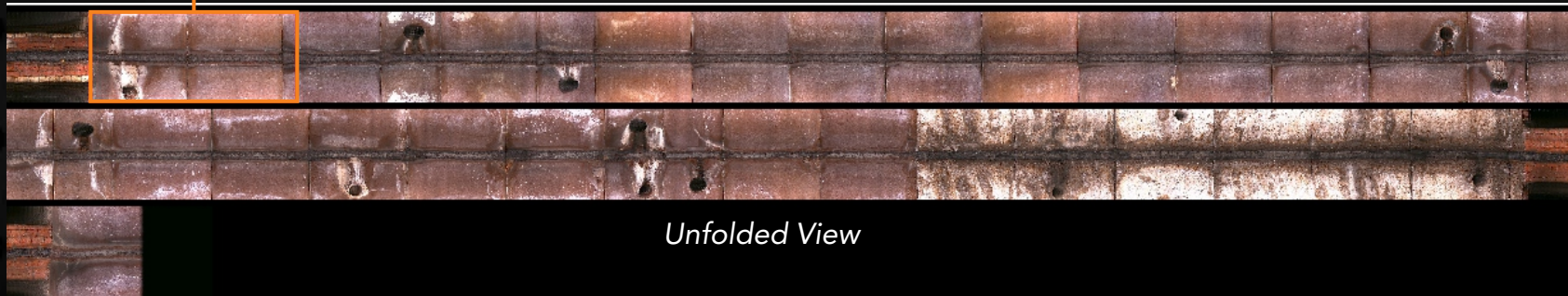
**PANORAMO® 150 4K**  
Inspect pipelines 6" (150mm) and up

## SUPERIOR 4K IMAGE QUALITY

PANORAMO® 4K is fast and clear. The abbreviation 4K stands for 4000 and means the approximate number of horizontal picture elements (4096 × 2160 pixels), making the resolution four times greater than full HD. Users collect data at a rate of up to 69' (21m) per minute with the PANORAMO® 2 4K, and 40' (12m) per minute with PANORAMO® 150 4K, without needing to stop. All of this adds up to a technology that reduces your cost, increases your productivity, and dramatically enhances your deliverables.

### PANORAMO 4K Technical Specifications

|                        |                     |
|------------------------|---------------------|
| Maximum Speed (PANO 2) | 69' (21m) / min.    |
| Pressure Protection    | Standard            |
| Viewer Software        | Free, Distributable |
| Cameras                | Twin 185° Digital   |
| Zoom                   | Digital             |
| 3D Perspective View    | Standard            |
| Unfolded View          | Standard            |
| Measurement            | Standard            |
| Lighting (PANO 2)      | Xenon Strobe        |
| Lighting (PANO 150)    | High Power LED      |



*Unfolded View*

## TWIN CAMERAS + POWERFUL LIGHTING

At the core of the PANORAMO<sup>®</sup> system are the wide angle (185°) twin digital cameras. These cameras are installed on the front and rear of the system and capture still images as they move through the pipeline. Extremely powerful Xenon strobes illuminate up to 48" pipelines with the PANORAMO<sup>®</sup> 2 4K, and the still pictures captured by the cameras produce high-resolution digital images that do not suffer from motion blur even at the highest inspection speeds. The PANORAMO<sup>®</sup> system has very few moving parts, allowing for easier maintenance than that of traditional pan & tilt cameras.

**185°**  
WIDE ANGLE  
LENSES

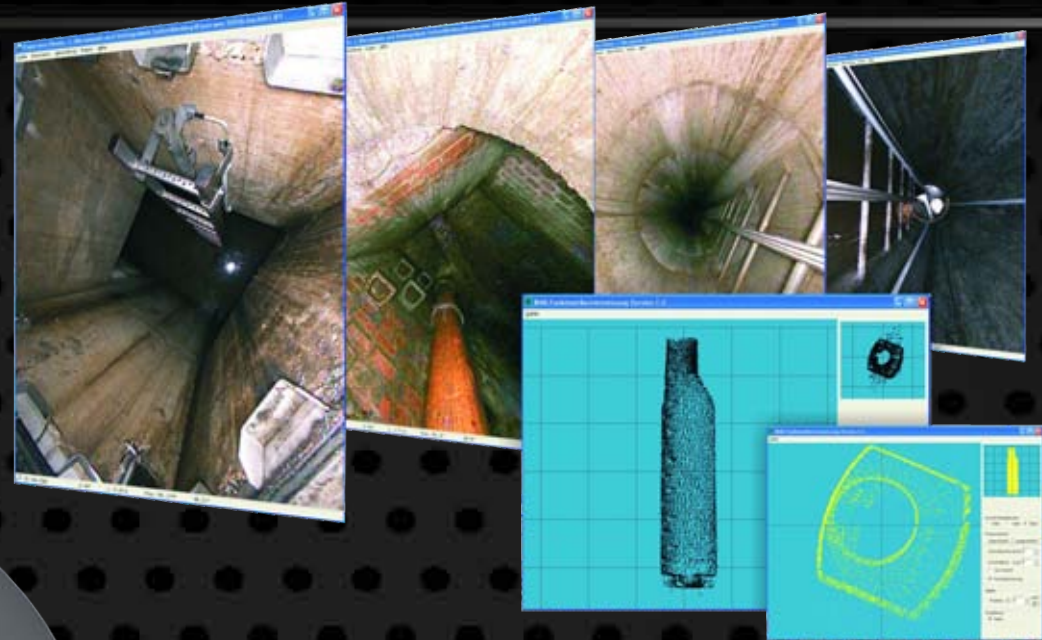
ULTRA HD  
**4K**  
RESOLUTION



# PANORAMO® SI 4K

## NEVER MISS AN OBSERVATION

The PANORAMO® SI 4K has revolutionized the way system owners inspect their buried structures. This system allows operators to inspect manholes, duct boxes, storm drains, and any other underground chamber with speed and safety. With its unique ability to capture every inch of the manhole from multiple angles, you can keep your employees safe, increase productivity and accuracy of your crews, provide data that helps system owners make informed decisions, and never miss an observation.



## EASY DATA COLLECTION - AMAZING RESULTS

Inspecting a manhole with PANORAMO® SI 4K is as simple as 1-2-3! All you have to do is lower the unit into the manhole, turn it on, and pull it back up. While doing so, it captures 3 different views - a 360° perspective, an unfolded view, and a geometric view. No other system captures the quality or quantity of data like that of the PANORAMO® SI 4K.

**100%**  
COVERAGE

**4X**  
FASTER

**360°**  
PERSPECTIVE

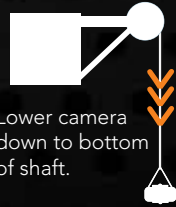
IBAK KIEL  
A784 19  
MFD 2019

1



Set up over shaft.

2



Lower camera down to bottom of shaft.

3



Raise camera back up.

## PANORAMO® SI 4K PORTABLE SYSTEM

### KW SI CABLE REEL + MOBILE RACK

Inspecting off-road or hard to reach manholes just got easier. This compact and portable cable reel can be operated from the mobile rack with a laptop, or it can be installed in a vehicle. The quick-acting fasteners allow the cable reel and mobile rack to be removed from the vehicle and converted into a mobile system in a few easy steps. All of the components of the system are intended for outdoor use, from the large pneumatic tires to the water-resistant laptop. Power is supplied from high-efficiency standard rechargeable batteries or a lithium battery installed in your vehicle.

#### PANORAMO SI 4K Technical Specifications

|                     |                     |
|---------------------|---------------------|
| Maximum Speed       | 14" (35cm) / sec.   |
| Minimum Diameter    | 12" (300mm)         |
| Pressure Protection | Standard            |
| Viewer Software     | Free, Distributable |
| Cameras             | Twin 185° Digital   |
| Zoom                | Digital             |
| CAD Output          | dxg                 |
| 3D Measurement      | Available           |

### COMPATIBILITY

The PANORAMO® SI 4K can be used as an add-on to your existing PANORAMO® system, or can be used as a portable stand-alone unit with the KW SI Cable Reel.



## MICROGATOR® 2.0

Have you ever wished that you could have our high level of reliability, durability and attention to detail in your cutter system? Look no further than our powerful, single-point electric reinstatement cutter, the MicroGator® 2.0. This cutter is manufactured to the exacting quality standards of IBAK, and is equipped with many incredible features. With longer cable lengths, powerful and quiet cutting motors, and drive units designed to withstand the toughest jobs, the MicroGator® 2.0 has reset the industry's expectations.

MicroGator® 2.0 BG 1 Motor allows users to install a front-viewing camera for better forward awareness and ease in traversing the pipeline.

The MicroGator® tractors use the same wheelsets as the popular T76 tractor for additional modularity!

The IBAK CutterCam® gives you an incredible view of the work area and keeps the lens clean with our unique air-curtain technology.

MicroGator® 2.0 features the option for our 4th-Axis articulation, which allows you ultimate control during cutting operations.

Optional front camera connection lets you do PRE and POST inspections with the same unit, saving time and money!



| Dimensions     | MicroGator 2.0     | MicroGator Air     |
|----------------|--------------------|--------------------|
| Length         | 49.2" / 1250mm     | 49.2" / 1250mm     |
| Weight         | 121 lbs / 55 kg    | 121 lbs / 55 kg    |
| Cable Length   | 330' or 500'       | Up to 1000' / 300m |
| Camera Tractor | MicroGator 2.0     | MicroGator Air     |
| Chassis Power  | 0.27 hp / 200 Watt | 0.27 hp / 200 Watt |
| Rotating Elbow | 400°               | 400°               |
| Top Speed      | 40' per minute     | 40' per minute     |
| Cutting Motors | MicroGator 2.0     | MicroGator Air     |
| Power          | 4.7 hp / 3500 Watt | 1.5 hp             |
| Maximum RPM    | 10,000 RPM         | 10,000 RPM         |
| Power Source   | Electric           | Pneumatic          |



The ST 100 air hose reel was designed for the MicroGator® Air and is 100% compatible. An air hose reel is required for operation along with an air compressor.(70 ft<sup>3</sup> / 2m<sup>3</sup> at 7 bar minimum)

The MicroGator® AIR is compatible with our MainLite Systems including the KW206 and KW306 cable reels, Bp100 and BS10 control units, and even the same cable. With these components, all you need is a hose reel for the air hose and a compressor to have a complete cutting system!



## MICROGATOR® AIR

IBAK has developed an affordable solution that is ideal for service providers seeking the benefits of having both a compact cutting system, as well as a complete inspection system. The IBAK MicroGator® AIR is a pneumatic cutter designed with compatibility and convenience in mind. Equipped with a 1.5 horsepower pneumatic motor and manufactured to IBAK's exacting quality standards, the MicroGator® AIR is a practical, yet reliable solution.

The MicroGator® AIR shares many of the same features as the MicroGator® 2.0, such as fourth-axis articulation, which allows the user ultimate control during advanced cutting operations. The IBAK CutterCam is compatible with the MicroGator® AIR and provides the best possible view of the cutting area. Even if it gets dirty, our unique air-curtain technology and remote wiper system will keep your camera lens clean with the push of a button.

The rear connection on the MicroGator® AIR is equipped with an IBAK cable connection, a standard air hose connection, and an integrated rearview camera.





## HIGH TRACTION WHEELS

With imbedded tungsten carbide shards that are almost as hard as diamonds, these heavy, specialized wheels provide incredible traction in nearly any pipe.



## TREADED WHEELS

Available in two different composites, these wheels provide extra grip in loose gravel, and give you an edge when climbing up offset pipeline joints.



## GRANULATED WHEELS

Designed to avoid damaging the pipe wall, these wheels utilize a granulated rubber composite which improves traction without cutting into the pipe surface.

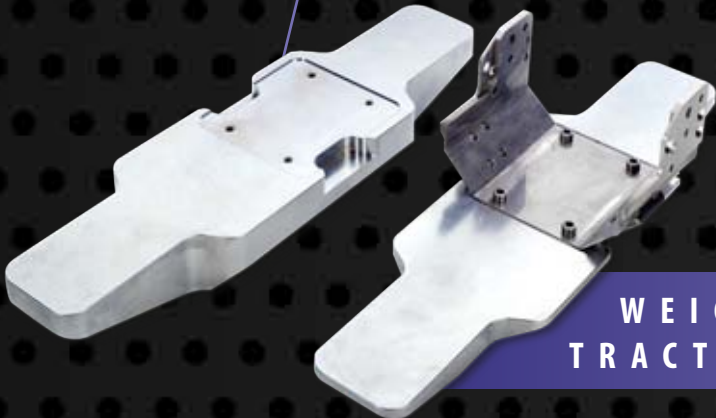


## PNEUMATIC WHEELS

These air-filled tires are great all-purpose wheels for use in larger diameter pipelines. Use them to climb over obstacles and power through silt and debris.

## ADDITIONAL WEIGHT KITS

Adding weight to your tractor can dramatically increase traction and pulling distance. This is easily one of the most cost-effective and reliable ways to increase your capabilities.



**WEIGHT = TRACTION**  
**TRACTION = DISTANCE**



## HEIGHT ATTACHMENTS

Height attachments are available for all IBAK Camera Tractors. Adding height to your system increases the capabilities of your system by keeping you above water while adding extra weight for additional traction.

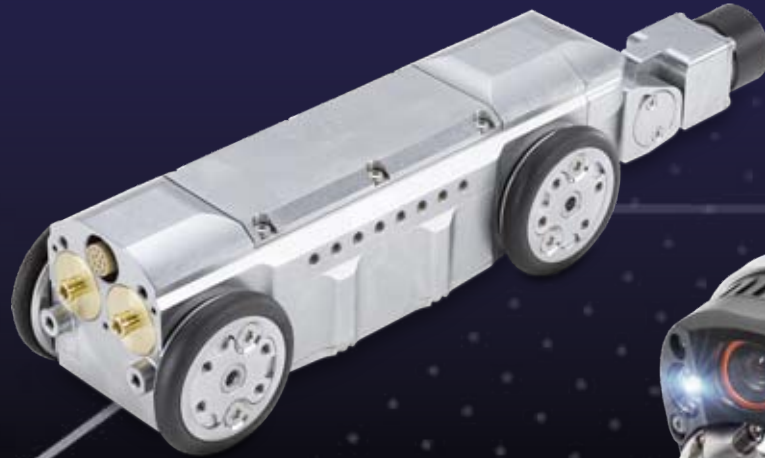


T66 Height Attachment

T76/T86 Height Attachment



Our **T66 Tractor** is the most versatile, small tractor in the industry. The various CC (Camera Connection) provide more flexibility and can raise the camera into the center of the pipeline. These connections can easily be exchanged in a matter of minutes and are available in SD & HD!



#### CC1 for T66

The CC1 provides horizontal flexibility and vertical rotation. This flexible connection allows easier insertion into tight access points.



#### CC2 for T66

The CC2 is the choice for most T66 tractors. This sturdy connection will accept NANO, ORION, ORPHEUS, and even ARGUS cameras.



#### CC4 for T66

The CC4 was designed for larger pipe diameters. A manual lift allows you to raise the camera.



#### CC5 for T66

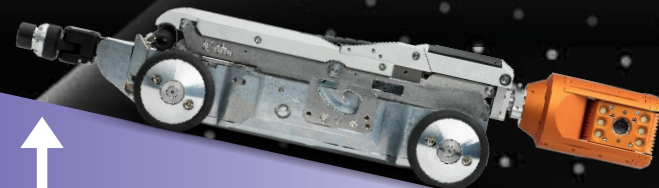
Like the CC4, the CC5 is designed to raise the camera even higher to the center of the pipe in larger diameters with a manual lift.

#### RETRUS HD Reverse Camera

Most of our systems are synchronized to make sure that you do not back over your cable while retrieving, but occasionally it is helpful to have a rear-facing view when returning to the manhole. The RETRUS HD automatically changes your view when the system is in reverse, allowing you to avoid dangers on the return trip.

#### INCLINOMETER

All IBAK tractors have the option to include an inclination sensor which allows you to measure the tilt of the system as it travels through the line. The inclination reads out on-screen, and can be output to 3rd party data logging software or IKAS software packages.



# ACCESSORIES



## ARGO CAMERA FLOAT

If you work in large partially-filled lines, the **ARGO Camera Float** is the perfect accessory for you. Designed specifically for your RapidView IBAK system and formed out of high-strength ABS plastic, the ARGO keeps you above water and protects the camera system. There are two camera mounts to choose from. You can use a mounting bracket which accepts a standard KKD Adapter (pictured left), or a larger mount which accepts the standard Camera Base Mount from a T76/T86.



### Camera Adapter

The Camera Adapter allows you to connect any camera directly to the mainline cable. This can be used to conduct down-hole inspections of confined spaces, shafts, underground structures, tanks, etc. A versatile tool and a must-have accessory for anyone doing work in industrial spaces.

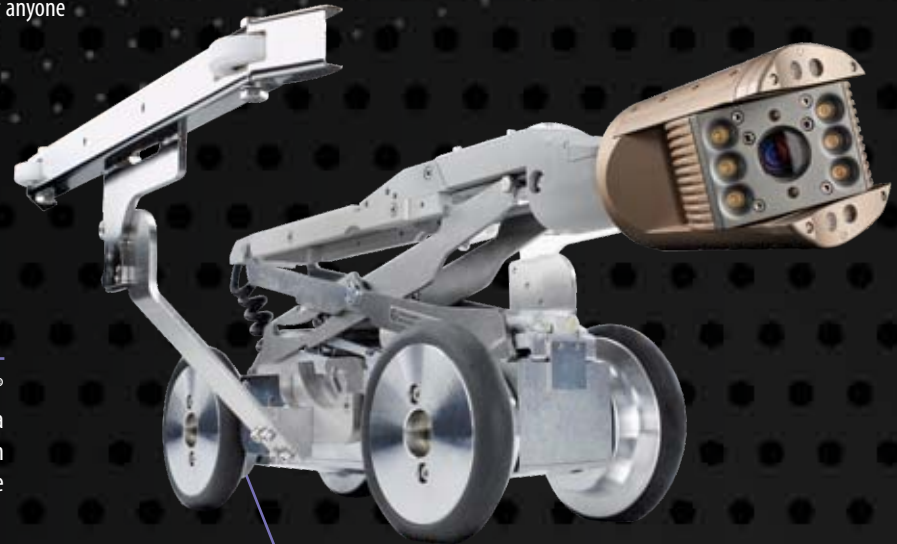
### Temperature Sensor

This unique sensor attaches to the rear of the tractor and allows the user to measure the temperature remotely. The sensor can be used to discover the presence of inflow since ground water is cooler than the effluent in the pipeline.



### Rolling Skid

The Rolling Skid for **NANO**® and **ORION**® cameras centers and protects the camera during push operations. The roller system reduces friction and increases push distance in 6" (150mm) pipes.



### Overturn Protection Outriggers

If you work in oval pipe - this accessory is a must! The outriggers help keep the tractor in the center of the pipeline and prevent tip overs which can damage equipment. These systems are available for T66, T76, T86, and PANORAMO® 2 Systems. They are also compatible with the LISY Lateral Launch attachment.



## DOWNHOLE ROLLERS

Operators who protect their equipment with the use of Downhole Rollers will see an increase in production and an overall reduction of repairs and maintenance costs. Rollers protect the cable from cuts, reduce friction, wick water off the cable, and increase the distance your system can travel down the pipeline. You wouldn't buy a high performance car then put cheap tires on it, would you? Of course not! Protect your investment with a set of downhole rollers.

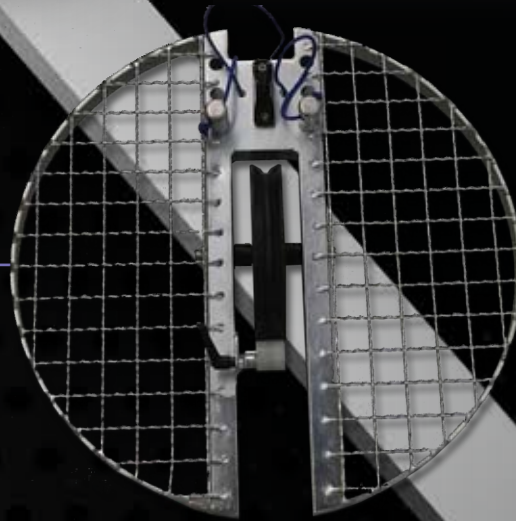


### Winch Foot Control

Protect your equipment from damage by making sure you have both hands available when lowering the inspection system into the manhole. This durable foot control plugs directly into KW 305 and KW 505 winches.

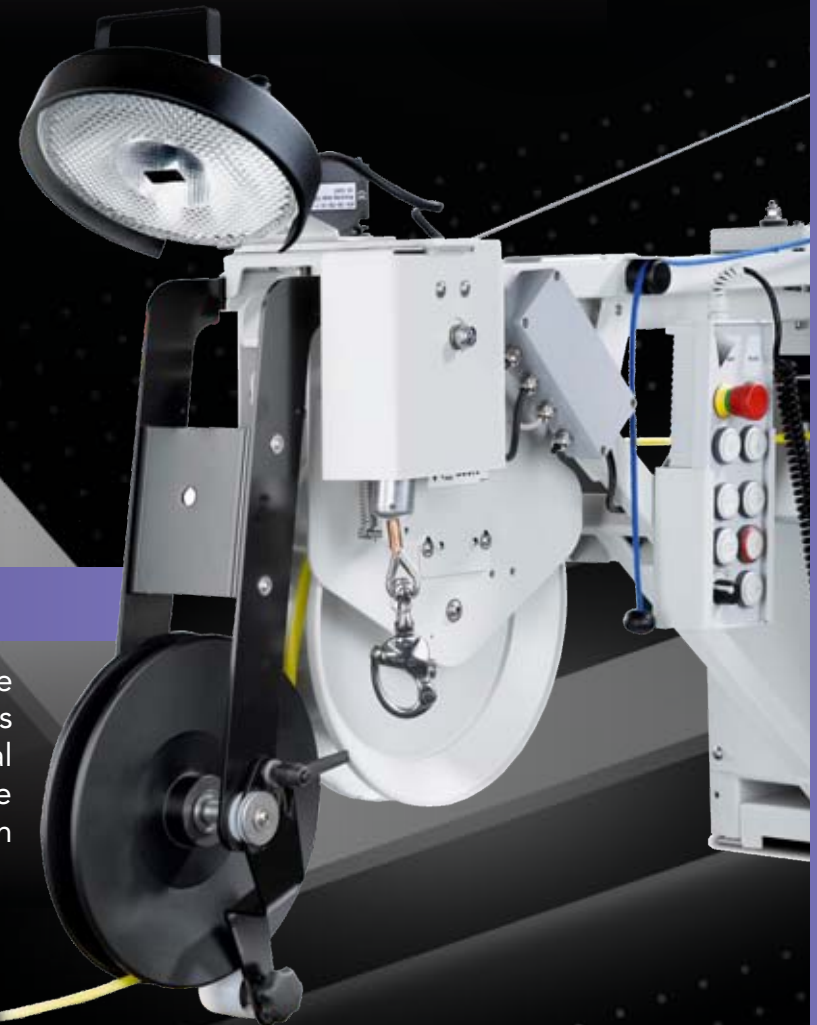
### KUV 3.1 Manhole Top Roller

The KUV 3.1 inserts into the top of the manhole and provides a roller down into the manhole. It also includes a safety screen to improve safety around the open manhole and a tensioner pulley to keep the cable safe. Perfect for setups away from the mainline system.



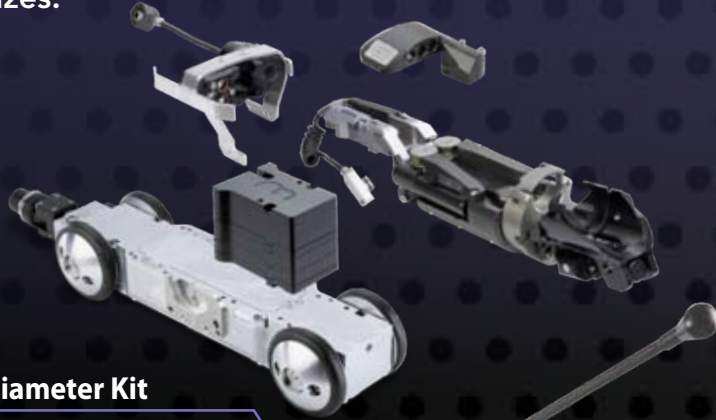
## UPPER DEFLECTION PULLEY

If you occasionally have to set up off the road or any distance from the inspection vehicle, you should consider an Upper Deflection Pulley. This pulley converts the lateral force exerted onto the cable, turning into vertical force which allows your synchronized KW 305 or KW 505 to operate effectively. This simple attachment protects the cable, reduces the strain on the entire system, and helps you travel greater distances in the pipeline!



# ACCESSORIES

Our lateral launch system is the most modular and capable system on the market. Large Diameter Kits allow you to expand your system even further in order to launch from mainlines up to 48" (1200mm) in diameter. The kits come in two sizes.



## Large Diameter Kit

Includes an additional color placement camera and lighting, weight and height adjusting plates and additional launching funnels. Increases diameter capability from 12" (300mm) to 24" (600mm).

## LISY Storage Holster

When you remove your LISY attachment from your T76 or T86 you need a place to keep it safe. The LISY Storage Holster is a convenient bracket to hold the LISY drive when not in use.



## X-Large Diameter Kit

Includes additional placement funnels, weight and height adjustment plates and accessories. This kit increases diameter capability from 24" (600mm) to 48" (1200mm).



## LISY LATERAL CLEANING ATTACHMENT

This attachment allows you to turn your LISY lateral launch system into a lateral cleaning unit. The **PHOBOS** nozzle propels the pushrod up into the lateral from the LISY unit, cleaning while it goes. The nozzle not only cleans, but increases the distance possible by providing more thrust. The Lateral Cleaning Attachment is quick and easy to install, and can be used in conjunction with the large diameter kits to clean laterals in larger pipelines. Contractors can utilize this accessory to add a unique service to their offerings. If you are a municipality who is responsible for the laterals in your community, why not clean them as you inspect?



LISY 3 w/ Large Diameter Kit  
and Cleaning Accessory Package

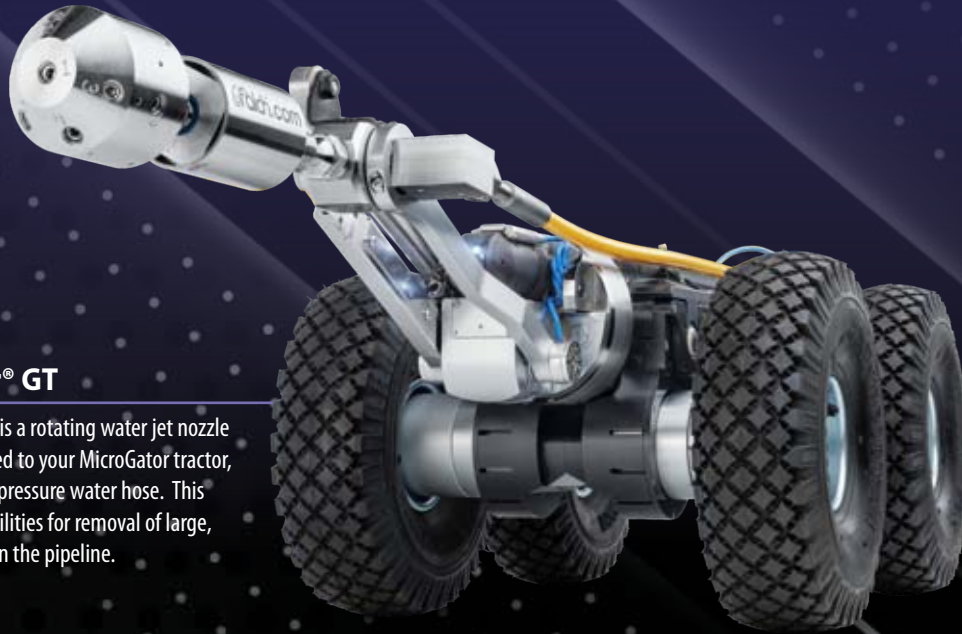


PHOBOS 2.1 Cleaning Nozzle

A variety of cutter heads and motor sizes are available for our MicroGator Series, each designed for specific applications. Contact your sales rep to find the best fit for your rehabilitation system.

### MicroGator® GT

The MicroGator GT is a rotating water jet nozzle that can be attached to your MicroGator tractor, along with a high-pressure water hose. This creates new possibilities for removal of large, resistant deposits in the pipeline.



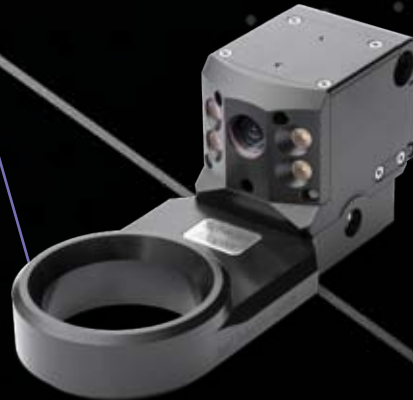
### QuickLock Packer Adapter

*Pictured with T76, also available for T66*



### Packer Adapter

With the Packer Adapter, your MicroGator® 2.0 can seal cracks or joints at lateral connections by connecting a Schwalm Top Hat Packer. Equipped with an integrated camera, you will always have a clear view to accurately position the packer at the intended defect.



### Oval Pipe Configuration

The MicroGator® 2.0 can be modified in a number of ways to suit the conditions you are working in. Utilizing Height Attachments, Treaded Wheels, and Overturn Protection Outriggers, operators can confidently take on oval shaped pipe without worrying about tipping over.



## IKAS® EVOLUTION

IKAS® evolution is the newest generation of IBAK's powerful sewer analysis software, now available and supported in North America! Intuitive by design, the inspector is in full control of acquisition and sewer data analysis. PACP and LACP data interface capable, IKAS evolution can be adapted to the needs of modern sewer inspection and each individual user's workflow. IKAS evolution is available in four base bundles with over two dozen extension options available for advanced inspections including; Full HD, 3D-GeoSense, Laser Measurement, and LaserScan profile analysis. Contact your RapidView representative to build the software package that meets your needs and budget!



### PUSH

IKAS Evolution Package for IBAK Push Systems with:

- ▶ MPEG Encoding IBAK MiniLite Systems
- ▶ Data Interface LACP
- ▶ Single Laser Diameter Measurement



### MOBILE

IKAS Evolution Package for IBAK Mobile Systems with:

- ▶ MPEG Encoding IBAK Mobile Systems (including PANO SI)
- ▶ Data Interface PACP and LACP
- ▶ Single Laser Diameter Measurement



### VEHICLE

IKAS Evolution Package for IBAK Vehicle Systems with:

- ▶ MPEG Encoding IBAK Vehicle Systems, Full HD, & PANO
- ▶ Data Interface PACP, MACP, and LACP
- ▶ Pointwise Measurements



### OFFICE

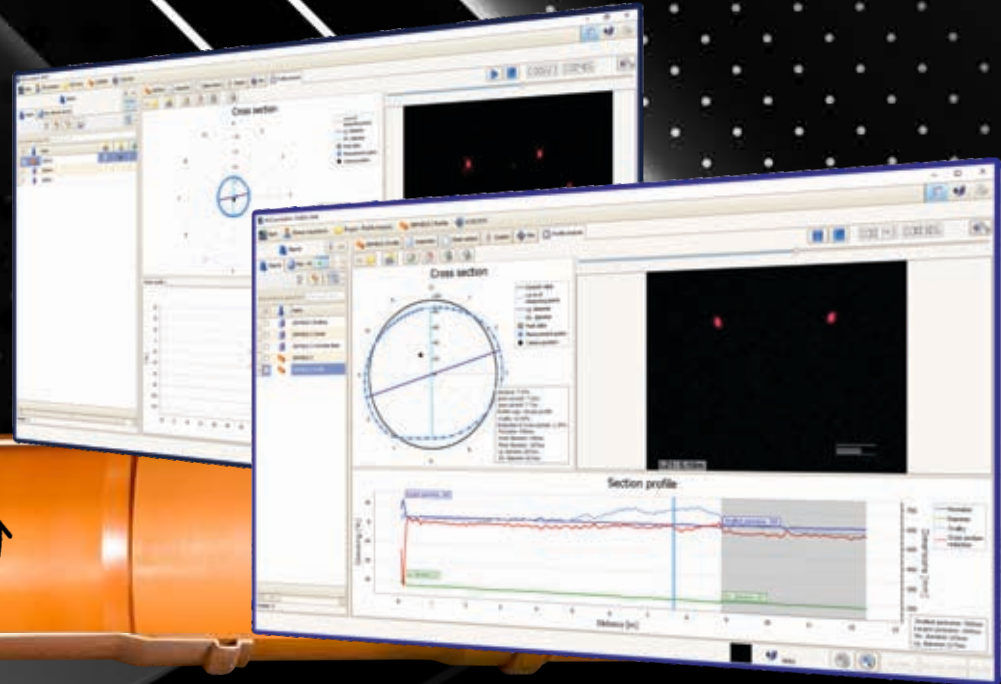
IKAS Evolution Package for Office Workstations with:

- ▶ Management of sewer videos and PANORAMO film/photos
- ▶ Data Interface PACP, MACP, and LACP

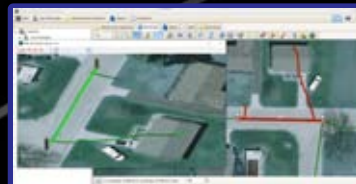
# LASERSCAN

(Continuous Profile Analysis)

When you pair your ORPHEUS® 2 with IKAS Evolution Software, you can detect deformation of the whole pipe in one continuous motion with LaserScan Continuous Profile Analysis. Once you begin your scan, your system will move in reverse while the camera head rotates 300°/second. The camera takes a measurement every 12° rotation. With the profile analysis report completely integrated, identifying ovality, corrosion, reduction of cross-section, and internal geometry is easy.



| IKAS EVOLUTION MODULES                  | PUSH | MOBILE | VEHICLE  | OFFICE   |
|---|------|--------|----------|----------|
| Map Viewer                              | ●    | ●      | ●        | ●        |
| Map Editor                              | ●    | ●      | ●        | ●        |
| Map Route Assistant                     | ●    | ●      | ●        | ●        |
| 3D GeoSense                             | ●    | ●      | ●        | ●        |
| Defects Measurement                     |      | ●      | ●        | ●        |
| Laser Deformation Measurement           |      | ●      | ●        | ●        |
| Navigator II                            |      | ●      | ●        | ●        |
| Tilt Measurement                        |      | ●      | ●        | ●        |
| Temperature Measurement                 |      | ●      | ●        | ●        |
| Reference Image Defects Measurement     |      | ●      | ●        | ●        |
| Job Rule Management                     | ●    | ●      | Included | ●        |
| Video Analysis                          | ●    | ●      | ●        | Included |
| Continuous Profile Analysis (LaserScan) |      |        | ●        | ●        |
| PANORAMO® Analysis Pipeline + SI        |      | ●      | ●        | ●        |
| PANORAMO® Analysis SI                   |      | ●      | ●        | ●        |
| PANORAMO® SI 3D Measurement             |      | ●      | ●        | ●        |
| Shape                                   | ●    | ●      | ●        | ●        |
| SanPlan                                 |      |        |          | ●        |



## 3D GEOSENSE®

Available in all IKAS Evolution bundles is a powerful tool called 3D GeoSense®. The NANO®, ORION®, POLARIS®, and ORPHEUS® 2.0 cameras have the option of installing the 3D GeoSense® sensor upon purchase. The sensor tracks the movement of the camera as it travels through the lateral, capturing distance, position, and depth in three-dimensional space. This opens up new options for acquiring and using positional data for underground utilities.



# CONVERSIONS



Reinforced Fiberglass cabinets with handy stay-open hinges and edge protection are perfect for storing tools and camera components.



We make a variety of racks to mount cable drums and store equipment. They all feature aluminum drawers with ultra-heavy duty sliders and T-locks.

## DURABLE MATERIALS

We understand the difficult conditions your team works in. We choose materials that repel water, reduce scratches, clean easily, and resist corrosion. These materials include FRP (Fiberglass-Reinforced Plywood), aluminum and stainless steel. We use edge protection on all cabinetry to protect your investment and keeping it looking good for years to come.

## BUILT TO GET THE JOB DONE

Our standard conversions are designed and built to be easy to work in, provide plenty of storage, and be easy to clean and maintain, but we also strive to design custom vehicles. Powered canopies, cold-weather packages, bathrooms, and special power systems are just a few popular features that we can add. We are always ready to design and build the perfect pipeline inspection or rehabilitation vehicle that works best for you and your team!



Our hand-built toolboxes are much more rugged than consumer boxes. With heavy-duty slides and thick aluminum plate construction, you can store heavy wheels and weights without worry!



Our standard conversion provides your team with plenty of storage, ample workspace and high-quality lighting!



UTV / ATV



TRAILER



MAINLITE BOX



CARGO VAN



# TOP OF THE LINE FEATURES

RapidView converts quality vehicles, trailers and UTVs for deploying equipment safely and effectively. Our conversions are hand-built with superior craftsmanship and durability with a focus on user-friendly interiors. Each design is created to meet the customer's individual specifications. We convert every major vehicle brand and model. With decades of experience, we understand how important the little things are when you are working remotely. Call your RapidView representative to discuss custom options!



Heavy, adjustable aluminum shelves for flexible storage.



## STANDARD BOX TRUCK



Reverse cameras are standard, and are mounted to assist the driver in positioning over the manhole.



We use high-quality generator systems that are serviceable throughout an international dealer network.

## SERVICE YOU CAN RELY ON

RapidView and its dealers are committed to providing customers with the best equipment and service in the industry. We understand that time lost due to repairs or poor training is detrimental to your productivity and bottom line. We offer a variety of completely free training programs to all of our customers to provide the knowledge and tools they need. We repair equipment in a fast and timely manner to ensure you get back up and running with minimal downtime. We make sure to keep millions of dollars worth of spare parts in stock. We also have certified service centers all throughout the US and Canada to guarantee you have support nearby when needed. Choose the company that will provide you with the service you can count on!



### 18 CERTIFIED SERVICE CENTERS

All repairs are done in the United States or Canada. Nothing ever needs to be sent over to Germany.



### FAST REPAIR TIMES

We are dedicated to getting you back up and running quickly with repair time goals of 48-72 hours.



### GUARANTEED SPARE PARTS

We stock millions of dollars worth of spare parts at our headquarters in Indiana and partner service centers throughout the country.



### FREE TRAINING PROGRAMS

We offer free hands-on training throughout the year, plus free phone support during business hours. We also host SeptemberFest - a free biennial training and customer appreciation event.

Check out our YouTube page for videos of tech tips, reterms, equipment in action, and more! Scan the QR code below for a direct link.

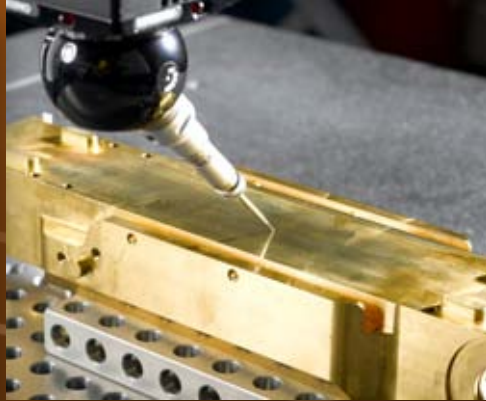


IBAK products are manufactured to ISO 9001:2015 and ISO 14001:2015 standards.

Our equipment is quality checked multiple times throughout the manufacturing process and prior to shipment.

Over 20% of IBAK's personnel is dedicated to R&D, resulting in almost all of the major advancements in the industry.

RapidView provides a full 1-year warranty on all new IBAK equipment.



## HIGH QUALITY & RELIABLE

Price is a huge factor, but its not the only thing you need to consider when choosing your inspection equipment. Cheap equipment that breaks down often or doesn't properly work to begin with isn't a bargain, it is a drain on your time and resources. What you really need is equipment that is going to last, is reliable, and is going to perform to your requirements. IBAK designs and manufactures the components that go into our systems so we don't have to rely on off-the-shelf consumer products that may be discontinued down the road. We can guarantee high quality, reliable equipment that will keep you productive well into the future.

**"It's obvious that the service team cares about the customer and enjoy their jobs. You should be proud of them."**

*-Contractor*

**"This is the best equipment we have ever purchased!"**

*-Contractor*

**"We have tried almost every brand of inspection equipment over the years. RapidView IBAK equipment is different. It works."**

*-Contractor*

**Quality  
makes the  
DIFFERENCE**



**1828 W. OLSON ROAD, ROCHESTER, IN**

**800-656-4225**

**WWW.RAPIDVIEW.COM**